

SESA®

CATÁLOGO | TARIFA 2024-25

CATALOGUE | PRICE LIST CATALOGUE | TARIF


CONFIANZA
CALIDAD
CERCANÍA
COLABORACIÓN
RESPONSABILIDAD
3C
SESA®
SERVICIO
EXPERIENCIA
COMPROMISO
FIDELIDAD

Estimados clientes y colaboradores.

Este 2024 cumplimos 30 años trabajando mano a mano junto a vosotros demostrando ser vuestro proveedor de herramientas de corte de confianza.

Para ello lanzamos nuestro nuevo CATALOGO TARIFA SESA 2024-25, este 30 aniversario.

SESA evoluciona a la vez que nuestro sector y en esta tarifa incorporamos las novedades que nuestros clientes demandan, ampliando gamas y fortaleciendo los productos estrella de nuestra marca.

En este catálogo-aniversario que presentamos con la nueva imagen de marca incorporada hace 3 años, sentamos las bases y hacemos que SESA siga siendo una marca referente en sectores como el Industrial y Construcción.

Un nuevo catálogo 2024-25 más amplio, dinámico y actual, con las incorporaciones realizadas en gamas de Construcción, Metal y Roscado aportamos soluciones de calidad a las necesidades de los usuarios.

Además, nuevas presentaciones para que sean una ayuda en su comercialización en los puntos de venta de nuestros clientes.

El equipo SESA pone sus 30 años de experiencia al servicio de todos nuestros clientes para seguir siendo su marca de confianza.

Calidad, Atención Personalizada, Innovación y Servicio Siempre al máximo rendimiento.

“GRACIAS A TODOS QUIENES FORMÁIS PARTE DE SESA, POR CONFIAR EN NUESTRA EXPERIENCIA”

Caros clientes e colaboradores.

Neste ano de 2024, celebramos 30 anos de trabalho lado a lado consigo, provando ser o seu fornecedor fiável de ferramentas de corte.

Por esta razão, lançamos o nosso novo CATÁLOGO SESA 2024-25, neste 30º aniversário.

A SESA evolui ao mesmo tempo que o nosso sector e neste catálogo incorporamos os novos produtos que os nossos clientes exigem, ampliando as gamas e reforçando os produtos estrela da nossa marca.

Neste catálogo de aniversário que apresentamos com a nova imagem de marca incorporada há 3 anos, lançamos as bases e fazemos com que a SESA continue a ser uma marca de referência em sectores como o Industrial e o da Construção.

Um novo catálogo 2024-25, mais extenso, dinâmico e actualizado, com as incorporações realizadas nas gamas de Construção, Metais e Roscas, proporcionamos soluções de qualidade às necessidades dos utilizadores.
Além disso, novas apresentações para ajudar na sua comercialização nos pontos de venda dos nossos clientes.

A equipa da SESA coloca os seus 30 anos de experiência ao serviço de todos os nossos clientes para continuar a ser a sua marca de confiança.

Qualidade, Atenção Personalizada, Inovação e Serviço Sempre ao máximo rendimento.

“OBRIGADO A TODOS VÓS QUE FAZEM PARTE DA SESA, POR CONFIAREM NA NOSSA EXPERIÊNCIA”.

Dear clients and associates,

The year 2024 sees us celebrate 30 years of working alongside you, proving to be your trusted supplier of cutting tools once again.

To this end, we have launched our new SESA PRICE CATALOGUE 2024-25 on this 30th anniversary.

SESA evolves in line with our sector, and in this regard we implement the new services and products our customers demand, expanding our ranges and upgrading our brand´s flagship products.

This anniversary catalogue features the new brand image introduced 3 years ago, laying the foundations and ensuring SESA continues as a leading brand in sectors such as Industry and Construction.

A new, more wide-ranging, dynamic and up-to-date 2024-25 catalogue, which includes the additions made to the Construction, Metal and Threading, providing quality solutions geared to users´ needs.

In addition, we have created new packaging formats to help clients market our products at their points of sale.

The SESA team places their 30 years of experience at the service of all our clients to ensure we continue to be their trusted brand.

Quality, a Personalised Customer Experience, Innovation and Service par excellence; Always.

"WE THANK EVERY SINGLE PERSON ASSOCIATED WITH SESA FOR TRUSTING IN OUR EXPERIENCE"

Chers clients et collaborateurs.

En cette année 2024, nous célébrons 30 ans de collaboration avec vous, prouvant ainsi que nous sommes votre fournisseur de confiance en matière d'outils de coupe.

C'est pourquoi nous lançons notre nouveau CATALOGUE SESA 2024-25, à l'occasion de ce 30ème anniversaire.

SESA évolue au même rythme que notre secteur et dans ce catalogue nous intégrons les nouveautés demandées par nos clients, en élargissant les gammes et en renforçant les produits phares de notre marque.

Dans ce catalogue anniversaire que nous présentons avec la nouvelle image de marque incorporée il y a 3 ans, nous posons les bases et faisons en sorte que SESA continue d'être une marque de référence dans des secteurs tels que l'Industrie et la Construction.

Un nouveau catalogue 2024-25, plus vaste, dynamique et actuel, avec les incorporations faites dans les gammes Construction, Métal et Filetage, nous apportons des solutions de qualité aux besoins des utilisateurs.

Par ailleurs, de nouvelles présentations pour faciliter leur commercialisation dans les points de vente de nos clients.

L'équipe SESA met ses 30 ans d'expérience au service de tous ses clients pour continuer à être leur marque de confiance.

Qualité, attention personnalisée, innovation et service toujours au meilleur rendement.

« MERCI À VOUS TOUS, QUI FAITES PARTIE DE SESA, DE FAIRE CONFIANCE À NOTRE EXPÉRIENCE. »

www.sesatools.com

http://www.sesatools.com/brocaporcelanato/ventajas.htm

VISITA NUESTRA WEBSITE / *VISIT OUR WEBSITE / VISITE NOTRE SITE WEB*

SESA®

ONLINE

SERVICIO
SERVICE
SERVICE

16 HORAS
92% STOCK - 98% TASA DE SERVICIO
SOPORTE TÉCNICO Y PERSONALIZADO

16 HOURS
92% STOCK - 98% SERVICE RATE
TECHNICAL AND PERSONALIZED SUPPORT

16 HEURES
92% STOCK - 98% TAUX SERVICE
ATTENTION TECHNIQUE ET PERSONALIZÉE

advance
MAXIMO RENDIMIENTO

PRODUCTO
PRODUCT
PRODUIT

VALOR AÑADIDO
INNOVACIÓN
CALIDAD - GAMAS

ADDED VALUE
INNOVATION
QUALITY - RANGES

VALEUR AJOUTEÉ
INNOVATION
QUALITÉ - GAMMES

EQUIPO
TEAM
ÉQUIPE

COMPROMISO - VALORES
PROFESIONALIDAD
ASESORAMIENTO

COMMITMENT - VALUES
PROFESSIONALISM
ASSISTANCE

ACCORD - VALEURS
PROFESSIONNALISME
ADVICE

MARCA
BRAND
MARQUE

IMAGEN - SEGURIDAD
GARANTÍA
EXCELENCIA

IMAGE - SAFETY
GUARANTIE
EXCELLENCE

IMAGE - SECURITÉ
GARANTIE
EXCELLENCE

GUARANTEE
BEST QUALITY


CLIENTE
CUSTOMER
CLIENT
CONFIANZA
CONFIDENCE
CONFIANCE
COMPROMISO
COMMITMENT
CONFIANCE
COLABORACIÓN
COOPERATION
ENGAGEMENT
FIDELIDAD
FIDELITY
FIDELITÉ

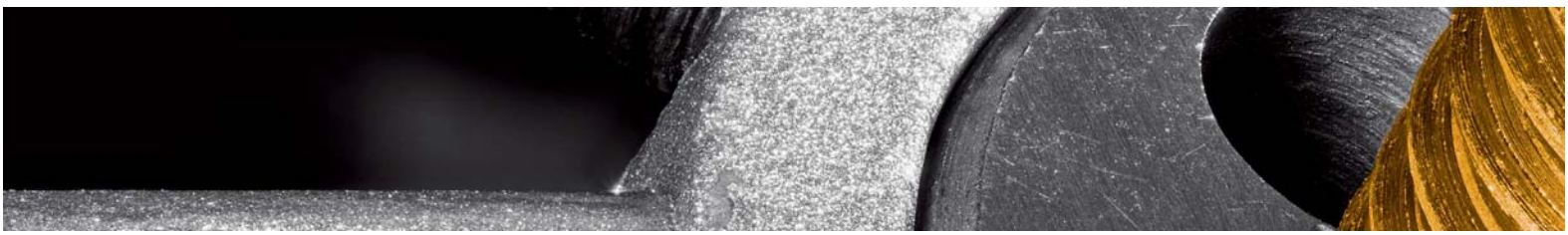
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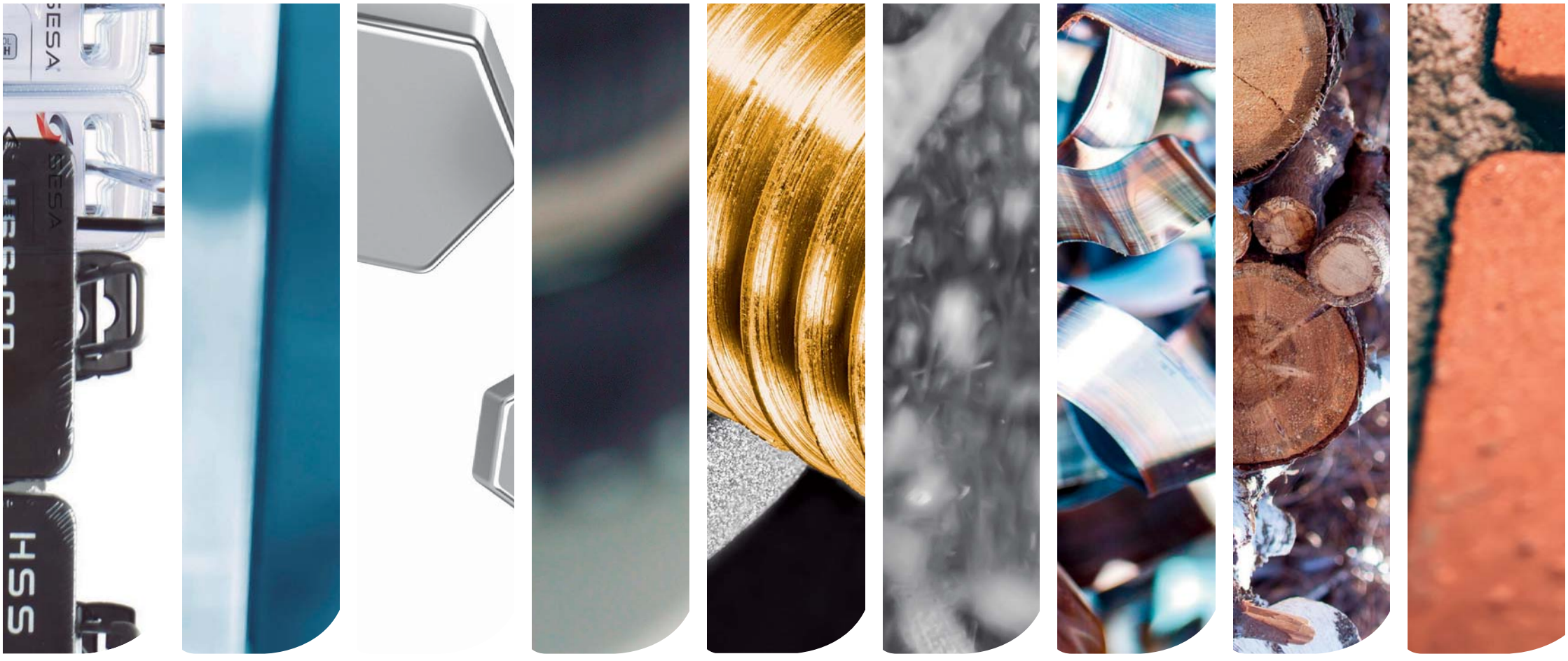









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SESA®

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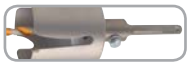
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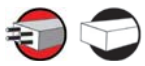
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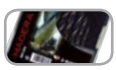


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CORONA BIMETAL
BIMETAL HOLE SAWS M42
SCIES TRÉPAN BIMETAL M42

HSS-CO 8%
4-6 TPI
ACERO 800 -1100 N/mm²
INOX
166

CORONAS BIMETAL M3 SERIE LARGA
BIMETAL HOLE SAWS M3 LONG SERIES
SCIES TRÉPAN BIMETAL M3 SÉRIE LONGUE

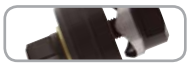
HSS M3
4-6 TPI
ACERO 400-800 N/mm²
168

HUSILLOS / *ARBORS / ARBRES*

SDS plus
169

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170

PERFORADORES DE CHAPA
CIRCULAR PUNCHES
EMPORTE PIÈCES


ACERO 400-800 N/mm²
INOX
171

CORONAS HSS-G REAFILABLES
HOLE SAWS HSS-G REGRINDABLE
SCIES TRÉPAN HSS-G RÉAFFÛTABLE

HSS-G
ACERO 400-800 N/mm²
173

METAL DURO SERIE CORTA
TUNGSTEN CARBIDE SHORT SERIES
CARBURE SERIE COURTE

MD
ACERO 800 -1100 N/mm²
INOX
175

METAL DURO SERIE LARGA
TUNGSTEN CARBIDE LONG SERIES
CARBURE SERIE LONGUE

MD
ACERO 800 -1100 N/mm²
INOX
176

PARA MÁQUINA ELECTROMAGNÉTICA
ELECTROMAGNETIC CORE BITS
SCIES ÉLECTROMAGNÉTIQUES


HSS-G
WELDON 19,00
ACERO 400-800 N/mm²
177

PARA MÁQUINA ELECTROMAGNÉTICA
ELECTROMAGNETIC CORE BITS
SCIES ÉLECTROMAGNÉTIQUES


HSS-CO 5%
WELDON 19,00
ACERO 800 -1100 N/mm²
INOX
179

PARA MÁQUINA ELECTROMAGNÉTICA
ELECTROMAGNETIC CORE BITS
SCIES ÉLECTROMAGNÉTIQUES


MD
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BANDSAW BLADES
LAMES DE SCIES À RUBAN

HSS-CO 8%
183

DISCO PARA ALUMINIO
CIRCULAR BLADES FOR ALU
LAMES DE SCIES POUR ALU

MD
ACERO 400-800 N/mm²
AL
192

HOJAS DE SIERRA
HAND HACKSAW BLADE
LAMES DE SCIES

193

SIERRAS DE SABLE PARA MÁQUINAS FEIN
SABRE SAW BLADES FOR FEIN MACHINE
SCIE SABRE POUR FEIN MACHINES

HSS
ACERO 400-800 N/mm²
194

HOJA SIERRA DE MÁQUINA BIMETAL
BIMETAL POWER HACKSAW BLADES FOR MACHINE
LAME DE SCIE MACHINE BIMETAL

ACERO 400-800 N/mm²
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B	CILÍNDRICA CORTE FRONTAL *EXTENDABLE REAMERS* *CYLINDRIQUE COUP FRONTALE*		MD		ACERO 1100 -1400 N/mm²	200
C	CILÍNDRICA CON RADIO *BULL NOSE* *CYLINDRIQUE A RAYON*		MD		ACERO 1100 -1400 N/mm²	200
D	ESFÉRICA *BALL* *SPHERIQUE*		MD		ACERO 1100 -1400 N/mm²	201
E	OVAL *OVAL* *OVALE*		MD		ACERO 1100 -1400 N/mm²	201
F	ÁRBOL CON RADIO *ROUND TREE* *OGIVE A RAYON*		MD		ACERO 1100 -1400 N/mm²	201
G	ÁRBOL CON PUNTA *POINTED TREE* *ARBRE*		MD		ACERO 1100 -1400 N/mm²	202
H	LLAMA *FLAME* *FLAMME*		MD		ACERO 1100 -1400 N/mm²	202
K	CÓNICA 90° *COUNTER SINK 90°* *CONIQUE 90°*		MD		ACERO 1100 -1400 N/mm²	202
L	CÓNICA CON RADIO *BALL NOSE CONE* *CONIQUE A RAYON*		MD		ACERO 1100 -1400 N/mm²	203
M	CÓNICA CON PUNTA *CONE* *CONIQUE TRONQUEE*		MD		ACERO 1100 -1400 N/mm²	203
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D	ESFÉRICA *BALL* *SPHERIQUE*		MD		ESPECIAL INOX	INOX	205
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DIN 327N	DIN 1835B		HSS-CO 8%	N	2Z	ACERO INOX F	213
DIN 327N	DIN 1835B		HSS-CO 8%	TIALN	N 2Z	ACERO INOX F	214
DIN 327N	DIN 1835B		PM	ALTIN	N 3Z	ACERO INOX F	215
DIN 1889	DIN 1835B		HSS-CO 8%	N	2Z	ACERO INOX F TI	216
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DIN 844N	DIN 1835B		HSS-CO 8%	N	3Z-6Z	ACERO INOX F TI	218
DIN 844N	DIN 1835B		HSS-CO 8%	TIALN	N 3Z-6Z	ACERO INOX F TI	219
DIN 844N	DIN 1835B		PM	ALTIN	N 4Z-5Z	ACERO INOX F TI	220
DIN 844NR	DIN 1835B		HSS-CO 8%	NR	4Z-5Z	ACERO INOX F	221
DIN 844NR	DIN 1835B		HSS-CO 8%	NR	4Z-5Z	ACERO INOX F	221
DIN 844NR-F	DIN 1835B		HSS-CO 8%	NR-F	4Z	ACERO INOX F	222
DIN 844HR	DIN 1835B		PM	ALTIN	HR 5Z	ACERO INOX F TI	222
DIN 844HR-F	DIN 1835B		PM	ALTIN	HR-F 4Z-6Z	ACERO INOX F TI	223
ESP	DIN 1835B		PM	ALCrN	N 4Z	ACERO INOX	224
DIN 851N	DIN 1835B		HSS-CO 5%	N	RANURAS EN "T" *"T" SLOTS RANURES À "T"*	ACERO TI	224
DIN 850	DIN 1835B		HSS-CO 5%	6Z-12Z	RANURAS WOODRUFF *WOODRUFF SLOTS RANURES WOODRUFF*	ACERO TI	225
DIN 1833C	DIN 1835B		HSS-CO 5%	10Z-12Z	FRESA EN BISEL *DOVETAIL MILLING CUTTERS FRAISES ANGULAIRES*	ACERO TI	226

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DIN 223		M	HSS-G	TOL 6g	ACERO 400-800 N/mm²	250
DIN 371 DIN 376		M	HSS-CO 5%	FORM C TOL 6H	ACERO 400-800 N/mm²	250
DIN 371 DIN 376		M	HSS-CO 5%	FORM B TOL 6H	ACERO 400-800 N/mm²	251
DIN 371 DIN 376		M	HSS-CO 5%	FORM C/35° TOL 6H	ACERO 400-800 N/mm²	251

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DIN 352		M	HSS-G	TOL 6H	ACERO 400-800 N/mm²	252
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DIN 2181		MF	HSS-G	TOL 6H	ACERO 400-800 N/mm²	254
DIN 351		BSW	HSS-G		ACERO 400-800 N/mm²	260
≈DIN 2181		BSF	HSS-G		ACERO 400-800 N/mm²	261
ISO 529		BA	HSS-G		ACERO 400-800 N/mm²	261
≈DIN 352		UNC	HSS-G	TOL 2B	ACERO 400-800 N/mm²	262
≈DIN 2181		UNF	HSS-G	TOL 2B	ACERO 400-800 N/mm²	263
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DIN 2181		VG	HSS-G			ACERO 800-1100 N/mm²	264
DIN 40432		PG	HSS-G			ACERO 400-800 N/mm²	265
ISO 529 ENTRADA CÓNICA *NON-SERIAL LFORM* *ENTRÉE CONIQUE*		UNEF	HSS-G		TOL 2B	ACERO 400-800 N/mm²	266
		TR	HSS-G		TOL 7H	ACERO 400-800 N/mm²	266
DIN 352		M	HSS-CO 5%		TOL 6H	ACERO 800-1100 N/mm²	267
DIN 352 CON PUNTA PILOTO *ROUGHER PILOTED* *EBAUCHEUR À PILOTE*		M	HSS-CO 5%		TOL 6H	ACERO 800-1100 N/mm²	267
DIN 2181		MF	HSS-CO 5%		TOL 6H	ACERO 800-1100 N/mm²	268
DIN 5157		G(BSP)	HSS-CO 5%			ACERO 800-1100 N/mm²	269
DIN 352		M	HSS-G	LH	TOL 6H	ACERO 400-800 N/mm²	270
DIN 2181		MF	HSS-G	LH	TOL 6H	ACERO 400-800 N/mm²	271
≈DIN 352		UNC	HSS-G	LH	TOL 2B	ACERO 400-800 N/mm²	272
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DIN 5157		G(BSP)	HSS-G	LH						ACERO 400-800 N/mm²	273

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DIN 352		M	HSS-CO 5%	FORM B	FORM C/35°	FORM B-AZ	TOL 6H			ACERO 400-800 N/mm²	274
ISO 529		M	HSS-G	FORM B	FORM B-AZ		TOL 6H			ACERO 400-800 N/mm²	275
ISO 529		M	HSS-G	FORM C/35°			TOL 6H			ACERO 400-800 N/mm²	276
DIN 2181		MF	HSS-G	FORM D			TOL 6H			ACERO 400-800 N/mm²	277
DIN 351		BSW	HSS-G	FORM D						ACERO 400-800 N/mm²	278
DIN 5157		G(BSP)	HSS-G	FORM D						ACERO 400-800 N/mm²	278
≈DIN 352		UNC	HSS-G	FORM D			TOL 2B			ACERO 400-800 N/mm²	279
≈DIN 352		UNF	HSS-G	FORM D			TOL 2B			ACERO 400-800 N/mm²	279
		NPT	HSS-G	FORM C	FORM B	FORM C/35°				ACERO 400-800 N/mm²	280

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M · HSS-CO 5% · FORM C · TOL 6H · ACERO 400-800 N/mm² — 286

DIN 371 DIN 376 
M · HSS-CO 5% · FORM B · TOL 6H · ACERO 400-800 N/mm² — 287

DIN 371 DIN 376 
M · HSS-CO 5% · TIN · FORM B · TOL 6H · ACERO 400-800 N/mm² — 288

DIN 371 DIN 376 
M · HSS-CO 5% · VAP · FORM B · TOL 6H · ACERO 400-800 N/mm² — 288

DIN 371 DIN 376 
M · HSS-CO 5% · FORM C/15° · TOL 6H · ACERO 400-800 N/mm² — 289

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DIN 371 DIN 376		M	HSS-CO 5%		FORM C/35°		TOL 6H	ACERO 400-800 N/mm²	290
DIN 371 DIN 376		M	HSS-CO 5%	TIN	FORM C/35°		TOL 6H	ACERO 800 -1100 N/mm²	291
DIN 371 DIN 376		M	HSS-CO 5%	VAP	FORM C/35°		TOL 6H	ACERO 800 -1100 N/mm²	291
DIN 371 DIN 376		M	HSS-CO 5%		FORM B-AZ		TOL 6H	ACERO 400-800 N/mm²	292
≈DIN 371 ≈DIN 376 EXTRALARGOS *EXTRALONG EXTRALONG*		M	HSS-CO 5%		FORM B		TOL 6H	ACERO 400-800 N/mm²	293
DIN 371 EXTRALARGOS *EXTRALONG EXTRALONG*		M	HSS-CO 5%		FORM C/35°		TOL 6H	ACERO 400-800 N/mm²	294
DIN 371 DIN 376 SOBREDIMENSIONADOS *OVERSIZE SURCOTÉS*		M	HSS-CO 5%		FORM B	TOL 6G	TOL 7G	TOL 6H +0,1 mm	ACERO 400-800 N/mm²	295
DIN 371 DIN 376 SOBREDIMENSIONADOS *OVERSIZE SURCOTÉS*		M	HSS-CO 5%		FORM C/35°	TOL 6G	TOL 7G	TOL 6H +0,1 mm	ACERO 400-800 N/mm²	296
DIN 374		MF	HSS-CO 5%		FORM C		TOL 6H	ACERO 400-800 N/mm²	297
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≈DIN 371 ≈DIN 376		UNC	HSS-CO 5%	FORM B	TOL 2B	ACERO 400-800 N/mm²	304
≈DIN 371 ≈DIN 376		UNC	HSS-CO 5%	FORM C/35º	TOL 2B	ACERO 400-800 N/mm²	305
≈DIN 371 ≈DIN 376		UNF	HSS-CO 5%	FORM B	TOL 2B	ACERO 400-800 N/mm²	306
≈DIN 371 ≈DIN 376		UNF	HSS-CO 5%	FORM C/35º	TOL 2B	ACERO 400-800 N/mm²	307
ISO 529		UN	HSS-CO 5%	FORM B	TOL 2B	ACERO 400-800 N/mm²	308
ISO 529		UN	HSS-CO 5%	FORM C/35º	TOL 2B	ACERO 400-800 N/mm²	309
ISO 529		UNEF	HSS-CO 5%	FORM B	TOL 2B	ACERO 400-800 N/mm²	310
ISO 529		UNEF	HSS-CO 5%	FORM C/35º	TOL 2B	ACERO 400-800 N/mm²	311
ISO 529		UNS	HSS-CO 5%	FORM B	TOL 2B	ACERO 400-800 N/mm²	312
ISO 529		UN	HSS-CO 5%	FORM B	TOL 2B	ACERO 400-800 N/mm²	313
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DIN 5156		G(BSP)	HSS-CO 5%	FORM C/35º	ACERO 400-800 N/mm²	315
DIN 5156		RC (BSPT)	HSS-CO 5%	FORM C	ACERO 400-800 N/mm²	315
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DIN 374		BSC	HSS-CO 5%	FORM C	ACERO 400-800 N/mm²	316
DIN 371 DIN 376		M	HSS-CO 5%	FORM C LH	TOL 6H ACERO 400-800 N/mm²	317
DIN 371 DIN 376		M	HSS-CO 5%	FORM B LH	TOL 6H ACERO 400-800 N/mm²	318
DIN 371 DIN 376		M	HSS-CO 5%	FORM C/35º LH	TOL 6H ACERO 400-800 N/mm²	319
DIN 374		MF	HSS-CO 5%	FORM B LH	TOL 6H ACERO 400-800 N/mm²	320
DIN 374		MF	HSS-CO 5%	FORM C/35º LH	TOL 6H ACERO 400-800 N/mm²	322
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DIN 371 DIN 376			M	HSS-E-V3	TIN	FORM B	TOL 6H	ACERO 800 -1100 N/mm²	INOX	AL	325
DIN 371 DIN 376			M	HSS-E-V3	TIN	FORM C/35º	TOL 6H	ACERO 800 -1100 N/mm²	INOX	AL	325
DIN 371 DIN 376			M	HSS-CO 5%	VAP	FORM B	TOL 6H	INOX			326
DIN 371 DIN 376			M	HSS-CO 5%	VAP	FORM C/40º	TOL 6H	INOX			326
DIN 374			MF	HSS-CO 5%	VAP	FORM B		INOX			327
DIN 374			MF	HSS-CO 5%	VAP	FORM C/39º		INOX			327
DIN 371 DIN 376			UNC	HSS-CO 5%	VAP	FORM B		INOX			328
DIN 371 DIN 376			UNC	HSS-CO 5%	VAP	FORM C/39º		INOX			328
DIN 371 DIN 376			UNF	HSS-CO 5%	VAP	FORM B		INOX			329
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DIN 371 DIN 376		M	PM	FUTURA	FORM B	TOL 6H	ACERO 1100-1400 N/mm²		331
DIN 371 DIN 376		M	PM	FUTURA	FORM C/40°	TOL 6H	ACERO 1100-1400 N/mm²		331
DIN 371		M	PM	FUTURA	FORM C/15°	TOL 6H	ACERO 1100-1400 N/mm²		331
DIN 371 DIN 376		M	HSS-CO 5%	ALUSPEED	FORM B	TOL 6H	AL		332
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DIN 2174	LUBRICACIÓN *OIL GROOVE AVEC RAINURE GRAISSAGE* 	M	HSS-CO 5%	TIN		TOL 6HX	TOL ISO2X		334

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		TR	HSS-G			TOL 7H		ACERO 400-800 N/mm²	336
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DIN 223		MF	HSS-G				TOL 6g	ACERO 400-800 N/mm²	340
DIN 223		BSW	HSS-G					ACERO 400-800 N/mm²	343
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DIN 223		UNEF	HSS-G					ACERO 400-800 N/mm²	347
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DIN 223		BSW	HSS-G	LH			ACERO 400-800 N/mm²	354
DIN 223		UNC	HSS-G	LH			ACERO 400-800 N/mm²	354
DIN 223		UNF	HSS-G	LH			ACERO 400-800 N/mm²	355
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DIN 382		MF	HSS-G			TOL 6g	ACERO 400-800 N/mm²	357
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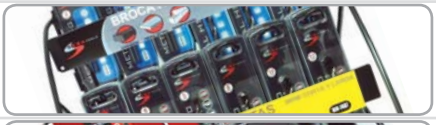
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CONSTRUCCIÓN

CONSTRUCTION

SESA®

CARACTERÍSTICAS PORCELANATO-GRES PORCELÁNICO



En la actualidad, el gres porcelánico o porcelanato, es la tipología de baldosa cerámica más utilizada en la construcción. Un 80% (en algunos países hasta más) de los proyectos de nueva edificación y/o rehabilitación utilizan el porcelánico o porcelanato como material de revestimiento.

La principal característica del gres porcelánico o porcelanato, y por lo tanto, la gran diferencia con el resto de baldosas cerámicas (azulejo y gres esmaltado), es su, prácticamente nula, capacidad de absorción de agua. Inicialmente, ésta, debe ser de un máximo del 0,5%, tal y como indica las normas internacionales ISO 13006 y EN 14411, pero en la actualidad algunos materiales presentan absorciones muy inferiores, casi cercanas al 0%.

Otras características destacables del porcelánico o porcelanato son su elevada dureza y su resistencia a la abrasión.

La dureza se mide en una escala que se llama PEI (Porcelain Enamel Institute), laboratorio creador del método de ensayo que indica un índice de resistencia al desgaste superficial en planchas cerámicas esmaltadas (expuestas en laboratorio a una carga abrasiva a un determinado número de giros intentando simular el tráfico de personas). La escala PEI va de 1 a 5, donde 1 es la menor dureza y corresponde a placas que no admiten tránsito y solo sirven como revestimiento de paredes.

A continuación, indicamos donde es habitual estar instalado el Porcelanato o Gres Porcelánico y cuál es la posible dureza del material por donde está instalado.

DUREZA	TRÁFICO	USO	Nº de agujeros broca JR (con refrigeración)
PEI I	Ultra ligero	Residencial e interiores	20
PEI II	Ligero	Residencial con acceso directo de exteriores (cocinas, pasillos, recibidores)	15
PEI III	Medio	Comercial con tráfico de personas moderado (pequeño comercio, garajes, terrazas)	12-15
PEI IV	Moderado	Comercial con tráfico de personas alto (restaurantes, tiendas, hoteles, viviendas)	8-10
PEI V	Intenso	Comercial e industrial (restaurantes, centros comerciales, edificios públicos, aeropuertos)	3-5

BROCA JR PARA GRES PORCELÁNICO Y PORCELANATO

JR DRILL-BIT FOR PORCELAIN STONEWARE AND PORCELANIC
FORET JR POUR GRÈS CÉRAME AND CÉRAMIQUE

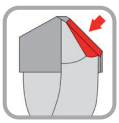
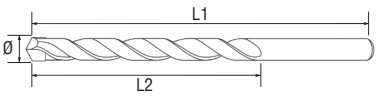


advance MAXIMO RENDIMIENTO

Nº 1 EN VENTAS





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	**85**	50	1	JR0030
3,50	**85**	50	1	JR0035
4,00	**85**	50	1	JR0040
4,50	**85**	50	1	JR0045
5,00	**85**	50	1	JR0050
5,50	**100**	65	1	JR0055
6,00	**100**	65	1	JR0060
6,50	**100**	65	1	JR0065
7,00	**125**	75	1	JR0070

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
7,50	125	75	1	JR0075
8,00	125	75	1	JR0080
8,50	125	75	1	JR0085
9,00	150	90	1	JR0090
9,50	150	90	1	JR0095
10,00	150	90	1	JR0100
10,50	150	90	1	JR0105
11,00	150	90	1	JR0110
12,00	150	90	1	JR0120

ESTUCHE BROCA JR 5 PIEZAS

JR DRILL-BIT SET 5 PIECES
COFFRET FORET JR 5 PIÈCES

Medidas / *Sizes*
4 - 5 - 6 - 6 - 8 mm

Uds. / *Pcs.*	**Cod.**
1	010205S1



ESTUCHE BROCA JR 9 PIEZAS NEW

JR DRILL-BIT SET 9 PIECES
COFFRET FORET JR 9 PIÈCES

Medidas / *Sizes*
5 - 5 - 5 - 6 - 6 - 6 - 8 - 8 - 8 mm

Uds. / *Pcs.*	**Cod.**
1	19JR339



BROCAS CILÍNDRICAS CONSTRUCCIÓN
CYLINDRICAL MASONRY DRILL BITS • FORETS CONSTRUCTION

EXPOSITOR SOBREMESA JR
BASIC DISPLAY JR • ÉXPOSITEUR BASE TABLE JR



Expositor MINI
470 x 190 x 140 mm

Ø (mm)	L (mm)	Uds. / *Pcs.*
4,00	85	8
5,00	85	16
6,00	100	16
8,00	125	8
10,00	150	8
SET BROCA JR 5 PIEZAS *SET 5 PIECES*		5
Cod. JR061		61

NOTA: Composición con 6 ganchos / *Stand with 6 hooks* / *Présentoirs avec 6 crochets*

ACCESORIOS PORCELANATO • *PORCELANIC ACCESSORIES* • *ACCESSOIRES CÉRAMIQUE*



DISPENSADOR DE AGUA
WATER DISPENSER
DISPÉNSEUR D´EAU

Cod.
JRZZZZ*



GUÍA CON VENTOSA
SUCTION DRILLING GUIDE
GUIDE AVEC VENTOUSE

Cod.
JRZ01*



NEW

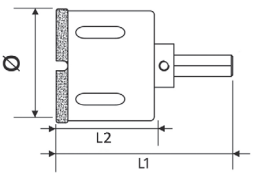
MARCADOR PUNTERO AUTOMÁTICO
AUTOMATIC CENTER PUNCH
MARQUEUR AUTOMATIQUE

Cod.
5PU5000

*Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

CORONA DIAMANTADA
DIAMOND CORE BIT • TRÉPAN DIAMANTÉ



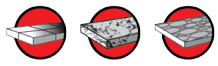
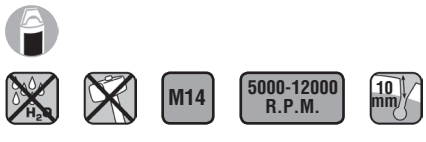


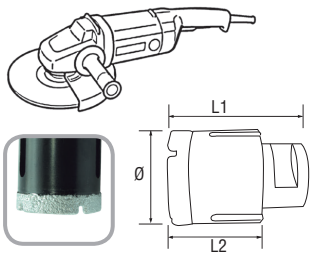


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
5,00	70	40	1	01020605
6,00	70	40	1	01020606
8,00	80	40	1	01020608
10,00	80	40	1	01020610
12,00	80	40	1	01020612
14,00	80	40	1	01020614
15,00	80	40	1	01020615
20,00	90	50	1	01020620

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
22	90	50	1	01020622
25	90	50	1	01020625
30	90	50	1	01020630
34	90	50	1	01020634
35	90	50	1	01020635
40	90	50	1	01020640
45	90	50	1	01020645

CORONA DIAMANTADA PARA AMOLADORA
DIAMOND CORE BIT FOR GRINDER
TRÉPAN DIAMANTÉ POUR BROYEUR





Ø (mm)	Lubrificación interior con cera *Lubrication with wax / Lubrification avec cire*	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6	√	60	35	1	1CDM140060
8	√	60	35	1	1CDM140080
10	√	60	35	1	1CDM140100
12	√	60	35	1	1CDM140120
15	√	60	35	1	1CDM140150
18	-	60	40	1	1CDM140180
20	-	60	40	1	1CDM140200
25	-	60	40	1	1CDM140250
32	-	60	40	1	1CDM140320
35	-	60	40	1	1CDM140350
40	-	60	40	1	1CDM140400
44	-	60	40	1	1CDM140440
50	-	60	40	1	1CDM140500
60	-	60	40	1	1CDM140600
68	-	60	40	1	1CDM140680
75	-	60	40	1	1CDM140750

- Trabajo en seco
- Empezar la perforación con la corona ligeramente inclinada.
- Enderezarla poco a poco para trabajar de forma vertical
- Velocidad de perforación: 5000-12000 rpm.
- Suaves movimientos circulares permiten aumentar la velocidad de perforación y mejoran la refrigeración.
- Hacer pequeñas pausas para refrigerar la corona.

- *Dry running.*
- *Start drilling with the drill bit slightly tilted.*
- *Straighten it bit by bit until it is operating vertically.*
- *Drilling speed: 5000-12000 rpm.*
- *Smooth circular movements allow the drilling speed to be increased and improves cooling.*
- *Take small breaks to cool the drill bit.*

- *Travail à sec.*
- *Commencer la perforation avec la couronne légèrement inclinée.*
- *La redresser peu à peu pour travailler de façon verticale.*
- *Vitesse de perforation : 5000-12000 rpm.*
- *Mouvements circulaires légers qui permettent d'augmenter la vitesse de perforation et d'améliorer la réfrigération.*
- *Faire de petites pauses pour reposer la couronne.*

UTILIDADES / *USES/ UTILISATION*	
35 mm	Instalación de grifería / *pipework installation* / *installation de robinetterie*
40 mm	Instalación de los desagues de los electrodomésticos / *installation of drainage for domestic appliances* / *installation des évacuations des appareils électroménagers*
50 mm	Instalación desagues / *installation of industrial drainage* / *installation d'évacuations industrielles*
60mm	Instalación cajetines electricidad / *installation of electrical terminal boxes* / *installation de boîtiers électriques*

ADAPTADORES *ADAPTOR • ADAPTATEUR*

	Conversión / *Conversion* / *Conversion*	L1 (mm)	Uds. *Pcs.*	Cod.
	De M14 a Mango Hexagonal *From M14 to Hexagonal Shank* / *De M14 a Manche Hexagonale*	65	1	1ACM1401
	De M14 a Mango SDS-PLUS *From M14 to SDS-PLUS Shank* / *De M14 a Manche SDS-PLUS*	78	1	1ACM1402

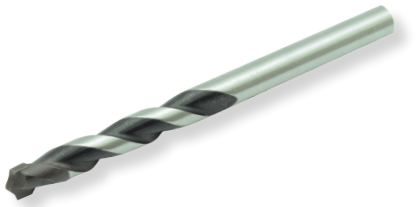
ESTUCHE DE CORONAS DIAMANTADAS PARA AMOLADORA
SET OF DIAMOND CORE BITS FOR GRINDER
COFRET DE TRÉPAN DIAMANTÉ POR BROYEUR

	Composición / *Contains* / *Composition*	Uds. / *Pcs.*	Cod.
Coronas / *Core Bits* / *Trépan*	Ø 35-40-50-60 mm	x 1	
Adaptador	De M14 a mango hexagonal *from M14 to hexagonal shank* / *de M14 a mache hexagonal*	1	1CDM1403
Adaptador	De M14 a mango SDS-PLUS *from M14 to SDS-PLUS shank* / *de M14 a mache SDS-PLUS*	1	



BROCAS CILÍNDRICAS CONSTRUCCIÓN
CYLINDRICAL MASONRY DRILL BITS • FORETS CONSTRUCTION

TORNADO *TORNADO • TORNADO*



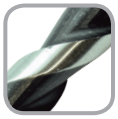
ADVANCE MAXIMO RENDIMIENTO

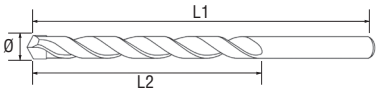


DIN 8039









Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3	60	30	1	1TO03060
4	75	40	1	1TO04075
5	85	50	1	1TO05085
5	150	110	1	1TO05150
6	100	60	1	1TO06100
6	150	110	1	1TO06150
6	200	135	1	1TO06200
7	100	60	1	1TO07100
8	120	80	1	1TO08120
8	200	135	1	1TO08200
8	400	350	1	1TO08400
9	120	80	1	1TO09120
10	120	80	1	1TO10120
10	200	135	1	1TO10200
10	400	350	1	1TO10400

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
11	150	90	1	1TO11150
12	150	90	1	1TO12150
12	200	135	1	1TO12200
12	400	350	1	1TO12400
13	150	90	1	1TO13150
14	150	90	1	1TO14150
14	400	350	1	1TO14400
16	150	90	1	1TO16150
16	400	350	1	1TO16400
18	160	100	1	1TO18160
18	400	350	1	1TO18400*
20	160	100	1	1TO20160
20	400	350	1	1TO20400*

*Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

ESTUCHE BROCA TORNADO
TORNADO DRILL BITS SET
COFFRET FORETS TORNADO

Medidas / *Sizes*
4 - 5 - 6 - 8 - 10 mm

Uds. / *Pcs.*	Cod.
1	1917T327N



Medidas / *Sizes*
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / *Pcs.*	Cod.
1	1917T333N



ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

ADVANCE BOX (9 UDS. / *PCS.*)

ADVANCE MAXIMO RENDIMIENTO

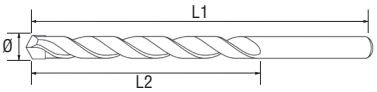
Composición / *Contains* / *Composition*	Medidas / *Sizes*	Cod.
HSS CO HSS-CO 5% + TORNADO + MADERA	5 - 6 - 8 mm	19CA339



HORMAT MULTIMATERIAL *HORMAT MULTI-PURPOSE • HORMAT MULTIFUNCTION*

NEW





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
4,00	85	50	1	1GR04075
5,00	85	50	1	1GR05085
6,00	100	65	1	1GR06100
8,00	125	75	1	1GR08120

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
10,00	150	90	1	1GR10120
12,00	150	90	1	1GR12150
14,00	150	90	1	1GR14150

ESTUCHE BROCA HORMAT MULTIMATERIAL
HORMAT MULTI-PURPOSE DRILL BITS SET
COFFRET FORETS HORMAT MULTIFUNCTION

Medidas / *Sizes*
4 - 5 - 6 - 6 - 8 mm

Uds. / *Pcs.*	Cod.
1	1GR327N

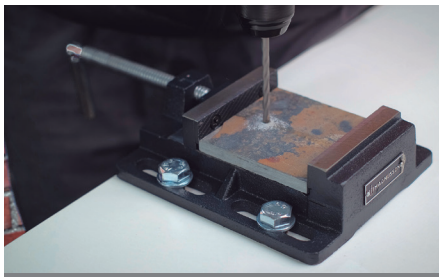


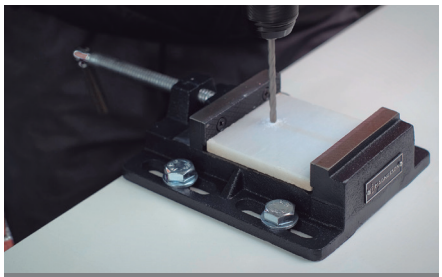
NEW

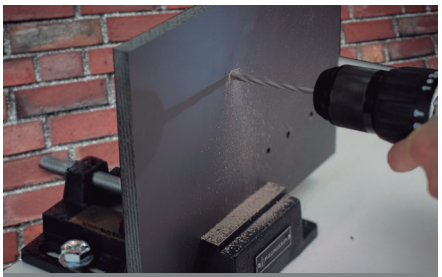
Medidas / *Sizes*
5 - 5 - 5 - 6 - 6 - 6 - 8 - 8 - 8 mm

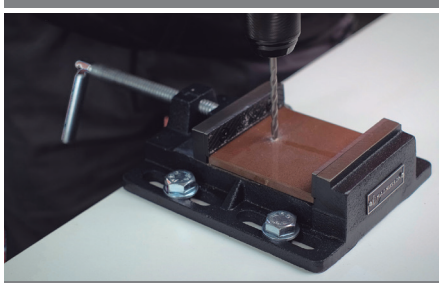
Uds. / *Pcs.*	Cod.
1	19GP339




PIZARRA


MÁRMOL


TABLERO DE FENÓLICO


SILESTONE


GRANITO

SESA

BROCAS CILÍNDRICAS CONSTRUCCIÓN
CYLINDRICAL MASONRY DRILL BITS • FORETS CONSTRUCTION

GRANITO: BLISTER RÍGIDO
GRANITE: RIGID PLATIC BLISTER
GRANITE: BLISTER DE PLASTIQUE RIGIDE

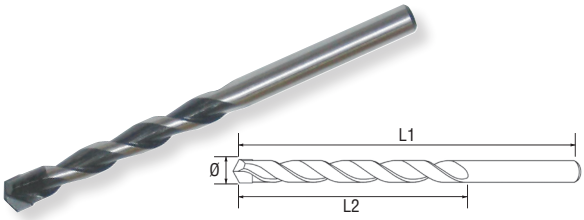


DIN 8039

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3	60	30	1	105A03060BL
4	75	40	1	105A04075BL
5	85	50	1	105A05085BL
6	100	60	1	105A06100BL

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
8	120	80	1	105A08120BL
10	120	80	1	105A10120BL
12	150	90	1	105A12150BL

GRANITO *GRANITE • GRANITE*



DIN 8039

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	60	30	1	105A03060
4,00	75	40	1	105A04075
5,00	85	50	1	105A05085
6,00	100	60	1	105A06100
6,00	200	135	1	105A06200
6,00	400	270	1	105A06400
7,00	100	60	1	105A07100
8,00	120	80	1	105A08120
8,00	200	135	1	105A08200
8,00	400	270	1	105A08400
9,00	120	80	1	105A09120
10,00	120	80	1	105A10120
10,00	200	135	1	105A10200
10,00	400	270	1	105A10400

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
11,00	150	90	1	105A11150
12,00	150	90	1	105A12150
12,00	200	135	1	105A12200
12,00	400	270	1	105A12400
14,00	150	90	1	105A14150
14,00	400	270	1	105A14400
16,00	150	90	1	105A16150
16,00	400	270	1	105A16400
18,00	160	100	1	105A18160
18,00	400	270	1	105A18400
20,00	160	100	1	105A20160
20,00	400	270	1	105A20400

ESTUCHE BROCA GRANITO *GRANITO DRILL BITS • SET COFFRET FORETS GRANITO*

Contenido / *Contents* / *Composition*
4 - 5 - 6 - 8 - 10 mm

Uds. / *Pcs.*	Cod.
1	1915A327N



Contenido / *Contents* / *Composition*
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / *Pcs.*	Cod.
1	1915A333N



ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

STANDARD BOX (9 UDS. / *PCS.*)

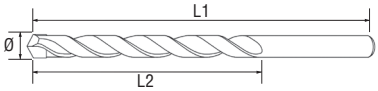
Contenido / *Contents* / *Composition*	Medidas / *Sizes*	Cod.
HSS G HSS-G + GRANITO + MADERA	5 - 6 - 8 mm	19CM339



BASIC *BASIC • BASIC*



DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	60	30	1	16F03060
4,00	75	40	1	16F04075
5,00	85	50	1	16F05085
6,00	100	60	1	16F06100
6,00	200	135	1	16F06200
6,00	300	200	1	16F06300
7,00	100	60	1	16F07100
8,00	120	80	1	16F08120
8,00	200	135	1	16F08200
8,00	300	200	1	16F08300
8,00	400	270	1	16F08400
9,00	120	80	1	16F09120
10,00	120	80	1	16F10120
10,00	200	135	1	16F10200
10,00	300	200	1	16F10300
10,00	400	270	1	16F10400

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
11,00	150	90	1	16F11150
12,00	150	90	1	16F12150
12,00	200	135	1	16F12200
12,00	300	200	1	16F12300
12,00	400	270	1	16F12400
13,00	150	90	1	16F13150
14,00	150	90	1	16F14150
14,00	400	270	1	16F14400
15,00	150	90	1	16F15150
16,00	150	90	1	16F16150
16,00	400	270	1	16F16400
18,00	160	100	1	16F18160
18,00	400	270	1	16F18400
20,00	160	100	1	16F20160
20,00	400	270	1	16F20400
22,00	400	270	1	16F22400

ESTUCHE BROCA BASIC
BASIC DRILL BITS SET
COFFRET FORETS BASIC

Medidas / *Sizes*
4 - 5 - 6 - 8 - 10 mm

Uds. / *Pcs.*	Cod.
1	1916F327N



Medidas / *Sizes*
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / *Pcs.*	Cod.
1	1916F333N



ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

BASIC BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*							Medidas / *Sizes*	Cod.
HSS WHITE	**HSS**	+	**BASIC**	+	**MADERA**		5 - 6 - 8 mm	19CB339



EXPOSITORES SESA KUBO

DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

NEW

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 01	JR PORCELANATO	010205S1	4-5-6-6-8 mm	10
KUBO 02	HORMAT	1GR327N	4-5-6-6-8mm	10
KUBO 07	JR PORCELANATO	010205S1	4-5-6-6-8mm	5
	HSS-CO	194314	3-4-5-6-8mm	5
KUBO 08	HSS-G	1915314	3-4-5-6-8mm	5
	HORMAT	1GR327N	4-5-6-6-8mm	5



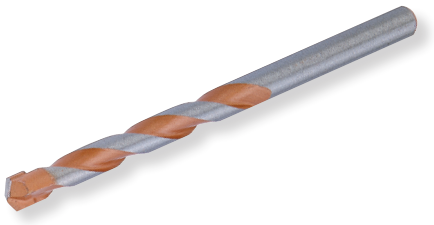


Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 13	JR PORCELANATO	010205S1	4-5-6-6-8mm	7
	GRANITO	1915A327N	4-5-6-8-10mm	7
	BASIC	1916F327N	4-5-6-8-10mm	7
KUBO 16	JR PORCELANATO	010205S1	4-5-6-6-8mm	7
	JR PORCELANATO	19JR339	5-6-8mm (3 de cada)	7
KUBO 17	GRANITO	1915A327N	4-5-6-8-10mm	7
	HORMAT	19GP339	5-6-8mm (3 de cada)	7
KUBO 18	GRANITO	1915A327N	4-5-6-8-10mm	7
	MADERA	196333	3-4-5-6-7-8-9-10mm	7

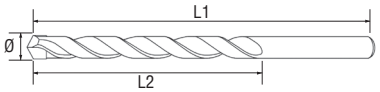




BROCA MULTI-USO
MULTI-PURPOSE DRILL-BIT • FORET MULTIFUNCTION



MULTI | DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	70	40	1	1MU03070
4,00	75	40	1	1MU04075
5,00	85	50	1	1MU05085
5,00	150	110	1	1MU05150
5,50	85	50	1	1MU55085
6,00	100	60	1	1MU06100
6,00	150	110	1	1MU06150
6,50	100	60	1	1MU65100
6,50	150	110	1	1MU65150
7,00	100	60	1	1MU07100

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
8,00	120	80	1	1MU08120
8,00	200	135	1	1MU08200
9,00	120	80	1	1MU09120
10,00	120	80	1	1MU10120
10,00	200	135	1	1MU10200
12,00	150	90	1	1MU12150
12,00	200	135	1	1MU12200
14,00	150	90	1	1MU14150
16,00	150	90	1	1MU16150

ESTUCHE BROCA MULTI-USO
MULTI-PURPOSE DRILL-BIT DRILL BITS SET
COFFRET FORETS MULTIFUNCTION

Medidas / *Sizes*
4 - 5 - 6 - 8 - 10 mm

Uds. / *Pcs.*	Cod.
1	1MU327N



Medidas / *Sizes*
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / *Pcs.*	Cod.
1	1MU333N

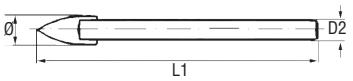


BROCA PARA VIDRIO *GLASS DRIL-BIT • FORET POUR VERRE*





H_2O

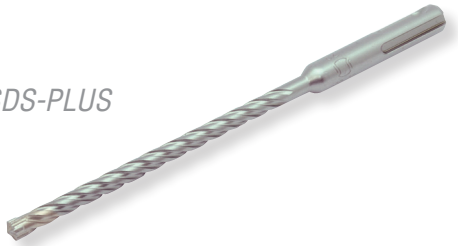


Ø (mm)	L1 (mm)	D2 (mm)	Uds. / *Pcs.*	Cod.
3,00	58	3,00	1	1VI0300
4,00	58	3,00	1	1VI0400
5,00	58	4,00	1	1VI0500
6,00	58	5,00	1	1VI0600
7,00	78	5,00	1	1VI0700

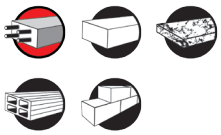
Ø (mm)	L1 (mm)	D2 (mm)	Uds. / *Pcs.*	Cod.
8,00	78	6,00	1	1VI0800
9,00	98	6,00	1	1VI0900
10,00	98	7,00	1	1VI1000
12,00	98	8,00	1	1VI1200

HURRICANE MULTIARISTAS SDS-PLUS

SDS-PLUS HURRICANE MULTICUTTER • MULTITAILLANT HURRICANE SDS-PLUS

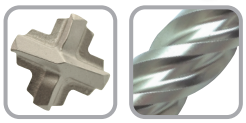


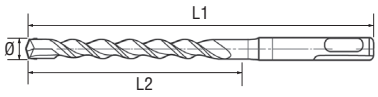
advance MAXIMO RENDIMIENTO



DIN 8035

PGM SDS plus





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
5	110	50	1	1HU05110
5	160	100	1	1HU05160
6	110	50	1	1HU06110
6	160	100	1	1HU06160
6	210	150	1	1HU06210
6	260	200	1	1HU06260
6	310	250	1	1HU06310
7	160	100	1	1HU07160
8	110	50	1	1HU08110
8	160	100	1	1HU08160
8	210	150	1	1HU08210
8	260	200	1	1HU08260
8	450	400	1	1HU08450
10	110	50	1	1HU10110
10	160	100	1	1HU10160
10	210	150	1	1HU10210
10	310	250	1	1HU10310
10	450	400	1	1HU10450
12	160	100	1	1HU12160
12	210	150	1	1HU12210

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
12	260	200	1	1HU12260
12	310	250	1	1HU12310
12	450	400	1	1HU12450
14	160	100	1	1HU14160
14	210	150	1	1HU14210
14	310	250	1	1HU14310
14	450	400	1	1HU14450
16	210	150	1	1HU16210
16	260	200	1	1HU16260
16	310	250	1	1HU16310
16	450	400	1	1HU16450
18	260	200	1	1HU18260
18	450	400	1	1HU18450
20	260	200	1	1HU20260
20	450	400	1	1HU20450
22	450	400	1	1HU22450
24	450	400	1	1HU24450
25	450	400	1	1HU25450
28	450	400	1	1HU28450
30	450	400	1	1HU30450

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / *For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.*

ESTUCHE BROCA HURRICANE *HURRICANE DRILL BITS SET • COFFRET FORETS HURRICANE*

Medidas / *Sizes*
5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160, 12 x 160 mm

Uds. / *Pcs.*	**Cod.**
7	1105P71

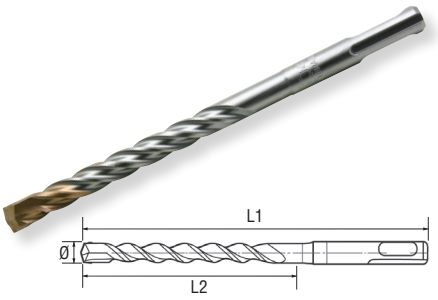


Medidas / *Sizes*	**Uds.** / *Pcs.*
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4
Puntero / *Point Chisel* **Cincel** / *Flat Chisel* **Cincel Ancho** / *Spade Chisel* x 140 mm	3

Cod.
1106P71



ST-2 SDS-PLUS *SDS-PLUS ST-2 • ST-2 SDS-PLUS*



DIN 8035 | SDS plus | PGM

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
4,00	110	50	1	1ST04110
5,00	110	50	1	1ST05110
5,00	160	100	1	1ST05160
5,00	210	150	1	1ST05210
5,50	110	50	1	1ST55110
5,50	160	100	1	1ST55160
6,00	110	50	1	1ST06110
6,00	160	100	1	1ST06160
6,00	210	150	1	1ST06210
6,00	260	200	1	1ST06260
6,00	460	400	1	1ST06460
6,50	110	50	1	1ST65110
6,50	160	100	1	1ST65160
6,50	260	200	1	1ST65260
7,00	110	50	1	1ST07110
7,00	160	100	1	1ST07160
8,00	110	50	1	1ST08110
8,00	160	100	1	1ST08160
8,00	210	150	1	1ST08210
8,00	260	200	1	1ST08260
8,00	310	250	1	1ST08310
8,00	460	400	1	1ST08460
9,00	160	100	1	1ST09160
9,00	260	200	1	1ST09260
10,00	110	50	1	1ST10110
10,00	160	100	1	1ST10160
10,00	210	150	1	1ST10210
10,00	260	200	1	1ST10260
10,00	310	250	1	1ST10310
10,00	460	400	1	1ST10460
10,00	600	550	1	1ST10600
11,00	160	100	1	1ST11160
11,00	260	200	1	1ST11260
12,00	160	100	1	1ST12160
12,00	200	150	1	1ST12210
12,00	260	200	1	1ST12260
12,00	300	250	1	1ST12310
12,00	450	400	1	1ST12450
12,00	600	550	1	1ST12600

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
13,00	160	100	1	1ST13160
13,00	260	200	1	1ST13260
14,00	160	100	1	1ST14165
14,00	200	150	1	1ST14200
14,00	260	200	1	1ST14260
14,00	300	250	1	1ST14310
14,00	450	400	1	1ST14450
14,00	600	550	1	1ST14600
15,00	160	100	1	1ST15160
15,00	260	200	1	1ST15260
16,00	160	100	1	1ST16160
16,00	200	150	1	1ST16200
16,00	260	200	1	1ST16260
16,00	300	250	1	1ST16300
16,00	450	400	1	1ST16450
16,00	600	550	1	1ST16600
16,00	800	750	1	1ST16800
16,00	1.000	950	1	1ST161000
18,00	200	150	1	1ST18200
18,00	300	250	1	1ST18300
18,00	450	400	1	1ST18450
18,00	600	550	1	1ST18600
18,00	1.000	950	1	1ST181000
19,00	450	400	1	1ST19450
20,00	200	150	1	1ST20200
20,00	300	250	1	1ST20300
20,00	450	400	1	1ST20450
20,00	600	550	1	1ST20600
20,00	1.000	950	1	1ST201000
22,00	250	200	1	1ST22250
22,00	450	400	1	1ST22450
22,00	600	550	1	1ST22600
24,00	250	200	1	1ST24250
24,00	450	400	1	1ST24450
25,00	250	200	1	1ST25250
25,00	450	400	1	1ST25450
26,00	450	400	1	1ST26450

NOTA: Para otras medidas, consultar / *Request for other sizes / Pour d´autres dimensions, nous consulter*

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / *For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.*

ESTUCHE BROCA ST-2 *ST-2 DRILL BITS SET • COFFRET FORETS ST-2*



Medidas / *Sizes*
5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160, 12 x 160 mm

Uds. / *Pcs.*	**Cod.**
7	1105P73



Medidas / *Sizes*	**Uds. / *Pcs.***
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4
Puntero / *Point Chisel* **Cincel / *Flat Chisel*** **Cincel Ancho / *Spade Chisel*** x 140 mm	3

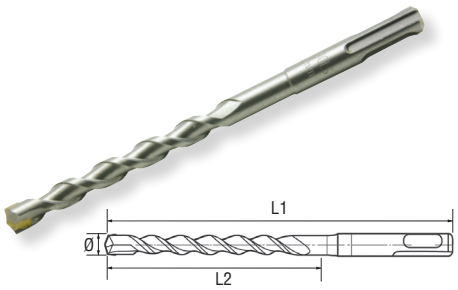
Cod.
1106P73

SESA

BROCAS PARA MARTILLO
HAMMER DRILL BITS • FORETS MARTEAUX

CYCLONE SDS-PLUS *SDS-PLUS CYCLONE • CYCLONE SDS-PLUS*

Basic



DIN 8035 | SDS plus

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
4	110	50	1	1CY04110
5	110	50	1	1CY05110
5	160	100	1	1CY05160
6	110	50	1	1CY06110
6	160	100	1	1CY06160
6	210	150	1	1CY06210
7	110	50	1	1CY07110
7	160	100	1	1CY07160
8	110	50	1	1CY08110
8	160	100	1	1CY08160
8	210	150	1	1CY08210
8	260	200	1	1CY08260
10	110	50	1	1CY10110
10	160	100	1	1CY10160
10	210	150	1	1CY10210
10	260	200	1	1CY10260
10	450	390	1	1CY10450

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
12	160	100	1	1CY12160
12	210	150	1	1CY12210
12	260	200	1	1CY12260
12	310	250	1	1CY12310
12	450	390	1	1CY12450
14	160	100	1	1CY14160
14	210	150	1	1CY14210
14	260	200	1	1CY14260
14	450	390	1	1CY14450
16	160	100	1	1CY16160
16	210	150	1	1CY16210
16	310	250	1	1CY16310
16	450	390	1	1CY16450
18	210	150	1	1CY18210
20	350	290	1	1CY20350
22	450	390	1	1CY22450
25	450	390	1	1CY25450

ESTUCHE BROCA CYCLONE *CYCLONE DRILL BITS SET • COFFRET FORETS CYCLONE*



Medidas / *Sizes*
5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160, 12 x 160 mm

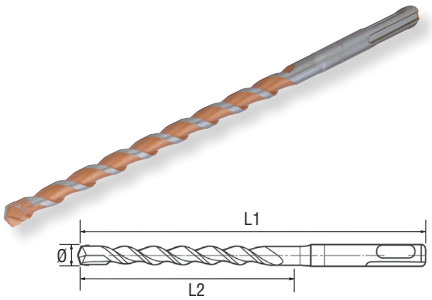
Uds. / *Pcs.*	**Cod.**
7	1105P72



Medidas / *Sizes*	**Uds.** / *Pcs.*
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4
Puntero / *Point Chisel* **Cincel** / *Flat Chisel* **Cincel Ancho** / *Spade Chisel* x 140 mm	3

Cod.
1106P72

BROCA MULTI-USO SDS-PLUS
SDS-PLUS MULTI- PURPOSE DRILL BIT
FORET MULTI MATERIAUX SDS-PLUS



MULTI | DIN 8035 | PGM | SDS plus

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,00	160	100	1	1MS06160
8,00	160	100	1	1MS08160
8,00	210	150	1	1MS08210
10,00	160	100	1	1MS10160

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
10,00	260	200	1	1MS10260
12,00	160	100	1	1MS12160
12,00	260	200	1	1MS12260
14,00	260	200	1	1MS14260

SDS-MAX STORM
SDS-MAX STORM • SDS-MAX STORM

La broca **STORM** con anclaje **SDS-MAX** proporciona nuevas ventajas en este tipo de herramienta. El novedoso sistema de la punta evita la fricción en mayor medida, lo que significa que aumenta la durabilidad y reduce el coste por agujero. Además, la extracción de viruta a través de sus 4 canales por las aberturas diseñadas en la punta, la convierte en la broca más rápida en esta gama.

*The **STORM** drill bit with an **SDS-MAX** shank provides new advantages for this type of tool. The new cutting edge system largely reduces friction, thereby increasing durability and diminishing costs per hole. Furthermore, the extraction of chip swarf through the 4 flutes built into the nosepiece makes it the fastest drill in this range.*

*Le foret **STORM** à ancrage **SDS-MAX** offre de nouveaux avantages pour ce type d'outillage. Le modèle de pointe innovant évite dans une grande mesure la friction, ce qui signifie une augmentation de sa durabilité et une réduction du coût par trou. Par ailleurs, l'extraction des alésures à travers ses 4 canaux, par les ouvertures placées sur la pointe en fait le foret le plus rapide de cette gamme.*



- Diseño para una fricción baja y mayor velocidad de corte.
- Cabeza de 4 puntas de Carburo de máxima calidad para maximizar la velocidad de corte.

- *Designed to produce minimal friction and greater cutting speed.*
- *Best quality Carbure 4 cutter head design maximizing speed and minimizing vibration.*

- *Conçu pour obtenir une faible friction et une plus grande vitesse de coupe.*
- *Tête à 4 pointes en Carbure de la plus haute qualité afin de maximiser la vitesse de coupe et minimiser la vibration.*



- Apertura en la punta diseñada especialmente para evacuación de viruta por los 4 canales de exrtracción.

- *Opening in the nosepiece specially designed for the removal of chip swarf through 4 extraction flutes.*

- *Ouverture sur la pointe spécialement conçue pour l'évacuation des copeaux à travers ses 4 canaux d'extraction.*



- 4 canales de extracción para una perforación rápida y cómoda.

- *4 extraction flutes for a speedy and smooth drill.*

- *4 canaux d'extraction pour une perforation rapide et facile.*



- Núcleo central optimizado, mejora la transmisión de energía desde el mango hasta la punta.

- *Optimised central core to improve the transmission of energy from the handle to the nosepiece.*

- *Noyau central optimisé, qui améliore la transmission d'énergie de la poignée à la pointe.*



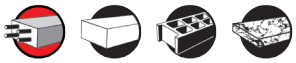
Broca fabricada bajo los estándares de calidad PGM / *Manufactured on PGM quality standards* / *Fabriqué sous les normes de calité PGM*

SESA®

BROCAS PARA MARTILLO
HAMMER DRILL BITS • FORETS MARTEAUX

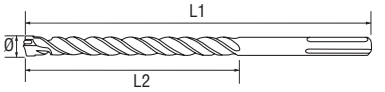
SDS-MAX STORM
SDS-MAX STORM • SDS-MAX STORM





DIN 8035





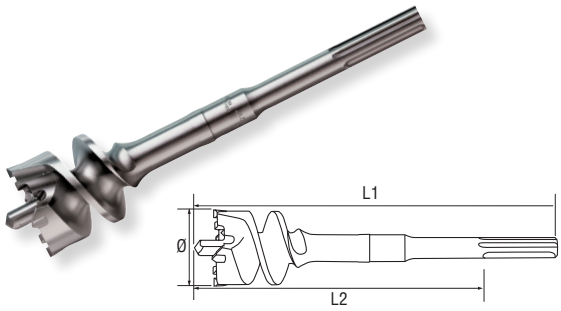
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2 ARISTAS / *2 CUTTING EDGES*				
12	340	200	1	11021212340
12	540	400	1	11021212540
14	340	200	1	11021214340
14	540	400	1	11021214540
15	340	200	1	11021215340
15	540	400	1	11021215540
4 ARISTAS / *4 CUTTING EDGES*				
16	340	200	1	11021216340
16	540	400	1	11021216540
18	340	200	1	11021218340
18	540	400	1	11021218540
20	340	200	1	11021220320
20	54 0	400	1	11021220520
20	920	800	1	11021220920
22	340	200	1	11021222320
22	540	400	1	11021222520
22	920	800	1	11021222920
22	1320	1200	1	110212221320
24	340	200	1	11021224320
24	540	400	1	11021224520

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
4 ARISTAS / *4 CUTTING EDGES*				
25	340	200	1	11021225320
25	540	400	1	11021225520
25	920	800	1	11021225920
28	380	250	1	11021228370
28	570	450	1	11021228570
30	380	250	1	11021230370
30	570	450	1	11021230570
32	380	250	1	11021232370
32	570	450	1	11021232570
32	920	800	1	11021232920
32	1320	1200	1	110212321320
35	380	250	1	11021235370
35	570	450	1	11021235570
38	380	250	1	11021238370
38	570	450	1	11021238570
40	570	450	1	11021240570
40	920	800	1	11021240920
40	1320	1200	1	110212401320
45	570	450	1	11021245570
45	920	800	1	11021245920
50	570	450	1	11021250570

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / *For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.*

NOTA: Para longitudes útiles de más de 800 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 400 mm de profundidad. / *For useful lengths of over 800 mm USE A PRE-DRILL BIT of the same diameter up to 400 mm in depth. / Pour des longueurs utiles de plus de 800 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 400 mm de profondeur.*

BROCA ROMPEDORA SDS-MAX
SDS-MAX CORE CUTTER • FORET TRÉPAN SDS-MAX

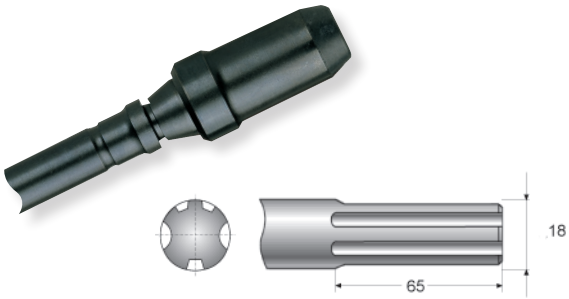


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
55,00	590	480	1	1RO55550
55,00	990	880	1	1RO55990
65,00	590	480	1	1RO65550

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
65,00	990	880	1	1RO65990
80,00	590	480	1	1RO80550
80,00	990	880	1	1RO80990

NOTA: Para otras medidas, consultar / *Request for other sizes / Pour d´autres dimensions, nous consulter*

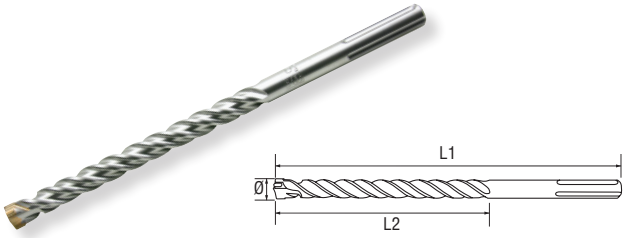
CONVERSOR DE ANCLAJE SDS-MAX A SDS-PLUS
CONVERSOR FROM SDS-MAX SHANK TO SDS-PLUS
CONVERTEUR DE SDS-MAX A SDS-PLUS



L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
225	1	1CO2250	**168,15**

Para taladros con sistema SDS-MAX, HILTI Y-Groove y Licencia Bosch. / *Drills with SDS-MAX, HILTI Y-Groove and Bosch License system. / Perceuse avec systéme SDS-MAX, HILTI Y-Groove et Bosch Licence.*

BROCA SDS-TOP *SDS-TOP • SDS-TOP*



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2 ARISTAS DE CORTE / *2 CUTTING EDGES*				
6,00	200	100	1	1TP06200
8,00	200	100	1	1TP08200
8,00	300	200	1	1TP08300
10,00	200	100	1	1TP10200
10,00	300	200	1	1TP10300
10,00	500	400	1	1TP10500
12,00	200	100	1	1TP12200
12,00	500	400	1	1TP12500
12,00	600	500	1	1TP12600
14,00	300	200	1	1TP14300
14,00	500	400	1	1TP14500
15,00	500	400	1	1TP15500
16,00	300	200	1	1TP16300
16,00	500	400	1	1TP16500

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
4 ARISTAS DE CORTE / *4 CUTTING EDGES*				
18,00	300	200	1	1TP18300
18,00	500	400	1	1TP18500
20,00	300	200	1	1TP20300
20,00	500	400	1	1TP20500
22,00	500	400	1	1TP22500
24,00	300	200	1	1TP24300
24,00	500	400	1	1TP24500
25,00	300	200	1	1TP25300
25,00	500	400	1	1TP25500
28,00	300	200	1	1TP28300
28,00	500	400	1	1TP28500
30,00	350	250	1	1TP30350
30,00	550	450	1	1TP30550
32,00	350	250	1	1TP32350
32,00	550	450	1	1TP32550

Hasta agotar existencias / *Until end of stock / Jusqu´à épuisement des stocks*

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / *For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.*

NOTA: Para longitudes útiles de más de 800 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 400 mm de profundidad. / *For useful lengths of over 800 mm USE A PRE-DRILL BIT of the same diameter up to 400 mm in depth. / Pour des longueurs utiles de plus de 800 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 400 mm de profondeur.*

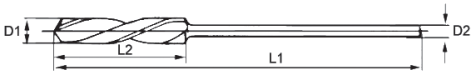
BROCA PARA ENCOFRAR CILÍNDRICA
SHUTTERING STRAIGHT DRILL-BIT
FORET POUR COFFRAGE





DIN 7490



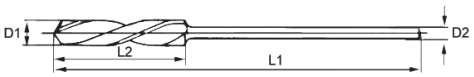


Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./ *Pcs.*	Cod.
8,00	400	100	8	1	12011108400
8,00	600	100	8	1	12011108600
8,00	800	100	8	1	12011108800
10,00	400	100	8	1	12011110400
10,00	600	100	8	1	12011110600
10,00	800	100	8	1	12011110800
12,00	400	100	10	1	12011112400
12,00	600	100	10	1	12011112600
12,00	800	100	10	1	12011112800
14,00	400	100	10	1	12011114400
14,00	600	100	10	1	12011114600
14,00	800	100	10	1	12011114800
16,00	400	100	10	1	12011116400
16,00	600	100	10	1	12011116600
16,00	800	100	10	1	12011116800

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./*Pcs.*	Cod.
18,00	400	100	13	1	12011118400
18,00	600	100	13	1	12011118600
18,00	800	100	13	1	12011118800
20,00	400	100	13	1	12011120400
20,00	600	100	13	1	12011120600
20,00	800	100	13	1	12011120800
22,00	400	100	13	1	12011122400
22,00	600	100	13	1	12011122600
22,00	800	100	13	1	12011122800
24,00	400	100	13	1	12011124400
24,00	600	100	13	1	12011124600
24,00	800	100	13	1	12011124800
26,00	400	100	13	1	12011126400
28,00	400	100	13	1	12011128400
30,00	400	100	13	1	12011130400

BROCA PARA ENCOFRAR SDS-PLUS
SHUTTERING SDS-PLUS DRILL-BIT
FORET POUR COFFRAGE SDS-PLUS

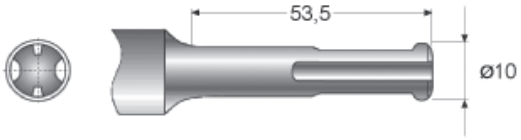


Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./ *Pcs.*	Cod.
10	400	100	10	1	12011210400
10	600	100	10	1	12011210600
12	400	100	10	1	12011212400
12	600	100	10	1	12011212600
12	800	100	10	1	12011212800
14	400	100	10	1	12011214400
14	600	100	10	1	12011214600
14	800	100	10	1	12011214800
16	400	100	10	1	12011216400
16	600	100	10	1	12011216600
16	800	100	10	1	12011216800
18	400	100	10	1	12011218400

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./*Pcs.*	Cod.
18	600	100	10	1	12011218600
18	800	100	10	1	12011218800
20	400	100	10	1	12011220400
20	600	100	10	1	12011220600
20	800	100	10	1	12011220800
22	400	100	10	1	12011222400
22	600	100	10	1	12011222600
22	800	100	10	1	12011222800
24	400	100	10	1	12011224400
24	600	100	10	1	12011224600
24	800	100	10	1	12011224800

ANCLAJE SDS-PLUS
SDS-PLUS SHANK • QUEUE SDS-PLUS

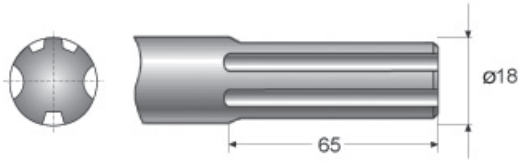


	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
PUNTERO *POINT CHISEL* 	250	-	1	01040101
ROTO-PERCUSIÓN *ROTO-PERCUSSION*	250	-	1	01040102
CINCEL *FLAT CHISEL* 	250	20	1	01040103
CINCEL ANCHO *SPADE CHISEL* 	250	40	1	01040104

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
CINCEL AZULEJO *TILE CHISEL* 	200	40	1	01040105
ACANALADOR *HOLLOW CHISEL* 	240	22	1	01040106
ACANALADOR ALAS *CHISEL WITH GLIDES* 	250	22	1	01040212

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
AEG	APH 14, PH 210, PHE 16, PHE 19, PHE 20, PHE 24,PHE 26, PN 3000 SuperX2, PN 3500X, PN 3000R2, PN 3000XN2, PN 3000SuperXN2, PN 3000X2
ATLAS COPCO	ATLAS COPCO: PPH 30X2E, PPH 26RA, PPH 26XE, PPH 24X2E, PPH 24E, PLH 32XE, PLH 30XE, PLH 30E, PH 3X, PHE 24RX/R, PHE 26R, PHE 26RA, PHE 3, PHE 30RX2
BLACK & DEKER	5009, 5013, 5015, 5016, 5053, 5054, 5056, 5057, KD 651HRE, KD 645HRX
BOSCH	11207, 11210, 11211, 11212, 11213, 11215, 11216, 11222, 11224, 11228, 11236, GBH 2-24DSE, GBH 2-24DSR, GBH 2-24DFR, GAH 500DSR, GBH 4DEF, GBH 4DSC, PBH 200RE
DEWALT	514K, 523K, 557K, 566K, 567K
ELU	MBH 24RLM, MBH 26RLM
FELISATTI	T 724PREC
HILTI	TE 6C, TE 15C, TE 24, TE 25, TE 104
HITACHI	DH 22VB, DH 22VD, DH 24PG, VR 16, BRT22
KANGO	200, 285, 327, 422, 426, 430 D
KRESS	PSX 550, PSE 500, PSE 600, PCX 750, HMX 24, 240 APBE Set
MAQUITA	HR 160, HR 1821, HR 2000, HR 2010, HR 2020, HR 2400, HR 2410, HR 2420, HR 2430, HR 2431, HR 2432, HR 2440, HR 2445, HR2450, HR2455, HR2510, HR2511, HR 3000C
METABO	6010, 6018, 6020, 6024, 6026, BH 6009S, BH E 205R, BH E 24SR, BH E 6011S-R+L, BH E 6024S-R+L, BH E 6028S-R+L, KH E 28, KH E 2, KH E 24, KH E 24contact, UH E 28multi, UH E 22multi, BH EA 14S-R+L
MILWAUKEE	5302, 5303, 5312, 5317, 5320, 5324, 5343, 5344, 5347, 5348, 5362, 5366, 5368, 5369
SPARKY	BPR241E
RIOBI	ED 160, ED211
itw SPIT	335

ANCLAJE SDS-MAX
SDS-MAX SHANK • QUEUE SDS-MAX

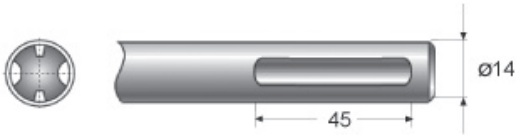


	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
PUNTERO *POINT CHISEL*	280	-	1	01040201
	400	-	1	01040202
	600	-	1	01040203
CINCEL *FLAT CHISEL*	280	24	1	01040204
	400	24	1	01040205
	600	24	1	01040206

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
CINCEL ANCHO *SPADE CHISEL*	300	80	1	01040213
	400	50	1	01040208
CINCEL AZULEJO *TILE CHISEL*	300	50	1	01040251
ACANALADOR *HOLLOW CHISEL*	300	26	1	01040210
ACANALADOR ALAS *CHISEL WITH GLIDES*	380	35	1	01040211

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
AEG	PM 10, PN 6000S, PN 4000E
ATLAS COPCO	PH 5S, PHE 5S, PB 6S, PBE, 6S, PHE 6S, PHE 7F, PHE 7S, PB “IOS, PB 14S, PHE 40S, PHE 45S, PHE 50S
BLACK & DEKER	5097, 5099
BOSCH	11214 EVS, 11216, 11223, 11227, 11230, 11231, 11235, 11309, 11311, 11312, 11313, 11316, 11245, GBH 5DEC, GBH 7DE, GBH 7DCE, GBH 8DCE, GBH 10DC, GBH 11DE, GSH 5CE, GSH 10C, GSH 11E, GBH 5DCE, GBH 5/40DE, GBH 7/45DE, GBH 5/40DCE, GBH 8/65DCE
DEWALT	DW 540K, DW 541K, DW 543K, DW 545K, DW 570K, D 25900K
ELU	BH 40K, BH 40EK, BH 45EK, SH 50EK
HILTI	TE 52, TE 54, TE 55, TE 72, TE 74, TE 75, TE 76, TE 76-ATC, TE 92, TE 504, TE 505, TE 705, TE 704
HITACHI	DH 40MA, DH 40MB, DH 50MB, DH 65MB, H 45MA, H 60MA, H 60MB
KANGO	710 MV, 760 MV, 810 MV, 845 MV, 850 MV, 900 MV, 1400 MV
KRESS	1150PSKmax
MAQUITA	HR 500C, HM 1100C, HM 1100S, HM 1200C, HM 1202C, HR4000C, HR4001C, HR4011C, HR4500C, HR5001C
METABO	6045, Bh 6045S
MILWAUKEE	5308, 5313, 5315-21, 5315-22, PH 45SQ
SPARKY	BP 400E
RIOBI	ER 382K, DE 382NP
itwSPIT	351, 355, 385, 371, 455
WACKER	EHB 7/230, EH 9BLM, EHB 11BLM

ANCLAJE SDS-TOP
SDS-TOP SHANK • QUEUE SDS-TOP



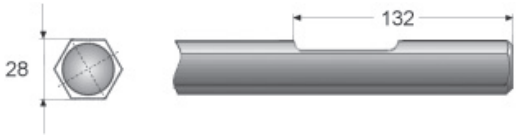
	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
PUNTERO *POINT CHISEL*	**270***	-	1	01040217

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
ACANALADOR *HOLLOW CHISEL*	**250***	**22**	1	01040250

*Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
AEG	PN 11
BOSCH	GBH 4Top
HILTI	TE 35
MAQUITA	HR 3550C

ANCLAJE SW-28
SW-28 SHANK • QUEUE SW-28

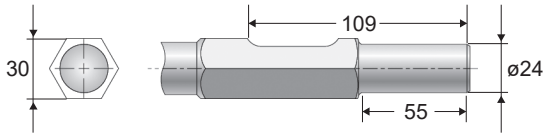


	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
PUNTERO *POINT CHISEL*	**400**	-	1	01040224
CINCEL *FLAT CHISEL*	**400**	**35**	1	01040236

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
CINCEL ANCHO *SPADE CHISEL*	**400**	**80**	1	01040245

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
BOSCH	GSH 27, USH 27, HSH 28

ANCLAJE SW-30
SW-30 SHANK • QUEUE SW-30

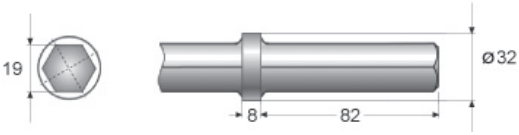


	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
PUNTERO *POINT CHISEL*	**400**	-	1	01040216

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
CINCEL *FLAT CHISEL*	**400**	**32**	1	01040243

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
HITACHI	H 65SB, H 70SA
MAQUITA	8900N, HM 1300, HM 1303, HM 1304, HM 1400, HM 1500

ANCLAJE SW-19 WACKER
SW-19 WACKER SHANK • QUEUE SW-19 WACKER



	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
PUNTERO *POINT CHISEL*	**480**	-	1	01040227
CINCEL *FLAT CHISEL*	**480**	**35**	1	01040238

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
CINCEL ANCHO *SPADE CHISEL*	**300**	**80**	1	01040247

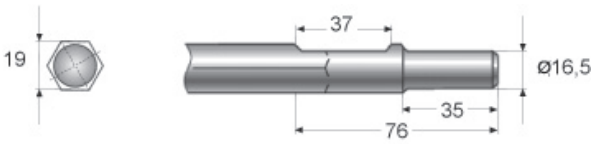
Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
IMPEX	DS 120
METABO	MHE "IOS
OUTIFIX	OX1000
ROCOSA	80-100
itwSPIT	CH 120, DS 120
WACKER	WACKER: BH 23, BHB 14, EH 22/380, EH 23/220, EH 24/042, EHB 7/230EB8, EHB 10/220, EH 8/220, EHL 8Y, EHU 8Y/220, EHUB 10Y/220, LHB5, SH 60K

ANCLAJE SW-19 BOSCH 16,5

SW-19 SHANK BOSCH 16,5

QUEUE SW-19 BOSCH 16,5







	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
PUNTERO *POINT CHISEL*				
	300	-	1	01040221

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
CINCEL *FLAT CHISEL*				
	300	**22**	1	1040234
	400	**22**	1	1040235

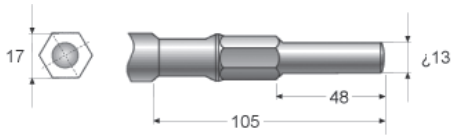
Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
AEG	PH 26, PHD 26, PH 38, PHD 38, PHE 38, PH 240, PH 240D, PH 350, PH 350D, PDH 350D
ATLAS COPCO	PH 5H, PH 11H, PB 10H, PHE 5H
BLACK & DEKER	5041, 5042, 5043, 5044, 5045, 5059, 5093, 5095, 5096, 5098
BOSCH	11202, 11203, 11204, 11205, 11206, 11207, 11209, 11212, 11214, 11219, 11220, 11232, 11233, 11244E, 11306, 11307, 11310, 11314, GBH 7/45D, GBH 7/75DE, UBH 6/35, UBH 6/35D, UBH 10/5, UBH 12/50, USH 6
DEWALT	530K, 531K, 532K, 533K, 551K, 558K
ELU	BH 41K, SBH 41K, BH 41EK, BH 46EK
HITACHI	DH 38YA, DH 38YE, DH 38YF, DH 40FA, DH 40FB, DH 50SB, DS 50SB, DH 45SB
KANGO	430S, 501S, 637S, 750S, 950KS, 950S, 950XS, 975S
MAQUITA	HM 0810B, HM 1140C, HR 3520B, HR 3520EB, HR 3850B, HR 3851, HR 4040C, HR 5000
METABO	11285, 11295, 11305, 11315, BhE 6030S, RH 66, RH 99, RH 99X, 1129, 1130, 6030, 6040, 6046
MILWAUKEE	5309, 5312, 5316, 5317, 5334, 5341, 5343, 5344, 5347, 5348, 5352, 5353, 5363, 5367
PEUGEOT	PM 26, PM 38
RIOBI	ED 350K, ED 382, ED 382P, ER 382, ER 382K
itw SPIT	350
WACKER	EBH 7S

ANCLAJE HITACHI + SW 17

HITACHI SHANK + SW 17

QUEUE HITACHI + SW 17



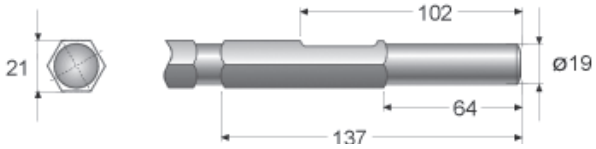


	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
PUNTERO *POINT CHISEL*				
	450	-	1	01040220

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
CINCEL *FLAT CHISEL*				
	280	22	1	01040231
	360	22	1	01040232
	450	22	1	01040233

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
HITACHI	HITACHI: DH 28Y, DH 38YB, DH 38YB1, DH 42, H41SA, H 45SA, PH 40F, PHU 45, PR 25B, PR 38E, VR 38, VRY 38YB
MAQUITA	8035 NB, HM 0810, HM 0810T, HM 1200, HR 3500, HR 3510, HR 3520, HR 3850
RIOBI	CH 450PK, CH 460PK, CH 500K, CH 500P, ER 382K

ANCLAJE KANGO
KANGO SHANK • QUEUE KANGO







	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
PUNTERO *POINT CHISEL* 	**300**	-	1	01040228
CINCEL *FLAT CHISEL* 	**300**	25	1	01040239
	460	25	1	01040241

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
ATLAS COPCO	PB 6C, PB 10, PB 10C, PB 14C, PH 11C
CASALS	ATILA
HITACHI	DH 50SA, DH 50SA1, H 55SA, H 55SC
IMCO	1150, 150R
KANGO	900, 900X, 928, 950, 950K, 950X, 1400
MAQUITA	HM 1200K, HR 3850K, HR 5000K
RIOBI	CH 425, CH 485K

ANCLAJE SW-19 BOSCH USH 10

SW-19 BOSCH USH 10 SHANK

QUEUE SW-19 BOSCH USH 10







	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.
PUNTERO *POINT CHISEL* 	**300**	-	1	01040225

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

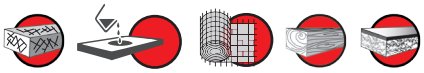
APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
BOSCH	11302, 11305, 12312, USH 10
CASALS	TORNADO
DEWALT	5021K, DW 558K
ELU	SH 60K
HITACHI	H 55SC
KANGO	638S, 900B, 900KS, 900S, 900XS, 1400B
MAQUITA	HM 1200B, HM 1211B
MILWAUKEE	5535
itw SPIT	400

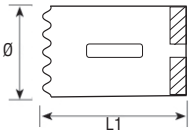
CORONA SESAGRIT CON PÁRTICULAS DE M/D PARA FIBROCEMENTO Y FIBRA DE VIDRIO

HOLE SAWS WITH H/M PARTICLES FOR FIBROCEMENT AND FIBER GLASS
TREPAN AVEC PARTICULES M/D POUR FIBROCEMENT ET FIBRE DE VERRE

NEW







Ø (mm)	L1 (mm)	Cod.
16,00	40	1SG016
19,00	40	1SG019
20,00	40	1SG020
25,00	40	1SG025
29,00	40	1SG029
32,00	40	1SG032
35,00	40	1SG035
38,00	40	1SG038
44,00	40	1SG044
48,00	40	1SG048
51,00	40	1SG051

Ø (mm)	L1 (mm)	Cod.
54,00	40	1SG054
57,00	40	1SG057
60,00	40	1SG060
64,00	40	1SG064
70,00	40	1SG070
73,00	40	1SG073
76,00	40	1SG076
83,00*	40	1SG083*
86,00*	40	1SG086*
95,00*	40	1SG095*
102,00*	40	1SG102*

*Consultar plazo / *Request delivery time* / *Vérifier la date limite*

HUSILLOS PARA CORONA SESAGRIT

ARBOR FOR SESAGRIT HOLE SAW • ABRES POUR SESAGRIT SCIES TRÉPAN

NEW





Tipo amarre *Shank* (mm)	Para Coronas *For Hole Saws* (mm)	Rosca del Husillo *Arbor Thread*	Uds. *Pcs.*	Cod.
HEXAGONAL 9,50 mm	16 - 30	1/2 x 20h UNF	1	1SG001
HEXAGONAL 9,50 mm	32 - 102	5/8 x 18h UNF	1	1SG002

ESTUCHE DE CORONAS SESAGRIT

SET OF SESAGRIT HOLE SAW • COFRET DE TRÉPAN SESAGRIT

NEW



Contenido *Contains / Composition*		Uds. *Pcs.*	Cod.
Coronas / *Hole saw/ Trépan*	Ø 20-25-35-38-51-60 mm	x1	
Husillos / *Arbors / Abres*	M/Hex. 14-30 mm	1	1SG003
Husillos / *Arbors / Abres*	M/Hex. 32-210 mm	1	

BROCA PILOTO HORMAT

HORMAT CENTRE DRILL • HORMAT FORET CENTRAGE

NEW



Ø (mm)	Para husillos / *For arbors*	Uds. / *Pcs.*	Cod.
6,00 x 100	1SG001 y 1SG002	1	1GR06100

QUE ES EL FIBROCEMENTO Y PARA QUE SIRVE?
WHAT IS FIBER CEMENT AND WHAT IS IT USED FOR?
QU'EST-CE QUE LE FIBROCIMENT ET À QUOI SERT-IL ?

El fibrocemento es un material de construcción aglomerante muy popluar que se usa para el revestimiento de fachadas de todo tipo de edificios.

Su base estructural es el cemento, el aglutinante por excelencia. Varios tipos de facciones de fibra de madera refuerzan el material con el que se fabrica el fibrocemento.

Resiste las condiciones climáticas más duras, es resistente a todo tipo de condiciones climáticas, desde heladas severas y lluvias torrenciales hasta altas temperaturas y luz solar directa.

Tiene una vida útil mínima de 50 años.

Fiber cement is a very popular binder construction material that is used for cladding the facades of all kind of buildings.

Its structural base is cement, the binder par excellence. Various types of wood fiber factions reinforce the material with which fiber cement is made.

Withstands the harshest weather conditions, it is resistant to all types of weather conditions, from severe frosts and torrential rains to high temperatures and direct sunlight.

It has a minimum useful life of 50 years.

Le fibrociment est un matériau de construction liant très apprécié qui est utilisé pour le revêtement des façades de tous types de bâtiments.

Sa base structurale est le ciment, le liant par excellence. Différents types de fractions de fibres de bois renforcent le matériau avec lequel le fibrociment est fabriqué.

Résiste aux conditions climatiques les plus rudes, il résiste à tous types de conditions météorologiques, des fortes gelées et pluies torrentielles aux températures élevées et à la lumière directe du soleil.

Sa durée de vie utile est minimale de 50 ans.



CARACTERÍSTICAS DE LA CORONA SESAGRIT
FEATURES OF SESAGRIT HOLE SAW
CARACTÉRISTIQUES DE LA TREPAN SESAGRIT

- Dentado con polvo de Carburo de Tungsteno soldado.
- Utilizar sólo a rotación
- Corte en seco
- Ideal para materiales abrasivos extremadamente duros, incluidos laminados, fibra de vidrio, baldosas de cerámica, marmol, pizarra, hierro fundido y compuestos
- Alta resistencia al calor y a la abrasión
- Gran resistencia al desgaste

- *Toothed with welded Tungsten Carbide powder.*
- *Use only in rotation*
- *Dry cutting*
- *Ideal for extremely hard abrasive materials including laminates, fiberglass, ceramic tile, marble, slate, cast iron and composites*
- *High resistance to heat and abrasion*
- *Great wear resistance*

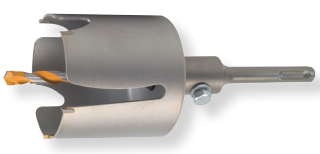
- *Denté avec de la poudre de carbure de tungstène soudée.*
- *Utiliser uniquement en rotation*
- *Coupe à sec*
- *Idéal pour les matériaux abrasifs extrêmement durs, notamment les stratifiés, la fibre de verre, les carreaux de céramique, le marbre, l'ardoise, la fonte et les composites.*
- *Haute résistance à la chaleur et à l'abrasion*
- *Grande résistance à l'usure*

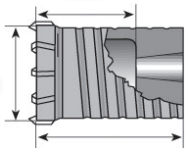
CORONA MULTIFUNCIÓN PARA TRABAJOS LIGEROS
UNIVERSAL HOLE SAW
TRÉPAN MULTIFUNCTION











Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Z	Cod.
Sanitarios y calefacción / ***Sanitary and heating pipes*** / ***Sanitaires et chauffage***					
25,00	73	60	1	3	1CT025
30,00	73	60	1	3	1CT030
35,00	73	60	1	3	1CT035
Tubería y desagüe / ***Pipes and wastepipes*** / ***Tuyauteries et déversoires***					
40,00	73	60	1	3	1CT040
Tubería de agua, aislamientos y desagües / ***Water pipes, insulation and wastepipes*** / ***Tuyauteries, isolations et déversoires***					
45,00	73	60	1	3	1CT045
50,00	73	60	1	3	1CT050
Focos empotrados / ***Recessed lights*** / ***Foyers encastrés***					
55,00	73	60	1	3	1CT055*
58,00	73	60	1	5	1CT058*
60,00	73	60	1	5	1CT060
Caja de empalmes / ***Junction box*** / ***Boites de jonctions***					
65,00	73	60	1	5	1CT065
68,00	73	60	1	5	1CT068
74,00	73	60	1	5	1CT074
Cajas de distribución / ***Switchboxes*** / ***Switchbox***					
80,00	73	60	1	5	1CT080
Conductos de aire / ***Vent pipes*** / ***Conduit d´aire***					
105,00	73	60	1	6	1CT105

*Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

ADAPTADOR MANGO SDS-PLUS PARA CORONA M16 Y MULTIFUNCIÓN

SDS-PLUS SHANK FOR M16 AND UNIVERSAL HOLE SAW
QUEUE SDS-PLUS POUR TRÉPAN M16 ET MULTIFUNCTION

L1 (mm)	Uds. / *Pcs.*	Cod.
100	1	1AS100
200	1	1AS200
350	1	1AS350



NOTA: No se recomienda el uso del adaptador de 350 mm con coronas mayores de 45 mm de diámetro. / *Not recommended adapter of 350 mm for more than 45 mm. diameter hole saws. / Adaptateur 350 mm non recommendé avec trépans supérieures á 45 mm.*

NOTA: Para realizar un trabajo de diámetro mayor a 45 mm se recomienda el uso del sistema SDS-MAX. / *For diameters bigger than 45 mm, SDS-MAX system recommended / Pour des travaux supérieures á 45 mm, système recommendé SDS-MAX.*

ADAPTADOR MANGO HEXAGONAL PARA CORONA M16 Y MULTIFUNCIÓN

HEXAGONAL SHANK FOR M16 AND UNIVERSAL HOLE SAW
QUEUE HEXAGONALE POUR TRÉPAN M16 ET MULTIFUNCTION

L1 (mm)	Ø (mm)	Uds. / *Pcs.*	Cod.
80	**11**	1	1AH080
200	**11**	1	1AH200
350	**11**	1	1AH350



BROCA DE CENTRAR PARA CORONA M16 Y MULTIFUNCIÓN

CENTRE DRILL BIT FOR M16 AND UNIVERSAL HOLE SAW
FORET DE CENTRAGE POUR TRÉPAN M16 ET MULTIFUNCTION

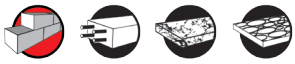
L1 (mm)	Uds. / *Pcs.*	Cod.
8 x 120	1	1AP09120



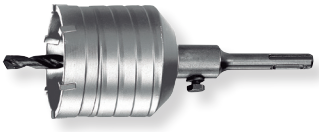
CORONA SISTEMA M16 TRABAJOS MEDIOS

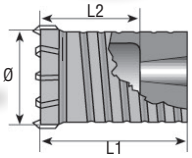
HOLLOW CORE M16 ASSEMBLY • TRÉPAN BÉTON M16





MD M16

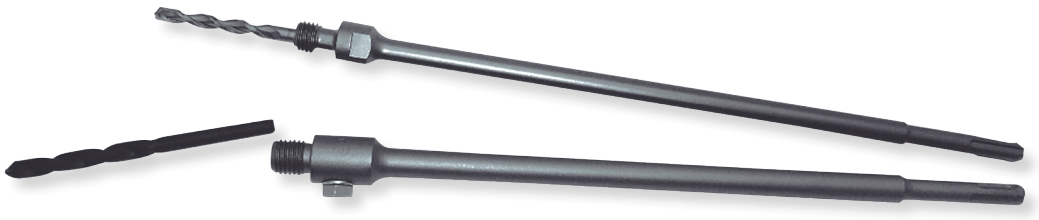




Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Z	Cod.
25,00	80	60	1	5	1M16025
30,00	80	60	1	6	1M16030
35,00	80	60	1	6	1M16035
40,00	90	70	1	6	1M16040
45,00	90	70	1	6	1M16045
50,00	90	70	1	6	1M16050
55,00	72	52	1	6	1M16055
60,00	72	52	1	6	1M16060
65,00	72	50	1	6	1M16065
68,00	72	50	1	6	1M16068
80,00	82	60	1	6	1M16080
90,00	82	60	1	8	1M16090
100,00	82	60	1	8	1M16100

RECOMENDACIONES DE USO PARA PROLONGADORES SDS-PLUS Y HEXAGONALES PARA CORONAS M16

USAGE RECOMMENDATIONS FOR SDS-PLUS EXTENSIONS AND HEX SOCKETS FOR M16 DRILL BITS • RECOMMANDATIONS D'UTILISATION POUR RALLONGES SDS-PLUS ET HEXAGONALES POUR COURONNES M16



PROFUNDIDAD *DEPTH* *PROFONDEUR*		ADAPTADOR RECOMENDADO *RECOMENDED SHANK ADAPTER* *ADAPTATEUR RECOMMANDÉ*	
< 100 mm	1AS100	SDS-PLUS L= 100 mm (Pág. 65) *SDS-PLUS SHNAK ADAPTER L= 100 mm (Pag. 65)* *QUEUE SDS-PLUS L= 100 mm (Pág. 65)*	√
	1AH080	HEXAGONAL L=80 mm (Pág. 65) *HEXAGONAL SHANK ADAPTER L=80 mm (Pag. 65)* *QUEUE HEXAGONAL L=80 mm (Pág. 65)*	√
	1AS200	SDS-PLUS L= 200 mm (Pág. 65) *SDS-PLUS SHNAK ADAPTER L= 200 mm (Pag. 65)* *QUEUE SDS-PLUS L= 200 mm (Pág. 65)*	POSIBLE *POSSIBLE* *POSIBLE*
	1AH200	HEXAGONAL L=200 mm (Pág. 65) *HEXAGONAL SHANK ADAPTER L=200 mm (Pag. 65)* *QUEUE HEXAGONAL L=200 mm (Pág. 65)*	POSIBLE *POSSIBLE* *POSIBLE*
100-200 mm	1AS200	SDS-PLUS L= 200 mm (Pág. 65) *SDS-PLUS SHNAK ADAPTER L= 200 mm (Pag. 65)* *QUEUE SDS-PLUS L= 200 mm (Pág. 65)*	√
	1AH200	HEXAGONAL L=200 mm (Pág. 65) *HEXAGONAL SHANK ADAPTER L=200 mm (Pag. 65)* *QUEUE HEXAGONAL L=200 mm (Pág. 65)*	√

RECOMENDACIONES DE USO PARA PROLONGADORES SDS-PLUS Y HEXAGONALES PARA CORONAS M16

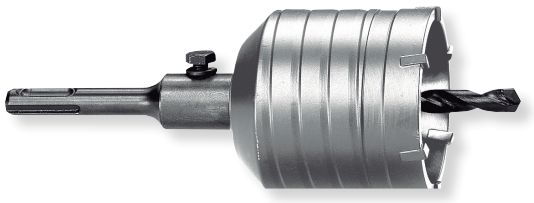
USAGE RECOMMENDATIONS FOR SDS-PLUS EXTENSIONS AND HEX SOCKETS FOR M16 DRILL BITS • RECOMMANDATIONS D'UTILISATION POUR RALLONGES SDS-PLUS ET HEXAGONALES POUR COURONNES M16

PROFUNDIDAD *DEPTH* *PROFONDEUR*		ADAPTADOR RECOMENDADO *RECOMENDED SHANK ADAPTER* *ADAPTATEUR RECOMMANDÉ*	
> 200 mm	1AS350	SDS-PLUS L= 350 mm (Pág. 65) *SDS-PLUS SHNAK ADAPTER L= 350 mm (Pag. 65)* *QUEUE SDS-PLUS L= 350 mm (Pág. 65)*	⚠
	1AH350	HEXAGONAL L=350 mm (Pág. 65) *HEXAGONAL SHANK ADAPTER L=350 mm (Pag. 65)* *QUEUE HEXAGONAL L=350 mm (Pág. 65)*	⚠

⚠ Siempre que necesitemos taladrar con alargadores de más de 200 mm de largo, deberemos utilizar un taladrado previo con los adaptadores de menor longitud, a fin de evitar roturas derivadas de las tensiones que se producen en el mismo. De esta forma se aumenta la vida útil tanto del alargador como de la corona. No seguir estas recomendaciones se considerará como utilización inadecuada del producto, perdiendo la cobertura de la garantía.

Whenever you need to drill with extensions more than 200 mm in length, you must pre-drill with adapters of lesser length in order to avoid breakage caused by the stresses that such drilling will cause. This increases the service life of both the extension and the drill bit. Failure to follow these recommendations will be considered improper use of the product, invalidating the warranty coverage.

Lorsque vous devez percer avec des rallonges de plus de 200 mm de long, il faut utiliser une perceuse au préalable avec les adaptateurs de moindre longueur afin d'éviter des cassures dérivées des tensions. Ainsi, il est possible d'augmenter la vie utile aussi bien de la rallonge que de la couronne. Ne pas suivre ces recommandations sera considéré comme une utilisation on adaptée du produit, ce dernier perdra donc la couverture de la garantie.

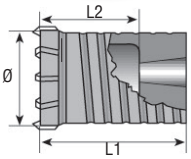


CORONA SISTEMA 1:8 PARA TRABAJOS INTENSIVOS

1:8 SYSTEM INTENSIVE USE HOLE SAW

TRÉPAN SYSTÈME 1:8 POUR DES TRAVAUX INTENSIFS

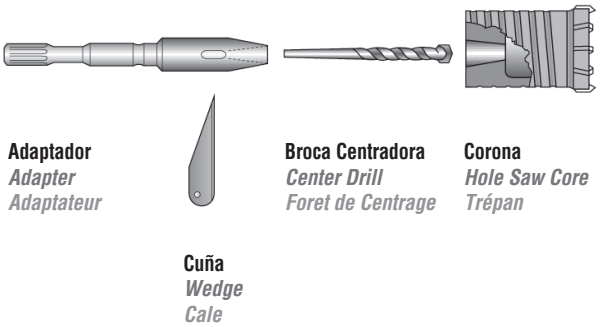








Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Z	Cod.
35,00	100	75	1	6	1CC035
40,00	100	75	1	6	1CC040
45,00	100	75	1	6	1CC045
50,00	100	75	1	6	1CC050
60,00	100	75	1	6	1CC060
66,00	100	75	1	6	1CC066
80,00	100	75	1	8	1CC080
90,00	100	75	1	8	1CC090
100,00	100	75	1	8	1CC100



Adaptador
Adapter
Adaptateur

Cuña
Wedge
Cale

Broca Centradora
Center Drill
Foret de Centrage

Corona
Hole Saw Core
Trépan

ADAPTADOR SISTEMA 1:8 PARA TRABAJOS INTENSIVOS
1:8 SYSTEM ADAPTER • ADAPTATEURS SYSTÈME 1:8



Entrada cónica 1:20 / ***Tapper insert 1:20*** / ***Entrée conique 1:20***

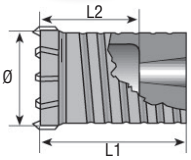
			USO NORMAL / *NORMAL USING UTILISATION HABITUELLE*		
	Anclaje *Shank*	**L1 (mm)**	**Uds.** *Pcs.*	**Cod.**
Adaptador / ***Adapter*** / ***Adaptateur***  	**SDS-MAX**	250	1	1AB3210
 	**ESTRIADO**	250	1	1AB4210*
Broca Centradora / ***Center Drill*** ***Foret de Centrage***  	-	12 x 135	1	1AB6135
Cuña / ***Wedge*** / ***Cale*** 	-	-	1	1ABCU01

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

CORONA SISTEMA RL PARA INSTALACIÓN DE AIRE ACONDICIONADO

SPECIAL RL SYSTEME FOR AIR CONDITIONING INSTALLATION
SYSTÈME SPÉCIAL RL POUR L´INSTALLATION DE CLIMATISATION





MD

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Z	Cod.
50,00	105	80	1	8	RL0050
55,00	105	80	1	8	RL0055
60,00	105	80	1	12	RL0060
65,00	105	80	1	12	RL0065

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

ADAPTADOR SDS-PLUS

SDS-PLUS ADAPTER • ADAPTATEUR SDS-PLUS



L1 (mm)	Uds. / *Pcs.*	Cod.
105	1	RL2105
300	1	RL2300

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

PUNZÓN GUÍA

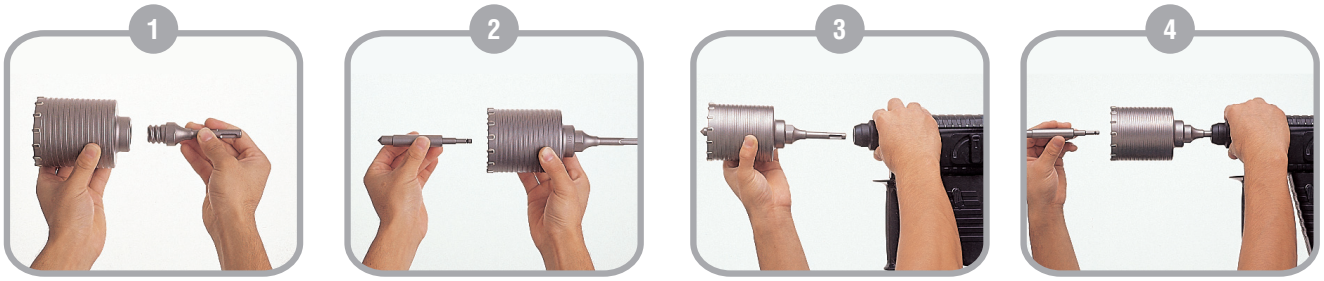
PUNCH GUIDE • POINÇON GUIDE



Uds. / *Pcs.*	Cod.
1	RL3003

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

MODO DE EMPLEO *USING GUIDE • UTILISATION*



- Introducir el adaptador en la corona.
- *Insert the adapter on the hole saw.*
- *Introduir l´adaptateur dans le trépan.*

- Con una presión suave, introducir el punzón en el adaptador.
- *Fix the punch guide softly on the adapter.*
- *Fixez le poinçon guide dans l´adaptateur doucement.*

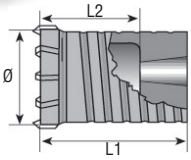
- Corona lista para realizar el trabajo.
- *Hole saw ready to work.*
- *Trépan préparé pour réaliser le travail.*

- Después de taladrar 5 mm, sacar el punzón y continuar el trabajo.
- *After drilling 5 mm, pull off the punch guide and continue working.*
- *Aprés percer 5 mm, enlever le poinçon et continuer le travail.*

CORONA UNIVERSAL
UNIVERSAL HOLE SAW CORE • TRÉPAN UNIVERSEL







Max.1.500 R.P.M

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
33,00	65	55	1	1CU033
53,00	65	55	1	1CU053
67,00	65	55	1	1CU067
73,00	65	55	1	1CU073
83,00	65	55	1	1CU083

ACCESORIOS
ACCESSORIES • ACCESOIRES





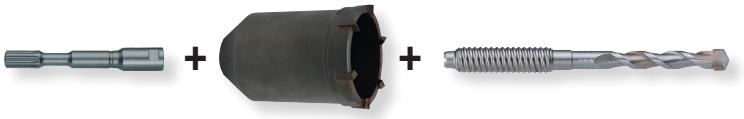
L1 (mm)	Uds. / *Pcs.*	Cod.
Plato de Sujeción / *Locating Plate* / *Base Pour Fixer Le Trépan*		
33-83	1	1AP10
Broca Centradora / *Center Drill* / *Foret Centrage*		
9,00	1	1AP09

Revoluciones Máximas Recomendadas: 1.500 R.P.M. / *Maximum Recomended Speed: 1.500 R.P.M.* / *Maximum Vitesse Recommendée: 1.500 R.P.M.*

NOTA: Los accesorios se venden por separado / *Los accesorios se venden por separado* / *Los accesorios se venden por separado*

SISTEMA S94 *S94 SYSTEM • SYSTÉME S94*

Para taladrados en profundidades de hasta 2 metros / *Drilling depht up to 2 metres.* / *Pour perçages jusqu'à 2 mètres de profondeur*
Rango de diámetros desde 35 mm a 150 mm / *Range of diameters from 35 mm. to150 mm.* / *Niveau de diamètres entre 35 mm et 150 mm*



ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÉME S94

CORONA
HOLE SAW
TRÉPAN

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE



ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÉME S94

PROLONGADORES
EXTENSION
PROLONGATEURS

HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D´EXTRACTION

BROCA TIPO P
P TYPE DRILL BIT
FORET TYPE P

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE

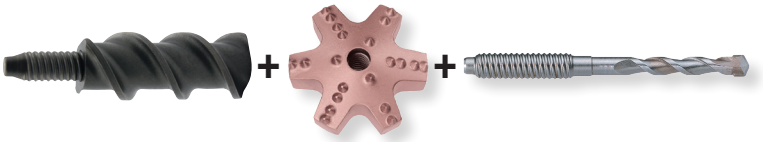


ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÉME S94

PROLONGADORES
EXTENSION
PROLONGATEURS

HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D´EXTRACTION

PROLONGADORES
EXTENSION
PROLONGATEURS



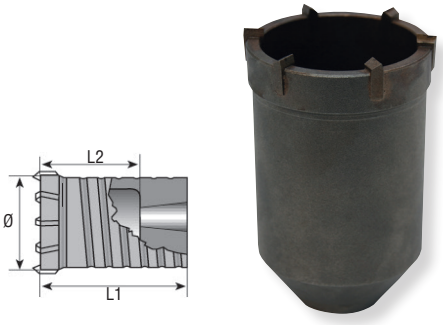
HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D´EXTRACTION

BROCA TIPO S
S TYPE DRILL BIT
FORET TYPE S

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE

BROCAS Y CORONAS SISTEMA S94
HOLE SAWS AND DRILL BITS FOR S94 SYSTEM
TRÉPANS ET FORETS PUOR SYSTÈME *S94*

CORONA *HOLE SAW* • *TRÉPAN*



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
40,00	100	70	1	1CI040
50,00	100	70	1	1CI050
65,00	100	70	1	1CI065
80,00	100	70	1	1CI080

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
90,00	100	70	1	1CI090
100,00	100	70	1	1CI100
110,00	100	70	1	1CI110
125,00	100	70	1	1CI125

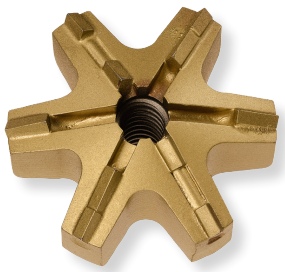
BROCA TIPO S *S TYPE DRILL BIT* • *FORET TYPE S*



Ø (mm)	Z	Uds. / *Pcs.*	Cod.
35,00	3	1	1S94S035
42,00	3	1	1S94S042
45,00	3	1	1S94S045
52,00	3	1	1S94S052
55,00	3	1	1S94S055
60,00	4	1	1S94S060
65,00	4	1	1S94S065
70,00	4	1	1S94S070

Ø (mm)	Z	Uds. / *Pcs.*	Cod.
80,00	4	1	1S94S080
90,00	6	1	1S94S090
100,00	6	1	1S94S100
110,00	6	1	1S94S110
135,00	6	1	1S94S135
150,00	6	1	1S94S150

BROCA TIPO P *P TYPE DRILL BIT* • *FORET TYPE P*



Ø (mm)	Z	Uds. / *Pcs.*	Cod.
35,00	3	1	1S94P035
42,00	3	1	1S94P042
52,00	3	1	1S94P052
55,00	3	1	1S94P055
60,00	6	1	1S94P060
65,00	6	1	1S94P065

Ø (mm)	Z	Uds. / *Pcs.*	Cod.
70,00	6	1	1S94P070
80,00	6	1	1S94P080
90,00	6	1	1S94P090
100,00	6	1	1S94P100
110,00	6	1	1S94P110
125,00	6	1	1S94P125

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÉME S94

	Anclaje / Shank	L1 (mm)	Uds. / *Pcs.*	Cod.
	SDS-PLUS	110	1	1AI1110
	SDS-TOP*	190	1	1AI2190
	SDS-MAX	190	1	1AI3190
		400	1	1AI3400
		575	1	1AI3575
		975	1	1AI3975
	ESTRIADO	175	1	1AI4175
	Hitachi DH 38 YB DH 45 SA, H 41 SA, H 65 SB VRY38, DH 28 Y, Makita 8022B-8035B Ryobi CH 450 P, ER 382 K	170	1	1AI5170
	Duss P20 - P30 - P60 - P90 P80, PK 100	210	1	1AI6210
	Kango 950; 950x 900x, 928 1400	200	1	1AI7200
	Wacker E HUB 10 Y EH8/220, BHB 14	185	1	1AI8185

*Hasta fin de existencias / *Until end of stock* / *Jusqu'à fin de stocks*

PROLONGADORES
EXTENSION • PROLONGATEURS

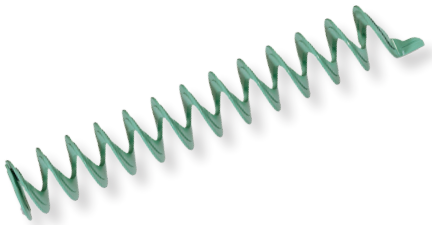
Uso con / *Using with*	L1 (mm)	Uds. / *Pcs.*	Cod.
	300	1	1PR300
	450*	1	1PR400

*Utilizar con hélice extractora S94 Pag. 76 / *Use with S94 screw extractor Pag. 76* / *Utiliser l´hélice d´extraction S94 Pag. 76*

HÉLICES EXTRACTORAS S94
S94 SCREW EXTRACTORS • HÉLICES D´EXTRACTION S94

Ø (mm)	Rango / *Range*	Uds. / *Pcs.*	Cod.
42,00	Tipo S y P	1	1S94H01
45,00	Tipo S	1	1S94H02
52,00 - 55,00 - 60,00	Tipo S y P	1	1S94H03
65,00 - 70,00	Tipo S	1	1S94H04
80,00	Tipo S	1	1S94H05

Hasta fin de existencias / *Until end of stock* / *Jusqu'à fin de stocks*

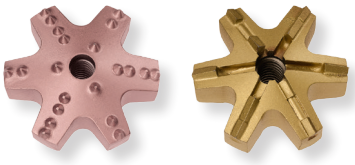


Ø (mm)	Rango / *Range*	Uds. / *Pcs.*	Cod.
32,00	32 - 45	1	1S94H06
47,00	52 - 60	1	1S94H07
63,00	64 - 70	1	1S94H08
78,00	80 - 150	1	1S94H09



BROCA DE CENTRAR
CENTRE DRILL BIT • FORET DE CENTRAGE



Uso con / *Using with*	L1 (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.
	12,00	155	1	1BC12155
	18,00	124	1	1BC16124
	16,00	174	1	1BC16174

ELEMENTO DE UNIÓN *THREADED BOLT • ÉLÉMENT D'UNION*



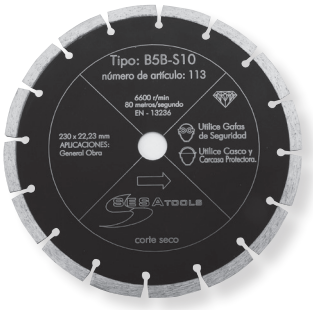
Uds. / *Pcs.*	Cod.
1	1EU001

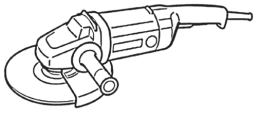
GRASA PARA ROSCA 120 GR
THREAD GREASE 120 GR • GRAISSE 120 GR



Uds. / *Pcs.*	Cod.
1	1GR001

CONSTRUCCIÓN B5B-S10
CONSTRUCTION B5B-S10 • CONSTRUCTION B5B-S10



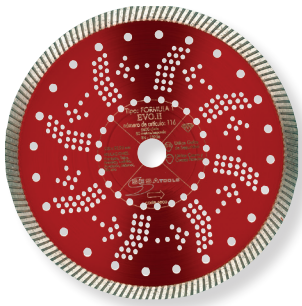


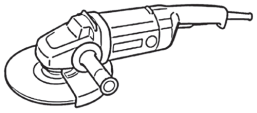
Ø (mm)	Eje	Uds. / *Pcs.*	Cod.
115	22,23	1	1130115022
125	22,23	1	1130125022

Ø (mm)	Eje	Uds. / *Pcs.*	Cod.
180	22,23	1	1130180022
230	22,23	1	1130230022

CONSTRUCCIÓN FÓRMULA 1
CONSTRUCTION FORMULA 1 • CONSTRUCTION FORMULA 1

ADVANCE
MÁXIMO RENDIMIENTO



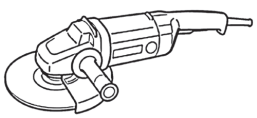


Ø (mm)	Eje	Uds. / *Pcs.*	Cod.
115	22,23	1	1160115022
125	22,23	1	1160125022
150	22,23	1	1160150022

Ø (mm)	Eje	Uds. / *Pcs.*	Cod.
180	22,23	1	1160180022
230	22,23	1	1160230022

TG SUPER THIN PORCELANATO
TG SUPER THIN PORCELANICS • TG SUPER THIN CARRELAGE





Ø (mm)	Eje	Uds. / *Pcs.*	Cod.
115	22,23	1	1500115022
115	22,23	1	1500115022 FL*
125	22,23	1	1500125022
125	22,23	1	1500125022 FL*

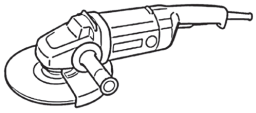
Ø (mm)	Eje	Uds. / *Pcs.*	Cod.
150	22,23	1	1500150022
180	22,23	1	1500180022
230	22,23	1	1500230022

*FL: Alma reforzada (evita holguras en máquinas desgastadas) / **FL: Reinforced core (avoids looseness in worn machines) / *Ame renforcée (évite le jeu sur les machines usées)*

CANTERO TITAN TURBO-I

STONE TITAN TURBO-I • TITAN TURBO-I POUR PIERRE





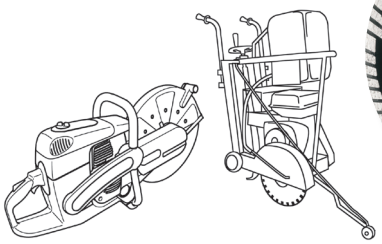
Ø (mm)	Eje	Uds. / *Pcs.*	Cod.
115	22,23	1	1520115022
125	22,23	1	1520125022
150	22,23	1	1520150022

Ø (mm)	Eje	Uds. / *Pcs.*	Cod.
180	22,23	1	1520180022
230	22,23	1	1520230022

TITAN TURBO-II PARA CORTADORA

TITAN TURBO-II FOR LIGHTWEIGHT FLOOR SAWS
TITAN TURBO-II POUR SCIES Á CHARIOT





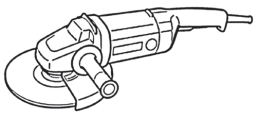
Ø (mm)	Eje	Uds. / *Pcs.*	Cod.
300	20,00	1	1530300020
300	22,23	1	1530300022
300	25,40	1	1530300025

Ø (mm)	Eje	Uds. / *Pcs.*	Cod.
350	20,00	1	1530350020
350	22,23	1	1530350022
350	25,40	1	1530350025

SET DISCOS DE DIAMANTE 4+4 (B5B-S10 + TG SUPERTHIN)

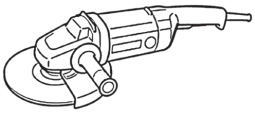
DIAMOND DISCS SET 4+4 (B5B-S10 + TG SUPERTHIN)
COFFRET DISQUES DIAMANTÉS 4+4 (B5B-S10 + TG SUPERTHIN)





Calidad Quality	Ø (mm)	Eje	Uds. *Pcs.*	Cod.
B5B-S10	**115**	22,23	4	K1101150
TGSUPERTHIN	**115**	22,23	4	

PLATO DIAMANTADO HORMIGÓN
GRINDING WHEELS FOR CONCRETE
MEULE POUR DÉGROSSISSEMENT POUR BÉTON

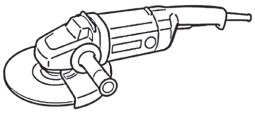


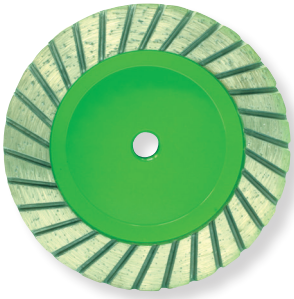




Ø (mm)	Conexión	Uds. / *Pcs.*	Cod.
100	M14	1	213010001400
125	M14	1	213012501400

PLATO DIAMANTADO PIEDRA NATURAL
GRINDING WHEELS FOR NATURAL STONE
MEULE POUR DÉGROSSISSEMENT POUR PIÉRRE NATURELLE







Ø (mm)	Conexión	Uds. / *Pcs.*	Cod.
100	M14	1	214010001400
125	M14	1	214012501400

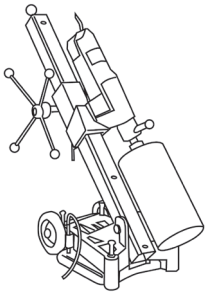
CORONAS PERFORACIÓN DIAMANTE B.K.1

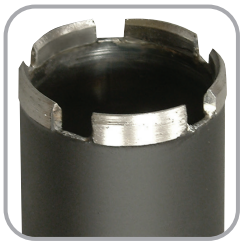
B.K.1 DIAMOND DEEP DRILLING HOLE SAWS
TRÉPAN POUR CARROTAGE B.K.1



INSERCIÓN ROSCA EXTERIOR 1/2" GAS

EXTERNAL THREAD 1/2" GAS
FILET EXTERNE 1/2" GAS







			SEGMENTADO / *SEGMENTS*				
Ø (mm)	**Long. / *Lenght* (mm)**	**Z**	**Largo / *Long* (mm)**	**Ancho / *Width* (mm)**	**Altura / *Height* (mm)**	**Uds. / *Pcs.***	**Cod.**
22	300	1	-	2,00	8,00	1	6010022
25	300	1	-	2,00	8,00	1	6010025
32	300	4	17,00	3,00	8,00	1	6010032
35	300	3	25,00	3,50	8,00	1	6010035
42	300	4	25,00	3,50	10,00	1	6010042
52	300	5	25,00	3,50	10,00	1	6010052
62	400	5	25,00	3,50	10,00	1	6010062

ADAPTADOR HILTI *HILTI ADAPTER • ADAPTATEUR HILTI*

	Conversión / *Conversion* / *Conversion*	**Uds. *Pcs.***	**Cod.**
	De 1/2" GAS a HILTI *from 1/2" GAS to HILTI / de 1/2" GAS a HILTI*	1	601605

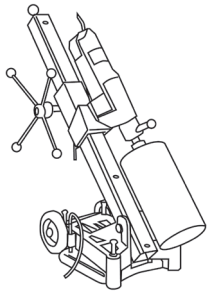
CORONAS PERFORACIÓN DIAMANTE B.K.2

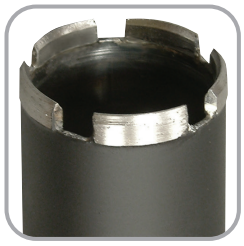
B.K.2 DIAMOND DEEP DRILLING HOLE SAWS
TRÉPAN POUR CARROTAGE B.K.2



INSERCIÓN ROSCA INTERNA 1/2" GAS

INTERNAL THREAD 1/2" GAS
FILET INTERNE 1/2" GAS



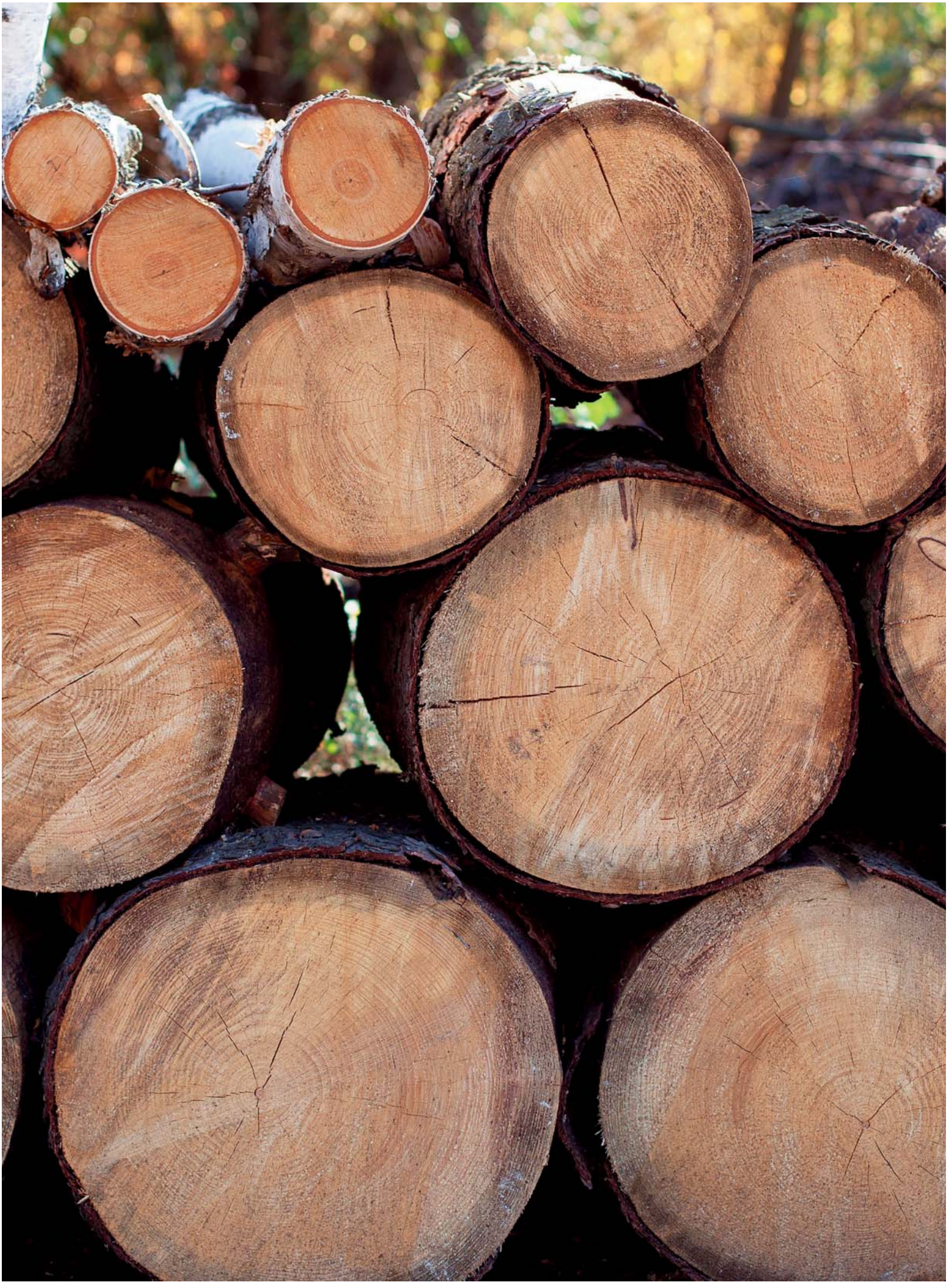


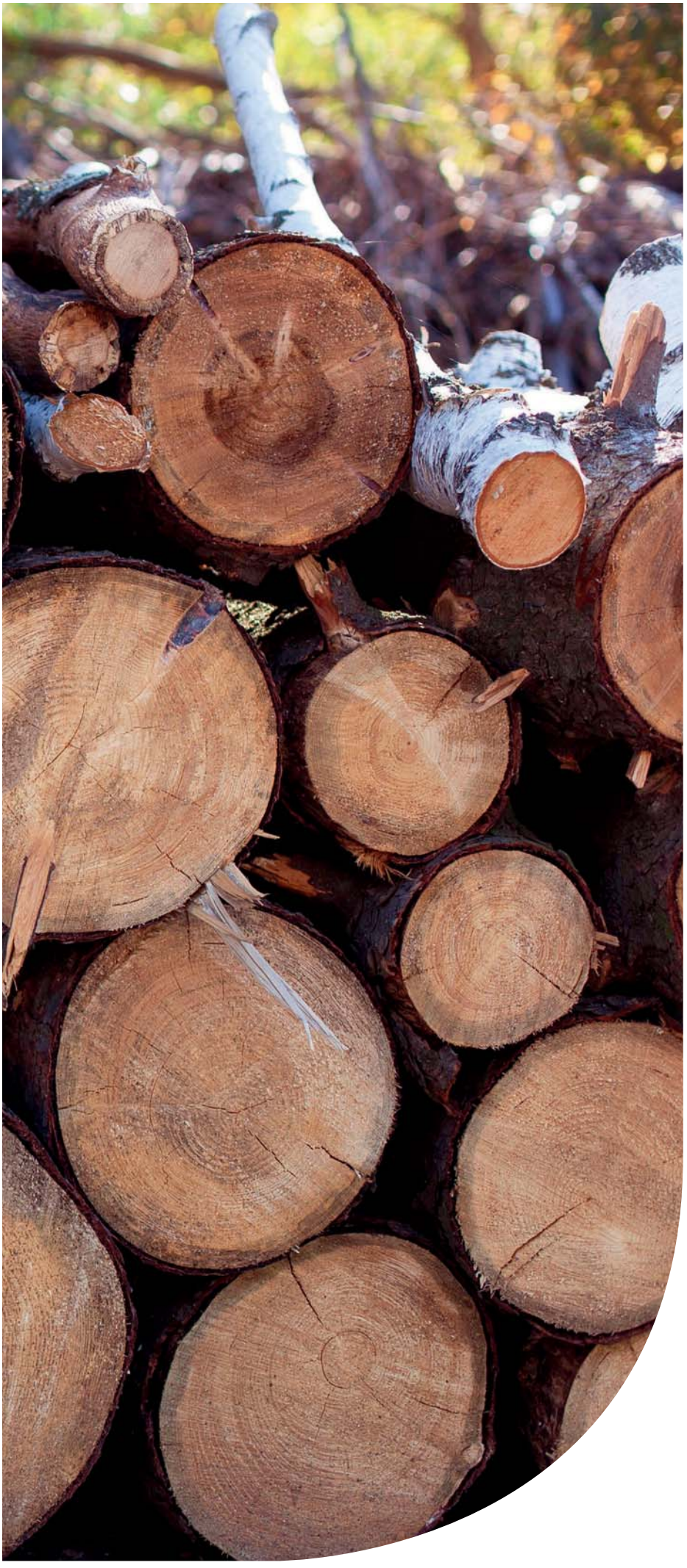


			SEGMENTADO / *SEGMENTS*				
Ø (mm)	**Long. / *Lenght* (mm)**	**Z**	**Largo / *Long* (mm)**	**Ancho / *Width* (mm)**	**Altura / *Height* (mm)**	**Uds. / *Pcs.***	**Cod.**
52	400	5	25,00	3,50	10,00	1	6050052
57	400	5	25,00	3,50	10,00	1	6050057
62	400	5	25,00	3,50	10,00	1	6050062
72	400	6	25,00	3,50	10,00	1	6050072
82	400	7	25,00	3,50	10,00	1	6050082
92	400	8	25,00	3,50	10,00	1	6050092
102	400	9	25,00	4,00	10,00	1	6050102
112	400	9	25,00	4,00	10,00	1	6050112
122	400	10	25,00	4,00	10,00	1	6050122
132	400	10	25,00	4,00	10,00	1	6050132
162	400	12	25,00	4,00	10,00	1	6050162
230	400	17	25,00	4,00	10,00	1	6050230

ADAPTADOR HILTI *HILTI ADAPTER • ADAPTATEUR HILTI*

	Conversión / *Conversion* / *Conversion*	**Uds. *Pcs.***	**Cod.**
	De 1" 1/4 UNC a HILTI *from 1" 1/4 UNC to HILTI / de 1" 1/4 UNC a HILTI*	1	601605





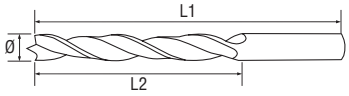
MADERA

WOOD - BOIS

SESA®

BROCA 3 PUNTAS: BLISTER RÍGIDO
BRAD POINT DRILL BIT: RIGID PLASTIC BLISTER • FORET 3 POINTES: BLISTER RIGIDE A PLASTIQUE



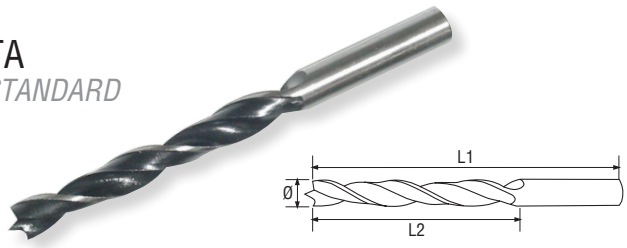


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	70	46	2	102003BL
4,00	80	52	2	102004BL
5,00	90	60	1	102005BL
6,00	100	66	1	102006BL
8,00	120	80	1	102008BL
10,00	133	90	1	102010BL
12,00	155	102	1	102012BL



BROCA 3 PUNTAS USO GENERAL SERIE CORTA
STANDARD BRAD POINT DRILL BIT • FORET 3 POINTES STANDARD



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	70	46	1	102003
4,00	80	52	1	102004
5,00	90	60	1	102005
6,00	100	66	1	102006
7,00	110	72	1	102007
8,00	120	80	1	102008
9,00	130	87	1	102009
10,00	133	90	1	102010
11,00	150	100	1	102011

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
12,00	155	102	1	102012
13,00	160	102	1	102013
14,00	160	102	1	102014
15,00	165	107	1	102015
16,00	165	107	1	102016
18,00	200	130	1	102018
20,00	200	130	1	102020
22,00	200	130	1	102022

ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS



BASIC BOX (9 UDS. / *PCS.*)

Contenido / *Contents* / *Composition*							Medidas / *Sizes*	Cod.
HSS WHITE	**HSS**	+	**BASIC**		+	**MADERA**	5 - 6 - 8 mm	19CB339



STANDARD BOX (9 UDS. / *PCS.*)

Contenido / *Contents* / *Composition*							Medidas / *Sizes*	Cod.
HSS G	**HSS-G**	+	**GRANITO**		+	**MADERA**	5 - 6 - 8 mm	19CM339

ADVANCE BOX (9 UDS. / *PCS.*)



Contenido / *Contents* / *Composition*							Medidas / *Sizes*	Cod.
HSS CO	**HSS-CO 5%**	+	**TORNADO**		+	**MADERA**	5 - 6 - 8 mm	19CA339

ESTUCHE BROCAS 3 PUNTAS
BRAD POINT DRILL BIT SET
COFFRET FORET 3 POINTES STANDARD

Ref.	Ø (mm)
333	3 - 10 x 1,0 mm

Uds. / *Pcs.*	Cod.
8	196333

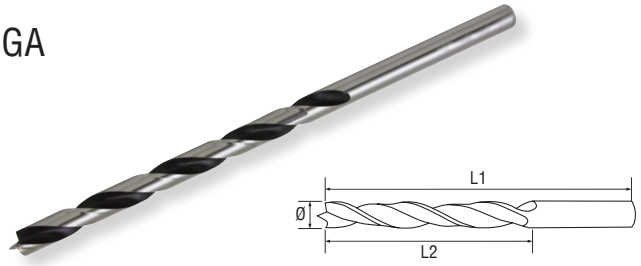


SESA KUBO NEW

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 18	GRANITO	1915A327N	4-5-6-8-10mm	7
	MADERA	196333	3-4-5-6-7-8-9-10mm	7



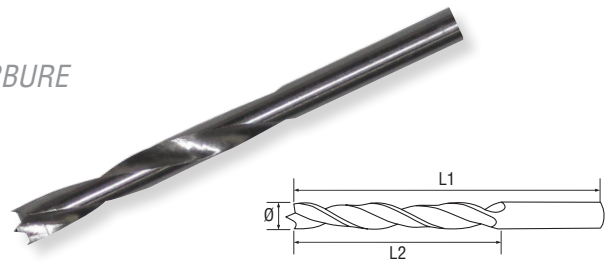
BROCA 3 PUNTAS USO GENERAL SERIE LARGA
STANDARD BRAD POINT DRILL BIT LONG SERIE
ORET 3 POINTES STANDARD SÉRIE LONGUE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,00	245	160	1	1021L06
7,00	245	160	1	1021L07
8,00	245	160	1	1021L08
9,00	245	160	1	1021L09
10,00	245	160	1	1021L10
11,00	245	200	1	1021L11
12,00	245	200	1	1021L12

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
13,00	245	200	1	1021L13
14,00	245	200	1	1021L14
15,00	245	200	1	1021L15
16,00	245	200	1	1021L16
18,00	245	200	1	1021L18
20,00	245	200	1	1021L20

BROCA 3 PUNTAS METAL DURO SERIE CORTA
HARD METAL POINT DRILL BIT • FORET 3 POINTES AU CARBURE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	76	32	1	10240300
4,00	76	35	1	10240400
5,00	87	50	1	10240500

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,00	100	57	1	10240600
8,00	103	60	1	10240800
10,00	103	60	1	10241000

TOPES DE PROFUNDIDAD PARA BROCAS
DEPTH ADJUSTING COLLAR • BUTÉES DE PERÇAGE



Ø (mm)	Gama de medidas / *Range* (mm)	Uds. / *Pcs.*	Cod.
3,50	De 2,0 a 3,5	1	Y10035
5,00	De 4,0 a 5,0	1	Y10050
6,00	De 5,0 a 6,0	1	Y10065
8,00	De 7,0 a 8,0	1	Y10080
10,00	De 8,5 a 10,0	1	Y10100
12,00	De 10,5 a 12,0	1	Y10120

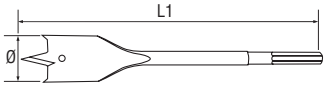
BROCA PALA TIPO B *FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B*











Ø (mm)	L1 (mm)	Uds. *Pcs.*	Cod.
6,00	157	1	103006
8,00	157	1	103008
10,00	157	1	103010
12,00	157	1	103012
14,00	157	1	103014
15,00	157	1	103015
16,00	157	1	103016
17,00	157	1	103017
18,00	157	1	103018
19,00	157	1	103019
20,00	157	1	103020
22,00	157	1	103022

Ø (mm)	L1 (mm)	Uds. *Pcs.*	Cod.
24,00	157	1	103024
25,00	157	1	103025
26,00	157	1	103026
28,00	157	1	103028
30,00	157	1	103030
32,00	157	1	103032
33,00	157	1	103033
34,00	157	1	103034
35,00	157	1	103035
36,00	157	1	103036
38,00	157	1	103038
40,00	157	1	103040

ESTUCHE BROCAS PALA TIPO B
FLAT DRILL BIT SET TYPE B • COFFRET MÉCHE PLATE TIPE B

Ref.	Medidas / *Sizes*	Tipo / *Type*
PB13	6-8-10-12-13-14-16-18-19-20-22-24-25	B



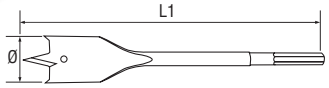
BROCA PALA TIPO C *FLAT DRILL BIT TYPE C • MÉCHE PLATE TIPE C*











Ø (mm)	L1 (mm)	Uds. *Pcs.*	Cod.
6,00	152	1	103C06
8,00	152	1	103C08
10,00	152	1	103C10
11,00	152	1	103C11
12,00	152	1	103C12
13,00	152	1	103C13
14,00	152	1	103C14
15,00	152	1	103C15
16,00	152	1	103C16
18,00	152	1	103C18
19,00	152	1	103C19
20,00	152	1	103C20
22,00	152	1	103C22

Ø (mm)	L1 (mm)	Uds. *Pcs.*	Cod.
23,00	152	1	103C23
24,00	152	1	103C24
25,00	152	1	103C25
26,00	152	1	103C26
28,00	152	1	103C28
30,00	152	1	103C30
32,00	152	1	103C32
33,00	152	1	103C33
34,00	152	1	103C34
35,00	152	1	103C35
36,00	152	1	103C36
38,00	152	1	103C38
40,00	152	1	103C40

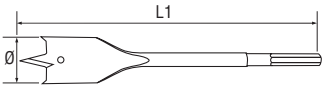
ESTUCHE BROCAS PALA TIPO C
FLAT DRILL BIT SET TYPE C • COFFRET MÉCHE PLATE TIPE C

Ref.	Medidas / *Sizes*	Tipo / *Type*
PC13	6-8-10-12-13-14-16-18-19-20-22-24-25	C



BROCA PALA EXTENSIBLE
ADJUSTABLE FLAT DRILL BIT • MÉCHE PLATE EXTENSIBLE





Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.
***22 - 76**	155	1	1201032276

*Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

ALARGADOR PARA BROCA PALA
FLAT DRILL BIT EXTENSION • RALLONGE POUR MÉCHE PLATE

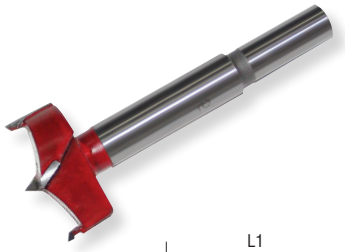


Entrada *Inlet* (mm)	Mango *Shank* (mm)	L1 (mm)	Uds. *Pcs.*	Cod.
Hex. 1/4"	Hex. 1/4"	305	1	UL00334

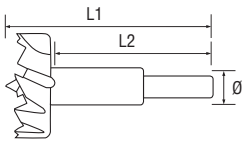
BROCA PARA ENCAJE DE BISAGRAS PUNTA Y PRECORTADORES DE MD

FORSTNER TYPE WITH HM TIPS

MÈCHE À FAÇONNER AU CARBURE







Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.
20,00	90	8	1	102120
25,00	90	8	1	102125
26,00	90	8	1	102126

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.
30,00	90	8	1	102130
35,00	90	10	1	102135
40,00	90	10	1	102140

BROCA PARA ENCAJE DE BISAGRAS FORSTNER HSS AFILADO ESPECIAL

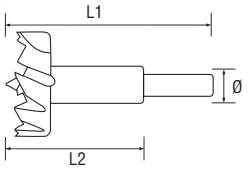
FORSTNER TYPE WITH HSS SPECIAL CUT

MÈCHE À FAÇONNER FORSTNER HSS AFILAGE SPÉCIAL



advance MAXIMO RENDIMIENTO



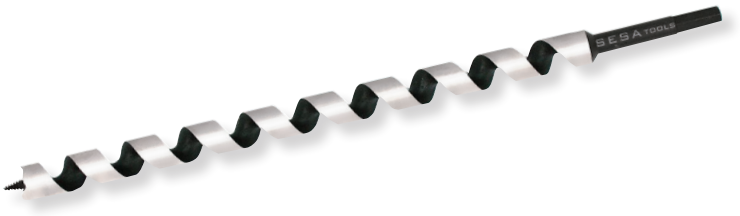


Ø (mm)	L1 (mm)	L2 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	
15,00	90	57	8	1	12011015	
16,00*	90	57	8	1	12011016	
18,00	90	57	8	1	12011018	
20,00	90	57	8	1	12011020	
22,00	90	57	8	1	12011022	
25,00	90	57	8	1	12011025	**49,26**

Ø (mm)	L1 (mm)	L2 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.
26,00	90	57	8	1	12011026
30,00	90	57	10	1	12011030
35,00	90	57	10	1	12011035
40,00	90	57	10	1	12011040
45,00	90	57	10	1	12011045
50,00	90	57	10	1	12011050

*Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

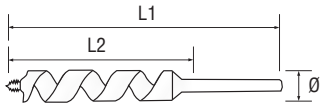
LEWIS *LEWIS • LEWIS*











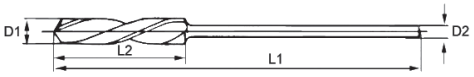
Ø (mm)	L1 (mm)	L2 (mm)	Mango Ø	Uds./*Pcs.*	Cod.
4,00	200	100	4	1	12010804200
5,00	200	100	5	1	12010805200
6,00	200	100	6	1	12010806200
7,00	200	100	7	1	12010807200
8,00	200	100	8	1	12010808200
8,00	300	220	8	1	12010808300
8,00	450	360	8	1	12010808450
10,00	200	100	10	1	12010810200
10,00	300	220	10	1	12010810300
10,00	450	360	10	1	12010810450
10,00	600	480	10	1	12010810600
12,00	200	100	10	1	12010812200
12,00	300	220	10	1	12010812300
12,00	450	360	10	1	12010812450
12,00	600	480	10	1	12010812600
14,00	200	100	10	1	12010814200
14,00	300	220	10	1	12010814300
14,00	450	360	10	1	12010814450
14,00	600	480	10	1	12010814600
16,00	200	100	10	1	12010816200
16,00	300	220	10	1	12010816300
16,00	450	360	10	1	12010816450
16,00	600	480	10	1	12010816600
18,00	200	100	13	1	12010818200
18,00	300	220	13	1	12010818300
18,00	450	360	13	1	12010818450

Ø (mm)	L1 (mm)	L2 (mm)	Mango Ø	Uds./*Pcs.*	Cod.
18,00	600	480	13	1	12010818600
20,00	200	100	13	1	12010820200
20,00	300	220	13	1	12010820300
20,00	450	360	13	1	12010820450
20,00	600	480	13	1	12010820600
22,00	200	100	13	1	12010822200
22,00	300	220	13	1	12010822300
22,00	450	360	13	1	12010822450
22,00	600	480	13	1	12010822600
24,00	200	100	13	1	12010824200
24,00	300	220	13	1	12010824300
24,00	450	360	13	1	12010824450
24,00	600	480	13	1	12010824600
25,00	450	360	13	1	12010825450
26,00	200	100	13	1	12010826200
26,00	300	220	13	1	12010826300
26,00	450	360	13	1	12010826450
26,00	600	480	13	1	12010826600
28,00	200	100	13	1	12010828200
28,00	300	220	13	1	12010828300
28,00	450	360	13	1	12010828450
28,00	600	480	13	1	12010828600
30,00	200	100	13	1	12010830200
30,00	300	220	13	1	12010830300
30,00	450	360	13	1	12010830450
30,00	600	480	13	1	12010830600

BROCA PARA ENCOFRAR CILÍNDRICA
SHUTTERING STRAIGHT DRILL-BIT
FORET POUR COFFRAGE



DIN 7490



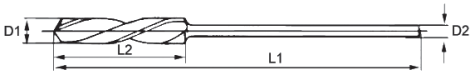
Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./*Pcs.*	Cod.
8,00	400	100	8	1	12011108400
8,00	600	100	8	1	12011108600
8,00	800	100	8	1	12011108800
10,00	400	100	8	1	12011110400
10,00	600	100	8	1	12011110600
10,00	800	100	8	1	12011110800
12,00	400	100	10	1	12011112400
12,00	600	100	10	1	12011112600
12,00	800	100	10	1	12011112800
14,00	400	100	10	1	12011114400
14,00	600	100	10	1	12011114600
14,00	800	100	10	1	12011114800
16,00	400	100	10	1	12011116400
16,00	600	100	10	1	12011116600
16,00	800	100	10	1	12011116800

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./*Pcs.*	Cod.
18,00	400	100	13	1	12011118400
18,00	600	100	13	1	12011118600
18,00	800	100	13	1	12011118800
20,00	400	100	13	1	12011120400
20,00	600	100	13	1	12011120600
20,00	800	100	13	1	12011120800
22,00	400	100	13	1	12011122400
22,00	600	100	13	1	12011122600
22,00	800	100	13	1	12011122800
24,00	400	100	13	1	12011124400
24,00	600	100	13	1	12011124600
24,00	800	100	13	1	12011124800
26,00	400	100	13	1	12011126400
28,00	400	100	13	1	12011128400
30,00	400	100	13	1	12011130400

BROCA PARA ENCOFRAR SDS-PLUS
SHUTTERING SDS-PLUS DRILL-BIT
FORET POUR COFFRAGE SDS-PLUS



DIN 7490 SDS plus



Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./*Pcs.*	Cod.
10,00	400	100	10	1	12011210400
10,00	600	100	10	1	12011210600
12,00	400	100	10	1	12011212400
12,00	600	100	10	1	12011212600
12,00	800	100	10	1	12011212800
14,00	400	100	10	1	12011214400
14,00	600	100	10	1	12011214600
14,00	800	100	10	1	12011214800
16,00	400	100	10	1	12011216400
16,00	600	100	10	1	12011216600
16,00	800	100	10	1	12011216800
18,00	400	100	10	1	12011218400

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./*Pcs.*	Cod.
18,00	600	100	10	1	12011218600
18,00	800	100	10	1	12011218800
20,00	400	100	10	1	12011220400
20,00	600	100	10	1	12011220600
20,00	800	100	10	1	12011220800
22,00	400	100	10	1	12011222400
22,00	600	100	10	1	12011222600
22,00	800	100	10	1	12011222800
24,00	400	100	10	1	12011224400
24,00	600	100	10	1	12011224600
24,00	800	100	10	1	12011224800

AVELLANADOR *COUNTERSINK • FRAISE À CHANFREINER*



Broca / Drill Bit Ø (mm)	Avellanador *Countersink* Bit Ø (mm)	Uds. *Pcs.*	Cod.
3,00	**12,00**	1	1201090312
4,00	**12,00**	1	1201090412
5,00	**12,00**	1	1201090512
6,00	**12,00**	1	1201090612
3,00	**16,00**	1	1201090316

Broca / Drill Bit Ø (mm)	Avellanador *Countersink* Bit Ø (mm)	Uds. *Pcs.*	Cod.
4,00	**16,00**	1	1201090416
5,00	**16,00**	1	1201090516
6,00	**16,00**	1	1201090616
8,00	**16,00**	1	1201090816

BROCA PARA ENSAMBLAJE
ASSEMBLING DRILLS • MÈCHE ÉTAGÉE POUR VIS D'ASSEMBLAGE



Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.
5 x 50	86	1	103J05
7 x 50	109	1	103K07

BARRENA *GIMLET • VRILLE*

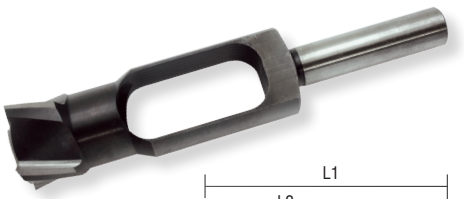


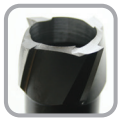
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2,00	106	32	1	12010302
3,00	112	34	1	12010303
4,00	137	40	1	12010304

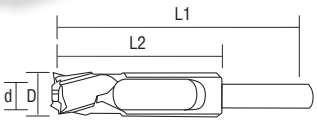
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
5,00	142	46	1	10210305
6,00	162	49	1	12010306
8,00	162	63	1	12010308

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

FRESA ESPECIAL TAPONES
PLUG CUTTER • MÈCHE À BOUCHONNER





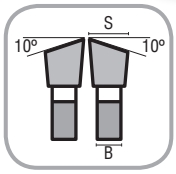


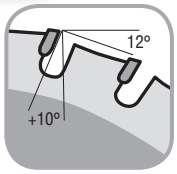
d (mm)	D (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
15,00	**27,00**	140	160	1	12010715

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

DISCO PARA MADERA BASTA
ROUGH WOOD CIRCULAR SAWBLADES
DISQUE POUR BOIS A TEXTURE GROSSIERE









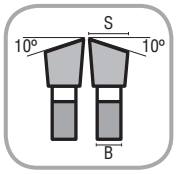
MD

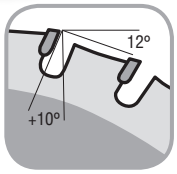


Ø (mm)	S Grosor / *Thickness* (mm)	B Grosor / *Thickness* (mm)	Ø Eje / *Shaft* (mm)	Z	Cod.
250	3,2	2,2	30	60	2DM25060
300	3,2	2,2	30	72	2DM30072

DISCO PARA MADERA FINA
FINE WOOD CIRCULAR SAWBLADES
DISQUE POUR BOIS A TEXTURE FINE







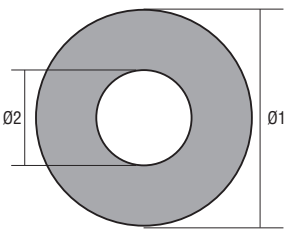


MD

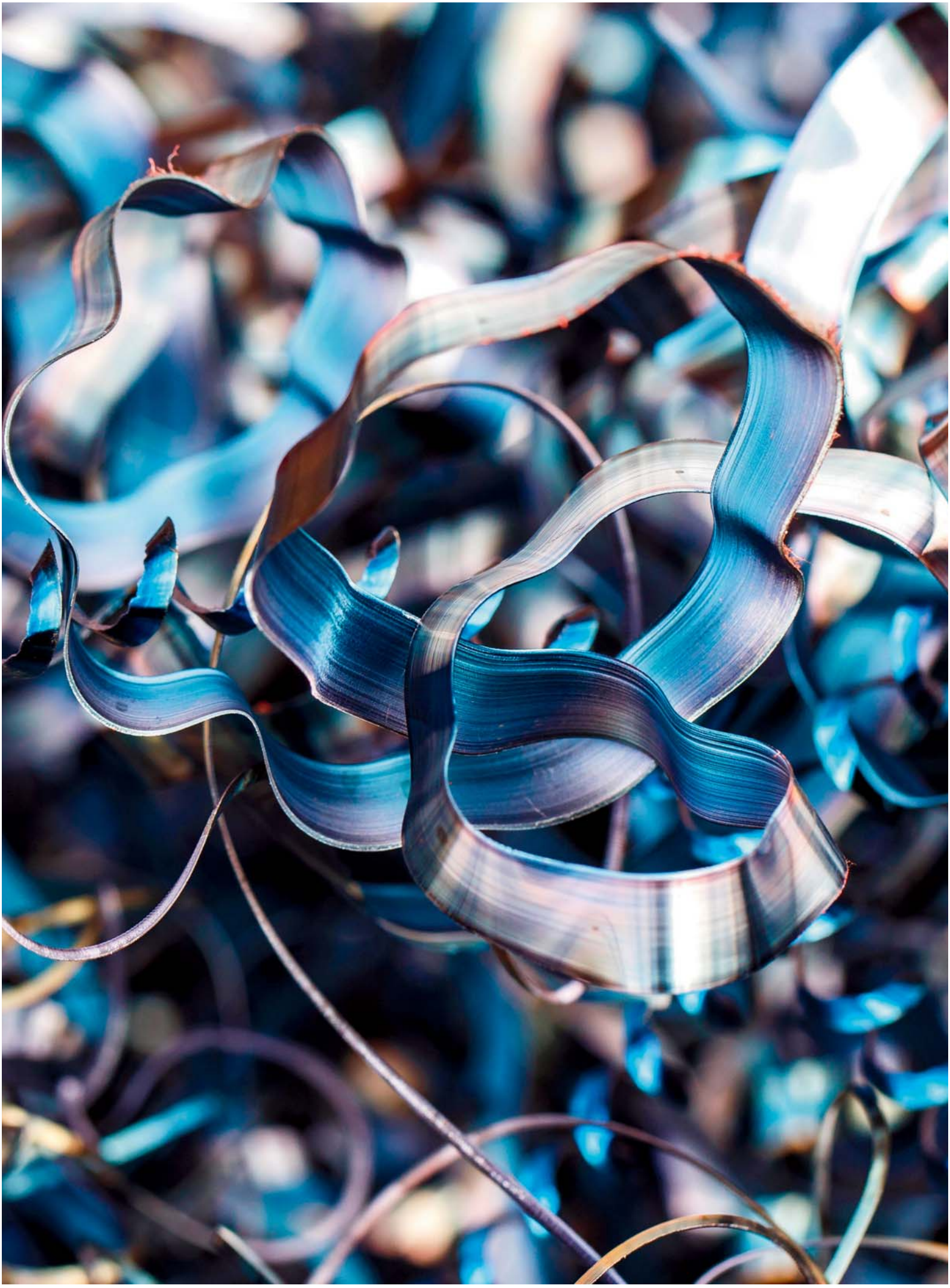


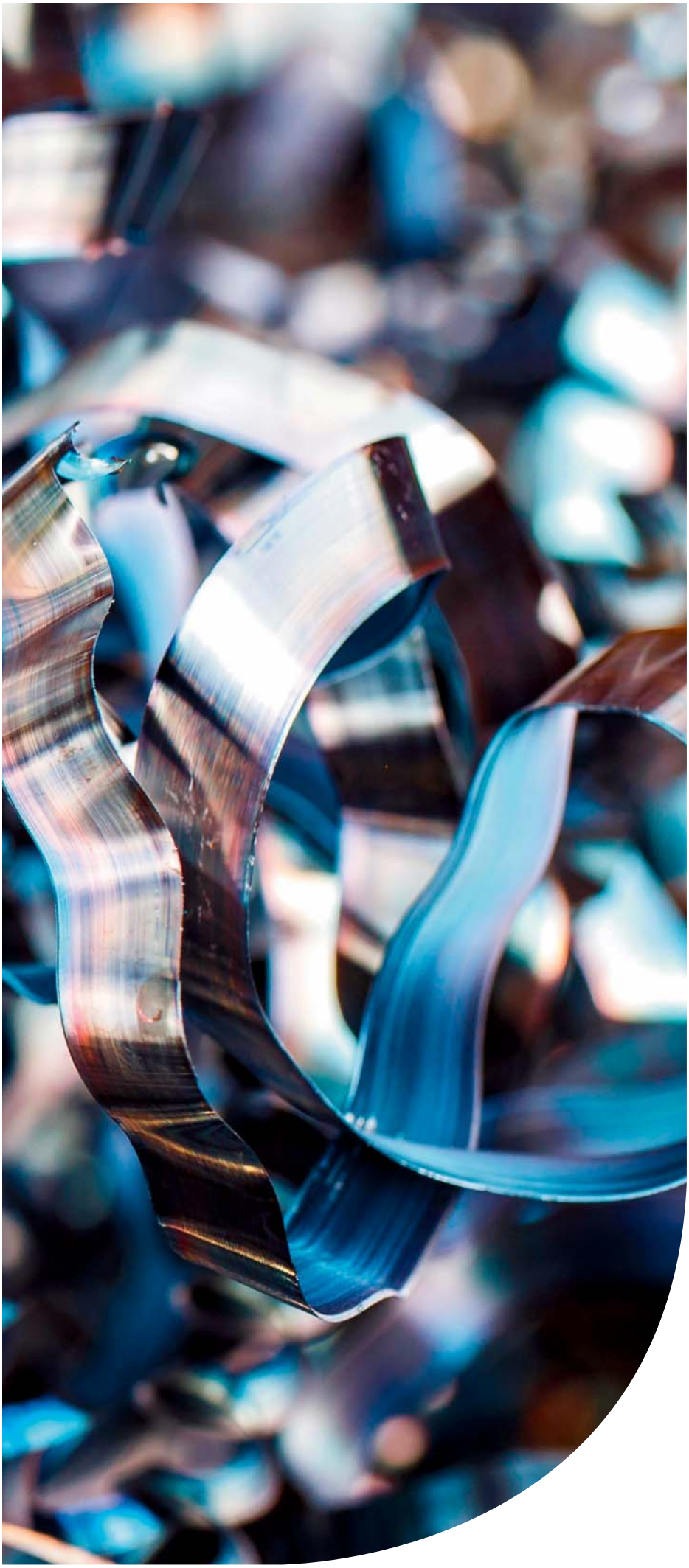
Ø (mm)	S Grosor / *Thickness* (mm)	B Grosor / *Thickness* (mm)	Ø Eje / *Shaft* (mm)	Z	Cod.
250	3,2	2,2	30	80	2DM25080
300	3,2	2,2	30	96	2DM30096

ANILLOS REDUCTORES
REDUCTIONS RINGS • BAGUES DE RÉDUCTION



Ø1 / Ø2 (mm)	Cod.
30 / 25	2DR3025
30 / 20	2DR3020
30 / 18	2DR3018
30 / 16	2DR3016





METAL

METAL - MÉTAL

SESA®

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS PARA BROCAS M/DURO INTEGRAL

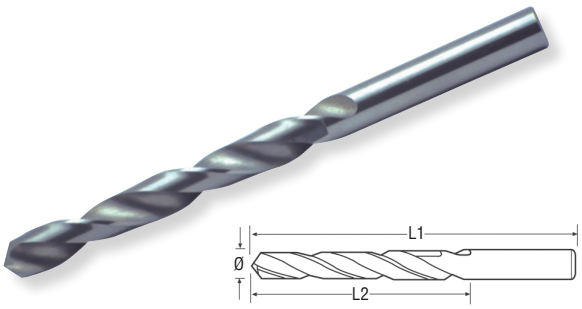
APPLICATION GUIDE AND CUTTING SPEED FOR HM DRILLS
TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ POUR HM FORETS



MATERIAL / *MATERIAL / MATIERE*		Resistencia / *Ressistance Resistance* N/mm²	DIN 338 MDI Pág. 97	DIN 6537K - 3XØ MD Pág. 98	DIN 6537L - 5XØ MD Pág. 99
ACEROS *STEELS • ACIERS*	Decoletaje *Machining • Décolletage*	<500	70-80	80-90	80-90
	Carbono <0,4% *<0,4% Carbon • Carbon <0,4%*	<850	55-70	60-80	60-80
	Acero para herramientas *Steel for tools • Acier pour outils*	<1200	50-60	55-70	55-70
	Templado - Revenido *Tempered - Quenched • Trempé - Revenu*	<1400	30-40	34-45	34-45
ACEROS INOXIDABLES *STAINLESS STEEL ACIER INOXYDABLE*	Austeníticos Cr-Ni *Cr-Ni Austenitics • Cr-Ni austenitique*	<850	22-27	25-30	25-30
	Martensíticos Cr-Mo *Cr-Mo Martensitics • Cr-Mo martensitique*	<1200	22-27	25-30	25-30
FUNDICIÓN *CAST IRON • FONTE*	Fundición gris *Grey cast iron • Fonte grise*	<700	70-90	80-100	80-100
	Fundición dura *Hard cast iron • Fonte dur*	<1000		-	-
ALUMINIO *ALUMINIUM • ALUMINIUM*	Puro *Pure • Pure*	<350	150-180	170-200	170-200
	Si < 10%	<600	150-150	170-170	170-170
	Si > 10%	<600	120-150	135-170	135-170
	Zamak *Zamak • Zamak*	<600	160-160	180-180	180-180
COBRE *COPPER • CUIVRE*	Bronce *Bronze • Bronze*	<350			
	Cobre viruta larga *Long chip copper • Cuivre coupage long*	<700	35-70	50-80	50-80
	Cobre viruta corta *Short chip coppe • Cuivre coupage court*	<700	37-70	40-80	40-80
	Latón duro *Hard Brass • Laiton dur*	<700	120-120	135-135	135-135
	Latón tenaz *Tough Brass • Laiton tenace*	<700	70-70	80-80	80-80
TITANIO *TITANIUM • TITANE*	Puro *Pure • Pure*	<700			
	Aleaciones de Titanio *Titanium alloys • Alliages de titane*	<1200			
SINTÉTICOS *PLASTICS • PLASTIQUES*	Termoplásticos *Thermoplastics • Thermoplastique*	-			
	Duroplásticos *Hard-plastics • Duroplastique*	-			
HARDOX	Hardox 500	<1650		25-40	25-40
	Hardox 550	<1900		15-35	15-35
	Hardox 600	<2200		15-25	15-25

M/DURO INTEGRAL DIN 338 N

DIN 338 N HM
DIN 338 N HM



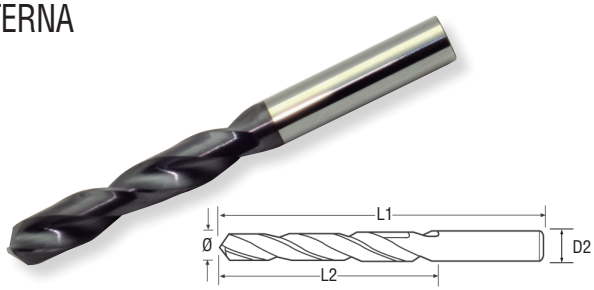
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2,00	49	24	1	31XMD0200
2,50	57	30	1	31XMD0250
3,00	61	33	1	31XMD0300
3,50	70	39	1	31XMD0350
4,00	75	43	1	31XMD0400
4,50	80	47	1	31XMD0450
5,00	86	52	1	31XMD0500
5,50	93	57	1	31XMD0550
6,00	93	57	1	31XMD0600
6,50	101	63	1	31XMD0650

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
7,00	109	69	1	31XMD0700
7,50	109	69	1	31XMD0750
8,00	117	75	1	31XMD0800
8,50	117	75	1	31XMD0850
9,00	125	81	1	31XMD0900
9,50	125	81	1	31XMD0950
10,00	133	87	1	31XMD1000
11,00	142	94	1	31XMD1100
12,00	151	101	1	31XMD1200
13,00	151	101	1	31XMD1300

*Para otras medidas consultar / *Request for other sizes* / *Pour d'autres dimensions, nous consulter*

M/DURO INTEGRAL DIN 6537 3XD SIN REFRIGERACIÓN INTERNA

DIN 6537 3XD HM WITHOUT COOLANT FEED
DIN 6537 3XD HM SANS TROUS D'HUILE



ACERO 1100 -1400 N/mm² | F | INOX | SP

MDI | DIN 6537K | 140° | 30° | TIALN

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.
3,00	62	20	6	1	33XMD0300
3,10	62	20	6	1	33XMD0310
3,20	62	20	6	1	33XMD0320
3,30	62	20	6	1	33XMD0330
3,40	62	20	6	1	33XMD0340
3,50	62	20	6	1	33XMD0350
3,60	62	20	6	1	33XMD0360
3,70	62	20	6	1	33XMD0370
3,80	66	24	6	1	33XMD0380
3,90	66	24	6	1	33XMD0390
4,00	66	24	6	1	33XMD0400
4,10	66	24	6	1	33XMD0410
4,20	66	24	6	1	33XMD0420
4,30	66	24	6	1	33XMD0430
4,40	66	24	6	1	33XMD0440
4,50	66	24	6	1	33XMD0450
4,60	66	24	6	1	33XMD0460
4,70	66	24	6	1	33XMD0470
4,80	66	28	6	1	33XMD0480
4,90	66	28	6	1	33XMD0490
5,00	66	28	6	1	33XMD0500
5,10	66	28	6	1	33XMD0510
5,20	66	28	6	1	33XMD0520
5,30	66	28	6	1	33XMD0530
5,40	66	28	6	1	33XMD0540
5,50	66	28	6	1	33XMD0550
5,60	66	28	6	1	33XMD0560
5,70	66	28	6	1	33XMD0570
5,80	66	28	6	1	33XMD0580
5,90	66	28	6	1	33XMD0590
6,00	66	28	6	1	33XMD0600
6,10	79	34	8	1	33XMD0610
6,20	79	34	8	1	33XMD0620
6,30	79	34	8	1	33XMD0630
6,40	79	34	8	1	33XMD0640
6,50	79	34	8	1	33XMD0650
6,60	79	34	8	1	33XMD0660
6,70	79	34	8	1	33XMD0670
6,80	79	34	8	1	33XMD0680
6,90	79	34	8	1	33XMD0690
7,00	79	34	8	1	33XMD0700
7,10	79	41	8	1	33XMD0710
7,20	79	41	8	1	33XMD0720
7,30	79	41	8	1	33XMD0730
7,40	79	41	8	1	33XMD0740
7,50	79	41	8	1	33XMD0750

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.
7,60	79	41	8	1	33XMD0760
7,70	79	41	8	1	33XMD0770
7,80	79	41	8	1	33XMD0780
7,90	79	41	8	1	33XMD0790
8,00	79	41	8	1	33XMD0800
8,10	89	47	10	1	33XMD0810
8,20	89	47	10	1	33XMD0820
8,30	89	47	10	1	33XMD0830
8,40	89	47	10	1	33XMD0840
8,50	89	47	10	1	33XMD0850
8,60	89	47	10	1	33XMD0860
8,70	89	47	10	1	33XMD0870
8,80	89	47	10	1	33XMD0880
8,90	89	47	10	1	33XMD0890
9,00	89	47	10	1	33XMD0900
9,10	89	47	10	1	33XMD0910
9,20	89	47	10	1	33XMD0920
9,30	89	47	10	1	33XMD0930
9,40	89	47	10	1	33XMD0940
9,50	89	47	10	1	33XMD0950
9,60	89	47	10	1	33XMD0960
9,70	89	47	10	1	33XMD0970
9,80	89	47	10	1	33XMD0980
9,90	89	47	10	1	33XMD0990
10,00	89	47	10	1	33XMD1000
10,50	102	55	12	1	33XMD1050
11,00	102	55	12	1	33XMD1100
11,50	102	55	12	1	33XMD1150
12,00	102	55	12	1	33XMD1200
12,50	107	60	14	1	33XMD1250
13,00	107	60	14	1	33XMD1300
13,50	107	60	14	1	33XMD1350
14,00	107	60	14	1	33XMD1400
14,50	115	65	16	1	33XMD1450
15,00	115	65	16	1	33XMD1500
15,50	115	65	16	1	33XMD1550
16,00	115	65	16	1	33XMD1600
16,50	123	73	18	1	33XMD1650
17,00	123	73	18	1	33XMD1700
17,50	123	73	18	1	33XMD1750
18,00	123	73	18	1	33XMD1800
18,50	131	79	20	1	33XMD1850
19,00	131	79	20	1	33XMD1900
19,50	131	79	20	1	33XMD1950
20,00	131	79	20	1	33XMD2000

Para otras medidas consultar
Request for other sizes
Pour d'autres dimensions, nous consulter

Para brocas con canales de refrigeración, consúltennos
Request for drill bits with coolant feed
Pour forets avec trous d'huile, nous consulter

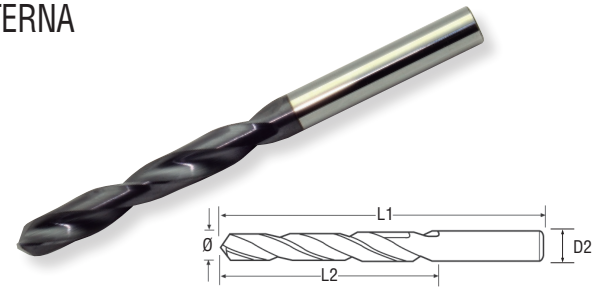


M/DURO INTEGRAL DIN 6537 5XD SIN REFRIGERACIÓN INTERNA

DIN 6537 5XD HM WITHOUT COOLANT FEED
DIN 6537 5XD HM SANS TROUS D'HUILE

ACERO 1100 - 1400 N/mm² | F | INOX | SP

MDI | DIN 6537L | 140° | 30° | TIALN



Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.
3,00	66	28	6	1	35XMD0300
3,10	66	28	6	1	35XMD0310
3,20	66	28	6	1	35XMD0320
3,30	66	28	6	1	35XMD0330
3,40	66	28	6	1	35XMD0340
3,50	66	28	6	1	35XMD0350
3,60	66	28	6	1	35XMD0360
3,70	66	28	6	1	35XMD0370
3,80	74	36	6	1	35XMD0380
3,90	74	36	6	1	35XMD0390
4,00	74	36	6	1	35XMD0400
4,10	74	36	6	1	35XMD0410
4,20	74	36	6	1	35XMD0420
4,30	74	36	6	1	35XMD0430
4,40	74	36	6	1	35XMD0440
4,50	74	36	6	1	35XMD0450
4,60	74	36	6	1	35XMD0460
4,70	74	36	6	1	35XMD0470
4,80	82	44	6	1	35XMD0480
4,90	82	44	6	1	35XMD0490
5,00	82	44	6	1	35XMD0500
5,10	82	44	6	1	35XMD0510
5,20	82	44	6	1	35XMD0520
5,30	82	44	6	1	35XMD0530
5,40	82	44	6	1	35XMD0540
5,50	82	44	6	1	35XMD0550
5,60	82	44	6	1	35XMD0560
5,70	82	44	6	1	35XMD0570
5,80	82	44	6	1	35XMD0580
5,90	82	44	6	1	35XMD0590
6,00	82	44	6	1	35XMD0600
6,10	91	53	8	1	35XMD0610
6,20	91	53	8	1	35XMD0620
6,30	91	53	8	1	35XMD0630
6,40	91	53	8	1	35XMD0640
6,50	91	53	8	1	35XMD0650
6,60	91	53	8	1	35XMD0660
6,70	91	53	8	1	35XMD0670
6,80	91	53	8	1	35XMD0680
6,90	91	53	8	1	35XMD0690
7,00	91	53	8	1	35XMD0700
7,10	91	53	8	1	35XMD0710

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.
7,20	91	53	8	1	35XMD0720
7,30	91	53	8	1	35XMD0730
7,40	91	53	8	1	35XMD0740
7,50	91	53	8	1	35XMD0750
7,60	91	53	8	1	35XMD0760
7,70	91	53	8	1	35XMD0770
7,80	91	53	8	1	35XMD0780
7,90	91	53	8	1	35XMD0790
8,00	91	53	8	1	35XMD0800
8,10	103	61	10	1	35XMD0810
8,20	103	61	10	1	35XMD0820
8,30	103	61	10	1	35XMD0830
8,40	103	61	10	1	35XMD0840
8,50	103	61	10	1	35XMD0850
8,60	103	61	10	1	35XMD0860
8,70	103	61	10	1	35XMD0870
8,80	103	61	10	1	35XMD0880
8,90	103	61	10	1	35XMD0890
9,00	103	61	10	1	35XMD0900
9,10	103	61	10	1	35XMD0910
9,20	103	61	10	1	35XMD0920
9,30	103	61	10	1	35XMD0930
9,40	103	61	10	1	35XMD0940
9,50	103	61	10	1	35XMD0950
9,60	103	61	10	1	35XMD0960
9,70	103	61	10	1	35XMD0970
9,80	103	61	10	1	35XMD0980
9,90	103	61	10	1	35XMD0990
10,00	103	61	10	1	35XMD1000
10,50	118	71	12	1	35XMD1050
11,00	118	71	12	1	35XMD1100
11,50	118	71	12	1	35XMD1150
12,00	118	71	12	1	35XMD1200
12,50	124	77	14	1	35XMD1250
13,00	124	77	14	1	35XMD1300
13,50	124	77	14	1	35XMD1350
14,00	124	77	14	1	35XMD1400
14,50	133	83	16	1	35XMD1450
15,00	133	83	16	1	35XMD1500
15,50	133	83	16	1	35XMD1550
16,00	133	83	16	1	35XMD1600

Para otras medidas consultar
Request for other sizes
Pour d'autres dimensions, nous consulter

Para brocas con canales de refrigeración, consúltennos
Request for drill bits with coolant feed
Pour forets avec trous d'huile, nous consulter



TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS

APPLICATION GUIDE AND CUTTING SPEED
TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ



MATERIAL / *MATERIAL* / *MATIERE*		Resistencia / *Ressistance* *Resistance* N/mm²	HSS-G Pág. 104	HSS "white" Pág. 111	HSSCo Pág. 112	HSS-G Pág. 116
ACEROS *STEELS • ACIERS*	Decoletaje *Machining • Décolletage*	<500	20 - 25	20 - 25	8 - 12	ESPECIAL PERFILERÍA TUBO Y CHAPA
	Carbono <0,4% *<0,4% Carbon • Carbon <0,4%*	<850	15 - 20	15 - 20	4 - 6	
	Acero para herramientas *Steel for tools • Acier pour outils*	<1.200			10 - 12	
	Templado - Revenido *Tempered - Quenched • Trempé - Revenu*	<1.400			4 - 5	
ACEROS INOXIDABLES *STAINLESS STEEL ACIER INOXYDABLE*	Austeníticos Cr-Ni *Cr-Ni Austenitics • Cr-Ni austenitique*	<850			8 - 12	
	Martensíticos Cr-Mo *Cr-Mo Martensitics • Cr-Mo martensitique*	<1.200			4 - 6	
FUNDICIÓN *CAST IRON • FONTE*	Fundición gris *Grey cast iron • Fonte grise*	<700	20 - 25		30 - 35	
	Fundición dura *Hard cast iron • Fonte dur*	<1.000	20 - 25		20 - 25	
ALUMINIO *ALUMINIUM ALUMINIUM*	Puro *Pure • Pure*	<350	40 - 50		50 - 55	
	Si < 10%	<600	40 - 50		50 - 60	
	Si > 10%	<600	30 - 40	30 - 40		
	Zamak *Zamak • Zamak*	<600	30 - 35		40 - 45	
COBRE *COPPER • CUIVRE*	Bronce *Bronze • Bronze*	<350	40 - 60			
	Cobre viruta larga *Long chip copper • Cuivre coupage long*	<700	40 - 60		22 - 25	
	Cobre viruta corta *Short chip coppe • Cuivre coupage court*	<700	25 - 30		22 - 25	
	Latón duro *Hard Brass • Laiton dur*	<700	40 - 60			
	Latón tenaz *Tough Brass • Laiton tenace*	<700	25 - 30			
TITANIO *TITANIUM • TITANE*	Puro *Pure • Pure*	<700				
	Aleaciones de Titanio *Titanium alloys • Alliages de titane*	<1.200				
SINTÉTICOS *PLASTICS • PLASTIQUES*	Termoplásticos *Thermoplastics • Thermoplastique*	-				
	Duroplásticos *Hard-plastics • Duroplastique*	-				
HARDOX	Hardox 500	<1650				
	Hardox 550	<1900				
	Hardox 600	<2200				

20 - 25 Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
SESA TOOLS recomendation and cutting speed
Foret récommendé par SESA TOOLS et vitesse de coupe

20 - 25 Buen rendimiento y velocidad de corte (M/Min)
Good performance and cutting speed (M/Min)
Bon rendement et vitesse de coup recommendée (M/Min)



HSS-G 130° 30°	HSS-CO 5% 135° 40°	TIN 135° 30°	TIALN 135° 30°	HSS-G 135° "S"	MD 118° 30°	HSS-CO 5% 135°

HSS-G inox Pág. 117	HSSCo inox Pág. 118	HSS -G TiN Pág. 119	HSSCo TiAlN Pág. 121	HSS-G Alu Pág. 120	K20 Pág. 122	Hardox Pág. 122	Avance/*Prog. Avance*
		35 - 40	35 - 40		26 - 32	8 - 12	D
		35 - 40	35 - 40		26 - 32	4 - 6	C
			18 - 20		6 - 16	10 - 12	B
			8 - 10		4 - 6	4 - 5	A
8 - 12	8 - 12	15 - 20	15 - 20			8 - 12	A
4 - 6	4 - 6	18 - 20	18 - 20			4 - 6	A
		40 - 50	40 - 50				E
		20 - 25	20 - 25				D
				60 - 80			E
				50 - 60			D
				30 - 40			D
		60 - 65		30 - 40			D
				40 - 60			E
		35 - 40		40 - 60			E
				25 - 30			E
		90 - 100		40 - 60			E
		80 - 85		25 - 30			E
	5 - 10				5 - 10		A
	5 - 6				5 - 6		A
		20 - 25			10 - 25		F
		20 - 25			10 - 25		F
						4-5	A

**El valor indicado en la tabla es el rango de velocidades de corte recomendadas *Valores recomendados en columna “AVANCES” ver pág. 100.
**The indicated value is the cutting speed range *Recomended progression values, see the guide on 100 page .*
**Les valeurs indiquées c´est le classement dés vitesse de coupe recommendées *Les valeurs d´avances recomendés, aller a la page 100.*

TABLA DE AVANCES
PROGRESSIONS GUIDE • TABLE D´AVENCES

	BLOQUE (mm x r) / *BLOCK (mm x r)* / *BLOQUE (mm x r)*					
Ø (mm)	**A**	**B**	**C**	**D**	**E**	**F**
2,00	0,020	0,025	0,032	0,040	0,050	0,063
2,50	0,025	0,032	0,040	0,050	0,063	0,080
3,00	0,030	0,040	0,050	0,060	0,080	0,100
4,00	0,040	0,050	0,063	0,080	0,100	0,125
5,00	0,040	0,050	0,063	0,080	0,100	0,125
6,50	0,050	0,063	0,080	0,100	0,125	0,160
8,00	0,063	0,080	0,100	0,125	0,160	0,200
10,00	0,080	0,100	0,125	0,160	0,200	0,250
13,00	0,090	0,110	0,130	0,180	0,220	0,270
16,00	0,100	0,125	0,160	0,200	0,250	0,315
20,00	0,125	0,160	0,200	0,250	0,315	0,400
25,00	0,160	0,200	0,250	0,315	0,400	0,500
30,00	0,160	0,200	0,250	0,315	0,400	0,500
40,00	0,200	0,250	0,315	0,400	0,500	0,630
50,00	0,250	0,315	0,400	0,500	0,630	0,800
63,00	0,315	0,400	0,500	0,630	0,800	1,000
80,00	0,400	0,500	0,630	0,800	1,000	1,125

Los valores de la tabla son orientativos y para las siguientes condiciones:
- Normas DIN 338 / 345
- Profundidad hasta 3 mm x Ø
- Refrigeración adecuada del material

Values on the guide are orientatives for the next conditions:
- *DIN 338 / 345 rules*
- *Maximum depth 3 mm x Ø*
- *Adequate cooling for the material*

Les valeurs de la table sont orientatives pour les suivant conditions:
- *Normes DIN 338 / 345*
- *Profondeur maximale 3 mm x Ø*
- *Réfrigération adéquate pour le matérial*

CÁLCULO DE LAS R.P.M *R.P.M. CALCULATION • CALCUL DÉS R.P.M.*

$$\text{R.P.M.} = \frac{\text{Vc x 1.000}}{\varpi \text{ x Ø}} \longrightarrow \text{R.P.M.} = \frac{\text{20 x 1.000}}{\text{3,1416 x 10}} = \frac{\text{20.000}}{\text{31,416}} = 641{,}84$$

PRINCIPALES MATERIALES DE FABRICACIÓN DE BROCAS
DRILL BIT MANUFACTURING MAIN MATERIALS
PRINCIPALES MATÉRIAUX DE FABRICATION DES FORETS

		COMPOSICIÓN % *COMPOSITION % / COMPOSITION %*								ID. INTERNACIONAL / *ID. IMNTERNATIONAL / ID. INTERNATIONALE*					
Denominación *Name / Nom*	**N° MATERIAL**	**C**	**Si**	**Mn**	**Cr**	**Mo**	**V**	**W**	**Co**	**USA (AISI)**	**Alemania (DIN)**	**Francia (AFNOR. NF)**	**Italia (UNI)**	**G. B. (BS)**	**España (UNE)**
HSS-G	**1.3343**	0,91	0,30	0,30	4,20	5,00	2,00	6,50	-	M2	S6-5-2	Z85WDCV	HS 6-5-2	BM2	F 5603
HSS-CO 5%	**1.3243**	0,91	0,30	0,30	4,20	5,00	2,00	6,50	4,75	M35	S6-5-2-5	Z85WDKCV	HS 5-2-5	-	F 5613
HSS-CO 8%	**1.3247**	1,08	0,40	0,30	4,00	9,50	1,20	1,50	8,00	M42	S2-10-1-8	ZII0DKCWV	HS 2-9-1-8	BM42	F 5617
MD	**92, 0WC-6,0Co-2,0TIC y TA(Nb)C**									-					

TABLA DE CONVERSIÓN DE DUREZAS Y RESISTENCIA A LA TRACCIÓN
HARDNESS CONVERSION GUIDE • TABLE DE CONVERSION DES DURÉTÉS

VICKERS	BRINELL	ROCKWELL		Resistencia a la tracción *Tensile Strength Resistence à la traction*	
HV 30	HB 30	HRB	HRC	Rm N/mm²	Rm KP/mm²
80	80	36,40	-	270	28
85	85	42,40	-	290	30
90	90	47,40	-	310	32
95	95	52,00	-	320	33
100	100	56,40	-	340	35
105	105	60,00	-	360	37
110	110	63,40	-	380	39
115	115	66,40	-	390	40
120	120	69,40	-	410	42
125	125	72,00	-	420	43
130	130	74,40	-	440	45
135	135	76,40	-	460	47
140	140	78,40	-	470	48
145	145	80,40	-	490	50
150	150	82,20	-	500	51
155	155	83,80	-	520	53
160	160	85,40	-	540	55
165	165	86,80	-	550	56
170	170	88,20	-	570	58
175	175	89,60	-	590	60
180	180	90,80	-	600	62
185	185	91,80	-	620	63
190	190	93,00	-	640	65
195	195	94,00	-	660	67
200	200	95,00	-	670	68
205	205	95,80	-	680	70
210	210	96,60	-	710	72
215	215	97,60	-	720	73
220	220	98,20	-	730	75
225	225	99,00	-	750	77
230	230	-	19,20	760	78
235	235	-	20,20	780	80
240	240	-	21,20	800	82
245	245	-	22,10	820	84
250	250	-	23,00	830	85
255	255	-	23,80	850	87
260	260	-	24,60	870	89
265	265	-	25,40	880	90
270	270	-	26,20	900	92
275	275	-	26,90	920	94
280	280	-	27,60	940	96
285	285	-	28,30	950	97
290	290	-	29,00	970	99
295	295	-	29,60	990	101
300	300	-	30,30	1.010	103
310	310		31,50	1.040	106
320	320		32,70	1.080	110
330	330		33,80	1.110	113

VICKERS	BRINELL	ROCKWELL		Resistencia a la tracción *Tensile Strength Resistence à la traction*	
HV 30	HB 30	HRB	HRC	Rm N/mm²	Rm KP/mm²
340	340	-	34,90	1.140	117
350	350	-	36,00	1.170	120
360	359	-	37,00	1.200	123
370	368	-	38,00	1.230	126
380	376	-	38,90	1.260	129
390	385	-	39,80	1.290	132
400	392	-	40,70	1.320	135
410	400	-	41,50	1.350	138
420	408	-	42,40	1.380	144
440	423	-	44,00	1.430	146
450	430	-	44,80	1.460	149
460	-	-	45,60	-	-
470	-	-	46,30	-	-
480	-	-	47,00	-	-
490	-	-	47,70	-	-
500	-	-	48,30	-	-
510	-	-	49,10	-	-
520	-	-	49,70	-	-
530	-	-	50,40	-	-
540	-	-	51,00	-	-
550	-	-	51,60	-	-
560	-	-	52,20	-	-
570	-	-	52,80	-	-
580	-	-	53,30	-	-
590	-	-	53,90	-	-
600	-	-	54,40	-	-
610	-	-	55,00	-	-
620	-	-	55,50	-	-
630	-	-	56,00	-	-
640	-	-	56,50	-	-
650	-	-	57,00	-	-
660	-	-	57,50	-	-
670	-	-	58,00	-	-
680	-	-	58,50	-	-
690	-	-	59,00	-	-
700	-	-	59,50	-	-
720	-	-	60,40	-	-
740	-	-	61,20	-	-
760	-	-	62,00	-	-
780	-	-	62,80	-	-
800	-	-	63,60	-	-
820	-	-	64,30	-	-
840	-	-	65,00	-	-
860	-	-	65,70	-	-
880	-	-	66,30	-	-
900	-	-	66,90	-	-
920	-	-	67,50	-	-
940	-	-	68,00	-	-

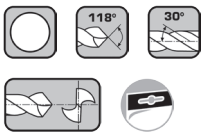
DIN-338 N HSS-G ALTO RENDIMIENTO: BLISTER RÍGIDO

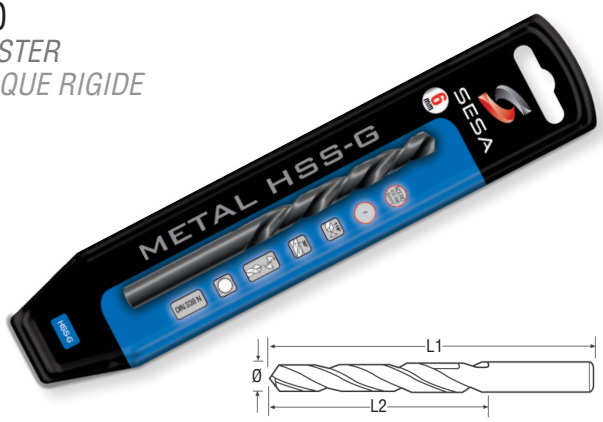
DIN 338 N HSS-G HIGH PERFORMANCE: RIGID PLASTIC BLISTER

DIN 338 N HSS-G GRAND RENDEMENT: BLISTER DE PLASTIQUE RIGIDE



HSS-G | DIN 338 N





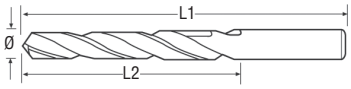
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
1,00	34	12	2	1460100BL
1,50	40	18	2	1460150BL
2,00	49	24	2	1460200BL
2,50	57	30	2	1460250BL
3,00	61	33	2	1460300BL
3,25	65	36	2	1460325BL
3,50	70	39	2	1460350BL
4,00	75	43	2	1460400BL
4,25	75	43	2	1460425BL
4,50	80	47	2	1460450BL
5,00	86	52	2	1460500BL
5,25	86	52	2	1460525BL
5,50	93	57	2	1460550BL
6,00	93	57	2	1460600BL
6,50	101	63	1	1460650BL
7,00	109	69	1	1460700BL
7,50	109	69	1	1460750BL
8,00	117	75	1	1460800BL
8,50	117	75	1	1460850BL
9,00	125	81	1	1460900BL
9,50	125	81	1	1460950BL
10,00	133	87	1	1461000BL
10,50	133	87	1	1461050BL
11,00	142	94	1	1461100BL
11,50	142	94	1	1461150BL
12,00	151	101	1	1461200BL
12,50	151	101	1	1461250BL
13,00	151	101	1	1461300BL

Unidad de venta €/blister / *Sales unit €/blister* / *Unité de vente € / blister*

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT



ACERO 400-800 N/mm² | F | HSS-G | DIN 338 N | 118° | 30°





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
0,20	19	2,5	10	1450020
0,25	19	3	10	1450025
0,30	19	3	10	1450030
0,35	19	3	10	1450035
0,40	20	5	10	1450040
0,45	22	6	10	1450045
0,50	22	6	10	1450050
0,55	24	7	10	1450055
0,60	24	7	10	1450060
0,65	26	8	10	1450065
0,70	28	9	10	1450070
0,75	28	9	10	1450075
0,80	30	10	10	1450080
0,85	30	10	10	1450085
0,90	32	11	10	1450090
0,95	32	11	10	1450095
1,00	34	12	10	1450100
1,05	34	12	10	1450105
1,10	36	14	10	1450110
1,15	36	14	10	1450115
1,20	38	16	10	1450120
1,25	38	16	10	1450125
1,30	38	16	10	1450130
1,35	40	18	10	1450135
1,40	40	18	10	1450140
1,45	40	18	10	1450145
1,50	40	18	10	1450150
1,55	43	20	10	1450155
1,60	43	20	10	1450160
1,65	43	20	10	1450165
1,70	43	20	10	1450170
1,75	46	22	10	1450175
1,80	46	22	10	1450180
1,85	46	22	10	1450185
1,90	46	22	10	1450190
1,95	49	24	10	1450195
2,00	49	24	10	1450200
2,05	49	24	10	1450205
2,10	49	24	10	1450210
2,15	53	27	10	1450215
2,20	53	27	10	1450220
2,25	53	27	10	1450225
2,30	53	27	10	1450230



Ø (mm)	Uds. / *Pcs.*	Cod.
0,20	-	-
0,25	-	-
0,30	-	-
0,35	-	-
0,40	-	-
0,45	-	-
0,50	-	-
0,55	-	-
0,60	-	-
0,65	-	-
0,70	-	-
0,75	-	-
0,80	-	-
0,85	-	-
0,90	-	-
0,95	-	-
1,00	2	1460100
1,05	2	1460105
1,10	2	1460110
1,15	2	1460115
1,20	2	1460120
1,25	2	1460125
1,30	2	1460130
1,35	2	1460135
1,40	2	1460140
1,45	2	1460145
1,50	2	1460150
1,55	2	1460155
1,60	2	1460160
1,65	2	1460165
1,70	2	1460170
1,75	2	1460175
1,80	2	1460180
1,85	2	1460185
1,90	2	1460190
1,95	2	1460195
2,00	2	1460200
2,05	2	1460205
2,10	2	1460210
2,15	2	1460215
2,20	2	1460220
2,25	2	1460225
2,30	2	1460230

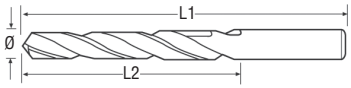
DIN 338 N HSS-G ALTO RENDIMIENTO

DIN 338 N HSS-G HIGH PERFORMANCE

DIN 338 N HSS-G GRAND RENDEMENT



ACERO 400-800 N/mm² | F | HSS-G | DIN 338 N | 118° | 30°







Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2,35	53	27	10	1450235
2,40	57	30	10	1450240
2,45	57	30	10	1450245
2,50	57	30	10	1450250
2,55	57	30	10	1450255
2,60	57	30	10	1450260
2,65	57	30	10	1450265
2,70	61	33	10	1450270
2,75	61	33	10	1450275
2,80	61	33	10	1450280
2,85	61	33	10	1450285
2,90	61	33	10	1450290
2,95	61	33	10	1450295
3,00	61	33	10	1450300
3,10	65	36	10	1450310
3,20	65	36	10	1450320
3,25	65	36	10	1450325
3,30	65	36	10	1450330
3,40	70	39	10	1450340
3,50	70	39	10	1450350
3,60	70	39	10	1450360
3,70	70	39	10	1450370
3,75	70	39	10	1450375
3,80	75	43	10	1450380
3,90	75	43	10	1450390
4,00	75	43	10	1450400
4,10	75	43	10	1450410
4,20	75	43	10	1450420
4,25	75	43	10	1450425
4,30	80	47	10	1450430
4,40	80	47	10	1450440
4,50	80	47	10	1450450
4,60	80	47	10	1450460
4,70	80	47	10	1450470
4,75	80	47	10	1450475
4,80	86	52	10	1450480
4,90	86	52	10	1450490
5,00	86	52	10	1450500
5,10	86	52	10	1450510
5,20	86	52	10	1450520
5,25	86	52	10	1450525
5,30	86	52	10	1450530
5,40	93	57	10	1450540



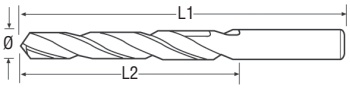


Ø (mm)	Uds. / *Pcs.*	Cod.
2,35	2	1460235
2,40	2	1460240
2,45	2	1460245
2,50	2	1460250
2,55	2	1460255
2,60	2	1460260
2,65	2	1460265
2,70	2	1460270
2,75	2	1460275
2,80	2	1460280
2,85	2	1460285
2,90	2	1460290
2,95	2	1460295
3,00	1	1460300
3,10	1	1460310
3,20	1	1460320
3,25	1	1460325
3,30	1	1460330
3,40	1	1460340
3,50	1	1460350
3,60	1	1460360
3,70	1	1460370
3,75	1	1460375
3,80	1	1460380
3,90	1	1460390
4,00	1	1460400
4,10	1	1460410
4,20	1	1460420
4,25	1	1460425
4,30	1	1460430
4,40	1	1460440
4,50	1	1460450
4,60	1	1460460
4,70	1	1460470
4,75	1	1460475
4,80	1	1460480
4,90	1	1460490
5,00	1	1460500
5,10	1	1460510
5,20	1	1460520
5,25	1	1460525
5,30	1	1460530
5,40	1	1460540

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT



ACERO 400-800 N/mm² | F | HSS-G | DIN 338 N | 118° | 30°







Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
5,50	93	57	10	1450550
5,60	93	57	10	1450560
5,70	93	57	10	1450570
5,75	93	57	10	1450575
5,80	93	57	10	1450580
5,90	93	57	10	1450590
6,00	93	57	10	1450600
6,10	101	63	10	1450610
6,20	101	63	10	1450620
6,25	101	63	10	1450625
6,30	101	63	10	1450630
6,40	101	63	10	1450640
6,50	101	63	10	1450650
6,60	101	63	10	1450660
6,70	101	63	10	1450670
6,75	109	69	10	1450675
6,80	109	69	10	1450680
6,90	109	69	10	1450690
7,00	109	69	10	1450700
7,10	109	69	10	1450710
7,20	109	69	10	1450720
7,25	109	69	10	1450725
7,30	109	69	10	1450730
7,40	109	69	10	1450740
7,50	109	69	10	1450750
7,60	117	75	10	1450760
7,70	117	75	10	1450770
7,75	117	75	10	1450775
7,80	117	75	10	1450780
7,90	117	75	10	1450790
8,00	117	75	10	1450800
8,10	117	75	10	1450810
8,20	117	75	10	1450820
8,25	117	75	10	1450825
8,30	117	75	10	1450830
8,40	117	75	10	1450840
8,50	117	75	10	1450850
8,60	125	81	5	1450860
8,70	125	81	5	1450870
8,75	125	81	5	1450875
8,80	125	81	5	1450880
8,90	125	81	5	1450890
9,00	125	81	5	1450900

Ø (mm)	Uds. / *Pcs.*	Cod.
5,50	1	1460550
5,60	1	1460560
5,70	1	1460570
5,75	1	1460575
5,80	1	1460580
5,90	1	1460590
6,00	1	1460600
6,10	1	1460610
6,20	1	1460620
6,25	1	1460625
6,30	1	1460630
6,40	1	1460640
6,50	1	1460650
6,60	1	1460660
6,70	1	1460670
6,75	1	1460675
6,80	1	1460680
6,90	1	1460690
7,00	1	1460700
7,10	1	1460710
7,20	1	1460720
7,25	1	1460725
7,30	1	1460730
7,40	1	1460740
7,50	1	1460750
7,60	1	1460760
7,70	1	1460770
7,75	1	1460775
7,80	1	1460780
7,90	1	1460790
8,00	1	1460800
8,10	1	1460810
8,20	1	1460820
8,25	1	1460825
8,30	1	1460830
8,40	1	1460840
8,50	1	1460850
8,60	1	1460860
8,70	1	1460870
8,75	1	1460875
8,80	1	1460880
8,90	1	1460890
9,00	1	1460900

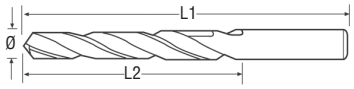
DIN 338 N HSS-G ALTO RENDIMIENTO

DIN 338 N HSS-G HIGH PERFORMANCE

DIN 338 N HSS-G GRAND RENDEMENT



ACERO 400-800 N/mm² | F | HSS-G | DIN 338 N | 118° | 30°







Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
9,10	125	81	5	1450910
9,20	125	81	5	1450920
9,25	125	81	5	1450925
9,30	125	81	5	1450930
9,40	125	81	5	1450940
9,50	125	81	5	1450950
9,60	133	87	5	1450960
9,70	133	87	5	1450970
9,75	133	87	5	1450975
9,80	133	87	5	1450980
9,90	133	87	5	1450990
10,00	133	87	5	1451000
10,10	133	87	5	1451010
10,20	133	87	5	1451020
10,25	133	87	5	1451025
10,30	133	87	5	1451030
10,40	133	87	5	1451040
10,50	133	87	5	1451050
10,60	133	87	5	1451060
10,70	142	94	5	1451070
10,75	142	94	5	1451075
10,80	142	94	5	1451080
10,90	142	94	5	1451090
11,00	142	94	5	1451100
11,10	142	94	5	1451110
11,20	142	94	5	1451120
11,25	142	94	5	1451125
11,30	142	94	5	1451130
11,40	142	94	5	1451140
11,50	142	94	5	1451150
11,60	142	94	5	1451160
11,70	142	94	5	1451170
11,75	142	94	5	1451175
11,80	142	94	5	1451180
11,90	151	101	5	1451190
12,00	151	101	5	1451200
12,10	151	101	5	1451210
12,20	151	101	5	1451220
12,25	151	101	5	1451225
12,30	151	101	5	1451230
12,40	151	101	5	1451240
12,50	151	101	5	1451250
12,60	151	101	5	1451260



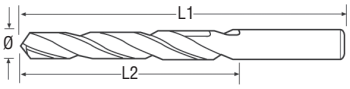


Ø (mm)	Uds. / *Pcs.*	Cod.
9,10	1	1460910
9,20	1	1460920
9,25	1	1460925
9,30	1	1460930
9,40	1	1460940
9,50	1	1460950
9,60	1	1460960
9,70	1	1460970
9,75	1	1460975
9,80	1	1460980
9,90	1	1460990
10,00	1	1461000
10,10	1	1461010
10,20	1	1461020
10,25	1	1461025
10,30	1	1461030
10,40	1	1461040
10,50	1	1461050
10,60	1	1461060
10,70	1	1461070
10,75	1	1461075
10,80	1	1461080
10,90	1	1461090
11,00	1	1461100
11,10	1	1461110
11,20	1	1461120
11,25	1	1461125
11,30	1	1461130
11,40	1	1461140
11,50	1	1461150
11,60	1	1461160
11,70	1	1461170
11,75	1	1461175
11,80	1	1461180
11,90	1	1461190
12,00	1	1461200
12,10	1	1461210
12,20	1	1461220
12,25	1	1461225
12,30	1	1461230
12,40	1	1461240
12,50	1	1461250
12,60	1	1461260

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT



ACERO 400-800 N/mm² | F | HSS-G | DIN 338 N | 118° | 30°





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
12,70	151	101	5	1451270
12,75	151	101	5	1451275
12,80	151	101	5	1451280
12,90	151	101	5	1451290
13,00	151	101	5	1451300
13,25	160	108	1	111325
13,50	160	108	1	111350
13,75	160	108	1	111375
14,00	160	108	1	111400
14,25	169	114	1	111425
14,50	169	114	1	111450
14,75	169	114	1	111475
15,00	169	114	1	111500
15,25	178	120	1	111525
15,50	178	120	1	111550
15,75	178	120	1	111575
16,00	178	120	1	111600
16,25	184	125	1	111625
16,50	184	125	1	111650
16,75	184	125	1	111675
17,00	184	125	1	111700
17,25	191	130	1	111725
17,50	191	130	1	111750
17,75	191	130	1	111775
18,00	191	130	1	111800
18,25	198	135	1	111825
18,50	198	135	1	111850
18,75	198	135	1	111875
19,00	198	135	1	111900
19,25	205	140	1	111925
19,50	205	140	1	111950
19,75	205	140	1	111975
20,00	205	140	1	112000

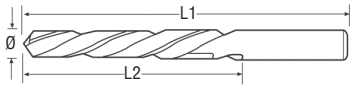


Ø (mm)	Uds. / *Pcs.*	Cod.
12,70	1	1461270
12,75	1	1461275
12,80	1	1461280
12,90	1	1461290
13,00	1	1461300

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-G, IZQUIERDAS
DIN 338 N HSS-G, LEFT HAND • DIN 338 N HSS-G, A GAUCHE





ACERO 400-800 N/mm²
F
HSS-G
DIN 338 N
118°
30°
LH





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2,00	49	24	10	1450200I
2,50	57	30	10	1450250I
3,00	61	33	10	1450300I
3,25	65	36	10	1450325I
3,50	70	39	10	1450350I
4,00	75	43	10	1450400I
4,50	80	47	10	1450450I
5,00	86	52	10	1450500I
5,50	93	57	10	1450550I
6,00	93	57	10	1450600I
6,50	101	63	10	1450650I
7,00	109	69	10	1450700I
7,50	109	69	10	1450750I
8,00	117	75	10	1450800I
8,50	117	75	10	1450850I
9,00	125	81	10	1450900I
9,50	125	81	10	1450950I
10,00	133	87	10	1451000I

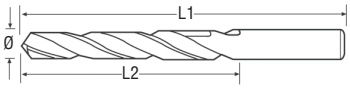
Ø (mm)	Uds. / *Pcs.*	Cod.
2,00	2	1460200I
2,50	2	1460250I
3,00	1	1460300I
3,25	1	1460325I
3,50	1	1460350I
4,00	1	1460400I
4,50	1	1460450I
5,00	1	1460500I
5,50	1	1460550I
6,00	1	1460600I
6,50	1	1460650I
7,00	1	1460700I
7,50	1	1460750I
8,00	1	1460800I
8,50	1	1460850I
9,00	1	1460900I
9,50	1	1460950I
10,00	1	1461000I

DIN 338 N HSS WHITE

DIN 338 N HSS WHITE

DIN 338 N HSS WHITE





ACERO 400-800 N/mm² | F | HSS | DIN 338 N | 118° | 30°

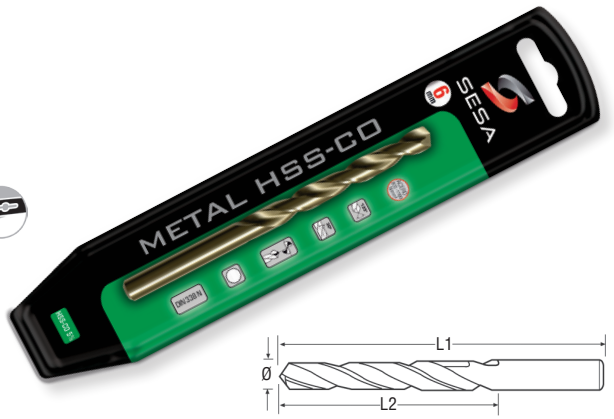


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
1.00	34	12	10	1550100
1.25	38	16	10	1550125
1.50	40	18	10	1550150
1.75	46	22	10	1550175
2.00	49	24	10	1550200
2.25	53	27	10	1550225
2.50	57	30	10	1550250
2.75	61	33	10	1550275
3.00	61	33	10	1550300
3.25	65	36	10	1550325
3.50	70	39	10	1550350
3.75	70	39	10	1550375
4.00	75	43	10	1550400
4.25	75	43	10	1550425
4.50	80	47	10	1550450
4.75	80	47	10	1550475
5.00	86	52	10	1550500
5.25	86	52	10	1550525
5.50	93	57	10	1550550
5.75	93	57	10	1550575
6.00	93	57	10	1550600
6.25	101	63	10	1550625

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6.50	101	63	10	1550650
6.75	109	69	10	1550675
7.00	109	69	10	1550700
7.25	109	69	10	1550725
7.50	109	69	10	1550750
7.75	117	75	10	1550775
8.00	117	75	10	1550800
8.25	117	75	10	1550825
8.50	117	75	10	1550850
8.75	125	81	10	1550875
9.00	125	81	10	1550900
9.25	125	81	10	1550925
9.50	125	81	10	1550950
9.75	133	87	5	1550975
10.00	133	87	5	1551000
10.50	133	87	5	1551050
11.00	142	94	5	1551100
11.50	142	94	5	1551150
12.00	151	101	5	1551200
12.50	151	101	5	1551250
13.00	151	101	5	1551300

DIN-338 N HSS-CO: BLISTER RÍGIDO
DIN 338 N HSS-CO: RIGID PLASTIC BLISTER
DIN 338 N HSS-CO: BLISTER DE PLASTIQUE RIGIDE

ACERO 800 -1100 N/mm² | HSS-CO 5% | DIN 338 N | 135° | 30°

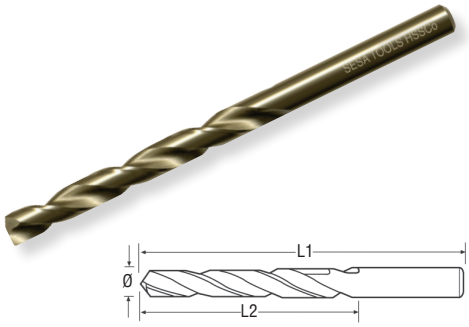


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
1,00	34	12	2	1430100BL
1,50	40	18	2	1430150BL
2,00	49	24	2	1430200BL
2,50	57	30	2	1430250BL
3,00	61	33	2	1430300BL
3,25	65	36	2	1430325BL
3,50	70	39	2	1430350BL
4,00	75	43	2	1430400BL
4,25	75	43	2	1430425BL
4,50	80	47	2	1430450BL
5,00	86	52	2	1430500BL
5,25	86	52	2	1430525BL
5,50	93	57	2	1430550BL
6,00	93	57	2	1430600BL
6,50	101	63	1	1430650BL
7,00	109	69	1	1430700BL
7,50	109	69	1	1430750BL
8,00	117	75	1	1430800BL
8,50	117	75	1	1430850BL
9,00	125	81	1	1430900BL
9,50	125	81	1	1430950BL
10,00	133	87	1	1431000BL
10,50	133	87	1	1431050BL
11,00	142	94	1	1431100BL
11,50	142	94	1	1431150BL
12,00	151	101	1	1431200BL
12,50	151	101	1	1431250BL
13,00	151	101	1	1431300BL

Unidad de venta €/blister / *Sales unit €/blister* / *Unité de vente € / blister*

DIN 338 N HSS-CO

DIN 338 N HSS-CO • DIN 338 N HSS-CO



ACERO 800 -1100 N/mm²

HSS-CO 5%

DIN 338 N









Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
0,30	19	3	10	140030
0,40	20	5	10	140040
0,50	22	6	10	140050
0,60	24	7	10	140060
0,70	28	9	10	140070
0,75	28	9	10	140075
0,80	30	10	10	140080
0,90	32	11	10	140090
1,00	34	12	10	140100
1,10	36	14	10	140110
1,20	38	16	10	140120
1,25	38	16	10	140125
1,30	38	16	10	140130
1,40	40	18	10	140140
1,50	40	18	10	140150
1,60	43	20	10	140160
1,70	43	20	10	140170
1,75	46	22	10	140175
1,80	46	22	10	140180
1,90	46	22	10	140190
2,00	49	24	10	140200
2,10	49	24	10	140210
2,20	53	27	10	140220
2,25	53	27	10	140225
2,30	53	27	10	140230
2,40	57	30	10	140240
2,50	57	30	10	140250
2,60	57	30	10	140260
2,70	61	33	10	140270
2,75	61	33	10	140275
2,80	61	33	10	140280
2,90	61	33	10	140290
3,00	61	33	10	140300
3,10	65	36	10	140310
3,20	65	36	10	140320
3,25	65	36	10	140325
3,30	65	36	10	140330
3,40	70	39	10	140340
3,50	70	39	10	140350
3,60	70	39	10	140360
3,70	70	39	10	140370
3,75	70	39	10	140375
3,80	75	43	10	140380
3,90	75	43	10	140390
4,00	75	43	10	140400
4,10	75	43	10	140410
4,20	75	43	10	140420
4,25	75	43	10	140425

Ø (mm)	Uds. / *Pcs.*	Cod.
0,30	-	-
0,40	-	-
0,50	-	-
0,60	-	-
0,70	-	-
0,75	-	-
0,80	-	-
0,90	-	-
1,00	2	1430100
1,10	2	1430110
1,20	2	1430120
1,25	2	1430125
1,30	2	1430130
1,40	2	1430140
1,50	2	1430150
1,60	2	1430160
1,70	2	1430170
1,75	2	1430175
1,80	2	1430180
1,90	2	1430190
2,00	2	1430200
2,10	2	1430210
2,20	2	1430220
2,25	2	1430225
2,30	2	1430230
2,40	2	1430240
2,50	2	1430250
2,60	2	1430260
2,70	2	1430270
2,75	2	1430275
2,80	2	1430280
2,90	2	1430290
3,00	1	1430300
3,10	1	1430310
3,20	1	1430320
3,25	1	1430325
3,30	1	1430330
3,40	1	1430340
3,50	1	1430350
3,60	1	1430360
3,70	1	1430370
3,75	1	1430375
3,80	1	1430380
3,90	1	1430390
4,00	1	1430400
4,10	1	1430410
4,20	1	1430420
4,25	1	1430425

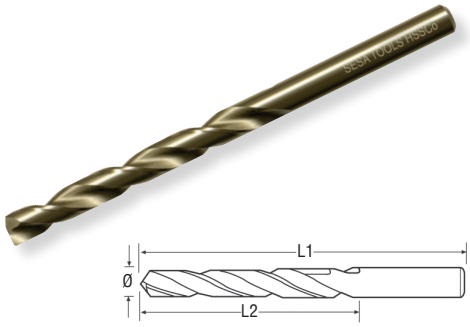
SESA®

BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-CO

DIN 338 N HSS-CO • DIN 338 N HSS-CO



ACERO 800 -1100 N/mm²

HSS-CO 5%

DIN 338 N

135°

30°



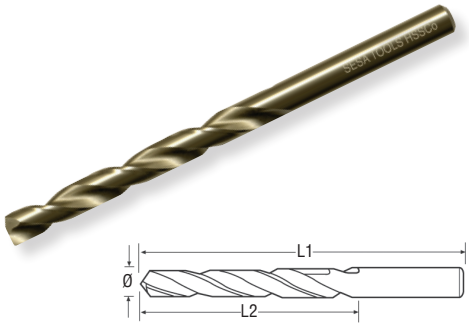


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
4,30	80	47	10	140430
4,40	80	47	10	140440
4,50	80	47	10	140450
4,60	80	47	10	140460
4,70	80	47	10	140470
4,75	80	47	10	140475
4,80	86	52	10	140480
4,90	86	52	10	140490
5,00	86	52	10	140500
5,10	86	52	10	140510
5,20	86	52	10	140520
5,25	86	52	10	140525
5,30	86	52	10	140530
5,40	93	57	10	140540
5,50	93	57	10	140550
5,60	93	57	10	140560
5,70	93	57	10	140570
5,75	93	57	10	140575
5,80	93	57	10	140580
5,90	93	57	10	140590
6,00	93	57	10	140600
6,10	101	63	10	140610
6,20	101	63	10	140620
6,25	101	63	10	140625
6,30	101	63	10	140630
6,40	101	63	10	140640
6,50	101	63	10	140650
6,60	101	63	10	140660
6,70	101	63	10	140670
6,75	109	69	10	140675
6,80	109	69	10	140680
6,90	109	69	10	140690
7,00	109	69	10	140700
7,10	109	69	10	140710
7,20	109	69	10	140720
7,25	109	69	10	140725
7,30	109	69	10	140730
7,40	109	69	10	140740
7,50	109	69	10	140750
7,60	117	75	10	140760
7,70	117	75	10	140770
7,75	117	75	10	140775
7,80	117	75	10	140780
7,90	117	75	10	140790
8,00	117	75	10	140800
8,10	117	75	10	140810
8,20	117	75	10	140820
8,25	117	75	10	140825

Ø (mm)	Uds. / *Pcs.*	Cod.
4,30	1	1430430
4,40	1	1430440
4,50	1	1430450
4,60	1	1430460
4,70	1	1430470
4,75	1	1430475
4,80	1	1430480
4,90	1	1430490
5,00	1	1430500
5,10	1	1430510
5,20	1	1430520
5,25	1	1430525
5,30	1	1430530
5,40	1	1430540
5,50	1	1430550
5,60	1	1430560
5,70	1	1430570
5,75	1	1430575
5,80	1	1430580
5,90	1	1430590
6,00	1	1430600
6,10	1	1430610
6,20	1	1430620
6,25	1	1430625
6,30	1	1430630
6,40	1	1430640
6,50	1	1430650
6,60	1	1430660
6,70	1	1430670
6,75	1	1430675
6,80	1	1430680
6,90	1	1430690
7,00	1	1430700
7,10	1	1430710
7,20	1	1430720
7,25	1	1430725
7,30	1	1430730
7,40	1	1430740
7,50	1	1430750
7,60	1	1430760
7,70	1	1430770
7,75	1	1430775
7,80	1	1430780
7,90	1	1430790
8,00	1	1430800
8,10	1	1430810
8,20	1	1430820
8,25	1	1430825

DIN 338 N HSS-CO

DIN 338 N HSS-CO • DIN 338 N HSS-CO



ACERO 800 -1100 N/mm² | HSS-CO 5% | DIN 338 N | 135° | 30°





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
8,30	117	75	10	140830
8,40	117	75	10	140840
8,50	117	75	10	140850
8,60	125	81	5	140860
8,70	125	81	5	140870
8,75	125	81	5	140875
8,80	125	81	5	140880
8,90	125	81	5	140890
9,00	125	81	5	140900
9,10	125	81	5	140910
9,20	125	81	5	140920
9,25	125	81	5	140925
9,30	125	81	5	140930
9,40	125	81	5	140940
9,50	125	81	5	140950
9,60	133	87	5	140960
9,70	133	87	5	140970
9,75	133	87	5	140975
9,80	133	87	5	140980
9,90	133	87	5	140990
10,00	133	87	5	141000
10,25	133	87	5	141025
10,50	133	87	5	141050
10,75	142	94	5	141075
11,00	142	94	5	141100
11,25	142	94	5	141125
11,50	142	94	5	141150
11,75	142	94	5	141175
12,00	151	101	5	141200
12,25	151	101	5	141225
12,50	151	101	5	141250
12,75	151	101	5	141275
13,00	151	101	5	141300
13,25	160	108	1	141325
13,50	160	108	1	141350
14,00	160	108	1	141400
14,50	169	114	1	141450
15,00	169	114	1	141500
15,50	178	120	1	141550
16,00	178	120	1	141600
16,50	184	125	1	141650
17,00	184	125	1	141700
17,50	191	130	1	141750
18,00	191	130	1	141800
18,50	198	135	1	141850
19,00	198	135	1	141900
19,50	205	140	1	141950
20,00	205	140	1	142000

Ø (mm)	Uds. / *Pcs.*	Cod.
8,30	1	1430830
8,40	1	1430840
8,50	1	1430850
8,60	1	1430860
8,70	1	1430870
8,75	1	1430875
8,80	1	1430880
8,90	1	1430890
9,00	1	1430900
9,10	1	1430910
9,20	1	1430920
9,25	1	1430925
9,30	1	1430930
9,40	1	1430940
9,50	1	1430950
9,60	1	1430960
9,70	1	1430970
9,75	1	1430975
9,80	1	1430980
9,90	1	1430990
10,00	1	1431000
10,25	1	1431025
10,50	1	1431050
10,75	1	1431075
11,00	1	1431100
11,25	1	1431125
11,50	1	1431150
11,75	1	1431175
12,00	1	1431200
12,25	1	1431225
12,50	1	1431250
12,75	1	1431275
13,00	1	1431300

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

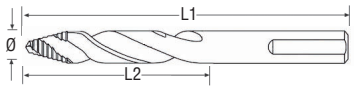
DIN 338 HSS-G ST STEP
DIN 338 HSS-G ST STEP • DIN 338 HSS-G ST STEP

NEW



ACERO 400-800 N/mm² | AL | HSS-G | DIN 338 N





Ø mm	L1 (mm)	L2 (mm)	Nº escalones / *Nº of Steps*	Mango / *Shank*	Uds. / *Pcs.*	Cod.
1,00	34	12	Punta normal / *Normal tip*	Redondo / *Round*	10	1SD0100
1,50	40	18	Punta normal / *Normal tip*	Redondo / *Round*	10	1SD0150
2,00	49	24	Punta normal / *Normal tip*	Redondo / *Round*	10	1SD0200
2,50	57	30	Punta normal / *Normal tip*	Redondo / *Round*	10	1SD0250
3,00	61	33	1	Redondo / *Round*	10	1SD0300
3,20	65	36	1	Redondo / *Round*	10	1SD0320
3,30	65	36	1	Redondo / *Round*	10	1SD0330
3,50	70	39	1	Redondo / *Round*	10	1SD0350
4,00	75	43	2	3 planos / *3 flats*	10	1SD0400
4,10	75	43	2	3 planos / *3 flats*	10	1SD0410
4,20	75	43	2	3 planos / *3 flats*	10	1SD0420
4,50	80	47	2	3 planos / *3 flats*	10	1SD0450
4,90	86	52	2	3 planos / *3 flats*	10	1SD0490
5,00	86	52	3	3 planos / *3 flats*	10	1SD0500
5,10	86	52	3	3 planos / *3 flats*	10	1SD0510
5,20	86	52	3	3 planos / *3 flats*	10	1SD0520
5,50	93	57	3	3 planos / *3 flats*	10	1SD0550
6,00	93	57	3	3 planos / *3 flats*	10	1SD0600
6,50	101	63	3	3 planos / *3 flats*	10	1SD0650
6,80	109	69	4	3 planos / *3 flats*	10	1SD0680
7,00	109	69	4	3 planos / *3 flats*	10	1SD0700
7,50	109	69	4	3 planos / *3 flats*	10	1SD0750
8,00	117	75	5	3 planos / *3 flats*	10	1SD0800
8,50	117	75	5	3 planos / *3 flats*	10	1SD0850
9,00	125	81	5	3 planos / *3 flats*	10	1SD0900
9,50	125	81	5	3 planos / *3 flats*	10	1SD0950
10,00	133	87	6	3 planos / *3 flats*	10	1SD1000
10,20	133	87	6	3 planos / *3 flats*	5	1SD1020
10,50	133	87	6	3 planos / *3 flats*	5	1SD1050
11,00	142	94	6	3 planos / *3 flats*	5	1SD1100
11,50	142	94	6	3 planos / *3 flats*	5	1SD1150
12,00	151	101	8	3 planos / *3 flats*	5	1SD1200
12,50	151	101	8	3 planos / *3 flats*	5	1SD1250
13,00	151	101	8	3 planos / *3 flats*	5	1SD1300

ESTUCHES METAL *METAL SET • COFFRET MÉTAL*

NEW

DIN 338 N

Calidad *Quality*		Contenido *Composition*	Cantidad piezas *Pieces quanitty*	Cod.
HSS-G	ST STEP	1-10x0,5 mm	19	1SD019
HSS-G	ST STEP	1-13x0,5 mm	25	1SD025



1SD019 1SD025

DIN 338 N HSS-G INOX PROGRESIVA

DIN 338 N HSS-G PROGRESSIVE INOX

DIN 338 N HSS-G INOX PROGRESSIVE

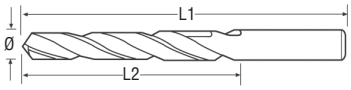
SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE



INOX | HSS-G | DIN 338 N | 130° | 38°







Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
1,00	34	9	10	14P0100
1,25	38	10	10	14P0125
1,50	40	11	10	14P0150
1,75	46	12	10	14P0175
2,00	49	13	10	14P0200
2,25	53	14	10	14P0225
2,50	57	16	10	14P0250
2,75	61	18	10	14P0275
3,00	61	18	10	14P0300
3,25	65	20	10	14P0325
3,50	70	22	10	14P0350
3,75	75	25	10	14P0375
4,00	75	25	10	14P0400
4,25	80	28	10	14P0425
4,50	80	28	10	14P0450
4,75	86	32	10	14P0475
5,00	86	32	10	14P0500
5,25	86	32	10	14P0525
5,50	93	36	10	14P0550
5,75	93	36	10	14P0575
6,00	93	36	10	14P0600
6,25	101	40	10	14P0625
6,50	101	40	10	14P0650
6,75	109	45	10	14P0675
7,00	109	45	10	14P0700
7,25	109	45	10	14P0725
7,50	109	45	10	14P0750
7,75	117	51	10	14P0775
8,00	117	51	10	14P0800
8,25	117	51	10	14P0825
8,50	117	51	10	14P0850
8,75	125	57	5	14P0875
9,00	125	57	5	14P0900
9,25	125	57	5	14P0925
9,50	125	57	5	14P0950
9,75	133	63	5	14P0975
10,00	133	63	5	14P1000
10,25	133	63	5	14P1025
10,50	133	63	5	14P1050
10,75	142	71	5	14P1075
11,00	142	71	5	14P1100
11,25	142	71	5	14P1125
11,50	142	71	5	14P1150
11,75	142	71	5	14P1175
12,00	151	78	5	14P1200
12,25	151	78	5	14P1225
12,50	151	78	5	14P1250
12,75	151	78	5	14P1275
13,00	151	78	5	14P1300

Ø (mm)	Uds. / *Pcs.*	Cod.
1,00	2	14R0100
1,25	2	14R0125
1,50	2	14R0150
1,75	2	14R0175
2,00	2	14R0200
2,25	2	14R0225
2,50	2	14R0250
2,75	2	14R0275
3,00	1	14R0300
3,25	1	14R0325
3,50	1	14R0350
3,75	1	14R0375
4,00	1	14R0400
4,25	1	14R0425
4,50	1	14R0450
4,75	1	14R0475
5,00	1	14R0500
5,25	1	14R0525
5,50	1	14R0550
5,75	1	14R0575
6,00	1	14R0600
6,25	1	14R0625
6,50	1	14R0650
6,75	1	14R0675
7,00	1	14R0700
7,25	1	14R0725
7,50	1	14R0750
7,75	1	14R0775
8,00	1	14R0800
8,25	1	14R0825
8,50	1	14R0850
8,75	1	14R0875
9,00	1	14R0900
9,25	1	14R0925
9,50	1	14R0950
9,75	1	14R0975
10,00	1	14R1000
10,25	1	14R1025
10,50	1	14R1050
10,75	1	14R1075
11,00	1	14R1100
11,25	1	14R1125
11,50	1	14R1150
11,75	1	14R1175
12,00	1	14R1200
12,25	1	14R1225
12,50	1	14R1250
12,75	1	14R1275
13,00	1	14R1300

BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

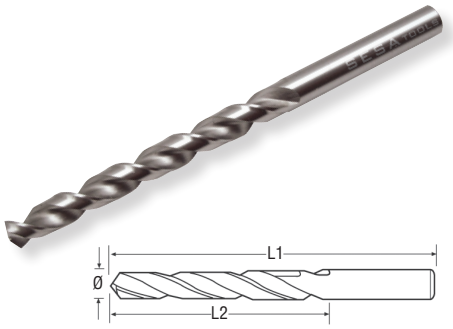
DIN 338 W HSS-CO PARA INOX

DIN 338 W HSS-CO SPECIAL INOX

DIN 338 W HSS-CO SPÉCIAL INOX

SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE

advance MAXIMO RENDIMIENTO



INOX | HSS-CO 5% | DIN 338 W | 135° | 40°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
1,00	34	12	10	130104100
1,50	40	18	10	130104150
2,00	49	24	10	130104200
2,50	57	30	10	130104250
3,00	61	33	10	130104003
3,25	65	36	10	130104325
3,50	70	39	10	130104350
4,00	75	43	10	130104004
4,25	75	43	10	130104425
4,50	80	47	10	130104450
5,00	86	52	10	130104005
5,25	86	52	10	130104525
5,50	93	57	10	130104550
6,00	93	57	10	130104006
6,50	101	63	10	130104650
7,00	109	69	10	130104007
7,50	109	69	10	130104750
8,00	117	75	10	130104008
8,50	117	75	10	130104850
9,00	125	81	5	130104009
9,50	125	81	5	130104950
10,00	133	87	5	130104010
10,50	133	87	5	130104105
11,00	142	94	5	130104011
11,50	142	94	5	130104115
12,00	151	101	5	130104012
12,50	151	101	5	130104125
13,00	151	101	5	130104013

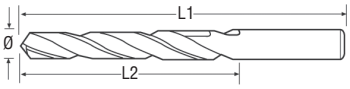


Ø (mm)	Uds. / *Pcs.*	Cod.
1,00	2	131104100
1,50	2	131104150
2,00	2	131104200
2,50	2	131104250
3,00	1	131104003
3,25	1	131104325
3,50	1	131104350
4,00	1	131104004
4,25	1	131104425
4,50	1	131104450
5,00	1	131104005
5,25	1	131104525
5,50	1	131104550
6,00	1	131104006
6,50	1	131104650
7,00	1	131104007
7,50	1	131104750
8,00	1	131104008
8,50	1	131104850
9,00	1	131104009
9,50	1	131104950
10,00	1	131104010
10,50	1	131104105
11,00	1	131104011
11,50	1	131104115
12,00	1	131104012
12,50	1	131104125
13,00	1	131104013

DIN 338 N HSS-G+TIN

DIN 338 N HSS-G+TIN • DIN 338 N HSS-G+TIN





ACERO 400-800 N/mm² | F | HSS-G | TIN | DIN 338 N | 135° | 30°





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
1,00	32	12	10	130100
1,25	38	16	10	130125
1,40*	40	18	10	130140
1,50	40	18	10	130150
1,75	46	22	10	130175
1,80*	46	22	10	130180
2,00	49	24	10	130200
2,25	53	27	10	130225
2,50	57	30	10	130250
2,75	61	33	10	130275
3,00	61	33	10	130300
3,25	65	36	10	130325
3,50	70	39	10	130350
3,75	70	39	10	130375
3,80*	75	43	10	130380
4,00	75	43	10	130400
4,25	75	43	10	130425
4,50	80	47	10	130450
4,75	80	47	10	130475
5,00	86	52	10	130500
5,20*	86	52	10	130520
5,25	86	52	10	130525
5,50	93	57	10	130550
5,75	93	57	10	130575
6,00	93	57	10	130600
6,25	101	63	10	130625
6,50	101	63	10	130650
6,75	109	69	10	130675
7,00	109	69	10	130700
7,25	109	69	10	130725
7,50	109	69	10	130750
7,75	117	75	10	130775
8,00	117	75	10	130800
8,25	117	75	10	130825
8,50	117	75	10	130850
8,75	125	81	5	130875
9,00	125	81	5	130900
9,25	125	81	5	130925
9,50	125	81	5	130950
9,75	133	87	5	130975
10,00	133	87	5	131000
10,50	133	87	5	131050
11,00	142	94	5	131100
11,50	142	94	5	131150
12,00	151	101	5	131200
12,50	151	101	5	131250
13,00	151	101	5	131300

Ø (mm)	Uds. / *Pcs.*	Cod.
1,00	2	1320100
1,25	2	1320125
1,40*	2	1320140
1,50	2	1320150
1,75	2	1320175
1,80*	2	1320180
2,00	2	1320200
2,25	2	1320225
2,50	2	1320250
2,75	2	1320275
3,00	1	1320300
3,25	1	1320325
3,50	1	1320350
3,75	1	1320375
3,80*	1	1320380
4,00	1	1320400
4,25	1	1320425
4,50	1	1320450
4,75	1	1320475
5,00	1	1320500
5,20*	1	1320520
5,25	1	1320525
5,50	1	1320550
5,75	1	1320575
6,00	1	1320600
6,25	1	1320625
6,50	1	1320650
6,75	1	1320675
7,00	1	1320700
7,25	1	1320725
7,50	1	1320750
7,75	1	1320775
8,00	1	1320800
8,25	1	1320825
8,50	1	1320850
8,75	1	1320875
9,00	1	1320900
9,25	1	1320925
9,50	1	1320950
9,75	1	1320975
10,00	1	1321000
10,50	1	1321050
11,00	1	1321100
11,50	1	1321150
12,00	1	1321200
12,50	1	1321250
13,00	1	1321300

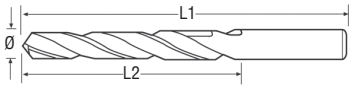
*Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

DIN 338 S HSS-G PARA ALUMINIO

DIN 338 S HSS-G SPECIAL ALUMINIUM

DIN 338 S HSS-G SPÉCIALE ALUMINIUM





AL PL

HSS-G DIN 338 S "S" 135°



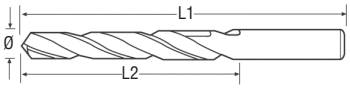
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2,50	57	30	1	130107250
3,00	65	33	1	130107003
3,25	65	36	1	130107325
3,50	70	39	1	130107350
4,00	75	43	1	130107004
4,25	75	43	1	130107425
4,50	80	47	1	130107450
5,00	86	52	1	130107005
5,25	86	52	1	130107525
5,50	83	57	1	130107550
6,00	93	57	1	130107006
6,50	101	63	1	130107650
7,00	109	69	1	130107007

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
7,50	109	69	1	130107750
8,00	117	75	1	130107008
8,50	117	75	1	130107850
9,00	125	81	1	130107009
9,50	125	81	1	130107950
10,00	133	87	1	130107010
10,50	133	87	1	130107105
11,00	142	94	1	130107011
11,50	142	94	1	130107115
12,00	151	101	1	130107012
12,50	151	101	1	130107125
13,00	151	101	1	130107013

DIN 338 N HSS-CO + TIALN

DIN 338 N HSS-CO + TIALN • DIN 338 N HSS-CO + TIALN





ADVANCE MAXIMO RENDIMIENTO

ACERO 1100 -1400 N/mm²

HSS-CO 5% | TIALN | DIN 338 N

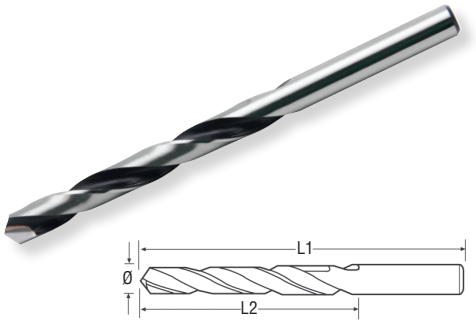


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
1,00	34	12	1	130126001
1,50	40	18	1	130126150
2,00	49	24	1	130126002
2,50	57	30	1	130126250
3,00	61	33	1	130126003
3,25	65	36	1	130126325
3,50	70	39	1	130126350
4,00	75	43	1	130126004
4,25	75	43	1	130126425
4,50	80	47	1	130126450
5,00	86	52	1	130126005
5,25	86	52	1	130126525
5,50	93	57	1	130126550
6,00	93	57	1	130126006

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,50	**101**	63	1	130126650
7,00	**109**	69	1	130126007
7,50	**109**	69	1	130126750
8,00	**117**	75	1	130126008
8,50	**117**	75	1	130126850
9,00	**125**	81	1	130126009
9,50	**125**	81	1	130126950
10,00	**133**	87	1	130126010
10,50	**133**	87	1	130126105
11,00	**142**	94	1	130126011
11,50	**142**	94	1	130126115
12,00	**151**	101	1	130126012
12,50	**151**	101	1	130126125
13,00	**151**	101	1	130126013

K20 DIN 338 N HSS-MD

K20 DIN 338 N HSS-HM • K20 DIN N 338 HSS-HM



ACERO 1100 -1400 N/mm² | F | MD | DIN 338 N | 118° | 30°

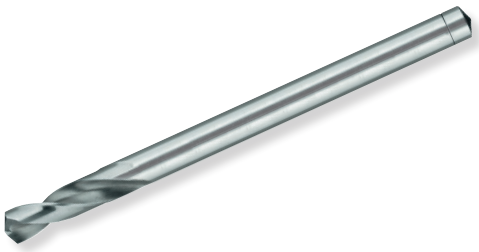


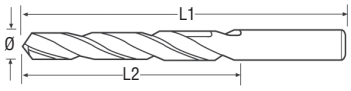
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	61	33	1	16M0300
3,50	70	39	1	16M0350
4,00	75	43	1	16M0400
4,50	80	47	1	16M0450
5,00	86	52	1	16M0500
5,50	93	57	1	16M0550
6,00	93	57	1	16M0600
6,50	101	63	1	16M0650
7,00	109	69	1	16M0700
7,50	109	69	1	16M0750
8,00	117	75	1	16M0800

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
8,50	**117**	75	1	16M0850
9,00	**125**	81	1	16M0900
9,50	**125**	81	1	16M0950
10,00	**133**	87	1	16M1000
10,50	**133**	87	1	16M1050
11,00	**142**	94	1	16M1100
11,50	**142**	94	1	16M1150
12,00	**151**	101	1	16M1200
12,50	**151**	101	1	16M1250
13,00	**151**	101	1	16M1300
14,00	**160**	108	1	16M1400

BROCA 3XD PARA MATERIALES DUROS - HARDOX

3XD DRILL BIT FOR HARD METALS - HARDOX
FORET 3XD POUR MATÉRIAUX DURS - HARDOX





ACERO 1100 -1400 N/mm² | INOX | HSS-CO 5% | 135° | H

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
5	86	26	1	14HX0500
6	93	28	1	14HX0600
8	117	37	1	14HX0800

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
10	133	43	1	14HX1000
12	151	51	1	14HX1200

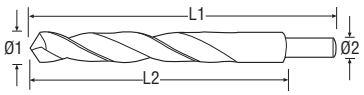
Para otras medidas consultar / *Request for other sizes* / *Pour d'autres dimensions, nous consulter*

DIN 338 N HSS-G MANGO REDUCIDO

DIN 338 N HSS-G REDUCED SHANK • DIN 338 N HSS-G QUEUE RÉDUITE



ACERO 400-800 N/mm² | F | HSS-G | DIN 338 N | 118° | 30°



Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
10,00	9,70	133	87	1	181000
10,50	9,70	133	87	1	181050
11,00	9,70	142	94	1	181100
11,50	9,70	142	94	1	181150
12,00	9,70	151	101	1	181200
12,25	9,70	151	101	1	181225
12,50	9,70	151	101	1	181250
12,75	9,70	151	101	1	181275
13,00	9,70	151	101	1	181300
13,25	12,70	160	108	1	181325
13,50	12,70	160	108	1	181350
13,75	12,70	160	108	1	181375
14,00	12,70	160	108	1	181400
14,25	12,70	169	114	1	181425
14,50	12,70	169	114	1	181450
14,75	12,70	169	114	1	181475
15,00	12,70	169	114	1	181500
15,25	12,70	178	120	1	181525
15,50	12,70	178	120	1	181550
15,75	12,70	178	120	1	181575
16,00	12,70	178	120	1	181600
16,25	12,70	184	125	1	181625
16,50	12,70	184	125	1	181650
16,75	12,70	184	125	1	181675

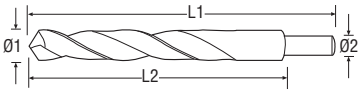
Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
17,00	12,70	184	125	1	181700
17,25	12,70	191	130	1	181725
17,50	12,70	191	130	1	181750
17,75	12,70	191	130	1	181775
18,00	12,70	191	130	1	181800
18,25	12,70	198	135	1	181825
18,50	12,70	198	135	1	181850
18,75	12,70	198	135	1	181875
19,00	12,70	198	135	1	181900
19,50	12,70	205	140	1	181950
20,00	12,70	205	140	1	182000
20,50	12,70	213	145	1	182050
21,00	12,70	213	145	1	182100
21,50	12,70	221	150	1	182150
22,00	12,70	221	150	1	182200
22,50	12,70	221	150	1	182250
23,00	12,70	229	155	1	182300
23,50	12,70	229	155	1	182350
24,00	12,70	236	160	1	182400
24,50	12,70	236	160	1	182450
25,00	12,70	236	160	1	182500
25,50	12,70	243	165	1	182550
26,00	12,70	243	165	1	182600

BROCAS PARA METAL MANGO REDUCIDO
REDUCED SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-CO MANGO REDUCIDO
DIN 338 N HSS-CO REDUCED SHANK • DIN338 N HSS-CO QUEUE RÉDUITE



ACERO 800 -1100 N/mm² | HSS-CO 5% | DIN 338 N | 135° | 30°



Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
12,00	9,70	151	101	1	1841200
13,00	9,70	151	101	1	1841300
13,50	12,70	160	108	1	1841350
14,00	12,70	160	108	1	1841400
14,50	12,70	169	114	1	1841450
15,00	12,70	169	114	1	1841500
15,50	12,70	178	120	1	1841550
16,00	12,70	178	120	1	1841600

Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
16,50	12,70	184	125	1	1841650
17,00	12,70	184	125	1	1841700
17,50	12,70	191	130	1	1841750
18,00	12,70	191	130	1	1841800
18,50	12,70	198	135	1	1841850
19,00	12,70	198	135	1	1841900
19,50	12,70	205	140	1	1841950
20,00	12,70	205	140	1	1842000

DIN 340 N HSS-G SERIE LARGA

DIN 340 N HSS-G LONG SERIES

DIN 340 N HSS-G SÉRIE LONGUE

ACERO 400-800 N/mm² | F | HSS-G | DIN 340 N | 118° | 30°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
1,00	56	33	1	100100
1,25	65	41	1	100125
1,50	70	45	1	100150
1,75	80	53	1	100175
2,00	85	56	1	100200
2,10	85	56	1	100210
2,25	90	59	1	100225
2,50	95	62	1	100250
2,60	95	62	1	100260
2,75	100	66	1	100275
2,80	100	66	1	100280
3,00	100	66	1	100300
3,10	106	69	1	100310
3,25	106	69	1	100325
3,30	112	73	1	100330
3,40	112	73	1	100340
3,50	112	73	1	100350
3,60	112	73	1	100360
3,75	112	73	1	100375
4,00	119	78	1	100400
4,10	119	78	1	100410
4,20	119	78	1	100420
4,25	119	78	1	100425
4,50	126	82	1	100450
4,60	126	82	1	100460
4,75	126	82	1	100475
4,80	132	87	1	100480
4,90	132	87	1	100490
5,00	132	87	1	100500
5,10	132	87	1	100510
5,25	132	87	1	100525
5,50	139	91	1	100550
5,60	139	91	1	100560
5,70	139	91	1	100570
5,75	139	91	1	100575
5,80	139	91	1	100580
6,00	139	91	1	100600

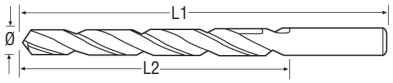
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,10	148	97	1	100610
6,25	148	97	1	100625
6,40	148	97	1	100640
6,50	148	97	1	100650
6,75	156	102	1	100675
7,00	156	102	1	100700
7,10	156	102	1	100710
7,25	156	102	1	100725
7,50	156	102	1	100750
7,75	165	109	1	100775
8,00	165	109	1	100800
8,25	165	109	1	100825
8,50	165	109	1	100850
8,75	175	115	1	100875
9,00	175	115	1	100900
9,25	175	115	1	100925
9,50	175	121	1	100950
9,75	184	121	1	100975
10,00	184	121	1	101000
10,25	184	121	1	101025
10,50	184	121	1	101050
10,75	195	128	1	101075
11,00	195	128	1	101100
11,25	195	128	1	101125
11,50	195	128	1	101150
11,75	205	134	1	101175
12,00	205	134	1	101200
12,25	205	134	1	101225
12,50	205	134	1	101250
12,75	205	134	1	101275
13,00	205	134	1	101300
13,50	214	140	1	101350
14,00	214	140	1	101400
14,50	220	144	1	101450
15,00	220	144	1	101500
16,00	227	149	1	101600

DIN 340 N HSS-CO SERIE LARGA

DIN 340 N HSS-CO LONG SERIES
DIN 340 N HSS-CO SÉRIE LONGUE



ACERO 800 -1100 N/mm² | HSS-CO 5% | DIN 340 N | 135° | 30°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2,00	85	56	1	14L0200
2,50	95	62	1	14L0250
3,00	100	66	1	14L0300
3,20	106	69	1	14L0320
3,25	106	69	1	14L0325
3,50	112	73	1	14L0350
3,75	112	73	1	14L0375
4,00	119	78	1	14L0400
4,25	119	78	1	14L0425
4,50	126	82	1	14L0450
4,75	126	82	1	14L0475
5,00	132	87	1	14L0500
5,50	139	91	1	14L0550
6,00	139	91	1	14L0600

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,50	148	97	1	14L0650
7,00	156	102	1	14L0700
7,50	156	102	1	14L0750
8,00	165	109	1	14L0800
8,50	165	109	1	14L0850
9,00	175	115	1	14L0900
9,50	175	115	1	14L0950
10,00	184	121	1	14L1000
10,50	184	121	1	14L1050
11,00	195	128	1	14L1100
11,50	195	128	1	14L1150
12,00	205	134	1	14L1200
12,50	205	134	1	14L1250
13,00	205	134	1	14L1300

DIN 1869 N HSS-G SERIE EXTRALARGA

DIN 1869 N HSS-G EXTRA LONG SERIES

DIN 1869 N HSS-G EXTRA LONG

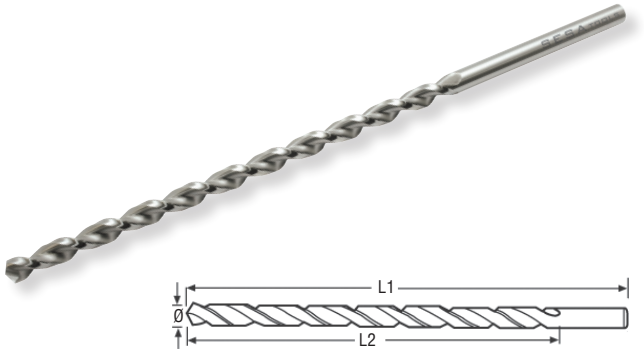


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2,00	125	85	1	1002125
2,50	140	95	1	1002514
3,00	150	100	1	1003150
3,00	190	130	1	1003190
3,50	165	115	1	1003516
3,50	210	145	1	1003521
3,50	265	180	1	1003526
4,00	175	120	1	1004175
4,00	220	150	1	1004220
4,00	280	190	1	1004280
4,50	185	125	1	1004518
4,50	235	160	1	1004523
4,50	295	200	1	1004529
5,00	195	135	1	1005195
5,00	245	170	1	1005245
5,00	315	210	1	1005315
5,50	205	140	1	1005520
5,50	260	180	1	1005526
5,50	330	225	1	1005533
5,75	205	140	1	1005720
6,00	205	140	1	1006205
6,00	260	180	1	1006260
6,00	330	225	1	1006330
6,50	215	150	1	1006521
6,50	275	190	1	1006527

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,50	350	235	1	1006535
7,00	225	155	1	1007225
7,00	290	200	1	1007290
7,00	370	250	1	1007370
7,50	225	155	1	1007522
7,50	305	210	1	1007530
7,50	370	250	1	1007537
8,00	240	165	1	1008240
8,00	305	210	1	1008305
8,00	390	265	1	1008390
8,50	240	165	1	1008524
8,50	305	210	1	1008530
8,50	390	265	1	1008539
9,00	250	175	1	1009250
9,00	320	220	1	1009320
9,00	410	280	1	1009410
9,50	250	175	1	1009525
9,50	320	220	1	1009532
9,50	410	280	1	1009541
10,00	265	185	1	1010265
10,00	340	235	1	1010340
10,00	430	295	1	1010430
12,00	295	205	1	1012295
12,00	375	260	1	1012375

DIN 1869 S HSS-CO SERIE EXTRALARGA

DIN 1869 S HSS-CO EXTRA LONG SERIES
DIN 1869 S HSS-CO EXTRA LONG



ACERO 800 -1100 N/mm²

HSS-CO 5%

DIN 1869 S

"S"

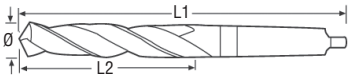
135°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2,00	125	85	1	130127020125
2,50	140	95	1	130127250140
3,00	150	100	1	130127030150
3,25	155	105	1	130127325155
3,50	210	145	1	130127350210
4,00	175	120	1	130127040175
4,00	220	150	1	130127040220
4,25	220	150	1	130127425220
4,50	235	160	1	130127450235
5,00	195	135	1	130127050195
5,00	245	170	1	130127205245
5,50	260	180	1	130127550260
6,00	205	140	1	130127060205

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,00	260	180	1	130127060260
6,50	275	190	1	130127650275
7,00	295	200	1	130127070295
8,00	240	165	1	130127080290
8,00	305	210	1	130127080305
8,50	305	210	1	130127850305
9,00	320	220	1	130127090320
10,00	265	185	1	130127100265
10,00	340	235	1	130127100340
11,00	360	250	1	130127110360
12,00	380	260	1	130127120380

DIN 345 N HSS-G
DIN 345 N HSS-G • DIN 345 N HSS-G





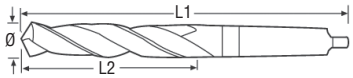
ACERO 400-800 N/mm² | F | HSS-G | DIN 345 N | 118° | 30°

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
4,00	1	124	43	1	150400
4,50	1	128	47	1	150450
5,00	1	133	52	1	150500
5,50	1	138	57	1	150550
5,75	1	138	57	1	150575
6,00	1	138	57	1	150600
6,25	1	144	63	1	150625
6,50	1	144	63	1	150650
6,75	1	150	69	1	150675
7,00	1	150	69	1	150700
7,50	1	150	69	1	150750
7,75	1	156	75	1	150775
8,00	1	156	75	1	150800
8,25	1	156	75	1	150825
8,50	1	156	75	1	150850
8,75	1	162	81	1	150875
9,00	1	162	81	1	150900
9,50	1	162	81	1	150950
9,75	1	168	87	1	150975
10,00	1	168	87	1	151000
10,25	1	168	87	1	151025
10,50	1	168	87	1	151050
10,75	1	175	94	1	151075
11,00	1	175	94	1	151100
11,25	1	175	94	1	151125
11,50	1	175	94	1	151150
11,75	1	175	94	1	151175
12,00	1	182	101	1	151200
12,25	1	182	101	1	151225
12,50	1	182	101	1	151250
12,75	1	182	101	1	151275
13,00	1	182	101	1	151300
13,25	1	189	108	1	151325
13,50	1	189	108	1	151350
13,75	1	189	108	1	151375
14,00	1	189	108	1	151400
14,25	2	212	114	1	151425
14,50	2	212	114	1	151450
14,75	2	212	114	1	151475
15,00	2	212	114	1	151500
15,25	2	218	120	1	151525
15,50	2	218	120	1	151550
15,75	2	218	120	1	151575
16,00	2	218	120	1	151600
16,25	2	223	125	1	151625
16,50	2	223	125	1	151650

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
16,75	2	223	125	1	151675
17,00	2	223	125	1	151700
17,25	2	228	130	1	151725
17,50	2	228	130	1	151750
17,75	2	228	130	1	151775
18,00	2	228	130	1	151800
18,25	2	233	135	1	151825
18,50	2	233	135	1	151850
18,75	2	233	135	1	151875
19,00	2	233	135	1	151900
19,25	2	238	140	1	151925
19,50	2	238	140	1	151950
19,75	2	238	140	1	151975
20,00	2	238	140	1	152000
20,25	2	243	145	1	152025
20,50	2	243	145	1	152050
20,75	2	243	145	1	152075
21,00	2	243	145	1	152100
21,25	2	248	150	1	152125
21,50	2	248	150	1	152150
21,75	2	248	150	1	152175
22,00	2	248	150	1	152200
22,25	2	253	155	1	152225
22,50	2	253	155	1	152250
22,75	2	253	155	1	152275
23,00	2	253	155	1	152300
23,25	3	276	155	1	152325
23,50	3	276	155	1	152350
23,75	3	281	160	1	152375
24,00	3	281	160	1	152400
24,25	3	281	160	1	152425
24,50	3	281	160	1	152450
24,75	3	281	160	1	152475
25,00	3	281	160	1	152500
25,25	3	286	165	1	152525
25,50	3	286	165	1	152550
25,75	3	286	165	1	152575
26,00	3	286	165	1	152600
26,25	3	286	165	1	152625
26,50	3	286	165	1	152650
26,75	3	291	170	1	152675
27,00	3	291	170	1	152700
27,25	3	291	170	1	152725
27,50	3	291	170	1	152750
27,75	3	291	170	1	152775

DIN 345 N HSS-G
DIN 345 N HSS-G • DIN 345 N HSS-G





ACERO 400-800 N/mm² | F | HSS-G | DIN 345 N | 118° | 30°

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
28,00	3	291	170	1	152800
28,25	3	296	175	1	152825
28,50	3	296	175	1	152850
28,75	3	296	175	1	152875
29,00	3	296	175	1	152900
29,25	3	296	175	1	152925
29,50	3	296	175	1	152950
29,75	3	296	175	1	152975
30,00	3	296	175	1	153000
30,25	3	301	180	1	153025
30,50	3	301	180	1	153050
30,75	3	301	180	1	153075
31,00	3	301	180	1	153100
31,25	3	301	180	1	153125
31,50	3	301	180	1	153150
31,75	3	306	185	1	153175
32,00	4	334	185	1	153200
32,25	4	334	185	1	153225
32,50	4	334	185	1	153250
32,75	4	334	185	1	153275
33,00	4	334	185	1	153300
33,25	4	334	185	1	153325
33,50	4	334	185	1	153350
33,75	4	339	190	1	153375
34,00	4	339	190	1	153400
34,25	4	339	190	1	153425
34,50	4	339	190	1	153450
34,75	4	339	190	1	153475
35,00	4	339	190	1	153500
35,25	4	339	190	1	153525
35,50	4	339	190	1	153550
35,75	4	344	195	1	153575
36,00	4	344	195	1	153600
36,50	4	344	195	1	153650
37,00	4	344	195	1	153700
37,50	4	344	195	1	153750
38,00	4	349	200	1	153800
38,50	4	349	200	1	153850
39,00	4	349	200	1	153900
39,50	4	349	200	1	153950
40,00	4	349	200	1	154000
40,50	4	354	205	1	154050
41,00	4	354	205	1	154100
41,50	4	354	205	1	154150
42,00	4	354	205	1	154200

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
42,50	4	354	205	1	154250
43,00	4	359	210	1	154300
43,50	4	359	210	1	154350
44,00	4	359	210	1	154400
44,50	4	359	210	1	154450
45,00	4	359	210	1	154500
45,50	4	364	215	1	154550
46,00	4	364	215	1	154600
46,50	4	364	215	1	154650
47,00	4	364	215	1	154700
47,50	4	364	215	1	154750
48,00	4	369	220	1	154800
48,50	4	369	220	1	154850
49,00	4	369	220	1	154900
49,50	4	369	220	1	154950
50,00	4	369	220	1	155000
50,50	4	369	220	1	155050
51,00	5	412	225	1	155100
52,00	5	412	225	1	155200
53,00	5	412	225	1	155300
54,00	5	417	230	1	155400
55,00	5	417	230	1	155500
56,00	5	417	230	1	155600
57,00	5	422	235	1	155700
58,00	5	422	235	1	155800
59,00	5	422	235	1	155900
60,00	5	422	235	1	156000
61,00	5	427	240	1	156100
62,00	5	427	240	1	156200
63,00	5	427	240	1	156300
64,00	5	432	245	1	156400
65,00	5	432	245	1	156500
66,00	5	432	245	1	156600
67,00	5	432	245	1	156700
68,00	5	437	250	1	156800
69,00	5	437	250	1	156900
70,00	5	437	250	1	157000
71,00	5	437	250	1	157100
72,00	5	442	255	1	157200
75,00	5	442	255	1	157500
78,00	6	514	260	1	157800
80,00	6	519	265	1	158000
85,00	6	519	265	1	158500
90,00	6	524	270	1	159000
95,00	6	529	275	1	159500

DIN 345 N HSS-CO

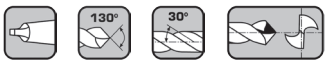
DIN 345 N HSS-CO • DIN 345 N HSS-CO

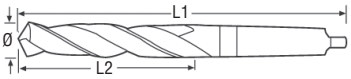


ACERO 800-1100 N/mm²

HSS-CO 5%

DIN 345 N





Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
10,00	1	168	87	1	14C1000
11,00	1	175	94	1	14C1100
11,50	1	175	94	1	14C1150
12,00	1	182	101	1	14C1200
12,50	1	182	101	1	14C1250
13,00	1	182	101	1	14C1300
13,50	1	189	102	1	14C1350
14,00	1	189	102	1	14C1400
14,50	2	212	114	1	14C1450
15,00	2	212	114	1	14C1500
15,50	2	218	120	1	14C1550
16,00	2	218	120	1	14C1600
16,50	2	223	125	1	14C1650
17,00	2	223	125	1	14C1700
17,50	2	228	130	1	14C1750
18,00	2	228	130	1	14C1800
18,50	2	233	135	1	14C1850
19,00	2	233	135	1	14C1900
19,50	2	238	140	1	14C1950
20,00	2	238	140	1	14C2000
20,50	2	243	145	1	14C2050
21,00	2	243	145	1	14C2100

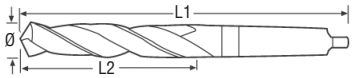
Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
21,50	2	248	150	1	14C2150
22,00	2	248	150	1	14C2200
22,50	2	253	155	1	14C2250
23,00	2	253	155	1	14C2300
24,00	3	281	160	1	14C2400
25,00	3	281	160	1	14C2500
26,00	3	286	165	1	14C2600
27,00	3	291	170	1	14C2700
28,00	3	291	170	1	14C2800
29,00	3	296	175	1	14C2900
30,00	3	296	175	1	14C3000
31,00	3	301	180	1	14C3100
32,00	4	334	185	1	14C3200
33,00	4	334	185	1	14C3300
34,00	4	339	190	1	14C3400
35,00	4	339	190	1	14C3500
36,00	4	344	195	1	14C3600
37,00	4	344	195	1	14C3700
38,00	4	349	200	1	14C3800
39,00	4	349	200	1	14C3900
40,00	4	349	200	1	14C4000

BROCAS PARA METAL MANGO CÓNICO
TAPPER SHANK METAL DRILL BITS • FORETS METAL QUEUE CONIQUE

DIN 345 N HSS-G+TIN
DIN 345 N HSS-G+TIN • DIN 345 N HSS-G+TIN



ACERO 400-800 N/mm² | HSS-G | TIN | DIN 345 N | 118° | 30°



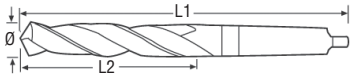
Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
13,50	1	189	108	1	1351350
14,00	1	189	108	1	1351400
14,50	2	212	114	1	1351450
15,00	2	212	114	1	1351500
15,50	2	218	120	1	1351550
16,00	2	218	120	1	1351600
16,50	2	223	125	1	1351650
17,00	2	223	125	1	1351700
17,50	2	228	130	1	1351750
18,00	2	228	130	1	1351800
18,50	2	233	135	1	1351850
19,00	2	233	135	1	1351900
19,50	2	238	140	1	1351950
20,00	2	238	140	1	1352000
20,50	2	243	145	1	1352050

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
21,00	2	243	145	1	1352100
21,50	2	248	150	1	1352150
22,00	2	248	150	1	1352200
22,50	2	253	155	1	1352250
23,00	2	253	155	1	1352300
23,50	3	276	155	1	1352350
24,00	3	281	160	1	1352400
24,50	3	281	160	1	1352450
25,00	3	281	160	1	1352500
26,00	3	286	165	1	1352600
27,00	3	291	170	1	1352700
28,00	3	291	170	1	1352800
29,00	3	296	175	1	1352900
30,00	3	296	175	1	1353000

BROCA CÓNICA 3XD PARA MATERIALES DUROS - HARDOX
3XD TAPER SHANK DRILL FOR HARD METALS - HARDOX
FORET CONIQUE 3XD POUR MATÉRIAUX DURS - HARDOX



ACERO 1100 -1400 N/mm² | INOX | TI | HSS-CO 8% | 130° | H



Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
8,00	1	124	43	1	15HX0800
9,00	1	127	46	1	15HX0900
10,00	1	131	50	1	15HX1000
11,00	1	136	55	1	15HX1100
12,00	2	157	59	1	15HX1200
13,00	2	157	59	1	15HX1300
14,00	2	161	63	1	15HX1400
15,00	2	164	66	1	15HX1500
16,00	2	168	70	1	15HX1600
17,00	2	171	73	1	15HX1700
18,00	2	175	77	1	15HX1800
19,00	3	201	80	1	15HX1900
20,00	3	204	83	1	15HX2000
21,00	3	208	87	1	15HX2100
22,00	3	211	90	1	15HX2200
23,00	3	215	94	1	15HX2300
24,00	3	219	98	1	15HX2400

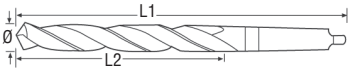
Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
25,00	3	219	98	1	15HX2500
26,00	3	224	103	1	15HX2600
27,00	4	256	107	1	15HX2700
28,00	4	256	107	1	15HX2800
29,00	4	261	112	1	15HX2900
30,00	4	261	112	1	15HX3000
31,00	4	266	117	1	15HX3100
32,00	4	271	122	1	15HX3200
33,00	4	271	122	1	15HX3300
34,00	4	277	128	1	15HX3400
35,00	4	277	128	1	15HX3500
36,00	4	282	132	1	15HX3600
37,00	4	282	132	1	15HX3700
38,00	4	288	139	1	15HX3800
39,00	4	288	139	1	15HX3900
40,00	4	288	139	1	15HX4000

Para otras medidas consultar / *Request for other sizes / Pour d'autres dimensions, nous consulter*

DIN 341 N HSS-G SERIE LARGA

DIN 341 N HSS-G LONG SERIES • DIN 341 N HSS-G SERIE LONGUE





ACERO 400-800 N/mm² | F | HSS-G | DIN 341 N | 118° | 30°

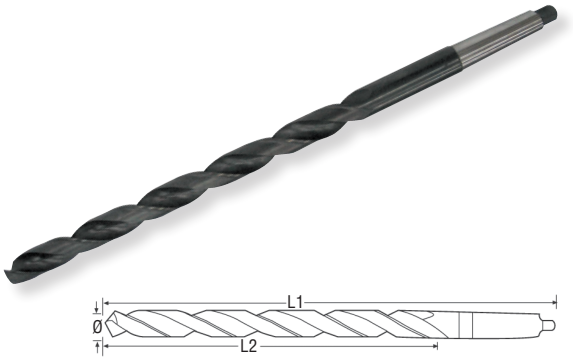
Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
14,00	2	223	142	1	15A1400
15,00	2	245	147	1	15A1500
15,50	2	251	153	1	15A1550
16,00	2	251	153	1	15A1600
16,50	2	257	159	1	15A1650
17,00	2	257	159	1	15A1700
17,50	2	263	165	1	15A1750
18,00	2	263	165	1	15A1800
18,50	2	269	171	1	15A1850
19,00	2	269	171	1	15A1900
19,50	2	275	177	1	15A1950
20,00	2	275	177	1	15A2000
20,50	2	282	184	1	15A2050
21,00	2	282	184	1	15A2100
21,50	2	289	191	1	15A2150
22,00	2	289	191	1	15A2200
22,50	2	296	198	1	15A2250
23,00	2	296	198	1	15A2300
23,50	3	319	198	1	15A2350
24,00	3	327	206	1	15A2400
24,50	3	327	206	1	15A2450

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
25,00	3	327	206	1	15A2500
25,50	3	333	214	1	15A2550
26,00	3	333	214	1	15A2600
26,50	3	333	214	1	15A2650
27,00	3	343	222	1	15A2700
27,50	3	343	222	1	15A2750
28,00	3	343	222	1	15A2800
28,50	3	351	230	1	15A2850
29,00	3	351	230	1	15A2900
29,50	3	351	230	1	15A2950
30,00	3	351	230	1	15A3000
31,00	3	360	239	1	15A3100
32,00	4	397	248	1	15A3200
33,00	4	397	248	1	15A3300
34,00	4	406	257	1	15A3400
35,00	4	406	257	1	15A3500
36,00	4	416	267	1	15A3600
37,00	4	416	267	1	15A3700
38,00	4	426	277	1	15A3800
39,00	4	426	277	1	15A3900
40,00	4	426	277	1	15A4000

DIN 1870 N HSS-G SERIE EXTRALARGA

DIN 1870 N HSS-G EXTRALONG SERIE

DIN 1870 N HSS-G SERIE EXTRALONGUE



ACERO 400-800 N/mm² | F | HSS-G | DIN 1870 N | 118° | 30°

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
10,00	1	285	185	1	15B1000
10,50	1	285	185	1	15B1050
11,00	1	300	195	1	15B1100
11,50	1	300	195	1	15B1150
12,00	1	310	205	1	15B1200
12,50	1	310	205	1	15B1250
13,00	1	310	205	1	15B1300
13,50	1	325	220	1	15B1350
14,00	1	325	220	1	15B1400
14,50	2	340	220	1	15B1450
15,00	2	340	220	1	15B1500
15,50	2	355	230	1	15B1550
16,00	2	355	230	1	15B1600
16,50	2	355	230	1	15B1650
17,00	2	355	230	1	15B1700
17,50	2	370	245	1	15B1750
18,00	2	370	245	1	15B1800
18,50	2	370	245	1	15B1850
19,00	2	370	245	1	15B1900
19,50	2	385	260	1	15B1950
20,00	2	385	260	1	15B2000

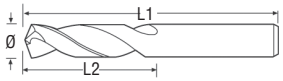
Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.
20,50	2	385	260	1	15B2050
21,00	2	385	260	1	15B2100
21,50	2	405	270	1	15B2150
22,00	2	405	270	1	15B2200
22,50	2	405	270	1	15B2250
23,00	2	405	270	1	15B2300
23,50	3	425	270	1	15B2350
24,00	3	440	290	1	15B2400
24,50	3	440	290	1	15B2450
25,00	3	440	290	1	15B2500
25,50	3	440	290	1	15B2550
26,00	3	440	290	1	15B2600
26,50	3	440	290	1	15B2650
27,00	3	460	305	1	15B2700
27,50	3	460	305	1	15B2750
28,00	3	460	305	1	15B2800
28,50	3	460	305	1	15B2850
29,00	3	460	305	1	15B2900
29,50	3	460	305	1	15B2950
30,00	3	460	305	1	15B3000

EXTRACORTA DIN 1897 N HSS-G

STUB SERIES DIN 1897 N HSS-G • EXTRA COURTE DIN 1897 N HSS-G



ACERO 400-800 N/mm² | F | HSS-G | DIN 1897 N | 135°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	46	16	10	104300
3,25	49	18	10	104325
3,50	52	20	10	104350
3,75	52	20	10	104375
4,00	55	22	10	104400
4,25	55	22	10	104425
4,50	58	24	10	104450
4,75	58	24	10	104475
5,00	62	26	10	104500
5,25	62	26	10	104525
5,50	66	28	10	104550
5,75	66	28	10	104575
6,00	66	28	10	104600
6,25	66	28	10	104625
6,50	70	31	10	104650
6,75	74	34	10	104675
7,00	74	34	10	104700
7,25	74	34	10	104725

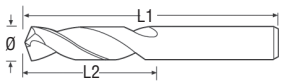
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
7,50	74	34	10	104750
7,75	79	37	10	104775
8,00	79	37	10	104800
8,25	79	37	10	104825
8,50	79	37	10	104850
8,75	84	40	10	104875
9,00	84	40	10	104900
9,50	84	40	10	104950
10,00	89	43	10	104101
10,50	89	43	5	104105
11,00	95	47	5	104110
11,50	95	47	5	104115
12,00	102	51	5	104120
12,50	102	51	5	104126
13,00	102	51	5	104130
14,00	107	54	1	104140
15,00	111	56	1	104155

EXTRACORTA DIN 1897 N HSS-CO

STUB SERIES DIN 1897 N HSS-CO • EXTRA COURTE DIN 1897 N HSS-CO



ACERO 800 -1100 N/mm² | HSS-CO 5% | DIN 1897 N | 135°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	46	16	10	14E300
3,25	49	18	10	14E325
3,50	52	20	10	14E350
3,75	52	20	10	14E375
4,00	55	22	10	14E400
4,25	55	22	10	14E425
4,50	58	24	10	14E450
4,75	58	24	10	14E475
5,00	62	26	10	14E500
5,25	62	26	10	14E525
5,50	66	28	10	14E550
5,75	66	28	10	14E575
6,00	66	28	10	14E600
6,25	66	28	10	14E625
6,50	70	31	10	14E650
6,75	74	34	10	14E675
7,00	74	34	10	14E700
7,25	74	34	10	14E725

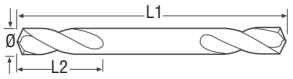
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
7,50	74	34	10	14E750
7,75	79	37	10	14E775
8,00	79	37	10	14E800
8,25	79	37	10	14E825
8,50	79	37	10	14E850
8,75	84	40	10	14E875
9,00	84	40	10	14E900
9,25	84	40	10	14E925
9,50	84	40	10	14E950
9,75	89	43	10	14E975
10,00	89	43	10	14E100
10,50	89	43	5	14E105
11,00	95	47	5	14E110
11,50	95	47	5	14E115
12,00	102	51	5	14E120
12,50	102	51	5	14E125
13,00	102	51	5	14E130

BROCAS CILÍNDRICAS CORTAS
EXTRA SHORT STRAIGHT SHANK DRILL BITS
FORETS CYLINDRIQUES EXTRA COURTES

EXTRACORTA DOBLE PUNTA DIN 1897 N HSS-G
STUB SERIES DOUBLE POINT DIN 1897 N HSS-G
EXTRA COURTE DOUBLE POINT DIN 1897 N HSS-G



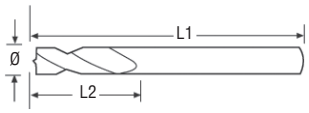
ACERO 400-800 N/mm² | F | HSS-G | DIN 1897 N | 135°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
2,00	38	10	10	104D200
2,25	40	10	10	104D225
2,50	43	10	10	104D250
2,75	46	10	10	104D275
3,00	49	10	10	104D300
3,20	49	10	10	104D320
3,25	49	10	10	104D325
3,50	52	13	10	104D350
3,75	55	13	10	104D375
4,00	55	13	10	104D400
4,25	55	13	10	104D425
4,50	58	13	10	104D450

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
4,75	62	13	10	104D475
5,00	62	13	10	104D500
5,25	62	13	10	104D525
5,50	66	16	10	104D550
5,75	66	16	10	104D575
6,00	66	16	10	104D600
6,50	70	19	10	104D650
7,00	74	19	10	104D700
7,50	74	19	10	104D750
8,00	79	19	10	104D800
9,00	84	20	10	104D900
10,00	89	22	10	104D100

BROCA CILÍNDRICA PARA PUNTO DE SOLDADURA
STRAIGHT SHANK WELD POINT DRILL BITS
FORETS DEPOINTEUR QUEUE CYLINDRIQUE



ACERO 800 -1100 N/mm²

HSS-CO 5% | DIN 1897

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,00	66,00	28,00	1,00	TS0600
7,00	74,00	28,00	1,00	TS0700
8,00	79,00	37,00	1,00	TS0800
10,00	89,00	43,00	1,00	TS1000



ACERO 800 -1100 N/mm²

HSS-CO 5% | TIN | DIN 1897

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,00	66,00	28,00	1,00	TT0600
7,00	74,00	28,00	1,00	TT0700
8,00	79,00	37,00	1,00	TT0800



ACERO 1100 -1400 N/mm²

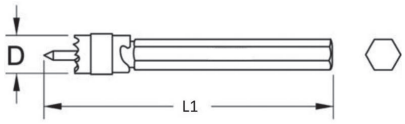
HSS-CO 5% | TIALN | DIN 1897

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,00	66,00	28,00	1,00	TF0600
7,00	74,00	28,00	1,00	TF0700
8,00	79,00	37,00	1,00	TF0800
10,00	89,00	43,00	1,00	TF1000



Recomendado para uso en aceros al Boro / *Recomended for Boron steel* / *Recommendé pour aciers au Bore*

BROCA PARA PUNTO DE SOLDADURA NEW
WELD POINT DRILL BITS
FORETS DEPOINTEUR



ACERO 400-800 N/mm²

HSS-G

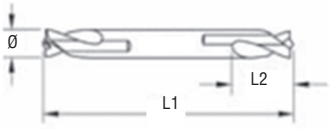
Ø (mm)	L1 (mm)	Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.
10,00	72,00	7,00	1,00	TFR1000



Aplicaciónes: Para eliminiar puntos de soldadura en paneles de carrocería de vehículos y todo tipo de chapas
Applications: To eliminate welding points in vehicle body panels and all types of sheet metal
Applications: Pour éliminer les points de soudure sur les panneaux de carrosserie et tous les types de tôles

BROCA PARA PUNTO DE SOLDADURA - DOBLE PUNTA
WELD POINT DRILL BITS - DOUBLE POINT
FORETS DEPOINTEUR - DOUBLE POINT

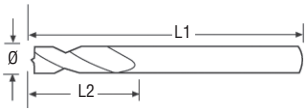
ACERO 800 -1100 N/mm² | HSS-CO 5%





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
8,00	70,00	16,30	1,00	TSD0800

BROCA CON CHAVETERO PARA MÁQUINA NEUMÁTICA
WELD POINT DRILL BITS PNEUMATIC TOOLS
FORETS DEPOINTEUR QUEUE CYLINDRIQUE MACHINES NEUMATIQUES



ACERO 800 -1100 N/mm² | HSS-CO 5%



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,00	45,00	16,00	1,00	TSN600
8,00	45,00	18,00	1,00	TSN800

ACERO 800 -1100 N/mm² | HSS-CO 5% | TIN



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,00	45,00	16,00	1,00	TTN600
8,00	45,00	18,00	1,00	TTN800

ACERO 1100 -1400 N/mm² | HSS-CO 5% | TIALN

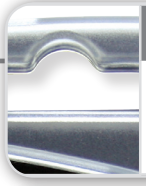


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
8,00	45,00	18,00	1,00	TFN800

Recomendado para uso en aceros al Boro / *Recomended for Boron steel* / *Recommendé pour aciers au Bore*

SESA BOX





COLGADOR	HANGER	CINTRE
Herramienta siempre ordenada	*Tools always organized*	*Outils toujours bien organisés*



CALIDAD HERRAMIENTA	TOOL QUALITY	QUALITÉ DES OUTILS
Herramienta SESATOOLS, máximo rendimiento	*SESATOOLS drill bits, maximum performance*	*Outils SESA TOOLS, maximum rendement*



APERTURA	OPENING	OUVERTURE
Sistema de cierra, herramienta siempre bien guardada	*Closing system, well kept tools*	*Système de fermeture, outils toujours bien gardés*



ACCESO A LA HERRAMIENTA	ACCES TO THE TOOLS	ACCÉS AUX OUTILS
Bastidor móvil, acceso fácil y rápido a la herramienta	*Moving frame, fast and easy tool fitting*	*Chassis mobile, accès facile et rapide*



RESISTENCIA CAÍDAS	RESISTENCE TO THE FALLS	RÉSISTENCE AUX CHUTE
Plástico flexible y ultraresistente	*Ultra resistant and flexible plastic*	*Plastique flexible et ultrarésistant*

ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

BASIC BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*							Medidas / *Sizes*	Cod.
HSS WHITE	HSS	+	BASIC	+	MADERA		5 - 6 - 8 mm	19CB339



19CB339

STANDARD BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*							Medidas / *Sizes*	Cod.
HSS G	HSS-G	+	GRANITO	+	MADERA		5 - 6 - 8 mm	19CM339



19CM339

ADVANCE BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*							Medidas / *Sizes*	Cod.
HSS CO	HSS-CO 5%	+	TORNADO	+	MADERA		5 - 6 - 8 mm	19CA339



19CA339

ESTUCHE MODELO 314 - COMPOSICIÓN: 3-4-5-6-8 mm

SET MOD.: 314 - CONTAINS: 3-4-5-6-8 mm
COFFRET MOD.: 314 - COMPOSITION: 3-4-5-6-8 mm

DIN 338

NEW



1915314 | 155P314 | 194314 | 194P314 | 195P314 | 192314 | 19SD314

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915314
HSS	WHITE *WHITE*	1	155P314
HSS-CO 5%		1	194314

Calidad / *Quality*			Uds. *Pcs.*	Cod.
INOX	HSS-G	INOX PROGRESIVA *PROGRESSIVE INOX*	1	194P314
INOX	HSS-CO 5%		1	195P314
	TIN		1	192314
	HSS-G	ST STEP	1	19SD314

ESTUCHE MODELO 333 - COMPOSICIÓN: 3-4-5-6-7-8-9-10 mm

SET MOD.: 333- CONTAINS: 3-4-5-6-7-8-9-10 mm
COFFRET MOD.: 333 - COMPOSITION: 3-4-5-6-7-8-9-10 mm

DIN 338

NEW



1915333 | 155P333 | 194333 | 194P333 | 195P333 | 192333 | 19SD333

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915333
HSS	WHITE *WHITE*	1	155P333
HSS-CO 5%		1	194333

Calidad / *Quality*			Uds. *Pcs.*	Cod.
INOX	HSS-G	*INOX PROGRESIVA* *PROGRESSIVE INOX*	1	194P333
INOX	HSS-CO 5%		1	195P333
	TIN		1	192333
	HSS-G	ST STEP	1	19SD333

ESTUCHE CRT19 PLÁSTICO - COMPOSICIÓN: 19 PIEZAS, 1-10 x 0,5 mm

SET MOD.: CRT19 PLASTIC - 19 PIECES, 1-10 x 0,5 mm
COFFRET MOD.: CRT19 PLASTIQUE - 19 PIÈCES, 1-10 x 0,5 mm

DIN 338



1915019T



194019T



194P019T



1935019T

Calidad / *Quality*			Uds. *Pcs.*	Cod.
	HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915019T
	HSS-CO 5%		1	194019T
INOX	HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	194P019T

Calidad / *Quality*		Uds. *Pcs.*	Cod.
INOX	HSS-CO 5%	1	1935019T
ESTUCHE VACÍO / *EMPTY SET*		1	19R2008

ESTUCHE DRT25 PLÁSTICO - COMPOSICIÓN: 25 PIEZAS, 1-13 x 0,5 mm

SET MOD.: DRT25 PLASTIC - 25 PIECES, 1-13 x 0,5 mm
COFFRET MOD.: DRT25 PLASTIQUE - 25 PIÈCES, 1-13 x 0,5 mm

DIN 338



1915025T



194025T



194P025T



1935025T

Calidad / *Quality*			Uds. *Pcs.*	Cod.
	HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915025T
	HSS-CO 5%		1	194025T
INOX	HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	194P025T

Calidad / *Quality*		Uds. *Pcs.*	Cod.
INOX	HSS-CO 5%	1	1935025T
ESTUCHE VACÍO / *EMPTY SET*		1	19R2007

ESTUCHE CR19 METAL - COMPOSICIÓN: 19 PIEZAS, 1-10 x 0,5 mm

SET MOD.: CR19 METAL - 19 PIECES, 1-10 x 0,5 mm
COFFRET MOD.: CR19 MÉTAL - 19 PIÈCES, 1-10 x 0,5 mm

DIN 338



1915119 1935519 194019 192119 1935119 1915019NI 1SD019

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915119
HSS	WHITE *WHITE*	1	1935519
HSS-CO 5%		1	194019

Calidad / *Quality*		Uds. *Pcs.*	Cod.
TIN		1	192119
HSS		1	1935119
HSS-G	A IZQUIERDAS 1-10 mm *LEFT 1-10 mm*	1	1915019NI
HSS-G	ST STEP	1	1SD019
ESTUCHE VACÍO / *EMPTY SET*		1	19CR19

ESTUCHE DR25 METAL - COMPOSICIÓN: 25 PIEZAS, 1-13 x 0,5 mm

SET MOD.: DR25 METAL - 25 PIECES, 1-13 x 0,5 mm
COFFRET MOD.: DR25 MÉTAL - 25 PIÈCES, 1-13 x 0,5 mm

DIN 338



1915025 1935525 194025 192025 1935025 1SD025

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915025
HSS	WHITE *WHITE*	1	1935525
HSS-CO 5%		1	194025

Calidad / *Quality*		Uds. *Pcs.*	Cod.
TIN		1	192025
HSS		1	1935025
HSS-G	ST STEP	1	1SD025
ESTUCHE VACÍO / *EMPTY SET*		1	19DR25

ESTUCHE FR37 METAL - COMPOSICIÓN: 37 PIEZAS, 1-10 x 0,25 mm

SET MOD.: FR37 METAL - 37 PIECES, 1-10 x 0,25 mm
COFFRET MOD.: FR37 METAL - 37 PIÈCES, 1-10 x 0,25 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915037
HSS-CO 5%		1	194037
TIN		1	192037

Calidad / *Quality*			Uds. *Pcs.*	Cod.
INOX	HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	194P037
ESTUCHE VACÍO / *EMPTY SET*			1	19R037

ESTUCHE LR49 METAL - COMPOSICIÓN: 49 PIEZAS 1-13 x 0,25 mm

SET MOD.: LR49 METAL - 49 PIECES 1-13 x 0,25 mm
COFFRET MOD.: LR49 METAL - 49 PIÈCES 1-13 x 0,25 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915049
HSS-CO 5%		1	194049
TIN		1	192049

Calidad / *Quality*			Uds. *Pcs.*	Cod.
INOX	HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	194P049
ESTUCHE VACÍO / *EMPTY SET*			1	19R049

ESTUCHE M.014 METAL - COMPOSICIÓN: 51 PIEZAS 1-6,0 x 0,1 mm

SET MOD.: M.014 METAL - 51 PIECES 1-6,0 x 0,1mm
COFFRET MOD.: M.014 METAL - 51 PIÈCES 1-6,0 x 0,1 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915014
HSS-CO 5%		1	194014

Calidad / *Quality*	Uds. *Pcs.*	Cod.
ESTUCHE VACÍO / *EMPTY SET*	1	19R0014

ESTUCHE M.015 METAL - COMPOSICIÓN: 41 PIEZAS 6-10 x 0,1 mm

SET MOD.: M.015 METAL - 41 PIECES 6-10 x 0,1 mm
COFFRET MOD.: M.015 METAL - 41 PIÈCES 6-10 x 0,1mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915015
HSS-CO 5%		1	1940015

Calidad / *Quality*	Uds. *Pcs.*	Cod.
ESTUCHE VACÍO / *EMPTY SET*	1	19R0015

ESTUCHE M.9965 PLÁSTICO - COMPOSICIÓN: 91 PIEZAS 1-10 x 0,1mm

SET MOD.: M.9965 METAL - 91 PIECES 1-10 x 0,1 mm
COFFRET MOD.: M.9965 METAL - 91 PIÈCES 1-10 x 0,1 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	19159965
HSS-CO 5%		1	1949965

Calidad / *Quality*	Uds. *Pcs.*	Cod.
ESTUCHE VACÍO / *EMPTY SET*	1	19R9965

ESTUCHE M.880 PLÁSTICO - COMPOSICIÓN: 292 PIEZAS 1-10 x 0.5 mm

SET MOD.: M.880 PLASTIC
292 PIECES 1-10 x 0,5 mm
COFFRET MOD.: M.880 PLASTIQUE
292 PIÈCES 1-10 x 0,5 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	145R880
HSS	WHITE *WHITE*	1	155R880
HSS-CO 5%		1	14R880
INOX HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	14PR880

Calidad / *Quality*	Uds. *Pcs.*	Cod.
INOX HSS-CO 5%	1	193R880
TIN	1	13R880
ESTUCHE VACÍO / *EMPTY SET*	1	19R880

Contenido / Contains / Contenu

Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
1,00	20	3,50	20	6,00	20	8,50	8
1,50	20	4,00	15	6,50	15	9,00	8
2,00	20	4,50	15	7,00	15	9,50	8
2,50	20	5,00	15	7,50	15	10,00	8
3,00	20	5,50	15	8,00	15		

EXPOSITORES SESA KUBO

DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

NEW

Cod.	COMPOSICIÓN KUBO		REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 03	HSS-G	HSS-G	1915314	3-4-5-6-8 mm	10
KUBO 03P	HSS	HSS	155P314	3-4-5-6-8 mm	10
KUBO 04	HSS-CO	HSS-CO 5%	194314	3-4-5-6-8 mm	10
KUBO 05	HSS-G INOX	INOX	194P314	3-4-5-6-8 mm	10
KUBO 06	ST STEP	HSS-G	19SD314	3-4-5-6-8 mm	10
KUBO 07	JR PORCELANATO		010205S1	4-5-6-6-8 mm	5
	HSS-CO	HSS-CO 5%	194314	3-4-5-6-8 mm	5
KUBO 08	HSS-G	HSS-G	1915314	3-4-5-6-8 mm	5
	HORMAT		1GR327N	4-5-6-6-8 mm	5
KUBO 09	HSS-G	HSS-G	1915314	3-4-5-6-8 mm	5
	HSS-CO	HSS-CO 5%	194314	3-4-5-6-8 mm	5



Cod.	COMPOSICIÓN KUBO		REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 12	HSS-G	HSS-G	1915314	3-4-5-6-8 mm	7
	HSS-CO	HSS-CO 5%	194314	3-4-5-6-8 mm	7
	HSS-G INOX	INOX	194P314	3-4-5-6-8 mm	7



EXPOSITORES SESA KUBO
DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

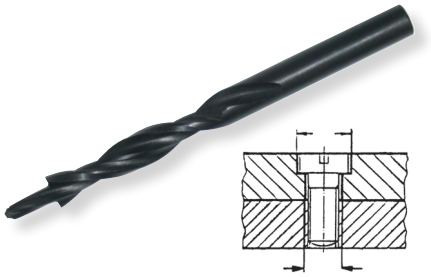
NEW

Cod.	COMPOSICIÓN KUBO		REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 10	ST STEP	HSS-G	19SD314	3-4-5-6-8 mm	7
	ST STEP	HSS-G	19SD333	3-4-5-6-7-8-9-10 mm	7
KUBO 14	HSS-G	HSS-G	1915314	3-4-5-6-8 mm	7
	HSS-G	HSS-G	1915333	3-4-5-6-7-8-9-10 mm	7
KUBO 15	HSS-CO	HSS-CO 5%	194314	3-4-5-6-8 mm	7
	HSS-CO	HSS-CO 5%	194333	3-4-5-6-7-8-9-10 mm	7

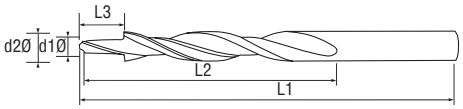


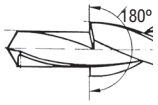
BROCA BIDIAMETRAL PARA ASIENTOS DE TORNILLO 180º

SUBLAND DRILL BITS 180º • FORETS ÉTAGÉS Á VIS 180º



ACERO 400-800 N/mm² | F | HSS-G | DIN 8376 | 180º

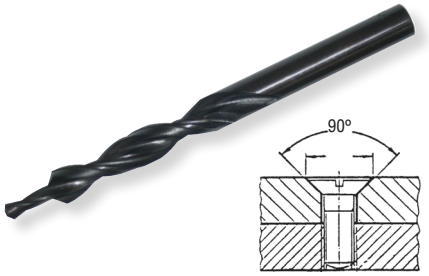




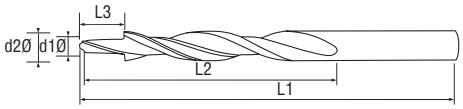
Ø (mm)	L1 (mm)	L2 (mm)	L3 (mm)	d1 (mm)	d2 (mm)	Cod.
M 3	93	57	9	3,4	6	16B0300
M 4	117	75	11	4,5	8	16B0400
M 5	133	87	13	5,5	10	16B0500
M 6	142	94	15	6,5	11	16B0600
M 8	169	114	19	9,0	15	16B0800
M 10	191	130	23	11,0	18	16B1000

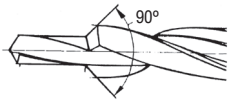
BROCA BIDIAMETRAL PARA ASIENTOS DE TORNILLO 90º

SUBLAND DRILL BITS 90º • FORETS ÉTAGÉS Á VIS 90º



ACERO 400-800 N/mm² | F | HSS-G | DIN 8374 | 90º



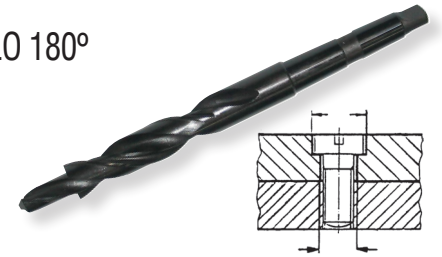


Ø (mm)	L1 (mm)	L2 (mm)	L3 (mm)	d1 (mm)	d2 (mm)	Cod.
M 3	93	57	9	3,2	6,0	16C0300
M 4	117	75	11	4,3	8,0	16C0400
M 5	133	87	13	5,3	10,0	16C0500
M 6	142	94	15	6,4	11,5	16C0600
M 8	169	114	19	8,4	15,0	16C0800
M 10	198	135	23	10,5	19,0	16C1000

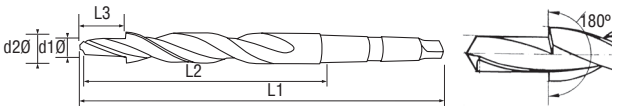
BROCA BIDIAMETRAL MANGO CÓNICO PARA ASIENTOS DE TORNILLO 180º

TAPPER SHANK SUBLAND DRILL BITS 180º

FORETS ÉTAGÉS Á VIS 180º QUEUE CONIQUE



ACERO 400-800 N/mm² | F | HSS-G | DIN 8377 | 180º

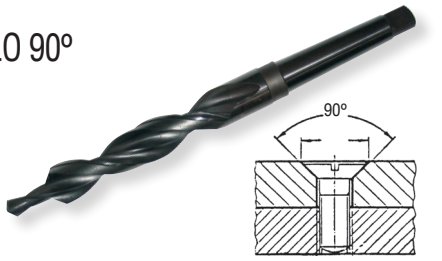


Ø (mm)	L1	L2	L3	d1	d2	Cono Morse / *Tapper Shank*	Cod.
M 8	212	114	19	9,0	15	2	16D0800
M 10	228	130	23	11,0	18	2	16D1000
M 12	238	140	27	13,5	20	2	16D1200
M 14	281	160	31	15,5	24	3	16D1400
M 16	286	165	35	17,5	26	3	16D1600
M 18	296	175	39	20,0	30	3	16D1800
M 20	334	185	43	22,0	33	4	16D2000

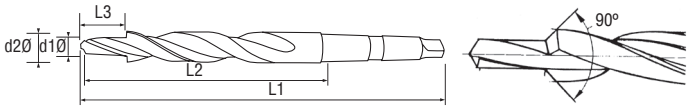
BROCA BIDIAMETRAL MANGO CÓNICO PARA ASIENTOS DE TORNILLO 90º

TAPPER SHANK SUBLAND DRILL BITS 90º

FORETS ÉTAGÉS Á VIS 90º QUEUE CONIQUE



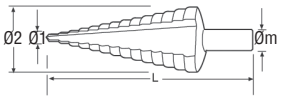
ACERO 400-800 N/mm² | F | HSS-G | DIN 8375 | 90º



Ø (mm)	L1	L2	L3	d1	d2	Cono Morse / *Tapper Shank*	Cod.
M 5	175	94	13	5,5	11,0	1	16E0500
M 6	182	101	15	6,6	13,0	1	16E0600
M 8	228	130	19	9,0	17,2	2	16E0800
M 10	248	150	23	11,0	21,5	2	16E1000

BROCAS ESCALONADAS RECTAS
STEP DRILL-BITS • FRAISES ÉTAGÉES

ACERO 400-800 N/mm² | HSS-G | 118°

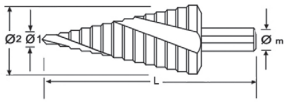




Ø 1 (mm)	L1 (mm)	Ø Mango / *Ø Shank* (mm)	Uds. / *Pcs.*	Cod.
4 a 12 / 1	74	6,5	1	109401
4 a 20 / 2	68	10	1	109402
4 a 30 / 2	101	10	1	109403
6 a 38 / 2	101	10	1	109632

BROCAS ESCALONADAS CANAL HELICOIDAL
SPIRAL STEP DRILL-BITS • FRAISES ÉTAGÉES SPIRAL

ACERO 400-800 N/mm² | HSS-G | 118° | 35°





Ø 1 a Ø 2 (mm)	L1 (mm)	Ø Mango / *Ø Shank* (mm)	Uds. / *Pcs.*	Cod.
4-12	65	6	1	110401
4-20	75	8	1	110402
4-30	100	10	1	110403
6-38	100	10	1	110632

ESTUCHE DE BROCAS ESCALONADAS
STEP DRILL BITS SET
COFFRETS FRAISES ETAGÉES



Medidas / *Sizes*
4 a 12 / 1 - 4 a 20 / 2 - 4 a 30 / 2 mm

Tipo / Type	Uds. *Pcs.*	Cod.
RECTA *STRAIGHT*	3	109169

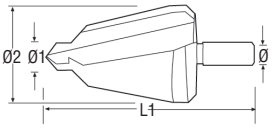


Medidas / *Sizes*
4 a 12 / 1 - 4 a 20 / 2 - 4 a 30 / 2 mm

Tipo / Type	Uds. *Pcs.*	Cod.
HELICOIDAL 35° *SPIRAL 35°*	3	109170

BROCAS CÓNICA PARA TUBO Y CHAPA
SHEET METAL DRILL-BITS • FORETS CONIQUES

HSS-G



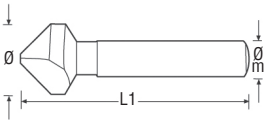


Ø 1 a Ø 2 (mm)	L1 (mm)	Ø Mango / *Ø Shank* (mm)	Uds. / *Pcs.*	Cod.
3 a 14	58	6	1	108031
6 a 20	70	8	1	108062
16 a 30,5	79	10	1	108163
26 a 40	86	10	1	108264

AVELLANADOR HSS-G 90º
90º HSS-G COUNTERSINK CUTTERS • FRAISES CONIQUE 90º HSS-G



ACERO 400-800 N/mm² | HSS-G | DIN 335C | 3Z | 90º



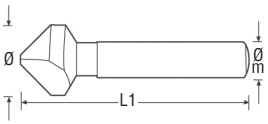
Ø (mm)	L1 (mm)	Mango/*Shank* Ø (mm)	Para tornillos *For screws*	Uds. *Pcs.*	Cod.
4,30	44	4		1	T04344
6,30	45	5	M3	1	T06344
8,30	50	6	M4	1	T08350
10,40	50	6	M5	1	T10454
12,40	54	8	M6	1	T12454

Ø (mm)	L1 (mm)	Mango/*Shank* Ø (mm)	Para tornillos *For screws*	Uds. *Pcs.*	Cod.
16,50	60	10	M8	1	T16560
20,50	63	10	M10	1	T20563
25,00	66	10	M12	1	T25066
31,00	72	12	M16	1	T31071

AVELLANADOR HSS-CO 90º
90º HSS-CO COUNTERSINK CUTTERS • FRAISES CONIQUE 90º HSS-CO



ACERO 800 -1100 N/mm² | HSS-CO 5% | DIN 335C | 3Z | 90º



Ø (mm)	L1 (mm)	Mango/*Shank* Ø (mm)	Para tornillos *For screws*	Uds. *Pcs.*	Cod.
4,30	40	4		1	3AE0430
6,30	45	5	M3	1	3AE0630
8,30	50	6	M4	1	3AE0830
10,40	50	6	M5	1	3AE1040
12,40	56	8	M6	1	3AE1250

Ø (mm)	L1 (mm)	Mango/*Shank* Ø (mm)	Para tornillos *For screws*	Uds. *Pcs.*	Cod.
16,50	60	10	M8	1	3AE1650
20,50	63	10	M10	1	3AE2050
25,00	67	10	M12	1	3AE2500
31,00	71	12	M16	1	3AE3100
40,00	80	15		1	3AE4000

ESTUCHE AVELLANADORES 90º
90º COUNTERSINKS SETS • COFFRETS FRAISES À CHANFREINER 90º



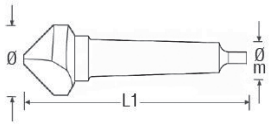
Medidas / *Sizes*
6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm

Calidad *Quality*	Uds. *Pcs.*	Cod.
HSS-G	6	T40757
HSS-CO 5%	6	T40757C

AVELLANADOR HSS-G 90º MANGO CÓNICO
90º TAPER SHANK HSS-G COUNTERSINK CUTTERS
FRAISE CONIQUE QUEUE CONIQUE 90º HSS-G



ACERO 400-800 N/mm² | HSS-G | DIN 335D | 3Z | 90º



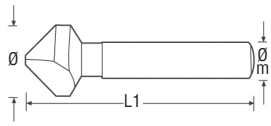
Ø (mm)	L1 (mm)	Mango/*Shank* Ø (mm)	Para tornillos *For screws*	Uds. *Pcs.*	Cod.
16,50	85	12.065 (CM 1)	M8	1	3AM1650
20,50	100	17.780 (CM 2)	M10	1	3AM2050
25,00	106	17.780 (CM 2)	M12	1	3AM2500
31,00	112	17.780 (CM 2)	M16	1	3AM3100

Ø (mm)	L1 (mm)	Mango/*Shank* Ø (mm)	Para tornillos *For screws*	Uds. *Pcs.*	Cod.
40,00	140	23.825 (CM 3)		1	3AM4000
50,00	150	23.825 (CM 3)		1	3AM5000
63,00	180	31.267 (CM 4)		1	3AM6300
80,00	190	31.267 (CM 4)		1	3AM8000

AVELLANADOR HSS-G 60º
60º HSS-G COUNTERSINK CUTTERS
FRAISES CONIQUE 60º HSS-G



ACERO 400-800 N/mm² | HSS-G | DIN 334C | 3Z | 60°



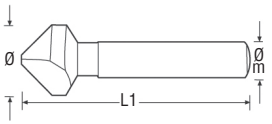
Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds, *Pcs,*	Cod,
6,30	45	5	1	3AS0630
8,30	50	6	1	3AS0800
10,00	53	6	1	3AS1000

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds, *Pcs,*	Cod,
12,50	56	8	1	3AS1250
16,00	63	10	1	3AS1600
20,50	67	10	1	3AS2050

AVELLANADORES HSS-G 90º HEXAGONAL
90º HSS-G HEXAGONAL COUNTERSINK
FRAISE CONIQUE 90º HSS-G HEXAGONALE







ACERO 400-800 N/mm² | HSS-G | 1/4 | 90º

Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.
6,30	31	1	3R67306
8,30	31	1	3R67308
10,40	34	1	3R67310
12,40	35	1	3R67312
16,50	40	1	3R67316
20,50	41	1	3R67320

MANGO SILICONA ENTRADA HEXAGONAL
SILICONE HEXAGONAL SHANK HOLDER, INLET 1/4"
MANCHE À SILICONE, ENTRÉE 1/4"

Uds. / *Pcs.*	Cod.
1	NZBD14

CJTO. AVELLANANADORES C/ADAPTADOR Y MANGO
COUNTERSINKS SETS
COFFRET FRAISES
À CHANFREINER

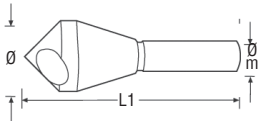


Medidas / *Sizes*
6,3 - 8,3 - 10,4 - 12,4, 16,5 - 20,5 mm

Uds. / *Pcs.*	Cod.
8	3R67423

AVELLANADOR 90º HSS-G CON AGUJERO
90º HSS-G COUNTERSINK CUTTERS WITH HOLE
FRAISES À TROU ET À CHANFREINER 90º HSS-G





ACERO 400-800 N/mm² | AL | HSS-G | 90º

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.
2-5	45	6	1	T50001
5-10	48	8	1	T50002
10-15	65	10	1	T50003
15-20	85	12	1	T50004
20-25	100	15	1	T50005

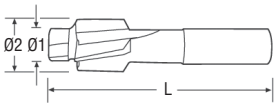
AVELLANADOR HSS-G PARA ASIENTO DE TORNILLOS "ALLEN"
FLAT COUNTERSINK • FRAISES À LAMER



ACERO 400-800 N/mm²

HSS-G

DIN 373



Ø (mm)	Ø 1 (mm)	Ø 2 (mm)	Uds. / *Pcs.*	Cod.
3,00	3,2	6,0	1	TAAM03
4,00	4,3	8,0	1	TAAM04
5,00	5,3	10,0	1	TAAM05
6,00	6,4	11,0	1	TAAM06
8,00	8,4	15,0	1	TAAM08
10,00	10,5	18,0	1	TAAM10
12,00	13,0	20,0	1	TAAM12

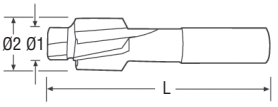
AVELLANADOR HSS-G PARA ASIENTO DE TORNILLOS "ALLEN"
FLAT COUNTERSINK • FRAISES À LAMER



ACERO 400-800 N/mm²

HSS-G

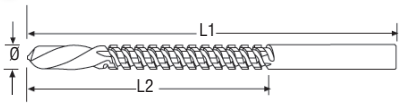
DIN 375



Ø (mm)	Ø 1 (mm)	Ø 2 (mm)	Cono Morse / *Tapper Shank*	Uds. / *Pcs.*	Cod.
8,00	8,4	15,0	2	1	TABM08
10,00	10,5	18,0	2	1	TABM10
12,00	13,0	20,0	2	1	TABM12
14,00	15,0	24,0	2	1	TABM14
16,00	17,0	26,0	3	1	TABM16
18,00	19,0	30,0	3	1	TABM18
20,00	21,0	33,0	3	1	TABM20

BROCA FRESA *CUTTING DRILL BITS • FORETS FRAISEUR*





ACERO 800 -1100 N/mm²

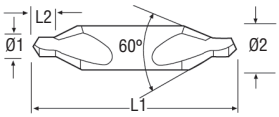
HSS-G | TIN

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,00	90	60	1	1360600
8,00	90	60	1	1360800

BROCAS DE CENTRAR
CENTER DRILLS • FORETS À CENTRER

BROCA HSS DE CENTRAR 60º
HSS 60º CENTER DRILLS • FORETS À CENTRER HSS 60º





ACERO 400-800 N/mm²

HSS-G | DIN 333 A

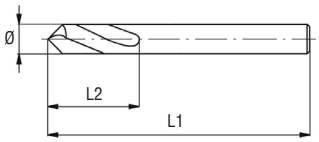
Ø 1 (mm)	Ø 2 (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
1,00	3,15	31,5	1,6	1	106100
1,25	3,15	33,5	1,9	1	106125
1,60	4,00	37,5	2,4	1	106160
2,00	5,00	42,0	2,9	1	106200
2,50	6,30	47,0	3,6	1	106250
3,15	8,00	52,0	4,4	1	106315
4,00	10,00	59,0	5,6	1	106400
5,00	12,50	66,0	6,9	1	106500
6,30	16,00	74,0	8,6	1	106630
10,00	25,00	100,0	31,5	1	106102
12,50*	31,50	125,0	33,5	1	1061250

*Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

BROCA DE PUNTEAR 90º

90º NC SPOTTING DRILLS • FORETS À CENTRER 90º





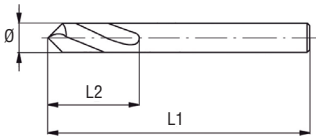
ACERO 800 -1100 N/mm² | INOX | F | HSS-CO 5% | 90°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	46,00	12,00	1	11590030
4,00	55,00	12,00	1	11590040
5,00	62,00	14,00	1	11590050
6,00	66,00	16,00	1	11590060
8,00	79,00	21,00	1	11590080
10,00	89,00	25,00	1	11590100
12,00	102,00	30,00	1	11590120
14,00	107,00	34,00	1	11590140
16,00	115,00	38,00	1	11590160

BROCA DE PUNTEAR 120º

120º NC SPOTTING DRILLS • FORETS À CENTRER 120º





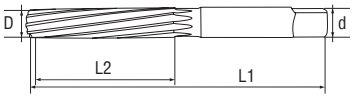
ACERO 800 -1100 N/mm² | INOX | F | HSS-CO 5% | 120º

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3,00	46,00	12,00	1	115128030
4,00	55,00	12,00	1	115128040
5,00	62,00	14,00	1	115128050
6,00	66,00	16,00	1	115128060
8,00	79,00	21,00	1	115128080
10,00	89,00	25,00	1	115128100
12,00	102,00	30,00	1	115128120
14,00	107,00	34,00	1	115128140
16,00	115,00	38,00	1	115128160

ESCARIADOR HELICOIDAL DE MANO
HAND REAMER • ALÉSOIR À MAIN



ACERO 400-800 N/mm² | HSS-G | DIN 206 B | TOL 7H | 8°



D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.
3,00	3,00	62	31	4	1	N10300
3,50	3,50	71	35	4	1	N10350
4,00	4,00	76	38	6	1	N10400
4,50	4,50	81	41	6	1	N10450
5,00	5,00	87	44	6	1	N10500
5,50	5,50	93	47	6	1	N10550
6,00	6,00	93	47	6	1	N10600
6,50	6,50	107	54	6	1	N10650
7,00	7,00	107	54	6	1	N10700
7,50	7,50	115	58	6	1	N10750
8,00	8,00	115	58	6	1	N10800
8,50	8,50	124	62	6	1	N10850
9,00	9,00	124	62	6	1	N10900
9,50	9,50	133	66	6	1	N10950
10,00	10,00	133	66	6	1	N11000
10,50	10,50	142	71	6	1	N11050
11,00	11,00	142	71	6	1	N11100
11,50	11,50	152	76	6	1	N11150
12,00	12,00	152	76	6	1	N11200
12,50	12,50	152	76	6	1	N11250
13,00	13,00	152	76	6	1	N11300
13,50	13,50	163	81	8	1	N11350
14,00	14,00	163	81	8	1	N11400
14,50	14,50	163	81	8	1	N11450
15,00	15,00	163	81	8	1	N11500
15,50	15,50	175	87	8	1	N11550
16,00	16,00	175	87	8	1	N11600
16,50	16,50	175	87	8	1	N11650
17,00	17,00	175	87	8	1	N11700
17,50	17,50	188	93	8	1	N11750
18,00	18,00	188	93	8	1	N11800
18,50	18,50	188	93	8	1	N11850
19,00	19,00	188	93	8	1	N11900
20,00	20,00	201	100	8	1	N12000
21,00	21,00	215	107	8	1	N12100
22,00	22,00	215	107	8	1	N12200
23,00	23,00	231	115	8	1	N12300
24,00	24,00	231	115	8	1	N12400
25,00	25,00	231	115	10	1	N12500
26,00	26,00	231	115	10	1	N12600
27,00	27,00	247	124	10	1	N12700
28,00	28,00	247	124	10	1	N12800
29,00	29,00	247	124	10	1	N12900
30,00	30,00	265	133	10	1	N13000
32,00	32,00	265	133	10	1	N13200

Para medidas no tarifadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

ESCARIADOR CÓNICO DE MANO - CONICIDAD 2:100

TAPERED REAMER - 2 IN 100 TAPPER

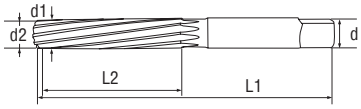
ALÉSOIR CONIQUE À MAIN - CONICITÉ 2:100



ACERO 400-800 N/mm²

HSS-G

DIN 9 A



D Ø NOMINAL (mm)	d1 Ø (mm)	d2 Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.
2,00	1,90	2,86	68	48	4	1	N20200
2,50	2,40	3,36	68	48	4	1	N20250
3,00	2,90	4,06	80	58	4	1	N20300
4,00	3,90	5,26	93	68	4	1	N20400
5,00	4,90	6,36	100	73	4	1	N20500
6,00	5,90	8,00	135	105	6	1	N20600
8,00	7,90	10,80	180	145	6	1	N20800
10,00	9,90	13,40	215	175	6	1	N21000
12,00	11,80	16,00	255	210	8	1	N21200
13,00	12,80	17,00	255	210	8	1	N21300
14,00	13,80	18,00	255	210	8	1	N21400
16,00	15,80	20,40	280	230	8	1	N21600
20,00	19,80	24,80	310	250	8	1	N22000

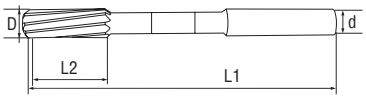
Consultar medidas no tarifadas y disponibilidad de medidas en tipo B
Request measurements not listed and availability in type B
Consulter les mesures non tarifaires et la disponibilité dans le type B

ESCARIADOR HELICOIDAL DE MÁQUINA
MACHINE REAMER • ALÉSOIR MACHINE



ACERO 800 -1100 N/mm²

HSS-CO 5% | DIN 212 D | TOL 7H | 8°



D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.
3,00	3,00	61	15	6	1	N70300
3,50	3,50	70	18	6	1	N70350
4,00	4,00	75	19	6	1	N70400
4,50	4,50	80	21	6	1	N70450
5,00	5,00	86	23	6	1	N70500
5,50	5,60	93	26	6	1	N70550
6,00	5,60	93	26	6	1	N70600
7,00	7,10	109	31	6	1	N70700
8,00	8,00	117	33	6	1	N70800
9,00	9,00	125	36	6	1	N70900
10,00	10,00	133	38	6	1	N71000
11,00	10,00	142	41	6	1	N71100
12,00	10,00	151	44	6	1	N71200
13,00	10,00	151	44	6	1	N71300
14,00	12,50	160	47	8	1	N71400
15,00	12,50	162	50	8	1	N71500
16,00	12,50	170	52	8	1	N71600

Para medidas no tarifadas consultar. / ***For measurements not listed, request*** / ***Pour des mesures non cotées consulter***

MATERIAL / *MATERIAL* / *MATIERE*		Resistencia *Resistance* N/mm	Vc (m/min.)	4 mm. Avance	4 mm. Ø Previo
ACEROS *STEELS • ACIERS*	Decoletaje *Machining • Décolletage*	<500	8-12	0,080	0,2 mm
	Carbono <0,4% *<0,4% Carbon • Carbon <0,4%*	<850	8-12		
	Acero para herramientas *Steel for tools • Acier pour outils*	<1200	6-8		
	Templado - Revenido *Tempered - Quenched • Trempé - Revenu*	<1400	4-6		
ACEROS INOXIDABLES *STAINLESS STEEL ACIER INOXYDABLE*	Austeníticos Cr-Ni *Cr-Ni Austenitics • Cr-Ni austenitique*	<850			
	Martensíticos Cr-Mo *Cr-Mo Martensitics • Cr-Mo martensitique*	<1200	4-6	0,080	0,2 mm
FUNDICIÓN *CAST IRON • FONTE*	Fundición gris *Grey cast iron • Fonte grise*	<700			
	Fundición dura *Hard cast iron • Fonte dur*	<1000			
ALUMINIO *ALUMINIUM • ALUMINIUM*	Puro *Pure • Pure*	<350	15-30	0,120	0,2 mm
	Si < 10%	<600	15-30		
	Si > 10%	<600	8-10		
	Zamak *Zamak • Zamak*	<600			
COBRE *COPPER • CUIVRE*	Bronce *Bronze • Bronze*	<350			
	Cobre viruta larga *Long chip copper • Cuivre coupage long*	<700			
	Cobre viruta corta *Short chip coppe • Cuivre coupage court*	<700			
	Latón duro *Hard Brass • Laiton dur*	<700			
	Latón tenaz *Tough Brass • Laiton tenace*	<700			
TITANIO *TITANIUM • TITANE*	Puro *Pure • Pure*	<700			
	Aleaciones de Titanio *Titanium alloys • Alliages de titane*	<1200			
SINTÉTICOS *PLASTICS • PLASTIQUES*	Termoplásticos *Thermoplastics • Thermoplastique*	-			
	Duroplásticos *Hard-plastics • Duroplastique*	-			

20 - 25 Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
SESA TOOLS recomendation and cutting speed
Foret récommendé par SESA TOOLS et vitesse de coupe

20 - 25 Buen rendimiento y velocidad de corte (M/Min)
Good performance and cutting speed (M/Min)
Bon rendement et vitesse de coup recommendée (M/Min)

ESCARIADOR HELICOIDAL DE MÁQUINA ANCLAJE CÓNICO

TAPPER SHANK MACHINE REAMER

ALÉSOIR MACHINE QUEUE CONIQUE



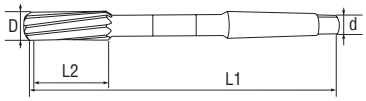
ACERO 800 -1100 N/mm²

HSS-CO 5%

DIN 208 B

TOL 7H





D Ø (mm)	Cono Morse / *Tapper Shank*	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.
5,00	1	133	23	4	1	N30500
6,00	1	138	26	4	1	N30600
7,00	1	150	31	4	1	N30700
8,00	1	156	33	4	1	N30800
9,00	1	162	36	4	1	N30900
10,00	1	168	38	4	1	N31000
11,00	1	175	41	4	1	N31100
12,00	1	182	44	4	1	N31200
13,00	1	182	44	4	1	N31300
14,00	1	189	47	4	1	N31400
15,00	2	204	50	4	1	N31500
16,00	2	210	52	6	1	N31600
17,00	2	214	54	6	1	N31700
18,00	2	219	56	6	1	N31800
19,00	2	223	58	6	1	N31900
20,00	2	228	60	6	1	N32000
21,00	2	232	62	6	1	N32100
22,00	2	237	64	6	1	N32200
23,00	2	241	66	6	1	N32300
24,00	3	268	68	6	1	N32400
25,00	3	268	68	6	1	N32500
26,00	3	273	70	6	1	N32600
27,00	3	277	71	6	1	N32700
28,00	3	277	71	6	1	N32800
29,00	3	281	73	6	1	N32900
30,00	3	281	73	6	1	N33000

Para medidas no tarifadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

6 mm.		10 mm.		16 mm.		20 mm.		25 mm.		30 mm.	
Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo
0,120	0,2 mm	0,180	0,2 mm	0,250	0,2-0,3 mm	0,300	0,3 mm.	0,350	0,3 mm.	0,400	0,3 mm.
0,100		0,120		0,200	0,2 mm	0,220		0,250		0,350	
0,100		0,120		0,160		0,200		0,240		0,300	
0,100	0,2 mm	0,120	0,2 mm	0,160	0,2 mm	0,200	0,3 mm.	0,240	0,3 mm.	0,300	0,3 mm.
0,160	0,3 mm	0,200	0,3 mm	0,200	0,3-0,4 mm	0,300	0,3-0,5 mm	0,400	0,3-0,5 mm	0,500	0,3-0,5 mm

ESCARIADOR HELICOIDAL DE MÁQUINA TIPO "GAMMON"

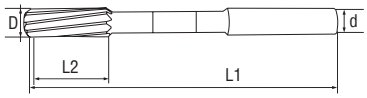
"GAMMON TYPE" MACHINE REAMER

ALÉSOIR MACHINE TIPE "GAMMON"



ACERO 800 -1100 N/mm²

HSS-CO 5% | DIN 212 E | TOL 7H | 45°



D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.
3,00	3,00	61	15	4	1	N80300
3,50	3,50	70	18	4	1	N80350
4,00	4,00	75	19	4	1	N80400
4,50	4,50	80	21	4	1	N80450
5,00	5,00	86	23	4	1	N80500
5,50	5,60	93	26	4	1	N80550
6,00	5,60	93	26	4	1	N80600
7,00	7,10	109	31	4	1	N80700
8,00	8,00	117	33	4	1	N80800
9,00	9,00	125	36	4	1	N80900
10,00	10,00	133	38	4	1	N81000
11,00	10,00	142	41	4	1	N81100
12,00	10,00	151	44	4	1	N81200
13,00	10,00	151	44	4	1	N81300
14,00	12,50	160	47	4	1	N81400
15,00	12,50	162	50	4	1	N81500
16,00	12,50	170	52	6	1	N81600
17,00	14,00	175	54	6	1	N81700
18,00	14,00	182	56	6	1	N81800
19,00	16,00	189	58	6	1	N81900
20,00	16,00	195	60	6	1	N82000

Para medidas no tarifadas consultar. / ***For measurements not listed, request*** / ***Pour des mesures non cotées consulter***

MATERIAL / *MATERIAL* / *MATIERE*		Resistencia *Resistance* N/mm	Vc (m/min.)	4 mm. Avance	4 mm. Ø Previo
ACEROS *STEELS • ACIERS*	Decoletaje *Machining • Décolletage*	<500	8-12	0,080	0,2 mm
	Carbono <0,4% *<0,4% Carbon • Carbon <0,4%*	<850			
	Acero para herramientas *Steel for tools • Acier pour outils*	<1200	6-8		
	Templado - Revenido *Tempered - Quenched • Trempé - Revenu*	<1400	4-6		
ACEROS INOXIDABLES *STAINLESS STEEL ACIER INOXYDABLE*	Austeníticos Cr-Ni *Cr-Ni Austenitics • Cr-Ni austenitique*	<850	4-6	0,080	0,2 mm
	Martensíticos Cr-Mo *Cr-Mo Martensitics • Cr-Mo martensitique*	<1200			
FUNDICIÓN *CAST IRON • FONTE*	Fundición gris *Grey cast iron • Fonte grise*	<700	8-12	0,080	0,2 mm
	Fundición dura *Hard cast iron • Fonte dur*	<1000	4-8	0,120	
ALUMINIO *ALUMINIUM • ALUMINIUM*	Puro *Pure • Pure*	<350			
	Si < 10%	<600			
	Si > 10%	<600			
	Zamak *Zamak • Zamak*	<600			
COBRE *COPPER • CUIVRE*	Bronce *Bronze • Bronze*	<350	8-15	0,080	0,2 mm
	Cobre viruta larga *Long chip copper • Cuivre coupage long*	<700	15-20	0,120	
	Cobre viruta corta *Short chip coppe • Cuivre coupage court*	<700	8-15	0,080	
	Latón duro *Hard Brass • Laiton dur*	<700	8-15	0,080	
	Latón tenaz *Tough Brass • Laiton tenace*	<700	8-15	0,080	
TITANIO *TITANIUM • TITANE*	Puro *Pure • Pure*	<700	3-5	0,060	0,2 mm
	Aleaciones de Titanio *Titanium alloys • Alliages de titane*	<1200			
SINTÉTICOS *PLASTICS • PLASTIQUES*	Termoplásticos *Thermoplastics • Thermoplastique*	-			
	Duroplásticos *Hard-plastics • Duroplastique*	-			

20 - 25 Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
SESA TOOLS recomendation and cutting speed
Foret récommendé par SESA TOOLS et vitesse de coupe

20 - 25 Buen rendimiento y velocidad de corte (M/Min)
Good performance and cutting speed (M/Min)
Bon rendement et vitesse de coup recommendée (M/Min)

ESCARIADOR HELICOIDAL DE MÁQUINA “GAMMON” ANCLAJE CÓNICO

TAPPER SHANK “GAMMON TYPE” MACHINE REAMER

ALÉSOIR MACHINE TIPE “GAMMON” QUEUE CONIQUE

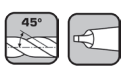


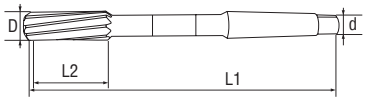
ACERO 800 -1100 N/mm²

HSS-CO 5%

DIN 208 C

TOL 7H





D Ø (mm)	Cono Morse / *Tapper Shank*	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.
5,00	1	133	23	4	1	N40500
6,00	1	138	26	4	1	N40600
7,00	1	150	31	4	1	N40700
8,00	1	156	33	4	1	N40800
9,00	1	162	36	4	1	N40900
10,00	1	168	38	4	1	N41000
11,00	1	175	41	4	1	N41100
12,00	1	182	44	4	1	N41200
13,00	1	182	44	4	1	N41300
14,00	1	189	47	4	1	N41400
15,00	2	204	50	4	1	N41500
16,00	2	210	52	6	1	N41600
17,00	2	214	54	6	1	N41700
18,00	2	219	56	6	1	N41800
19,00	2	223	58	6	1	N41900
20,00	2	228	60	6	1	N42000
21,00	2	232	62	6	1	N42100
22,00	2	237	64	6	1	N42200
23,00	2	241	66	6	1	N42300
24,00	3	268	68	6	1	N42400
25,00	3	268	68	6	1	N42500
26,00	3	273	70	6	1	N42600
27,00	3	277	71	6	1	N42700
28,00	3	277	71	6	1	N42800
29,00	3	281	73	6	1	N42900
30,00	3	281	73	6	1	N43000
32,00	4	317	77	8	1	N43200

Para medidas no tarifadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

6 mm.		10 mm.		16 mm.		20 mm.		25 mm.		30 mm.	
Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo
0,120	0,2 mm	0,180	0,2 mm	0,250	0,2-0,3 mm	0,300	0,3 mm	0,350	0,3 mm	0,400	0,3 mm.
0,100		0,120		0,200	0,2 mm	0,220	0,3 mm	0,250	0,3 mm	0,350	0,3 mm.
0,100		0,120		0,160							
0,100	0,2 mm	0,120	0,2 mm	0,160	0,2 mm	0,200	0,3 mm	0,240	0,3 mm	0,300	0,3 mm.
0,100	0,2 mm	0,120	0,2-0,3 mm	0,160	0,2-0,3 mm	0,200	0,3-0,4 mm	0,240	0,3-0,4 mm	0,300	0,3-0,4 mm.
0,160		0,200		0,250		0,300		0,400		0,500	
0,100	0,2 mm	0,120	0,2-0,3 mm	0,160	0,2-0,3 mm	0,200	0,3 mm	0,240	0,3 mm	0,300	0,3 mm.
0,160		0,200		0,250		0,300		0,400		0,500	
0,100		0,120		0,160		0,200		0,240		0,300	
0,100		0,120		0,160		0,200		0,240		0,300	
0,100		0,120		0,160		0,200		0,240		0,300	
0,100	0, 2mm	0,140	0,3 mm	0,180	0,3 mm	0,220	0,3-0,4 mm	0,300	0,3-0,4 mm.	0,350	0,3-0,4 mm.

ESCARIADOR EXTENSIBLE CON GUÍA DE AJUSTE RÁPIDO
EXTENDABLE REAMERS • ALÉSOIR EXTENSIBLE



ACERO 400-800 N/mm²

HSS-G

S./859

Ø MIN. (mm)	Ø MAX. (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.
8,00	**9,00**	175	36	5	1	N508009
9,00	**10,00**	185	36	5	1	N509010
10,00	**11,00**	200	40	5	1	N510011
11,00	**12,00**	210	42	5	1	N511012
12,00	**13,50**	220	43	5	1	N5121350
13,50	**15,50**	245	52	5	1	N513515
15,50	**18,00**	275	61	5	1	N515518
18,00	**21,00**	300	66	5	1	N518021
21,00	**24,00**	320	70	5	1	N521024
24,00	**27,50**	350	78	5	1	N524275
27,50	**31,50**	380	83	6	1	N527531
31,50	**37,00**	430	97	6	1	N531537
37,00	**45,00**	500	108	6	1	N537045
45,00	**55,00**	600	126	6	1	N545055
55,00	**67,00**	750	151	6	1	N555067
67,00	**80,00**	830	167	10	1	N567080

Para medidas no tarifadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

SET ESCARIADORES EXTENSIBLES
EXTENDABLE REAMERS SET • COFFRET ALÉSOIR EXTENSIBLE

Ref.	Medidas / *Sizes*	Uds. / *Pcs.*	Cod.
184	De 8 a 31,5 mm	11	N500184

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*



ESCARIADOR EXTENSIBLE REFORZADO DE AJUSTE RÁPIDO
REINFORCED EXTENDABLE REAMERS
ALÉSOIR EXTENSIBLE RENFORCÉ



ACERO 400-800 N/mm²

HSS-G

S./859

Ø MIN. (mm)	Ø MAX. (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.
8,00	**9,00**	115	36	5	1	N608009
9,00	**10,00**	115	36	5	1	N609010
10,00	**11,00**	115	42	5	1	N610011
11,00	**12,00**	135	44	5	1	N611012
12,00	**13,50**	135	45	5	1	N612135
13,50	**15,50**	145	48	5	1	N613515
15,50	**18,00**	170	61	5	1	N615518
18,00	**21,00**	180	66	5	1	N618021
21,00	**24,00**	195	70	5	1	N621024
24,00	**27,50**	218	78	5	1	N624275
27,50	**31,50**	245	83	6	1	N627531
31,50	**37,00**	280	97	6	1	N631537
37,00	**45,00**	325	108	6	1	N637045
45,00	**55,00**	385	126	6	1	N645055
55,00	**67,00**	450	151	8	1	N655067
67,00	**80,00**	545	182	10	1	N667080

Para medidas no tarifadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

RECOMENDACIONES TÉCNICAS
TECHNICAL RECOMMENDATIONS • RECOMMANDATIONS TECHNIQUES



INOX · ACERO 800-1100 N/mm² · F · LT · AL · PL · HSS-CO 8% · 4-6 TPI

TABLA DE VELOCIDADES RECOMENDADAS / *RECOMENDED SPEED / VITESSES RECOMMANDÉES*

	ACERO 400-800 N/mm²	ACERO 800-1100 N/mm²	INOX	F	LT	AL	PL	
VC=m/min	25-30	13-17	12-15	10-15	30-35	30-40	15-20	35-45
Refrigeración	Emulsión Aceite de corte	Emulsión Aceite de corte	Emulsión Aceite de corte	Aire a presión	Aire a presión	Aceite de corte Spray	Aire	Aire a presión
Ø (mm)	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM
14	580	300	270	400	790	900	385	910
16	550	275	240	365	730	825	340	795
17	500	250	225	330	665	750	320	750
19	460	230	200	300	600	690	285	670
20	435	240	190	290	570	630	270	635
21	425	210	180	280	560	630	260	605
22	390	195	175	260	520	575	245	580
24	370	185	160	245	495	525	225	530
25	350	175	155	235	470	525	215	510
27	325	160	140	215	435	480	200	470
29	300	150	130	200	400	435	185	440
30	285	145	125	190	380	425	180	425
32	275	140	120	180	360	410	170	400
33	260	135	115	175	345	380	165	385
35	250	125	110	165	330	375	155	365
37	240	120	105	160	315	360	145	345
38	230	115	100	150	300	330	140	335
40	220	110	95	145	290	330	135	320
41	210	105	95	140	280	310	130	310
43	205	100	90	135	270	305	125	295
44	195	95	85	130	260	285	125	290
46	190	95	85	125	250	285	120	275
48	180	90	80	120	240	270	115	265
50	175	85	75	115	235	265	110	260
51	170	85	75	115	230	255	105	250
52	165	80	75	110	220	245	105	245
54	160	80	70	105	210	240	100	235
56	155	75	65	100	205	220	95	230
57	150	75	65	100	200	225	95	225
59	145	75	65	100	195	225	90	215
60	140	70	65	95	190	205	90	210
63	135	65	6	90	180	200	85	205
64	135	65	60	90	180	200	85	200
65	130	65	60	85	175	200	85	195
67	130	65	55	85	170	195	80	190
68	125	60	55	80	165	190	75	190
70	125	60	55	80	160	185	75	180
73	120	60	50	80	160	180	75	175
76	115	55	50	75	150	170	70	170
79	110	55	50	70	140	165	70	160
83	105	50	45	70	140	155	65	155
86	100	50	45	65	130	150	65	150
89	95	45	45	65	130	145	60	145
92	95	45	40	60	120	140	60	140
95	90	45	40	60	120	135	55	135
98	90	45	40	60	120	135	55	130
102	85	40	35	55	110	130	55	125
105	80	40	35	55	110	120	50	120
108	80	40	35	55	110	120	50	120
111	80	40	35	50	100	120	50	115
114	75	35	35	50	100	105	45	110
121	70	35	30	45	90	105	45	105
127	65	30	30	45	85	100	45	100
140	60	25	25	40	80	90	40	90
146	60	25	25	40	75	85	35	85
152	55	25	25	35	75	85	35	85
160	50	25	25	35	70	80	35	80
168	50	25	25	35	65	75	30	75
177	45	25	20	30	60	70	30	70
200	40	20	20	30	55	65	25	65
210	40	20	20	25	55	60	25	60

CORONAS BIMETAL M42

BIMETAL HOLE SAWS M42 • SCIES TRÉPAN BIMETAL M42



INOX | ACERO 800 -1100 N/mm² | F | LT | AL | PL | HSS-CO 8% | 4-6 TPI

Ø (mm)	Profundidad de Corte *Depth of the Cut* (mm)	Equivalencia P.G. *Equivalence P.G.*	Uds. / *Pcs.*	Cod.
14	32	7	1	UC20014
16	32	9	1	UC20016
17	32	-	1	UC20017
19	32	11	1	UC20019
20	32	-	1	UC20020
21	32	13,5	1	UC20021
22	32	-	1	UC20022
24	32	16	1	UC20024
25	32	-	1	UC20025
27	32	-	1	UC20027
29	32	21	1	UC20029
30	32	-	1	UC20030
32	32	-	1	UC20032
33	32	-	1	UC20033
35	32	-	1	UC20035
37	32	-	1	UC20037
38	32	29	1	UC20038
40	32	-	1	UC20040
41	32	-	1	UC20041
43	32	-	1	UC20043
44	32	-	1	UC20044
46	32	-	1	UC20046
48	32	36	1	UC20048
50	32	-	1	UC20050
51	32	-	1	UC20051
52	32	-	1	UC20052
54	32	42	1	UC20054
56	32	-	1	UC20056
57	32	-	1	UC20057
59	32	-	1	UC20059
60	32	48	1	UC20060
63	32	-	1	UC20063
64	32	-	1	UC20064
65	32	-	1	UC20065
67	32	-	1	UC20067
68	32	-	1	UC20068
70	32	-	1	UC20070
73	32	-	1	UC20073
76	32	-	1	UC20076
79	32	-	1	UC20079
83	32	-	1	UC20083
86	32	-	1	UC20086
89	32	-	1	UC20089
92	32	-	1	UC20092

CORONAS BIMETAL M42
BIMETAL HOLE SAWS M42 • SCIES TRÉPAN BIMETAL M42



INOX · ACERO 800 - 1100 N/mm² · F · LT · AL · PL · HSS-CO 8% · 4-6 TPI

Ø (mm)	Profundidad de Corte *Depth of the Cut* (mm)	Equivalencia P.G. *Equivalence P.G.*	Uds. / *Pcs.*	Cod.
95,00	32	-	1	UC20095
98,00	32	-	1	UC20098
102,00	32	-	1	UC20102
105,00	32	-	1	UC20105
108,00	32	-	1	UC20108
111,00	32	-	1	UC20111
114,00	32	-	1	UC20114
121,00	32	-	1	UC20121
127,00	32	-	1	UC20127
140,00	32	-	1	UC20140
146,00	32	-	1	UC20146
152,00	32	-	1	UC20152
160,00	32	-	1	UC20160
168,00	32	-	1	UC20168
177,00	32	-	1	UC20177
200,00	32	-	1	UC20200
210,00	32	-	1	UC20210

CORONAS BIMETAL M3 SERIE LARGA
BIMETAL HOLE SAWS M3 LONG SERIES
SCIES TRÉPAN BIMETAL M3 SÉRIE LONGUE



ACERO 400-800 N/mm² · F · LT · AL · PL · HSS M3 · 4-6 TPI

Ø (mm)	Profundidad de Corte *Depth of the Cut* (mm)	Uds. / *Pcs.*	Cod.
32	97	1	UC20032L
35	97	1	UC20035L
40	97	1	UC20040L

Se recomienda utilizar los siguientes husillos y broca piloto
Recommended to use with the below arbors and centre drill
Il est recommandé d'utiliser les suivants arbres and foret centrage

Husillo / *Arbor*	Broca Piloto / *Centre Drill*
UH20A2T - Amarre hexagonal 11,00 UH20A3T - Amarre hexagonal 9,50 UH200A4 - Amarre SDS-PLUS	6,35x150mm Ref. UB1014A

HUSILLOS PARA CORONAS BIMETAL
ARBORS FOR BIMETAL HOLE SAWS
ARBRES POUR SCIES TRÉPAN BIMETAL

Tipo Amarre *Shank*	Para Coronas *For Hole Saws* (mm)	Rosca del Husillo *Arbor Thread*	Uds. *Pcs.*	Cod.
CILÍNDRICA / *STRAIGHT*	14 a 30	1/2 x 20h UNF	1	UH20A0N



Tipo Amarre *Shank* (mm)	Para Coronas *For Hole Saws* (mm)	Rosca del Husillo *Arbor Thread*	Uds. *Pcs.*	Cod.
HEXAGONAL 11,00	14 a 30	1/2 x 20h UNF	1	UH200A1
HEXAGONAL 9,50	14 a 30	1/2 x 20h UNF	1	UH200A0
HEXAGONAL 11,00	32 a 210	5/8 x 18h UNF	1	UH20A2T
HEXAGONAL 9,50	32 a 210	5/8 x 18h UNF	1	UH20A3T



Tipo Amarre *Shank*	Para Coronas *For Hole Saws* (mm)	Rosca del Husillo *Arbor Thread*	Uds. *Pcs.*	Cod.
SDS-PLUS	14 a 30	1/2 x 20h UNF	1	UH20A1N
SDS-PLUS	32 a 210	5/8 x 18h UNF	1	UH200A4



BROCAS PILOTO Y MUELLE EXPULSOR UNIVERSAL
CENTER DRILL & SPRING EJECTORS
FORET CENTRAGE ET RESSORT À EXPULSER

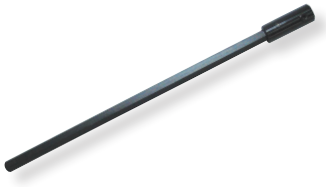
Tipo Amarre / *Shank* (mm)	Para husillos / *For Arbors*	Uds. / *Pcs.*	Cod.
6,35 X 150 mm	A2T-A3T-A4	1	UB1014A
6,35 x 105*	A0N	1	UB1014C
6,35 x 85	A0-A1-A2T-A3T-A1N-A4	1	UB1014B
MUELLE EXPULSOR UNIVERSAL *SPRING EJECTOR*		1	UM0000



* Las brocas piloto de 6,35 x 105 tambien se recomiendan para taladrado de difícil acceso. / ** 6.35 x 105 pilot bits are also recommended for drilling in difficult to access locations / * Les forets pilote de 6,35 x 105 sont aussi recommandés pour le perçage à des endroits d'accès difficile*

ALARGADORES PARA HUSILLOS 330 MM
EXTENSION 330 MM • EXTENSION 330 MM

Husillo / *Arbor*	Para husillos / *For Arbors*	Uds. / *Pcs.*	Cod.
HEXAGONAL 11,00 mm	A1 - A2T	1	UL00330
HEXAGONAL 9,50 mm	A0 - A3T	1	UL00331
SDS-PLUS	A1 - A2T	1	UL00332
SDS-PLUS	A0 - A3T	1	UL00333



CONJUNTOS DE CORONAS BIMETÁLICAS
HOLE SAWS SETS
COFFRETS SCIES TRÉPANS





ACERO 800 -1100 N/mm² | F | AL | PL

HSS-CO 8% | 4-6 TPI

Cod.	Modelo / *Model* / *Modéle*	Contenido / *Contains* / *Contenu*		
		Coronas *Hole Saws* / *Scies Trépans*	Diámetros / *Diameters* *Diametres* (mm)	Husillos *Arbors* / *Arbres*
UT20EK2A	ELECTRICISTA PG. *ELECTRICIAN PG.* *ÉLECTRICITÉ PG.*	6	16 - 21 - 24 - 29 - 38 - 48 **PG.** 9 - 3,5 - 16 - 21 - 29 - 36	A1 + A2T
UT20EK4	ELECTRICISTA- 3 *ELECTRICIAN -3* *ÉLECTRICITÉ-3*	6	22 - 29 - 35 - 38 - 44 - 51	A1 + A2T
UT20EK5	ELECTRICISTA- 4 *ELECTRICIAN-4* *ÉLECTRICITÉ-4*	6	19 - 21 - 24 - 29 - 38 - 48	A1 + A2T
UT20EK5A	ELECTRICISTA- 5 *ELECTRICIAN-5* *ÉLECTRICITÉ-5*	6	19 - 21 - 25 - 30 - 37 - 46	A1 + A2T
UT20EK5B	ELECTRICISTA-6 *ELECTRICIAN-6* *ÉLECTRICITÉ-6*	6	17 - 21 - 24 - 29 - 35 - 46	A1 + A2T
UT20EK6	FONTANERÍA- 1 *PLUMBING-1* *PLOMBERIE-1*	6	19 - 22 - 29 - 38 - 44 - 51	A1 + A2T
UT20EK7	FONTANERÍA- 2 *PLUMBING-2* *PLOMBERIE-2*	6	22 - 25 - 33 - 35 - 41 - 51	A1 + A2T
UT20EK8	REFRIGERACIÓN *COOLING* *RÉFRIGÉRATION*	6	16 - 22 - 29 - 35 - 41 - 52	A1 + A2T
UT20EK9	CERRAJERÍA *HARDWARE* *SERRURERIE*	6	22 - 25 - 32 - 38 - 44 - 52	A1 + A2T
UT20EK10	INSTALACIÓN AUTOMÓVIL *VEHICLE INSTALLATION*	6	19 - 22 - 32 - 38 - 44 - 52	A1 + A2T
UT20EK0	MANTENIMIENTO INDUSTRIAL *INDUSTRIAL MAINTENANCE* *MAINTENANCE INDUISTRIELLE*	11	21 - 25 - 27 - 33 - 37 - 38 - 44 - 51 60 - 65 - 73	A1 + A2T + PROLONGADOR *EXTENSION* *EXTENSION*
UT20EK1	UNIVERSAL *UNIVERSAL* *UNIVERSALE*	11	19 - 22 - 25 - 29 - 35 - 38 - 44 - 51 57 - 64 - 70	A1 + A2T
UT20EK2	ELECTRICISTA PG. *ELECTRICIAN PG.* *ÉLECTRICITÉ PG.*	10	14 - 16 - 19 - 21 - 24 - 29 - 38 - 48 - 54 - 60 **PG.** 7 - 11 -13,5 - 16 - 21 - 29 - 36 - 42 - 48	A1 + A2T
UT20EK3	ELECTRICISTA-2. *ELECTRICIAN-2.* *ÉLECTRICITÉ-2*	10	16 - 19 - 21 - 24 - 29 - 38 43 - 48 - 60 - 65	A 1+ A2T
UT20EK12	CARPINTERÍA *CARPENTRY* *MENUISERIE*	11	14 - 16 - 19 - 22 - 24 - 25 - 30 - 35 40 - 51 - 59	A1 + A2T + PROLONGADOR *EXTENSION* *EXTENSION*

PERFORADORES DE CHAPA
CIRCULAR PUNCHES • EMPORTE PIÈCES



ACERO 400-800 N/mm² | INOX

CAPACIDAD DE CORTE: 2 mm en chapa de acero; 1,5 mm en chapa inox.
CUTTING LENGTH: 2 mm on steel sheet; 1,5 mm on Stainless steel
PROFONDEUR DE COUPAGE: 2 mm en plaque d´acier; 1,5 mm en plaque d´INOX

Ø (mm)	Tornillo / *Screw*	Uds. / *Pcs.*	advance MAXIMO RENDIMIENTO Cod.	€/Unid.	Basic Cod.
12,7 (1/2")		1	P0013	79,15	PS013
14,00		1	P0014	79,15	PS014
15,00		1	P0015	79,15	PS015
16 (5/8")	M 8	1	P0016	79,15	PS016
17,00		1	P0017	86,49	-
18,00		1	P0018	86,49	PS018
19 (3/4")		1	P0019	86,49	PS019
20,00		1	P0020	99,22	PS020
21,00		1	P0021	99,22	-
22 (7/8")		1	P0022	99,22	PS022
23,00	M 10	1	P0023	116,32	-
24,00		1	P0024	116,32	-
25 (1")		1	P0025	116,32	PS025
26,00		1	P0026	116,32	-
27,00		1	P0027	116,32	-
28 (1.3/32")		1	P0028	136,62	PS028
29,00		1	P0029	136,62	-
30,00		1	P0030	136,62	PS030
31,00		1	P0031	136,62	-
32 (1.1/4")		1	P0032	136,62	PS032
33,00	M 12	1	P0033	151,01	-
34 (1.11/32")		1	P0034	151,01	PS034
35,00		1	P0035	151,01	PS035
36,00		1	P0036	151,01	-
37,00		1	P0037	151,01	PS037
38 (1.1/2")		1	P0038	151,01	PS038
39,00		1	P0039	151,01	-
40,00		1	P0040	167,27	PS040
41,00		1	P0041	167,27	-
42,00		1	P0042	182,45	-
43,00		1	P0043	182,45	-
44,00		1	P0044	182,45	-
45,00		1	P0045	182,45	PS045
46,00	M 14	1	P0046	182,45	-
47,00		1	P0047	196,79	PS047
48,00		1	P0048	196,79	-
49,00		1	P0049	196,79	-
50,00		1	P0050	196,79	PS050
51 (2")		1	P0051	207,10	-
52,00		1	P0052	207,10	PS052
55,00		1	P0055	360,52	PS055
60 (2.3/8")		1	P0060	432,92	PS060
63,00		1	P0063	490,63	PS063
65,00		1	P0065	506,89	-
70,00		1	P0070	544,84	-
72,00		1	P0072	558,39	-
75,00		1	P0075	580,09	-
80,00	M 20	1	P0080	590,93	-
85,00		1	P0085	612,61	-
90,00		1	P0090	629,70	-
95,00		1	P0095	664,39	-
100,00		1	P0100	750,86	-
105,00		1	P0105	799,65	-
110,00		1	P0110	867,41	-
115,00		1	P0115	910,79	-

TORNILLOS DE REPUESTO
SPARE CREWS • VIS DE REMPLACEMENT



Ø (mm)	Uds. / *Pcs.*	Cod.
M 8 x 125	1	PT001
M 10 x 125	1	PT002
M 12 x 150	1	PT003
M 14 x 150	1	PT004
M 20 x 150	1	PT005

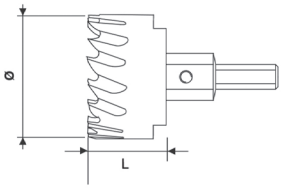
JUEGOS PERFORADORES
CIRCULAR PUNCHES SETS • COFFRETS EMPORTE PIECES

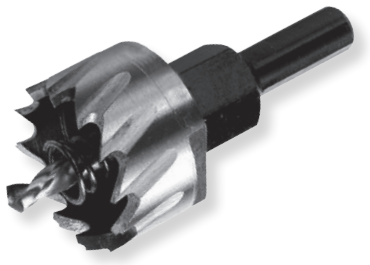


Ø	advance MAXIMO RENDIMIENTO Cod.	€/Unid.	Basic Cod.
18-22-25-32 mm	PJ003	**435,10**	PSJ001
15-20-22-28 mm	PJ006	**410,69**	PSJ002
5/8"-3/4"-1"-1.1/4"	PJ007	**419,92**	PSJ003
1/2"-3/4"-1"-1.1/4"	PJ008	**419,92**	PSJ004

CORONAS HSS-G REAFILABLES
HOLE SAWS HSS-G REGRINDABLE
SCIES TRÉPAN HSS-G RÉAFFÛTABLE

ACERO 400-800 N/mm² | AL | PL | HSS-G





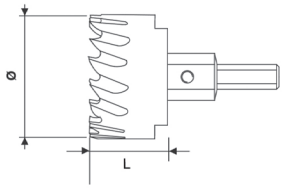
Ø mm	L2 (mm)	Z	Uds. / *Pcs.*	Cod.
10*	23	5	1	UV00010
12	23	5	1	UV00012
13	23	5	1	UV00013
14	23	6	1	UV00014
15	23	6	1	UV00015
16	23	6	1	UV00016
17	23	6	1	UV00017
18	23	6	1	UV00018
19	23	8	1	UV00019
20	23	8	1	UV00020
21	23	8	1	UV00021
22	23	8	1	UV00022
23	23	8	1	UV00023
24	23	8	1	UV00024
25	23	8	1	UV00025
26	23	10	1	UV00026
27	23	10	1	UV00027
28	23	10	1	UV00028
29	23	10	1	UV00029
30	23	10	1	UV00030
31	23	12	1	UV00031
32	23	12	1	UV00032
33	23	12	1	UV00033
34	23	12	1	UV00034
35	23	12	1	UV00035
36	23	12	1	UV00036
37	23	12	1	UV00037
38	23	12	1	UV00038
39	23	12	1	UV00039
40	23	12	1	UV00040
41	23	14	1	UV00041
42	23	14	1	UV00042
43	23	14	1	UV00043
44	23	16	1	UV00044
45	23	16	1	UV00045
46	23	16	1	UV00046
47	23	16	1	UV00047
48	23	16	1	UV00048
49	23	16	1	UV00049
50	23	16	1	UV00050
60	23	18	1	UV00060
65	23	20	1	UV00065
70	23	20	1	UV00070
75	23	22	1	UV00075
80	23	22	1	UV00080
85	23	24	1	UV00085
90	23	24	1	UV00090
95	23	24	1	UV00095
100	23	24	1	UV00100

* Integral / * ***Integrale*** / * *Intégrale*

Para medidas no tarifadas consultar / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*
Producto bajo demanda / ***Product on demand*** / *Produit à la demande*
Profundidad de corte: 5 mm / ***Cutting depth: 5 mm*** / *Profondeur de coupe: 5 mm*

RECOMENDACIONES TÉCNICAS
TECHNICAL RECOMMENDATIONS • RECOMMANDATIONS TECHNIQUES

ACERO 400-800 N/mm² | AL | PL | HSS-G



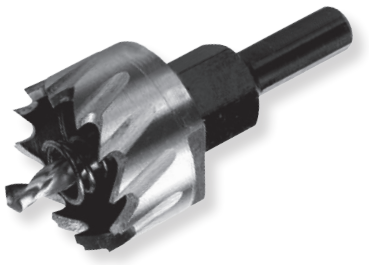
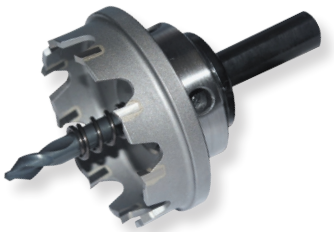
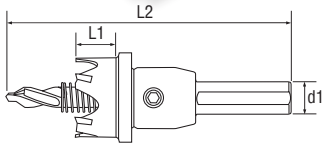


TABLA DE VELOCIDADES RECOMENDADAS / *RECOMENDED SPEED* / *VITESSES RECOMMANDÉES*

	ACERO 400-800 N/mm²	ACERO 800 -1100 N/mm²	INOX	F	LT	AL	PL
VC=m/min	25-30	13-17	12-15	10-15	30-35	30-40	15-20
Refrigeración	Emulsión Aceite de corte	Emulsión Aceite de corte	Emulsión Aceite de corte	Aire a presión	Aire a presión	Aceite de corte Spray	Aire
Ø (mm)	RPM	RPM	RPM	RPM	RPM	RPM	RPM
10	800	410	380	320	960	990	480
20	400	210	190	160	480	490	240
30	270	140	130	110	320	330	160
50	160	80	80	60	190	200	100
60	130	70	60	50	160	160	80
70	110	60	50	50	140	140	70
80	100	50	50	40	120	120	60
90	90	50	40	40	110	110	50
100	80	40	40	30	100	100	50

CORONAS CON DIENTE METAL DURO SERIE CORTA
TUNGSTEN CARBIDE TIPED HOLE SAWS SHORT SERIES
SCIES TRÉPANS AU CARBURE DE TUNGSTENE SERIE COURTE





ACERO 800 -1100 N/mm² | INOX | MD

Ø (mm)	Z	D1 (mm)	L1 (mm)	L2 (mm)	Espesor máximo de corte *Max. Cutting Thickness* (mm)	Uds. / *Pcs.*	Cod.
16,00	4	10	12	79	4	1	UI00016
18,00	4	10	12	79	4	1	UI00018
20,00	5	10	12	79	4	1	UI00020
22,00	5	10	12	79	4	1	UI00022
23,00	5	10	12	79	4	1	UI00023
25,00	5	10	12	79	4	1	UI00025
26,00	5	10	12	79	4	1	UI00026
30,00	5	10	12	79	4	1	UI00030
32,00	6	10	12	79	4	1	UI00032
33,00	7	10	12	79	4	1	UI00033
35,00	7	10	12	79	4	1	UI00035
40,00	7	10	12	84	4	1	UI00040
50,00	9	10	12	84	4	1	UI00050
60,00	10	10	12	84	4	1	UI00060
63,00	11	10	12	84	4	1	UI00063
65,00	11	10	12	84	4	1	UI00065

Junto con la corona se incluye el husillo y la broca centradora / ***The spindle and central bit come together with the core bit*** / *La couronne est accompagnée de la broche et du foret de centrage*

BROCA PILOTO / *PILOT DRILL* / *FORET DE CENTRAGE*

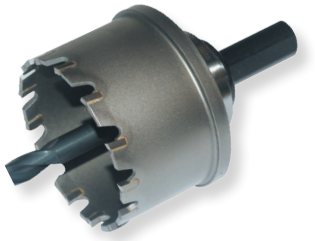
Tipo Broca / *Drill Bit Type*	**Uds.** / *Pcs.*	**Cod.**
Para Corona Serie Corta *For short series*	1	UIB0660

TABLA DE VELOCIDADES RECOMENDADAS / *RECOMENDED SPEED* / *VITESSES RECOMMANDÉES*

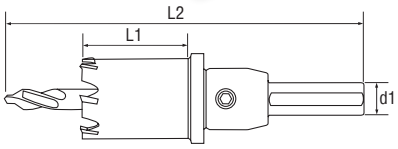
VELOCIDAD DE CORTE RECOMENDADAS (R.P.M.) *CUTTING SPEED* / *VITESSE DE COUP*			
Ø (mm)	INOX **Inox**	ACERO 400-800 N/mm² **Acero** / *Steel*	F **Fundición** / *Cast Iron*
20,00	400	600	800
30,00	280	400	550
40,00	200	300	400
50,00	160	250	320
60,00	130	200	260
80,00	100	150	200
100,00	80	120	160

Coronas reomendadas para espesores de hasta 4 mm. En caso de aceros inoxidables se recomienda no sobrepasar los 2 mm. de espesor. / ***Recomended maximum cutting depth of 4 mm, for stainless steel 2 mm*** / *Profondeur de coupage maximum recomendée 4 mm, pour INOX 2 mm*

CORONAS CON DIENTE METAL DURO SERIE LARGA
TUNGSTEN CARBIDE TIPED HOLE SAWS LONG SERIES
SCIES TRÉPANS AU CARBURE DE TUNGSTENE SERIE LONGUE



ACERO 800 -1100 N/mm² | INOX | MD



Ø (mm)	Z	D1 (mm)	L1 (mm)	L2 (mm)	Espesor máximo de corte *Max. Cutting Thickness* (mm)	Uds. / *Pcs.*	Cod.
20,00	5	10	35	107	4	1	UIL0020
22,00	5	10	35	107	4	1	UIL0022
23,00	5	10	35	107	4	1	UIL0023
25,00	6	10	35	107	4	1	UIL0025
30,00	6	10	35	107	4	1	UIL0030
32,00	8	10	35	107	4	1	UIL0032
33,00	8	10	35	107	4	1	UIL0033
35,00	8	10	35	107	4	1	UIL0035
40,00	10	10	35	107	4	1	UIL0040
45,00	10	10	35	107	4	1	UIL0045
50,00	12	10	35	107	4	1	UIL0050
54,00	12	10	35	107	4	1	UIL0054
60,00	14	10	35	107	4	1	UIL0060
65,00	14	10	35	107	4	1	UIL0065

Junto con la corona se incluye el husillo y la broca centradora / ***The spindle and central bit come together with the core bit*** / *La couronne est accompagnée de la broche et du foret de centrage*

BROCA PILOTO / *PILOT DRILL* / *FORET DE CENTRAGE*

Tipo Broca / *Drill Bit Type*	Uds. / *Pcs.*	Cod.	€/Unid.
Para Corona Serie Larga (Ø 20 a Ø 30) *For long series*	1	UILB680	**11,06**
Para Corona Serie Larga (Ø 32 a Ø 54) *For long series*	1	UILB880	**14,04**
Para Corona Serie Larga (Ø 60 a Ø 65) *For long series*	1	UILB8100	**15,95**

TABLA DE VELOCIDADES RECOMENDADAS / *RECOMENDED SPEED* / *VITESSES RECOMMANDÉES*

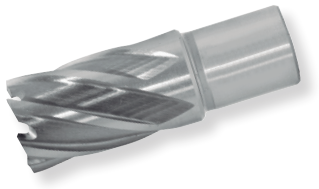
VELOCIDAD DE CORTE RECOMENDADAS (R.P.M.) *CUTTING SPEED* / *VITESSE DE COUP*			
Ø (mm)	INOX **Inox**	ACERO 400-800 N/mm² **Acero** / *Steel*	F **Fundición** / *Cast Iron*
20,00	400	600	800
30,00	280	400	550
40,00	200	300	400
50,00	160	250	320
60,00	130	200	260
80,00	100	150	200
100,00	80	120	160

Coronas reomendadas para espesores de hasta 4 mm. En caso de aceros inoxidables se recomienda no sobrepasar los 2 mm. de espesor. / ***Recomended maximum cutting depth of 4 mm, for stainless steel 2 mm*** / *Profondeur de coupage maximum recomendée 4 mm, pour INOX 2 mm*

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G

HSS-G ELECTROMAGNETIC CORE BITS

SCIÉS ELECTROMAGNETIQUES HSS-G



ACERO 400-800 N/mm² | F | AL | HSS-G | WELDON 19,00

Ø (mm)	Profundidad de Corte *Depth of the cut* (mm)	Ø Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.
12,00	30	19	1	1917012030
13,00	30	19	1	1917013030
14,00	30	19	1	1917014030
15,00	30	19	1	1917015030
16,00	30	19	1	1917016030
17,00	30	19	1	1917017030
18,00	30	19	1	1917018030
19,00	30	19	1	1917019030
20,00	30	19	1	1917020030
21,00	30	19	1	1917021030
22,00	30	19	1	1917022030
23,00	30	19	1	1917023030
24,00	30	19	1	1917024030
25,00	30	19	1	1917025030
26,00	30	19	1	1917026030
27,00	30	19	1	1917027030
28,00	30	19	1	1917028030
29,00	30	19	1	1917029030
30,00	30	19	1	1917030030
31,00	30	19	1	1917031030
32,00	30	19	1	1917032030
33,00	30	19	1	1917033030
34,00	30	19	1	1917034030
35,00	30	19	1	1917035030
36,00	30	19	1	1917036030
38,00	30	19	1	1917038030
40,00	30	19	1	1917040030
42,00	30	19	1	1917042030
44,00	30	19	1	1917044030
45,00	30	19	1	1917045030
46,00	30	19	1	1917046030
48,00	30	19	1	1917048030
50,00	30	19	1	1917050030
52,00	30	19	1	1917052030
55,00	30	19	1	1917055030
60,00	30	19	1	1917060030

PUNZÓN EXPULSOR / *PUNCHER* / *POINÇON*



Ø (mm)	L1 (mm)	Para / *For* / *Pour*	Uds. / *Pcs.*	Cod.
6,35	77	Coronas Ø13-60mm	1	1926500

Adaptadores de WELDON a FEIN y portafresas con cono morse en pag. 411 / ***Adaptor from WELDON to FEIN and morse taper at pag. 411*** / ***Adaptateur du WELDON au FEIN et queue conique surge la page. 411***

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G

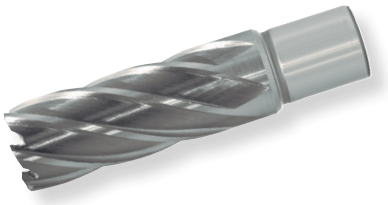
HSS-G ELECTROMAGNETIC CORE BITS SET

COFFRET SCIÉS ELECTROMAGNETIQUES HSS-G



Medidas mm / *Sizes mm*	Uds. / *Pcs.*	Cod.
12x30, 14x30, 16x30, 18x30, 20x30, 22x30, punzón expulsor 6.35x77	7	19CW05

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G
HSS-G ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES HSS-G



ACERO 400-800 N/mm² | F | AL | HSS-G | WELDON 19,00

Ø (mm)	Profundidad de Corte *Depth of the cut* (mm)	Ø Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.
12,00	50	19		1917012050
13,00	50	19		1917013050
14,00	50	19		1917014050
15,00	50	19		1917015050
16,00	50	19		1917016050
17,00	50	19		1917017050
18,00	50	19		1917018050
19,00	50	19		1917019050
20,00	50	19		1917020050
21,00	50	19		1917021050
22,00	50	19		1917022050
23,00	50	19		1917023050
24,00	50	19		1917024050
25,00	50	19		1917025050
26,00	50	19		1917026050
27,00	50	19		1917027050
28,00	50	19		1917028050
29,00	50	19		1917029050
30,00	50	19		1917030050
31,00	50	19		1917031050
32,00	50	19		1917032050
33,00	50	19		1917033050
34,00	50	19		1917034050
35,00	50	19		1917035050
36,00	50	19		1917036050
38,00	50	19		1917038050
40,00	50	19		1917040050
42,00	50	19		1917042050
44,00	50	19		1917044050
45,00	50	19		1917045050
46,00	50	19		1917046050
48,00	50	19		1917048050
50,00	50	19		1917050050
52,00	50	19		1917052050
55,00	50	19		1917055050
60,00	50	19		1917060050

PUNZÓN EXPULSOR / *PUNCHER* / *POINÇON*



Ø (mm)	L1 (mm)	Para / *For* / *Pour*	Uds. / *Pcs.*	Cod.
6,35	102	Coronas Ø13-60mm	1	1950500

Adaptadores de WELDON a FEIN y portafresas con cono morse en pag. 411 / *Adaptor from WELDON to FEIN and morse taper at pag. 4101* / *Adaptateur du WELDON au FEIN et queue conique surge la page. 411*

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G
HSS-G ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES HSS-G



Medidas mm / *Sizes mm*	Uds. / *Pcs.*	Cod.
12x50, 14x50, 16x50, 18x50, 20x50, 22x50, punzón expulsor 6.35x102	7	19CW06

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO
HSS-CO ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES HSS-CO



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | WELDON 19,00

Ø (mm)	Profundidad de Corte *Depth of the cut* (mm)	Ø Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.
12,00	30	19	1	1907012030
13,00	30	19	1	1907013030
14,00	30	19	1	1907014030
15,00	30	19	1	1907015030
16,00	30	19	1	1907016030
17,00	30	19	1	1907017030
18,00	30	19	1	1907018030
19,00	30	19	1	1907019030
20,00	30	19	1	1907020030
21,00	30	19	1	1907021030
22,00	30	19	1	1907022030
23,00	30	19	1	1907023030
24,00	30	19	1	1907024030
25,00	30	19	1	1907025030
26,00	30	19	1	1907026030
27,00	30	19	1	1907027030
28,00	30	19	1	1907028030
29,00	30	19	1	1907029030
30,00	30	19	1	1907030030
31,00	30	19	1	1907031030
32,00	30	19	1	1907032030
35,00	30	19	1	1907035030
40,00	30	19	1	1907040030
45,00	30	19	1	1907045030
50,00	30	19	1	1907050030
52,00	30	19	1	1907052030
55,00	30	19	1	1907055030
60,00	30	19	1	1907060030

PUNZÓN EXPULSOR / ***PUNCHER*** / ***POINÇON***

Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.
6,35	77	1	1926500



ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO
HSS-CO ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES HSS-CO



Medidas mm / *Sizes mm*	Uds. / *Pcs.*	Cod.
12x30, 14x30, 16x30, 18x30, 20x30, 22x30, punzón expulsor 6.35x77	7	19CW01

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO

HSS-CO ELECTROMAGNETIC CORE BITS

SCIÉS ELECTROMAGNETIQUES HSS-CO



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | WELDON 19,00

Ø (mm)	Profundidad de Corte *Depth of the cut* (mm)	Ø Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.
12,00	50	19	1	1907012050
13,00	50	19	1	1907013050
14,00	50	19	1	1907014050
15,00	50	19	1	1907015050
16,00	50	19	1	1907016050
17,00	50	19	1	1907017050
18,00	50	19	1	1907018050
19,00	50	19	1	1907019050
20,00	50	19	1	1907020050
21,00	50	19	1	1907021050
22,00	50	19	1	1907022050
23,00	50	19	1	1907023050
24,00	50	19	1	1907024050
25,00	50	19	1	1907025050
26,00	50	19	1	1907026050
27,00	50	19	1	1907027050
28,00	50	19	1	1907028050
29,00	50	19	1	1907029050
30,00	50	19	1	1907030050
31,00	50	19	1	1907031050
32,00	50	19	1	1907032050
35,00	50	19	1	1907035050
36,00	50	19	1	1907036050
40,00	50	19	1	1907040050
45,00	50	19	1	1907045050
50,00	50	19	1	1907050050
52,00	50	19	1	1907052050
55,00	50	19	1	1907055050
60,00	50	19	1	1907060050

PUNZÓN EXPULSOR / *PUNCHER* / *POINÇON*

Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.
6,35	102	1	1950500



ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO

HSS-CO ELECTROMAGNETIC CORE BITS SET

COFFRET SCIÉS ELECTROMAGNETIQUES HSS-CO

Medidas mm / *Sizes mm*	Uds. / *Pcs.*	Cod.
12x50, 14x50, 16x50, 18x50, 20x50, 22x50, punzón expulsor 6.35x102	7	19CW02



CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD

HM ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES MD



ACERO 1100 -1400 N/mm² | INOX | AL | CU | F

MD | WELDON 19,00

Ø (mm)	Profundidad de Corte *Depth of the cut* (mm)	Ø Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.
18,00	35	19	1	2003018035
19,00	35	19	1	2003019035
20,00	35	19	1	2003020035
21,00	35	19	1	2003021035
22,00	35	19	1	2003022035
23,00	35	19	1	2003023035
24,00	35	19	1	2003024035
25,00	35	19	1	2003025035
26,00	35	19	1	2003026035
27,00	35	19	1	2003027035
28,00	35	19	1	2003028035
29,00	35	19	1	2003029035
30,00	35	19	1	2003030035
31,00	35	19	1	2003031035
32,00	35	19	1	2003032035
33,00	35	19	1	2003033035
34,00	35	19	1	2003034035
35,00	35	19	1	2003035035

PUNZÓN EXPULSOR / ***PUNCHER*** / ***POINÇON***

Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.
8	87	1	2001500



ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD

MD ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES MD

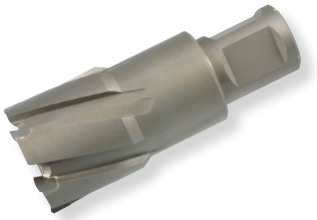


Medidas mm / *Sizes mm*	Uds. / *Pcs.*	Cod.
18x35, 20x35, 22x35, 24x35, 26x35, 28x35, punzón expulsor 8x87	7	19CW03

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD

HM ELECTROMAGNETIC CORE BITS

SCIÉS ELECTROMAGNETIQUES MD



ACERO 1100 -1400 N/mm² | INOX | AL | CU | F

MD

WELDON 19,00

Ø (mm)	Profundidad de Corte *Depth of the cut* (mm)	Ø Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.
18,00	50	19	1	2003018050
19,00	50	19	1	2003019050
20,00	50	19	1	2003020050
21,00	50	19	1	2003021050
22,00	50	19	1	2003022050
23,00	50	19	1	2003023050
24,00	50	19	1	2003024050
25,00	50	19	1	2003025050
26,00	50	19	1	2003026050
27,00	50	19	1	2003027050
28,00	50	19	1	2003028050
29,00	50	19	1	2003029050
30,00	50	19	1	2003030050
31,00	50	19	1	2003031050
32,00	50	19	1	2003032050
33,00	50	19	1	2003033050
34,00	50	19	1	2003034050
35,00	50	19	1	2003035050
36,00	50	19	1	2003036050
37,00	50	19	1	2003037050
38,00	50	19	1	2003038050
39,00	50	19	1	2003039050
40,00	50	19	1	2003040050
41,00	50	19	1	2003041050
42,00	50	19	1	2003042050
43,00	50	19	1	2003043050
44,00	50	19	1	2003044050
45,00	50	19	1	2003045050
46,00	50	19	1	2003046050
47,00	50	19	1	2003047050
48,00	50	19	1	2003048050
49,00	50	19	1	2003049050
50,00	50	19	1	2003050050

PUNZÓN EXPULSOR / *PUNCHER* / *POINÇON*



Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.
8	102	1	2001501

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD

MD ELECTROMAGNETIC CORE BITS SET

COFFRET SCIÉS ELECTROMAGNETIQUES MD



Medidas mm / *Sizes mm*	Uds. / *Pcs.*	Cod.
18x50, 20x50, 22x50, 24x50, 26x50, 28x50, punzón expulsor 8x102	7	19CW04

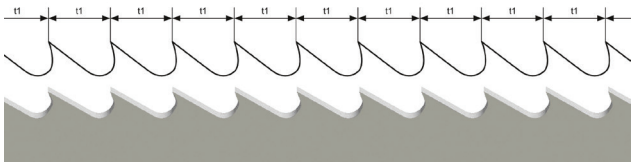
TIPOS DE DENTADOS *TOOTH PITCH • DENTURES*



HSS-CO 8% | HRC 68-69

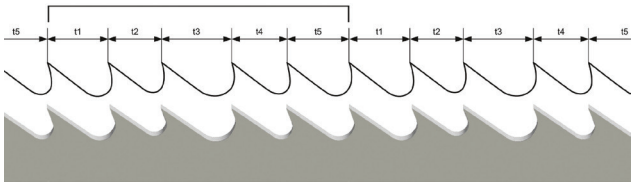
DENTADO FIJO / *CONSTANT TOOTH PITCH* / *DENTURE CONSTANTE*

Dentado constante en toda la longitud. Para cortes en materiales macizos. Recomendado para aceros, aceros inoxidables.
Constant tooth pitch, suitable for solid materials.
Dentures constante, appropiés pour des materiales solides.



DENTADO VARIABLE / *VARIABLE TOOTH PITCH* / *DENTURE VARIABLE*

Dentado alterno en intervalos regulares an toda la longitud.Para cortes en perfiles y tubos, reduce la vibración.
Variable pitch, recommended to suppress the ressonance phenomenons and vibrations.
Denture variable, recommendés pour suprimer les phénomènes de résonance et les vibrations.



TIPOS DE TRISCADOS *TOOTH SETTINGS • TYPES D´AVOYAGES*

TRISCADO ESTÁNDAR / *STANDARD SET* / *AVOYAGE STANDARD*

Triscado constante con secuencia de izquierda / derecha / recto.
Recomendado para multiusos. / ***Constant tooth set, with sequence left / right / straight. Recommended for multipurpose.***
Denture constante, avoyage gauche / droite / centre.

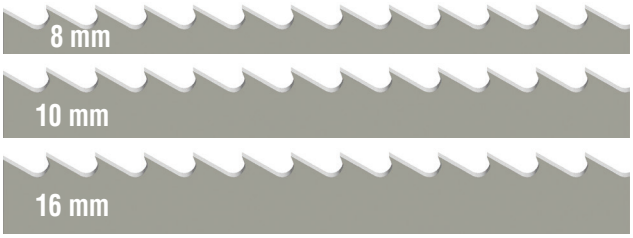


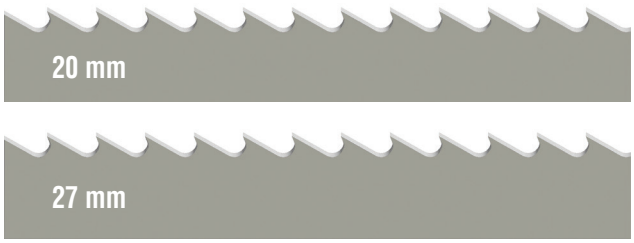
TRISCADO DE GRUPO / *GROUP TOOTH SET* / *AVOYAGE GROUPÉ*

Triscado agrupado, secuencia de dientes por grupo.
Mejora los acabados./ ***Group tooth set, improve surfaces quality.***
Avoyage groupé, améliore la calité de la surface.

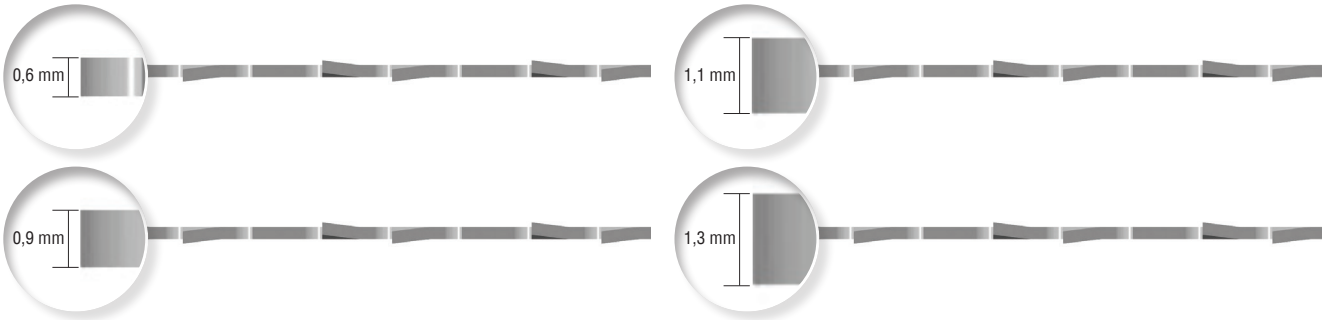


ANCHO DE LA CINTA *BAND WIDTH • LARGEURS DES LAMES*





GROSOR DE LA CINTA *BAND THICKNESS • ÉPAISSEUR DE LAME*



CAUSAS DEL MAL FUNCIONAMIENTO Y SOLUCIONES
CAUSES OF MALFUNCTION AND SOLUTIONS
CAUSES DE DYSFONCTIONNEMENT ET SOLUTIONS

Procedente / *Procedente* / *Procedente*

No procedente / *No procedente* / *No procedente*

ROTURA DE LA SIERRA / *BROKEN SAW* / *RUPTURE DE LA SCIE*



	CAUSA / *CAUSE*	SOLUCIÓN / *SOLUTION*
✗	Guías laterales demasiado prietas. ***Side guide rails too tight.*** *Guides latéraux trop serrés.*	Comprobar y ajustar las guías. ***Check and adjust the guide rails.*** *Vérifier et ajuster les guides.*
✗	Guías desgastadas, rotas o no alineadas. ***Worn, broken or misaligned guide rails.*** *Guides usés, cassés ou non alignés.*	Revisar o reemplazar las guías. ***Service or replace the guide rails.*** *Vérifier ou remplacer les guides.*
✗	Tensión excesiva, volantes de la máquina desgastados o problemas de rodamientos. ***Excessive tension, worn flywheels or bearing problems.*** *Tension excessive, volants de la machine usés ou problèmes de roulements.*	Revisar la máquina. ***Service the machine.*** *Vérifier la machine.*
✓	Rotura limpia por la soldadura. ***Clean break from welding.*** *Cassure propre à cause de la soudure.*	Reclamación procedente. ***Appropriate complaint.*** *Réclamation adaptée.*

DESGASTE DE LOS DIENTES / *WORN TEETH* / *USURE DES DENTS*



	CAUSA / *CAUSE*	SOLUCIÓN / *SOLUTION*
✗	Velocidad de corte superior a la recomendada. ***Cutting speed higher than recommended.*** *Vitesse de coupe supérieure à la vitesse recommandée.*	Reducción de la velocidad de corte. ***Reduce the cutting speed.*** *Réduction de la vitesse de coupe.*
✗	Refrigeración insuficiente. ***Insufficient cooling.*** *Faible réfrigération.*	Aumentar refrigeración o concentración. ***Increase cooling or concentration.*** *Augmenter réfrigération ou concentration.*
✗	El material no está bien sujeto. ***The material is not securely fastened.*** *Le matériel n'est pas bien fixé.*	Ajustar la mordaza de la máquina. ***Adjust the jaws of the machine.*** *Ajuster la fixation de la machine.*
✗	Material poco homogéneo. ***The material is not sufficiently uniform.*** *Matériel peu homogène.*	Realizar un análisis metalúrgico del material. ***Conduct a metallurgical analysis of the material.*** *Réaliser une analyse métallurgique du matériel.*
✗	Rodaje inadecuado. ***Incorrect running-in.*** *Rodage non adapté.*	Realizar el proceso de rodaje correcto. ***Conduct the running in process correctly.*** *Réaliser la procédure de de rodage correctement.*

ROTURA DE LOS DIENTES / *BROKEN TEETH* / *RUPTURE DES DENTS*



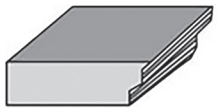
	CAUSA / *CAUSE*	SOLUCIÓN / *SOLUTION*
✗	Velocidad de corte baja. ***Low cutting speed.*** *Vitesse de coupe faible.*	Adaptar la velocidad de corte al material a cortar. ***Adjust the cutting speed to the material to be cut.*** *Adapter la vitesse de coupe au matériel à couper.*
✗	Avance demasiado alto. ***Feed rate too high.*** *Avancée trop élevée.*	Reducir el avance. ***Reduce the feed rate.*** *Réduire l'avancée.*
✗	Dentado inapropiado. ***Unsuitable tooth size.*** *Dents non adaptées.*	Seleccionar el dentado correcto. ***Select the correct tooth size.*** *Sélectionner les dents adaptées.*
✗	El material no está bien sujeto. ***The material is not securely fastened.*** *Le matériel n'est pas bien fixé.*	Ajustar la mordaza de la máquina. ***Adjust the jaw of the machine.*** *Ajuster la fixation de la machine.*
✗	Refrigeración insuficiente. ***Insufficient cooling.*** *Faible réfrigération.*	Aumentar refrigeración o concentración. ***Increase cooling or concentration.*** *Augmenter réfrigération ou concentration.*
✗	Cepillo limpia virutas no funciona. ***Shavings cleaning brush not working.*** *Brosse qui nettoie les copeaux ne fonctionne pas.*	Comprobar o sustituir el cepillo limpia viruta. ***Check or replace shavings cleaning brush.*** *Vérifier ou replacer la brosse.*

CAUSAS DEL MAL FUNCIONAMIENTO Y SOLUCIONES
CAUSES OF MALFUNCTION AND SOLUTIONS
CAUSES DE DYSFONCTIONNEMENT ET SOLUTIONS

Procedente
Procedente
Procedente

No procedente
No procedente
No procedente

CORTE IRREGULAR / *IRREGULAR CUT* / *COUPE IRRÉGULIÈRE*



CAUSA / *CAUSE*	SOLUCIÓN / *SOLUTION*
Hoja de sierra de cinta desafilada. ***Blunt band saw blade.*** *Feuille de scie du tapis mal aiguisée.*	Cambiar la cinta. ***Replace the blade.*** *Changer le tapis.*
Guías de la hoja de sierra de cinta flojas o desalineadas. ***Loose or misaligned band saw blade guides.*** *Guides de la feuille peu serrés ou mal alignés.*	Ajustar o sustituir las guías. ***Adjust or replace the guides.*** *Ajuster ou remplacer les guides.*
Brazos guía de la máquina están demasiado separados. ***The machine´s guide arms are too far apart.*** *Bras guide la machine trop séparée.*	Ajustar al máximo la apertura de los brazos guías al tamaño de la pieza a cortar. ***Open the guide arms as far as possible to the size of the piece to be cut.*** *Ajuster au maximum l'ouverture des bras guides aux dimensions de la pièce à couper.*
Dentado demasiado pequeño. ***Blade teeth too small.*** *Dents trop petites.*	Seleccionar el dentado apropiado. ***Select the correct blade teeth size.*** *Sélectionner les dents adaptées.*
Avance demasiado alto. ***Feed rate too high.*** *Avancée trop élevée.*	Reducir el avance. ***Reduce the feed rate.*** *Réduire l'avancée.*
Tensión baja de la hoja. ***Blade tension too low.*** *Tension de la feuille faible.*	Aumentar la tensión. ***Increase the tension.*** *Augmenter la tension.*
Cepillo limpia virutas no funciona. ***Shavings cleaning brush not working.*** *Brosse qui nettoie les copeaux ne fonctionne pas.*	Comprobar o sustituir el cepillo. ***Check or replace the brush.*** *Vérifier ou replacer la brosse.*

RECOMENDACIONES
TIPS • RECOMMANDATIONS

1 Comprobar con frecuencia el buen estado de la máquina, el funcionamiento del cepillo, el desgaste y la alineación de las guías, la tensión de la cinta, etc.
Conduct frequent checks of the condition of the machine, the operation of the brush, the wear and alignment of the guide rails, the tension of the belt, etc.
Vérifier fréquemment le bon état de la machine, le fonctionnement de la brosse, l'usure et l'alignement des guides, la tension du tapis, etc.

2 Comprobar que estamos utilizando el refrigerante adecuado al trabajo que estamos realizando.
Check you are using the correct coolant for the work being carried out.
Vérifier que nous utilisons le liquide de refroidissement adapté au travail à réaliser.

3 Asegurarnos que la pieza está perfectamente sujeta en las mordazas de la máquina.
Make sure that the piece is securely fastened in the jaws of the machine.
S'assurer que la pièce est parfaitement fixée à la machine.

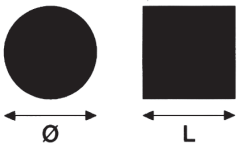
4 Elegir el dentado correcto de acuerdo a las tablas que les adjuntamos, teniendo en cuenta el espesor de las piezas y la geometría de las mismas.
Choose the correct blade tooth size in accordance with the tables attached hereto, taking the thickness and geometry of the pieces into account.
Choisir les dents correctes selon les tableaux joints, en prenant en compte l'épaisseur des pièces et leur géométrie.

PARA EL CORTE DE TUBOS Y PERFILES / *TO CUT TUBES AND BEAMS* / *POUR LA COUPE DE TUBES ET PROFILES*



	D (mm)										
S (mm)	20	40	60	80	100	120	150	200	300	400	500
2	14	14	14	14	10/14	10/14	10/14	10/14	10/14	8/12	8/12
3				10/14					6/10		
4			10/14				6/10	6/10		6/10	6/10
5		10/14			6/10	6/10			4/6	4/6	4/6
6	10/14		8/12	6/10			5/8	4/6			
7		8/12				5/8					
8			6/10		5/8		4/6		3/4	3/4	3/4
10	-	6/10		5/8		4/6		3/4			
12	-		5/8		4/6		3/4				2/3
15	-	-		4/6		3/4			2/3	2/3	
20	-	-	-	-	3/4		2/3	2/3			
30	-	-	-		-						
50	-	-	-								

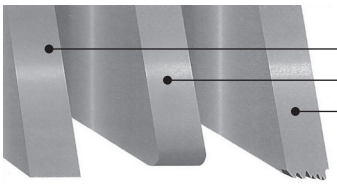
PARA EL CORTE DE SECCIONES MACIZAS / *TO CUT SOLID MATERIALS* / *POUR LA COUPE DE MATÉRIAUX PLEINS*



Ø (mm) / L (mm)	Dentado Variable / *Variable Tooth Pitch*	Dentado Fijo / *Constant Tooth Pitch*
- 10	10 / 14	14,00
10 - 20	8 / 12	10,00
20 - 40	6 / 10	8,00
40 - 70	4 / 6	6,00
70 - 140	3 / 4	4,00
140 - 200	3 / 4	3,00
200 - 400	2 / 3	2,00
+ 400	1 / 2	1,25

5 Con el fin de proteger los dientes de la sierra no quitar el protector del dentado hasta que esté la sierra montada.
In order to protect the teeth of the saw, do not remove the tooth guard until the saw has been assembled.
Afin de protéger les dents de la scie, ne pas quitter la protection des dents jusqu'à ce que la scie soit montée.

6 Hacer el rodaje de las sierras adecuadamente aumenta su vida útil. Consiste en cortar durante un pequeño periodo de tiempo a una velocidad de corte y a un avance reducido. Se trata de trabajar aproximadamente al 70% de la velocidad de corte y a un 50% de la velocidad de avance. Después de haber cortado aproximadamente 500 cm² de área, se puede incrementar la velocidad de corte gradualmente hasta el máximo, y después incrementar también el avance.
Running in the saw in the correct manner increases its service life. This consists of cutting at a reduced cutting speed and feed rate for a short period of time. This means working at around 70% of the cutting speed and 50% of the feed rate. After having cut an area of approximately 500 cm² in size, you may gradually increase the cutting speed to the maximum and then increase the feed rate.
Faire le rodage des scies de façon adaptée augmente leur vie utile. Consiste à découper pendant une courte période de temps à une vitesse de coupe et une avancée réduite. Il s'agit de travailler à environ 70% de la vitesse de coupe et 50% de la vitesse d'avancée. Après avoir coupé environ 500 cm² de surface, on peut augmenter la vitesse de coupe graduellement jusqu'au maximum, et ensuite augmenter également l'avancée.



SIERRA DE CINTA M42 - PARA DIVERSAS TAREAS DE CORTE
M42 BIMETAL BANDSAW BLADES - FOR DIVERSE CUTTING TASKS
LAMES DE SCIES Á RUBAN M42 - POUR DIVERSES TÂCHES DE DÉCOUPE



CÁLCULO DEL PRECIO DE UNA SIERRA DE CINTA
PRICE CALCULATION • CALCULE DU PRIX

HSS-CO 8% | HRC 68-69

Tipo de diente / ***Tipo de diente*** / ***Tipo de diente***





Anchura / *Width* (mm)	Grosor / *Thickness* (mm)
6	0,9
10	0,9
13	0,6
13	0,9
20	0,9
27	0,9
34	1,1
41	1,3

PVP CORTES MÁS HABITUALES M42
PRICES OF MOST USUAL CUTS
PRIX DES LAMES DE SCIES Á RUBAN PLUS HABITUELS

Desarrollo / *Length* (mm)	Anchura / *Width* (mm)
1325	13x0,6
1330	13x0,6
1470	13x0,6
1475	13x0,6
2000	20x0,9
2060	20x0,9
2352	20x0,9
2070	27x0,9
2360	27x0,9
2450	27x0,9

Desarrollo / *Length* (mm)	Anchura / *Width* (mm)
2460	27x0,9
2600	27x0,9
2750	27x0,9
2835	27x0,9
2945	27x0,9
3010	27x0,9
3660	27x0,9
4570	34x1,1
5300	34x1,1

SIERRA DE CINTA M42 - PARA PERFILES Y TUBOS TIPO "P"

M42 BIMETAL BANDSAW BLADES - FOR PROFILES AND TUBES TYPE "P"

LAMES DE SCIES Á RUBAN M42 - POUR PROFILÉS ET TUBES TIPE "P"

NEW



CÁLCULO DEL PRECIO DE UNA SIERRA DE CINTA

PRICE CALCULATION • CALCULE DU PRIX

HSS-CO 8% | HRC 68-69 | advance MAXIMO RENDIMIENTO

Tipo de diente / ***Tipo de diente*** / ***Tipo de diente***



Anchura / *Width* (mm)	Grosor / *Thickness* (mm)
20	0,9
27	0,9
34	1,1
41	1,3

PVP CORTES MÁS HABITUALES M42

PRICES OF MOST USUAL CUTS

PRIX DES LAMES DE SCIES Á RUBAN PLUS HABITUELS

Desarrollo / *Length* (mm)	Anchura / *Width* (mm)
2000	20x0,9
2060	20x0,9
2352	20x0,9
2070	27x0,9
2360	27x0,9
2450	27x0,9
2460	27x0,9
2600	27x0,9

Desarrollo / *Length* (mm)	Anchura / *Width* (mm)
2750	27x0,9
2835	27x0,9
2945	27x0,9
3010	27x0,9
3660	27x0,9
4570	34x1,1
5300	34x1,1

Plazo 4-5 días laborables / ***Delivery time 4-5 working days*** / ***Durée 4-5 jours ouvrables***

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION

VITESSE RECOMMENDÉE



HSS-CO 8% | HRC 68-69

MATERIAL	Selección Del Dentado *Tooth Selecting*		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte *Coolant Cutting Fluid*	
	Dimensión A Cortar / *To Cut*		0 -13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	SI / *YES*	NO
Aceros Al Carbono *Carbon Steels*	F-151	1010	105	100	90	85	80		X
	F-111 - F-112	1015 - 1025	110	105	100	95	85		X
	F-113	I035	83	79	73	64	61		X
	M14 - F-115	1045 - 1055	71	73	70	60	49		X
	F-S12 - F 516	W-1 - W-2	78	72	66	60	54		X
Aceros Fácil Mecanización *Free Cutting Steels*	-	1108-1111	105	105	IOS	102	87		X
	F-211	1117 -1118	102	102	102	99	84		X
			100	93	84	81	72		X
	F-212	1137-1151 1211 -1215	110	110	105	105	93		X
Aceros al Manganeso *Manganese Steels*	-	1330 - 1340	80	75	71	65	56		X
	-	1513 - 1536	115	112	105	97	85		X
	-	1541 - 1572	75	72	70	60	50		X
Aceros Molibdeno *Molybdenum Steels*	-	4012- 4024	102	97	90	85	75		X
	-	4027 - 4037	36	93	83	81	71		X
	-	4042 - 4047	82	77	68	63	56		X
Aceros Cromo Molibdeno *Chrome Molybdenum Steels*	-	4118 - 4130	100	88	80	80	75		X
	F-125	4135 - 4142	94	86	77	75	64		X
	F-155	4145 - 4161	75	70	67	63	55		X
Aceros Níquel *Nickel Steels*	F-152	2317	90	85	82	77	70	X	
	-	2330 - 2345	74	70	67	61	55	X	
	-	2512 - 2517	64	61	58	52	49	X	
Aceros Cromo Níquel *Chrome Nickel Steels*	F-158	3115 - 3130	90	84	78	75	72	X	
	-	3135 - 3150	70	65	61	57	50	X	
	F-153	3310 - 3315	67	61	55	54	45	X	
	F-154	3320 - 3340	55	50	43	44	40	X	

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / ***Reduce from 10% to 20% for sizes over 200 mm.*** / *Reduire du 10% á 20% dans les mésures plus grandes.*

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION

VITESSE RECOMMENDÉE



HSS-CO 8% | HRC 68-69

MATERIAL	Selección Del Dentado *Tooth Selecting*		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte *Coolant Cutting Fluid*	
	Dimensión A Cortar / *To Cut*		0 -13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	SI / *YES*	NO
Aceros Cromo Níquel Molibdeno *CR-Ni-Mb Steels*	-	4317 - 4320	83	78	70	68	62	X	
	F-127	4337 - 4340	83	75	68	66	54	X	
	-	8615 - 8627	83	78	75	68	54	X	
	F-12S	8630 - 8645	83	78	72	65	54	X	
	-	8647 -8660	75	69	63	60	48	X	
	-	8716 - 6750	63	78	75	69	54	X	
	F-156	9310 - 9317	73	66	55	52	45	X	
	-	9437 - 9446	86	7B	74	68	65	X	
	-	9447 - 9763	80	77	74	66	62	X	
	-	9840 - 9850	78	75	70	66	52	X	
Aceros Níquel Molibdeno *Ni-Mb Steels*	-	4608 - 4626	89	84	80	75	65	X	
	-	4640	79	72	68	63	64	X	
	-	4812	74	67	62	60	52	X	
Aceros Cromo *Chrome Steel*	-	5040 - 5050	90	86	80	78	65		X
	F-121	5120 -5135	90	87	70	75	60		X
	F-122	5140 - 5160	81	77	74	70	58		X
	F-131	50100 - 52100	63	56	52	48	35		X
Aceros Cromo Vanadio *Chrome Vanadium Steels*	-	6117 - 6120	80	77	70	70	49		X
	F-143	6145 - 6152	76	69	63	60	47		X
Aceros 5(Uck) Manganeso *5 (UCK)-Mg Steels*	F-144	9255 - 9260	69	63	60	57	46		X
	-	9261 - 9262	67	60	57	54	45		X
Aceros Trabajados en Frío *Cold Worked Steels*	F-522 - F-520 H	01 - 02	74	67	65	60	50		
	F-523	L-3	63	58	S2	46	36		
	F-520 P	06 - 07	70	65	62	57	46		
	F-S36	A2 - A3 - A6	72	66	65	60	50		
		D2 - D3 - D6	44	39	35	33	24		X
	-	D7	33	30	27	25	20		X

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / ***Reduce from 10% to 20% for sizes over 200 mm.*** / ***Reduire du 10% á 20% dans les mésures plus grandes.***

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION

VITESSE RECOMMENDÉE



HSS-CO 8% HRC 68-69

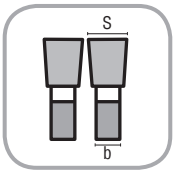
MATERIAL	Selección Del Dentado *Tooth Selecting*		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte *Coolant Cutting Fluid*	
	Dimensión A Cortar / *To Cut*		0 -13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	SI / *YES*	NO
Aceros Trabajos en Caliente *Hot Worked Steels*	F-526 - F-536	H12 - H13 - H21	70	68	62	60	48	X	
	-	H22 - H24 - H26	60	54	50	48	42	X	
	F-528	L2 L6 - L7	65	61	50	55	46	X	
	F-532	F-1	62	60	56	50	38		X
Aceros Trabajos de Choque *Steel Shock Works*	F-524	S1	70	63	60	58	48		
	F-520 E	S-2 - S-5	55	50	48	40	35	X	
Aceros Rapidos *High Speed Steels*	F-552	T-1 - T-2	46	43	39	36	28		X
	F-553 - F-554	T4 - T5	39	35	33	30	24		X
	-	T-6 - T4	35	31	28	28	20		X
	-	T-15 - M-1S	23	26	21	19	te		X
	-	M-1	53	50	46	43	35		X
	F-S50A	M-2 - M-3	39	36	33	30	24		X
	-	M-41 - M-43	35	31	28	25	20		X
Aceros Inoxidables *Stainless Steels*	F-314	201 - 202 - 304	42	39	35	34	26	*	
	F-310 C	303 - 303 F	50	45	42	38	30		
	F-331	308 - 309 - 310	31	30	27	24	19		
	F-310 A	314 - 316 - 317	31	30	27	24	18		
	F-332	321 - 347	44	38	35	35	30		
	F-311 - F-312	410 - 420	53	50	45	42	33		
	-	330	27	24	20	17	14		
	F-313	431	39	33	30	28	24		
	-	440A-B-C	42	36	34	30	24		
	-	I7-7Ph - 17-4Ph	36	30	27	24	15		
		NITRONIC - 33	18	18	16	15	12		
	F-330 B	446	30	26	23	20	17		
		D2 - D3 - D6	44	39	35	33	24		
	-	D7	33	30	27	25	20		

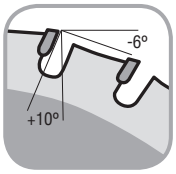
* Especial para INOX / ***For INOX*** / ***Pour INOX***

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / ***Reduce from 10% to 20% for sizes over 200mm.*** / ***Reduire du 10% á 20% dans les mésures plus grandes.***

DISCO PARA ALUMINIO Y METALES NO FÉRRICOS
ALUMINIUM AND NON-FERROUS METAL DISCS
DISQUE POUR ALUMINIUM ET METAUX NON FERREUX



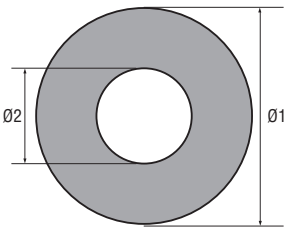




AL · ACERO 400-800 N/mm² · MD

Ø (mm)	S Grosor / *Thickness*	B Grosor / *Thickness*	Ø Eje / Axe	Z	Cod.
250	3,2	2,2	32	80	3DM0250
300	3,2	2,2	32	96	3DM0300

ANILLOS REDUCTORES
REDUCTIONS RINGS • BIAGUES DE RÉDUCTION



Ø1 / Ø2 (mm)	Cod.
32/30	2DR3230
32/25	2DR3225
32/20	2DR3220

HOJAS DE SIERRA DE MANO ACERO AL CARBONO
HAND HACKSAW BLADE CARBON STEEL
LAMES DE SCIES ACIER CARBONE



ACERO 400-800 N/mm² · PL · AL

L1 (mm)	A	Grosor / *Thickness*	Dtes. x pulgada / *Teeth x inch*	Uds. / *Pcs.*	Cod.
300	13	0,65	24	100	S31225

HOJAS DE SIERRA DE MANO BIMETAL
BIMETAL HAND HACKSAW BLADE
LAMES DE SCIES BIMETAL



ACERO 400-800 N/mm² · CU · INOX

L1 (mm)	A	Grosor / *Thickness*	Dtes. x pulgada / *Teeth x inch*	Uds. / *Pcs.*	Cod.
300	13	0,65	24	100	S21224
300	13	0,65	32	100	S21232

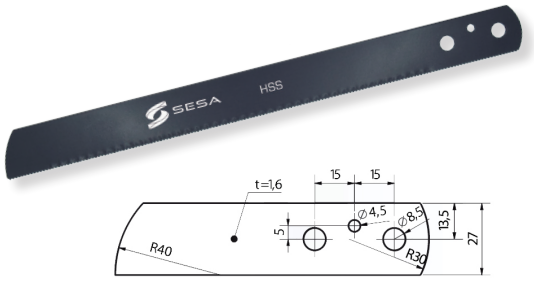
HOJA DE SIERRA DOBLE FILO ACERO AL CARBONO
DOUBLE SIDED HACKSAW BLADE CARBON STEEL
LAME DE SCIE À DOUBLE BORD ACIER CARBONE



ACERO 400-800 N/mm² · PL · AL

L1 (mm)	A	Grosor / *Thickness*	Dtes. x pulgada / *Teeth x inch*	Uds. / *Pcs.*	Cod.
300	13	0,65	24	100	S31224

SIERRAS DE SABLE PARA MÁQUINAS FEIN
SABRE SAW BLADES FOR FEIN MACHINE
SCIE SABRE POUR FEIN MACHINES



ACERO 400-800 N/mm² | PL | HSS

L1 (mm)	A	Grosor / *Thickness*	Dtes. x pulgada / *Teeth x inch*	Uds. / *Pcs.*	Cod.
300	27	1,60	14	10	S8300271614
400	27	1,60	14	10	S8400271614
500	27	1,60	14	10	S8500271614
600	27	1,60	14	10	S8600271614
700	28	2,00	14	10	S8700282014

Para máquinas neumáticas y eléctricas con anclaje FEIN, SPITZHAS, PREMAG, ROCKWELLL…
For pneumatic and electric machines with anchor FEIN, SPITZHAS, PREMAG, ROCKWELLL…
Pour machines pneumatiques et électriques avec ancre FEIN, SPITZHAS, PREMAG, ROCKWELLL…

HOJA SIERRA DE MÁQUINA BIMETAL
BIMETAL POWER HACKSAW BLADES FOR MACHINE
LAME DE SCIE MACHINE BIMETAL



ACERO 400-800 N/mm² | F | LT

L1 (mm)		Dtes. x pulgada / *Teeth x inch*				Uds. / *Pcs.*	Cod.
300 x 25 x 1,20		6	8	10	14	10	S73002512XX*
350 x 32 x 1,60	4	6	8	10	14	10	S73503216XX*
400 x 32 x 1,60	4	6	8	10	14	10	S74003216XX*
400 x 40 x 2,00	4	6	8	10	-	10	S74004020XX*
450 x 32 x 1,60	4	6	8	10	14	10	S74503216XX*
450 x 40 x 2,00	4	6	8	10	-	10	S74504020XX*
500 x 40 x 2,00	4	6	8	10	-	10	S75004020XX*
550 x 50 x 2,50	4	6	8	10	-	10	S75505025XX*
600 x 50 x 2,00	-	6	8	10	-	10	S76005020XX*
600 x 50 x 2,50	4	6	8	10	-	10	S76005025XX*
650 x 50 x 2,50	4	6	8	10	-	10	S76505025XX*
700 x 50 x 2,50	4	6	8	10	-	10	S77005025XX*

Consultar plazo / ***Request delyvery time*** */ Vérifier la date limite*

*Las "XX" hacen referencia al número de dientes por pulgada
* ***The "XX" refer to the number or teeth per inch***
* ***Les "XX" se reférer au nombre de dents par pouce***

Ejemplo para pedir: / ***Example to order:*** */ Exemple de commande:*

300 x 25 x 1,20 8 TPI → Cod. S7300251**28**
300 x 25 x 1,20 10 TPI → Cod. S7300251**210**

DESBARBADOR
DEBURRING TOOL
ÉBAVUREUR

ACERO 400-800 N/mm² · AL · CU · PL · HSS-G



Uds. / *Pcs.*	Cod.
1	3DE1000

CUCHILLAS RECAMBIO
DEBURRING TOOLS BLADES • LAMES



Uds. / *Pcs.*	Cod.
10	3DE1001

DESBARBADOR PARA VARILLAS
BOLT CHAMFER
CHAMFER À BOULON

1/4



Uds. / *Pcs.*	Cod.	Ø
1	3DE1003	8-22mm

GRANETES
POUNCHES • POINTEAU

GRANETE AUTOMÁTICO
AUTHOMATIC CENTER PUNCH • POINTEAU AUTOMATIQUE

NEW

advance MAXIMO RENDIMIENTO



Uds. / *Pcs.*	Cod.
1	5PU5000



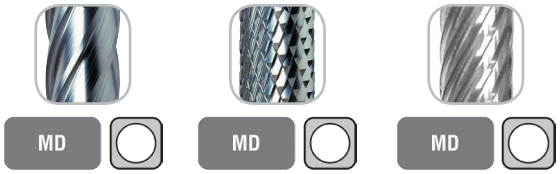


SESA®

FRESADO

MILLING - FRAISAGE

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS
APPLICATION GUIDE AND CUTTING SPEED
TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ



MATERIAL / *MATERIAL* / *MATIERE*		Resistencia *Ressistance Resistance* N/mm²	3 Cortes *3 Cuts 3 Dents*	6 Cortes *6 Cuts 6 Dents*	Corte INOX *INOX cut INOX dent*
ACEROS *STEELS • ACIERS*	Decoletaje *Machining • Décolletage*	<500		■	
	Carbono <0,4% *<0,4% Carbon • Carbon <0,4%*	<850		■	
	Acero para herramientas *Steel for tools • Acier pour outils*	<1.200		■	
	Templado - Revenido *Tempered - Quenched • Trempé - Revenu*	<1.400		■	
ACEROS INOXIDABLES *STAINLESS STEEL ACIER INOXYDABLE*	Austeníticos Cr-Ni *Cr-Ni Austenitics • Cr-Ni austenitique*	<850		■	■
	Martensíticos Cr-Mo *Cr-Mo Martensitics • Cr-Mo martensitique*	<1.200		■	■
FUNDICIÓN *CAST IRON • FONTE*	Fundición gris *Grey cast iron • Fonte grise*	<700		■	
	Fundición dura *Hard cast iron • Fonte dur*	<1.000		■	
ALUMINIO *ALUMINIUM • ALUMINIUM*	Puro *Pure • Pure*	<350	■		
	Si < 10%	<600	■		
	Si > 10%	<600	■		
	Zamak *Zamak • Zamak*	<600	■		
COBRE *COPPER • CUIVRE*	Bronce *Bronze • Bronze*	<350		■	
	Cobre viruta larga *Long chip copper • Cuivre coupage long*	<700		■	
	Cobre viruta corta *Short chip coppe • Cuivre coupage court*	<700		■	
	Latón duro *Hard Brass • Laiton dur*	<700		■	
	Latón tenaz *Tough Brass • Laiton tenace*	<700		■	
TITANIO *TITANIUM • TITANE*	Puro *Pure • Pure*	<700		■	
	Aleaciones de Titanio *Titanium alloys • Alliages de titane*	<1.200		■	
SINTÉTICOS *PLASTICS • PLASTIQUES*	Termoplásticos *Thermoplastics • Thermoplastique*	-	■		
	Duroplásticos *Hard-plastics • Duroplastique*	-	■		

*VELOCIDADES RECOMENDADAS PARA FRESAS CON MANGO DE LONGITUD ESTANDAR.
**RECOMMENDED SPEEDS FOR STANDARD LENGTH BURRS.*
**VITESSE RECOMMANDÉE POUR LES FRAISES DE LONGUEUR STANDARD.*

Diámetro de la cabeza de la fresa - RPM x 1000 / *Burr head diameter - RPM x 1000* / *Diamètre de la tête de la fraise - RPM x 1000*															
Ø 3 mm			Ø 6 mm			Ø 10 mm			Ø 12 mm			Ø 16 mm			
RPM Max.	RPM	RPM Inicial *Initial Initiale*	RPM Max.	RPM	RPM Inicial *Initial Initiale*	RPM Max.	RPM	RPM Inicial *Initial Initiale*	RPM Max.	RPM	RPM Inicial *Initial Initiale*	RPM Max.	RPM	RPM Inicial *Initial Initiale*	
	60-80	65		45-60	50		30-40	30		22-30	25		18-20	20	
				30-45	40		19-30	25		15-22	20		12-18	15	
	60-80	80		30-45	40		19-30	25		15-22	20		12-18	15	
	45-80	65		22-60	45		15-40	30		11-30	25		9-20	20	
100	60-80	65	65	15-60	40	55	10-50	25	35	7-30	20	25	6-20	15	
	45-80	65		22-60	45		15-40	30		11-30	25		9-20	20	
	60-80	80		30-45	40		19-30	25		15-22	20		12-18	15	
	60-80	80		15-60	40		10-50	25		7-30	20		6-20	15	

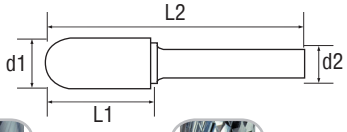
FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR



ACERO 1100 - 1400 N/mm²

MD





CILÍNDRICA *CYLINDER • CYLINDRIQUE*


3 Cortes / *3 Cuts*


6 Cortes / *6 Cuts*

Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
A	3,00	3,00	14,00	38,00	FRA3104	FRA6100
		6,35	12,70	45,00	FRA3105	FRA6101
	6,00	4,00	14,00	50,00	*	FRA6107
		6,00	18,00	50,00	FRA3102	FRA6102
		8,00	19,00	64,00	FRA3103	FRA6103
		9,60	19,00	64,00	FRA3100	FRA6104
		9,60	25,00	70,00	FRA3106	FRA6109
		12,70	19,00	64,00	*	FRA6105
		12,70	25,00	70,00	FRA3101	FRA6106

CILÍNDRICA CORTE FRONTAL
CYLINDER END CUT • CYLINDRIQUE COUP FRONTALE


3 Cortes / *3 Cuts*


6 Cortes / *6 Cuts*

Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
B	3,00	3,00	14,00	38.0	FRB3103	FRB6100
		6,35	12,70	45,00	FRB3104	FRB6101
	6,00	4,00	14,00	50,00	*	FRB6107
		6,00	18,00	50,00	FRB3100	FRB6102
		8,00	19,00	64,00	FRB3101	FRB6103
		9,60	25,00	70,00	*	FRB6109
		9,60	19,00	64,00	FRB3102	FRB6104
		12,70	19,00	64,00	*	FRB6105
		12,70	25,00	70,00	FRB3105	FRB6106
		16,00	25,00	70,00	FRB3106	FRB6108

CILÍNDRICA CON RADIO *BULL NOSE • CYLINDRIQUE A RAYON*


3 Cortes / *3 Cuts*


6 Cortes / *6 Cuts*

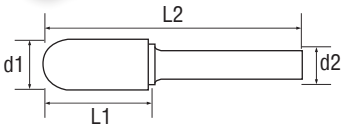
Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
C	3,00	3,00	14,00	38,00	FRC3104	FRC6100
		6,35	12,70	45,00	FRC3105	FRC6101
	6,00	4,00	14,00	50,00	*	FRC6108
		6,00	18,00	50,00	FRC3102	FRC6102
		8,00	19,00	64,00	FRC3103	FRC6103
		9,60	19,00	64,00	FRC3100	FRC6104
		12,70	19,00	64,00	*	FRC6105
		12,70	25,00	70,00	FRC3101	FRC6106
		16,00	25,00	70,00	FRC3106	FRC6107

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR



ACERO 1100 -1400 N/mm²

MD



ESFÉRICA *BALL • SPHERIQUE*

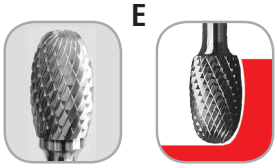
D



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	6 Cortes / *6 Cuts* Cod.
	3,00	3,00	2,50	38,00	*	FRD6100
		4,00	3,40	38,00	FRD3103	FRD6102
		6,35	5,00	38,00	*	FRD6101
	6,00	6,00	4,70	50,00	FRD3100	FRD6103
		8,00	6,00	52,00	*	FRD6106
		9,60	8,00	54,00	FRD3101	FRD6104
		12,70	11,00	56,00	FRD3102	FRD6105
		16,00	14,00	59,00	FRD3104	FRD6107

OVAL *OVAL • OVALE*

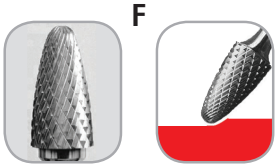
E



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	6 Cortes / *6 Cuts* Cod.
	3,00	3,00	6,00	38,00	*	FRE6100
		6,35	9,50	42,00	*	FRE6101
	6,00	8,00	15,00	60,00	*	FRE6102
		9,60	16,00	60,00	FRE3100	FRE6103
		12,70	22,00	67,00	FRE3101	FRE6104
		16,00	25,00	70,00	*	FRE6105

ÁRBOL CON RADIO *ROUND TREE • OGIVE A RAYON*

F



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	6 Cortes / *6 Cuts* Cod.
	3,00	3,00	14,00	38,00	*	FRF6100
		6,35	12,70	45,00	*	FRF6101
	6,00	6,00	18,00	50,00	FRF3102	FRF6102
		8,00	20,00	65,00	FRF3103	FRF6106
		9,60	19,00	64,00	FRF3100	FRF6103
		12,70	25,00	70,00	FRF3101	FRF6104
		16,00	25,00	70,00	FRF3104	FRF6105

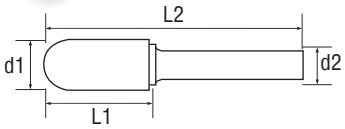
Para medidas no tarifadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR



ACERO 1100 -1400 N/mm²

MD



ÁRBOL CON PUNTA *POINTED TREE • ARBRE*


3 Cortes / *3 Cuts*


6 Cortes / *6 Cuts*

Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
G  	3,00	3,00	14,00	38,00	*	FRG6100
		6,35	12,70	45,00	*	FRG6101
	6,00	6,00	18,00	50,00	*	FRG6102
		8,00	19,00	64,00	FRG3100	FRG6106
		9,60	19,00	64,00	*	FRG6103
		12,70	19,00	64,00	*	FRG6104
		12,70	25,00	70,00	FRG3101	FRG6105

LLAMA *FLAME • FLAMME*


3 Cortes / *3 Cuts*


6 Cortes / *6 Cuts*

Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
H  	3,00	3,00	6,00	38,00	*	FRH6104
	6,00	6,00	14,00	50,00	*	FRH6101
		8,00	19,00	64,00	*	FRH6102
		9,60	19,00	65,00	FRH3102	FRH6103
		12,70	32,00	77,00	FRH3103 NEW	FRH6100

CÓNICA 90° *COUNTER SINK 90° • CONIQUE 90°*


3 Cortes / *3 Cuts*


6 Cortes / *6 Cuts*

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
K  	6,00	9,60	4,70	53,00	*	FRK6101
		16,00	8,00	57,00	*	FRK6102

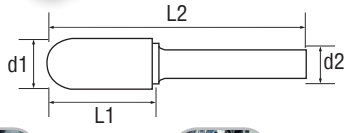
Para medidas no tarifadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR



ACERO 1100 -1400 N/mm²

MD



CÓNICA CON RADIO *BALL NOSE CONE • CONIQUE A RAYON*

L





Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	6 Cortes / *6 Cuts* Cod.
L	3,00	3,00	14,00	38,00	*	FRL6100
		6,35	15,80	48,00	*	FRL6101
	6,00	6,00	18,00	50,00	FRL3102	FRL6106
		8,00	25,40	70,00	*	FRL6105
		9,60	30,00	76,00	FRL3100	FRL6102
		10,00	20,00	65,00	FRL3103	FRL6107
		12,00	25,00	70,00	FRL3104	FRL6108
		12,70	32,00	77,00	FRL3101	FRL6103
		16,00	33,30	78,00	*	FRL6104

CÓNICA CON PUNTA *CONE • CONIQUE TRONQUEE*

M





Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	6 Cortes / *6 Cuts* Cod.
M	3,00	3,00	11,00	38,00	*	FRM6100
	6,00	6,00	20,00	50,00	*	FRM6101
		8,00	18,00	18,00	*	FRM6104
		9,60	16,00	64,00	FRM3101	FRM6102
		12,70	22,00	71,00	FRM3102	FRM6103
		16,00	25,00	71,00	*	FRM6105

CONO INVERTIDO *INVERTED CONE • CONIQUE RENVERSEE*

N





Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	6 Cortes / *6 Cuts* Cod.
N	3,00	3,00	4,00	38,00	*	FRN6101
	6,00	6,00	8,00	50,00	*	FRN6102
		12,70	12,70	58,00	*	FRN6103

PASTILLA *RIM SHAPE • DISQUE*

P

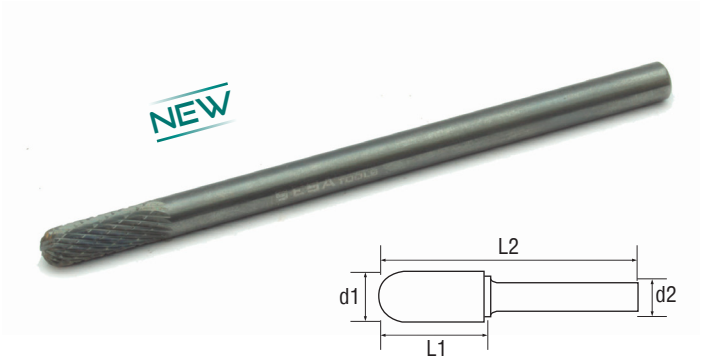




Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	2 Cortes / *2 Cuts* Cod.	2 Cortes / *2 Cuts* Cod.
P	3,00	10,00	1,60	34,00	FRP3101	*
	6,00	12,00	2,60	48,00	*	FRP6101

Para medidas no tarifadas consultar. / *For measurements not listed, request* / *Pour des mesures non cotées consulter*

ESPECIAL CERRAJERÍA
SPECIAL LOCKSMITH
SERRRURERIE SPÉCIAL



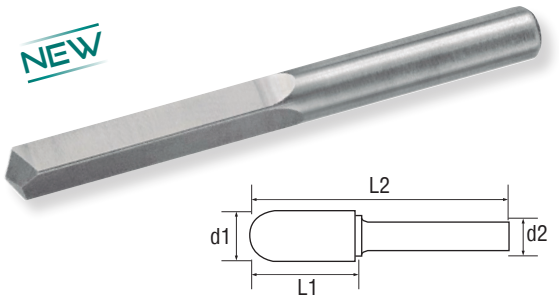
ACERO 1100 -1400 N/mm²

MD

Ø d2 Mango / *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.
6	6,00	18,00	100,00	FRC6109

Recomendaciones / ***Recommendations*** / ***Recommandations:***

Máquina: Amoladora / *Machine: Grinder* / Machine : Broyeur
Velocidad de trabajo: Consultar tabla pag. 199 / *Work speed: Consult table on page. 199* / Vitesse de travail : Voir tableau en page. 199



ACERO 1100 -1400 N/mm²

MD

Ø d2 Mango / *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.
6	6,00	33,00	60,00	FRQ6106

Recomendaciones / ***Recommendations*** / ***Recommandations:***

Máquina: Taladro / *Machine: Drill* / Machine : Perceuse
Velocidad de trabajo: 300RPM / *Work speed: 300RPM* / Vitesse de travail : 300 tr/min

FRESAS ROTATIVAS DE METAL DURO

RECOMENDADO PARA ACERO INOXIDABLE

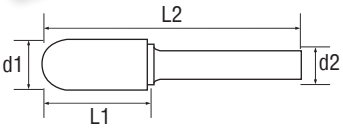
HARD METAL ROTARY BURRS

RECOMMENDED FOR STAINLESS STEEL

FRAISES ROTATIVES MÉTAL DUR

RECOMMANDÉ POUR INOX



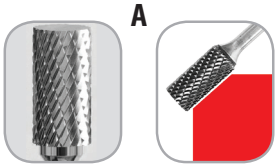


MD

SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE

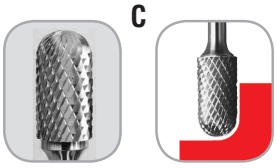
CILÍNDRICA *CYLINDER • CYLINDRIQUE*

Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	INOX Cod.
A	6,00	6,00	18,00	50,00	FRA3102-INOX
		12,70	25,00	70,00	FRA3101-INOX



CILÍNDRICA CON RADIO *BULL NOSE • CYLINDRIQUE A RAYON*

Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	INOX Cod.
C	6,00	6,00	18,00	50,00	FRC3102-INOX
		12,70	25,00	70,00	FRC3101-INOX



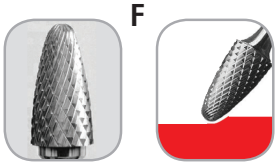
ESFÉRICA *BALL • SPHERIQUE*

Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	INOX Cod.
D	6,00	6,00	4,70	50,00	FRD3100-INOX
		12,70	11,00	56,00	FRD3102-INOX



ÁRBOL CON RADIO *ROUND TREE • OGIVE A RAYON*

Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	INOX Cod.
F	6,00	6,00	18,00	50,00	FRF3102-INOX
		12,70	25,00	70,00	FRF3101 -INOX



ESTUCHES DE FRESAS ROTATIVAS
ROTARY BURRS SETS
COFFRET FRAISES ROTATIVES



130801256

Cod. FR	Uds. Pcs.
FRA6106	1
FRB6106	1
FRC6106	1
FRD6105	1
FRE6104	1
FRF6104	1
FRG6105	1
FRL6103	1
FRM6103	1
FRH6100	1
TOTAL	10



130801966

Cod. FR	Uds. Pcs.
FRB6106	1
FRB6104	1
FRC6106	1
FRC6104	1
FRL6103	1
FRE6103	1
FRG6105	1
FRG6103	1
FRD6105	1
FRF6104	1
TOTAL	10



130801255

Cod. FR	Uds. Pcs.
FRB6106	1
FRF6104	1
FRC6106	1
FRD6105	1
FRM6103	1
TOTAL	5



130801965

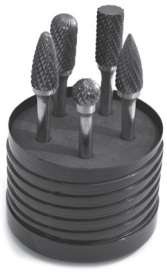
Cod. FR	Uds. Pcs.
FRC6104	1
FRB6104	1
FRG6103	1
FRF6103	1
FRM6102	1
TOTAL	5



130801967*

Cod. FR	Uds. Pcs.
CILINDRICA *CYLINDER*	1
CIL. CON RADIO *BULL NOSE*	1
ESFÉRICA *BALL*	1
OVAL *OVAL*	1
ÁRBOL RADIO *ROUND TREE*	1
ÁRBOL PUNTA *POINTED TREE*	1
LLAMA *FLAME*	1
CÓNICA RADIO *BALL NOSE CONE*	1
CÓNICA PUNTA *CONE*	1
CONO INVERTIDO *INVERTED CONE*	1
TOTAL	10

*Diámetro fresa/mango 3 mm, dentado cruzado
**Burr and shank diameter 3 mm, 6 cuts*
**Diametre fraise et queue 3 mm, 6 coups*



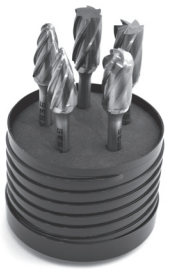
FREST6DT

Cod. FR	Uds. Pcs.
FRB6106	1
FRC6106	1
FRD6105	1
FRF6104	1
FRG6105	1
TOTAL	5



FRESTINOX

Cod. FR	Uds. Pcs.
FRA3101-INOX	1
FRC3101-INOX	1
FRC3102-INOX	1
FRF3101-INOX	1
FRD3102-INOX	1
TOTAL	5



FREST3DT

Cod. FR	Uds. Pcs.
FRA3101	1
FRB3105	1
FRC3101	1
FRG3101	1
FRF3101	1
TOTAL	5

USO GENERAL
GENERAL USE
USAGE GÉNÉRAL

ESPECIAL INOX
SPECIAL STAINLESS STEEL
SPÉCIAL ACIER INOXYDABLE

ESPECIAL ALUMINIO
SPECIAL ALUMINIUM
SPÉCIAL ALUMINIUM

EXPOSITOR 40 PIEZAS
DISPLAY 40 PIECES • DISPLAY 40 PIECES



ACERO 1100 -1400 N/mm²

MD

EXPFR2

Cod.	Uds. / *Pcs.*	Cod.	Uds. / *Pcs.*
FRB6102	2	FRB6104	2
FRC6102	2	FRC6104	2
FRF6102	2	FRF6103	2
FRG6102	2	FRG6103	2
FRL6103	2	FRL6102	2
FRB6103	2	FRB6106	2
FRC6103	2	FRC6106	2
FRE6104	2	FRF6104	2
FRD6104	2	FRG6105	2
FRH6100	2	FRA6105	2

Nota: Se puede adaptar el contenido del expositor según requisitos cliente.
***Content of display adaptable** / Contenu du display adaptable*

EXPOSITORES SESA KUBO

DISPLAYS SESA KUBO

EXPOSITEURS SESA KUBO

NEW



ACERO 1100 -1400 N/mm²

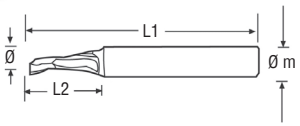
MD

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 24	FRESAS ROTATIVAS METAL DURO advance MAXIMO RENDIMIENTO	FREST6DT	FRB6106-FRC6106-FRD6105-FRF6104-FRG6105	6

FRESA FRONTAL UN DIENTE
1Z FINISHING END MILLS • FRAISE 1Z FINITION

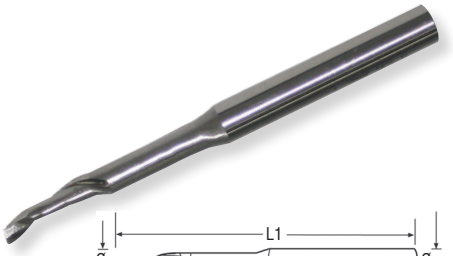


AL | HSS-CO 5% | 1Z

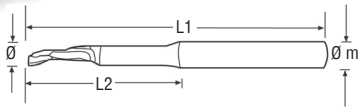


Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Uds. / *Pcs.*	Cod.
3,00	60	12	8	1	TC0300
4,00	60	12	8	1	TC0400
5,00	60	14	8	1	TC0500
6,00	60	14	8	1	TC0600
7,00	60	14	8	1	TC0700
8,00	80	14	8	1	TC0800
10,00	80	14	8	1	TC1000

FRESA FRONTAL LARGA UN DIENTE
1Z FINISHING LONG END MILLS • FRAISE LONGUE 1Z FINITION



AL | HSS-CO 5% | 1Z



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Uds. / *Pcs.*	Cod.
4,00	80	16 - 45	8	1	TL0400
5,00	80	16 - 45	8	1	TL0500
6,00	90	16 - 45	8	1	TL0600
8,00	100	30 - 70	8	1	TL0800

FRESA FRONTAL LARGA UN DIENTE PARA PVC
1Z FINISHING LONG END MILLS FOR PVC
FRAISE LONGUE 1Z FINITION POUR PVC



AL | PVC | HSS-CO 5% | 1Z

Ø mm (k12)		L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Uds. / *Pcs.*	Cod.
5,00	**PVC +**	120	84	8	1	TPVC05
8,00	**PVC +**	120	80	8	1	TPVC08

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

			fz(mm/z)			
Material	**Composición**	**Vc**	**Ø 3**	**Ø 6**	**Ø 8**	**Ø 10**
AL	Si ≤ 12%	160-260	0.008	0.018	0.024	0.03

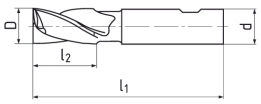
FRESA FRONTAL DOS DIENTES PARA ALUMINIO
2Z STRAIGHT SHANK END MILLS ESPECIAL FOR ALUMINIUM
FRAISES QUEUE CYLINDRIQUE 2Z POUR L'ALUMINIUM



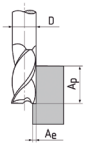
AL · ACERO

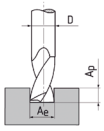
HSS-CO 8% · DIN 844W · 2Z

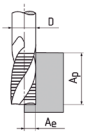
DIN 1835B · 40° · N











Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
2,00	51	7	6	2	1	TDW0200
2,50	52	8	6	2	1	TDW0250
3,00	52	8	6	2	1	TDW0300
3,50	54	10	6	2	1	TDW0350
4,00	55	11	6	2	1	TDW0400
4,50	55	11	6	2	1	TDW0450
5,00	57	13	6	2	1	TDW0500
5,50	57	13	6	2	1	TDW0550
6,00	57	13	6	2	1	TDW0600
6,50	66	16	10	2	1	TDW0650
7,00	66	16	10	2	1	TDW0700
7,50	66	16	10	2	1	TDW0750
8,00	69	19	10	2	1	TDW0800
8,50	69	19	10	2	1	TDW0850
9,00	69	19	10	2	1	TDW0900
9,50	69	19	10	2	1	TDW0950
10,00	72	22	10	2	1	TDW1000
11,00	79	22	12	2	1	TDW1100
12,00	83	26	12	2	1	TDW1200
13,00	83	26	12	2	1	TDW1300
14,00	83	26	12	2	1	TDW1400
15,00	83	26	12	2	1	TDW1500
16,00	92	32	16	2	1	TDW1600
17,00	92	32	16	2	1	TDW1700
18,00	92	32	16	2	1	TDW1800
19,00	92	32	16	2	1	TDW1900
20,00	104	38	20	2	1	TDW2000
21,00	104	38	20	2	1	TDW2100
22,00	104	38	20	2	1	TDW2200
24,00	121	45	25	2	1	TDW2400
25,00	121	45	25	2	1	TDW2500
26,00	121	45	25	2	1	TDW2600
28,00	121	45	25	2	1	TDW2800
30,00	121	45	25	2	1	TDW3000
32,00	133	53	25	2	1	TDW3200

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

					fz(mm/z)							
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc**	**Ø 3**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**
ACERO	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
AL	Si ≤ 12%	0,5xD	1xD	160-300	0.0117	0.0286	0.0377	0.0468	0.0572	0.0754	0.0845	0.0949

FRESA FRONTAL LARGA DOS DIENTES PARA ALUMINIO

2Z STRAIGHT SHANK LONG END MILLS ESPECIAL FOR ALUMINIUM

FRAISE LONGUE QUEUE CYLINDRIQUE 2Z POUR L'ALUMINIUM



AL

ACERO

HSS-CO 8%

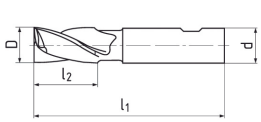
DIN 844W

2Z

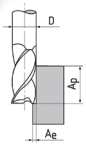
DIN 1835B

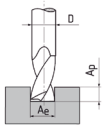
40°

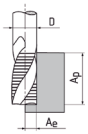
N











Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
2,00	54	10	6	2	1	TDWL0200
3,00	56	12	6	2	1	TDWL0300
4,00	63	19	6	2	1	TDWL0400
5,00	68	24	6	2	1	TDWL0500
6,00	68	24	6	2	1	TDWL0600
7,00	80	30	10	2	1	TDWL0700
8,00	88	38	10	2	1	TDWL0800
10,00	95	45	10	2	1	TDWL1000
11,00	102	45	12	2	1	TDWL1100
12,00	110	53	12	2	1	TDWL1200
13,00	110	53	12	2	1	TDWL1300
14,00	110	53	12	2	1	TDWL1400
15,00	110	53	12	2	1	TDWL1500
16,00	123	63	16	2	1	TDWL1600
18,00	123	63	16	2	1	TDWL1800
20,00	141	75	20	2	1	TDWL2000
22,00	141	75	20	2	1	TDWL2200
25,00	166	90	25	2	1	TDWL2500

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

					fz(mm/z)							
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc**	**Ø 3**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**
ACERO	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
AL	Si ≤ 12%	0,5xD	1xD	160-300	0.0117	0.0286	0.0377	0.0468	0.0572	0.0754	0.0845	0.0949

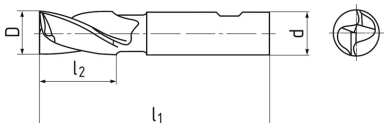
FRESA FRONTAL ACABADO DOS DIENTES
2Z FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION 2Z

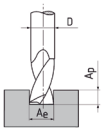


ACERO
INOX
F

HSS-CO 8% | DIN 327N | 2Z

DIN 1835B | 25° | N





Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
2,00	48	4	6	2	1	TDC0200
2,50	49	5	6	2	1	TDC0250
3,00	49	5	6	2	1	TDC0300
3,50	51	7	6	2	1	TDC0350
4,00	51	7	6	2	1	TDC0400
5,00	52	8	6	2	1	TDC0500
6,00	52	8	6	2	1	TDC0600
7,00	60	10	10	2	1	TDC0700
8,00	61	11	10	2	1	TDC0800
9,00	61	11	10	2	1	TDC0900
10,00	63	13	10	2	1	TDC1000
11,00	70	13	12	2	1	TDC1100
12,00	73	16	12	2	1	TDC1200
13,00	73	16	12	2	1	TDC1300
14,00	73	16	12	2	1	TDC1400
15,00	73	16	16	2	1	TDC1500
16,00	79	19	16	2	1	TDC1600
17,00	79	19	16	2	1	TDC1700
18,00	79	19	16	2	1	TDC1800
19,00	79	19	16	2	1	TDC1900
20,00	88	22	20	2	1	TDC2000
22,00	88	22	20	2	1	TDC2200
24,00	102	26	25	2	1	TDC2400
25,00	102	26	25	2	1	TDC2500
26,00	102	26	25	2	1	TDC2600
28,00	102	26	25	2	1	TDC2800
30,00	102	26	25	2	1	TDC3000
32,00	112	32	32	2	1	TDC3200
36,00	112	32	32	2	1	TDC3600
40,00	130	38	38	2	1	TDC4000

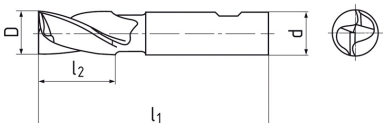
Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

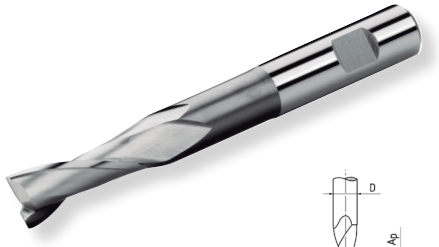
Material	Dureza / *Strength* / *Dureté*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	39	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
ACERO	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	30	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	35	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	25	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESA FRONTAL LARGA ACABADO DOS DIENTES
2Z FINISHING STRAIGHT SHANK LONG END MILLS
FRAISE LONGUE QUEUE CYLINDRIQUE FINITION 2Z









Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
2,00	54	7	6	2	1	TDCL0200
3,00	56	8	6	2	1	TDCL0300
3,50	59	10	6	2	1	TDCL0350
4,00	63	11	6	2	1	TDCL0400
4,50	63	11	6	2	1	TDCL0450
5,00	68	13	6	2	1	TDCL0500
5,50	68	13	6	2	1	TDCL0550
6,00	68	13	6	2	1	TDCL0600
6,50	80	16	10	2	1	TDCL0650
7,00	80	16	10	2	1	TDCL0700
8,00	88	19	10	2	1	TDCL0800
8,50	88	19	10	2	1	TDCL0850
9,00	88	19	10	2	1	TDCL0900
10,00	95	22	10	2	1	TDCL1000
11,00	102	22	12	2	1	TDCL1100
12,00	110	26	12	2	1	TDCL1200
13,00	110	26	12	2	1	TDCL1300
14,00	110	26	12	2	1	TDCL1400
15,00	110	26	12	2	1	TDCL1500
16,00	123	32	16	2	1	TDCL1600
18,00	123	32	16	2	1	TDCL1800
20,00	141	38	20	2	1	TDCL2000
22,00	141	38	20	2	1	TDCL2200
24,00	166	45	25	2	1	TDCL2400
25,00	166	45	25	2	1	TDCL2500
26,00	166	45	25	2	1	TDCL2600
28,00	166	45	25	2	1	TDCL2800
30,00	166	45	25	2	1	TDCL3000
32,00	182	53	32	2	1	TDCL3200
36,00	182	53	32	2	1	TDCL3600
40,00	196	63	32*	2	1	TDCL4000

* d≠ DIN 327

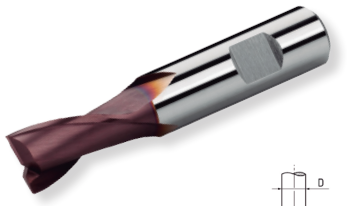
Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Dureté*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	39	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
ACERO	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	30	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	35	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	25	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESA FRONTAL ACABADO DOS DIENTES-TIALN

2Z FINISHING STRAIGHT SHANK END MILLS- TIALN

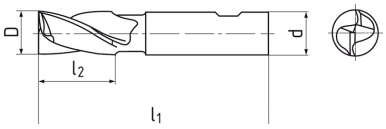
FRAISES QUEUE CYLINDRIQUE FINITION 2Z- TIALN

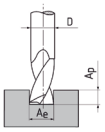


ACERO
INOX
F

HSS-CO 8% | TIALN | DIN 327N | 2Z

DIN 1835B | 25° | N





Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
2,00	48	4	6	2	1	TDC0200T
2,50	49	5	6	2	1	TDC0250T
3,00	49	5	6	2	1	TDC0300T
3,50	50	6	6	2	1	TDC0350T
4,00	51	7	6	2	1	TDC0400T
5,00	52	8	6	2	1	TDC0500T
6,00	52	8	6	2	1	TDC0600T
7,00	60	10	10	2	1	TDC0700T
8,00	61	11	10	2	1	TDC0800T
9,00	61	11	10	2	1	TDC0900T
10,00	63	13	10	2	1	TDC1000T
11,00	70	13	12	2	1	TDC1100T
12,00	73	16	12	2	1	TDC1200T
13,00	73	16	12	2	1	TDC1300T
14,00	73	16	12	2	1	TDC1400T
15,00	73	16	12	2	1	TDC1500T
16,00	79	19	16	2	1	TDC1600T
17,00	79	19	16	2	1	TDC1700T
18,00	79	19	16	2	1	TDC1800T
19,00	79	19	16	2	1	TDC1900T
20,00	88	22	20	2	1	TDC2000T
22,00	88	22	20	2	1	TDC2200T
24,00	102	26	25	2	1	TDC2400T
25,00	102	26	25	2	1	TDC2500T
28,00	102	26	25	2	1	TDC2800T
30,00	102	26	25	2	1	TDC3000T
32,00	112	32	32	2	1	TDC3200T
36,00	112	32	32	2	1	TDC3600T
40,00	118	38	32*	2	1	TDC400032T

* d≠ DIN 327

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

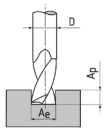
Material	Dureza / *Strength* / *Dureté*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
	≤ 600 N/mm²	0,5xD	1xD	67	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	58	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
ACERO	≤ 1100 N/mm²	0,5xD	1xD	36	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	36	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	22,5	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	52	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	37	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESA FRONTAL ACABADO TRES DIENTES - PM ALTIN

3Z FINISHING STRAIGHT SHANK END MILLS - PM ALTIN

FRAISES QUEUE CYLINDRIQUE FINITION 3Z - PM ALTIN

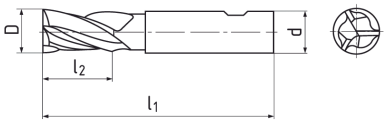




ACERO
INOX
F

PM | ALTIN | DIN 327N | 3Z

DIN 1835B | 30° | N



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
6,00	52	8	6	3	1	TDC0600PM
8,00	61	11	10	3	1	TDC0800PM
10,00	63	13	10	3	1	TDC1000PM
12,00	73	16	12	3	1	TDC1200PM
14,00	73	16	12	3	1	TDC1400PM
16,00	79	19	16	3	1	TDC1600PM
18,00	79	19	16	3	1	TDC1800PM
20,00	88	22	20	3	1	TDC2000PM

Más rápida y menor vibración / *Faster and less vibration* / *Plus rapide et moins de vibrations*

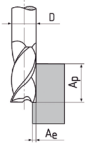
Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

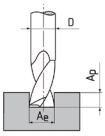
					fz(mm/z)						
Material	**Dureza** / ***Strength*** / *Dureté*	**Ap**	**Ae**	**Vc**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**
	≤ 600 N/mm²	0,5xD	1xD	114	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 850 N/mm²	0,5xD	1xD	99	0.024	0.032	0.04	0.048	0.064	0.072	0.08
ACERO	≤ 1100 N/mm²	0,5xD	1xD	62	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 900 N/mm²	0,5xD	1xD	77	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 1100 N/mm²	0,5xD	1xD	62	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	> 1100 N/mm²	0,5xD	1xD	51	0.0168	0.0224	0.028	0.0336	0.0448	0.0504	0.056
INOX	750 - 850 N/mm²	0,5xD	1xD	38	0.024	0.032	0.04	0.048	0.064	0.072	0.08
F	< 240 HB	0,5xD	1xD	89	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	> 240 HB	0,5xD	1xD	66	0.024	0.032	0.04	0.048	0.064	0.072	0.08

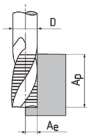
FRESA FRONTAL RADIAL ACABADO DOS DIENTES
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z

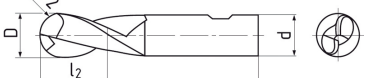


ACERO · F · INOX · TI · HSS-CO 8% · DIN 1889 · 2Z · DIN 1835B · 25° · N









Ø mm (h10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
2,00	48	4	6	2	1	TRC0200
3,00	49	5	6	2	1	TRC0300
4,00	51	7	6	2	1	TRC0400
4,50	51	7	6	2	1	TRC0450
5,00	52	8	6	2	1	TRC0500
6,00	52	8	6	2	1	TRC0600
7,00	60	10	10	2	1	TRC0700
8,00	61	11	10	2	1	TRC0800
9,00	61	11	10	2	1	TRC0900
10,00	63	13	10	2	1	TRC1000
11,00	70	13	12	2	1	TRC1100
12,00	73	16	12	2	1	TRC1200
13,00	73	16	12	2	1	TRC1300
14,00	73	16	12	2	1	TRC1400
15,00	73	16	12	2	1	TRC1500
16,00	79	19	16	2	1	TRC1600
18,00	79	19	16	2	1	TRC1800
20,00	88	22	20	2	1	TRC2000
22,00	88	22	20	2	1	TRC2200
24,00	102	26	25	2	1	TRC2400
25,00	102	26	25	2	1	TRC2500
28,00	102	26	25	2	1	TRC2800
30,00	102	26	25	2	1	TRC3000
32,00	112	32	32	2	1	TRC3200

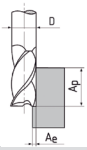
Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

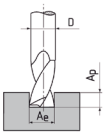
					fz(mm/z)						
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**
	≤ 850 N/mm²	0,5xD	1xD	39	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.022	0.029	0.036	0.044	0.058	0.065	0.073
ACERO	≤ 900 N/mm²	0,5xD	1xD	30	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 1100 N/mm²	0,5xD	1xD	20	0.0154	0.0203	0.0252	0.0308	0.0406	0.0455	0.0511
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	> 240 HB	0,5xD	1xD	25	0.022	0.029	0.036	0.044	0.058	0.065	0.073
TI	≤ 1500 N/mm²	0,5xD	1xD	12	0.0154	0.0203	0.0252	0.0308	0.0406	0.0455	0.051

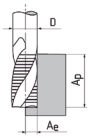
FRESA FRONTAL RADIAL ACABADO DOS DIENTES - PM ALTIN
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS - PM ALTIN
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z - PM ALTIN

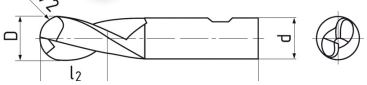


ACERO · F · PM · ALTIN · DIN 1889 · 2Z · DIN 1835B · 25° · N









Ø mm (h10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
4,00	49	5	6	2	1	TRC0400PM
5,00	51	7	6	2	1	TRC0500PM
6,00	52	8	6	2	1	TRC0600PM
7,00	52	8	6	2	1	TRC0700PM
8,00	61	11	10	2	1	TRC0800PM
9,00	63	13	10	2	1	TRC0900PM
10,00	73	16	10	2	1	TRC1000PM
12,00	73	16	12	2	1	TRC1200PM
14,00	79	19	16	2	1	TRC1400PM
16,00	79	19	16	2	1	TRC1600PM
18,00	88	22	20	2	1	TRC1800PM
20,00	88	22	20	2	1	TRC2000PM

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

					fz(mm/z)						
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**
	≤ 600 N/mm²	0,5xD	1xD	114	0.024	0.032	0.04	0.048	0.064	0.072	0.08
ACERO	≤ 850 N/mm²	0,5xD	1xD	99	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 900 N/mm²	0,5xD	1xD	77	0.024	0.032	0.04	0.048	0.064	0.072	0.08
F	< 240 HB	0,5xD	1xD	89	0.024	0.032	0.04	0.048	0.064	0.072	0.08

FRESA FRONTAL ACABADO - VARIOS DIENTES

NZ FINISHING STRAIGHT SHANK END MILLS

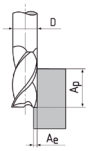
FRAISES QUEUE CYLINDRIQUE FINITION NZ

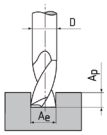


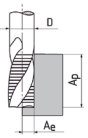
ACERO | F | INOX | TI

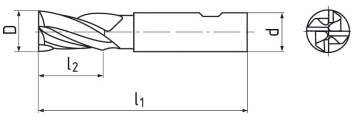
HSS-CO 8% | DIN 844N | 3Z-6Z

DIN 1835B | 30° | N









Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
2,00	51	7	6	3	1	TVC0200
2,50	52	8	6	3	1	TVC0250
3,00	52	8	6	4	1	TVC0300
3,50	55	11	6	4	1	TVC0350
4,00	55	11	6	4	1	TVC0400
4,50	57	13	6	4	1	TVC0450
5,00	57	13	6	4	1	TVC0500
6,00	57	13	6	4	1	TVC0600
7,00	66	16	10	4	1	TVC0700
8,00	69	19	10	4	1	TVC0800
9,00	69	19	10	4	1	TVC0900
10,00	72	22	10	4	1	TVC1000
11,00	79	22	12	4	1	TVC1100
12,00	83	26	12	4	1	TVC1200
13,00	83	26	12	4	1	TVC1300
14,00	83	26	12	4	1	TVC1400
15,00	83	26	12	4	1	TVC1500
16,00	92	32	16	4	1	TVC1600
17,00	92	32	16	4	1	TVC1700
18,00	92	32	16	4	1	TVC1800
20,00	104	38	20	4	1	TVC2000
22,00	104	38	20	5	1	TVC2200
24,00	121	45	25	5	1	TVC2400
25,00	121	45	25	5	1	TVC2500
26,00	121	45	25	5	1	TVC2600
28,00	121	45	25	5	1	TVC2800
30,00	121	45	25	5	1	TVC3000
32,00	133	53	32	6	1	TVC3200
36,00	133	53	32	6	1	TVC3600
40,00	143	63	32*	6	1	TVC400032

* d≠ DIN 844

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
ACERO	≤ 600 N/mm²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 850 N/mm²	1xD	0,1xD	39	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 1100 N/mm²	1xD	0,1xD	24	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 900 N/mm²	1xD	0,1xD	30	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	> 1100 N/mm²	1xD	0,1xD	20	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077
INOX	750 - 850 N/mm²	1xD	0,1xD	15	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
F	< 240 HB	1xD	0,1xD	35	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
TI	≤ 1500 N/mm²	1xD	0,1xD	12	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077

FRESA FRONTAL LARGA ACABADO VARIOS DIENTES

NZ FINISHING STRAIGHT SHANK LONG END MILS

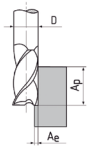
FRAISES LONGUE QUEUE CYLINDRIQUE FINITION NZ

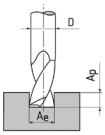


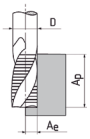
ACERO · F · INOX · TI

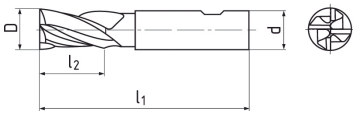
HSS-CO 8% · DIN 844N · 3Z-6Z

DIN 1835B · 30° · N









Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
2,00	54	10	6	3	1	TVCL0200
3,00	56	12	6	4	1	TVCL0300
3,50	59	15	6	4	1	TVCL0350
4,00	63	19	6	4	1	TVCL0400
4,50	63	19	6	4	1	TVCL0450
5,00	68	24	6	4	1	TVCL0500
5,50	68	24	6	4	1	TVCL0550
6,00	68	24	6	4	1	TVCL0600
7,00	80	30	10	4	1	TVCL0700
8,00	88	38	10	4	1	TVCL0800
9,00	88	38	10	4	1	TVCL0900
10,00	95	45	10	4	1	TVCL1000
11,00	102	45	12	4	1	TVCL1100
12,00	110	53	12	4	1	TVCL1200
13,00	110	53	12	4	1	TVCL1300
14,00	110	53	12	4	1	TVCL1400
15,00	110	53	12	4	1	TVCL1500
16,00	123	63	16	4	1	TVCL1600
18,00	123	63	16	4	1	TVCL1800
20,00	141	75	20	4	1	TVCL2000
22,00	141	75	20	5	1	TVCL2200
24,00	166	90	25	5	1	TVCL2400
25,00	166	90	25	5	1	TVCL2500
26,00	166	90	25	5	1	TVCL2600
28,00	166	90	25	5	1	TVCL2800
30,00	166	90	25	5	1	TVCL3000
32,00	186	106	32	6	1	TVCL3200
36,00	186	106	32	6	1	TVCL3600
40,00	205	125	32 *	6	1	TVCL400032

* d≠ DIN844

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
	≤ 600 N/mm²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 850 N/mm²	1xD	0,1xD	39	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
ACERO	≤ 1100 N/mm²	1xD	0,1xD	24	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 900 N/mm²	1xD	0,1xD	30	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	> 1100 N/mm²	1xD	0,1xD	20	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077
INOX	750 - 850 N/mm²	1xD	0,1xD	15	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
F	< 240 HB	1xD	0,1xD	35	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
TI	≤ 1500 N/mm²	1xD	0,1xD	12	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077

FRESA FRONTAL ACABADO VARIOS DIENTES -TIALN

NZ FINISHING STRAIGHT SHANK END MILLS-TIALN

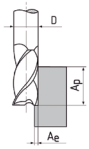
FRAISES QUEUE CYLINDRIQUE FINITION NZ- TIALN

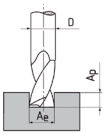


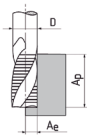
ACERO | F | INOX | TI

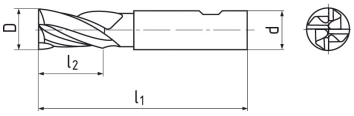
HSS-CO 8% | TIALN | DIN 844N

3Z-6Z | DIN 1835B | 30° | N









Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
2,00	51	7	6	3	1	TVC0200T
2,50	52	8	6	3	1	TVC0250T
3,00	52	8	6	4	1	TVC0300T
3,50	55	11	6	4	1	TVC0350T
4,00	55	11	6	4	1	TVC0400T
4,50	57	13	6	4	1	TVC0450T
5,00	57	13	6	4	1	TVC0500T
5,50	57	13	6	4	1	TVC0550T
6,00	57	13	6	4	1	TVC0600T
6,50	66	16	10	4	1	TVC0650T
7,00	66	16	10	4	1	TVC0700T
7,50	66	16	10	4	1	TVC0750T
8,00	69	19	10	4	1	TVC0800T
8,50	69	19	10	4	1	TVC0850T
9,00	69	19	10	4	1	TVC0900T
9,50	69	19	10	4	1	TVC0950T
10,00	72	22	10	4	1	TVC1000T
11,00	79	22	12	4	1	TVC1100T
12,00	83	26	12	4	1	TVC1200T
13,00	83	26	12	4	1	TVC1300T
14,00	83	26	12	4	1	TVC1400T
15,00	83	26	12	4	1	TVC1500T
16,00	92	32	16	4	1	TVC1600T
17,00	92	32	16	4	1	TVC1700T
18,00	92	32	16	4	1	TVC1800T
20,00	104	38	20	4	1	TVC2000T
22,00	104	38	20	5	1	TVC2200T
24,00	121	45	25	5	1	TVC2400T
25,00	121	45	25	5	1	TVC2500T
26,00	121	45	25	5	1	TVC2600T
28,00	121	45	25	5	1	TVC2800T
30,00	121	45	25	5	1	TVC3000T
32,00	133	53	32	6	1	TVC3200T
35,00	133	53	32	6	1	TVC3500T
36,00	133	53	32	6	1	TVC3600T
40,00	143	63	32*	6	1	TVC400032T

* d≠ DIN844

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40
	≤ 600 N/mm²	1xD	0,1xD	67,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	≤ 850 N/mm²	1xD	0,1xD	58,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
ACERO	≤ 1100 N/mm²	1xD	0,1xD	36	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	≤ 900 N/mm²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	> 1100 N/mm²	1xD	0,1xD	30	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077
INOX	750 - 850 N/mm²	1xD	0,1xD	22,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
F	< 240 HB	1xD	0,1xD	52,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
TI	≤ 1500 N/mm²	1xD	0,1xD	18	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077

FRESA FRONTAL ACABADO VARIOS DIENTES - PM ALTIN

NZ FINISHING STRAIGHT SHANK END MILLS - PM ALTIN

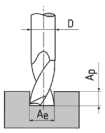
FRAISES QUEUE CYLINDRIQUE FINITION NZ - PM ALTIN

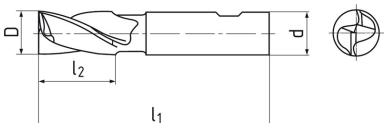


ACERO F
INOX TI

PM | ALTIN | DIN 844

4Z-5Z | DIN 1835B | 30° | N





Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
2,00	51	7	6	4	1	TVC0200PM
3,00	52	8	6	4	1	TVC0300PM
4,00	55	11	6	4	1	TVC0400PM
5,00	57	13	6	4	1	TVC0500PM
6,00	57	13	6	4	1	TVC0600PM
8,00	69	19	10	4	1	TVC0800PM
10,00	72	22	10	4	1	TVC1000PM
12,00	83	26	12	4	1	TVC1200PM
14,00	83	26	12	4	1	TVC1400PM
16,00	92	32	16	4	1	TVC1600PM
18,00	92	32	16	4	1	TVC1800PM
20,00	104	38	20	4	1	TVC2000PM
25,00	121	45	25	5	1	TVC2500PM
30,00	121	45	25	5	1	TVC3000PM

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

					fz(mm/z)								
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**	**Ø 25**	**Ø 32**
	≤ 850 N/mm²	1xD	0,1xD	99	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
ACERO	≤ 1100 N/mm²	1xD	0,1xD	61.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 900 N/mm²	1xD	0,1xD	76.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 1100 N/mm²	1xD	0,1xD	61.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
INOX	750 - 850 N/mm²	1xD	0,1xD	37.5	0.015	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
F	≤ 240 HB	1xD	0,1xD	88.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
AL (Si ≤ 12%)	≤ 600 N/mm²	1xD	0,1xD	240-450	0.0221	0.0299	0.0403	0.0481	0.0624	0.0728	0.0819	0.1103	0.1301
TI	≤ 1500 N/mm²	1xD	0,1xD	31.5	0.0119	0.0161	0.0217	0.0259	0.0336	0.0392	0.0441	0.052	0.0701

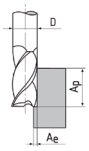
FRESA DESBASTE GRUESO - VARIOS DIENTES
NZ COARSE ROUGHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE EBAUCHE NZ

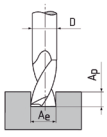


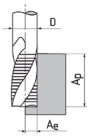
ACERO · INOX · F

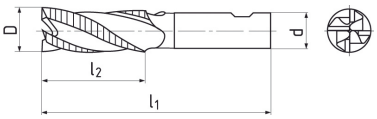
HSS-CO 8% · DIN 844NR · 4Z-5Z

DIN 1835B · 30° · NR









Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
6,00	57	13	6	4	1	TVG0600
8,00	69	19	10	4	1	TVG0800
10,00	72	22	10	4	1	TVG1000
12,00	83	26	12	4	1	TVG1200
14,00	83	26	12	4	1	TVG1400
16,00	92	32	16	4	1	TVG1600
18,00	92	32	16	4	1	TVG1800
20,00	104	38	20	4	1	TVG2000
22,00	104	38	20	5	1	TVG2200
24,00	121	45	25	5	1	TVG2400
25,00	121	45	25	5	1	TVG2500

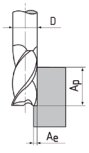
FRESA LARGA DESBASTE GRUESO - VARIOS DIENTES
NZ COARSE ROUGHING STRAIGHT SHANK LONG END MILL
FRAISES LONGUE QUEUE CYLINDRIQUE EBAUCHE NZ

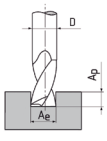


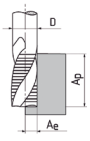
ACERO · INOX · F

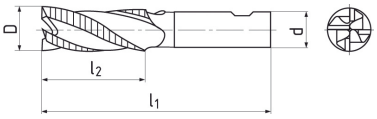
HSS-CO 8% · DIN 844NR · 4Z-5Z

DIN 1835B · 30° · NR









Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
6,00	68	24	6	4	1	TVGL0600
8,00	88	38	10	4	1	TVGL0800
10,00	95	45	10	4	1	TVGL1000
12,00	110	53	12	4	1	TVGL1200
14,00	110	53	12	4	1	TVGL1400
16,00	123	63	16	4	1	TVGL1600
18,00	123	63	16	4	1	TVGL1800
20,00	141	75	20	4	1	TVGL2000
22,00	141	75	20	5	1	TVGL2200
24,00	166	90	25	5	1	TVGL2400
25,00	166	90	25	5	1	TVGL2500

* d≠ DIN844

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe* **(TVG Y TVGL)**

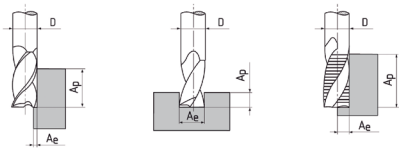
Material	Dureza / *Strength* / *Dureté*	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
	≤ 600 N/mm²	1,5xD	0,5xD	45	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
ACERO	≤ 850 N/mm²	1,5xD	0,5xD	39	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
	≤ 900 N/mm²	1,5xD	0,5xD	30	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
INOX	750 - 850 N/mm²	1,5xD	0,5xD	15	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
F	< 240 HB	1,5xD	0,5xD	35	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14

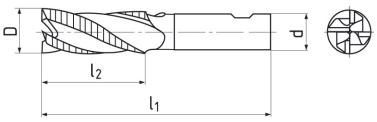
FRESA DESBASTE FINO - VARIOS DIENTES
NZ FINE PITCH ROUGHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE EBAUCHE PAS FIN NZ



ACERO · INOX · F

HSS-CO 8% · DIN 844NR-F · 4Z · DIN 1835B · 30° · NR-F





Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
6,00	57	13	6	4	1	TVF0600
8,00	69	19	10	4	1	TVF0800
10,00	72	22	10	4	1	TVF1000
12,00	83	26	12	4	1	TVF1200
14,00	83	26	12	4	1	TVF1400
16,00	92	32	16	4	1	TVF1600

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

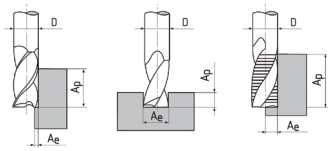
					fz(mm/z)								
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**	**Ø 25**	**Ø 32**
ACERO	≤ 600 N/mm²	1,5xD	0,5xD	45	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 850 N/mm²	1,5xD	0,5xD	39	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 900 N/mm²	1,5xD	0,5xD	30	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 1100 N/mm²	1,5xD	0,5xD	24	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
INOX	750 - 850 N/mm²	1,5xD	0,5xD	15	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
F	< 240 HB	1,5xD	0,5xD	35	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12

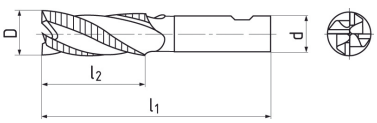
FRESA DESBASTE GRUESO - VARIOS DIENTES - RECOMENDADO PARA MATERIALES DUROS
NZ COARSE ROUGHING STRAIGHT SHANK END MILLS - RECOMMENDED FOR HARD MATERIALS
FRAISES QUEUE CYLINDRIQUE EBAUCHE NZ - RECOMMANDÉ POUR MATÉRIAUX DURS



ACERO · F · INOX · TI

PM · ALTIN · DIN 844HR · 5Z · DIN 1835B · 30° · HR





Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
9,00	69	19	10	5	1	TVGH0900PM
10,00	72	22	10	5	1	TVGH1000PM
11,00	79	22	12	5	1	TVGH1100PM
12,00	83	26	12	5	1	TVGH1200PM
13,00	83	26	12	5	1	TVGH1300PM
14,00	83	26	12	5	1	TVGH1400PM
15,00	83	26	12	5	1	TVGH1500PM
16,00	92	32	16	5	1	TVGH1600PM
18,00	92	32	16	5	1	TVGH1800PM
20,00	104	38	20	5	1	TVGH2000PM

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

					fz(mm/z)								
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**	**Ø 25**	**Ø 32**
ACERO	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	> 1100 N/mm²	1,5xD	0,5xD	51	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
INOX	750 - 850 N/mm²	1,5xD	0,5xD	37,5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
F	> 240 HB	1,5xD	0,5xD	66	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
TI	≤ 1500 N/mm²	1,5xD	0,5xD	31.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
	≤ 1250 N/mm²	1,5xD	0,5xD	30	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924

FRESA DESBASTE FINO - VARIOS DIENTES-PM - RECOMENDADO PARA MATERIALES DUROS

NZ FINE PITCH ROUGHING STRAIGHT SHANK END MILLS-PM - RECOMMENDED FOR HARD MATERIALS

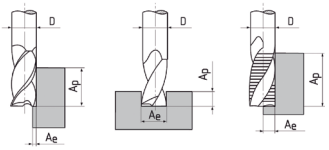
FRAISES QUEUE CYLINDRIQUE EBAUCHE PAS FIN NZ-PM - RECOMMANDÉ POUR MATÉRIAUX DURS

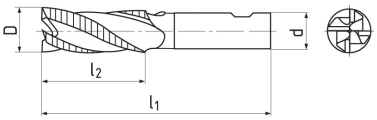


ACERO F INOX TI

PM | ALTIN | 4Z-6Z | DIN 844HR-F

DIN 1835B | 30° | HR-F





Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
6,00	57	13	6	4	1	TVFH0600PM
8,00	69	19	10	4	1	TVFH0800PM
10,00	72	22	10	4	1	TVFH1000PM
11,00	79	22	12	4	1	TVFH1100PM
12,00	83	26	12	4	1	TVFH1200PM
13,00	83	26	12	4	1	TVFH1300PM
14,00	83	26	12	4	1	TVFH1400PM
15,00	83	26	12	4	1	TVFH1500PM
16,00	92	32	16	4	1	TVFH1600PM
17,00	92	32	16	4	1	TVFH1700PM
18,00	92	32	16	4	1	TVFH1800PM
20,00	104	38	20	4	1	TVFH2000PM
22,00	104	38	20	5	1	TVFH2200PM
25,00	121	45	25	5	1	TVFH2500PM
28,00	121	45	25	5	1	TVFH2800PM
30,00	121	45	25	5	1	TVFH3000PM
32,00	133	53	32	6	1	TVFH3200PM

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	> 1100 N/mm²	1,5xD	0,5xD	51	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
INOX	750 - 850 N/mm²	1,5xD	0,5xD	37,5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
F	> 240 HB	1,5xD	0,5xD	66	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
TI	≤ 1500 N/mm²	1,5xD	0,5xD	31.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
	≤ 1250 N/mm²	1,5xD	0,5xD	30	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924

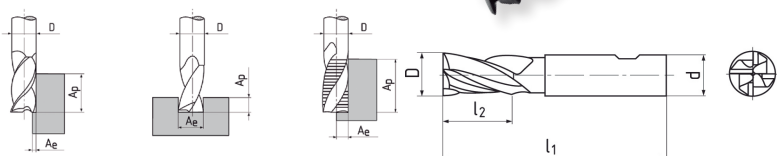
FRESA FRONTAL VARIOS DIENTES
NZ FINISHING STRAIGHT SHANK END MILS
FRAISES QUEUE CYLINDRIQUE FINITION NZ

SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE



ACERO · INOX

PM · ALCrN · ESP · 4Z · DIN 1835B · 50° · N



Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.
6,00	57	7	6	4	1	TVC0600PMC
8,00	65	9	8	4	1	TVC0800PMC
10,00	72	11	10	4	1	TVC1000PMC
12,00	83	13	12	4	1	TVC1200PMC
16,00	92	17	16	4	1	TVC1600PMC
20,00	104	21	20	4	1	TVC2000PMC

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

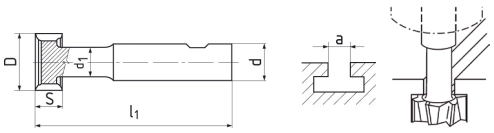
					fz(mm/z)					
Material	**Dureza** / ***Strength*** / *Duretè*	**Ae**	**Ap**	**Vc**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 20**
	≤ 600 N/mm²	1xD	0,1xD	78	0.2	0.027	0.038	0.044	0.054	0.065
	≤ 850 N/mm²	1xD	0,1xD	78	0.2	0.027	0.038	0.044	0.054	0.065
	≤ 1100 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
ACERO	≤ 900 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	≤ 1100 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	> 1100 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	≤ 750 N/mm²	1xD	0,1xD	60	0.018	0.024	0.03	0.036	0.042	0.054
INOX	750 - 850 N/mm²	1xD	0,1xD	48	0.018	0.024	0.03	0.036	0.042	0.054
	> 850 mm²	1xD	0,1xD	48	0.018	0.024	0.03	0.036	0.042	0.054

FRESA PARA RANURAS EN T
T SLOTS SHANK TOOL • *FRAISE POUR RANURES À "T"*



ACERO · TI

HSS-CO 5% · DIN 851N · DIN 1835B · 10° · N



Ø mm (d11)	d (h6)	s (d11)	d1	l1	z	a	Uds. / *Pcs.*	Cod.
11,00	10	4	4	53,5	6	5	1	T851N01100
12,50	10	6	5	57	6	6	1	T851N01250
16,00	10	8	7	62	6	8	1	T851N01600
18,00	12	8	8	70	6	10	1	T851N01800
21,00	12	9	10	74	6	12	1	T851N02100
25,00	16	11	12	82	8	14	1	T851N02500
32,00	16	14	15	90	8	18	1	T851N03200
40,00	25	18	19	108	10	22	1	T851N04000
50,00	32	22	25	124	10	28	1	T851N05000
60,00	32	28	30	139	10	36	1	T851N06000

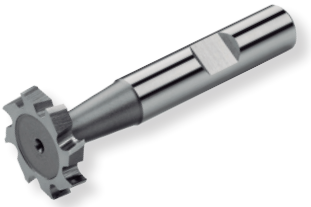
Para recubrimiento TIALN, consultar / ***Request for TIALN coating*** / *Pour TIALN revêtement, nous consulter.*

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

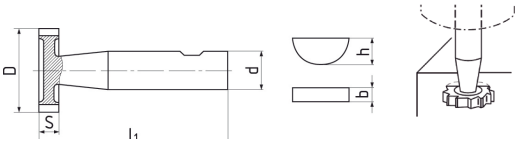
					fz(mm/z)			
Material	**Dureza** / ***Strength*** / *Duretè*	**Ae**	**Ap**	**Vc**	**Ø 21**	**Ø 25**	**Ø 40**	**Ø 50**
	≤ 600 N/mm²	0,1xD	1xb	37.5	0.07	0.08	0.04	0.05
ACERO	≤ 850 N/mm²	0,1xD	1xb	32.5	0.07	0.08	0.04	0.05
	≤ 1100 N/mm²	0,1xD	1xb	18	0.07	0.08	0.04	0.05
TI	≤ 1250 N/mm²	0,1xD	1xb	9	0.049	0.056	0.028	0.035

FRESA PARA RANURAS WOODRUFF

WOODRUFF SLOTS SHANK TOOL • FRAISE POUR RANURES WOODRUFF



ACERO
TI
HSS-CO 5%
DIN 850
6Z-12Z
DIN 1835B
10°



Ø mm (h12)	d (h6)	s (e8) / b	l1	z	h	Uds. / *Pcs.*	Cod.
4,50	6	1	50	6	1,4	1	T850045010
7,50	6	1,5	50	6	2,6	1	T850075015
7,50	6	2	50	6	2,6	1	T850075020
10,50	6	2	50	6	3,7	1	T850105020
10,50	6	2,5	50	6	3,7	1	T850105025
10,50	6	3	50	6	3,7	1	T850105030
13,50*	10	2	56	6		1	T850135020
13,50	10	3	56	6	5	1	T850135030
13,50	10	4	56	6	5	1	T850135040
16,50	10	3	56	6	6,5	1	T850165030
16,50	10	4	56	6	6,5	1	T850165040
16,50	10	5	56	6	6,5	1	T850165050
19,50*	10	3	63	8		1	T850195030
19,50	10	4	63	8	7,5	1	T850195040
19,50	10	5	63	8	7,5	1	T850195050
19,50	10	6	63	8	7,5	1	T850195060
22,50*	10	4	63	8		1	T850225040
22,50	10	5	63	8	9	1	T850225050
22,50	10	6	63	8	9	1	T850225060
22,50	10	8	63	8	9	1	T850225080
25,50*	10	5	63	10		1	T850255050
25,50	10	6	63	10	10	1	T850255060
28,50	10	6	63	10	11	1	T850285060
28,50	10	8	63	10	11	1	T850285080
28,50	12	10	71	10	11	1	T850285100
32,50*	12	6	71	10		1	T850325060
32,50*	12	7	71	10		1	T850325070
32,50	12	8	71	10	13	1	T850325080
32,50	12	10	71	10	13	1	T850325100
38,50*	12	8	71	10		1	T850385080
45,50*	12	8	71	12		1	T850455080
45,50	12	10	71	12	16	1	T850455100

Diámetros inferiores a 7,50 mm dentado no cruzado / *Diametros inferiores a 7,50.-mm dentado no cruzado* / *Diametros inferiores a 7,50.-mm dentado no cruzado*
Para recubrimiento TIALN, consultar / *Request for TIALN coating* / *Pour TIALN revêtement, nous consulter.*

* ≠ DIN 850, ≠ DIN 6888

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

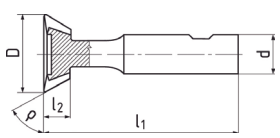
Material	Dureza / *Strength* / *Duretè*	Ae	Ap	Vc	fz(mm/z) Ø 7.5	Ø 16.5	Ø 22.5	Ø 32.5	Ø 45.5
ACERO	≤ 600 N/mm²	0,1xD	1xb	37.5	0.04	0.07	0.075	0.09	0.1
	≤ 850 N/mm²	0,1xD	1xb	32.5	0.04	0.07	0.075	0.09	0.1
	≤ 1100 N/mm²	0,1xD	1xb	18	0.04	0.07	0.075	0.09	0.1
TI	≤ 1250 N/mm²	0,1xD	1xb	9	0.028	0.049	0.0525	0.063	0.07

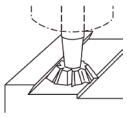
FRESA EN BISEL
DOVETAIL MILLING CUTTERS • FRAISES ANGULAIRES

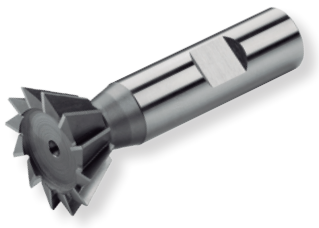
ACERO
TI

HSS-CO 5% | DIN 1833C | 10Z-12Z

DIN 1835B







Pº (±30')	Ø mm (js16)	Ø Mango / *Shank* (h6)	L1	L2	Z	Uds. / *Pcs.*	Cod.
45	**16,00**	12	60	4	10	1	T1833C4516
45	**20,00**	12	63	5	10	1	T1833C4520
45	**25,00**	12	67	6,3	10	1	T1833C4525
45	**32,00**	16	71	8	12	1	T1833C4532
45	**40,00**	16	80	10	12	1	T1833C4540
60	**16,00**	12	60	6,3	10	1	T1833C6016
60	**20,00**	12	63	8	10	1	T1833C6020
60	**25,00**	12	67	10	10	1	T1833C6025
60	**32,00**	16	71	12,5	12	1	T1833C6032
60	**40,00**	16	80	16	12	1	T1833C6040

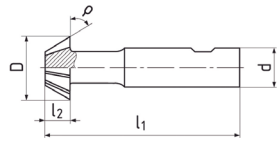
Para recubrimiento TIALN, consultar / *Request for TIALN coating* / *Pour TIALN revêtement, nous consulter.*

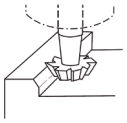
FRESA EN BISEL
DOVETAIL MILLING CUTTERS • FRAISES ANGULAIRES

ACERO
TI

HSS-CO 5% | DIN 1833D | 10Z-12Z

DIN 1835B







Pº (±30')	Ø mm (js16)	Ø Mango / *Shank* (h6)	L1	L2	Z	Uds. / *Pcs.*	Cod.
45	**16,00**	12	60	4	10	1	T1833D4516
45	**20,00**	12	63	5	10	1	T1833D4520
45	**25,00**	12	67	6,3	10	1	T1833D4525
45	**32,00**	16	71	8	12	1	T1833D4532
45	**40,00**	16	80	10	12	1	T1833D4540
60	**16,00**	12	60	6,3	10	1	T1833D6016
60	**20,00**	12	63	8	10	1	T1833D6020
60	**25,00**	12	67	10	10	1	T1833D6025

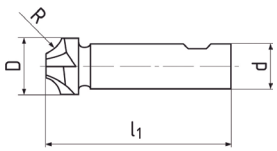
Para recubrimiento TIALN, consultar / *Request for TIALN coating* / *Pour TIALN revêtement, nous consulter.*

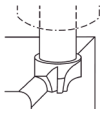
Condiciones de corte / *Cutting conditions* / *Conditions de coupe* **(T1833C y T1833D)**

Material	Dureza / *Strength* / *Duretè*	Ae	Vc	fz(mm/z) Ø 16	Ø 20	Ø 25	Ø 32
ACERO	≤ 600 N/mm²	1xb	37.5	0.07	0.075	0.08	0.09
	≤ 850 N/mm²	1xb	32.5	0.07	0.075	0.08	0.09
	≤ 1100 N/mm²	1xb	18	0.07	0.075	0.08	0.09
TI	≤ 1250 N/mm²	1xb	9	0.049	0.0525	0.056	0.063

FRESA RADIO
CORNER ROUNDING CUTTER • FRAISE A RAYON

ACERO | TI | HSS-CO 8% | DIN 6518 | 4Z-6Z | DIN 1835B







R (H11)	Ø mm (js15)	Ø Mango / *Shank* (h6)	L1	Z	Uds. / *Pcs.*	Cod.
1,00	8	10	60	4	1	T65180100
1,50	9	10	60	4	1	T65180150
1,60	9,2	10	60	4	1	T65180160
2,00	10	10	60	4	1	T65180200
2,50	11	10	60	4	1	T65180250
3,00	12	12	60	4	1	T65180300
3,50	13	12	60	4	1	T65180350
4,00	14	12	60	4	1	T65180400
4,50	15	12	60	4	1	T65180450
5,00	16	12	60	4	1	T65180500
5,50	19	16	67	4	1	T65180550
6,00	20	16	67	4	1	T65180600
6,50	21	16	71	4	1	T65180650
7,00	22	16	71	4	1	T65180700
7,50	23	16	71	4	1	T65180750
8,00	24	16	71	4	1	T65180800
8,50	25	25	85	4	1	T65180850
9,00	26	25	85	4	1	T65180900
9,50	27	25	85	4	1	T65180950
10,00	28	25	85	4	1	T65181000
10,50	31	25	90	4	1	T65181050
11,00	32	25	90	4	1	T65181100
12,00	34	25	90	4	1	T65181200
12,50	41	25	100	6	1	T65181250
13,00	42	25	100	6	1	T65181300
14,00	44	25	100	6	1	T65181400
15,00	46	25	100	6	1	T65181500
16,00	48	25	100	6	1	T65181600
18,00	52	32	112	6	1	T65181800
19,00	56	32	112	6	1	T65181900
20,00	56	32	112	6	1	T65182000

Para recubrimiento TIALN, consultar / *Request for TIALN coating* / *Pour TIALN revêtement, nous consulter.*

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

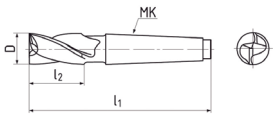
Material	Dureza / *Strength* / *Duretè*	Ae	Ap	Vc	fz(mm/z) Ø 8	Ø 10	Ø 12	Ø 16	Ø 20
ACERO	≤ 600 N/mm²	1xR	1xR	45	0.04	0.05	0.06	0.065	0.07
	≤ 850 N/mm²	1xR	1xR	39	0.04	0.05	0.06	0.065	0.07
	≤ 1100 N/mm²	1xR	1xR	24	0.04	0.05	0.06	0.065	0.07
TI	≤ 1250 N/mm²	1xR	1xR	12	0.028	0.035	0.042	0.0455	0.049

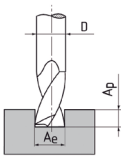
FRESA FRONTAL ACABADO DOS DIENTES MANGO CÓNICO

2 Z FINISHING TAPER SHANK END MILL • FRAISE QUEUE CONIQUE FINITION 2Z



ACERO
INOX
HSS-CO 5%
DIN 326N
2Z
25°
N





Ø mm (e8)	MK	L1	L2	Z	Uds. / *Pcs.*	Cod.
12,00	1	85	14	2	1	TDMC1200
14,00	2	100	16	2	1	TDMC1400
16,00	2	105	18	2	1	TDMC1600
18,00	2	110	20	2	1	TDMC1800
20,00	2	115	20	2	1	TDMC2000
22,00	2	120	22	2	1	TDMC2200
24,00	3	140	25	2	1	TDMC2400
25,00	3	140	25	2	1	TDMC2500
28,00	3	145	28	2	1	TDMC2800
30,00	3	150	30	2	1	TDMC3000
32,00	4	175	32	2	1	TDMC3200
36,00	4	175	34	2	1	TDMC3600
40,00	4	180	38	2	1	TDMC4000
45,00	4	185	42	2	1	TDMC4500
50,00	5	220	45	2	1	TDMC5000

Para recubrimiento TIALN, consultar / ***Request for TIALN coating*** / *Pour TIALN revêtement, nous consulter.*

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

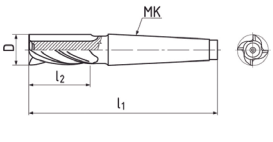
Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	45	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	39	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	30	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.044	0.058	0.065	0.073

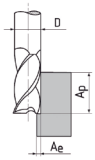
FRESA FRONTAL 4-8 DIENTES MANGO CÓNICO

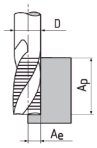
NZ TAPER SHANK END MILLS • FRAISE QUEUE CONIQUE NZ

ACERO F INOX TI

HSS-CO 5% | DIN 845N | 4Z-8Z | 35° | N









Ø mm (e8)	MK	L1	L2	Z	Uds. / *Pcs.*	Cod.
10,00	1	92	22	4	1	TVMC1000
12,00	2	111	26	4	1	TVMC1200
14,00	2	111	26	4	1	TVMC1400
16,00	2	117	32	4	1	TVMC1600
18,00	2	117	32	4	1	TVMC1800
20,00	2	123	38	4	1	TVMC2000
22,00	2	123	38	5	1	TVMC2200
24,00	3	147	45	5	1	TVMC2400
25,00	3	147	45	5	1	TVMC2500
26,00	3	147	45	5	1	TVMC2600
28,00	3	147	45	5	1	TVMC2800
30,00	3	147	45	6	1	TVMC3000
32,00	4	178	53	6	1	TVMC3200
36,00	4	178	53	6	1	TVMC3600
40,00	4	188	63	6	1	TVMC4000
45,00	4	188	63	6	1	TVMC4500
50,00	5	233	75	6	1	TVMC5000
56,00	5	233	75	8	1	TVMC5600
63,00	5	248	90	8	1	TVMC6300

Para recubrimiento TIALN, consultar / ***Request for TIALN coating*** / ***Pour TIALN revêtement, nous consulter.***

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40	Ø 50
	≤ 600 N/mm²	1xD	0,1xD	37.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 850 N/mm²	1xD	0,1xD	32.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
ACERO	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 900 N/mm²	1xD	0,1xD	25	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	> 1100 N/mm²	1xD	0,1xD	16	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091
F	> 240 HB	1xD	0,1xD	22	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
INOX	750 - 850 N/mm²	1xD	0,1xD	10	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
TI	≤ 1500 N/mm²	1xD	0,1xD	8	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091

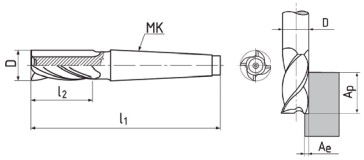
FRESA FRONTAL LARGA 4-8 DIENTES MANGO CONICO

LONG NZ TAPER SHANK END MILLS • FRAISE QUEUE CONIQUE NZ LONGUE



ACERO F INOX TI

HSS-CO 5% | DIN 845N | 4Z-8Z | 35° | N



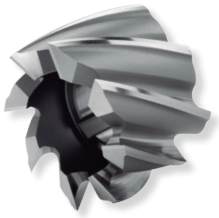
Ø mm (e8)	MK	L1	L2	Z	Uds. / *Pcs.*	Cod.
10,00	1	115	45	4	1	TVMCL1000
12,00	2	138	53	4	1	TVMCL1200
14,00	2	138	53	4	1	TVMCL1400
16,00	2	148	63	4	1	TVMCL1600
18,00	2	148	63	4	1	TVMCL1800
20,00	2	160	75	4	1	TVMCL2000
22,00	2	160	75	5	1	TVMCL2200
24,00	3	192	90	5	1	TVMCL2400
25,00	3	192	90	5	1	TVMCL2500
26,00	3	192	90	5	1	TVMCL2600
28,00	3	192	90	5	1	TVMCL2800
30,00	3	192	90	6	1	TVMCL3000
32,00	4	231	106	6	1	TVMCL3200
36,00	4	231	106	6	1	TVMCL3600
40,00	4	250	125	6	1	TVMCL4000
45,00	4	250	125	6	1	TVMCL4500
50,00	5	308	150	6	1	TVMCL5000
56,00	5	308	150	8	1	TVMCL5600
63,00	5	338	180	8	1	TVMCL6300

Para recubrimiento TIALN, consultar / ***Request for TIALN coating*** / ***Pour TIALN revêtement, nous consulter.***

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

					fz(mm/z)								
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**	**Ø 25**	**Ø 32**	**Ø 40**	**Ø 50**
	≤ 600 N/mm²	1xD	0,1xD	37.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 850 N/mm²	1xD	0,1xD	32.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
ACERO	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 900 N/mm²	1xD	0,1xD	25	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	> 1100 N/mm²	1xD	0,1xD	16	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091
F	> 240 HB	1xD	0,1xD	22	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
INOX	750 - 850 N/mm²	1xD	0,1xD	10	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
TI	≤ 1500 N/mm²	1xD	0,1xD	8	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091

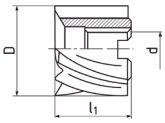
FRESA FRONTAL ACABADO AGUJERO
FINISHING END MILLING CUTTER • FRAISE À TROU FINITION

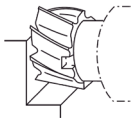


ACERO F INOX

HSS-CO 5% | DIN 1880N | 6Z-14Z

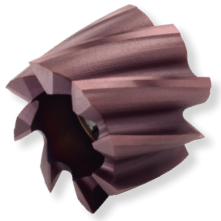
DIN 138 | 30° | N





Ø mm (js16)	d (H7)	L1	Z	Uds. / *Pcs.*	Cod.
40,00	16	32	6	1	T1880N040
50,00	22	36	8	1	T1880N050
63,00	27	40	8	1	T1880N063
80,00	27	45	10	1	T1880N080
100,00	32	50	10	1	T1880N100
125,00	40	56	14	1	T1880N125

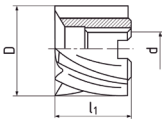
FRESA FRONTAL ACABADO AGUJERO-TIALN
FINISHING END MILLS-TIALN • FRAISE À TROU FINITION-TIALN

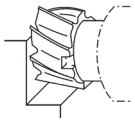


ACERO F INOX

HSS-CO 5% | TIALN | DIN 1880N | 6Z-14Z

DIN 138 | 30° | N



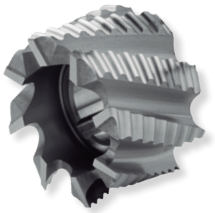


Ø mm (js16)	d (H7)	L1	Z	Uds. / *Pcs.*	Cod.
40,00	16	32	6	1	T1880N040T
50,00	22	36	8	1	T1880N050T
63,00	27	40	8	1	T1880N063T
80,00	27	45	10	1	T1880N080T
100,00	32	50	10	1	T1880N100T
125,00	40	56	14	1	T1880N125T

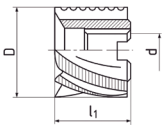
Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

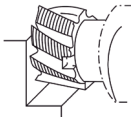
						fz(mm/z)			
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc HSSCO 5%**	**Vc TIALN**	**Ø 40**	**Ø 50**	**Ø 80**	**Ø 100**
	≤ 600 N/mm²	0,05xD	0,75xD	37,50	56,25	0.08	0.085	0.11	0.11
	≤ 850 N/mm²	0,05xD	0,75xD	32,50	48,75	0.08	0.085	0.11	0.11
ACERO	≤ 1100 N/mm²	0,05xD	0,75xD	18,00	27	0.08	0.085	0.11	0.11
	≤ 900 N/mm²	0,05xD	0,75xD	25,00	37,5	0.08	0.085	0.11	0.11
	≤ 1100 N/mm²	0,05xD	0,75xD	18,00	27	0.08	0.085	0.11	0.11
INOX	750 - 850 N/mm²	0,05xD	0,75xD	10,00	15	0.08	0.085	0.11	0.11
F	> 240 HB	0,05xD	0,75xD	22,00	33	0.08	0.085	0.11	0.11

FRESA FRONTAL DESBASTE AGUJERO
ROUGHING END MILLS • FRAISE À TROU EBAUCHE



ACERO · F · INOX · HSS-CO 5% · DIN 1880N · 6Z-10Z · DIN 138 · 30° · NR



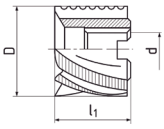


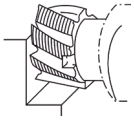
Ø mm (js16)	d (H7)	L1	Z	Uds. / *Pcs.*	Cod.
40,00	16	32	6	1	T1880NR040
50,00	22	36	8	1	T1880NR050
63,00	27	40	8	1	T1880NR063
80,00	27	45	10	1	T1880NR080
100,00	32	50	10	1	T1880NR100

FRESA FRONTAL DESBASTE AGUJERO - TIALN
ROUGHING END MILLS - TIALN • FRAISE À TROU EBAUCHE - TIALN



ACERO · F · INOX · HSS-CO 5% · TIALN · DIN 1880N · 6Z-10Z · DIN 138 · 30° · NR





Ø mm (js16)	d (H7)	L1	Z	Uds. / *Pcs.*	Cod.
40,00	16	32	6	1	T1880NR040T
50,00	22	36	8	1	T1880NR050T
63,00	27	40	8	1	T1880NR063T
80,00	27	45	10	1	T1880NR080T
100,00	32	50	10	1	T1880NR100T

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc HSSCO 5%	Vc TIALN	fz(mm/z) Ø 40	Ø 50	Ø 80	Ø 100
	≤ 600 N/mm²	0,05xD	0,75xD	45,00	67.5	0.08	0.085	0.11	0.11
ACERO	≤ 850 N/mm²	0,05xD	0,75xD	39,00	58.5	0.08	0.085	0.11	0.11
	≤ 900 N/mm²	0,05xD	0,75xD	30,00	45	0.08	0.085	0.11	0.11
INOX	750 - 850 N/mm²	0,05xD	0,75xD	15,00	22.5	0.08	0.085	0.11	0.11
F	> 240 HB	0,05xD	0,75xD	25,00	37.5	0.08	0.085	0.11	0.11

FRESA 3 CORTES DENTADO FINO CRUZADO - RECOMENDADO PARA MATERIALES DUROS

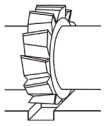
SIDE AND FACE MILLING CUTTERS FINE TEETH - RECOMMENDED FOR HARD MATERIALS

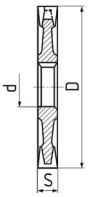
FRAISE CIRCULAIRES 3 TAILLES DENTURE FINE - RECOMMANDÉ POUR MATÉRIAUX DURS



ACERO | INOX | F | CU

HSS-CO 5% | DIN 885A | DIN 138 | H





Ø mm (js16)	s (k11)	d (H7)	Z	Uds. / *Pcs.*	Cod.
50	4	16	16	1	T885A05004
50	5	16	16	1	T885A05005
50	6	16	16	1	T885A05006
50	8	16	16	1	T885A05008
50	10	16	16	1	T885A05010
63	4	22	18	1	T885A06304
63	5	22	18	1	T885A06305
63	6	22	18	1	T885A06306
63	8	22	18	1	T885A06308
63	10	22	18	1	T885A06310
63	12	22	18	1	T885A06312
63	14	22	18	1	T885A06314
63	16	22	18	1	T885A06316
80	4	27	20	1	T885A08004
80	5	27	20	1	T885A08005
80	6	27	20	1	T885A08006
80	8	27	20	1	T885A08008
80	10	27	18	1	T885A08010
80	12	27	18	1	T885A08012
80	14	27	18	1	T885A08014
80	16	27	18	1	T885A08016
80	18	27	18	1	T885A08018
80	20	27	18	1	T885A08020
100	4	32	20	1	T885A10004
100	5	32	20	1	T885A10005
100	6	32	20	1	T885A10006
100	8	32	20	1	T885A10008
100	10	32	20	1	T885A10010
100	12	32	20	1	T885A10012
100	14	32	20	1	T885A10014
100	16	32	20	1	T885A10016
100	18	32	20	1	T885A10018
100	20	32	20	1	T885A10020
100	25	32	20	1	T885A10025
125	5	32	24	1	T885A12505
125	6	32	24	1	T885A12506
125	8	32	24	1	T885A12508
125	10	32	22	1	T885A12510
125	12	32	22	1	T885A12512
125	14	32	22	1	T885A12514
125	16	32	22	1	T885A12516
125	18	32	22	1	T885A12518
125	20	32	22	1	T885A12520
125	25	32	22	1	T885A12525
125	28	32	22	1	T885A12528
160	6	40	26	1	T885A16006
160	8	40	26	1	T885A16008
160	10	40	26	1	T885A16010
160	12	40	26	1	T885A16012
160	14	40	26	1	T885A16014
160	16	40	26	1	T885A16016
160	18	40	26	1	T885A16018
160	20	40	26	1	T885A16020
160	25	40	26	1	T885A16025
160	32	40	26	1	T885A16032

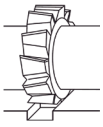
FRESA 3 CORTES DENTADO FINO CRUZADO - RECOMENDADO PARA MATERIALES DUROS

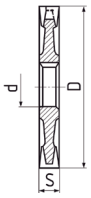
SIDE AND FACE MILLING CUTTERS FINE TEETH - RECOMMENDED FOR HARD MATERIALS

FRAISE CIRCULAIRES 3 TAILLES DENTURE FINE - RECOMMANDÉ POUR MATÉRIAUX DURS



ACERO · INOX · CU · HSS-CO 5% · DIN 885A · DIN 138 · H





Ø mm (js16)	s (k11)	d (H7)	Z	Uds. / *Pcs.*	Cod.
200	8	40	32	1	T885A20008
200	10	40	32	1	T885A20010
200	12	40	32	1	T885A20012
200	14	40	32	1	T885A20014
200	16	40	32	1	T885A20016
200	18	40	32	1	T885A20018
200	20	40	32	1	T885A20020
200	25	40	32	1	T885A20025
200	32	40	32	1	T885A20032

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

					fz(mm/z)				
Material	**Dureza** / ***Strength*** / *Duretè*	**Ae**	**Ap**	**Vc**	**Ø 50**	**Ø 80**	**Ø 100**	**Ø 160**	**Ø 200**
ACERO	≤ 600 N/mm²	0,1xD	1xb	37.5	0.05	0.07	0.08	0.09	0.09
	≤ 850 N/mm²	0,1xD	1xb	32.5	0.05	0.07	0.08	0.09	0.09
	≤ 900 N/mm²	0,1xD	1xb	25	0.05	0.07	0.08	0.09	0.09
	≤ 1100 N/mm²	0,1xD	1xb	18	0.05	0.07	0.08	0.09	0.09
F	< 240 HB	0,1xD	1xb	30	0.05	0.07	0.08	0.09	0.09
	> 240 HB	0,1xD	1xb	22	0.05	0.07	0.08	0.09	0.09
INOX	750 - 850 N/mm²	0,1xD	1xb	10	0.05	0.07	0.08	0.09	0.09
CU	≤ 800 N/mm²	0,1xD	1xb	60-100	0.05	0.07	0.08	0.09	0.09

FRESA FRONTAL DOS DIENTES PARA ALUMINIO
2Z STRAIGHT SHANK END MILLS ESPECIAL FOR ALUMINIUM
FRAISES QUEUE CYLINDRIQUE 2Z POUR ALUMINIUM



Ref
TDW0400, TDW0500, TDW0600, TDW0800, TDW1000, TDW1200

Uds. / *Pcs.*	Cod.
6	TDW0601

*Medidas y condiciones de Corte en pag. 210 / *Cutting conditions and sizes in pag. 210 / Condition de coupe et dimensions a la pag. 210*

FRESA FRONTAL ACABADO DOS DIENTES
2Z FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION 2Z



Ref
TDC0400, TDC0500, TDC0600, TDC0800, TDC1000, TDC1200

Uds. / *Pcs.*	Cod.
6	TDC0601

*Medidas y condiciones de Corte en pag. 212 / *Cutting conditions and sizes in pag. 212 / Condition de coupe et dimensions a la pag. 212*

FRESA FRONTAL ACABADO DOS DIENTES-TIALN
2Z FINISHING STRAIGHT SHANK END MILLS- TIALN
FRAISES QUEUE CYLINDRIQUE FINITION 2Z- TIALN



Ref
TDC0400T, TDC0500T, TDC0600T, TDC0800T, TDC1000T, TDC1200T

Uds. / *Pcs.*	Cod.
6	TDC0601T

*Medidas y condiciones de Corte en pag. 214 / *Cutting conditions and sizes in pag. 214 / Condition de coupe et dimensions a la pag. 214*

FRESA FRONTAL RADIAL ACABADO - DOS DIENTES
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z



Ref
TRC0400, TRC0500, TRC0600, TRC0800, TRC1000, TRC1200

Uds. / *Pcs.*	Cod.
6	TRC0601

*Medidas y condiciones de Corte en pag. 216 / *Cutting conditions and sizes in pag. 216 / Condition de coupe et dimensions a la pag. 216*

FRESA FRONTAL RADIAL ACABADO - DOS DIENTES PM ALTIN
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS PM ALTIN
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z PM ALTIN



Ref
TRC0400PM, TRC0500PM, TRC0600PM, TRC0800PM, TRC1000PM, TRC1200PM

Uds. / *Pcs.*	Cod.
6	TRC0601PM

*Medidas y condiciones de Corte en pag. 216 / *Cutting conditions and sizes in pag. 216 / Condition de coupe et dimensions a la pag. 216*

FRESA FRONTAL ACABADO VARIOS DIENTES
NZ FINISHING STRAIGHT SHANK END MILS
FRAISES QUEUE CYLINDRIQUE FINITION NZ



Ref
TVC0400, TVC0500, TVC0600, TVC0800, TVC1000, TVC1200

Uds. / *Pcs.*	Cod.
6	TVC0601

*Medidas y condiciones de Corte en pag. 217 / *Cutting conditions and sizes in pag. 217 / Condition de coupe et dimensions a la pag. 217*

FRESA FRONTAL ACABADO VARIOS DIENTES TIALN
NZ FINISHING STRAIGHT SHANK END MILS TIALN
FRAISES QUEUE CYLINDRIQUE FINITION NZ TIALN



Ref
TVC0400T, TVC0500T, TVC0600T, TVC0800T, TVC1000T, TVC1200T

Uds. / *Pcs.*	Cod.
6	TVC0601T

*Medidas y condiciones de Corte en pag. 219 / *Cutting conditions and sizes in pag. 219 / Condition de coupe et dimensions a la pag. 219*





ROSCADO

THREADING - FILETAGE

SESA®

TABLA DE ROSCAS Y PASOS EN PULGADAS
TABLE OF THREADS AND PICHES IN INCHES
TABLE DES FILLETAGES ET PAS EN POUCES

	WHITWORTH 55°				UN 60°		
	CILÍNDRICAS / *CYLINDRICAL*			CÓNICA / *TAPPER*	CILÍNDRICAS / *CYLINDRICAL*		
Ø	BSW	BSF	G(BSP)	BSPT	NPS	NPSF	UNC
Nº 0	-	-	-	-	-	-	-
Nº 1	-	-	-	-	-	-	64
Nº 2	-	-	-	-	-	-	56
Nº 3	-	-	-	-	-	-	48
Nº 4	-	-	-	-	-	-	40
Nº 5	-	-	-	-	-	-	40
Nº 6	-	-	-	-	-	-	32
Nº 8	-	-	-	-	-	-	32
Nº 10	-	-	-	-	-	-	24
Nº 12	-	-	-	-	-	-	24
1/16	60	-	-	-	-	-	-
5/64	56	-	-	-	-	-	-
3/32	48	-	-	-	-	-	-
7/64	48	-	-	-	-	-	-
1/8	40	-	28	28	27	27	32
9/64	-	-	-	-	-	-	-
5/32	32	-	-	-	-	-	32
11/64	32	-	-	-	-	-	-
3/16	24	32	-	-			24
13/63	24	-	-	-	-	-	-
7/32	24	28	-	-	-	-	-
15/64	24	-	-	-	-	-	-
1/4	20	26	19	19	18	18	20
9/32	20	-	-	-	-	-	-
5/16	18	22	-	-	-	-	18
11/32	18	20	-	-	-	-	-
3/8	16	20	19	19	18	18	16
13/32	16	20	-	-	-	-	-
7/16	14	18	-	-	-	-	14
15/32	14	-	-	-	-	-	-
1/2	12	16	14	14	14	14	13
9/16	12	16	-	-	-	-	12
5/8	11	14	14	14	-	-	11
11/16	11	14	-	-	-	-	11
3/4	10	12	14	14	14	14	10
13/16	10	12	-	-	-	-	-
7/8	9	11	14	14	-	-	9
15/16	9	11	-	-	-	-	-
1"	8	10	11	11	11,5	-	8
1" 1/16	8	-	-	-	-	-	-
1" 1/8	7	9	11	11	11,5	-	7
1" 3/16	7	-	-	-	-	-	-
1" 1/4	7	9	11	11	-	-	7
1" 3/8	6	8	11	11	-	-	6
1" 1/2	6	8	11	11	11,5	-	6
1" 5/8	5	8	11	11	-	-	5
1" 3/4	5	7	11	11	-	-	5
1" 7/8	4,5	7	11	11	-	-	4,5
2"	4,5	7	11	11	11,5	-	4,5
2" 1/4	4	6	11	11	-	-	4,5
2" 1/2	4	6	11	11	8	-	4
2" 3/4	3,5	6	11	11	-	-	4
3"	3,5	5	11	11	8	-	4
3" 1/2	-	-	11	-	8	-	-
4"	-	-	11	-	8	-	-

UN 60°				UNS 60°	
CILÍNDRICAS / *CYLINDRICAL*		CÓNICA / *TAPPER*		CILÍNDRICAS / *CYLINDRICAL*	
UNF	UNEF	NPT API	NPTF	UN	UNS
80	-	-	-	-	-
72	-	-	-	-	-
64	-	-	-	-	-
56	-	-	-	-	-
48	-	-	-	-	-
44	-	-	-	-	-
40	-	-	-	-	-
36	-	-	-	-	-
32	-	-	-	-	-
28	-	-	-	-	-
-	-	27	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	27	27	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
32	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
28	32	18	18	-	24 - 27 - 36 - 40 - 48 - 56
-	-	-	-	-	-
24	32	-	-	20 - 28	27 - 36 - 40 - 48
-	-	-	-	-	-
24	32	18	18	20 - 28	18 - 27 - 36 - 40
-	-	-	-	-	-
20	28	-	-	16 - 32	18 - 24 - 27
-	-	-	-	-	-
20	28	14	14	16 - 32	12 - 14 - 18 - 24 - 27
18	24	-	-	16 - 20 - 28 - 32	14 - 27
18	24	14	-	12 - 16 - 20 - 28 - 32	14 - 27
-	24	-	-	12 - 16 - 20 - 28 - 32	-
16	20	14	14	12 - 28 - 32	14 - 18 - 24 - 27
-	20	-	-	-	-
14	20	-	-	12 - 16 - 28 - 32	10 - 18 - 24 - 27
-	20	-	-	-	-
14 y 12	20	-	-	16 - 28 - 32	10 - 14 - 18 - 24 - 27
-	20	-	-	-	-
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
-	18	-	-	-	-
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
-	18	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 24
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

EQUIVALENCIAS DE PULGADAS EN MM

EQUIVALENTS OF INCHES IN MM • ÉQUIVALENCES DES POUCES EN MM

	BSW BSF	UNC UNF	G (BSP)	NPS NPT		PG
Ø (")	**Ø (mm)**	**Ø (mm)**	**Ø (mm)**	**Ø (mm)**	**Ø (")**	**Ø (mm)**
No 0	-	1,52	-	-	PG 7	12,5
No 1	-	1,854	-	-	PG 9	15,2
No 2	-	2,184	-	-	PG 11	18,6
No 3	-	2,515	-	-	PG 13,5	20,4
No 4	-	2,845	-	-	PG 16	22,5
No 5	-	3,175	-	-	PG 21	28,3
No 6	-	3,505	-	-	PG 29	37,0
No 8	-	4,166	-	-	PG 36	47,0
No 10	-	4,826	-	-	PG 42	54,0
No 12	-	5,486	-	-	PG 48	59,5
1/16	1,587	1,587	-	-		
3/32	2,381	2,381	-	-		
1/8	3,175	3,175	9,728	10,287		
5/32	3,969	3,969	-	-		
3/16	4,762	4,762	-	-		
7/32	5,556	5,556	-	-		
1/4	6,35	6,35	13,157	13,716		
5/16	7,938	7,938	-	-		
3/8	9,525	9,525	16,662	17,145		
7/16	11,113	11,113	-	-		
1/2	12,700	12,700	20,955	21,336		

	BSW BSF	UNC UNF	G (BSP)	NPS NPT
Ø (")	**Ø (mm)**	**Ø (mm)**	**Ø (mm)**	**Ø (mm)**
9/16	14,288	14,288	-	-
5/8	15,876	15,876	22,911	-
3/4	19,051	19,051	26,441	26,67
7/8	22,226	22,226	30,201	-
1	25,401	25,401	33,249	33,401
1 1/8	28,576	28,576	37,897	-
1 1/4	31,751	31,751	41,910	42,164
1 3/8	34,926	34,926	44,323	-
1 1/2	38,101	38,101	47,803	48,26
1 5/8	41,277	41,277	-	-
1 3/4	44,452	44,452	53,746	-
1 7/8	47,627	47,627	-	-
2	50,802	50,802	59,614	60,32
2 1/4	57,152	57,152	65,710	-
2 1/2	63,502	63,502	75,184	-
2 3/4	69,853	69,853	81,534	-
3	76,203	76,203	87,884	-
3 1/4	-	-	93,980	-
3 1/2	-	-	100,330	-
3 3/4	-	-	106,680	-
4	-	-	113,030	-

CONVERSIÓN DE VELOCIDAD DE CORTE, DE M/MIN A RPM

CONVERSION TABLE OF CUTTING SPEED M/MIN TO R/MIN
CONVERSION DE VITESSE DE COUPAGE, DE M/MIN Á RPM

m/min.		4	6	8	9	10	12
Medida / *Size*		**RPM**					
mm	**Pulgada / *Inches***						
1,6	**1/16**	800	1.194	1.592	1.791	1.988	2.386
1,8		708	1.065	1.415	1.598	1.768	2.121
2,0		637	955	1.274	1.433	1.591	1.909
2,2	**3/32**	579	869	1.158	1.303	1.446	1.736
2,5		510	764	1.019	1.147	1.274	1.527
3,0	**1/8**	425	637	849	955	1.061	1.273
3,5		364	546	728	819	909	1.091
4,0	**5/32**	318	478	637	718	796	955
4,5		283	425	566	637	707	849
5,0	**3/16**	255	382	510	573	637	764
6,0	**1/4**	212	319	425	477	530	636
7,0	**9/32**	182	273	364	409	455	546
8,0	**5/16**	159	239	319	358	398	477
9,0		142	212	283	318	354	425
10,0	**3/8**	127	191	255	286	318	382
11,0		116	174	232	260	289	347
12,0	**1/2**	106	159	212	238	265	318
13,0		98	147	196	220	245	294
14,0	**9/16**	91	136	182	205	277	273
16,0	**5/8**	80	119	159	179	199	239
18,0		71	106	141	159	177	212
20,0	**3/4**	64	96	127	143	159	191
22,0	**7/8**	58	87	116	130	145	174
24,0	**1**	53	80	106	119	133	159
27,0		47	71	94	106	118	141
30,0	**1-1/8**	43	64	85	95	106	127
33,0	**1-1/4**	39	58	77	87	96	116
36,0		35	53	71	80	88	106
39,0	**1-1/2**	33	49	65	73	82	98
42,0		30	46	61	68	76	91
45,0	**1-3/4**	28	42	57	64	71	85
48,0		27	40	53	60	66	80
52,0		24	37	49	55	61	73
56,0	**2**	23	34	46	51	57	68

TRANSFORMACIÓN DEL PASO EN HILOS PULGADA EN MM

TRANSFORMATION OF PITCH IN INCH THREADS IN MM • TRANSFORMATION DU PAS EN POUCES FILETAGES EN MM

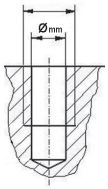
Paso Pitch	mm
80	0,317
72	0,352
64	0,396
60	0,423
56	0,453
48	0,529
44	0,577
40	0,635
36	0,705
32	0,793
28	0,907
27	0,940
26	0,976
24	1,058
22	1,154
20	1,270
19	1,336
18	1,411
16	1,587
14	1,814

Paso Pitch	mm
13	1,953
12	2,116
11 1/2	2,208
11	2,309
10	2,540
9	2,822
8	3,174
7	3,628
6	4,233
5	5,080
4 1/2	5,644
4	6,349
3 1/2	7,257
3 1/4	7,815
3	8,466
2 7/8	8,834
2 3/4	9,236
2 5/8	9,676
2 1/2	10,160

15	18	21	25	27	30	36
RPM						
2.983	3.579	4.176	4.971	5.369	5.965	7.158
2.652	3.182	3.712	4.419	4.743	5.303	6.364
2.386	2.863	3.341	3.977	4.295	4.773	5.727
2.169	2.603	3.037	3.616	3.905	4.339	5.207
1.909	2.291	2.673	3.182	3.436	3.818	4.582
1.591	1.909	2.227	2.651	2.864	3.182	3.818
1.364	1.636	1.909	2.273	2.455	2.727	3.273
1.193	1.432	1.671	1.989	2.148	2.387	2.864
1.061	1.273	1.485	1.768	1.909	2.122	2.546
955	1.146	1.337	1.591	1.719	1.909	2.292
795	954	1.113	1.326	1.432	1.592	1.909
682	818	955	1.136	1.227	1.364	1.636
597	716	835	994	1.074	1.193	1.432
531	637	742	885	955	1.061	1.293
477	573	668	795	859	955	1.146
434	521	608	723	781	868	1.041
398	477	557	663	716	796	955
367	441	514	612	661	734	881
341	409	477	568	614	682	818
298	358	418	497	537	597	716
265	318	371	442	477	530	636
239	286	334	398	430	477	573
217	260	304	362	391	434	521
199	239	275	331	353	398	477
177	212	245	295	318	354	424
159	191	223	265	286	318	382
145	174	203	241	260	289	347
133	159	186	221	239	265	318
122	147	171	204	220	245	294
114	186	159	189	205	227	273
106	127	149	177	191	212	255
99	119	139	166	179	199	239
92	110	129	153	165	184	220
85	102	119	142	153	170	205

DIÁMETRO DE BROCA PREVIA PARA ROSCADO

RECOMMENDED TAPPINNG DRILL SIZES • DIAMÈTRES PRÉALABLES AU FILETAGE



M	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)	BSW	Ø (mm)	UNC	Ø (mm)	UNF	Ø (mm)
1 x 0,25	0,75	3 x 0,35	2,65	24 x 2	22,00	W 3/32	1,80	Nº 1-64	1,50	Nº 0-80	1,30
1,1 x 0,25	0,85	3,5 x 0,35	3,15	25 x 1	24,00	W 1/8	2,60	Nº 2-56	1,80	Nº 1-72	1,60
1,2 x 0,25	0,95	4 x 0,35	3,65	25 x 1,5	23,50	W 5/32	3,10	Nº3-48	2,10	Nº 2-64	1,90
1,4 x 0,3	1,10	4 x 0,5	3,50	26 x 1	25,00	W 3/16	3,60	Nº 4-40	2,30	Nº 3-56	2,10
1,6 x 0,35	1,25	5 x 0,5	4,50	26 x 1,5	24,50	W 7/32	4,40	Nº 5-40	2,60	Nº 4-48	2,40
(1,7) x 0,35	1,30	6 x 0,5	5,50	27 x 1	26,00	W 1/4	5,10	Nº 6-32	2,85	Nº 5-44	2,70
1,8 x 0,35	1,45	6 x 0,75	5,20	27 x 1,5	25,50	W 5/16	6,50	Nº 8-32	3,50	Nº 6-40	3,00
2 x 0,4	1,60	7 x 0,75	6,20	27 x 2	25,00	W 3/8	7,90	Nº 10-24	3,90	Nº8-36	3,50
2,2 x 0,45	1,75	8 x 0,5	7,50	28 x 1,5	26,50	W 7/16	9,30	Nº 12-24	4,50	Nº 10-32	4,10
(2,3) x 0,4	1,90	8 x 0,75	7,20	28 x 2	26,00	W 1/2	10,50	1/4-20	5,20	Nº 12-28	4,70
2,5 x 0,45	2,05	8 x 0,1	7,00	30 x 1	29,00	W 9/16	12,00	5/16-18	6,60	1/4-28	5,50
(2,6) x 0,45	2,10	9 x 0,1	8,00	30 x 1,5	28,50	W 5/8	13,50	3/8-16	8,00	5/16-24	6,90
3 x 0,5	2,50	10 x 0,5	9,50	30 x 2	28,00	W 3/4	16,50	7/16-14	9,40	3/8-24	8,50
(3) x 0,6	2,40	10 x 0,75	9,20	32 x 1,5	30,50	W 7/8	19,25	1/2-13	10,80	7/16-20	9,90
3,5 x 0,6	2,90	10 x 1	9,00	33 x 1,5	31,50	W 1"	22,00	9/16-12	12,20	1/2-20	11,50
(3,5) x 0,75	2,75	10 x 1,25	8,80	33 x 2	31,00	W 1" 1/8	24,75	5/8-11	13,50	9/16-18	12,90
4 x 0,7	3,30	11 x 1	10,00	34 x 1,5	32,50	W 1" 1/4	27,75	3/4-10	16,50	5/8-18	14,50
(4) x 0,75	3,25	12 x 0,75	11,20	35 x 1,5	33,50	W 1" 3/8	30,20	7/8-9	19,50	3/4-16	17,50
4,5 x 0,75	3,70	12 x 1	11,00	36 x 1,5	34,50	W 1" 1/2	33,50	1"-8	22,25	7/8-14	20,25
5 x 0,8	4,20	12 x 1,25	10,80	36 x 2	34,00	W 1" 3/4	38,50	1" 1/8-7	25,00	1"-12	23,25
(5) x 0,9	4,10	12 x 1,5	10,50	36 x 3	33,00	W 2"	44,50	1" 1/4-7	28,25	1" 1/8-12	26,50
6 x 1	5,00	13 x 1	12,00	38 x 1,5	36,50	BSF	Ø (mm)	1" 3/8-6	30,75	1"1/4-12	29,50
7 x 1	6,00	13 x 1,5	11,50	39 x 1,5	37,50	BSF 1/4	5,20	1" 1/2-6	34,00	1" 3/8-12	32,50
8 x 1,25	6,80	13 x 1,75	11,20	39 x 2	37,00	BSF 5/16	6,60	1" 3/4-5	39,50	1"1/2-12	36,00
9 x 1,25	7,80	14 x 1	13,00	39 x 3	36,00	BSF 3/8	8,10	2"-4,5	45,00	BSP	Ø (mm)
10 x 1,5	8,50	14 x 1,25	12,80	40 x 1,5	38,50	BSF 7/16	9,50	2" 1/4-4,5	51,50	G 1/8	8,80
11 x 1,5	9,50	14 x 1,5	12,50	40 x 2	38,00	BSF 1/2	11,00	2" 1/2-4	57,25	G 1/4	11,80
12 x 1,75	10,20	15 x 1	14,00	40 x 3	37,00	BSF 5/8	14,00	2" 3/4-4	63,50	G 3/8	15,25
14 x 2	12,00	15 x 1,5	13,50	42 x 1,5	40,50	BSF 3/4	16,50	3"-4	70,00	G 1/2	19,00
16 x 2	14,00	15 x 2	13,00	42 x 2	40,00	BSF 7/8	19,50	3" 1/4-4	76,20	G 5/8	21,00
18 x 2,5	15,50	16 x 1	15,00	42 x 3	39,00	BSF 1"	22,50	3" 1/2-4	82,60	G 3/4	24,50
20 x 2,5	17,50	16 x 1,5	14,50	45 x 1,5	43,50	NPT	Ø (mm)	PG	Ø (mm)	G 7/8	28,25
22 x 2,5	19,50	18 x 1	17,00	45 x 2	43,00	1/16-27	6,30	PG 7	11,40	G 1"	30,75
24 x 3	21,00	18 x 1,5	16,50	45 x 3	42,00	1/8-27	8,50	PG 9	14,00	G 1" 1/8	35,30
27 x 3	24,00	18 x 2	16,00	48 x 1,5	46,50	1/4-18	11,20	PG 11	17,25	G 1" 1/4	39,30
30 x 3,5	26,50	20 x 1	19,00	48 x 2	46,00	3/8-18	14,50	PG 13,5	19,00	G 1" 3/8	41,70
33 x 3,5	29,50	20 x 1,5	18,50	48 x 3	45,00	1/2-14	18,00	PG 16	21,25	G 1" 1/2	45,20
36 x 4	32,00	20 x 2	18,00	50 x 1,5	48,50	3/4-14	23,00	PG 21	26,75	G 1" 3/4	51,10
39 x 4	35,00	22 x 1	21,00	50 x 2	48,00	1"-11,5	29,00	PG 29	35,50	G 2"	57,00
42 x 4,5	37,50	22 x 1,5	20,50	50 x 3	47,00	1" 1/4-11,5	38,00	PG 36	45,50	G 2" 1/4	63,10
45 x 4,5	40,50	22 x 2	20,00	52 x 1,5	50,50	1" 1/2-11,5	44,00	PG 42	52,50	G 2" 1/2	72,60
48 x 5	43,00	24 x 1	23,00	52 x 2	50,00	2"-11,5	56,00	PG 48	58,00	G 2" 3/4	78,90
52 x 5	47,00	24 x 1,5	22,50	52 x 3	49,00	2" 1/2-8	67,00			G 3"	85,30
						3"-8	83,00				

DIÁMETRO DE BROCA PREVIA PARA ROSCADO POR LAMINACIÓN

RECCOMENDED DRILL SIZE FOR FORMING THREADS • DIAMÈTRES PRÉALABLES POUR FILETAGE ROULANT

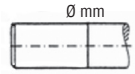
M	Ø (mm)	M	Ø (mm)
1 x 0,25	0,90	9 x 1,25	8,40
1,2 x 0,25	1,10	10 x 1,5	9,30
1,4 x 0,3	1,26	11 x 1,5	10,30
1,6 x 0,35	1,45	12 x 1,75	11,20
1,8 x 0,35	1,65	14 x 2	13,00
2 x 0,4	1,85	16 x 2	15,10
2,2 x 0,45	2,00	18 x 2,5	16,80
2,5 x 0,45	2,30	20 x 2,5	18,80
3 x 0,5	2,80	22 x 2,5	20,80
3,5 x 0,6	3,25	24 x 3	22,50
4 x 0,7	3,70		
4,5 x 0,75	4,15		
5 x 0,8	4,65		
6 x 1	5,55		
7 x 1	6,55		
8 x 1,25	7,45		

Mf	Ø (mm)	Mf	Ø (mm)
2 x 0,25	1,90	7 x 0,5	6,80
2,2 x 0,25	2,10	7 x 0,75	6,65
2,5 x 0,25	2,40	8 x 0,5	7,80
2,5 x 0,35	2,35	8 x 0,75	7,65
3 x 0,25	2,90	8 x 1	7,55
3 x 0,35	2,85	9 x 0,5	8,80
3,5 x 0,35	3,35	9 x 0,75	8,65
3,5 x 0,5	3,30	9 x 1	8,55
4 x 0,35	3,85	10 x 0,5	9,80
4 x 0,5	3,80	10 x 0,75	9,65
4,5 x 0,5	4,30	10 x 1	9,55
5 x 0,5	4,80	10 x 1,25	9,40
5 x 0,75	4,65	11 x 0,75	10,70
5,5 x 0,5	5,30	11 x 1	10,50
6 x 0,5	5,80	12 x 0,75	11,70
6 x 0,75	5,65		

Mf	Ø (mm)	Mf	Ø (mm)
M12 x 1	11,50	M18 x 1	17,50
M12 x 1,25	11,40	M18 x 1,5	17,30
M12 x 1,5	11,30	M18 x 2	17,00
M13 x 0,75	12,70	M20 x 1	19,50
M13 x 1	12,50	M20 x 1,5	19,30
M13 x 1,5	12,30	M20 x 2	19,00
M14 x 0,75	13,70	M22 x 1,5	21,30
M14 x 1	13,50	M22 x 2	21,00
M14 x 1,25	13,40	M24 x 1,5	23,30
M14 x 1,5	13,30	M24 x 2	23,00
M15 x 0,75	14,70	M25 x 1,5	24,30
M15 x 1	14,50	M26 x 1,5	25,30
M15 x 1,5	14,30	M27 x 2	26,00
M16 x 0,75	15,70	M28 x 1,5	27,25
M16 x 1	15,50	M30 x 1,5	29,25
M16 x 1,5	15,30	M30 x 2	29,00

DIÁMETRO PREVIO DEL EJE A ROSCAR

RECOMMENDED OUTSIDE DIAMETER • AXES PRÉALABLES AU FILETAGE



M	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)	BSW	Ø (mm)	UNC	Ø (mm)	UNF	Ø (mm)
1 x 0,25	0,97	3 x 0,35	2,94	24 x 2	22,82	W 1/4	6,16	Nº 1-64	1,79	Nº 0-80	1,47
1,1 x 0,25	1,07	3,5 x 0,35	3,44	25 x 1	24,88	W 5/16	7,76	Nº 2-56	2,12	Nº 1-72	1,79
1,2 x 0,25	1,17	4 x 0,35	3,94	25 x 1,5	24,85	W 3/8	9,30	Nº3-48	2,44	Nº 2-64	2,12
1,4 x 0,3	1,36	4 x 0,5	3,93	26 x 1	25,88	W 7/16	10,89	Nº 4-40	2,76	Nº 3-56	2,44
1,6 x 0,35	1,54	5 x 0,5	4,93	26 x 1,5	25,85	W 1/2	12,43	Nº 5-40	3,09	Nº 4-48	2,77
(1,7) x 0,35	1,64	6 x 0,5	5,93	27 x 1	26,88	W 9/16	13,92	Nº 6-32	3,41	Nº 5-44	3,10
1,8 x 0,35	1,74	6 x 0,75	5,90	27 x 1,5	26,85	W 5/8	15,62	Nº 8-32	4,07	Nº 6-40	3,42
2 x 0,4	1,93	7 x 0,75	6,90	27 x 2	26,82	W 3/4	18,76	Nº 10-24	4,71	Nº8-36	4,08
2,2 x 0,45	2,13	8 x 0,5	7,93	28 x 1,5	27,85	W 7/8	21,89	Nº 12-24	5,37	Nº 10-32	7,73
(2,3) x 0,4	2,23	8 x 0,75	7,90	28 x 2	27,82	W 1"	25,08	1/4-20	6,22	Nº 12-28	5,38
2,5 x 0,45	2,43	8 x 0,1	7,83	30 x 1	29,88	W 1" 1/8	28,21	5/16-18	7,80	1/4-28	6,24
(2,6) x 0,45	2,53	9 x 0,1	8,88	30 x 1,5	29,85	BSF	Ø (mm)	3/8-16	9,37	5/16-24	7,82
3 x 0,5	2,92	10 x 0,5	9,93	30 x 2	29,82	BSF 1/4	6,25	7/16-14	10,95	3/8-24	9,41
(3) x 0,6	2,91	10 x 0,75	9,90	32 x 1,5	31,85	BSF 5/16	7,82	1/2-13	12,52	7/16-20	10,98
3,5 x 0,6	3,41	10 x 1	9,88	33 x 1,5	32,85	BSF 3/8	9,39	9/16-12	14,10	1/2-20	12,56
(3,5) x 0,75	3,41	10 x 1,25	9,86	33 x 2	32,82	BSF 7/16	10,97	5/8-11	15,68	9/16-18	14,14
4 x 0,7	3,91	11 x 1	10,88	34 x 1,5	33,85	BSF 1/2	12,54	3/4-10	18,84	5/8-18	15,73
(4) x 0,75	3,91	12 x 0,75	11,90	35 x 1,5	34,85	BSF 5/8	15,71	7/8-9	22,00	3/4-16	18,89
4,5 x 0,75	4,41	12 x 1	11,88	36 x 1,5	35,85	BSF 3/4	18,85	1"-8	25,16	7/8-14	22,05
5 x 0,8	4,90	12 x 1,25	11,86	36 x 2	35,82	BSF 7/8	22,02	1" 1/8-7	28,31	1"-12	25,21
(5) x 0,9	4,89	12 x 1,5	11,85	36 x 3	35,76	BSF 1"	25,17	1" 1/4-7	31,49	1" 1/8-12	28,38
6 x 1	5,88	13 x 1	12,88	38 x 1,5	37,85	NPT	Ø (mm)	1" 3/8-6	34,63	1"1/4-12	31,56
7 x 1	6,88	13 x 1,5	12,85	39 x 1,5	38,85	1/16-27	8,17	1" 1/2-6	37,81	1" 3/8-12	34,73
8 x 1,25	7,87	13 x 1,75	12,83	39 x 2	38,82	1/8-27	10,55	1" 3/4-5	44,12	1"1/2-12	37,91
9 x 1,25	8,87	14 x 1	13,88	39 x 3	38,76	1/4-18	14,10	2"-4,5	50,45	BSP	Ø (mm)
10 x 1,5	9,85	14 x 1,25	13,86	40 x 1,5	39,85	3/8-18	17,52	2" 1/4-4,5	56,80	G 1/8	9,62
11 x 1,5	10,85	14 x 1,5	13,85	40 x 2	39,82	1/2-14	21,85	2" 1/2-4	63,10	G 1/4	13,03
12 x 1,75	11,83	15 x 1	14,88	40 x 3	39,76	3/4-14	27,16	2" 3/4-4	69,45	G 3/8	16,53
14 x 2	13,82	15 x 1,5	14,85	42 x 1,5	41,85	1"-11,5	34,16	3"-4	75,80	G 1/2	20,81
16 x 2	15,82	15 x 2	14,82	42 x 2	41,85	1" 1/4-11,5	42,74	3" 1/4-4		G 5/8	22,77
18 x 2,5	17,79	16 x 1	15,88	42 x 3	41,76	1" 1/2-11,5	48,87	3" 1/2-4		G 3/4	26,30
20 x 2,5	19,79	16 x 1,5	15,85	45 x 1,5	44,85	2"-11,5	60,95	PG	Ø (mm)	G 7/8	30,06
22 x 2,5	21,79	18 x 1	17,88	45 x 2	44,82			PG 7	12,40	G 1"	33,07
24 x 3	23,77	18 x 1,5	17,85	45 x 3	44,76			PG 9	15,10	G 1" 1/8	37,71
27 x 3	26,77	18 x 2	17,82	48 x 1,5	47,85			PG 11	18,50	G 1" 1/4	41,73
30 x 3,5	29,73	20 x 1	19,88	48 x 2	47,82			PG 13,5	20,30	G 1" 3/8	44,14
33 x 3,5	32,73	20 x 1,5	19,85	48 x 3	47,46			PG 16	22,40	G 1" 1/2	47,62
36 x 4	35,70	20 x 2	19,82	50 x 1,5	49,85			PG 21	28,15	G 1" 3/4	53,56
39 x 4	38,70	22 x 1	21,88	50 x 2	49,82			PG 29	36,85	G 2"	59,43
42 x 4,5	41,69	22 x 1,5	21,85	50 x 3	49,76			PG 36	46,85		
45 x 4,5	44,68	22 x 2	21,82	52 x 1,5	51,85			PG 42	53,85		
48 x 5	47,66	24 x 1	23,88	52 x 2	51,82			PG 48	59,15		
52 x 5	51,66	24 x 1,5	23,85	52 x 3	51,76						

GIRAMACHOS CON CRIQUE IZQ-DCH
TAP HOLDER WITH RATCHET, LEFT-RIGHT HAND
PORTE TARAUDS



Nº	Para machos / *For Taps*	⌀ (mm)	L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.
1	M 3 - 10 1/8 - 3/8	2,4 - 5,5	85	0,165	**1**	1R10001
2	M 5 - 12 7/32 - 1/2	4,5 - 8,0	100	0,310	**1**	1R10002
10	M 3 - 10 1/8 - 3/8	2,4 - 5,5	250	0,250	**1**	1R10010
20	M 5 - 12 7/32 - 1/2	4,5 - 8,0	300	0,440	**1**	1R10020

GIRAMACHOS AJUSTABLES DE ZINC FUNDIDO DIN1814
ZINC ADJUSTABLE TAP WRENCHES DIN 1814
PORTE TARAUDS EN ZINC DIN 1814



DIN 1814

Nº	Para machos / *For Taps*	⌀ (mm)	L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.
0	M 1 - 8 1/16 - 1/4	2,0 - 5,0	130	0,050	**1**	1R13000
1	M 1 - 10 1/16 - 3/8 G 1/8	2,0 - 6,3	176	0,095	**1**	1R13010
1.1/2	M 1 - 12 1/16 - 1/2 G 1/8	2,1 - 8,0	176	0,120	**1**	1R13015
2	M 4 - 12 5/32 - 1/2 G 1/8	3,0 - 9,0	280	0,285	**1**	1R13020
3	M 5 - 20 7/32 - 3/4 G 1/8 - 1/2	4,9 - 12,0	380	0,660	**1**	1R13030
4	M 11 - 27 7/16 - 1 G 1/4 - 3/4	5,5 - 16,0	505	1,500	**1**	1R13040
5 L	M 13 - 32 1/2 - 1.1/4 G 1/4 - 1	7,0 - 20,0	700	1,800	**1**	1R13050

GIRAMACHOS AJUSTABLES DE ACERO DIN 1814

STEEL ADJUSTABLE TAP WRENCHES DIN 1814
PORTE TARAUDS EN ACIER DIN1814



DIN 1814

Nº	Para machos / *For Taps*			Ø (mm)	L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.
0	M 1 - 8	1/16 - 1/4		2,0 - 5,0	130	0,050	**1**	1R14000
1	M 1 - 10	1/16 - 3/8		2,0 - 6,3	176	0,100	**1**	1R14010
1.1/2	M 1 - 12	1/16 - 1/2	G 1/8	2,1 - 8,0	176	0,120	**1**	1R14015
2	M 4 - 12	5/32 - 1/2	G 1/8	3,0 - 9,0	280	0,285	**1**	1R14020
3	M 5 - 20	7/32 - 3/4	G 1/8 - 1/2	4,9 - 12	380	0,660	**1**	1R14030
4	M 11 - 27	7/16 - 1	G 1/4 - 3/4	5,5 - 16	500	1,500	**1**	1R14040
5	M 13 - 32	1/2 - 1.1/4	G 1/4 - 1	7 - 20	700	1,800	**1**	1R14050
6	M 18 - 42	3/4 - 1.1/2	G 1/2 - 1.1/4	11 - 24	1000	2,600	**1**	1R14060
7	M 25 - 52	1 - 2.1/8	G 3/4 - 2.1/4	16 - 32	1250	4,500	**1**	1R14070
8	M 25 - 64	1 - 2.1/2	G 3/4 - 3	16 - 40	1250	4,500	**1**	1R14080

PROLONGADOR PARA MACHOS DIN 377

TAP EXTYENSION DIN 377
EXTENSION POUR TARAUDS

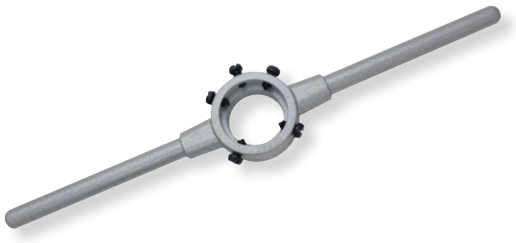


DIN 377

Ø (mm)	Dmin	Dmax	L1	Para / *For* DIN 352	Cod.
2,1	5	2,7	60	M 1-2.6	1R14521
2,4	6	3	70		1R14524
2,7	7	3,5	80	M 3	1R14527
3,0	7	4	90	M 3.5	1R14530
3,4	8	4,5	95	M 4	1R14534
3,8	9	5	100		1R14538
4,3	10	5,5	105		1R14543
4,9	11	6	110	M 4.5-8	1R14549
5,5	12	7	115	M 9-10	1R14555
6,2	14	8	120	M 11	1R14562
7,0	15	9	125	M 12	1R14570
8,0	17	10	125		1R14580
9,0	19	12	130	M 14-16	1R14590
10,0	21	13	140		1R14610
11,0	23	14	150	M 18	1R14611
12,0	25	16	155	M 20	1R14612
13,0	27	17	165		1R14613
14,5	29	18	175	M 22-24	1R14614
16,0	30	20	180	M 27	1R14616
18,0	33	22	200	M 30	1R14618
20,0	36	25	220	M 33	1R14620
22,0	38	28	220	M 36	1R14622
24,0	42	32	235	M 39-42	1R14624
26,0	45	34	250		1R14626
29,0	50	36	265	M 45-48	1R14629
32,0	55	40	285	M 52	1R14632

VOLVEDORES ZINC FUNDIDO DIN 225 (EN 22568)

ZINC DIE HOLDERS DIN 225 (EN 22568)
PORTE FILIÈRES DIN 225 (EN 22568) EN ZINC



DIN 225 DIN 22568

Ø (mm)	Para cojinetes / *For Taps*		L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.
16 x 5	M 1,0 - 2,6	BSW 1/16 - 3/32	160	0,050	**1**	1R15001
20 x 5	M 3,0 - 4,0	BSW 1/8 - 5/32	200	0,065	**1**	1R15002
20 x 7	M 4,5 - 6,0	BSW 3/16 - 1/4	200	0,065	**1**	1R15003
25 x 9	M 7,0 - 9,0	BSW 5/16	224	0,105	**1**	1R15004
30 x 11	M 10,0 - 11,0	BSW 3/8 - 7/16	280	0,190	**1**	1R15005
38 x 10	Mf 12,0 - 15,0	G 1/4	315	0,340	**1**	1R15006
38 x 14	M 12,0 - 15,0	BSW 1/2 - 9/16	315	0,340	**1**	1R15007
45 x 14	Mf 16,0 - 21,0	G 3/8 - 1/2	450	0,650	**1**	1R15008
45 x 18	M 16,0 - 20,0	BSW 5/8 - 13/16	450	0,650	**1**	1R15009
55 x 16	Mf 22,0 - 26,0	G 5/8 - 3/4	560	0,900	**1**	1R15010
55 x 22	M 22,0 - 24,0	BSW 7/8 - 1	560	0,900	**1**	1R15011
65 x 18	Mf 27,0 - 36,0	G 7/8 - 1	630	1,400	**1**	1R15012
65 x 25	M 27,0 - 36,0	BSW 1.1/8 - 1.3/8	630	1,400	**1**	1R15013

VOLVEDORES ZINC FUNDIDO EN PULGADAS - 3 TORNILLOS

ZINC DIE HOLDERS IN INCH 3 SCREWS
PORTE FILIÈRES EN POUCES Á 3 VISSES



Ø (")	Para cojinetes / *For Taps*		L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.
13/16	20,6 x 6,35	13/16 x 1/4	200	0,060	**1**	1R15520
1	25,4 x 9,5	1 x 3/8"	224	0,100	**1**	1R15525
1.5/16	33,4 x 11,1	1.5/16 x 7/16	270	0,180	**1**	1R15533
1.1/2	38,1 x 12,7	1.1/2 x 1/2	315	0,320	**1**	1R15538
2	50,8 x 15,9	2 x 5/8	560	0,900	**1**	1R15550
2.1/4	57,1 x 17,5	2.1/4 x 11/16	560	0,900	**1**	1R15557
2.1/2	63,5 x 19,0	2.1/2 x 3/4	630	1,400	**1**	1R15563
3	76,2 x 22,2	3 x 7/8"	800	2,200	**1**	1R15576
3.1/2	88,9 x 25,4	3.1/2 x 1	900	3,300	**1**	1R15588
4	101,6 x 25,4	4 x 1	1.000	3,600	**1**	1R15599

VOLVEDORES ACERO DIN 225 (EN 22568)

STEEL DIE HOLDERS DIN 225 (EN 22568)
PORTE FILIÈRES DIN 225 (EN 22568) EN ACIER



DIN 225 DIN 22568

Ø (mm)	Para cojinetes / *For Taps*		L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.
45 x 18	M 16 - 20	BSW 5/8 - 13/16	450	0,650	**1**	1R15209
55 x 22	M 22 - 24	BSW 7/8 - 1	560	0,900	**1**	1R15211
65 x 25	M 27 - 36	BSW 1.1/8 - 1.3/8	630	1,400	**1**	1R15213
75 x 20	Mf 38 - 42	G 1.1/8 - 1.1/4	800	2,250	**1**	1R15214
75 x 30	M 38 - 42	BSW 1.1/2 - 1.5/8	800	2,100	**1**	1R15215
90 x 22	Mf 45 - 52	G 1.3/8 - 1.5/8	900	3,200	**1**	1R15216
90 x 36	M 45 - 52	BSW 1.3/4 - 2	900	3,000	**1**	1R15217
105 x 22	Mf 54 - 63	G 1.3/4 - 2	975	3,500	**1**	1R15218
105 x 36	M 54 - 63	BSW 2.1/4	975	3,500	**1**	1R15219
120 x 22	Mf 64 - 71	G 2.1/4 - 2.3/4	956	3,170	**1**	1R15220
120 x 36	M 64 - 71	BSW 2.1/2 - 2.3/4	956	3,910	**1**	1R15221
130 x 25		G 3	966	3,505	**1**	1R15222
130 x 36			966	4,025	**1**	1R15223
140 x 22			976	3,620	**1**	1R15224
150 x 25		G 3.1/2	986	3,950	**1**	1R15226
160 x 25		G 4	996	4,115	**1**	1R15228

ACEITE DE CORTE Y ROSCADO

CUTTING AND TAPPING FLUID
FLUIDE POUR FILETAGE ET DE COUP

Contenido / *Content*	Uds.	Cod
400 ml	1	1AC4000



Metales duros y blandos. Alto poder refrigerante y anticorrosivo.
Suitable for hard and soft metals. High refrigerating and anti-corrision capacity.
Métaux doux et durs. Haut pouvoir anticorrosion.

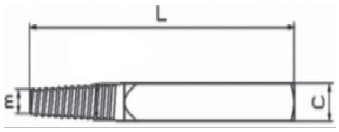
EXTRACTOR DE TORNILLOS 5 PIEZAS ADVANCE
5 PCS ADVANCE SCREW EXTRACTORS
EXTRACTEURS DE VIS ADVANCE 5 PCS

advance MAXIMO RENDIMIENTO

Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.
3 - 22	5	6Z00GR30



Broca / *Drill Bit*	m (mm)	C (mm)	L (mm)
3	2,7	5	51
4	3,3	5	68
5	4,6	6	66
6	5,5	8	73
8	6,7	10	80



EXTRACTOR DE TORNILLOS STANDARD
STANDARD SCREW EXTRACTORS
EXTRACTEURS DE VIS STANDARD

Basic

Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.
3 - 18	5	6Z00GR15
3 - 24	6	6Z00GR16
3 - 45	8	6Z00GR18



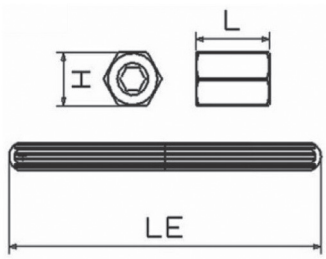
JUEGOS DE MACHOS ESTRIADOS 5 PIEZAS
FLUTES TAPS SET - 5 PCS
JEU DE TARAUDS CANÉLÉS 5 PCS

Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.
5 - 14	5	6Z00ST01

Contenido / *Contains* / *Contenu*

Extractor	Broca / *Drill Bit*	H (mm)	L (mm)	LE (mm)
H1	4,0	16	10	57
H2	5,0	16	11	68
H3	6,0	16	13	78
H4	7,5	16	14	84
H5	8,5	16	16	94





JUEGOS DE BROCAS Y GUIAS EXTERIORES E INTERIORES

FULL SET WITH 5 DRILLS AND EXTERNAL AND INTERNAL GUIDES

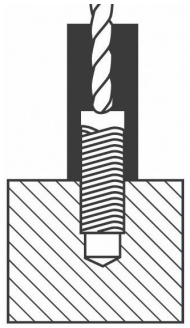
JEU COMPLET AVEC 5 FORETS ET 10 INTERNE ET EXTERNE GUIDES



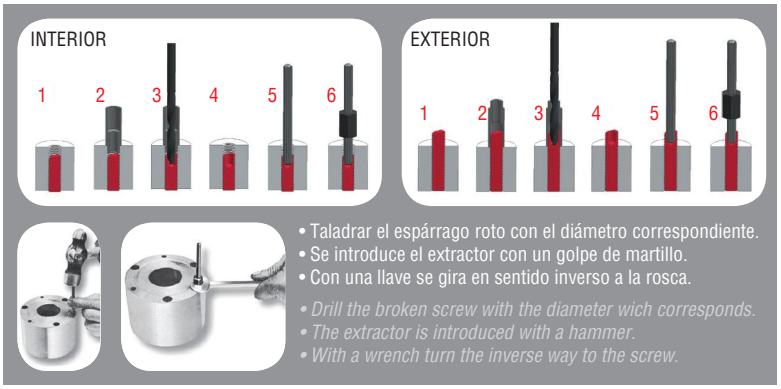
Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.
5 - 14	25	6Z00ST02

Contenido / *Contains* / *Contenu*

Guía / *Guide*	1	2	3	4	5	6	7	8	9	10
Ext.	M5	M6	M7	M8	M8	M9	M10	M11	M12	M14
Int.	-	M6	M8	3/8"	1/2"	M10	7/16"	M12	M14	M16
Broca / *Drill Bit*	4	4	4	4	5	5	5	6	7,5	8,5
Extractor	H1	H1	H1	H1	H2	H2	H2	H3	H4	H5

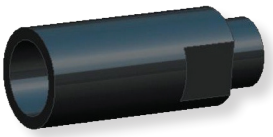


Instrucciones de uso / *Instructions* / *Mode d´emploi*



- Taladrar el espárrago roto con el diámetro correspondiente.
- Se introduce el extractor con un golpe de martillo.
- Con una llave se gira en sentido inverso a la rosca.

- *Drill the broken screw with the diameter wich corresponds.*
- *The extractor is introduced with a hammer.*
- *With a wrench turn the inverse way to the screw.*

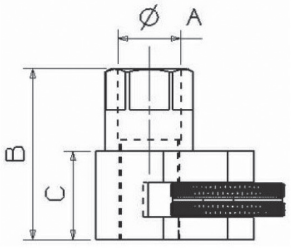


EXTRACTORES DE ESPÁRRAGOS SALIENTES

STUD EXTRACTORS • EXTRACTEURS DE GOUJONS



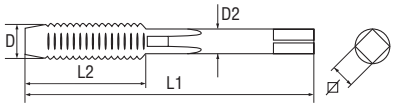
Para Tornillos / *Screws*	A (mm)	B (mm)	C (mm)	Cod.
4,5 - 9,5	12	46	25	6Z00GR31
8 - 19	21	60	31	6Z00GR32
15 - 25	30	68	38	6Z00GR33



M JUEGOS DE MACHOS MÉTRICA ISO-ROSCA DIN 13 CON COLGADOR
METRIC ISO-TRHEAD DIN 13 HAND TAPS - WITH HANGER
JEUX DE TARAUDS À MAIN, METRIQUE DIN-13 - AVEC CROCHET



ACERO 400-800 N/mm² | HSS-G | DIN 352 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0.50	40	11.0	3.5	2.7	2R27326BL
M 4 x 0.70	45	13.0	4.5	3.4	2R27330BL
M 5 x 0.80	50	16.0	6.0	4.9	2R27334BL
M 6 x 1.00	50	19.0	6.0	4.9	2R27338BL
M 8 x 1.25	56	22.0	6.0	4.9	2R27342BL
M 10 x 1.50	70	24.0	7.0	5.5	2R27346BL
M 12 x 1.75	75	29.0	9.0	7.0	2R27350BL

M MÉTRICA ISO-ROSCA DIN 13 CON COLGADOR
METRIC ISO-THREAD DIN 13 WITH HANGER
MÉTRIQUE DIN-13 AVEC CROCHET



ACERO 400-800 N/mm² | HSS-G | DIN 223 | TOL 6g

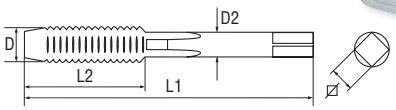
D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 3 x 0.50	20 x 5	4R27426BL
M 4 x 0.70	20 x 5	4R27430BL
M 5 x 0.80	20 x 7	4R27434BL
M 6 x 1.00	20 x 7	4R27438BL

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 8 x 1.25	25 x 9	4R27442BL
M 10 x 1.50	30 x 11	4R27446BL
M 12 x 1.75	38 x 14	4R27450BL

M MÉTRICA ISO-ROSCA DIN 13 - BLISTER
METRIC ISO-THREAD DIN 13 - BLISTER
MÉTRIQUE DIN-13 - BLISTER



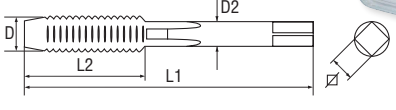
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0.50	56	11	3.5	2.7	3R37426BL
M 4 x 0.70	63	13	4.5	3.4	3R37430BL
M 5 x 0.80	70	16	6.0	4.9	3R37434BL
M 6 x 1.00	80	19	6.0	4.9	3R37438BL
M 8 x 1.25	90	22	8.0	6.2	3R37442BL
M 10 x 1.50	100	24	10.0	8.0	3R37446BL



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C | TOL 6H

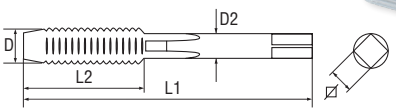


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1.75	110	29	9.0	7.0	3R38450BL

M MÉTRICA ISO-ROSCA DIN 13 - BLISTER
METRIC ISO-THREAD DIN 13 - BLISTER
MÉTRIQUE DIN-13 - BLISTER



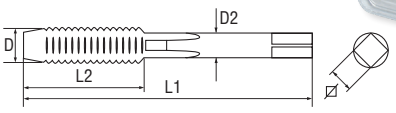
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0.50	56	11	3.5	2.7	3R37526BL
M 4 x 0.70	63	13	4.5	3.4	3R37530BL
M 5 x 0.80	70	16	6.0	4.9	3R37534BL
M 6 x 1.00	80	19	6.0	4.9	3R37538BL
M 8 x 1.25	90	22	8.0	6.2	3R37542BL
M 10 x 1.5	100	24	10.0	8.0	3R37546BL



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM B | TOL 6H

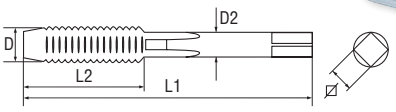


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x1.75	110	29	9.0	7.0	3R38550BL

M MÉTRICA ISO-ROSCA DIN 13 - BLISTER
METRIC ISO-THREAD DIN 13 - BLISTER
MÉTRIQUE DIN-13 - BLISTER



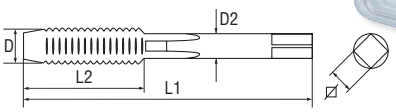
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0.5	56	6	3.5	2.7	3R37726BL
M 4 x 0.7	63	7	4.5	3.4	3R37730BL
M 5 x 0.8	70	8	6.0	4.9	3R37734BL
M 6 x 1.0	80	10	6.0	4.9	3R37738BL
M 8 x 1.25	90	14	8.0	6.2	3R37742BL
M 10 x 1.5	100	16	10.0	8.0	3R37746BL



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1.75	110	18	9.0	7.0	3R38750BL

M JUEGOS DE MACHOS MÉTRICA ISO- ROSCA DIN 13

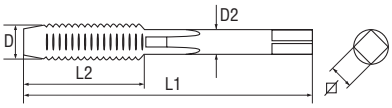
METRIC ISO-THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS À MAIN, METRIQUE DIN 13



ACERO 400-800 N/mm²

HSS-G | **DIN 352** | TOL **6H**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 1 x 0.25	32	5.5	2.5	2.1	2R27302
M 1.1 x 0.25	32	5.5	2.5	2.1	2R27304
M 1.2 x 0.25	32	5.5	2.5	2.1	2R27306
M 1.4 x 0.3	32	7.0	2.5	2.1	2R27308
M 1.6 x 0.35	32	8.0	2.5	2.1	2R27310
M 1.7 x 0.35	32	8.0	2.5	2.1	2R27312
M 1.8 x 0.35	32	8.0	2.5	2.1	2R27314
M 2 x 0.4	36	8.0	2.8	2.1	2R27316
M 2.2 x 0.45	36	9.0	2.8	2.1	2R27318
M 2.3 x 0.4	36	9.0	2.8	2.1	2R27320
M 2.5 x 0.45	40	9.0	2.8	2.1	2R27322
M 2.6 x 0.45	40	9.0	2.8	2.1	2R27324
M 3 x 0.5	40	11.0	3.5	2.7	2R27326
M 3.5 x 0.6	45	13.0	4.0	3.0	2R27328
M 4 x 0.7	45	13.0	4.5	3.4	2R27330
M 4.5 x 0.75	50	16.0	6.0	4.9	2R27332
M 5 x 0.8	50	16.0	6.0	4.9	2R27334
M 5.5 x 0.9	50	18.0	6.0	4.9	2R27336
M 6 x 1.0	50	19.0	6.0	4.9	2R27338
NEW **M 6 x 1.25**	50	19.0	6.0	4.9	2R27339
M 7 x 1.0	50	19.0	6.0	4.9	2R27340
M 8 x 1.25	56	22.0	6.0	4.9	2R27342
NEW **M 8 x 1,50**	56	22.0	6.0	4.9	2R27343
M 9 x 1.25	63	22.0	7.0	5.5	2R27344
M 10 x 1.5	70	24.0	7.0	5.5	2R27346
M 11 x 1.5	70	24.0	8.0	6.2	2R27348
M 12 x 1.75	75	29.0	9.0	7.0	2R27350
M 14 x 2.0	80	30.0	11.0	9.0	2R27354
M 15 x2.0	80	32.0	12.0	9.0	2R27356
M 16 x2.0	80	32.0	12.0	9.0	2R27358
M 18 x 2.5	95	40.0	14.0	11.0	2R27362
M 20 x 2.5	95	40.0	16.0	12.0	2R27366
M 22 x 2.5	100	40.0	18.0	14.5	2R27370
M 24 x 3.0	110	50.0	18.0	14.5	2R27374
M 27 x 3.0	110	50.0	20.0	16.0	2R27376
M 30 x 3.5	125	56.0	22.0	18.0	2R27378
M 33 x 3.5	125	56.0	25.0	20.0	2R27380
M 36 x 4.0	150	63.0	28.0	22.0	2R27382
M 39 x 4.0	150	63.0	32.0	24.0	2R27384
M 42 x 4.5	150	63.0	32.0	24.0	2R27386
M 45 x 4.5	160	70.0	36.0	29.0	2R27388
M 48 x 5.0	180	75.0	36.0	36.0	2R27390
M 52 x 5.0	180	75.0	40.0	32.0	2R27392
M 56 x 5.5	200	85.0	45.0	35.0	2R27394
M 60 x 5.5	200	85.0	45.0	35.0	2R27396
M 64 x 6.0	220	90.0	50.0	39.0	2R27398
M 68 x 6.0	220	90.0	50.0	39.0	2R27399

JUEGOS DE MACHOS MÉTRICA ISO- ROSCA DIN 13 CON ENTRADA CÓNICA

METRIC ISO-THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS À MAIN, METRIQUE DIN 13

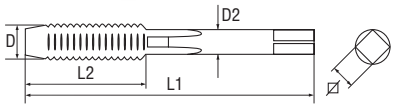


ACERO 400-800 N/mm²

HSS-G

DIN 352

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 2,00 x 0,40	36	8	2,8	2,1	2R27616
M 2,50 x 0,45	40	9	2,8	2,1	2R27622
M 3,00 x 0,50	40	11	3,5	2,7	2R27626
M 4,00 x 0,70	45	13	4,5	3,4	2R27630
M 5,00 x 0,80	50	16	6,0	4,9	2R27634
M 6,00 X 100	50	19	6,0	4,9	2R27638
M 8,00 x 1,25	56	22	6,0	4,9	2R27642
M 9,00 x 1,25	63	22	7,0	5,5	2R27644
M 10,00 x 1,50	70	24	7,0	5,5	2R27646
M 11,00 x 1,50	70	24	8,0	6,2	2R27648
M 12,00 x 1,75	75	29	9,0	7,0	2R27650
M 13,00 x 1,75	75	29	9,0	7,0	2R27652
M 14,00 x 2,00	80	30	11,0	9,0	2R27654
M 16,00 x 2,00	80	32	12,0	9,0	2R27658
M 18,00 x 2,50	95	40	14,0	11,0	2R27662
M 19,00 x 2,50	95	40	14,0	11,0	2R27664
M 20,00 x 2,50	95	40	16,0	12,0	2R27666
M 22,00 x 2,50	100	40	18,0	14,5	2R27670
M 24,00 x 3,00	110	50	18,0	14,5	2R27674
M 27,00 x 3,00	110	50	20,0	16,0	2R27676
M 30,00 x 3,50	125	56	22,0	18,0	2R27678
M 33,00 x 3,50	125	56	25,0	20,0	2R27680
M 36,00 x 4,00	150	63	28,0	22,0	2R27682
M 39,00 x 4,00	150	63	32,0	24,0	2R27684
M 42,00 x 4,50	150	63	32,0	24,0	2R27686
M 3,00 x 0,60	40	11	3,5	2,7	2R27627*
M 4,00 x 0,75	45	13	4,5	3,4	2R27631*

*Hasta fin de existencias / **Until end of stock* / **Jusqu´à épuisement des stocks*

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13

METRIC FINE THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS MÉTRIQUE FINE DIN 13

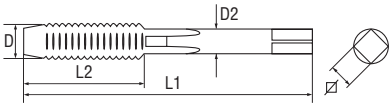


ACERO 400-800 N/mm²

HSS-G

DIN 2181

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⍁ (mm)	Cod.
M 2,50 x 0,35	40	9	2,8	2,1	2R26304
M 2,60 x 0,35	40	9	2,8	2,1	2R26305
M 3,00 x 0,35	40	9	3,5	2,7	2R26308
M 3,50 x 0,35	45	10	4,0	3,0	2R26309
M 4,00 x 0,35	45	10	4,5	3,4	2R26310
M 4,00 x 0,50	45	10	4,5	3,4	2R26312
M 4,50 x 0,50	50	12	6,0	4,9	2R26313
M 5,00 x 0,50	50	12	6,0	4,9	2R26314
M 5,00 x 0,75	50	12	6,0	4,9	2R26316
M 5,50 x 0,50	50	12	6,0	4,9	2R26315
M 6,00 x 0,50	50	14	6,0	4,9	2R26317
M 6,00 x 0,75	50	14	6,0	4,9	2R26318
M 7,00 x 0,50	50	14	6,0	4,9	2R26319
M 7,00 x 0,75	50	14	6,0	4,9	2R26320
M 8,00 x 0,50	50	19	6,0	4,9	2R26322
M 8,00 x 0,75	50	19	6,0	4,9	2R26324
M 8,00 x 1,00	56	22	6,0	4,9	2R26326
M 9,00 x 0,50	56	19	7,0	5,5	2R26327
M 9,00 x 0,75	56	19	7,0	5,5	2R26328
M 9,00 x 1,00	63	20	7,0	5,5	2R26330
M 10,00 x 0,50	63	20	7,0	5,5	2R26331
M 10,00 x 0,75	63	20	7,0	5,5	2R26332
M 10,00 x 1,00	63	20	7,0	5,5	2R26336
M 10,00 x 1,25	70	24	7,0	5,5	2R26338
M 11,00 x 0,75	63	20	8,0	6,2	2R26339
M 11,00 x 1,00	63	20	8,0	6,2	2R26340
M 11,00 x 1,25	63	22	8,0	6,2	2R26342
M 12,00 x 0,50	70	22	9,0	7,0	2R26345
M 12,00 x 0,75	70	22	9,0	7,0	2R26343
M 12,00 x 1,00	70	22	9,0	7,0	2R26344
M 12,00 x 1,25	70	22	9,0	7,0	2R26346
M 12,00 x 1,50	70	22	9,0	7,0	2R26348
M 13,00 x 0,50	70	22	11,0	9,0	2R26347
M 13,00 x 0,75	70	22	11,0	9,0	2R26349
M 13,00 x 1,00	70	22	11,0	9,0	2R26350
M 13,00 x 1,50	70	22	11,0	9,0	2R26351
M 14,00 x 0,50	70	22	11,0	9,0	2R26355
M 14,00 x 0,75	70	22	11,0	9,0	2R26352
M 14,00 x1,00	70	22	11,0	9,0	2R26353
M 14,00 x 1,25	70	22	11,0	9,0	2R26354
M 14,00 x 1,50	70	22	11,0	9,0	2R26356
M 15,00 x 0,75	70	22	12,0	9,0	2R26357
M 15,00 x 1,00	70	22	12,0	9,0	2R26358
M 15,00 x 1,50	70	22	12,0	9,0	2R26360
M 16,00 x 0,50	70	22	12,0	9,0	2R26361

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13

METRIC FINE THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS MÉTRIQUE FINE DIN 13

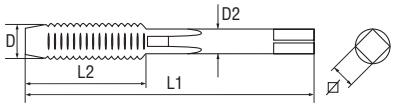


ACERO 400-800 N/mm²

HSS-G

DIN 2181

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 16,00 x 0,75	70	22	12,0	9,0	2R26363
M 16,00 x 1,00	70	22	12,0	9,0	2R26362
M 16,00 x 1,25	70	22	12,0	9,0	2R26364
M 16,00 x 1,50	70	22	12,0	9,0	2R26366
M 17,00 x 1,00	70	22	12,0	9,0	2R26368
M 17,00 x 1,50	70	22	12,0	9,0	2R26369
M 18,00 x 0,50	80	22	14,0	11,0	2R26367
M 18,00 x 0,75	80	22	14,0	11,0	2R26373
M 18,00 x 1,00	80	22	14,0	11,0	2R26370
M 18,00 x 1,25	80	22	14,0	11,0	2R26371
M 18,00 x 1,50	80	22	14,0	11,0	2R26372
M 18,00 x 2,00	80	22	14,0	11,0	2R26374
M 19,00 x 1,00	80	22	16,0	12,0	2R26375
M 19,00 x 1,50	80	22	14,0	11,0	2R26376
M 20,00 x 0,50	80	22	16,0	12,0	2R26377
M 20,00 x 0,75	80	22	16,0	12,0	2R26379
M 20,00 x 1,00	80	22	16,0	12,0	2R26378
M 20,00 x 1,25	80	22	16,0	12,0	2R26380
M 20,00 x 1,50	80	22	16,0	12,0	2R26384
M 20,00 x 2,00	80	22	16,0	12,0	2R26386
M 21,00 x 1,00	80	22	16,0	12,0	2R26387
M 21,00 x 1,50	80	22	16,0	12,0	2R26388
M 22,00 x 0,50	80	22	18,0	14,5	2R26389
M 22,00 x 0,75	80	22	18,0	14,5	2R26391
M 22,00 x 1,00	80	22	18,0	14,5	2R26390
M 22,00 x 1,25	80	22	18,0	14,5	2R26392
M 22,00 x 1,50	80	22	18,0	14,5	2R26394
M 22,00 x 2,00	80	22	18,0	14,5	2R26396
M 23,00 x 1,00	80	22	18,0	14,5	2R26397
M 23,00 x 1,50	80	22	18,0	14,5	2R26398
M 24,00 x 0,50	90	22	18,0	14,5	2R26501
M 24,00 x 0,75	90	22	18,0	14,5	2R26503
M 24,00 x 1,00	90	22	18,0	14,5	2R26500
M 24,00 x 1,25	90	22	18,0	14,5	2R26502
M 24,00 x 1,50	90	22	18,0	14,5	2R26504
M 24,00 x 2,00	90	22	18,0	14,5	2R26506
M 25,00 x 1,00	90	22	18,0	14,5	2R26507
M 25,00 x 1,50	90	22	18,0	14,5	2R26508
M 26,00 x 1,00	90	22	18,0	14,5	2R26510
M 26,00 x 1,50	90	22	18,0	14,5	2R26512
M 26,00 x 2,00	90	22	18,0	14,5	2R26514
M 27,00 x 1,00	90	22	20,0	16,0	2R26516
M 27,00 x 1,50	90	22	20,0	16,0	2R26517
M 27,00 x 2,00	90	22	20,0	16,0	2R26518
M 28,00 x 1,00	90	22	20,0	16,0	2R26520

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13

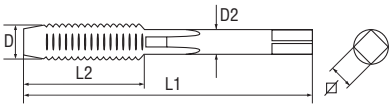
METRIC FINE THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



ACERO 400-800 N/mm²

HSS-G | **DIN 2181** | TOL **6H**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 28,00 x 1,50	90	22	20,0	16,0	2R26522
M 28,00 x 2,00	90	22	20,0	16,0	2R26524
M 29,00 x 1,50	90	22	22,0	18,0	2R26526
M 30,00 x 1,00	90	22	22,0	18,0	2R26528
M 30,00 x 1,50	90	22	22,0	18,0	2R26530
M 30,00 x 2,00	90	22	22,0	18,0	2R26532
M 30,00 x 2,50	125	56	22,0	18,0	2R26533
M 30,00 x 3,00	125	56	22,0	18,0	2R26534
M 32,00 x 1,00	90	22	22,0	18,0	2R26539
M 32,00 x 1,50	90	22	22,0	18,0	2R26536
M 32,00 x 2,00	90	22	22,0	18,0	2R26535
M 32,00 x 3,00	125	56	22,0	18,0	2R26537
M 33,00 x 1,50	100	25	25,0	20,0	2R26538
M 33,00 x 2,00	100	25	25,0	20,0	2R26540
M 33,00 x 3,00	125	56	25,0	20,0	2R26542
M 34,00 x 1,00	100	25	28,0	22,0	2R26543
M 34,00 x 1,50	100	25	28,0	22,0	2R26544
M 34,00 x 2,00	125	40	28,0	22,0	2R26546
M 35,00 x 1,00	100	25	28,0	22,0	2R26547
M 35,00 x 1,50	100	25	28,0	22,0	2R26548
M 35,00 x 2,00	125	40	28,0	22,0	2R26549
M 36,00 x 1,00	100	25	28,0	22,0	2R26551
M 36,00 x 1,50	100	25	28,0	22,0	2R26550
M 36,00 x 2,00	125	40	28,0	22,0	2R26552
M 36,00 x 3,00	125	40	28,0	22,0	2R26554
M 37,00 x 1,50	100	25	28,0	22,0	2R26553
M 38,00 x 1,00	100	25	28,0	22,0	2R26555
M 38,00 x 1,50	100	25	28,0	22,0	2R26556
M 38,00 x 2,00	125	40	28,0	22,0	2R26557
M 38,00 x 3,00	125	40	28,0	22,0	2R26559
M 39,00 x 1,50	110	25	32,0	24,0	2R26558
M 39,00 x 2,00	125	40	32,0	24,0	2R26560
M 39,00 x 3,00	125	40	32,0	24,0	2R26562
M 40,00 x 1,00	110	25	32,0	24,0	2R26563
M 40,00 x 1,50	110	25	32,0	24,0	2R26564
M 40,00 x 2,00	125	40	32,0	24,0	2R26566
M 40,00 x 3,00	125	40	32,0	24,0	2R26568
M 42,00 x 1,00	110	25	32,0	24,0	2R26569
M 42,00 x 1,50	110	25	32,0	24,0	2R26570
M 42,00 x 2,00	125	40	32,0	24,0	2R26572
M 42,00 x 3,00	125	40	32,0	24,0	2R26574
M 44,00 x 1,50	110	25	36,0	29,0	2R26571
M 44,00 x 2,00	125	40	36,0	29,0	2R26573
M 45,00 x 1,00	110	25	36,0	29,0	2R26575
M 45,00 x 1,50	110	25	36,0	29,0	2R26576

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13

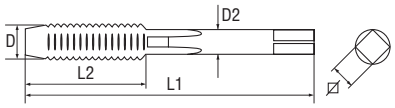
METRIC FINE THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



ACERO 400-800 N/mm²

HSS-G | **DIN 2181** | TOL **6H**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 45,00 x 2,00	125	40	36,0	29,0	2R26578
M 45,00 x 3,00	125	40	36,0	29,0	2R26580
M 46,00 x 1,50	140	40	36,0	29,0	2R26581
M 48,00 x 1,00	140	40	36,0	29,0	2R26583
M 48,00 x 1,50	140	40	36,0	29,0	2R26582
M 48,00 x 2,00	140	40	36,0	29,0	2R26584
M 48,00 x 3,00	140	40	36,0	29,0	2R26586
M 50,00 x 1,50	140	40	36,0	29,0	2R26588
M 50,00 x 2,00	140	40	36,0	29,0	2R26590
M 50,00 x 3,00	140	40	36,0	29,0	2R26592
M 52,00 x 1,50	140	40	40,0	32,0	2R26594
M 52,00 x 2,00	140	40	40,0	32,0	2R26596
M 52,00 x 3,00	140	40	40,0	32,0	2R26598
M 54,00 x 1,00	140	32	40,0	32,0	2R28118
M 54,00 x 1,50	140	32	40,0	32,0	2R28001
M 54,00 x 2,00	140	36	40,0	32,0	2R28002
M 54,00 x 3,00	140	40	40,0	32,0	2R28003
M 54,00 x 4,00	180	50	40,0	32,0	2R28004
M 55,00 x 1,50	140	32	40,0	32,0	2R28005
M 55,00 x 2,00	140	36	40,0	32,0	2R28006
M 55,00 x 3,00	140	40	40,0	32,0	2R28007
M 55,00 x 4,00	180	50	40,0	32,0	2R28008
M 56,00 x 1,00	140	32	40,0	32,0	2R28119
M 56,00 x 1,50	140	32	40,0	32,0	2R28009
M 56,00 x 2,00	140	36	40,0	32,0	2R28010
M 56,00 x 3,00	140	40	40,0	32,0	2R28011
M 56,00 x 4,00	180	50	40,0	32,0	2R28012
M 58,00 x 1,00	160	32	45,0	35,0	2R28120
M 58,00 x 1,50	160	32	45,0	35,0	2R28013
M 58,00 x 2,00	160	36	45,0	35,0	2R28014
M 58,00 x 3,00	160	40	45,0	35,0	2R28015
M 58,00 x 4,00	200	55	45,0	35,0	2R28016
M 60,00 x 1,50	160	34	45,0	35,0	2R28017
M 60,00 x 2,00	160	36	45,0	35,0	2R28018
M 60,00 x 3,00	160	40	45,0	35,0	2R28019
M 60,00 x 4,00	200	55	45,0	35,0	2R28020
M 62,00 x 1,50	160	34	50,0	39,0	2R28021
M 62,00 x 2,00	160	36	50,0	39,0	2R28022
M 62,00 x 3,00	180	45	50,0	39,0	2R28023
M 62,00 x 4,00	220	55	50,0	39,0	2R28024
M 63,00 x 1,50	160	32	50,0	39,0	2R28025
M 64,00 x 1,50	160	34	50,0	39,0	2R28026
M 64,00 x 2,00	160	36	50,0	39,0	2R28027
M 64,00 x 3,00	180	45	50,0	39,0	2R28028
M 64,00 x 4,00	220	60	50,0	39,0	2R28029

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13

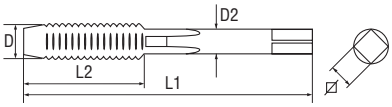
METRIC FINE THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



ACERO 400-800 N/mm²

HSS-G | **DIN 2181** | TOL **6H**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 65,00 x 1,50	160	34	50,0	39,0	2R28030
M 65,00 x 2,00	160	36	50,0	39,0	2R28031
M 65,00 x 3,00	180	45	50,0	39,0	2R28032
M 65,00 x 4,00	220	60	50,0	39,0	2R28033
M 68,00 x 1,50	160	36	50,0	39,0	2R28034
M 68,00 x 2,00	160	40	50,0	39,0	2R28035
M 68,00 x 3,00	180	50	50,0	39,0	2R28036
M 68,00 x 4,00	220	60	50,0	39,0	2R28037
M 70,00 x 1,50	160	36	50,0	39,0	2R28038
M 70,00 x 2,00	160	40	50,0	39,0	2R28039
M 70,00 x 3,00	200	50	50,0	39,0	2R28040
M 70,00 X 4,00	240	60	50,0	39,0	2R28041
M 72,00 x 1,50	160	36	50,0	39,0	2R28042
M 72,00 X 2,00	160	40	50,0	39,0	2R28043
M 72,00 x 3,00	200	50	50,0	39,0	2R28044
M 72,00 x 4,00	240	60	50,0	39,0	2R28045
M 74,00 x 1,50	160	36	50,0	39,0	2R28046
M 74,00 x 2,00	160	40	50,0	39,0	2R28047
M 74,00 x 3,00	200	50	50,0	39,0	2R28048
M 74,00 X 4,00	240	60	50,0	39,0	2R28049
M 75,00 x 1,50	160	36	50,0	39,0	2R28050
M 75,00 x 2,00	160	40	50,0	39,0	2R28051
M 75,00 x 3,00	200	50	50,0	39,0	2R28052
M 75,00 x 4,00	240	60	50,0	39,0	2R28053
M 76,00 x1,50	160	36	50,0	39,0	2R28054
M 76,00 x 2,00	160	40	50,0	39,0	2R28055
M 76,00 x 3,00	220	50	50,0	39,0	2R28056
M 76,00 x 4,00	260	60	50,0	39,0	2R28057
M 78,00 x 1,50	160	36	50,0	39,0	2R28058
M 78,00 x 2,00	160	40	50,0	39,0	2R28059
M 78,00 x 3,00	220	55	50,0	39,0	2R28060
M 78,00 x 4,00	260	65	50,0	39,0	2R28061
M 80,00 x 1,50	160	36	50,0	39,0	2R28062
M 80,00 x 2,00	160	40	50,0	39,0	2R28063
M 80,00 x 3,00	220	55	50,0	39,0	2R28064
M 80,00 x 4,00	260	65	50,0	39,0	2R28065
M 82,00 x 1,50	160	36	50,0	39,0	2R28066
M 82,00 x 2,00	160	40	50,0	39,0	2R28067
M 82,00 x 3,00	220	55	50,0	39,0	2R28068
M 82,00 x 4,00	260	65	50,0	39,0	2R28069
M 84,00 x 1,50	160	36	50,0	39,0	2R28070
M 84,00 x 2,00	160	40	50,0	39,0	2R28071
M 84,00 x 3,00	220	55	50,0	39,0	2R28072
M 84,00 x 4,00	260	65	50,0	39,0	2R28073
M 85,00 x 1,50	160	36	50,0	39,0	2R28074

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13

METRIC FINE THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS MÉTRIQUE FINE DIN 13

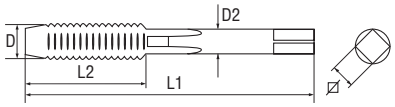


ACERO 400-800 N/mm²

HSS-G

DIN 2181

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 85,00 x 2,00	160	40	50,0	39,0	2R28075
M 85,00 x 3,00	220	55	50,0	39,0	2R28076
M 85,00 x 4,00	260	65	50,0	39,0	2R28077
M 86,00 x 1,50	160	36	50,0	39,0	2R28078
M 86,00 x 2,00	160	40	50,0	39,0	2R28079
M 86,00 x 3,00	220	55	50,0	39,0	2R28080
M 86,00 x 4,00	260	65	50,0	39,0	2R28081
M 88,00 x 1,50	160	38	50,0	39,0	2R28082
M 88,00 x 2,00	160	40	50,0	39,0	2R28083
M 88,00 x 3,00	220	55	50,0	39,0	2R28084
M 88,00 x 4,00	260	65	50,0	39,0	2R28085
M 90,00 x 1,50	160	38	50,0	39,0	2R28086
M 90,00 x 2,00	160	40	50,0	39,0	2R28087
M 90,00 x 3,00	220	55	50,0	39,0	2R28088
M 90,00 x 4,00	260	65	50,0	39,0	2R28089
M 92,00 x 1,50	180	40	56,0	44,0	2R28090
M 92,00 x 2,00	180	45	56,0	44,0	2R28091
M 92,00 x 3,00	240	60	56,0	44,0	2R28092
M 92,00 x 4,00	280	70	56,0	44,0	2R28093
M 95,00 x 1,50	180	40	56,0	44,0	2R28094
M 95,00 x 2,00	180	45	56,0	44,0	2R28095
M 95,00 x 3,00	240	60	56,0	44,0	2R28096
M 95,00 x 4,00	280	70	56,0	44,0	2R28097
M 96,00 x 1,50	180	40	56,0	44,0	2R28098
M 96,00 x 2,00	180	45	56,0	44,0	2R28099
M 96,00 x 3,00	240	60	56,0	44,0	2R28100
M 96,00 x 4,00	280	70	56,0	44,0	2R28101
M 98,00 x 1,50	180	40	56,0	44,0	2R28102
M 98,00 x 2,00	180	45	56,0	44,0	2R28103
M 98,00 x 3,00	240	60	56,0	44,0	2R28104
M 98,00 x 4,00	280	70	56,0	44,0	2R28105
M 100,00 x 1,50	180	45	56,0	44,0	2R28106
M 100,00 x 2,00	180	50	56,0	44,0	2R28107
M 100,00 x 3,00	240	65	56,0	44,0	2R28108
M 100,00 x 4,00	280	75	56,0	44,0	2R28109
M 105,00 x 1,50	180	45	56,0	44,0	2R28110
M 105,00 x 2,00	180	50	56,0	44,0	2R28111
M 105,00 x 3,00	240	65	56,0	44,0	2R28112
M 105,00 x 4,00	280	75	56,0	44,0	2R28113
M 110,00 x 1,50	180	45	56,0	44,0	2R28114
M 110,00 x 2,00	180	50	56,0	44,0	2R28115
M 110,00 x 3,00	240	65	56,0	44,0	2R28116
M 110,00 x 4,00	280	75	56,0	44,0	2R28117

BSW JUEGOS DE MACHOS WHITWORTH BS 84

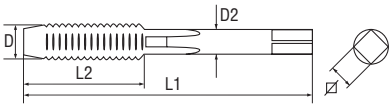
METRIC HAND TAPS WHITWORTH BS 84

JEUX DE TARAUDS À MAIN WHITWORTH



ACERO 400-800 N/mm²

HSS-G | **DIN 351** | **≈DIN 352**



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/16 x 60	36	10	2,5	2,1	2R22302
3/32 x 48	36	10	2,8	2,1	2R22304
1/8 x 40	40	12	3,5	2,7	2R22306
5/32 x 32	45	14	4,5	3,4	2R22308
3/16 x 24	50	18	6,0	4,9	2R22310
7/32 x 24	50	18	6,0	4,9	2R22312
1/4 x 20	50	19	6,0	4,9	2R22314
5/16 x 18	56	22	6,0	4,9	2R22316
3/8 x 16	70	24	7,0	5,5	2R22318
7/16 x 14	70	24	8,0	6,2	2R22320
1/2 x 12	75	29	9,0	7,0	2R22322
9/16 x 12	80	30	11,0	9,0	2R22324
5/8 x 11	80	32	12,0	9,0	2R22326
3/4 x 10	95	40	14,0	11,0	2R22330
7/8 x 9	100	40	18,0	14,5	2R22334
1 x 8	110	50	18,0	14,5	2R22338
1.1/8 x 7	132	56	22,0	18,0	2R22342
1.1/4 x 7	132	56	22,0	18,0	2R22346
1.3/8 x 6	150	63	28,0	22,0	2R22350
1.1/2 x 6	150	63	32,0	24,0	2R22354
1.5/8 x 5	160	70	32,0	24,0	2R22358
1.3/4 x 5	160	70	36,0	29,0	2R22362
1.7/8 x 4.1/2	190	80	36,0	29,0	2R22366
2 x 4.1/2	190	80	40,0	32,0	2R22370
2.1/4 x 4	220	80	45,0	35,0	2R22372
2.1/2 x 4	220	80	50,0	39,0	2R22374
2.3/4 x 3.1/2	240	80	50,0	39,0	2R22376
3 x 3.1/2	260	80	50,0	39,0	2R22378

BSF JUEGOS DE MACHOS ROSCA BRITÁNICA STANDARD FINA BS 84

BRITISH STANDARD FINE THREAD BS 84

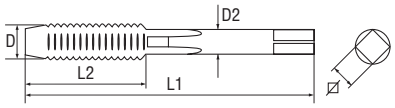
JEUX DE TARAUDS À MAIN FILETAGE WHITWORTH BS 84



ACERO 400-800 N/mm²

HSS-G

≈DIN 2181



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
3/16 x 32	50	14	6,0	4,9	2R22710
1/4 x 26	50	18	6,0	4,9	2R22714
5/16 x 22	56	22	6,0	4,9	2R22716
3/8 x 20	63	22	7,0	5,5	2R22718
7/16 x 18	63	22	8,0	6,2	2R22720
1/2 x 16	75	24	9,0	7,0	2R22722
9/16 x 16	80	28	11,0	9,0	2R22724
5/8 x 14	80	28	12,0	9,0	2R22726
3/4 x 12	95	32	14,0	11,0	2R22730
7/8 x 11	100	36	18,0	14,5	2R22734
1 x 10	110	40	18,0	14,5	2R22738

BA JUEGOS DE MACHOS ENTRADA CÓNICA BA, BS 93

BA THREAD BS 93

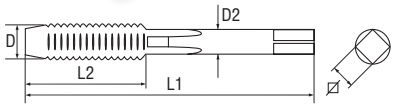
JEUX DE TARAUDS À MAIN FILETAGE BA, BS 93



ACERO 400-800 N/mm²

HSS-G

BA ISO 529



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
BA 0 x 1,00	66	19,0	6,30	5,00	2R89400
BA 1 x 0,90	62	17,0	5,60	4,50	2R89401
BA 2 x 0,81	58	16,0	5,00	4,00	2R89402
BA 3 x 0,73	53	13,0	4,50	3,55	2R89403
BA 4 x 0,66	50	13,0	3,55	2,80	2R89404
BA 5 x 0,59	48	11,0	3,15	2,50	2R89405
BA 6 x 0,53	45	9,5	2,80	2,24	2R89406

UNC

JUEGOS DE MACHOS ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1

JEUX DE TARAUDS À MAIN FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

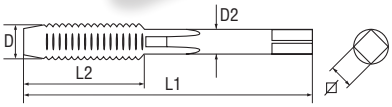


ACERO 400-800 N/mm²

HSS-G

≈DIN 352

TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
Nr. 1 x 64	32	10	2,5	2,1	2R23301
Nr. 2 x 56	36	11	2,8	2,1	2R23302
Nr. 3 x 48	36	11	2,8	2,1	2R23303
Nr. 4 x 40	40	12	3,5	2,7	2R23304
Nr. 5 x 40	40	12	3,5	2,7	2R23305
Nr. 6 x 32	45	14	4,0	3,0	2R23306
Nr. 8 x 32	45	14	4,5	3,4	2R23308
Nr. 10 x 24	50	16	6,0	4,9	2R23310
Nr. 12 x 24	50	18	6,0	4,9	2R23312
1/4 x 20	50	19	6,0	4,9	2R23314
5/16 x 18	56	22	6,0	4,9	2R23316
3/8 x 16	70	24	7,0	5,5	2R23318
7/16 x 14	70	24	8,0	6,2	2R23320
1/2 x 13	75	29	9,0	7,0	2R23322
9/16 x 12	80	30	11,0	9,0	2R23324
5/8 x 11	80	32	12,0	9,0	2R23326
3/4 x 10	95	40	14,0	11,0	2R23330
7/8 x 9	100	40	18,0	14,5	2R23334
1 x 8	110	50	18,0	14,5	2R23338
1.1/8 x 7	132	56	22,0	18,0	2R23342
1.1/4 x 7	132	56	22,0	18,0	2R23346
1.3/8 x 6	150	63	28,0	22,0	2R23350
1.1/2 x 6	150	63	32,0	24,0	2R23354
1.5/8 x 5	160	70	32,0	24,0	2R23358
1.3/4 x 5	160	70	36,0	29,0	2R23362
1.7/8 x 4.1/2	190	80	36,0	29,0	2R23366
2 x 4.1/2	190	80	40,0	32,0	2R23370

UNF JUEGOS DE MACHOS ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1
JEUX DE TARAUDS À MAIN FILETAGE UNIFIÉ
PAS FIN ANSI B 1.1

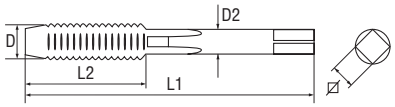


ACERO 400-800 N/mm²

HSS-G

≈DIN 2181

TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
Nr. 0 x 80	28	8	2,5	2,1	2R24300
Nr. 1 x 72	32	9	2,8	2,1	2R24301
Nr. 2 x 64	32	10	2,8	2,1	2R24302
Nr. 3 x 56	32	10	2,8	2,1	2R24303
Nr. 4 x 48	36	11	3,5	2,7	2R24304
Nr. 5 x 44	36	11	3,5	2,7	2R24305
Nr. 6 x 40	40	12	4,5	3,4	2R24306
Nr. 8 x 36	40	12	4,5	3,4	2R24308
Nr. 10 x 32	45	14	6,0	4,9	2R24310
Nr. 12 x 28	50	14	6,0	4,9	2R24312
1/4 x 28	50	18	6,0	4,9	2R24314
5/16 x 24	56	22	6,0	4,9	2R24316
3/8 x 24	63	22	7,0	5,5	2R24318
7/16 x 20	63	22	8,0	6,2	2R24320
1/2 x 20	75	24	9,0	7,0	2R24322
9/16 x 18	80	28	11,0	9,0	2R24324
5/8 x 18	80	28	12,0	9,0	2R24326
3/4 x 16	95	32	14,0	11,0	2R24330
7/8 x 14	100	36	18,0	14,5	2R24334
1 x 12	110	40	18,0	14,5	2R24338
1 x 14	110	40	18,0	14,5	2R24340
1.1/8 x 12	110	50	22,0	18,0	2R24342
1.1/4 x 12	132	56	22,0	18,0	2R24346
1.3/8 x 12	132	56	28,0	22,0	2R24350
1.1/2 x 12	150	63	32,0	24,0	2R24354

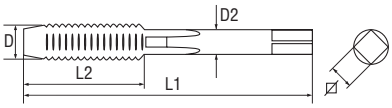
G(BSP) JUEGOS DE MACHOS ROSCA GAS DIN ISO 228

PIPE THREAD DIN ISO 228
JEUX DE TARAUDS À MAIN FILETAGE
PAS GAZ DIN ISO 228



ACERO 400-800 N/mm²

HSS-G **DIN 5157**



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
G 1/8 x 28	63	20	7,0	5,5	2R25312
G 1/4 x 19	70	22	11,0	9,0	2R25314
G 3/8 x 19	70	22	12,0	9,0	2R25316
G 1/2 x 14	80	22	16,0	12,0	2R25318
G 5/8 x 14	80	22	18,0	14,5	2R25320
G 3/4 x 14	90	22	20,0	16,0	2R25322
G 7/8 x 14	90	22	22,0	18,0	2R25324
G 1 x 11	100	25	25,0	20,0	2R25326
G 1.1/8 x 11	125	40	28,0	22,0	2R25330
G 1.1/4 x 11	125	40	32,0	24,0	2R25334
G 1.3/8 x 11	140	40	36,0	29,0	2R25338
G 1.1/2 x 11	140	40	36,0	29,0	2R25342
G 1.5/8 x 11	140	40	40,0	32,0	2R25346
G 1.3/4 x 11	140	40	40,0	32,0	2R25350
G 2 x 11	160	40	45,0	35,0	2R25354
G 2.1/4 x 11	160	40	50,0	39,0	2R25358
G 2.1/2 x 11	160	40	50,0	39,0	2R25362
G 2.3/4 x 11	160	40	50,0	39,0	2R25366
G 3 x 11	160	40	50,0	39,0	2R25370
G 3.1/2 x 11	180	45	56,0	44,0	2R25374
G 4 x 11	180	45	56,0	44,0	2R25378

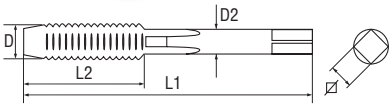
VG PARA ROSCAS DE VALVULAS DE NEUMÁTICO DIN 7756

FOR TIRE VALVES THREADS DIN 7756
POUR LES VALVES DES PNEUMATIQUES DIN 7756



ACERO 400-800 N/mm²

HSS-G **DIN 2181** TOL **6H**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
VG 5 X 36	50	12	6	4,9	2R21501
VG 5,2 X 24	56	17	6	4,9	2R21502
VG 6 X 32	56	14	6	4,9	2R21503
VG 8 X 32	56	16	7	5,5	2R21504
VG 10 X 28	63	18	8	6,2	2R21505
VG 12X26	64	22	9	7,0	2R21506

PG ROSCA PARA TUBOS BLINDADOS DIN 40 430

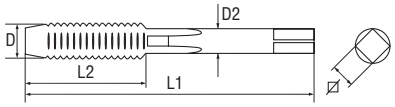
ARMOURED TUBE THREAD DIN 40 430

JEUX DE TARAUDS À MAIN FILETAGE ÉLECTRIQUE DIN 40 430



ACERO 400-800 N/mm²

HSS-G **DIN 40432**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
PG 7 - 12,50 x 20	70	22	9,0	7,0	2R25707-3
PG 9 - 15,20 x 18	70	22	12,0	9,0	2R25709-3
PG 11 - 18,60 x 18	80	22	14,0	11,0	2R25711-3
PG 13,5 - 20,40 x 18	80	22	16,0	12,0	2R25713-3
PG 16 - 22,50 x 18	80	22	18,0	14,5	2R25716-3
PG 21 - 28,30 x 16	90	22	22,0	18,0	2R25721-3
PG 29 - 37,00 x 16	100	25	28,0	22,0	2R25729-3
PG 36 - 47,00 x 16	140	40	36,0	29,0	2R25736-3
PG 48 - 59,30 x 16	160	40	45,0	35,0	2R25748-3

Equivalencia de roscas PG a roscas Mf *Equivalents of threads PG to threads Mf / Équivalence du pas PG à pas Mf*	
PG 7	M 12 x 150
PG 9	M 16 x 150
PG 11	M 20 x 150
PG 13,5	M 20 x 150
PG 16	M 25 x 150
PG 21	M 32 x 150
PG 29	M 40 x 150
PG 36	M 50 x 150
PG 48	M 63 x 150

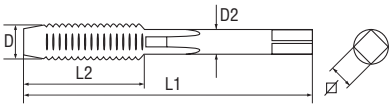
UNEF

JUEGOS DE MACHOS ROSCA EXTRAFINA UNIFICADA ANSI B 1.1, ENTRADA CÓNICA

UNIFIED EXTRA FINE THREAD
ANSI B 1.1, NON SERIAL FORM
JEUX DE TARAUDS À MAIN FILETAGE
UNIFIÉ PAS FIN ANSI B 1.1



ACERO 400-800 N/mm² | HSS-G | ISO 529 | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/4 x 32	66	19	6.3	5.0	2R83821
5/16 x 32	72	22	8.0	6.3	2R83822
3/8 x 32	80	24	10.0	8.0	2R83823
7/16 x 28	85	25	8.0	6.3	2R83824
1/2 x 28	89	29	9.0	7.1	2R83825
9/16 x 24	95	30	11.2	9.0	2R83826
5/8 x 24	102	32	12.5	10.0	2R83827
3/4 x 20	112	37	14.0	11.2	2R83829
7/8 x 20	118	38	16.0	12.5	2R83831
1"x20	130	45	16.0	14.0	2R83833

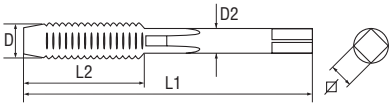
Tr

JUEGOS DE MACHOS ROSCA TRAPEZOIDAL DIN 103

TRAPEZOIDAL THREAD DIN 103
JEUX DE TARAUDS À MAIN FILETAGE TRAPÉZOÏDAL DIN 103



ACERO 400-800 N/mm² | HSS-G | TOL 7H

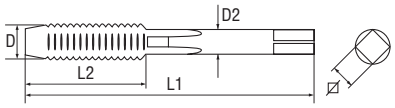


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
Tr 10 x 2	90	34	7	5,5	2R25108
Tr 10 x 3	100	40	7	5,5	2R25112
Tr 12 x 3	110	40	8	6,2	2R25116
Tr 14 x 3	130	45	10	8,0	2R25120
Tr 14 x 4	130	55	10	8,0	2R25124
Tr 16 x 4	140	55	11	9,0	2R25128
Tr 18 x 4	150	55	12	9,0	2R25132
Tr 20 x 4	160	55	14	11,0	2R25136
Tr 22 x 5	175	65	16	12,0	2R25140
Tr 24 x 5	190	65	18	14,5	2R25144
Tr 26 x 5	210	70	20	16,0	2R25148
Tr 28 x 5	220	70	22	18,0	2R25152
Tr 30 x 6	240	80	22	18,0	2R25156
Tr 32 x 6	255	80	25	20,0	2R25160

M JUEGO DE MACHOS MÉTRICA COBALTO
COBALT METRIC HAND TAPS
JEUX DE TARAUDS À MAIN COBALT, METRIQUE



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | DIN 352 | TOL 6H

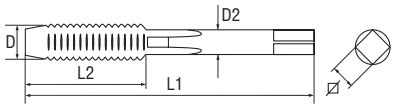


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	40	11	3,5	2,7	2R57326
M 4 x 0,70	45	13	4,5	3,4	2R57330
M 5 x 0,80	50	16	6,0	4,9	2R57334
M 6 x 1,00	50	19	6,0	4,9	2R57338
M 8 x 1,25	56	22	6,0	4,9	2R57342
M 10 x 1,50	70	24	7,0	5,5	2R57346
M 12 x 1,75	75	29	9,0	7,0	2R57350
M 14 x 2,00	80	30	11,0	9,0	2R57354
M 16 x 2,00	80	32	12,0	9,0	2R57358
M 18 x 2,50	95	40	14,0	11,0	2R57362
M 20 x 2,50	95	40	16,0	12,0	2R57366
M 22 x 2,50	100	40	18,0	14,5	2R57370
M 24 x 3,00	110	50	18,0	14,5	2R57374
M 27 x 3,00	110	50	20,0	16,0	2R57376
M 30 x 3,50	125	56	22,0	18,0	2R57378

M JUEGO DE MACHOS MÉTRICA CON PUNTA PILOTO COBALTO
COBALT METRIC HAND TAPS ROUGHER PILOTED
JEUX DE TARAUDS À MAIN COBALT RECTIFIÉ ETAGÉ



INOX | ACERO 800 -1100 N/mm² | F | HSS-CO 5% | DIN 352 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	40	11	3,5	2,7	2R57726
M 4 x 0,70	45	13	4,5	3,4	2R57730
M 5 x 0,80	50	16	6,0	4,9	2R57734
M 6 x 1,00	50	19	6,0	4,9	2R57738
M 8 x 1,25	56	22	6,0	4,9	2R57742
M 10 x 1,50	70	24	7,0	5,5	2R57746
M 12 x 1,75	75	29	9,0	7,0	2R57750

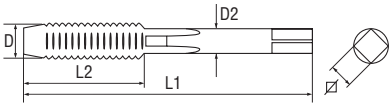
Mf JUEGOS DE MACHOS MANO MÉTRICA FINA COBALTO

COBALT METRIC FINE HAND TAPS

JEUX DE TARAUDS À MAIN, METRIQUE FIN



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | DIN 2181 | TOL 6H



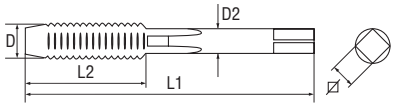
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 6 x 0,75	50	14	6,0	4,9	2R56318
M 8 x 0,75	50	19	6,0	4,9	2R56324
M 8 x 1,00	56	22	6,0	4,9	2R56326
M 10 x 1,00	63	20	7,0	5,5	2R56336
M 10 x 1,25	70	24	7,0	5,5	2R56338
M 12 x 1,00	70	22	9,0	7,0	2R56344
M 12 x 1,25	70	22	9,0	7,0	2R56346
M 12 x 1,50	70	22	9,0	7,0	2R56348
M 14 x 1,25	70	22	11,0	9,0	2R56354
M 14 x 1,50	70	22	11,0	9,0	2R56356
M 16 x 1,50	70	22	12,0	9,0	2R56366
M 18 x 1,50	80	22	14,0	11,0	2R56372
M 18 x 2,00	80	22	14,0	11,0	2R56374
M 20 x 1,50	80	22	16,0	12,0	2R56384
M 20 x 2,00	80	22	16,0	12,0	2R56386
M 22 x 1,50	80	22	18,0	14,5	2R56394
M 22 x 2,00	80	22	18,0	14,5	2R56396
M 24 x 1,50	90	22	18,0	14,5	2R56504

G(BSP) JUEGOS DE MACHOS ROSCA GAS DIN ISO 228 COBALTO

COBALT HAND TAPS PIPE THREAD DIN ISO 228
JEUX DE TARAUDS À MAIN FILETAGE
PAS GAZ DIN ISO 228 COBALT



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | DIN 5157



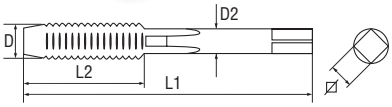
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
G 1/8 x 28	63	20	7,0	5,5	2R55312
G 1/4 x 19	70	22	11,0	9,0	2R55314
G 3/8 x 19	70	22	12,0	9,0	2R55316
G 1/2 x 14	80	22	16,0	12,0	2R55318
G 3/4 x 14	90	22	20,0	16,0	2R55322
G 1 x 11	100	25	25,0	20,0	2R55326

M JUEGO DE MACHOS MÉTRICA IZQUIERDAS
METRIC LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, METRIQUE



ACERO 400-800 N/mm²

HSS-G | **DIN 352** | TOL **6H** | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	40	11	3,5	2,7	2R27026
M 4 x 0,70	45	13	4,5	3,4	2R27030
M 5 x 0,80	50	16	6,0	4,9	2R27034
M 6 x 1,00	50	19	6,0	4,9	2R27038
M 8 x 1,25	56	22	6,0	4,9	2R27042
M 10 x 1,50	70	24	7,0	5,5	2R27046
M 12 x 1,75	75	29	9,0	7,0	2R27050
M 14 x 2,00	80	30	11,0	9,0	2R27054
M 16 x 2,00	80	32	12,0	9,0	2R27058
M 18 x 2,50	95	40	14,0	11,0	2R27062
M 20 x 2,50	95	40	16,0	12,0	2R27066
M 22 x 2,50	100	40	18,0	14,5	2R27070
M 24 x 3,00	110	50	18,0	14,5	2R27074
M 27 x 3,00	110	50	20,0	16,0	2R27076
M 30 x 3,50	125	56	22,0	18,0	2R27078
M 33 x 3,50	125	56	25,0	20,0	2R27080
M 36 x 4,00	150	63	28,0	22,0	2R27082
M 39 x 4,00	150	63	32,0	24,0	2R27084
M 42 x 4,50	150	63	32,0	24,0	2R27086
M 45 x 4,50	160	70	36,0	29,0	2R27088
M 48 x 5,00	180	75	36,0	29,0	2R27090
M 52 x 5,00	180	75	40,0	32,0	2R27092

Mf JUEGO DE MACHOS MÉTRICA FINA IZQUIERDAS
FINE METRIC LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, METRIQUE FIN



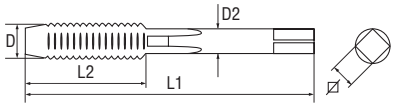
ACERO 400-800 N/mm²

HSS-G

DIN 2181

TOL 6H

LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 6 x 0,75	50	14	6,0	4,9	2R26007
M 8 x 0,75	50	19	6,0	4,9	2R26010
M 8 x 1,00	56	22	6,0	4,9	2R26011
M 10 x 1,00	63	20	7,0	5,5	2R26015
M 10 x 1,25	70	24	7,0	5,5	2R26016
M 12 x 1,00	70	22	9,0	7,0	2R26020
M 12 x 1,25	70	22	9,0	7,0	2R26021
M 12 x 1,50	70	22	9,0	7,0	2R26022
M 14 x 1,25	70	22	11,0	9,0	2R26027
M 14 x 1,50	70	22	11,0	9,0	2R26028
M 16 x 1,00	70	22	12,0	9,0	2R26031
M 16 x 1,50	70	22	12,0	9,0	2R26033
M 18 x 1,50	80	22	14,0	11,0	2R26036
M 20 x 1,50	80	22	16,0	12,0	2R26040
M 22 x 1,50	80	22	18,0	14,5	2R26045
M 24 x 1,50	90	22	18,0	14,5	2R26050
M 24 x 2,00	90	22	18,0	14,5	2R26051
M 30 x 1,50	90	22	22,0	18,0	2R26063
M 30 x 2,00	90	22	22,0	18,0	2R26064

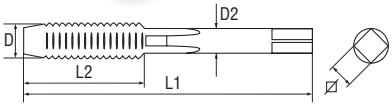
UNC JUEGO DE MACHOS ROSCA UNIFICADA ANSI B 1.1 IZQUIERDAS

UNC LEFT HAND TAPS

JEUX DE TARAUDS À MAIN À GAUCHE, UNC



ACERO 400-800 N/mm² | HSS-G | ≈DIN 352 | TOL 2B | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC Nr, 6 x 32	45	14	4,0	3,0	2R23006
UNC Nr. 8 x 32	45	14	4,5	3,4	2R23008
UNC Nr. 10 x 24	50	16	6,0	4,9	2R23010
UNC Nr. 12 x 24	50	18	6,0	4,9	2R23012
UNC 1/4 x 20	50	19	6,0	4,9	2R23014
UNC 5/16 x 18	56	22	6,0	4,9	2R23016
UNC 3/8 x 16	70	24	7,0	5,5	2R23018
UNC 7/16 x 14	70	24	6,2	6,2	2R23020
UNC 1/2 x 13	75	29	9,0	7,0	2R23022
UNC 9/16 x 12	80	30	11,0	9,0	2R23024
UNC 5/8 x 11	80	32	12,0	9,0	2R23026
UNC 3/4 x 10	95	40	14,0	11,0	2R23030
UNC 7/8 x 9	100	40	18,0	14,5	2R23034
UNC 1 x 8	110	50	18,0	14,5	2R23038

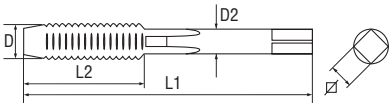
UNF JUEGO DE MACHOS ROSCA FINA UNIFICADA ANSI B 1.1 IZQUIERDAS

UNF LEFT HAND TAPS

JEUX DE TARAUDS À MAIN À GAUCHE, UNF



ACERO 400-800 N/mm² | HSS-G | DIN 2181 | TOL 2B | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
Nr. 10 x 32	45	14	6,0	4,9	2R24010
UNF 1/4 x 28	50	18	6,0	4,9	2R24014
UNF 5/16 x 24	56	22	6,0	4,9	2R24016
UNF 3/8 x 24	63	22	7,0	5,5	2R24018
UNF 7/16 x 20	63	22	8,0	6,2	2R24020
UNF 1/2 x 20	75	24	9,0	7,0	2R24022
UNF 9/16 x 18	80	28	11,0	9,0	2R24024
UNF 5/8 x 18	80	28	12,0	9,0	2R24026
UNF 3/4 x 16	95	32	14,0	11,0	2R24030
UNF 7/8 x 14	100	36	18,0	14,5	2R24034
UNF 1 x 12	110	40	18,0	14,5	2R24038

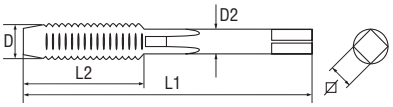
BSW JUEGO DE MACHOS WHITWORTH BS 84 IZQUIERDAS

WHITWORTH BS 84 LEFT HAND TAPS

JEUX DE TARAUDS À MAIN À GAUCHE, WHITWORTH BS 84



ACERO 400-800 N/mm² | HSS-G | ≈DIN 351 | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
BSW 1/8 x 40	40	12	3,5	2,7	2R22006
BSW 5/32 x 32	45	14	4,5	3,4	2R22008
BSW 3/16 x 24	50	18	6,0	4,9	2R22010
BSW 1/4 x 20	50	19	6,0	4,9	2R22014
BSW 5/16 x 18	56	22	6,0	4,9	2R22016
BSW 3/8 x 16	70	24	7,0	5,5	2R22018
BSW 7/16 x 14	70	24	8,0	6,2	2R22020
BSW 1/2 x 12	75	29	9,0	7,0	2R22022
BSW 9/16 x 12	80	30	11,0	9,0	2R22024
BSW 5/8 x 11	80	32	12,0	9,0	2R22026
BSW 3/4 x 10	95	40	14,0	11,0	2R22030
BSW 7/8 x 9	100	40	18,0	14,5	2R22034
BSW 1 x 8	110	50	18,0	14,5	2R22038

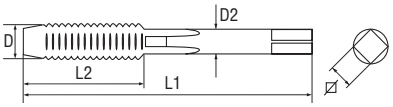
G(BSP) JUEGO DE MACHOS ROSCA GAS DIN ISO 228 IZQUIERDAS

BSP LEFT HAND TAP SETS

JEUX DE TARAUDS À MAIN À GAUCHE, BSP

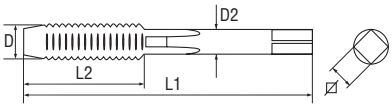


ACERO 400-800 N/mm² | HSS-G | DIN 5157 | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
G 1/8 x 28	63	20	7,0	5,5	2R25012
G 1/4 x 19	70	22	11,0	9,0	2R25014
G 3/8 x 19	70	22	12,0	9,0	2R25016
G 1/2 x 14	80	22	16,0	12,0	2R25018
G 5/8 x 14	80	22	18,0	14,5	2R25020
G 3/4 x 14	90	22	20,0	16,0	2R25022
G 1 x 11	100	25	25,0	20,0	2R25026
G 1.1/8 x 11	125	40	28,0	22,0	2R25030
G 1.1/4 x 11	125	40	32,0	24,0	2R25034
G 1.3/8 x 11	140	40	36,0	29,0	2R25038
G 1.1/2 x 11	140	40	36,0	29,0	2R25042
G 1.3/4 x 11	140	40	40,0	32,0	2R25050
G 2 x 11	160	40	45,0	35,0	2R25054

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



PUNTA EN ESPIRAL (PASANTE) • *SPIRAL POINT (THROUGH)* • *POINTE SPIRALE (INTERNE)*



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 352 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 3 x 0,50	40	11	3,5	2,7	3R61526
M 4 x 0,70	45	13	4,5	3,4	3R61530
M 5 x 0,80	48	16	6,0	4,9	3R61534
M 6 x 1,00	50	19	6,0	4,9	3R61538
M 8 x 1,25	56	22	6,0	4,9	3R61542
M 10 x 1,50	70	24	7,0	5,5	3R61546
M 12 x 1,75	75	29	9,0	7,0	3R61550
M 14 x 2,00	80	30	11,0	9,0	3R61554
M 16 x 2,00	80	32	12,0	9,0	3R61558
M 18 x 2,50	95	40	14,0	11,0	3R61562
M 20 x 2,50	95	40	16,0	12,0	3R61566
M 22 x 2,50	100	40	18,0	14,5	3R61570
M 24 x 3,00	110	50	18,0	14,5	3R61574

HELICOIDAL 35° (CIEGO) • *35° SPIRAL FLUTE (BLIND)* • *HÉLICOÏDAL (AVEUGLE)*



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 352 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 3 x 0,50	40	11	3,5	2,7	3R61726
M 4 x 0,70	45	13	4,5	3,4	3R61730
M 5 x 0,80	48	16	6,0	4,9	3R61734
M 6 x 1,00	50	19	6,0	4,9	3R61738
M 8 x 1,25	56	22	6,0	4,9	3R61742
M 10 x 1,50	70	24	7,0	5,5	3R61746
M 12 x 1,75	75	29	9,0	7,0	3R61750

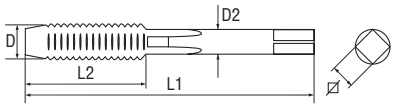
CON DIENTE ALTERNO (PASANTE) • *WIHT INTERRUPTED THREADS (THROUGH)* • *AVEC ALTERNANCE DENT (INTERNE)*



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 352 | FORM B-AZ | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 3 x 0,50	40	11	3,5	2,7	3R61926
M 4 x 0,70	45	13	4,5	3,4	3R61930
M 5 x 0,80	48	16	6,0	4,9	3R61934
M 6 x 1,00	50	19	6,0	4,9	3R61938
M 8 x 1,25	56	22	6,0	4,9	3R61942
M 10 x 1,50	70	24	7,0	5,5	3R61946
M 12 x 1,75	75	29	9,0	7,0	3R61950

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



FORMA B • *FORM B* • *FORME B*



ACERO 400-800 N/mm² | HSS-G | ISO 529 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 2,0 x 0,40	41,0	8,0	2,50	2,00	3R80516
M 2,5 x 0,45	44,5	9,5	2,80	2,24	3R80522
M 2,6 x 0,45	44,5	9,5	2,90	2,24	3R80524
M 3,0 x 0,50	48,0	11,0	3,15	2,50	3R80526
M 3,5 x 0,60	50,0	13,0	3,55	2,80	3R80528
M 4,0 x 0,70	53,0	13,0	4,00	3,15	3R80530
M 5,0 x 0,80	58,0	16,0	5,00	4,00	3R80534
M 6,0 x 1,00	66,0	19,0	6,30	5,00	3R80538
M 8,0 x 1,25	72,0	22,0	8,00	6,30	3R80542
M 10,0 x 1,50	80,0	24,0	10,00	8,00	3R80546
M 12,0 x 1,75	89,0	29,0	9,00	7,10	3R80550
M 14,0 x 2,00	95,0	30,0	11,20	9,00	3R80554
M 16,0 x 2,00	102,0	32,0	12,50	10,00	3R80558
M 18,0 x 2,50	110,0	37,0	14,00	11,20	3R80562
M 20,0 x 2,50	112,0	37,0	14,00	11,20	3R80566
M 22,0 x 2,50	118,0	38,0	16,00	12,50	3R80570
M 24,0 x 3,00	130,0	45,0	18,00	14,00	3R80574
M 27,0 x 3,00	135,0	45,0	20,00	16,00	3R80576
M 30,0 x 3,50	138,0	48,0	20,00	16,00	3R80578

CON DIENTE ALTERNO (PASANTE)
WIHT INTERRUPTED THREADS (THROUGH)
AVEC ALTERNANCE DENT (INTERNE)



ACERO 400-800 N/mm² | HSS-G | ISO 529 | FORM B-AZ | TOL 6H

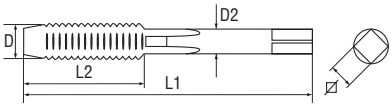
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	48,0	11,0	3,15	2,50	3R80926
M 4 x 0,70	53,0	13,0	4,00	3,15	3R80930
M 5 x 0,80	58,0	16,0	5,00	4,00	3R80934
M 6 x 1,00	66,0	19,0	6,30	5,00	3R80938
M 7 x 1,00	66,0	19,0	7,10	5,60	3R80940
M 8 x 1,25	72,0	22,0	8,00	6,30	3R80942
M 10 x 1,50	80,0	24,0	10,00	8,00	3R80946
M 12 x 1,75	89,0	29,0	9,00	7,10	3R80950
M 14 x 2,00	95,0	30,0	11,20	9,00	3R80954
M 16 x 2,00	102,0	32,0	12,50	10,00	3R80958
M 18 x 2,50	110,0	37,0	14,00	11,20	3R80962
M 20 x 2,50	112,0	37,0	14,00	11,20	3R80966
M 22 x 2,50	118,0	38,0	16,00	12,50	3R80970
M 24 x 3,00	130,0	45,0	18,00	14,00	3R80974

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



FORMA C/35° RPS • *FORM C/35° RPS*

ACERO 400-800 N/mm² | HSS-G | ISO 529 | FORM C/35° | TOL 6H

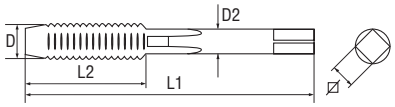


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 2,5 x 0,45	44,5	9,5	2,80	2,24	3R80722
M 2,6 x 0,45	44,5	9,5	2,90	2,24	3R80724
M 3,0 x 0,50	48,0	11,0	3,15	2,50	3R80726
M 4,0 x 0,70	53,0	13,0	4,00	3,15	3R80730
M 5,0 x 0,80	58,0	16,0	5,00	4,00	3R80734
M 6,0 x 1,00	66,0	19,0	6,30	5,00	3R80738
M 8,0 x 1,25	72,0	22,0	8,00	6,30	3R80742
M 10,0 x 1,50	80,0	24,0	10,00	8,00	3R80746
M 12,0 x 1,75	89,0	29,0	9,00	7,10	3R80750
M 14,0 x 2,00	95,0	30,0	11,20	9,00	3R80754
M 16,0 x 2,00	102,0	32,0	12,50	10,00	3R80758
M 18,0 x 2,50	110,0	37,0	14,00	11,20	3R80762
M 20,0 x 2,50	112,0	37,0	14,00	11,20	3R80766
M 22,0 x 2,50	118,0	38,0	16,00	12,00	3R80770
M 24,0 x 3,00	130,0	45,0	18,00	14,00	3R80774
M 27,0 x 3,00	135,0	45,0	20,00	16,00	3R80776
M 30,0 x 3,50	138,0	48,0	20,00	16,00	3R80778

Mf MÉTRICA FINA ISO ROSCA DIN 13
METRIC FINE ISO THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



ACERO 400-800 N/mm² | HSS-G | DIN 2181 | FORM D | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 6 x 0,75	50	14	6,0	4,9	3R66318
M 8 x 0,75	50	19	6,0	4,9	3R66324
M 8 x 1,00	56	22	6,0	4,9	3R66326
M 9 x 0,75	56	19	7,0	5,5	3R66328
M 9 x 1,00	63	20	7,0	5,5	3R66330
M 10 x 0,75	63	20	7,0	5,5	3R66332
M 10 x 1,00	63	20	7,0	5,5	3R66336
M 10 x 1,25	70	24	7,0	5,5	3R66338
M 12 x 1,00	70	22	9,0	7,0	3R66344
M 12 x 1,25	70	22	9,0	7,0	3R66346
M 12 x 1,50	70	22	9,0	7,0	3R66348
M 13 x 1,00	70	22	11,0	9,0	3R66350
M 13 x 1,50	70	22	11,0	9,0	3R66351
M 14 x 1,00	70	22	11,0	9,0	3R66353
M 14 x 1,25	70	22	11,0	9,0	3R66354
M 14 x 1,50	70	22	11,0	9,0	3R66356
M 15 x 1,50	70	22	12,0	9,0	3R66360
M 16 x 1,50	70	22	12,0	9,0	3R66366
M 18 x 1,00	80	22	14,0	11,0	3R66370
M 18 x 1,50	80	22	14,0	11,0	3R66372
M 20 x 1,50	80	22	16,0	12,0	3R66384
M 20 x 2,00	80	22	16,0	12,0	3R66386
M 22 x 1,50	80	22	18,0	14,5	3R66394
M 22 x 2,00	80	22	18,0	14,5	3R66396
M 24 x 1,50	90	22	18,0	14,5	3R66504
M 24 x 2,00	90	22	18,0	14,5	3R66506
M 25 x 1,50	90	22	18,0	14,5	3R66508
M 26 x 1,50	90	22	18,0	14,5	3R66512
M 27 x 1,50	90	22	20,0	16,0	3R66517
M 28 x 1,50	90	22	20,0	16,0	3R66522
M 30 x 1,50	90	22	22,0	18,0	3R66530
M 30 x 2,00	90	22	22,0	18,0	3R66532
M 32 x 1,50	90	22	22,0	18,0	3R66536

BSW WHITWORTH BS 84

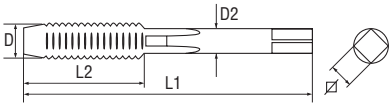
WHITWORTH THREAD BS 84

FILETAGE WHITWORTH BS 84



ACERO 400-800 N/mm²

HSS-G | DIN 351 | ≈DIN 352 | FORM D



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/8 x 40	40	12	3,5	2,7	3R62306
3/16 x 24	50	18	6,0	4,9	3R62310
1/4 x 20	50	19	6,0	4,9	3R62314
5/16 x 18	56	22	6,0	4,9	3R62316
3/8 x 16	70	24	7,0	5,5	3R62318
7/16 x 14	70	24	8,0	6,2	3R62320
1/2 x 12	75	29	9,0	7,0	3R62322
9/16 x 12	80	30	11,0	9,0	3R62324
5/8 x 11	80	32	12,0	9,0	3R62326
3/4 x 10	95	40	14,0	11,0	3R62330
7/8 x 9	100	40	18,0	14,5	3R62334
1 x 8	110	50	18,0	14,5	3R62338

G(BSP) GAS DIN ISO 228

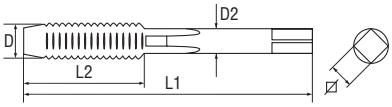
BSP PIPE THREAD DIN ISO 228

FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm²

HSS-G | DIN 5157 | FORM D



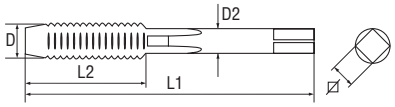
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
G 1/8 x 28	63	20	7	5,5	3R65312
G 1/4 x 19	70	22	11	9,0	3R65314
G 3/8 x 19	70	22	12	9,0	3R65316
G 1/2 x 14	80	22	16	12,0	3R65318
G 3/4 x 14	90	22	20	16,0	3R65322
G 1 x 11	100	25	25	20,0	3R65326
G 1.1/4 x 11	125	40	32	24,0	3R65334
G 1.1/2 x 11	140	40	32	29,0	3R65342
G 1.3/4 x 11	140	40	40	32,0	3R65350
G 2 x 11	160	40	45	35,0	3R65354
G 2.1/4 x 11	160	40	50	39,0	3R65358
G 2.1/2 x 11	160	40	50	39,0	3R65362
G 2.3/4 x 11	160	40	50	39,0	3R65366
G 3 x 11	160	40	50	39,0	3R65370
G 3.1/2 x 11	180	45	56	44,0	3R65374
G 4 x 11	180	45	56	44,0	3R65378

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1 UNC

UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



ACERO 400-800 N/mm² | HSS-G | ≈DIN 352 | FORM D | TOL 2B



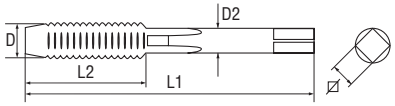
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/4 x 20	50	19	6,0	4,9	3R63314
5/16 x 18	56	22	6,0	4,9	3R63316
3/8 x 16	70	24	7,0	5,5	3R63318
7/16 x 14	70	24	8,0	6,2	3R63320
1/2 x 13	75	29	9,0	7,0	3R63322
19/16 x 12	80	30	11,0	9,0	3R63324
5/8 x 11	80	32	12,0	9,0	3R63326
3/4 x 10	95	40	14,0	11,0	3R63330
7/8 x 9	100	40	18,0	14,5	3R63334
1 x 8	110	50	18,0	14,5	3R63338

UNF ROSCA FINA UNIFICADA ANSI B 1.1 UNF

UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



ACERO 400-800 N/mm² | HSS-G | ≈DIN 352 | FORM D | TOL 2B

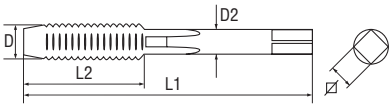


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/4 x 28	50	18	6,0	4,9	3R64314
5/16 x 24	56	22	6,0	4,9	3R64316
3/8 x 24	63	22	7,0	5,5	3R64318
7/16 x 20	63	22	8,0	6,2	3R64320
1/2 x 20	75	24	9,0	7,0	3R64322
19/16 x 18	80	28	11,0	9,0	3R64324
5/8 x 18	80	28	12,0	9,0	3R64326
3/4 x 16	95	32	14,0	11,0	3R64330
7/8 x 14	100	36	18,0	14,5	3R64334
1 x12	110	40	18,0	14,5	3R64338

NPT ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16

NPT AMERICAN TAPERED THREAD, TAPER 1:16

FILETAGE AMERICAIN NPT CONICITÉ 1:16



ACERO 400-800 N/mm²

HSS-G

FORM **C**



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
NPT 1/16 x 27	65	19	7,0	5,5	3R63510
NPT 1/8 x 27	65	19	7,0	5,5	3R63512
NPT 1/4 x 18	70	25	11,0	9,0	3R63514
NPT 3/8 x 18	75	26	12,0	9,0	3R63516
NPT 1/2 x 14	80	31	16,0	12,0	3R63518
NPT 3/4 x 14	100	33	20,0	16,0	3R63522
NPT 1 x 11.5	110	38	25,0	20,0	3R63526
NPT 1.1/4 x 11.5	125	41	32,0	24,0	3R63534
NPT 1.1/2 x 11.5	140	42	36,0	29,0	3R63542
NPT 2 x 11.5	160	44	36,0	35,0	3R63554

ACERO 400-800 N/mm²

HSS-G

FORM **B**



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
NPT 1/16 x 27	55	17,5	8,0	6,0	3R98502
NPT 1/8 x 27	55	19,0	8,0	6,0	3R98506
NPT 1/4 x 18	62	28,0	11,0	9,0	3R98514
NPT 3/8 x 18	65	28,0	14,0	11,0	3R98518
NPT 1/2 x 14	80	35,0	18,0	14,0	3R98522
NPT 3/4 x 14	85	35,0	23,0	17,0	3R98530
NPT 1 x 11.5	95	45,0	26,0	21,0	3R98538
NPT 1.1/4 x 11.5	105	45,0	32,0	26,0	3R98546
NPT 1.1/2 x 11.5	110	45,0	38,0	29,0	3R98554
NPT 2 x 11.5	120	50,0	46,0	35,0	3R98570

ACERO 400-800 N/mm²

HSS-G

FORM **C/35°**

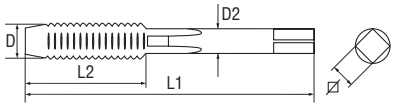


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
NPT 1/16 x 27	55	17,5	6,0	6,0	3R98702
NPT 1/8 x 27	55	19,0	8,0	6,0	3R98706
NPT 1/4 x 18	62	28,0	11,0	9,0	3R98714
NPT 3/8 x 18	65	28,0	14,0	11,0	3R98718
NPT 1/2 x 14	80	35,0	18,0	14,0	3R98722
NPT 3/4 x 14	85	35,0	23,0	17,0	3R98730
NPT 1 x 11.5	95	45,0	26,0	21,0	3R98738
NPT 1.1/4 x 11.5	105	45,0	32,0	26,0	3R98746
NPT 1.1/2 x 11.5	110	45,0	38,0	29,0	3R98754
NPT 2 x 11.5	120	50,0	46,0	35,0	3R98770

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² | HSS-G | TOL 6H | 1/4

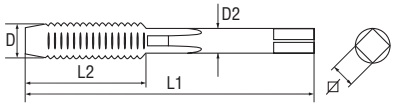


D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.
M 3 x 0,50	2,5	36	3R67226
M 4 x 0,70	3,3	39	3R67230
M 5 x 0,80	4,2	41	3R67234
M 6 x 1,00	5,0	44	3R67238
M 8 x 1,25	6,8	50	3R67242
M 10 x 1,50	8,5	59	3R67246

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 800 -1100 N/mm² | HSS-G | TIN | TOL 6H | 1/4



D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.
M 3 x 0,50	2,5	36	3R67210
M 4 x 0,70	3,3	39	3R67211
M 5 x 0,80	4,2	41	3R67212
M 6 x 1,00	5,0	44	3R67213
M 8 x 1,25	6,8	50	3R67214
M 10 x 1,50	8,5	59	3R67215

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1

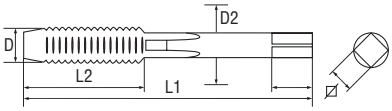
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



ACERO 400-800 N/mm²

HSS-G

1/4



D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.
Nr. 4 x 40	2.30	36	3R67280
Nr. 5 x 40	2.60	36	3R67281
Nr. 6 x 32	2.85	39	3R67282
Nr. 8 x 32	3.50	39	3R67283
Nr. 10 x 24	3.90	41	3R67284
Nr. 12 x 24	4.50	41	3R67285
1/4 x 20	5.20	44	3R67286
5/16 x 18	6.60	50	3R67287
3/8 x 16	8.00	59	3R67288

UNF ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1

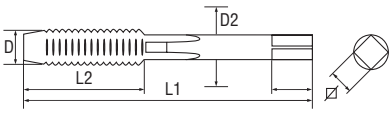
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



ACERO 400-800 N/mm²

HSS-G

1/4

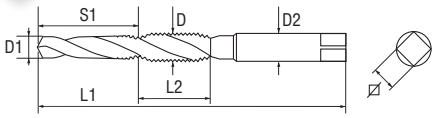


D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.
Nr. 4 x 48	2.4	36	3R67290
Nr. 5 x 44	2.7	36	3R67291
Nr. 6 x 40	3.0	39	3R67292
Nr. 8 x 36	3.5	39	3R67293
Nr. 10 x 32	4.1	41	3R67294
Nr. 12 x 28	4.7	41	3R67295
1/4 x 28	5.5	44	3R67296
5/16 x 24	6.9	50	3R67297
3/8 x 24	8.5	59	3R67298

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | TOL 6H

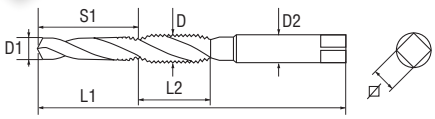


D Ø x P (mm)	L1 (mm)	S1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	16	11	2.5	3.0	2.4	3R37026
M 4 x 0,70	63	18	14	3.3	4.0	3.0	3R37030
M 5 x 0,80	71	20	18	4.2	5.0	3.8	3R37034
M 6 x 1,00	80	22	22	5.0	6.0	4.9	3R37038
M 8 x 1,25	95	26	25	6.8	8.0	6.2	3R37042
M 10 x 1,50	106	30	31	8.5	10.0	8.0	3R37046
M 12 x 1,75	115	32	35	10.2	12.0	9.0	3R37050

BSW WHITWORTH BS 84
WHITWORTH BS 84
WHITWORTH BS 84



ACERO 400-800 N/mm² | HSS-CO 5% | TOL 6H



D Ø x P (")	L1 (mm)	S1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	Ø (mm)	Cod.
1/8 x 40	56	16	11	2.6	3.0	2.4	3R70006
5/32 x 32	63	18	14	3.2	4.0	3.0	3R70008
3/16 x 24	71	20	18	3.7	5.0	3.8	3R70010
1/4 x 20	80	22	22	5.1	6.0	4.9	3R70014
5/16 x 18	95	26	25	6.5	8.0	6.2	3R70016
3/8 x 16	106	30	31	7.9	10.0	8.0	3R70018
1/2 x 12	115	32	35	10.5	12.0	9.0	3R70022

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS PARA MACHOS MÁQUINA

MACHINE TAPS APPLICATION GUIDE AND RECOMMENDED CUTTING SPEED

TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ POUR TARAUDS MACHINE



			HSS-CO 5%			HSS-CO 5% TIN		HSS-CO 5% VAP		HSS-CO 5%
				TOL 6H		TOL 6H		TOL 6H		TOL 6H
			FORM B	FORM C	FORM C/35º	FORM B	FORM C/35º	FORM B	FORM C/35º	FORM C/15º
MATERIAL / *MATERIAL* / *MATIÉRE*		Resistencia *Resistance Resistance* N/mm	Pág 287	Pág 286	Pág. 290	Pág. 288	Pág. 288	Pág. 288	Pág. 291	Pág. 289
ACEROS *STEELS ACIERS*	Decoletaje *Machining • Décolletage*	<500	5 - 15	5 - 15	5 - 15	20 - 30	20 - 30	20 - 30	20 - 30	5 - 15
	Carbono <0,4% *<0,4% Carbon • Carbon <0,4%*	<850	12 - 18	12 - 18	12 - 18	15 - 20	15 - 20	15 - 25	15 - 25	12 - 18
	Acero para herramientas *Steel for tools • Acier pour outils*	<1.200								
	Templado - Revenido *Tempered - Quenched • Trempé - Revenu*	<1.400								
ACEROS INOXIDABLES *STAINLESS STEEL ACIER INOXYDABLE*	Austeníticos Cr-Ni *Cr-Ni Austenitics • Cr-Ni austenitique*	<850								
	Martensíticos Cr-Mo *Cr-Mo Martensitics • Cr-Mo martensitique*	<1.200								
FUNDICIÓN *CAST IRON FONTE*	Fundición gris *Grey cast iron • Fonte grise*	<700	10 - 15	10 - 15	10 - 15					
	Fundición dura *Hard cast iron • Fonte dur*	<1.000								
ALUMINIO *ALUMINIUM A LUMINIUM*	Puro *Pure • Pure*	<350								
	Si < 10%	<600	10 - 15		10 - 15	10 - 20	10 - 20	20 - 30	20 - 30	
	Si > 10%	<600	10 - 15		10 - 15			20 - 30	20 - 30	
	Zamak *Zamak • Zamak*	<600								
COBRE *COPPER CUIVRE*	Bronce *Bronze • Bronze*	<350								
	Cobre viruta larga *Long chip copper • Cuivre coupage long*	<700	15 - 20		15 - 20	15 - 20	15 - 20			
	Cobre viruta corta *Short chip coppe • Cuivre coupage court*	<700								
	Latón duro *Hard Brass • Laiton dur*	<700	10 - 15		10 - 15	20 - 30	20 - 30			
	Latón tenaz *Tough Brass • Laiton tenace*	<700	10 - 15		10 - 15	10 - 15	10 - 15			
TITANIO *TITANIUM TITANE*	Puro *Pure • Pure*	<700								
	Aleaciones de Titanio *Titanium alloys • Alliages de titane*	<1.200								
SINTÉTICOS *PLASTICS PLASTIQUES*	Termoplásticos *Thermoplastics • Thermoplastique*	-	10 - 15		10 - 15	10 - 20	10 - 20			
	Duroplásticos *Hard-plastics • Duroplastique*	-								

20 - 25 Macho recomendado por SESATOOLS y velocidad de corte
SESA TOOLS recomendation and cutting speed
Foret récommendé par SESA TOOLS et vitesse de coupage

20 - 25 Buen rendimiento y velocidad de corte (RPM)
Good performance and speed of the cut (RPM)
Bon rendement et vitesse de coup recommendée (RPM)

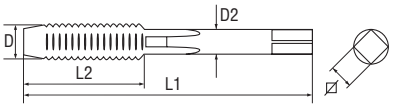


HSS-CO 5%	PM HL		HSS-E-V3 TIN		HSS-CO 5%		PM FUTURA			HSS-CO 5% ALUSPEED		HSS-CO 5% TIN	
TOL 6H	TOL 6H		TOL 6H		TOL 6H		TOL 6H			TOL 6H		TOL 6HX	
FORM B-AZ	FORM B	FORM C/35º	FORM B	FORM C/35º	FORM B	FORM C/39º	FORM B	FORM C/35º	FORM C/15º	FORM B	FORM C/45º	LAMINACIÓN *FORMING TAPS À REFOULER*	
Pág. 294	Pág. 324	Pág. 324	Pág. 325	Pág. 325	Pág. 326	Pág. 326	Pág. 331	Pág. 331	Pág. 331	Pág. 332	Pág. 332	Pág. 333	Pág. 333
	8 - 10	8 -1 0										12 - 25	12 - 25
	8 - 10	8 - 10	8 - 10	8 - 10								15 - 25	15 - 25
	6 - 8	6 - 8	4 - 6	4 - 6									
							3 - 8	3 - 8	3 - 8				
	8 - 14	8 - 14	6 - 10	6 - 10	5 - 10	5 - 10						15 - 25	15 - 25
	6 - 10	6 -1 0	4 - 7	4 - 7								10 - 20	10 - 20
			8 - 12	8 - 12									
			7 - 10	7 - 10									
										15 - 35	15 - 35		
10 - 15			12 - 20	12 - 20						15 - 35	15 - 35		
10 - 15			12 - 20	12 - 20						15 - 30	15 - 30		
10 - 15										15 - 30	15 - 30		
												15 - 35	15 - 35
	10 - 15	10 - 15	12 - 20	12 -2 0								10 - 20	10 - 20
	10 - 15	10 - 15											
			2 - 8	2 - 8	2 - 5	2 - 5							
							3 - 8	3 - 8	3 - 8			10 - 20	10 - 20
							10 - 15	10 - 15	10 - 15				

M MÉTRICA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13

MÉTRIQUE DIN-13





ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C | TOL 6H

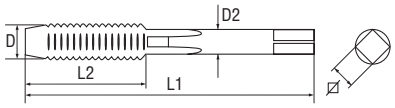
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 2,0 x 0,40	45	8	2,8	2,1	3R37416
M 2,3 x 0,40	45	9	2,8	2,1	3R37418
M 2,5 x 0,45	50	9	2,8	2,1	3R37422
M 2,6 x 0,45	50	9	2,8	2,1	3R37424
M 3,0 x 0,50	56	11	3,5	2,7	3R37426
M 3,5 x 0,60	56	13	4,0	3,0	3R37428
M 4,0 x 0,70	63	13	4,5	3,4	3R37430
M 5,0 x 0,80	70	16	6,0	4,9	3R37434
M 6,0 x 1,00	80	19	6,0	4,9	3R37438
M 7,0 x 1,00	80	19	7,0	5,5	3R37440
M 8,0 x 1,25	90	22	8,0	6,2	3R37442
M 10,0 x 1,50	100	24	10,0	8,0	3R37446



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	2,2	-	3R38426
M 4 x 0,70	63	13	2,8	2,1	3R38430
M 5 x 0,80	70	16	3,5	2,7	3R38434
M 6 x 1,00	80	19	4,5	3,4	3R38438
M 8 x 1,25	90	22	6,0	4,9	3R38442
M 10 x 1,50	100	24	7,0	5,5	3R38446
M 12 x 1,75	110	29	9,0	7,0	3R38450
M 14 x 2,00	110	30	11,0	9,0	3R38454
M 16 x 2,00	110	32	12,0	9,0	3R38458
M 18 x 2,50	125	34	14,0	11,0	3R38462
M 20 x 2,50	140	34	16,0	12,0	3R38466
M 22 x 2,50	140	34	18,0	14,5	3R38470
M 24 x 3,00	160	38	18,0	14,5	3R38474
M 27 x 3,00	160	38	20,0	16,0	3R38476
M 30 x 3,50	180	45	22,0	18,0	3R38478
M 33 x 3,50	180	50	25,0	20,0	3R38480
M 36 x 4,00	200	56	28,0	22,0	3R38482
M 39 x 4,00	200	60	32,0	24,0	3R38484
M 42 x 4,50	200	60	32,0	24,0	3R38486
M 45 x 4,50	220	65	36,0	29,0	3R38488
M 48 x 5,00	250	70	36,0	29,0	3R38490
M 52 x 5,00	250	70	40,0	32,0	3R38492

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13





ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 2,0 x 0,40	45	8	2,8	2,1	3R37516
M 2,5 x 0,45	50	9	2,8	2,1	3R37522
M 3,0 x 0,50	56	11	3,5	2,7	3R37526
M 3,5 x 0,60	56	13	4,0	3,0	3R37528
M 4,0 x 0,70	63	13	4,5	3,4	3R37530
M 5,0 x 0,80	70	16	6,0	4,9	3R37534
M 6,0 x 1,00	80	19	6,0	4,9	3R37538
M 7,0 x 1,00	80	19	7,0	5,5	3R37540
M 8,0 x 1,25	90	22	8,0	6,2	3R37542
M 10,0 x 1,50	100	24	10,0	8,0	3R37546

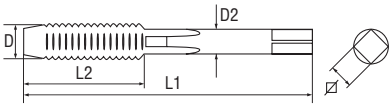


ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	2,2	-	3R38526
M 4 x 0,70	63	13	2,8	2,1	3R38530
M 5 x 0,80	70	16	3,5	2,7	3R38534
M 6 x 1,00	80	19	4,5	3,4	3R38538
M 8 x 1,25	90	22	6,0	4,9	3R38542
M 10 x 1,50	100	24	7,0	5,5	3R38546
M 11 x 1,50	100	24	8,0	6,2	3R37548*
M 12 x 1,75	110	29	9,0	7,0	3R38550
M 14 x 2,00	110	30	11,0	9,0	3R38554
M 16 x 2,00	110	32	12,0	9,0	3R38558
M 18 x 2,50	125	34	14,0	11,0	3R38562
M 20 x 2,50	140	34	16,0	12,0	3R38566
M 22 x 2,50	140	34	18,0	14,5	3R38570
M 24 x 3,00	160	38	18,0	14,5	3R38574
M 27 x 3,00	160	38	20,0	16,0	3R38576
M 30 x 3,50	180	45	22,0	18,0	3R38578
M 33 x 3,50	180	50	25,0	20,0	3R38580
M 36 x 4,00	200	56	28,0	22,0	3R38582
M 39 x 4,00	200	60	32,0	24,0	3R38584
M 42 x 4,50	200	60	32,0	24,0	3R38586
M 45 x 4,50	220	65	36,0	29,0	3R38588
M 48 x 5,00	250	70	36,0	29,0	3R38590
M 52 x 5,00	250	70	40,0	32,0	3R38592

*Hasta fin de existencias / **Until end of stock* / **Jusqu´à épuisement des stocks*

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | TIN | DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	3,5	2,7	3R31526
M 4 x 0,70	63	13	4,5	3,4	3R31530
M 5 x 0,80	70	16	6,0	4,9	3R31534
M 6 x 1,00	80	19	6,0	4,9	3R31538
M 8 x 1,25	90	22	8,0	6,2	3R31542
M 10 x 1,50	100	24	10,0	8,0	3R31546
M 12 x 1,75*	110	29	9,0	7,0	3R31550

* Machos en DIN 376

ACERO 400-800 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM B | TOL 6H



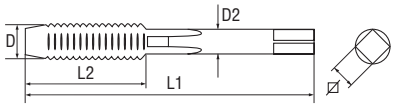
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	3,5	2,7	3R31570
M 4 x 0,70	63	13	4,5	3,4	3R31571
M 5 x 0,80	70	16	6,0	4,9	3R31572
M 6 x 1,00	80	19	6,0	4,9	3R31573
M 8 x 1,25	90	22	8,0	6,2	3R31574
M 10 x 1,50	100	24	10,0	8,0	3R31575

ACERO 400-800 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1,75	110	29	9,0	7,0	3R31576
M 14 x 2,00	110	30	11,0	9,0	3R31577
M 16 x 2,00	110	32	12,0	9,0	3R31578
M 18 x 2,50	125	34	14,0	11,0	3R31579
M 20 x 2,50	140	34	16,0	12,0	3R31580

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C/15º | TOL 6H



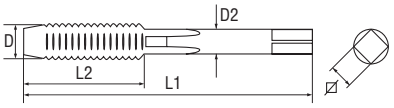
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,0 x 0,50	56	11	3,5	2,7	3R37626
M 3,5 x 0,60	56	13	4,0	3,0	3R37628
M 4,0 x 0,70	63	13	4,5	3,4	3R37630
M 5,0 x 0,80	70	16	6,0	4,9	3R37634
M 6,0 x 1,00	80	19	6,0	4,9	3R37638
M 7,0 x 1,00	80	19	7,0	5,5	3R37640
M 8,0 x 1,25	90	22	8,0	6,2	3R37642
M 10,0 x 1,50	100	24	10,0	8,0	3R37646

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C/15º | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	2,2	-	3R38626
M 4 x 0,70	63	13	2,8	2,1	3R38630
M 5 x 0,80	70	16	3,5	2,7	3R38634
M 6 x 1,00	80	19	4,5	3,4	3R38638
M 8 x 1,25	90	22	6,0	4,9	3R38642
M 10 x 1,50	100	24	7,0	5,5	3R38646
M 12 x 1,75	110	29	9,0	7,0	3R38650
M 14 x 2,00	110	30	11,0	9,0	3R38654
M 16 x 2,00	110	32	12,0	11,0	3R38658
M 18 x 2,50	125	34	14,0	11,0	3R38662
M 20 x 2,50	140	34	16,0	12,0	3R38666
M 22 x 2,50	140	34	18,0	14,5	3R38670
M 24 x 3,00	160	38	18,0	14,5	3R38674

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C/35° | TOL 6H



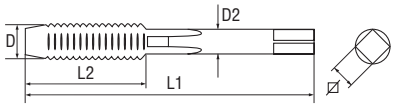
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 2,0 x 0,40	45	6	2,8	2,1	3R37716
M 2,5 x 0,45	50	6	2,8	2,1	3R37722
M 3,0 x 0,50	56	6	3,5	2,7	3R37726
M 3,5 x 0,60	56	13	4,0	3,0	3R37728
M 4,0 x 0,70	63	7	4,5	3,4	3R37730
M 5,0 x 0,80	70	8	6,0	4,9	3R37734
M 6,0 x 1,00	80	10	6,0	4,9	3R37738
M 7,0 x 1,00	80	19	7,0	5,5	3R37740
M 8,0 x 1,25	90	14	8,0	6,2	3R37742
M 10,0 x 1,50	100	16	10,0	8,0	3R37746

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	6	2,2	-	3R38726
M 4 x 0,70	63	7	2,8	2,1	3R38730
M 5 x 0,80	70	8	3,5	2,7	3R38734
M 6 x 1,00	80	10	4,5	3,4	3R38738
M 8 x 1,25	90	14	6,0	4,9	3R38742
M 10 x 1,50	100	16	7,0	5,5	3R38746
M 12 x 1,75	110	18	9,0	7,0	3R38750
M 14 x 2,00	110	20	11,0	9,0	3R38754
M 16 x 2,00	110	22	12,0	9,0	3R38758
M 18 x 2,50	125	25	14,0	11,0	3R38762
M 20 x 2,50	140	25	16,0	12,0	3R38766
M 22 x 2,50	140	27	18,0	14,5	3R38770
M 24 x 3,00	160	30	18,0	14,5	3R38774
M 27 x 3,00	160	30	20,0	16,0	3R38776
M 30 x 3,50	180	35	22,0	18,0	3R38778
M 33 x 3,50	180	35	25,0	20,0	3R38780
M 36 x 4,00	200	40	28,0	22,0	3R38782
M 39 x 4,00	200	40	32,0	24,0	3R38784
M 42 x 4,50	200	45	32,0	24,0	3R38786
M 45 x 4,50	220	45	36,0	29,0	3R38788
M 48 x 5,00	250	50	36,0	29,0	3R38790
M 52 x 5,00	250	50	40,0	32,0	3R38792

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 800 -1100 N/mm² | HSS-CO 5% | TIN | DIN 371 | FORM C/35º | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	6	3,5	2,7	3R31726
M 4 x 0,70	63	7	4,5	3,4	3R31730
M 5 x 0,80	70	8	6,0	4,9	3R31734
M 6 x 1,00	80	10	6,0	4,9	3R31738
M 8 x 1,25	90	14	8,0	6,2	3R31742
M 10 x 1,50	100	16	10,0	8,0	3R31746
M 12 x 1,75*	110	18	7,0	7,0	3R31750

* Machos en DIN376 / *Taps on DIN376* / *Tarauds en DIN376*

ACERO 800 -1100 N/mm² | HSS-CO 5% | VAP | DIN 371 | FORM C/35º | TOL 6H



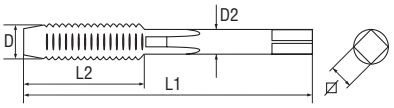
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	6	3,5	2,7	3R31770
M 4 x 0,70	63	7	4,5	3,4	3R31771
M 5 x 0,80	70	8	4,5	4,9	3R31772
M 6 x 1,00	80	10	6,0	4,9	3R31773
M 8 x 1,25	90	14	6,0	6,2	3R31774
M 10 x 1,50	100	16	10,0	8,0	3R31775

ACERO 800 -1100 N/mm² | HSS-CO 5% | VAP | DIN 376 | FORM C/35º | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1,75	110	18	9,0	7,0	3R31776
M 14 x 2,00	110	20	11,0	9,0	3R31777
M 16 x 2,00	110	22	12,0	9,0	3R31778
M 18 x 2,50	125	25	14,0	11,0	3R31779
M 20 x 2,50	140	25	16,0	12,0	3R31780

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



AL · ACERO 400-800 N/mm² · HSS-CO 5% · DIN 371 · FORM B-AZ · TOL 6H



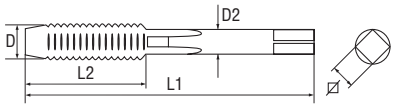
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	3,5	2,7	3R37926
M 4 x 0,70	63	13	4,5	3,4	3R37930
M 5 x 0,80	70	16	6,0	4,9	3R37934
M 6 x 1,00	80	19	6,0	4,9	3R37938
M 8 x 1,25	90	22	8,0	6,2	3R37942
M 10 x 1,50	100	24	10,0	8,0	3R37946

AL · ACERO 400-800 N/mm² · HSS-CO 5% · DIN 376 · FORM B-AZ · TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	2,2	-	3R38926
M 4 x 0,70	63	13	2,8	2,1	3R38930
M 5 x 0,80	70	16	3,5	2,7	3R38934
M 6 x 1,00	80	19	4,5	3,4	3R38938
M 8 x 1,25	90	22	6,0	4,9	3R38942
M 10 x 1,50	100	24	7,0	5,5	3R38946
M 12 x 1,75	110	29	9,0	7,0	3R38950
M 14 x 2,00	110	30	11,0	9,0	3R38954
M 16 x 2,00	110	32	12,0	9,0	3R38958
M 18 x 2,50	125	34	14,0	11,0	3R38962
M 20 x 2,50	140	34	16,0	12,0	3R38966
M 22 x 2,50	140	34	18,0	14,5	3R38970
M 24 x 3,00	160	38	18,0	14,5	3R38974

MÉTRICA ISO-ROSCA DIN 13 EXTRA-LARGOS
METRIC ISO-THREAD DIN 13 EXTRALONG
MÉTRIQUE DIN-13 EXTRALONG



100 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0.50	100	11	3,5	2,7	3R32010
M 4 x 0.70	100	13	4,5	3,4	3R32011
M 5 x 0.80	100	16	6,0	4,9	3R32012
M 6 x 1.00	100	19	6,0	4,9	3R32013
M 8 x 1.25	100	22	8,0	6,2	3R32014

120 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 4 x 0,70	120	13	4,5	3,4	3R32021
M 5 x 0,80	120	16	6,0	4,9	3R32022
M 6 x 1,00	120	19	6,0	4,9	3R32023
M 8 x 1,25	120	22	8,0	6,2	3R32024
M 10 x 1,50	120	24	10,0	8,0	3R32025
M 12 x 1,75	120	29	12,0	9,0	3R32026

150 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 4 x 0,70	150	13	4,5	3,4	3R32031
M 5 x 0,80	150	16	6,0	4,9	3R32032
M 6 x 1,00	150	19	6,0	4,9	3R32033
M 8 x 1,25	150	22	8,0	6,2	3R32034
M 10 x 1,50	150	24	10,0	8,0	3R32035
M 12 x 1,75	150	29	12,0	9,0	3R32036

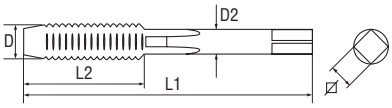
150 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 376 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 4 x 0.7	150	13	2.8	2,1	3R32071
M 5 x 0.8	150	16	3.5	2,7	3R32072
M 6 x 1.0	150	19	4.5	3,4	3R32073
M 8 x 1.25	150	22	6.0	4,9	3R32074
M 10 x1.5	150	24	7.0	5,5	3R32075
M 12 x1.75	150	29	9.0	7,0	3R32076

MÉTRICA ISO-ROSCA DIN 13 EXTRA-LARGOS
METRIC ISO-THREAD DIN 13 EXTRALONG
MÉTRIQUE DIN-13 EXTRALONG



100 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	100	6	3,5	2,7	3R32040
M 4 x 0,70	100	7	4,5	3,4	3R32041
M 5 x 0,80	100	8	6,0	4,9	3R32042
M 6 x 1,00	100	10	6,0	4,9	3R32043
M 8 x 1,25	100	14	8,0	6,2	3R32044

120 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 4 x 0,70	120	7	4,5	3,4	3R32051
M 5 x 0,80	120	8	6,0	4,9	3R32052
M 6 x 1,00	120	10	6,0	4,9	3R32053
M 8 x 1,25	120	14	8,0	6,2	3R32054
M 10 x 1,50	120	16	10,0	8,0	3R32055
M 12 x 1,75	120	18	12,0	9,0	3R32056

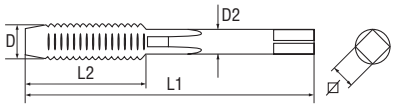
150 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 4 x 0,70	150	7	4,5	3,4	3R32061
M 5 x 0,80	150	8	6,0	4,9	3R32062
M 6 x 1,00	150	10	6,0	4,9	3R32063
M 8 x 1,25	150	14	8,0	6,2	3R32064
M 10 x 1,50	150	16	10,0	8,0	3R32065
M 12 x 1,75	150	18	12,0	9,0	3R32066

MÉTRICA ISO-ROSCA DIN 13 SOBREDIMENSIONADO
METRIC ISO-THREAD DIN 13 OVERSIZED
MÉTRIQUE DIN-13 SURDIMENSIONNÉ



ACERO 400-800 N/mm²

HSS-CO 5% | DIN 371 | DIN 376 | FORM B | TOL 6G



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 2,5 x 0,45	50	9	2,8	2,1	3R32522
M 3,0 x 0,50	56	5	3,5	2,7	3R32526
M 4,0 x 0,70	63	7	4,5	3,4	3R32530
M 5,0 x 0,80	70	8	6,0	4,9	3R32534
M 6,0 x 1,00	80	10	6,0	4,9	3R32538
M 8,0 x 1,25	90	13	8,0	6,2	3R32542
M 10,0 x 1,50	100	15	10,0	8,0	3R32546
M 12,0 x 1,75*	110	18	90,0	7,0	3R32550
M 14,0 x 2,00*	110	20	11,0	9,0	3R32554
M 16,0 x 2,00*	110	20	12,0	9,0	3R32558
M 18,0 x 2,50*	125	34	14,0	11,0	3R32562
M 20,0 x 2,50*	140	34	16,0	12,0	3R32566

ACERO 400-800 N/mm²

HSS-CO 5% | DIN 371 | DIN 376 | FORM B | TOL 7G



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	3,5	2,7	3R32503
M 4 x 0,70	63	13	4,5	3,4	3R32504
M 5 x 0,80	70	16	6,0	4,9	3R32505
M 6 x 1,00	80	19	6,0	4,9	3R32506
M 8 x 1,25	90	22	6,0	6,2	3R32508
M 10 x 1,50	100	24	10,0	8,0	3R32510
M 12 x 1,75*	110	29	9,0	7,0	3R32512

ACERO 400-800 N/mm²

HSS-CO 5% | DIN 371 | DIN 376 | FORM B | TOL 6H +0,1 mm



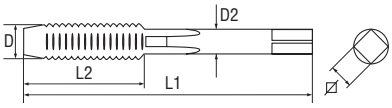
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	3,5	2,7	3R32583
M 4 x 0,70	63	13	4,5	3,4	3R32584
M 5 x 0,80	70	16	6,0	4,9	3R32585
M 6 x 1,00	80	19	6,0	4,9	3R32586
M 8 x 1,25	90	22	8,0	6,2	3R32588
M 10 x 1,50	100	24	10,0	8,0	3R32590
M 12 x 1,75*	110	29	9,0	7,0	3R32592

* Machos en DIN376 / *Taps on DIN376* / *Tarauds en DIN376*
Sobredimensión: 0.02 - 0.04 mm / *Oversize 0.02 - 0.04 mm* / *Surcotage 0.02 - 0.04 mm*
Materiales tratados superficialmente (galvanizados, cromados…) / *For pre plate material for galvanising* / *Pour matériaux présentant une couche de galvanisation*

M MÉTRICA ISO-ROSCA DIN 13 SOBREDIMENSIONADO

METRIC ISO-THREAD DIN 13 OVERSIZED

MÉTRIQUE DIN-13 SURDIMENSIONNÉ



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | DIN 376 | FORM C/35° | TOL 6G



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 3,0 x 0,50	56	6	3,5	2,7	3R32726
M 4,0 x 0,70	63	7	4,5	3,4	3R32730
M 5,0 x 0,80	70	8	6,0	4,9	3R32734
M 6,0 x 1,00	80	10	6,0	4,9	3R32738
M 8,0 x 1,25	90	14	8,0	6,2	3R32742
M 10,0 x 1,50	100	16	10,0	8,0	3R32746
M 12,0 x 1,75*	110	18	9,0	7,0	3R32750
M 14,0 x 2,00*	110	20	11,0	9,0	3R32754
M 16,0 x 2,00*	110	22	12,0	9,0	3R32758
M 18,0 x 2,50*	125	25	14,0	11,0	3R32762
M 20,0 x 2,50*	140	25	16,0	12,0	3R32766

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | DIN 376 | FORM C/35° | TOL 7G



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 3 x 0,50	56	6	3,5	2,7	3R32703
M 4 x 0,70	63	7	4,5	3,4	3R32704
M 5 x 0,80	70	8	6,0	4,9	3R32705
M 6 x 1,00	80	10	6,0	4,9	3R32706
M 8 x 1,25	90	14	8,0	6,2	3R32708
M 10 x 1,50	100	16	10,0	8,0	3R32710
M 12 x 1,75*	110	18	9,0	7,0	3R32712

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | DIN 376 | FORM C/35° | TOL 6H +0,1 mm



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 3 x 0,50	56	6	3,5	2,7	3R32783
M 4 x 0,70	63	7	4,5	3,4	3R32784
M 5 x 0,80	70	8	6,0	4,9	3R32785
M 6 x 1,00	80	10	6,0	4,9	3R32786
M 8 x 1,25	90	14	8,0	6,2	3R32788
M 10 x 1,50	100	16	10,0	8,0	3R32790
M 12 x 1,75*	110	18	9,0	7,0	3R32792

* Machos en DIN376 / *Taps on DIN376* / *Tarauds en DIN376*

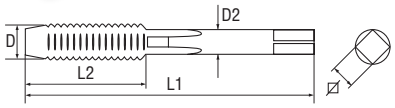
Sobredimensión: 0.02 - 0.04 mm / *Oversize 0.02 - 0.04 mm* / *Surcotage 0.02 - 0.04 mm*

Materiales tratados superficialmente (galvanizados, cromados…) / *For pre plate material for galvanising* / *Pour matériaux présentant une couche de galvanisation*

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C | TOL 6H

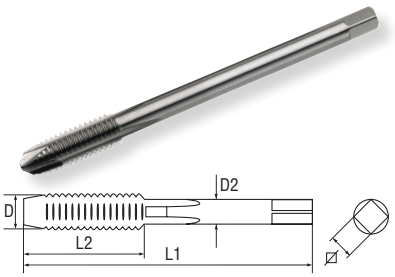


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 4 x 0,35	63	10	2,8	2,1	3R39402
M 5 x 0,50	70	12	3,5	2,7	3R39404
M 6 x 0,75	80	14	4,5	3,4	3R39407
M 8 x 0,75	80	19	6,0	4,9	3R39410
M 8 x 1,00	90	22	6,0	4,9	3R39411
M 10 x 1,00	90	20	7,0	5,5	3R39415
M 10 x 1,25	100	24	7,0	5,5	3R39416
M 12 x 1,00	100	22	9,0	7,0	3R39420
M 12 x 1,25	100	22	9,0	7,0	3R39421
M 12 x 1,50	100	22	9,0	7,0	3R39422
M 14 x 1,00	100	22	11,0	9,0	3R39426
M 14 x 1,25	100	22	11,0	9,0	3R39427
M 14 x 1,50	100	22	11,0	9,0	3R39428
M 16 x 1,00	100	22	12,0	9,0	3R39431
M 16 x 1,50	100	22	12,0	9,0	3R39433
M 18 x 1,00	110	25	14,0	11,0	3R39434
M 18 x 1,50	110	25	14,0	11,0	3R39436
M 18 x 2,00	125	34	14,0	11,0	3R39437
M 20 x 1,00	125	25	16,0	12,0	3R39438
M 20 x 1,25	125	25	16,0	12,0	3R39439
M 20 x 1,50	125	25	16,0	12,0	3R39440
M 20 x 2,00	140	34	16,0	12,0	3R39441
M 22 x 1,00	125	25	18,0	14,5	3R39443
M 22 x 1,50	125	25	18,0	14,5	3R39445
M 22 x 2,00	140	34	18,0	14,5	3R39446
M 24 x 1,00	140	28	18,0	14,5	3R39448
M 24 x 1,50	140	28	18,0	14,5	3R39450
M 24 x 2,00	140	28	18,0	14,5	3R39451
M 25 x 1,00	140	28	18,0	14,5	3R39452
M 26 x 1,50	140	28	18,0	14,5	3R39454
M 27 x 1,50	140	28	20,0	16,0	3R39456
M 27 x 2,00	140	28	20,0	16,0	3R39457
M 28 x 1,50	140	28	20,0	16,0	3R39459
M 30 x 1,50	150	28	22,0	16,0	3R39463
M 30 x 2,00	150	28	22,0	18,0	3R39464
M 32 x 1,50	150	28	22,0	18,0	3R39466
M 32 x 2,00	150	28	22,0	18,0	3R39467
M 33 x 2,00	160	28	25,0	20,0	3R39468
M 35 x 1,50	170	30	28,0	22,0	3R39472
M 36 x 1,50	170	30	28,0	22,0	3R39473
M 36 x 2,00	170	30	28,0	22,0	3R39474
M 38 x 1,50	170	30	28,0	22,0	3R39476
M 40 x 1,50	170	30	32,0	24,0	3R39480
M 42 x 1,50	170	30	32,0	24,0	3R39483
M 45 x 1,50	180	32	36,0	29,0	3R39486
M 48 x 1,50	190	32	36,0	29,0	3R39489
M 50 x 1,50	190	32	36,0	29,0	3R39494
M 52 x 1,50	190	32	40,0	32,0	3R39497

Mf MÉTRICA FINA ISO-ROSCA DIN 13

METRIC FINE ISO-THREAD DIN 13

MÉTRIQUE FIN ISO DIN-13



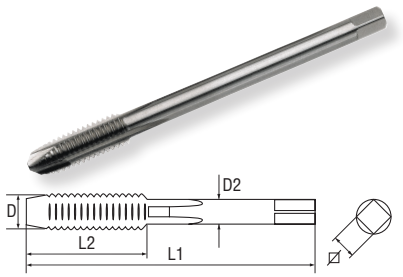
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⍁ (mm)	Cod.
M 3 x 0,35	56	9	2,2	-	3R39501
M 4 x 0,35	63	10	2,8	2,1	3R39502
M 4 x 0,50	63	10	2,8	2,1	3R39503
M 5 x 0,50	70	12	3,5	2,7	3R39504
M 5 x 0,75	70	12	3,5	2,7	3R39505
M 6 x 0,50	80	14	4,5	3,4	3R39506
M 6 x 0,75	80	14	4,5	3,4	3R39507
M 7 x 0,75	80	14	5,5	4,3	3R39508
M 8 x 0,50	80	19	6,0	4,9	3R39509
M 8 x 0,75	80	19	6,0	4,9	3R39510
M 8 x 1,00	90	22	6,0	4,9	3R39511
M 9 x 0,75	80	19	7,0	5,5	3R39512
M 9 x 1,00	90	22	7,0	5,5	3R39513
M 10 x 0,75	90	20	7,0	5,5	3R39514
M 10 x 1,00	90	20	7,0	5,5	3R39515
M 10 x 1,25	100	24	7,0	5,5	3R39516
M 11 x 1,00	90	20	8,0	6,2	3R39517
M 11 x 1,25	90	22	8,0	6,2	3R39518
M 12 x 0,75	100	22	9,0	7,0	3R39519
M 12 x 1,00	100	22	9,0	7,0	3R39520
M 12 x 1,25	100	22	9,0	7,0	3R39521
M 12 x 1,50	100	22	9,0	7,0	3R39522
M 13 x 1,00	100	22	11,0	9,0	3R39523
M 13 x 1,50	100	22	11,0	9,0	3R39524
M 14 x 0,75	100	22	11,0	9,0	3R39525
M 14 x 1,00	100	22	11,0	9,0	3R39526
M 14 x 1,25	100	22	11,0	9,0	3R39527
M 14 x 1,50	100	22	11,0	9,0	3R39528
M 15 x 1,00	100	22	12,0	9,0	3R39529
M 15 x 1,50	100	22	12,0	9,0	3R39530
M 16 x 1,00	100	22	12,0	9,0	3R39531
M 16 x 1,25	100	22	12,0	9,0	3R39532
M 16 x 1,50	100	22	12,0	9,0	3R39533
M 18 x 1,00	110	25	14,0	11,0	3R39534
M 18 x 1,25	110	25	14,0	11,0	3R39535
M 18 x 1,50	110	25	14,0	11,0	3R39536
M 18 x 2,00	125	34	14,0	11,0	3R39537
M 20 x 1,00	125	25	16,0	12,0	3R39538
M 20 x 1,25	125	25	16,0	12,0	3R39539
M 20 x 1,50	125	25	16,0	12,0	3R39540
M 20 x 2,00	140	34	16,0	12,0	3R39541
M 21 x 1,50	125	25	16,0	12,0	3R39542
M 22 x 1,00	125	25	18,0	14,5	3R39543
M 22 x 1,25	125	25	18,0	14,5	3R39544
M 22 x 1,50	125	25	18,0	14,5	3R39545
M 22 x 2,00	140	34	18,0	14,5	3R39546
M 23 x 1,50	125	25	18,0	14,5	3R39547
M 24 x 1,00	140	28	18,0	14,5	3R39548
M 24 x 1,25	140	28	18,0	14,5	3R39549
M 24 x 1,50	140	28	18,0	14,5	3R39550
M 24 x 2,00	140	28	18,0	14,5	3R39551
M 25 x 1,00	140	28	18,0	14,5	3R39552

Mf MÉTRICA FINA ISO-ROSCA DIN 13

METRIC FINE ISO-THREAD DIN 13

MÉTRIQUE FIN ISO DIN-13



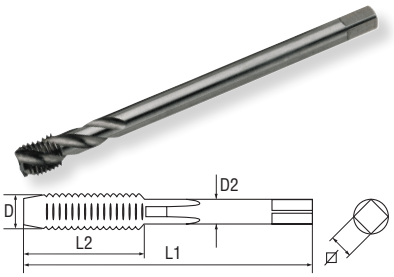
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 25 x 1,5	140	28	18,0	14,5	3R39553
M 26 x 1,0	140	28	18,0	14,5	3R3955X
M 26 x 1,5	140	28	18,0	14,5	3R39554
M 26 x 2,0	140	28	18,0	14,5	3R39555
M 27 x 1,0	140	28	20,0	16,0	3R39500
M 27 x 1,5	140	28	20,0	16,0	3R39556
M 27 x 2,0	140	28	20,0	16,0	3R39557
M 28 x 1,0	140	28	20,0	16,0	3R39558
M 28 x 1,5	140	28	20,0	16,0	3R39559
M 28 x 2,0	140	28	20,0	16,0	3R39560
M 29 x 1,5	150	28	22,0	18,0	3R39561
M 30 x 1,0	150	28	22,0	18,0	3R39562
M 30 x 1,5	150	28	22,0	18,0	3R39563
M 30 x 2,0	150	28	22,0	18,0	3R39564
M 30 x 2,5	180	45	22,0	18,0	3R3956X
M 30 x 3,0	180	45	22,0	18,0	3R39565
M 32 x 1,5	150	28	22,0	18,0	3R39566
M 32 x 2,0	150	28	22,0	18,0	3R39567
M 32 x 3,0	180	50	22,0	18,0	3R39592
M 33 x 1,5	160	30	25,0	20,0	3R39593
M 33 x 2,0	160	30	25,0	20,0	3R39568
M 33 x 3,0	180	50	25,0	20,0	3R39569
M 34 x 1,5	170	30	28,0	22,0	3R39570
M 34 x 2,0	170	30	28,0	22,0	3R39571
M 35 x 1,5	170	30	28,0	22,0	3R39572
M 36 x 1,5	170	30	28,0	22,0	3R39573
M 36 x 2,0	170	30	28,0	22,0	3R39574
M 36 x 3,0	200	56	28,0	22,0	3R39575
M 38 x 1,5	170	30	28,0	22,0	3R39576
M 39 x 1,5	170	30	32,0	24,0	3R39577
M 39 x 2,0	170	30	32,0	24,0	3R39578
M 39 x 3,0	200	60	32,0	24,0	3R39579
M 40 x 1,5	170	30	32,0	24,0	3R39580
M 40 x 2,0	170	30	32,0	24,0	3R39581
M 40 x 3,0	200	60	32,0	24,0	3R39582
M 42 x 1,5	170	30	32,0	24,0	3R39583
M 42 x 2,0	170	30	32,0	24,0	3R39584
M 42 x 3,0	200	60	32,0	24,0	3R39585
M 45 x 1,5	180	32	36,0	29,0	3R39586
M 45 x 2,0	180	32	36,0	29,0	3R39587
M 45 x 3,0	200	50	36,0	29,0	3R39588
M 48 x 1,5	190	32	36,0	36,0	3R39589
M 48 x 2,0	190	32	36,0	29,0	3R39590
M 48 x 3,0	225	50	36,0	36,0	3R39591
M 50 x 1,5	190	32	36,0	29,0	3R39594
M 50 x 2,0	190	32	36,0	36,0	3R39595
M 50 x 3,0	225	50	36,0	29,0	3R39596
M 52 x 1,5	190	32	40,0	32,0	3R39597
M 52 x 2,0	190	32	40,0	32,0	3R39598
M 52 x 3,0	225	50	40,0	32,0	3R39599
M 63 x 1,5	275	50	50,0	39,0	3R3959X

Mf MÉTRICA FINA ISO-ROSCA DIN 13

METRIC FINE ISO-THREAD DIN 13

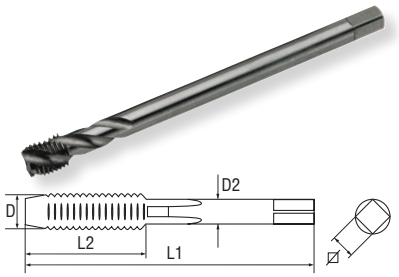
MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,35	56	5	2,2	-	3R39701
M 4 x 0,35	63	5	2,8	2,1	3R39702
M 4 x 0,50	63	5	2,8	2,1	3R39703
M 5 x 0,50	70	5	3,5	2,7	3R39704
M 5 x 0,75	70	8	3,5	2,7	3R39705
M 6 x 0,50	80	5	4,5	3,4	3R39706
M 6 x 0,75	80	8	4,5	3,4	3R39707
M 7 x 0,75	80	8	5,5	4,3	3R39708
M 8 x 0,50	80	8	6,0	4,9	3R39709
M 8 x 0,75	80	8	6,0	4,9	3R39710
M 8 x 1,00	90	10	6,0	4,9	3R39711
M 9 x 0,75	80	10	7,0	5,5	3R39712
M 9 x 1,00	90	10	7,0	5,5	3R39713
M 10 x 0,75	90	10	7,0	5,5	3R39714
M 10 x 1,00	90	10	7,0	5,5	3R39715
M 10 x 1,25	100	16	7,0	5,5	3R39716
M 11 x 1,00	90	11	8,0	6,2	3R39717
M 11 x 1,25	90	14	8,0	6,2	3R39718
M 12 x 0,75	100	10	9,0	7,0	3R39719
M 12 x 1,00	100	11	9,0	7,0	3R39720
M 12 x 1,25	100	15	9,0	7,0	3R39721
M 12 x 1,50	100	15	9,0	7,0	3R39722
M 13 x 1,00	100	11	11,0	9,0	3R39723
M 13 x 1,50	100	15	11,0	9,0	3R39724
M 14 x 0,75	100	10	11,0	9,0	3R39725
M 14 x 1,00	100	11	11,0	9,0	3R39726
M 14 x 1,25	100	15	11,0	9,0	3R39727
M 14 x 1,50	100	15	11,0	9,0	3R39728
M 15 x 1,00	100	12	12,0	9,0	3R39729
M 15 x 1,50	100	15	12,0	9,0	3R39730
M 16 x 1,00	100	12	12,0	9,0	3R39731
M 16 x 1,25	100	15	12,0	9,0	3R39732
M 16 x 1,50	100	15	12,0	9,0	3R39733
M 18 x 1,00	110	13	14,0	11,0	3R39734
M 18 x 1,25	110	15	14,0	11,0	3R39735
M 18 x 1,50	110	17	14,0	11,0	3R39736
M 18 x 2,00	125	20	14,0	11,0	3R39737
M 20 x 1,00	125	14	16,0	12,0	3R39738
M 20 x 1,25	125	17	16,0	12,0	3R39739
M 20 x 1,50	125	17	16,0	12,0	3R39740
M 20 x 2,00	140	20	16,0	12,0	3R39741
M 21 x 1,50	125	17	16,0	12,0	3R39742
M 22 x 1,00	125	14	18,0	14,5	3R39743
M 22 x 1,25	125	17	18,0	14,5	3R39744
M 22 x 1,50	125	17	18,0	14,5	3R39745
M 22 x 2,00	140	20	18,0	14,5	3R39746
M 23 x 1,50	125	17	18,0	14,5	3R39747
M 24 x 1,00	140	15	18,0	14,5	3R39748
M 24 x 1,25	140	17	18,0	14,5	3R39749
M 24 x 1,50	140	20	18,0	14,5	3R39750
M 24 x 2,00	140	20	18,0	14,5	3R39751
M 25 x 1,00	140	15	18,0	14,5	3R39752

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

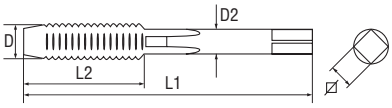


ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 25 x 1,5	140	20	18,0	14,5	3R39753
M 26 x 1,0	140	15	18,0	14,5	3R3975X
M 26 x 1,5	140	20	18,0	14,5	3R39754
M 26 x 2,0	140	20	18,0	14,5	3R39755
M 27 x 1,0	140	15	20,0	16,0	3R39700
M 27 x 1,5	140	20	20,0	16,0	3R39756
M 27 x 2,0	140	20	20,0	16,0	3R39757
M 28 x 1,0	140	15	20,0	16,0	3R39758
M 28 x 1,5	140	20	20,0	16,0	3R39759
M 28 x 2,0	140	20	20,0	16,0	3R39760
M 29 x 1,5	150	22	22,0	18,0	3R39761
M 30 x 1,0	150	17	22,0	18,0	3R39762
M 30 x 1,5	150	22	22,0	18,0	3R39763
M 30 x 2,0	150	22	22,0	18,0	3R39764
M 30 x 2,5	180	27	22,0	18,0	3R3976X
M 30 x 3,0	180	30	22,0	18,0	3R39765
M 32 x 1,5	150	22	22,0	18,0	3R39766
M 32 x 2,0	150	22	22,0	18,0	3R39767
M 32 x 3,0	180	30	22,0	18,0	3R39792
M 33 x 1,5	160	24	25,0	20,0	3R39793
M 33 x 2,0	160	24	25,0	20,0	3R39768
M 33 x 3,0	180	30	25,0	20,0	3R39769
M 34 x 1,5	170	24	28,0	22,0	3R39770
M 34 x 2,0	170	24	28,0	22,0	3R39771
M 35 x 1,5	170	24	28,0	22,0	3R39772
M 36 x 1,5	170	24	28,0	22,0	3R39773
M 36 x 2,0	170	24	28,0	22,0	3R39774
M 36 x 3,0	200	30	28,0	22,0	3R39775
M 38 x 1,5	170	24	28,0	22,0	3R39776
M 39 x 1,5	170	25	32,0	24,0	3R39777
M 39 x 2,0	170	25	32,0	24,0	3R39778
M 39 x 3,0	200	30	32,0	24,0	3R39779
M 40 x 1,5	170	25	32,0	24,0	3R39780
M 40 x 2,0	170	25	32,0	24,0	3R39781
M 40 x 3,0	200	30	32,0	24,0	3R39782
M 42 x 1,5	170	25	32,0	24,0	3R39783
M 42 x 2,0	170	25	32,0	24,0	3R39784
M 42 x 3,0	200	30	32,0	24,0	3R39785
M 45 x 1,5	180	27	36,0	29,0	3R39786
M 45 x 2,0	180	27	36,0	29,0	3R39787
M 45 x 3,0	200	30	36,0	29,0	3R39788
M 48 x 1,5	190	27	36,0	29,0	3R39789
M 48 x 2,0	190	27	36,0	29,0	3R39790
M 48 x 3,0	225	33	36,0	29,0	3R39791
M 50 x 1,5	190	27	36,0	29,0	3R39794
M 50 x 2,0	190	27	36,0	29,0	3R39795
M 50 x 3,0	225	33	36,0	29,0	3R39796
M 52 x 1,5	190	27	40,0	32,0	3R39797
M 52 x 2,0	190	27	40,0	32,0	3R39798
M 52 x 3,0	225	33	40,0	32,0	3R39799
M 63 x 1,5	275	40	50,0	39,0	3R3979X

BSW

WHITWORTH BS 84
WHITWORTH BS 84
FILETAGE WHITWORTH BS 84



ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
BSW 1/8 x 40	56	11	3,5	2,7	3R70506
BSW 5/32 x 32	63	13	4,5	3,4	3R70508
BSW 3/16 x 24	70	15	6,0	4,9	3R70510
BSW 1/4 x 20	80	17	7,0	5,5	3R70514
BSW 5/16 x 18	90	20	8,0	6,2	3R70516
BSW 3/8 x 16	100	22	9,0	7,0	3R70518
BSW 7/16 x 14	100	22	11,0	9,0	3R70520
BSW 1/2 x 12	110	25	12,0	9,0	3R70522

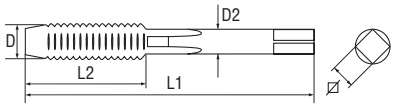
ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 376 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
BSW 1/4 x 20	80	17	4,5	3,4	3R71514
BSW 5/16 x 18	90	20	6,0	4,9	3R71516
BSW 3/8 x 16	100	22	7,0	5,5	3R71518
BSW 7/16 x 14	100	22	8,0	6,2	3R71520
BSW 1/2 x 12	110	25	9,0	7,0	3R71522
BSW 9/16 x 12	110	26	11,0	9,0	3R71524
BSW 5/8 x 11	110	27	12,0	9,0	3R71526
BSW 3/4 x 10	125	30	14,0	11,0	3R71530
BSW 7/8 x 9	140	32	18,0	14,5	3R71534
BSW 1 x 8	160	36	20,0	16,0	3R71538
BSW 1.1/8 x 7	180	40	22,0	18,0	3R71542
BSW 1.1/4 x 7	180	40	22,0	18,0	3R71546
BSW 1.3/8 x 6	200	50	28,0	22,0	3R71550
BSW 1.1/2 x 6	200	50	32,0	24,0	3R71554

BSW

WHITWORTH BS 84
WHITWORTH BS 84
FILETAGE WHITWORTH BS 84



ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM C/35°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
BSW 1/8 x 40	56	7	3,5	2,7	3R70706
BSW 5/32 x 32	63	7	4,5	3,4	3R70708
BSW 3/16 x 24	70	10	6,0	4,9	3R70710
BSW 1/4 x 20	80	13	7,0	5,5	3R70714
BSW 5/16 x 18	90	14	8,0	6,2	3R70716
BSW 3/8 x 16	100	16	9,0	7,0	3R70718
BSW 7/16 x 14	100	17	11,0	9,0	3R70720
BSW 1/2 x 12	110	20	12,0	9,0	3R70722

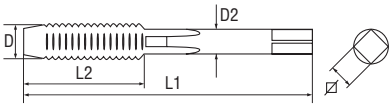
ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 376 | FORM C/35°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
BSW 1/4 x 20	80	13	4,5	3,4	3R71714
BSW 5/16 x 18	90	14	6,0	4,9	3R71716
BSW 3/8 x 16	100	16	7,0	5,5	3R71718
BSW 7/16 x 14	100	17	8,0	6,2	3R71720
BSW 1/2 x 12	110	20	9,0	7,0	3R71722
BSW 9/16 x 12	110	20	11,0	9,0	3R71724
BSW 5/8 x 11	110	22	12,0	9,0	3R71726
BSW 3/4 x 10	125	25	14,0	11,0	3R71730
BSW 7/8 x 9	140	27	18,0	14,5	3R71734
BSW 1 x 8	160	30	20,0	16,0	3R71738
BSW 1.1/4 x 7	180	35	22,0	18,0	3R71746
BSW 1.3/8 x 6	200	40	28,0	22,0	3R71750
BSW 1.1/2 x 6	200	40	32,0	24,0	3R71754

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM B | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
UNC Nr.	4 x 40	50	10	3,5	2,7	3R74504
UNC Nr.	5 x 40	56	11	3,5	2,7	3R74505
UNC Nr.	6 x 32	56	12	4,0	3,0	3R74506
UNC Nr.	8 x 32	63	13	4,5	3,4	3R74508
UNC Nr.	10 x 24	70	15	6,0	4,9	3R74510
UNC Nr.	12 x 24	70	16	6,0	4,9	3R74512
UNC	1/4 x 20	80	17	7,0	5,5	3R74514
UNC	5/16 x 18	90	20	8,0	6,2	3R74516
UNC	3/8 x 16	100	22	9,0	7,2	3R74518

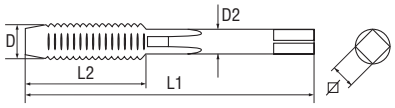
ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 376 | FORM B | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
UNC Nr.	4 x 40	50	10	1,8	-	3R75504
UNC Nr.	5 x 40	56	11	2,2	1,8	3R75505
UNC Nr.	6 x 32	56	12	2,5	2,1	3R75506
UNC Nr.	8 x 32	63	13	2,8	2,1	3R75508
UNC Nr.	10 x 24	70	15	3,5	2,7	3R75510
UNC Nr.	12 x 24	70	16	3,5	2,7	3R75512
UNC	1/4 x 20	80	17	4,5	3,4	3R75514
UNC	5/16 x 18	90	20	6,0	4,9	3R75516
UNC	3/8 x 16	100	22	7,0	5,5	3R75518
UNC	7/16 x 14	100	22	8,0	6,2	3R75520
UNC	1/2 x 13	110	25	9,0	7,0	3R75522
UNC	9/16 x 12	110	26	11,0	9,0	3R75524
UNC	5/8 x 11	110	27	12,0	9,0	3R75526
UNC	3/4 x 10	125	30	14,0	11,0	3R75530
UNC	7/8 x 9	140	32	18,0	14,5	3R75534
UNC	1 x 8	160	36	20,0	16,0	3R75538
UNC	1.1/4 x 7	180	40	22,0	18,0	3R75546
UNC	1.1/2 x 6	200	50	32,0	24,0	3R75554
UNC	1.3/4 x 5	220	65	36,0	29,0	3R75562
UNC	2 x 4.1/2	250	70	40,0	32,0	3R75570

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
ILETAGE UNIFIED GROSSE ANSI B 1.1



ACERO 400-800 N/mm²

HSS-CO 5%

≈DIN 371

FORM C/35°

TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC Nr.	4 x 40	50	6	3,5	2,7	3R74704
UNC Nr.	5 x 40	56	7	3,5	2,7	3R74705
UNC Nr.	6 x 32	56	7	3,5	3,0	3R74706
UNC Nr.	8 x 32	63	8	4,5	3,4	3R74708
UNC Nr.	10 x 24	70	10	6,0	4,9	3R74710
UNC Nr.	12 x 24	70	10	6,0	4,9	3R74712
UNC	1/4 x 20	80	13	7,0	5,5	3R74714
UNC	5/16 x 18	90	14	8,0	6,2	3R74716
UNC	3/8 x 16	100	16	9,0	7,0	3R74718

ACERO 400-800 N/mm²

HSS-CO 5%

≈DIN 376

FORM C/35°

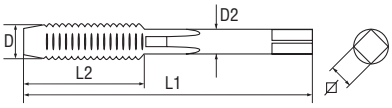
TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC	4 x 40	50	6	1,8	-	3R75704
UNC Nr.	5 x 40	56	7	2,2	1,8	3R75705
UNC Nr.	6 x 32	56	7	2,5	2,1	3R75706
UNC Nr.	8 x 32	63	8	2,8	2,1	3R75708
UNC Nr.	10 x 24	70	10	3,5	2,7	3R75710
UNC Nr.	12 x 24	70	10	3,5	2,7	3R75712
UNC	1/4 x 20	80	13	4,5	3,4	3R75714
UNC	5/16 x 18	90	14	6,0	4,9	3R75716
UNC	3/8 x 16	100	16	7,0	5,5	3R75718
UNC	7/16 x 14	100	17	8,0	6,2	3R75720
UNC	1/2 x13	110	20	9,0	7,0	3R75722
UNC	9/16 x 12	110	20	11,0	9,0	3R75724
UNC	5/8 x 11	110	22	12,0	9,0	3R75726
UNC	3/4 x 10	125	25	14,0	11,0	3R75730
UNC	7/8 x 9	140	27	18,0	14,5	3R75734
UNC	1 x 8	160	30	20,0	16,0	3R75738
UNC	1.1/4 x 7	180	35	22,0	18,0	3R75746
UNC	1.1/2 x 6	200	40	32,0	24,0	3R75754
UNC	1.3/4 x 5	220	45	36,0	29,0	3R75762
UNC	2 x 4.1/2	250	50	40,0	32,0	3R75770

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



ACERO 400-800 N/mm²

HSS-CO 5% | ≈DIN 371 | FORM B | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
UNF Nr.	4 x 48	50	10	3,5	2,7	3R76504
UNF Nr.	5 x 44	56	11	3,5	2,7	3R76505
UNF Nr.	6 x 40	56	12	4,0	3,0	3R76506
UNF Nr.	8 x 36	63	13	4,5	3,4	3R76508
UNF Nr.	10 x 32	70	15	6,0	4,9	3R76510
UNF Nr.	12 x 28	70	16	6,0	4,9	3R76512
UNF	1/4 x 28	80	17	7,0	5,5	3R76514
UNF	5/16 x 24	90	17	8,0	6,2	3R76516
UNF	3/8 x 24	100	18	9,0	7,0	3R76518

ACERO 400-800 N/mm²

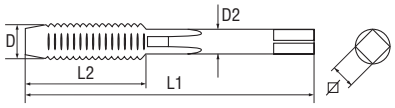
HSS-CO 5% | ≈DIN 376 | FORM B | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
UNF	7/16 x 20	100	22	8,0	6,2	3R77520
UNF	1/2 x 20	100	22	9,0	7,0	3R77522
UNF	9/16 x 18	100	22	11,0	9,0	3R77524
UNF	5/8 x 18	100	22	12,0	9,0	3R77526
UNF	3/4 x 16	110	25	14,0	11,0	3R77530
UNF	7/8 x 14	140	26	18,0	14,5	3R77534
UNF	1 x 14	150	28	20,0	16,0	3R77540
UNF	1 x 12	150	28	20,0	16,0	3R77538
UNF	1.1/4 x 12	150	30	22,0	18,0	3R77546
UNF	1.1/2 x 12	170	33	32,0	24,0	3R77554

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



ACERO 400-800 N/mm²

HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF Nr.	4 x 48	50	6	3,5	2,7	3R76704
UNF Nr.	5 x 44	56	7	3,5	2,7	3R76705
UNF Nr.	6 x 40	56	7	4,0	3,0	3R76706
UNF Nr.	8 x 36	63	8	4,5	3,4	3R76708
UNF Nr.	10 x 32	70	10	6,0	4,9	3R76710
UNF Nr.	12 x 28	70	10	6,0	4,9	3R76712
UNF	1/4 x 28	80	10	7,0	5,5	3R76714
UNF	5/16 x 24	90	10	8,0	6,2	3R76716
UNF	3/8 x 24	100	10	9,0	7,0	3R76718

ACERO 400-800 N/mm²

HSS-CO 5% | ≈DIN 376 | FORM C/35° | TOL 2B

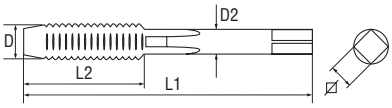


D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF	7/16 x 20	100	13	8,0	6,2	3R77720
UNF	1/2 x 20	100	13	9,0	7,0	3R77722
UNF	9/16 x 18	100	15	11,0	9,0	3R77724
UNF	5/8 x 18	100	15	12,0	9,0	3R77726
UNF	3/4 x 16	110	17	14,0	11,0	3R77730
UNF	7/8 x 14	140	17	18,0	14,5	3R77734
UNF	1 x 14	150	20	20,0	16,0	3R77740
UNF	1 x 12	150	20	20,0	16,0	3R77738
UNF	1.1/4 x 12	150	22	22,0	18,0	3R77746
UNF	1.1/2 x 12	170	25	32,0	24,0	3R77754

UN ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1

FILETAGE UNIFIÉ ANSI B 1.1



8-UN



ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM B | TOL 2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UN 1.1/16 x 8	138	48	20,0	16,0	3R83101
UN 1.1/8 x 8	138	48	20,0	16,0	3R83102
UN 1.3/16 x 8	151	51	22,4	18,0	3R83103
UN 1.1/4 x 8	151	51	22,4	18,0	3R83104
UN 1.5/16 x 8	162	57	25,0	20,0	3R83105
UN 1.3/8 x 8	162	57	25,0	20,0	3R83106
UN 1.1/2 x 8	170	60	28,0	22,4	3R83107
UN 1.5/8 x 8	170	60	28,0	22,4	3R83108
UN 1.3/4 x 8	187	67	31,5	25,0	3R83109
UN 1.7/8 x 8	187	67	31,5	25,0	3R83110
UN 2 x 8	200	70	35,5	28,0	3R83111
UN 2.1/8 x 8	200	70	35,5	28,0	3R83112
UN 2.1/4 x 8	221	76	40,0	31,5	3R83113
UN 2.1/2 x 8	224	79	40,0	31,5	3R83115
UN 2.3/4 x 8	234	79	45,0	35,5	3R83116
UN 3 x 8	258	83	50,0	40,0	3R83117
UN 3.1/4 x 8	261	86	50,0	40,0	3R83118
UN 3.1/2 x 8	261	86	50,0	40,0	3R83119
UN 3.3/4 x 8	279	89	56,0	45,0	3R83120
UN 4 x 8	279	89	56,0	45,0	3R83121

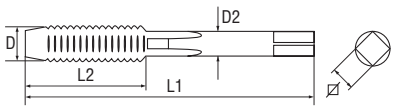
12-UN



ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM B | TOL 2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UN 1.5/8 x 12	170	60	28.0	22.4	3R83301
UN 1.3/4 x 12	187	67	31.5	25.0	3R83302
UN 1.7/8 x 12	187	67	31.5	25.0	3R83303
UN 2 x 12	200	70	35.5	28.0	3R83304
UN 2.1/8 x 12	200	70	35.5	28.0	3R83305
UN 2.1/4 x 12	221	76	40.0	31.5	3R83306
UN 2.1/2 x 12	224	79	40.0	31.5	3R83308
UN 2.3/4 x 12	234	79	45.0	35.5	3R83309
UN 3 x 12	258	83	50.0	40.0	3R83310
UN 3.1/4 x 12	261	86	50.0	40.0	3R83311
UN 3.1/2 x 12	261	86	50.0	40.0	3R83312
UN 3.3/4 x 12	279	89	56.0	45.0	3R83313
UN 4 x 12	279	89	56.0	45.0	3R83314

UN ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1



8-UN

ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM C/35º | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UN 1.1/16 x 8	138	48	20,0	16,0	3R83151
UN 1.1/8 x 8	138	48	20,0	16,0	3R83152
UN 1.3/16 x 8	151	51	22,4	18,0	3R83153
UN 1.1/4 x 8	151	51	22,4	18,0	3R83154
UN 1.5/16 x 8	162	57	25,0	20,0	3R83155
UN 1.3/8 x 8	162	57	25,0	20,0	3R83156
UN 1.1/2 x 8	170	60	28,0	22,4	3R83157
UN 1.5/8 x 8	170	60	28,0	22,4	3R83158
UN 1.3/4 x 8	187	67	31,5	25,0	3R83159
UN 1.7/8 x 8	187	67	31,5	25,0	3R83160
UN 2 x 8	200	70	35,5	28,0	3R83161
UN 2.1/8 x 8	200	70	35,5	28,0	3R83162
UN 2.1/4 x 8	221	76	40,0	31,5	3R83163
UN 2.1/2 x 8	224	79	40,0	31,5	3R83165
UN 2.3/4 x 8	234	79	45,0	35,5	3R83166
UN 3 x 8	258	83	50,0	40,0	3R83167
UN 3.1/4 x 8	261	86	50,0	40,0	3R83168
UN 3.1/2 x 8	261	86	50,0	40,0	3R83169
UN 3.3/4 x 8	279	89	56,0	45,0	3R83170
UN 4 x 8	279	89	56,0	45,0	3R83171

12-UN

ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM C/35º | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UN 1.5/8 x 12	170	60	28,0	22,4	3R83351
UN 1.3/4 x 12	187	67	31,5	25,0	3R83352
UN 1.7/8 x 12	187	67	31,5	25,0	3R83353
UN 2 x 12	200	70	35,5	28,0	3R83354
UN 2.1/8 x 12	200	70	35,5	28,0	3R83355
UN 2.1/4 x 12	221	76	40,0	31,5	3R83356
UN 2.1/2 x 12	224	79	40,0	31,5	3R83358
UN 2.3/4 x 12	234	79	45,0	35,5	3R83359
UN 3 x 12	258	83	50,0	40,0	3R83360
UN 3.1/4 x 12	261	86	50,0	40,0	3R83361
UN 3.1/2 x 12	261	86	50,0	40,0	3R83362
UN 3.3/4 x 12	279	89	56,0	45,0	3R83363
UN 4 x 12	279	89	56,0	45,0	3R83364

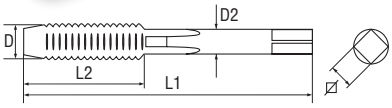
UNEF ROSCA EXTRA FINA UNIFICADA ANSI B 1.1

UNIFIED EXTRA FINE THREAD ANSI B 1.1

FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B 1.1



ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM B | TOL 2B



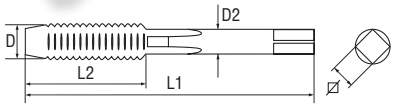
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNEF Nr. 12 x 32	62	17	5,6	4,5	3R83320
UNEF 1/4 x 32	66	19	6,3	5,0	3R83321
UNEF 5/16 x 32	72	22	8,0	6,3	3R83322
UNEF 3/8 x 32	80	24	10,0	8,0	3R83323
UNEF 7/16 x 28	85	25	8,0	6,3	3R83324
UNEF 1/2 x 28	89	29	9,0	7,1	3R83325
UNEF 9/16 x 24	95	30	11,2	9,0	3R83326
UNEF 5/8 x 24	102	32	12,5	10,0	3R83327
UNEF 11/16 x 24	112	37	14,0	11,2	3R83328
UNEF 3/4 x 20	112	37	14,0	11,2	3R83329
UNEF 13/16 x 20	118	38	16,0	12,5	3R83330
UNEF 7/8 x 20	118	38	16,0	12,5	3R83331
UNEF 15/16 x 20	130	45	18,0	14,0	3R83332
UNEF 1" x 20	130	45	18,0	14,0	3R83333
UNEF 1.1/16 x 18	138	48	20,0	16,0	3R83334
UNEF 1.1/8 x 18	138	48	20,0	16,0	3R83335
UNEF 1.3/16 x 18	151	51	22,4	18,0	3R83336
UNEF 1.1/4 x 18	151	51	22,4	18,0	3R83337
UNEF 1.5/16 x 18	162	57	25,0	20,0	3R83338
UNEF 1.3/8 x 18	162	57	25,0	20,0	3R83339
UNEF 1.7/16 x 18	170	60	28,0	22,4	3R83340
UNEF 1.1/2 x 18	170	60	28,0	22,4	3R83341
UNEF 1.9/16 x 18	170	60	28,0	22,4	3R83342
UNEF 1.5/8 x 18	170	60	28,0	22,4	3R83343
UNEF 1.11/16 x 18	187	67	31,5	25,0	3R83344
UNEF 1.3/4 x 18	187	67	31,5	25,0	3R83345
UNEF 2 x 18	200	70	35,5	28,0	3R83346

UNEF ROSCA EXTRA FINA UNIFICADA ANSI B 1.1

UNIFIED EXTRA FINE THREAD ANSI B 1.1

FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B 1.1





ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM C/35º | TOL 2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNEF Nr. 12 x 32	62	17	5,6	4,5	3R83370
UNEF 1/4 x 32	66	19	6,3	5,0	3R83371
UNEF 5/16 x 32	72	22	8,0	6,3	3R83372
UNEF 3/8 x 32	80	24	10,0	8,0	3R83373
UNEF 7/16 x 28	85	25	8,0	6,3	3R83374
UNEF 1/2 x 28	89	29	9,0	7,1	3R83375
UNEF 9/16 x 24	95	30	11,2	9,0	3R83376
UNEF 5/8 x 24	102	32	12,5	10,0	3R83377
UNEF 11/16 x 24	112	37	14,0	11,2	3R83378
UNEF 3/4 x 20	112	37	14,0	11,2	3R83379
UNEF 13/16 x 20	118	38	16,0	12,5	3R83380
UNEF 7/8 x 20	118	38	16,0	12,5	3R83381
UNEF 15/16 x 20	130	45	18,0	14,0	3R83382
UNEF 1 x 20	130	45	18,0	14,0	3R83383

UNS ROSCA UNIFICADA ANSI B 1.1

UNIFIED THREAD ANSI B 1.1

FILETAGE UNIFIÉ ANSI B 1.1



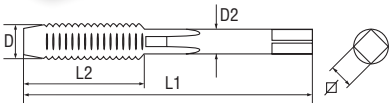
ACERO 400-800 N/mm²

HSS-CO 5%

ISO 529

FORM B

TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
UNS 1/4 x 24	66	19	6,3	5,0	3R83201
UNS 1/4 x 36	66	19	6,3	5,0	3R83202
UNS 1/4 x 40	66	19	6,3	5,0	3R83203
UNS 3/8 x 27	80	24	10,0	8,0	3R83204
UNS 7/16 x 24	85	25	8,0	6,3	3R83205
UNS 1/2 x 24	89	29	9,0	7,1	3R83206
UNS 5/8 x 27	102	32	12,5	10,0	3R83207
UNS 3/4 x 24	112	37	14,0	11,2	3R83208
UNS 7/8 x 18	118	38	16,0	12,5	3R83209
UNS 1 x 14	130	45	18,0	14,0	3R83210

UN ROSCA UNIFICADA ANSI B 1.1

UNIFIED THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1



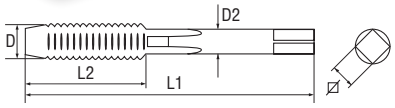
ACERO 400-800 N/mm²

HSS-CO 5%

ISO 529

FORM B

TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UN 5/16 x 28	72	22	8,0	6,3	3R83221
UN 3/8 x 20	80	24	10,0	8,0	3R83222
UN 3/8 x 28	80	24	10,0	8,0	3R83223
UN 7/16 x 32	85	25	8,0	6,3	3R83224
UN 1/2 x 32	89	29	9,0	7,1	3R83225
UN 9/16 x 20	95	30	11,2	9,0	3R83226
UN 9/16 x 28	95	30	11,2	9,0	3R83227
UN 9/16 x 32	95	30	11,2	9,0	3R83228
UN 5/8 x 20	102	32	12,5	10,0	3R83229
UN 5/8 x 28	102	32	12,5	10,0	3R83230
UN 11/16 x 20	112	37	14,0	11,2	3R83231
UN 11/16 x 16	112	37	14,0	11,2	3R83232
UN 1 x 32	130	45	18,0	14,0	3R83233

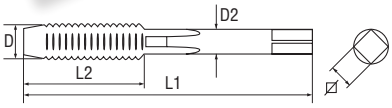
G(BSP) ROSCA GAS DIN ISO 228

PIPE THREAD ISO 228

FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 5156 | FORM C



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
G 1/8 x 28	90	20	7,0	5,5	3R78412
G 1/4 x 19	100	22	11,0	9,0	3R78414
G 3/8 x 19	100	22	12,0	9,0	3R78416
G 1/2 x 14	125	25	12,0	12,0	3R78418
G 5/8 x 14	125	25	18,0	14,5	3R78420
G 3/4 x 14	140	28	20,0	16,0	3R78422
G 7/8 x 14	150	28	22,0	18,0	3R78424
G 1 x 11	160	30	25,0	20,0	3R78426
G 1.1/8 x 11	170	30	28,0	22,0	3R78430
G 1.1/4 x 11	170	30	32,0	24,0	3R78434
G 1.3/8 x 11	180	32	36,0	29,0	3R78438
G 1.1/2 x 11	190	32	36,0	29,0	3R78442
G 1.3/4 x 11	190	32	40,0	32,0	3R78450
G 2 x 11	220	40	45,0	35,0	3R78454

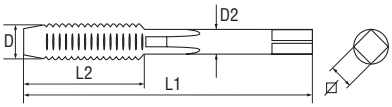
G(BSP) ROSCA GAS DIN ISO 228

PIPE THREAD ISO 228

FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 5156 | FORM B



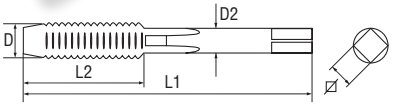
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
G 1/8 x 28	90	20	7,0	5,5	3R78512
G 1/4 x 19	100	22	11,0	9,0	3R78514
G 3/8 x 19	100	22	12,0	9,0	3R78516
G 1/2 x 14	125	22	16,0	12,0	3R78518
G 5/8 x 14	125	25	18,0	14,5	3R78520
G 3/4 x 14	140	28	20,0	16,0	3R78522
G 7/8 x 14	150	28	22,0	18,0	3R78524
G 1 x 11	160	30	25,0	20,0	3R78526
G 1.1/8 x 11	170	30	28,0	22,0	3R78530
G 1.1/4 x 11	170	30	32,0	24,0	3R78534
G 1.3/8 x 11	180	32	36,0	29,0	3R78538
G 1.1/2 x 11	190	32	36,0	29,0	3R78542
G 1.3/4 x 11	190	32	40,0	32,0	3R78550
G 2 x 11	220	40	45,0	35,0	3R78554

G(BSP) ROSCA GAS DIN ISO 228

PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 5156 | FORM C/35°



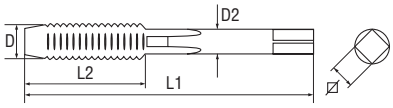
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
G 1/8 x 28	90	20	7,0	5,5	3R78712
G 1/4 x 19	100	22	11,0	9,0	3R78714
G 3/8 x 19	100	22	12,0	9,0	3R78716
G 1/2 x 14	125	25	18,0	12,0	3R78718
G 5/8 x 14	125	25	18,0	14,5	3R78720
G 3/4 x 14	140	28	20,0	16,0	3R78722
G 7/8 x 14	150	28	22,0	18,0	3R78724
G 1 x 11	160	30	25,0	20,0	3R78726
G 1.1/8 x 11	170	30	28,0	22,0	3R78730
G 1.1/4 x 11	170	30	32,0	24,0	3R78734
G 1.3/8 x 11	180	32	36,0	29,0	3R78738
G 1.1/2 x 11	190	32	36,0	29,0	3R78742
G 1.3/4 x 11	190	32	40,0	32,0	3R78750
G 2 x 11	220	40	45,0	35,0	3R78754

Rc(BSPT) ROSCA INGLESA PARA TUBO, CONICIDAD 1:16

TAPERED PIPE THREAD, TAPER 1:16
FILETAGE PAS GAZ CONIQUE, CONICITÉ 1:16



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 5156 | FORM C



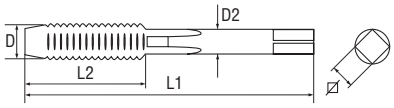
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
Rc 1/8 x 28	90	20	7,0	5,5	3R73404
Rc 1/4 x 19	100	22	11,0	9,0	3R73406
Rc 3/8 x 19	100	22	12,0	9,0	3R73408
Rc 1/2 x 14	125	28	16,0	12,0	3R73410
Rc 3/4 x 14	140	28	20,0	16,0	3R73412
Rc 1 x 11	160	38	25,0	20,0	3R73414

NPT ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16

TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16



ACERO 400-800 N/mm² | HSS-CO 5% | FORM C



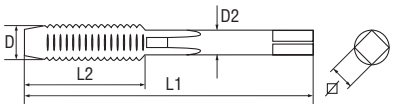
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
NPT 1/16 x 27	90	20	6,0	4,9	3R73432
NPT 1/8 x 27	90	20	7,0	5,5	3R73434
NPT 1/4 x 18	100	22	11,0	9,0	3R73436
NPT 3/8 x 18	100	22	12,0	9,0	3R73438
NPT 1/2 x 14	125	28	16,0	12,0	3R73440
NPT 3/4 x 14	140	28	20,0	16,0	3R73442
NPT 1 x 11.5	160	38	25,0	20,0	3R73444

VG PARA ROSCAS DE VÁLVULAS DE NEUMÁTICO DIN 7756

FOR TIRE VALVES THREADS DIN 7756
POUR LES VALVES DES PNEUMATIQUES DIN 7756



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C | TOL 6H



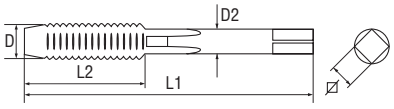
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
VG 5 X 36	70	12	6,00	4,90	3R30501
VG 5,2 X 24	80	17	6,00	4,90	3R30502
VG 6 X 32	80	14	6,00	5,50	3R30503
VG 8 X 32	80	16	7,00	6,20	3R30504
VG 10 X 28	90	18	8,00	6,20	3R30505
VG 12 X 26	100	22	8,00	7,00	3R30506

BSC PARA EJES DE PEDALIER

FOR BOTTOM BRACKET
POUR PÉDALIER VÉLO



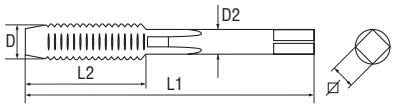
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
BSC 1/4" X 26	56	14	7	4,9	3R30507
BSC 5/16" X 26	63	16	6	4,9	3R30508
BSC 3/8" X 26	63	16	7	5,5	3R30509
BSC 9/16" X 20 R	70	22	11,00	9,00	3R30510
BSC 9/16" X 20 L	70	22	11,00	9,00	3R30511
BSC 1" X 24	70	22	11,00	11,00	3R30512

* Consultar precio y disponibilidad / *Request price and availability / Consulter le prix et le disponibilité*

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm²

HSS-CO 5% | DIN 371 | FORM C | TOL 6H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	3,5	2,7	3R33426
M 4 x 0,70	63	13	4,5	3,4	3R33430
M 5 x 0,80	70	16	6,0	4,9	3R33434
M 6 x 1,00	80	19	6,0	4,9	3R33438
M 8 x 1,25	90	22	8,0	6,2	3R33442
M 10 x 1,50	100	24	10,0	8,0	3R33446

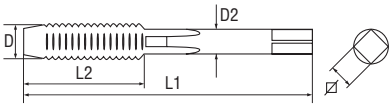
ACERO 400-800 N/mm²

HSS-CO 5% | DIN 376 | FORM C | TOL 6H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1,75	110	29	9,0	7,0	3R34450
M 14 x 2,00	110	30	11,0	9,0	3R34454
M 16 x 2,00	110	32	12,0	9,0	3R34458
M 18 x 2,50	125	34	14,0	11,0	3R34462
M 20 x 2,50	140	34	16,0	12,0	3R34466
M 22 x 2,50	140	34	18,0	14,5	3R34470
M 24 x 3,00	160	38	18,0	14,5	3R34474

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM B | TOL 6H | LH



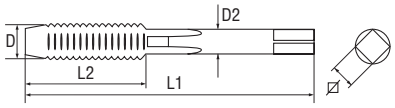
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 3 x 0,50	56	11	3,5	2,7	3R33526
M 4 x 0,70	63	13	4,5	3,4	3R33530
M 5 x 0,80	70	16	6,0	4,9	3R33534
M 6 x 1,00	80	19	6,0	4,9	3R33538
M 7 x 1,00	80	19	7,0	5,5	3R33540
M 8 x 1,25	90	22	8,0	6,2	3R33542
M 10 x 1,50	100	24	10,0	8,0	3R33546

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM B | TOL 6H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 3 x 0,50	56	11	2,2	-	3R34526
M 4 x 0,70	63	13	2,8	2,1	3R34530
M 5 x 0,80	70	16	3,5	2,7	3R34534
M 6 x 1,00	80	19	4,5	3,4	3R34538
M 8 x 1,25	90	22	6,0	4,9	3R34542
M 10 x 1,50	100	24	7,0	5,5	3R34546
M 12 x 1,75	110	29	9,0	7,0	3R34550
M 14 x 2,00	110	30	11,0	9,0	3R34554
M 16 x 2,00	110	32	12,0	9,0	3R34558
M 18 x 2,50	125	34	14,0	11,0	3R34562
M 20 x 2,50	140	34	16,0	12,0	3R34566
M 22 x 2,50	140	34	18,0	14,5	3R34570
M 24 x 3,00	160	38	18,0	14,5	3R34574
M 27 x 3,00	160	38	20,0	16,0	3R34576
M 30 x 3,50	180	45	22,0	18,0	3R34578
M 33 x 3,50	180	50	25,0	20,0	3R34580
M 36 x 4,00	200	56	28,0	22,0	3R34582
M 39 x 4,00	200	60	32,0	24,0	3R34584
M 42 x 4,50	200	60	32,0	24,0	3R34586
M 45 x 4,50	220	65	36,0	29,0	3R34588
M 48 x 5,00	250	70	36,0	29,0	3R34590
M 52 x 5,00	250	70	40,0	32,0	3R34592

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C/35º | TOL 6H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	6	3,5	2,7	3R33726
M 4 x 0,70	63	7	4,5	3,4	3R33730
M 5 x 0,80	70	8	6,0	4,9	3R33734
M 6 x 1,00	80	10	6,0	4,9	3R33738
M 8 x 1,25	90	14	8,0	6,2	3R33742
M 10 x 1,50	100	16	10,0	8,0	3R33746

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C/35º | TOL 6H | LH

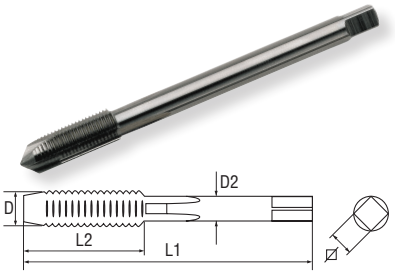


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	6	2,2	-	3R34726
M 4 x 0,70	63	7	2,8	2,1	3R34730
M 5 x 0,80	70	8	3,5	2,7	3R34734
M 6 x 1,00	80	10	4,5	3,4	3R34738
M 8 x 1,25	90	14	6,0	4,9	3R34742
M 10 x 1,50	100	16	7,0	5,5	3R34746
M 12 x 1,75	110	18	9,0	7,0	3R34750
M 14 x 2,00	110	20	11,0	9,0	3R34754
M 16 x 2,00	110	22	12,0	9,0	3R34758
M 18 x 2,50	125	25	14,0	11,0	3R34762
M 20 x 2,50	140	25	16,0	12,0	3R34766
M 22 x 2,50	140	27	18,0	14,5	3R34770
M 24 x 3,00	160	30	18,0	14,5	3R34774
M 27 x 3,00	160	30	20,0	16,0	3R34776
M 30 x 3,50	180	35	22,0	18,0	3R34778
M 33 x 3,50	180	35	25,0	20,0	3R34780
M 36 x 4,00	200	40	28,0	22,0	3R34782
M 39 x 4,00	200	40	32,0	24,0	3R34784
M 42 x 4,50	200	45	32,0	24,0	3R34786
M 45 x 4,50	220	45	36,0	29,0	3R34788
M 48 x 5,00	250	50	36,0	29,0	3R34790
M 52 x 5,00	250	50	40,0	32,0	3R34792

Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS

METRIC ISO-THREAD DIN 13, LEFT HAND

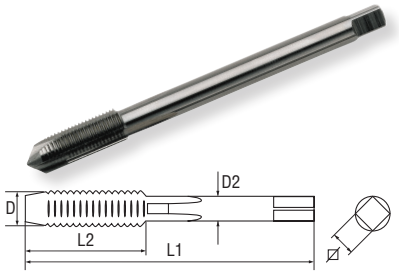
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM B | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,35	56	9	2,2	-	3R34801
M 4 x 0,35	63	10	2,8	2,1	3R34802
M 4 x 0,50	63	10	2,8	2,1	3R34803
M 5 x 0,50	70	12	3,5	2,7	3R34804
M 5 x 0,75	70	12	3,5	2,7	3R34805
M 6 x 0,50	80	14	4,5	3,4	3R34806
M 6 x 0,75	80	14	4,5	3,4	3R34807
M 7 x 0,75	80	14	5,5	4,3	3R34808
M 8 x 0,50	80	19	6,0	4,9	3R34809
M 8 x 0,75	80	19	6,0	4,9	3R34810
M 8 x 1,00	90	22	6,0	4,9	3R34811
M 9 x 0,75	80	19	7,0	5,5	3R34812
M 9 x 1,00	90	22	7,0	5,5	3R34813
M 10 x 0,75	90	20	7,0	5,5	3R34814
M 10 x 1,00	90	20	7,0	5,5	3R34815
M 10 x 1,25	100	24	7,0	5,5	3R34816
M 11 x 1,00	90	20	8,0	6,2	3R34817
M 11 x 1,25	90	22	8,0	6,2	3R34818
M 12 x 0,75	100	22	9,0	7,0	3R34819
M 12 x 1,00	100	22	9,0	7,0	3R34820
M 12 x 1,25	100	22	9,0	7,0	3R34821
M 12 x 1,50	100	22	9,0	7,0	3R34822
M 13 x 1,00	100	22	11,0	9,0	3R34823
M 13 x 1,50	100	22	11,0	9,0	3R34824
M 14 x 0,75	100	22	11,0	9,0	3R34825
M 14 x 1,00	100	22	11,0	9,0	3R34826
M 14 x 1,25	100	22	11,0	9,0	3R34827
M 14 x 1,50	100	22	11,0	9,0	3R34828
M 15 x 1,00	100	22	12,0	9,0	3R34829
M 15 x 1,50	100	22	12,0	9,0	3R34830
M 16 x 1,00	100	22	12,0	9,0	3R34831
M 16 x 1,25	100	22	12,0	9,0	3R34832
M 16 x 1,50	100	22	12,0	9,0	3R34833
M 18 x 1,00	110	25	14,0	11,0	3R34834
M 18 x 1,25	110	25	14,0	11,0	3R34835
M 18 x 1,50	110	25	14,0	11,0	3R34836
M 18 x 2,00	125	34	14,0	11,0	3R34837
M 20 x 1,00	125	25	16,0	12,0	3R34838
M 20 x 1,25	125	25	16,0	12,0	3R34839
M 20 x 1,50	125	25	16,0	12,0	3R34840
M 20 x 2,00	140	34	16,0	12,0	3R34841
M 21 x 1,50	125	25	16,0	12,0	3R34842
M 22 x 1,00	125	25	18,0	14,5	3R34843
M 22 x 1,25	125	25	18,0	14,5	3R34844
M 22 x 1,50	125	25	18,0	14,5	3R34845
M 22 x 2,00	140	34	18,0	14,5	3R34846
M 23 x 1,50	125	25	18,0	14,5	3R34847
M 24 x 1,00	140	28	18,0	14,5	3R34848
M 24 x 1,25	140	28	18,0	14,5	3R34849
M 24 x 1,50	140	28	18,0	14,5	3R34850
M 24 x 2,00	140	28	18,0	14,5	3R34851

Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM B | TOL 6H | LH

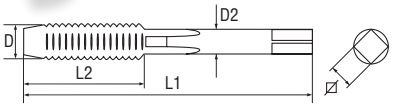
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 25 x 1,0	140	28	18,0	14,5	3R34852
M 25 x 1,5	140	28	18,0	14,5	3R34853
M 26 x 1,0	140	28	18,0	14,5	3R3485X
M 26 x 1,5	140	28	18,0	14,5	3R34854
M 26 x 2,0	140	28	18,0	14,5	3R34855
M 27 x 1,0	140	28	20,0	16,0	3R34800
M 27 x 1,5	140	28	20,0	16,0	3R34856
M 27 x 2,0	140	28	20,0	16,0	3R34857
M 28 x 1,0	140	28	20,0	16,0	3R34858
M 28 x 1,5	140	28	20,0	16,0	3R34859
M 28 x 2,0	140	28	20,0	16,0	3R34860
M 29 x 1,5	150	28	22,0	18,0	3R34861
M 30 x 1,0	150	28	22,0	18,0	3R34862
M 30 x 1,5	150	28	22,0	18,0	3R34863
M 30 x 2,0	150	28	22,0	18,0	3R34864
M 30 x 2,5	180	45	22,0	18,0	3R3486X
M 30 x 3,0	180	45	22,0	18,0	3R34865
M 32 x 1,5	150	28	22,0	18,0	3R34866
M 32 x 2,0	150	28	22,0	18,0	3R34867
M 32 x 3,0	180	50	22,0	18,0	3R34892
M 33 x 1,5	160	30	25,0	20,0	3R34893
M 33 x 2,0	160	30	25,0	20,0	3R34868
M 33 x 3,0	180	50	25,0	20,0	3R34869
M 34 x 1,5	170	30	28,0	22,0	3R34870
M 34 x 2,0	170	30	28,0	22,0	3R34871
M 35 x 1,5	170	30	28,0	22,0	3R34872
M 36 x 1,5	170	30	28,0	22,0	3R34873
M 36 x 2,0	170	30	28,0	22,0	3R34874
M 36 x 3,0	200	56	28,0	22,0	3R34875
M 38 x 1,5	170	30	28,0	22,0	3R34876
M 39 x 1,5	170	30	32,0	24,0	3R34877
M 39 x 2,0	170	30	32,0	24,0	3R34878
M 39 x 3,0	200	60	32,0	24,0	3R34879
M 40 x 1,5	170	30	32,0	24,0	3R34880
M 40 x 2,0	170	30	32,0	24,0	3R34881
M 40 x 3,0	200	60	32,0	24,0	3R34882
M 42 x 1,5	170	30	32,0	24,0	3R34883
M 42 x 2,0	170	30	32,0	24,0	3R34884
M 42 x 3,0	200	60	32,0	24,0	3R34885
M 45 x 1,5	180	32	36,0	29,0	3R34886
M 45 x 2,0	180	32	36,0	29,0	3R34887
M 45 x 3,0	200	50	36,0	29,0	3R34888
M 48 x 1,5	190	32	36,0	29,0	3R34889
M 48 x 2,0	190	32	36,0	29,0	3R34890
M 48 x 3,0	225	50	36,0	29,0	3R34891
M 50 x 1,5	190	32	36,0	29,0	3R34894
M 50 x 2,0	190	32	36,0	29,0	3R34895
M 50 x 3,0	225	50	36,0	29,0	3R34896
M 52 x 1,5	190	32	40,0	32,0	3R34897
M 52 x 2,0	190	32	40,0	32,0	3R34898
M 52 x 3,0	225	50	40,0	32,0	3R34899

Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS

METRIC ISO-THREAD DIN 13, LEFT HAND

MÉTRIQUE DIN-13, GAUCHE





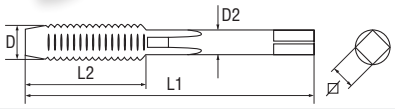
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,35	56	5	2,2	-	3R34901
M 4 x 0,35	63	5	2,8	2,1	3R34902
M 4 x 0,50	63	5	2,8	2,1	3R34903
M 5 x 0,50	70	5	3,5	2,7	3R34904
M 5 x 0,75	70	8	3,5	2,7	3R34905
M 6 x 0,50	80	5	4,5	3,4	3R34906
M 6 x 0,75	80	8	4,5	3,4	3R34907
M 7 x 0,75	80	8	5,5	4,3	3R34908
M 8 x 0,50	80	8	6,0	4,9	3R34909
M 8 x 0,75	80	8	6,0	4,9	3R34910
M 8 x 1,00	90	10	6,0	4,9	3R34911
M 9 x 0,75	80	10	7,0	5,5	3R34912
M 9 x 1,00	90	10	7,0	5,5	3R34913
M 10 x 0,75	90	10	7,0	5,5	3R34914
M 10 x 1,00	90	10	7,0	5,5	3R34915
M 10 x 1,25	100	16	7,0	5,5	3R34916
M 11 x 1,00	90	11	8,0	6,2	3R34917
M 11 x 1,25	90	14	8,0	6,2	3R34918
M 12 x 0,75	100	10	9,0	7,0	3R34919
M 12 x 1,00	100	11	9,0	7,0	3R34920
M 12 x 1,25	100	15	9,0	7,0	3R34921
M 12 x 1,50	100	15	9,0	7,0	3R34922
M 13 x 1,00	100	11	11,0	9,0	3R34923
M 13 x 1,50	100	15	11,0	9,0	3R34924
M 14 x 0,75	100	10	11,0	9,0	3R34925
M 14 x 1,00	100	11	11,0	9,0	3R34926
M 14 x 1,25	100	15	11,0	9,0	3R34927
M 14 x 1,50	100	15	11,0	9,0	3R34928
M 15 x 1,50	100	15	12,0	9,0	3R34930
M 16 x 1,00	100	12	12,0	9,0	3R34931
M 16 x 1,25	100	15	12,0	9,0	3R34932
M 16 x 1,50	100	15	12,0	9,0	3R34933
M 18 x 1,00	110	13	14,0	11,0	3R34934
M 18 x 1,25	110	15	14,0	11,0	3R34935
M 18 x 1,50	110	17	14,0	11,0	3R34936
M 18 x 2,00	125	20	14,0	11,0	3R34937
M 20 x 1,00	125	14	16,0	12,0	3R34938
M 20 x 1,25	125	17	16,0	12,0	3R34939
M 20 x 1,50	125	17	16,0	12,0	3R34940
M 20 x 2,00	140	20	16,0	12,0	3R34941
M 22 x 1,00	125	14	18,0	14,5	3R34943
M 22 x 1,25	125	17	18,0	14,5	3R34944
M 22 x 1,50	125	17	18,0	14,5	3R34945
M 22 x 2,00	140	20	18,0	14,5	3R34946
M 24 x 1,00	140	15	18,0	14,5	3R34948
M 24 x 1,25	140	17	18,0	14,5	3R34949
M 24 x 1,50	140	20	18,0	14,5	3R34950
M 24 x 2,00	140	20	18,0	14,5	3R34951
M 26 x 1,50	140	20	18,0	14,5	3R34954
M 26 x 2,00	140	20	18,0	14,5	3R34955
M 27 x 2,00	140	20	20,0	16,0	3R34957
M 28 x 1,50	140	20	20,0	16,0	3R34959

Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H | LH

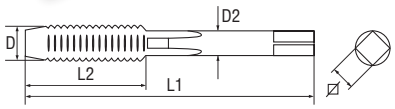


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 28 x 2,00	140	20	20,0	16,0	3R34960
M 30 x 1,00	150	17	22,0	18,0	3R34962
M 30 x 1,50	150	22	22,0	18,0	3R34963
M 30 x 2,00	150	22	22,0	18,0	3R34964
M 30 x 2,50	180	27	22,0	18,0	3R3496X
M 30 x 3,00	180	30	22,0	18,0	3R34965
M 32 x 2,00	150	22	22,0	18,0	3R34967
M 33 x 2,00	160	24	25,0	20,0	3R34968
M 34 x 1,50	170	24	28,0	22,0	3R34970
M 34 x 2,00	170	24	28,0	22,0	3R34971
M 36 x 1,50	170	24	28,0	22,0	3R34973
M 36 x 2,00	170	24	28,0	22,0	3R34974
M 36 x 3,00	200	30	28,0	22,0	3R34975
M 38 x 1,50	170	24	28,0	22,0	3R34976
M 39 x 2,00	170	25	32,0	24,0	3R34978
M 40 x 1,50	170	25	32,0	24,0	3R34980
M 40 x 2,00	170	25	32,0	24,0	3R34981
M 40 x 3,00	200	30	32,0	24,0	3R34982
M 42 x 2,00	170	25	32,0	24,0	3R34984
M 45 x 1,50	180	27	36,0	29,0	3R34986
M 45 x 2,00	180	27	36,0	29,0	3R34987
M 45 x 3,00	200	30	36,0	29,0	3R34988
M 48 x 2,00	190	27	36,0	29,0	3R34990
M 50 x 1,50	190	27	36,0	29,0	3R34994
M 50 x 2,00	190	27	36,0	29,0	3R34995
M 50 x 3,00	225	33	36,0	29,0	3R34996
M 52 x 1,50	190	27	40,0	32,0	3R34997
M 52 x 2,00	190	27	40,0	32,0	3R34998
M 52 x 3,00	225	33	40,0	32,0	3R34999

G(BSP) ROSCA GAS DIN ISO 228, IZQUIERDAS
PIPE THREAD DIN ISO 228, LEFT HAND
FILETAGE PAS GAZ DIN ISO 228, GAUCHE

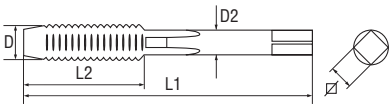


ACERO 800 -1100 N/mm² | HSS-CO 5% | DIN 5156 | FORM C | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
G 1/8 x 28	90	20	7,0	5,5	3R78202
G 1/4 x 19	100	22	11,0	9,0	3R78203
G 3/8 x 19	100	22	12,0	9,0	3R78204
G 1/2 x 14	125	25	16,0	12,0	3R78205
G 5/8 x 14	125	25	18,0	14,5	3R78206
G 3/4 x 14	140	28	20,0	16,0	3R78207
G 1 x 11	160	30	25,0	20,0	3R78208

M MÉTRICA ISO-ROSCA DIN 13 BANDA VERDE PM
METRIC ISO-THREAD DIN 13 GREEN RING PM
MÉTRIQUE DIN-13 BANDE VERT PM



SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE

advance MAXIMO RENDIMIENTO

ACERO 800 -1100 N/mm² | INOX | CU | PM | DIN 371 | FORM B | TOL 6H | HL



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,0 x 0,50	56	9	3,5	2,7	3R30226
M 4,0 x 0,70	63	12	4,5	3,4	3R30230
M 5,0 x 0,80	70	13	6	4,9	3R30234
M 6,0 x 1,00	80	15	6	4,9	3R30238
M 8,0 x 1,25	90	18	8	6,2	3R30242
M 10,0 x 1,50	100	20	10	8	3R30246

advance MAXIMO RENDIMIENTO

ACERO 800 -1100 N/mm² | INOX | CU | PM | DIN 376 | FORM B | TOL 6H | HL



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 x 1,75	110	23	9	7	3R30250
M 14,0 x 2,00	110	25	11	9	3R30254
M 16,0 x 2,00	110	25	12	9	3R30258
M 18,0 x 2,50	125	30	14	11	3R30262
M 20,0 x 2,50	140	30	16	12	3R30266
M 22,0 x 2,50	140	30	18	14,5	3R30270
M 24,0 x 3,00	160	36	18	14,5	3R30274
M 27,0 x 3,00	160	36	20	16	3R30276
M 30,0 x 3,50	180	40	22	18	3R30282

advance MAXIMO RENDIMIENTO

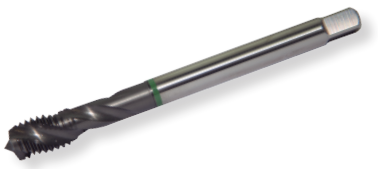
ACERO 800 -1100 N/mm² | INOX | CU | PM | DIN 371 | FORM C/35º | TOL 6H | HL



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,0 x 0,50	56	5	3,50	2,70	3R30126
M 4,0 x 0,70	63	7	4,50	3,40	3R30130
M 5,0 x 0,80	70	8	6,00	4,90	3R30134
M 6,0 x 1,00	80	10	6,00	4,90	3R30138
M 8,0 x 1,25	90	13	8,00	6,20	3R30142
M 10,0 x 1,50	100	15	10,00	8,00	3R30146

advance MAXIMO RENDIMIENTO

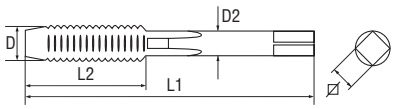
ACERO 800 -1100 N/mm² | INOX | CU | PM | DIN 376 | FORM C/35º | TOL 6H | HL



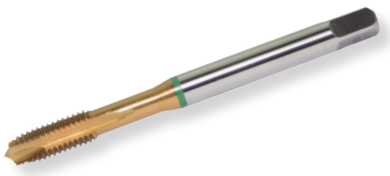
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 x 1,75	110	18	9,00	7,00	3R30150
M 14,0 x 2,00	110	20	11,00	9,00	3R30154
M 16,0 x 2,00	110	20	12,00	9,00	3R30158
M 18,0 x 2,50	125	25	14,00	11,00	3R30162
M 20,0 x 2,50	140	25	16,00	12,00	3R30166

*Para otras medidas consultar / *Request for other sizes* / *Pour d'autres dimensions, nous consulter*

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



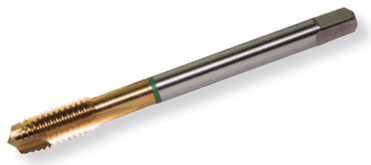
BANDA VERDE - MULTIMATERIAL
GREEN RING - MULTIMATERIAL • BANDE VERT - MULTIMATERIEL



advance MAXIMO RENDIMIENTO

ACERO 800 -1100 N/mm² | INOX | AL | CU | F | LT | HSS-E-V3 | DIN 371 | FORM B | TOL 6H | TIN

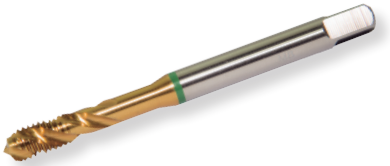
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,0 x 0,50	56	9	3,5	2,7	3R30426
M 4,0 x 0,70	63	12	4,5	3,4	3R30430
M 5,0 x 0,80	70	13	6	4,9	3R30434
M 6,0 x 1,00	80	15	6	4,9	3R30438
M 8,0 x 1,25	90	18	8	6,2	3R30442
M 10,0 x 1,50	100	20	10	8	3R30446



advance MAXIMO RENDIMIENTO

ACERO 800 -1100 N/mm² | INOX | AL | CU | F | LT | HSS-E-V3 | DIN 376 | FORM B | TOL 6H | TIN

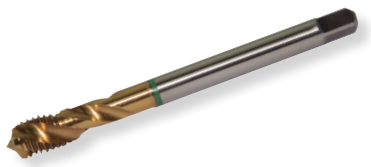
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 x 1,75	110	23	9	7	3R30450
M 14,0 x 2,00	110	25	11	9	3R30454
M 16,0 x 2,00	110	25	12	11	3R30458
M 18,0 x 2,50	125	30	14	11	3R30462
M 20,0 x 2,50	140	30	16	12	3R30466



advance MAXIMO RENDIMIENTO

ACERO 800 -1100 N/mm² | INOX | AL | CU | F | LT | HSS-E-V3 | DIN 371 | FORM C/35º | TOL 6H | TIN

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,0 x 0,50	56	5	3,5	2,7	3R30326
M 4,0 x 0,70	63	7	4,5	3,4	3R30330
M 5,0 x 0,80	70	8	6	4,9	3R30334
M 6,0 x 1,00	80	10	6	4,9	3R30338
M 8,0 x 1,25	90	13	8	6,2	3R30342
M 10,0 x 1,50	100	15	10	8	3R30346



advance MAXIMO RENDIMIENTO

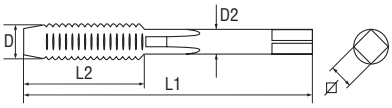
ACERO 800 -1100 N/mm² | INOX | AL | CU | F | LT | HSS-E-V3 | DIN 376 | FORM C/35º | TOL 6H | TIN

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 x 1,75	110	18	9	7	3R30350
M 14,0 x 2,00	110	20	11	9	3R30354
M 16,0 x 2,00	110	20	12	9	3R30358
M 18,0 X 2,50	125	25	14	11	3R30362
M 20,0 x 2,50	140	25	16	12	3R30366

*Para otras medidas consultar / *Request for other sizes* / *Pour d'autres dimensions, nous consulter*

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

BANDA BLANCA *WHITE RING • BANDE BLANC*





ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	3,5	2,7	3R35226
M 4 x 0,70	63	13	4,5	3,4	3R35230
M 5 x 0,80	70	16	6,0	4,9	3R35234
M 6 x 1,00	80	19	6,0	4,9	3R35238
M 8 x 1,25	90	22	8,0	6,2	3R35242
M 10 x 1,50	100	24	10,0	8,0	3R35246

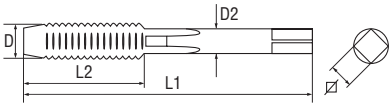


ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1,75	110	29	9,0	7,0	3R35250
M 14 x 2,00	110	30	11,0	9,0	3R35254
M 16 x 2,00	110	32	12,0	9,0	3R35258
M 18 x 2,50	125	34	14,0	11,0	3R35262
M 20 x 2,50	140	34	16,0	12,0	3R35266

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

BANDA BLANCA *WHITE RING • BANDE BLANC*





ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM C/40° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	6	3,5	2,7	3R36226
M 4 x 0,70	63	7	4,5	3,4	3R36230
M 5 x 0,80	70	8	6,0	4,9	3R36234
M 6 x 1,00	80	10	6,0	4,9	3R36238
M 8 x 1,25	90	14	8,0	6,2	3R36242
M 10 x 1,50	100	16	10,0	8,0	3R36246



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM C/40° | TOL 6H

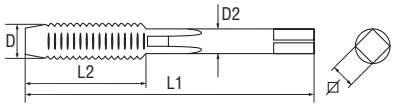
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1,75	110	18	9,0	7,0	3R36250
M 14 x 2,00	110	20	11,0	9,0	3R36254
M 16 x 2,00	110	22	12,0	9,0	3R36258
M 18 x 2,50	125	25	14,0	11,0	3R36262
M 20 x 2,50	140	25	16,0	12,0	3R36266

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

BANDA BLANCA *WHITE RING • BANDE BLANC*



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 374 | FORM B



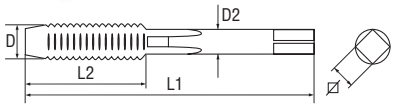
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 5 x 0,50	70	12	3,5	2,7	3R35903
M 6 x 0,75	80	14	4,5	3,4	3R35904
M 8 x 0,75	80	19	6,0	4,9	3R35906
M 8 x 1,00	90	22	6,0	4,9	3R35907
M 10 x 1,00	90	20	7,0	5,5	3R35909
M 10 x 1,25	100	24	7,0	5,5	3R35910
M 12 x 1,25	100	22	9,0	5,5	3R35913
M 12 x 1,50	100	22	9,0	7,0	3R35914
M 14 x 1,50	100	22	11,0	9,0	3R35917
M 16 x 1,50	100	22	12,0	9,0	3R35921
M 18 x 1,50	110	25	14,0	11,0	3R35925
M 20 x 1,50	125	25	16,0	12,0	3R35929

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

BANDA BLANCA *WHITE RING • BANDE BLANC*



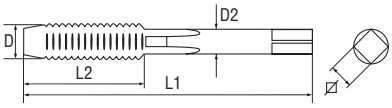
ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 374 | FORM C/39º



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 5 x 0,50	70	5	3,5	2,7	3R36903
M 6 x 0,75	80	8	4,5	3,4	3R36904
M 8 x 0,75	80	8	6,0	4,9	3R36906
M 8 x 1,00	90	10	6,0	4,9	3R36907
M 10 x 1,00	90	10	7,0	5,5	3R36909
M 10 x 1,25	100	16	7,0	5,5	3R36910
M 12 x 1,25	100	15	9,0	7,0	3R36913
M 12 x 1,50	100	15	9,0	7,0	3R36914
M 14 x 1,50	100	15	11,0	9,0	3R36917
M 16 x 1,50	100	15	12,0	9,0	3R36921
M 18 x 1,50	110	17	14,0	11,0	3R36925
M 20 x 1,50	125	17	16,0	12,0	3R36929

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



BANDA BLANCA *WHITE RING • BANDE BLANC*

ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC 1/4 x 20	80	17	7,0	5,5	3R35945
UNC 5/16 x 18	90	20	8,0	6,2	3R35946
UNC 3/8 x 16	100	22	9,0	7,0	3R35947

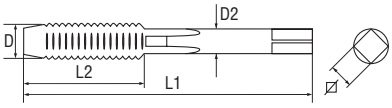
ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC 7/16 x 14	100	22	8,0	6,2	3R35948
UNC 1/2 x 13	110	25	9,0	7,0	3R35949

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



BANDA BLANCA *WHITE RING • BANDE BLANC*

ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM C/39°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC 1/4 x 20	80	17	7,0	5,5	3R36945
UNC 5/16 x 18	90	20	8,0	6,2	3R36946
UNC 3/8 x 16	100	22	9,0	7,0	3R36947

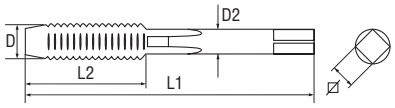
ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM C/39°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC 7/16 x 14	100	22	8,0	6,2	3R36948
UNC 1/2 x 13	110	25	9,0	7,0	3R36949

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



BANDA BLANCA *WHITE RING • BANDE BLANC*

ACERO 800-1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF 1/4 x2 8	80	17	7,0	5,5	3R35965
UNF 5/16 x 24	90	17	8,0	6,2	3R35966
UNF 3/8 x 24	100	18	9,0	7,0	3R35967

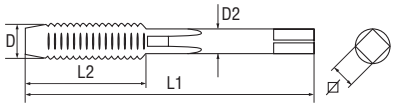
ACERO 800-1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF 7/16 x 20	100	22	8,0	6,2	3R35968
UNF 1/2 x 20	100	22	9,0	7,0	3R35969

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



BANDA BLANCA *WHITE RING • BANDE BLANC*

ACERO 800-1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM C/39°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF 1/4 x 28	80	10	7,0	5,5	3R36965
UNF 5/16 x 24	90	10	8,0	6,2	3R36966
UNF 3/8 x 24	100	10	9,0	7,0	3R36967

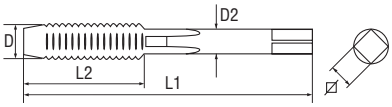
ACERO 800-1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM C/39°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF 7/16 x 20	100	13	8,0	6,2	3R36968
UNF 1/2 x 20	100	13	9,0	7,0	3R36969

G(BSP) ROSCA GAS DIN ISO 228

PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



BANDA BLANCA *WHITE RING • BANDE BLANC*

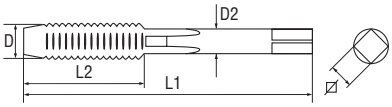
ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 5156 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
G 1/8 x 28	90	20	7,0	5,5	3R35992
G 1/4 x 19	100	22	11,0	9,0	3R35993
G 3/8 x 19	100	22	12,0	9,0	3R35994
G 1/2 x 14	125	25	16,0	12,0	3R35995

G(BSP) ROSCA GAS DIN ISO 228

PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



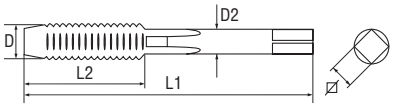
BANDA BLANCA *WHITE RING • BANDE BLANC*

ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 5156 | FORM C/39º



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
G 1/8 x 28	90	20	7,0	5,5	3R36992
G 1/4 x 19	100	22	11,0	9,0	3R36993
G 3/8 x 19	100	22	12,0	9,0	3R36994
G 1/2 x 14	125	25	16,0	12,0	3R36995

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



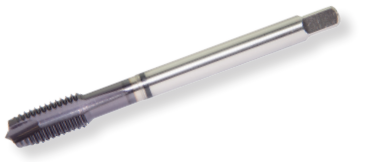
BANDA NEGRA PM - PARA MATERIALES DUROS
BLACK RING PM - FOR HARD MATERIALS • BANDE NOIR PM - POUR MATÉRIAUX DURS



ADVANCE MAXIMO RENDIMIENTO

ACERO 1100 -1400 N/mm² | PM | DIN 371 | FORM B | TOL 6H | FUTURA

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	
M 3,0 x 0,50	56	5	3,5	2,7	3R35126	
M 4,0 x 0,70	63	7	4,5	3,4	3R35130	
M 5,0 x 0,80	70	8	6	4,9	3R35134	
M 6,0 x 1,00	80	10	6	4,9	3R35138	
M 8,0 x 1,25	90	13	8	6,2	3R35142	
M 10,0 x 1,50	100	15	10	8	3R35146	55,30



ADVANCE MAXIMO RENDIMIENTO

ACERO 1100 -1400 N/mm² | PM | DIN 376 | FORM B | TOL 6H | FUTURA

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 X 1,75	110	23	9	7	3R35150



ADVANCE MAXIMO RENDIMIENTO

ACERO 1100 -1400 N/mm² | PM | DIN 371 | FORM C/40º | TOL 6H | FUTURA

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,0 x 0,50	56	5	3,5	2,7	3R36126
M 4,0 x 0,70	63	7	4,5	3,4	3R36130
M 5,0 x 0,80	70	8	6	4,9	3R36134
M 6,0 x 1,00	80	10	6	4,9	3R36138
M 8,0 x 1,25	90	13	8	6,2	3R36142
M 10,0 x 1,50	100	15	10	8	3R36146



ADVANCE MAXIMO RENDIMIENTO

ACERO 1100 -1400 N/mm² | PM | DIN 376 | FORM C/40º | TOL 6H | FUTURA

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 X 1,75	110	18	9	7	3R36150	81,50

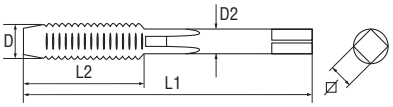


ADVANCE MAXIMO RENDIMIENTO

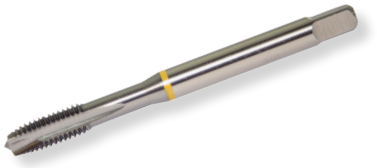
ACERO 1100 -1400 N/mm² | PM | DIN 371 | FORM C/15º | TOL 6H | FUTURA

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 5,0 x 0,80	70	8	6	4,9	3R35154
M 6,0 x 1,00	80	10	6	4,9	3R35158
M 8,0 x 1,25	90	13	8	6,2	3R35162
M 10,0 x 1,50	100	15	10	8	3R35166

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA AMARILLA - PARA ALUMINIO
YELLOW RING - FOR ALUMINIUM • BANDE JAUNE - POUR L'ALUMINIUM



advance MAXIMO RENDIMIENTO

AL | HSS-CO 5% | DIN 371 | FORM B | TOL 6H | ALUSPEED

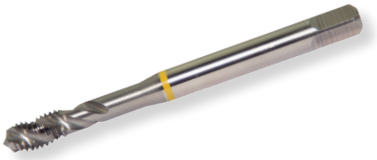
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,0 x 0,50	56	9	3,5	2,7	3R35426
M 4,0 x 0,70	63	12	4,5	3,4	3R35430
M 5,0 x 0,80	70	13	6	4,9	3R35434
M 6,0 x 1,00	80	15	6	4,9	3R35438
M 8,0 x 1,25	90	18	8	6,2	3R35442
M 10,0 x 1,50	100	20	10	8	3R35446



advance MAXIMO RENDIMIENTO

AL | HSS-CO 5% | DIN 376 | FORM B | TOL 6H | ALUSPEED

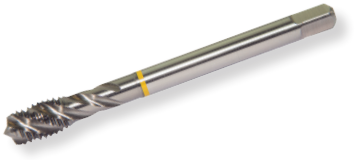
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 x 1,75	110	23	9	7	3R35450
M 14,0 x 2,00	110	25	11	9	3R35454
M 16,0 x 2,00	110	25	12	11	3R35458
M 18,0 x 2,50	125	30	14	11	3R35462
M 20,0 x 2,50	140	30	16	12	3R35466



advance MAXIMO RENDIMIENTO

AL | HSS-CO 5% | DIN 371 | FORM C/45° | TOL 6H | ALUSPEED

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,0 x 0,50	56	5	3,5	2,7	3R36426
M 4,0 x 0,70	63	7	4,5	3,4	3R36430
M 5,0 x 0,80	70	8	6	4,9	3R36434
M 6,0 x 1,00	80	10	6	4,9	3R36438
M 8,0 x 1,25	90	13	8	6,2	3R36442
M 10,0 x 1,50	100	15	10	8	3R36446

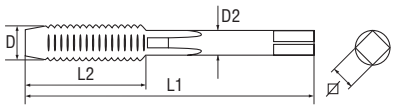


advance MAXIMO RENDIMIENTO

AL | HSS-CO 5% | DIN 376 | FORM C/45° | TOL 6H | ALUSPEED

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 x 1,75	110	18	9	7	3R36450
M 14,0 x 2,00	110	20	11	9	3R36454
M 16,0 x 2,00	110	20	12	11	3R36458
M 18,0 x 2,50	125	25	14	11	3R36462
M 20,0 x 2,50	140	25	16	12	3R36466

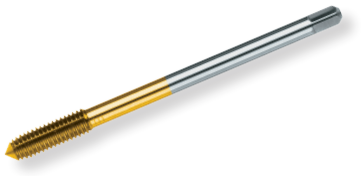
M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13





HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,0 x 0,50	56	11	3,5	2,7	3R35530
M 4,0 x 0,70	63	13	4,5	3,4	3R35532
M 5,0 x 0,80	70	16	6	4,9	3R35533
M 6,0 x 1,00	80	19	6	4,9	3R35534
M 8,0 x 1,25	90	22	8	6,2	3R35535
M 10,0 x 1,50	100	24	10	8	3R35536



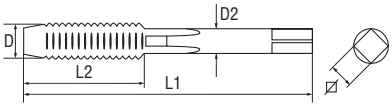
HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 x 1,75	110	28	9	7	3R35537

DIÁMETRO BROCA PREVIA / *RECOMMENDED TAPPINNG DRILL SIZES* / *DIAMÈTRES PRÉALABLES AU FILETAGE*

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12	Ø M14	Ø M16
2,80	3,70	4,65	5,55	7,45	9,30	11,20	13,00	15,10

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



CON RANURAS PARA LUBRICACIÓN *WITH OIL GROOVE • AVEC RANURE GRAISSAGE*



HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 3,0 x 0,50	56	11	3,5	2,7	3R35630
M 4,0 x 0,70	63	13	4,5	3,4	3R35632
M 5,0 x 0,80	70	16	6	4,9	3R35633
M 6,0 x 1,00	80	19	6	4,9	3R35634
M 8,0 x 1,25	90	22	8	6,2	3R35635
M 10,0 x 1,50	100	24	10	8	3R35636



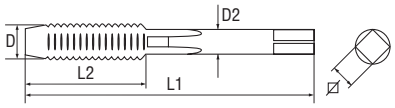
HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
M 12,0 x 1,75	110	28	9	7	3R35637

DIÁMETRO BROCA PREVIA / *RECOMMENDED TAPPING DRILL SIZES* / *DIAMÈTRES PRÉALABLES AU FILETAGE*

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12	Ø M14	Ø M16
2,80	3,70	4,65	5,55	7,45	9,30	11,20	13,00	15,10

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm²

HSS-CO 5% | DIN 357 | TOL 6H | TOL ISO2



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	70	22	2,2	-	3R37126
M 4 x 0,70	90	25	2,8	2,1	3R37130
M 5 x 0,80	100	28	3,5	2,7	3R37134
M 6 x 1,00	110	32	4,5	3,4	3R37138
M 8 x 1,25	125	40	6,0	4,9	3R37142
M 10 x 1,50	140	45	7,0	5,5	3R37146

ACERO 400-800 N/mm²

HSS-CO 5% | DIN 357 | TOL 6H | TOL ISO2



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1,75	180	50	9,0	7,0	3R37150
M 14 x 2,00	200	56	11,0	9,0	3R37154
M 16 x 2,00	200	63	12,0	9,0	3R37158
M 18 x 2,50	220	63	14,0	11,0	3R37162
M 20 x 2,50	250	70	16,0	12,0	3R37166
M 22 x 2,50	280	80	18,0	14,5	3R37170
M 24 x 3,00	280	80	18,0	14,5	3R37174

Materiales tratados superficialmente (galvanizados, cromados…) / *For pre plate material for galvanising* / *Pour matériaux présentant une couche de galvanisation*

Tr PUNTA PILOTO, TRAPEZOIDAL DIN 13

PILOTED, TRAPEZOIDAL THREAD DIN103

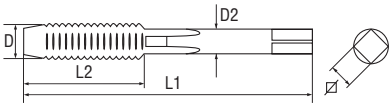
POUR FILETAGE TRAPÉZOIDAL DIN 103



ACERO 400-800 N/mm²

HSS-G

TOL 7H

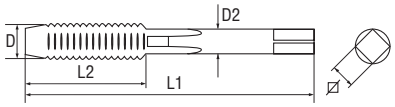


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.
Tr 10 x 2	110	63	7	5,5	3R79108
Tr 10 x 3	125	75	7	5,5	3R79112
Tr 12 x 3	165	111	8	6,2	3R79116
Tr 14 x 3	140	85	10	8,0	3R79120
Tr 14 x 4	170	112	10	8,0	3R79124
Tr 16 x 4	180	116	11	9,0	3R79128
Tr 18 x 4	190	120	12	9,0	3R79132
Tr 20 x 4	200	124	14	11,0	3R79136
Tr 22 x 4	210	130	16	12,0	3R79139
Tr 22 x 5	235	155	16	12,0	3R79140
Tr 24 x 5	245	160	18	14,5	3R79144
Tr 26 x 5	255	165	20	16,0	3R79148
Tr 28 x 5	265	170	22	18,0	3R79152
Tr 30 x 6	290	185	22	18,0	3R79156
Tr 32 x 6	300	191	25	20,0	3R79160
Tr 36 x 6	310	200	28	22,0	3R79164

Tr PUNTA PILOTO, TRAPEZOIDAL DIN 13, IZQUIERDAS
PILOTED, TRAPEZOIDAL THREAD DIN103, LEFT HAND
POUR FILETAGE TRAPÉZOIDAL DIN 103 À GAUCHE



ACERO 400-800 N/mm² | HSS-G | TOL 7H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
Tr 10 x 2	110	63	7	5,5	3R79108-L
Tr 10 x 3	125	75	7	5,5	3R79112-L
Tr 12 x 3	165	111	8	6,2	3R79116-L
Tr 14 x 3	140	85	10	8,0	3R79120-L
Tr 14 x 4	170	112	10	8,0	3R79124-L
Tr 16 x 4	180	116	11	9,0	3R79128-L
Tr 18 x 4	190	120	12	9,0	3R79132-L
Tr 20 x 4	200	124	14	11,0	3R79136-L
Tr 22 x 5	235	155	16	12,0	3R79140-L
Tr 24 x 5	245	160	18	14,5	3R79144-L
Tr 26 x 5	255	165	20	16,0	3R79148-L
Tr 28 x 5	265	170	22	18,0	3R79152-L
Tr 30 x 6	290	185	22	18,0	3R79156-L
Tr 32 x 6	300	191	25	20,0	3R79160-L
Tr 36 x 6	310	200	28	22,0	3R79164-L

Consultar disponiblidad / *Request availability* / *Consulter le disponibilité*

M MÉTRICA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13

MÉTRIQUE DIN-13



ACERO 400-800 N/mm²

HSS-G | **DIN 223** | TOL **6g**

	D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
	M 1,0 x 0,25	16 x 5	4R27402
	M 1,1 x 0,25	16 x 5	4R27404
	M 1,2 x 0,25	16 x 5	4R27406
	M 1,4 x 0,30	16 x 5	4R27408
	M 1,6 x 0,35	16 x 5	4R27410
	M 1,7 x 0,35	16 x 5	4R27412
	M 1,8 x 0,35	16 x 5	4R27414
	M 2,0 x 0,40	16 x 5	4R27416
	M 2,2 x 0,45	16 x 5	4R27418
	M 2,3 x 0,40	16 x 5	4R27420
	M 2,5 x 0,45	16 x 5	4R27422
	M 2,6 x 0,45	16 x 5	4R27424
	M 3,0 x 0,50	20 x 5	4R27426
	M 3,5 x 0,60	20 x 5	4R27428
	M 4,0 x 0,70	20 x 5	4R27430
	M 4,5 x 0,75	20 x 7	4R27432
	M 5,0 x 0,80	20 x 7	4R27434
	M 5,5 x 0,90	20 x 7	4R27436
	M 6,0 x 1,00	20 x 7	4R27438
NEW	**M 6,0 x 1,25**	25 x 9	4R27439
	M 7,0 x 1,00	25 x 9	4R27440
	M 8,0 x 1,25	25 x 9	4R27442
NEW	**M 8,0 x 1,50**	25 x 9	4R27443
	M 9,0 x 1,25	25 x 9	4R27444

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 10 x 1,5	30 x 11	4R27446
M 11 x 1,5	30 x 11	4R27448
M 12 x 1,75	38 x 14	4R27450
M 14 x 2.0	38 x 14	4R27454
M 15 x 2,0	38 x 14	4R27456
M 16 x 2,0	45 x 18	4R27458
M 18 x 2,5	45 x 18	4R27462
M 19 x 2,5	45 x 18	4R27464
M 20 x 2,5	45 x 18	4R27466
M 22 x 2,5	55 x 22	4R27470
M 24 x 3,0	55 x 22	4R27474
M 27 x 3,0	65 x 25	4R27476
M 30 x 3,5	65 x 25	4R27478
M 33 x 3,5	65 x 25	4R27480
M 36 x 4,0	65 x 25	4R27482
M 39 x 4,0	75 x 30	4R27484
M 42 x 4,5	75 x 30	4R27486
M 45 x 4,5	90 x 36	4R27488
M 48 x 5,0	90 x 36	4R27490
M 52 x 5.,0	90 x 36	4R27492
M 56 x 5,5	105 x 36	4R27494
M 60 x 5,5	105 x 36	4R27496
M 64 x 6,0	120 x 36	4R27498
M 68 x 6,0	120 x 36	4R27499

DIN 223 = DIN EN 22568

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

DIÁMETRO EXTERIORES ESPECIALES
EXTERNAL ESPECIFIC DIAMETRES • DIMÉTRES EXTÉRIEURES SPÉCIALES



ACERO 400-800 N/mm² | HSS-G | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 3 x 0,5	25 x 9	4R27826
M 4 x 0,7	25 x 9	4R27830
M 5 x 0,8	25 x 9	4R27834
M 6 x 1,0	25 x 9	4R27838
M 8 x 1,25	25 x 9	4R27842
M 10 x 1,50	25 x 9	4R27846
M 12 x 1,75	25 x 9	4R27850



ACERO 400-800 N/mm² | HSS-G | TOL 6g | FORM A

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 3 x 0,50	25,4	4R27926
M 4 x 0,70	25,4	4R27930
M 5 x 0,80	25,4	4R27934
M 6 x 1,00	25,4	4R27938
M 8 x 1,25	25,4	4R27942
M 10 x 1,50	25,4	4R27946
M 12 x 1,75	25,4	4R27950
M 14 x 2,00	38,1	4R27954
M 16 x 2,00	38,1	4R27958
M 18 x 2,50	38,1	4R27962
M 20 x 2,50	38,1	4R27966

TOLERANCIA 6e *SPECIAL TOLERANCE • TOLERANCE SPÉCIALE*



ACERO 400-800 N/mm² | HSS-G | DIN 223 | TOL 6e

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 3 x 0,50	20 x 5	4R27503
M 4 x 0,70	20 x 5	4R27505
M 5 x 0,80	20 x 7	4R27507
M 6 x 1,00	20 x 7	4R27509
M 8 x 1,25	25 x 9	4R27511
M 10 x 1,50	30 x 11	4R27513
M 12 x 1,75	38 x 14	4R27515
M 14 x 2,00	38 x 14	4R27516
M 16 x 2,00	45 x 18	4R27517
M 18 x 2,50	45 x 18	4R27518
M 20 x 2,50	45 x 18	4R27519

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13

MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm²

HSS-G

DIN 223

TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 2,5 x 0,35	16 x 5	4R26404
M 2,6 x 0,35	16 x 5	4R26405
M 3,0 x 0,35	20 x 5	4R26408
M 3,5 x 0,35	20 x 5	4R26409
M 4,0 x 0,35	20 x 5	4R26410
M 4,0 x 0,50	20 x 5	4R26412
M 4,5 x 0,50	20 x 5	4R26413
M 5,0 x 0,50	20 x 5	4R26414
M 5,0 x 0,75	20 x 7	4R26416
M 5,5 x 0,50	20 x 5	4R26415
M 6,0 x 0,50	20 x 5	4R26417
M 6,0 x 0,75	20 x 7	4R26418
M 7,0 x 0,50	25 x 9	4R26419
M 7,0 x 0,75	25 x 9	4R26420
M 8,0 x 0,50	25 x 9	4R26422
M 8,0 x 0,75	25 x 9	4R26424
M 8,0 x 1,00	25 x 9	4R26426
M 9,0 x 0,50	25 x 9	4R26427
M 9,0 x 0,75	25 x 9	4R26428
M 9,0 x 1,00	25 x 9	4R26430
M 10,0 x 0,50	30 x 11	4R26431
M 10,0 x 0,75	30 x 11	4R26432
M 10,0 x 1,00	30 x 11	4R26436
M 10,0 x 1,25	30 x 11	4R26438
M 11,0 x 1,00	30 x 11	4R26440
M 11,0 x 1,25	30 x 11	4R26442
M 12,0 x 0,50	38 x 10	4R26445
M 12,0 x 0,75	38 x 10	4R26443
M 12,0 x 1,00	38 x 10	4R26444
M 12,0 x 1,25	38 x 10	4R26446
M 12,0 x 1,50	38 x 10	4R26448
M 13,0 x 0,50	38 x 10	4R26447
M 13,0 x 0,75	38 x 10	4R26449
M 13,0 x 1,00	38 x 10	4R26450
M 13,0 x 1,50	38 x 10	4R26451
M 14,0 x 0,50	38 x 10	4R26455
M 14,0 x 0,75	38 x 10	4R26452
M 14,0 x 1,00	38 x 10	4R26453
M 14,0 x 1,25	38 x 10	4R26454
M 14,0 x 1,50	38 x 10	4R26456
M 15,0 x 0,75	38 x 10	4R26457
M 15,0 x 1,00	38 x 10	4R26458
M 15,0 x 1,50	38 x 10	4R26460
M 16,0 x 0,50	45 x 14	4R26461
M 16,0 x 0,75	45 x 14	4R26463
M 16,0 x 1,00	45 x 14	4R26462
M 16,0 x 1,25	45 x 14	4R26464
M 16,0 x 1,50	45 x 14	4R26466
M 17,0 x 1,00	45 x 14	4R26468
M 17,0 x 1,50	45 x 14	4R26469

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 18 x 0,50	45 x 14	4R26467
M 18 x 0,75	45 x 14	4R26473
M 18 x 1,00	45 x 14	4R26470
M 18 x 1,25	45 x 14	4R26471
M 18 x 1,50	45 x 14	4R26472
M 18 x 2,00	45 x 14	4R26474
M 19 x 1,00	45 x 14	4R26475
M 19 x 1,50	45 x 14	4R26476
M 20 x 0,50	45 x 14	4R26477
M 20 x 0,75	45 x 14	4R26479
M 20 x 1,00	45 x 14	4R26478
M 20 x 1,25	45 x 14	4R26480
M 20 x 1,50	45 x 14	4R26484
M 20 x 2,00	45 x 14	4R26486
M 21 x 1,00	45 x 14	4R26487
M 21 x 1,50	45 x 14	4R26488
M 22 x 0,50	55 x 16	4R26489
M 22 x 0,75	55 x 16	4R26491
M 22 x 1,00	55 x 16	4R26490
M 22 x 1,25	55 x 16	4R26492
M 22 x 1,50	55 x 16	4R26494
M 22 x 2,00	55 x 16	4R26496
M 23 x 1,00	55 x 16	4R26497
M 23 x 1,50	55 x 16	4R26498
M 24 x 0,50	55 x 16	4R26601
M 24 x 0,75	55 x 16	4R26603
M 24 x 1,00	55 x 16	4R26600
M 24 x 1,25	55 x 16	4R26602
M 24 x 1,50	55 x 16	4R26604
M 24 x 2,00	55 x 16	4R26606
M 25 x 1,00	55 x 16	4R26607
M 25 x 1,50	55 x 16	4R26608
M 26 x 1,00	55 x 16	4R26610
M 26 x 1,50	55 x 16	4R26612
M 26 x 2,00	55 x 16	4R26614
M 27 x 1,00	65 x 18	4R26616
M 27 x 1,50	65 x 18	4R26617
M 27 x 2,00	65 x 18	4R26618
M 28 x 1,00	65 x 18	4R26620
M 28 x 1,50	65 x 18	4R26622
M 28 x 2,00	65 x 18	4R26624
M 29 x 1,50	65 x 18	4R26626
M 30 x 1,00	65 x 18	4R26628
M 30 x 1,50	65 x 18	4R26630
M 30 x 2,00	65 x 18	4R26632
M 30 x 2,50	65 x 18	4R26633
M 30 x 3,00	65 x 25	4R26634
M 32 x 1,00	65 x 18	4R26639
M 32 x 1,50	65 x 18	4R26636
M 32 x 2,00	65 x 18	4R26635

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm² | HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 32 x 3,0	65 x 25	4R26637
M 33 x 1,5	65 x 18	4R26638
M 33 x 2,0	65 x 18	4R26640
M 33 x 3,0	65 x 25	4R26642
M 34 x 1,0	65 x 18	4R26643
M 34 x 1,5	65 x 18	4R26644
M 34 x 2,0	65 x 18	4R26646
M 35 x 1,0	65 x 18	4R26647
M 35 x 1,5	65 x 18	4R26648
M 35 x 2,0	65 x 18	4R26649
M 36 x 1,0	65 x 18	4R26651
M 36 x 1,5	65 x 18	4R26650
M 36 x 2,0	65 x 18	4R26652
M 36 x 3,0	65 x 25	4R26654
M 37 x 1,5	65 x 18	4R26653
M 38 x 1,0	75 x 20	4R26655
M 38 x 1,5	75 x 20	4R26656
M 38 x 2,0	75 x 20	4R26657
M 38 x 3,0	75 x 30	4R26659
M 39 x 1,5	75 x 20	4R26658
M 39 x 2,0	75 x 20	4R26660
M 39 x 3,0	75 x 30	4R26662
M 40 x 1,0	75 x 20	4R26663
M 40 x 1,5	75 x 20	4R26664
M 40 x 2,0	75 x 20	4R26666
M 40 x 3,0	75 x 30	4R26668
M 42 x 1,0	75 x 20	4R26669
M 42 x 1,5	75 x 20	4R26670
M 42 x 2,0	75 x 20	4R26672
M 42 x 3,0	75x30	4R26674
M 44 x 1,5	90 x 22	4R26671
M 44 x 2,0	90 x 22	4R26673
M 45 x 1,0	90 x 22	4R26675
M 45 x 1,5	90 x 22	4R26676
M 45 x 2,0	90 x 22	4R26678
M 45 x 3,0	90 x 22	4R26680
M 46 x 1,5	90 x 22	4R26681
M 48 x 1,0	90 x 22	4R26683
M 48 x 1,5	90 x 22	4R26682
M 48 x 2,0	90 x 22	4R26684
M 48 x 3,0	90 x 36	4R26686
M 50 x 1,5	90 x 22	4R26688
M 50 x 2,0	90 x 22	4R26690
M 50 x 3,0	90 x 36	4R26692
M 52 x 1,5	90 x 22	4R26694
M 52 x 2,0	90 x 22	4R26696
M 52 x 3,0	90 x 36	4R26698
M 54 x 1,0	105 x 22	4R28267
M 54 x 1,5	105 x 22	4R28150
M 54 x 2,0	105 x 22	4R28151

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 54 x 3,0	105 x 36	4R28152
M 54 x 4,0	105 x 36	4R28153
M 55 x 1,5	105 x 22	4R28154
M 55 x 2,0	105 x 22	4R28155
M 55 x 3,0	105 x 36	4R28156
M 55 x 4,0	105 x 36	4R28157
M 56 x 1,0	105 x 22	4R28268
M 56 x 1,5	105 x 22	4R28158
M 56 x 2,0	105 x 22	4R28159
M 56 x 3,0	105 x 36	4R28160
M 56 x 4,0	105 x 36	4R28161
M 58 x 1,0	105 x 22	4R28269
M 58 x 1,5	105 x 22	4R28162
M 58 x 2,0	105 x 22	4R28163
M 58 x 3,0	105 x 36	4R28164
M 58 x 4,0	105 x 36	4R28165
M 60 x 1,5	105 x 22	4R28166
M 60 x 2,0	105 x 22	4R28167
M 60 x 3,0	105 x 36	4R28168
M 60 x 4,0	105 x 36	4R28169
M 62 x 1,5	105 x 22	4R28170
M 62 x 2,0	105 x 22	4R28171
M 62 x 3,0	105 x 36	4R28172
M 62 x 4,0	105 x 36	4R28173
M 63 x 1,5	105 x 22	4R28174
M 64 x 1,5	120 x 22	4R28175
M 64 x 2,0	120 x 22	4R28176
M 64 x 3,0	120 x 36	4R28177
M 64 x 4,0	120 x 36	4R28178
M 65 x 1,5	120 x 22	4R28179
M 65 x 2,0	120 x 22	4R28180
M 65 x 3,0	120 x 36	4R28181
M 65 x 4,0	120 x 36	4R28182
M 68 x 1,5	120 x 22	4R28183
M 68 x 2,0	120 x 22	4R28184
M 68 x 3,0	120 x 36	4R28185
M 68 x 4,0	120 x 36	4R28186
M 70 x 1,5	120 x 22	4R28187
M 70 x 2,0	120 x 22	4R28188
M 70 x 3,0	120 x 36	4R28189
M 70 x 4,0	120 x 36	4R28190
M 72 x 1,5	120 x 22	4R28191
M 72 x 2,0	120 x 22	4R28192
M 72 x 3,0	120 x 36	4R28193
M 72 x 4,0	120 x 36	4R28194
M 74 x 1,5	120 x 22	4R28195
M 74 x 2,0	120 x 22	4R28196
M 74 x 3,0	120 x 36	4R28197
M 74 x 4,0	120 x 36	4R28198
M 75 x 1,5	120 x 22	4R28199

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13

MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm²

HSS-G

DIN 223

TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 75 x 2,0	120 x 22	4R28200
M 75 x 3,0	120 x 36	4R28201
M 75 x 4,0	120 x 36	4R28202
M 76 x 1,5	120 x 22	4R28203
M 76 x 2,0	120 x 22	4R28204
M 76 x 3,0	120 x 36	4R28205
M 76 x 4,0	120 x 36	4R28206
M 78 x 1,5	120 x 22	4R28207
M 78 x 2,0	120 x 22	4R28208
M 78 x 3,0	120 x 36	4R28209
M 78 x 4,0	120 x 36	4R28210
M 80 x 1,5	120 x 22	4R28211
M 80 x 2,0	120 x 22	4R28212
M 80 x 3,0	120 x 36	4R28213
M 80 x 4,0	120 x 36	4R28214
M 82 x 1,5	130 x 25	4R28215
M 82 x 2,0	130 x 25	4R28216
M 82 x 3,0	130 x 36	4R28217
M 82 x 4,0	130 x 36	4R28218
M 84 x1,5	130 x 25	4R28219
M 84 x 2,0	130 x 25	4R28220
M 84 x 3,0	130 x 36	4R28221
M 84 x 4,0	130 x 36	4R28222
M 85 x 1,5	130 x 25	4R28223
M 85 x 2,0	130 x 25	4R28224
M 85 x 3,0	130 x 36	4R28225
M 85 x 4,0	130 x 36	4R28226
M 86 x 1,5	140 x 22	4R28227
M 86 x 2,0	140 x 22	4R28228
M 86 x 3,0	140 x 22	4R28229
M 86 x 4,0	140 x 22	4R28230
M 88 x 1,5	140 x 22	4R28231
M 88 x 2,0	140 x 22	4R28232
M 88 x 3,0	140 x 22	4R28233

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 88 x 4,0	140 x 22	4R28234
M 90 x 1,5	140 x 22	4R28235
M 90 x 2,0	140 x 22	4R28236
M 90 x 3,0	140 x 22	4R28237
M 90 x 4,0	140 x 22	4R28238
M 92 x 1,5	140 x 22	4R28239
M 92 x 2,0	140 x 22	4R28240
M 92 x 3,0	140 x 22	4R28241
M 92 x 4,0	140 x 22	4R28242
M 95 x 1,5	140 x 22	4R28243
M 95 x 2,0	140 x 22	4R28244
M 95 x 3,0	140 x 22	4R28245
M 95 x 4,0	140 x 22	4R28246
M 96 x 1,5	140 x 22	4R28247
M 96 x 2,0	140 x 22	4R28248
M 96 x 3,0	140 x 22	4R28249
M 96 x 4,0	140 x 22	4R28250
M 98 x 1,5	150 x 25	4R28251
M 98 x 2,0	150 x 25	4R28252
M 98 x 3,0	150 x 25	4R28253
M 98 x 4,0	150 x 25	4R28254
M 100 x 1,5	150 x 25	4R28255
M 100 x 2,0	150 x 25	4R28256
M 100 x 3,0	150 x 25	4R28257
M 100 x 4,0	150 x 25	4R28258
M 105 x 1,5	150 x 25	4R28259
M 105 x 2,0	150 x 25	4R28260
M 105 x 3,0	150 x 25	4R28261
M 105 x 4,0	150 x 25	4R28262
M 110 x 1,5	160 x 25	4R28263
M 110 x 2,0	160 x 25	4R28264
M 110 x 3,0	160 x 25	4R28265
M 110 x 4,0	160 x 25	4R28266

DIN 223 = DIN EN 22568

BSW ROSCA WITHWORTH BS 84
WITHWORTH THREAD BS 84
FILETAGE WHITWORTH BS 84



ACERO 400-800 N/mm²

HSS-G

DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BSW 1/16 x 60	16 x 5	4R22402
BSW 3/32 x 48	16 x 5	4R22404
BSW 1/8 x 40	20 x 5	4R22406
BSW 5/32 x 32	20 x 5	4R22408
BSW 3/16 x 24	20 x 7	4R22410
BSW 7/32 x 24	20 x 7	4R22412
BSW 1/4 x 20	20 x 7	4R22414
BSW 5/16 x 18	25 x 9	4R22416
BSW 3/8 x 16	30 x 11	4R22418
BSW 7/16 x 14	30 x 11	4R22420
BSW 1/2 x 12	38 x 14	4R22422
BSW 9/16 x 12	38 x 14	4R22424
BSW 5/8 x 11	45 x 18	4R22426
BSW 3/4 x 10	45 x 18	4R22430
BSW 7/8 x 9	55 x 22	4R22434

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BSW 1 x 8	55 x 22	4R22438
BSW 1.1/8 x 7	65 x 25	4R22442
BSW 1.1/4 x 7	65 x 25	4R22446
BSW 1.3/8 x 6	65 x 25	4R22450
BSW 1.1/2 x 6	65 x 25	4R22452
BSW 1.1/2 x 6	75 x 30	4R22454
BSW 1.5/8 x 5	75 x 30	4R22458
BSW 1.3/4 x 5	90 x 36	4R22462
BSW 1.7/8 x 4.1/2	90 x 36	4R22466
BSW 2 x 4.1/2	90 x 36	4R22470
BSW 2.1/4 x 4	105 x 36	4R22472
BSW 2.1/2 x 4	105 x 36	4R22474
BSW 2.3/4 x 3.1/2	120 x 36	4R22476
BSW 3 x 3.1/2	120 x 36	4R22478

DIN 223 = DIN EN 22568

BSF ROSCA BRITÁNICA STANDARD FINA BS 84

BRITISH STANDARD FINE THREAD BS 84
FILETAGE BRITANIQUE BSF, BS 84



ACERO 400-800 N/mm² | HSS-G | DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BSF 3/16 x32	20 x 7	4R22810
BSF 1/4 x26	20 x 7	4R22814
BSF 5/16 x 22	25 x 9	4R22816
BSF 3/8 x 20	30 x 11	4R22818
BSF 7/16 x 18	30 x 11	4R22820
BSF 1/2 x 16	38 x 10	4R22822

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BSF 9/16 x 16	38 x 10	4R22824
BSF 5/8 x 14	45 x 14	4R22826
BSF 3/4 x 12	45 x 14	4R22830
BSF 7/8 x 11	55 x 22	4R22834
BSF 1" x 10	55 x 20	4R22838

DIN 223 = DIN EN 22568

BA ROSCA BA, BS 93

BA THREAD BS93
FILÉTAGE BA, BS 93



ACERO 400-800 N/mm² | HSS-G | BS1127 | FORM A

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BA 0	20.6 x 6.35	4R89000
BA 1	20.6 x 6.35	4R89001
BA 2	20.6 x 6.35	4R89002
BA 3	20.6 x 6.35	4R89003

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BA 4	20.6 x 6.35	4R89004
BA 5	20.6 x 6.35	4R89005
BA 6	20.6 x 6.35	4R89006

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1.

UNIFIED COARSE THREAD, ANSI B.1.1

FILETAGE UNIFIED GROSSE ANSI B 1.1



ACERO 400-800 N/mm²

HSS-G **DIN 223**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
Nr. 1 x 64	16 x 5	4R23401
Nr. 2 x 56	16 x 5	4R23402
Nr. 3 x 48	16 x 5	4R23403
Nr. 4 x 40	20 x 5	4R23404
Nr. 5 x 40	20 x 5	4R23405
Nr. 6 x 32	20 x 7	4R23406
Nr. 8 x 32	20 x 7	4R23408
Nr. 10 x 24	20 x 7	4R23410
Nr. 12 x 24	20 x 7	4R23412
Nr. 1/4 x 20	20 x 7	4R23414
Nr. 5/16 x 18	25 x 9	4R23416
Nr. 3/8 x 16	30 x 11	4R23418
Nr. 7/16 x 14	30 x 11	4R23420
Nr. 1/2 x 13	38 x 14	4R23422

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
9/16 x 12	38 x 14	4R23424
5/8 x 11	45 x 18	4R23426
3/4 x 10	45 x 18	4R23430
7/8 x 9	55 x 22	4R23434
1 x 8	55 x 22	4R23438
1.1/8 x 7	65 x 25	4R23442
1.1/4 x 7	65 x 25	4R23446
1.3/8 x 6	65 x 25	4R23450
1.1/2 x 6	65 x 25	4R23452
1.1/2 x 6	75 x 30	4R23454
1.5/8 x 5	75 x 30	4R23458
1.3/4 x 5	90 x 36	4R23462
1.7/8 x 4.1/2	90 x 36	4R23466
2 x 4.1/2	90 x 36	4R23470

DIN 223 = DIN EN 22568

UNF ROSCA FINA UNIFICADA ANSI B.1.1

UNIFIED FINE THREAD, ANSI B.1.1

FILETAGE UNIFIED À PAS FINE ANSI B 1.1



ACERO 400-800 N/mm²

HSS-G

DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
Nr. 0 x 80	16 x 5	4R24400
Nr. 1 x 72	16 x 5	4R24401
Nr. 2 x 64	16 x 5	4R24402
Nr. 3 x 56	16 x 5	4R24403
Nr. 4 x 48	20 x 5	4R24404
Nr. 5 x 44	20 x 5	4R24405
Nr. 6 x 40	20 x 5	4R24406
Nr. 8 x 36	20 x 7	4R24408
Nr. 10 x 32	20 x 7	4R24410
Nr. 12 x 28	20 x 7	4R24412
Nr. 1/4 x 28	20 x 7	4R24414
Nr. 5/16 x 24	25 x 9	4R24416
Nr. 3/8 x 24	30 x 11	4R24418

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
7/16 x 20	30 x 11	4R24420
1/2 x 20	38 x 10	4R24422
9/16 x 18	38 x 10	4R24424
5/8 x 18	45 x 14	4R24426
3/4 x 16	45 x 14	4R24430
7/8 x 14	55 x 16	4R24434
1 x12	55 x 16	4R24438
1 x14	55 x 16	4R24440
1.1/8 x 12	65 x 18	4R24442
1.1/4 x 12	65 x 18	4R24446
1.3/8 x 12	65 x 18	4R24450
1.1/2 x 12	65 x 18	4R24452
1.1/2 x 12	75 x 20	4R24454

DIN 223 = DIN EN 22568

UNEF ROSCA EXTRA FINA UNIFICADA ANSI B.1.1

UNIFIED EXTRA FINE THREAD, ANSI B.1.1

FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B.1.1



ACERO 400-800 N/mm²

HSS-G

DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
UNEF Nr. 12 x 32	20 x 7	4R24612
UNEF 1/4 x 32	20 x 7	4R24614
UNEF 5/16 x 32	25 x 9	4R24615
UNEF 3/8 x 32	30 x 11	4R24616
UNEF 7/16 x 28	30 x 11	4R24620
UNEF 1/2 x 28	38 x 10	4R24621
UNEF 9/16 x 24	25 x 9	4R24625
UNEF 5/8 x 24	30 x 11	4R24626
UNEF 11/16 x 24	25 x 9	4R24627
UNEF 3/4 x 20	30 x 11	4R24633
UNEF 13/16 x 20	55 x 16	4R24634

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
UNEF 7/8 x 20	55 x 16	4R24635
UNEF 15/16 x 20	55 x 16	4R24636
UNEF 1 x 20	55 x 16	4R24637
UNEF 1.1/16 x 18	65 x 18	4R24645
UNEF 1.1/8 x 18	65 x 18	4R24646
UNEF 1.3/16 x 18	65 x 18	4R24647
UNEF 1.1/4 x 18	65 x 18	4R24648
UNEF 1.5/16 x 18	65 x 18	4R24649
UNEF 1.3/8 x 18	65 x 18	4R24650
UNEF 1.7/16 x 18	75 x 20	4R24651
UNEF 1.1/2 x 18	75 x 20	4R24652

DIN 223 = DIN EN 22568

G(BSP) ROSCA FINA UNIFICADA ANSI B.1.1

UNIFIED FINE THREAD, ANSI B.1.1
FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm²

HSS-G

DIN 5158

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
G 1/8 x 28	30 x 11	4R25412
G 1/4 x 19	38 x 10	4R25414
G 3/8 x 19	45 x 14	4R25416
G 1/2 x 14	45 x 14	4R25418
G 5/8 x 14	55 x 16	4R25420
G 3/4 x 14	55 x 16	4R25422
G 7/8 x 14	65 x 18	4R25424
G 1 x 11	65 x 18	4R25426
G 1.1/8 x 11	75 x 20	4R25430
G 1.1/4 x 11	75 x 20	4R25434
G 1.3/8 x 11	90 x 22	4R25438

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
G 1.1/2 x 11	90 x 22	4R25442
G 1.5/8 x 11	90 x 22	4R25446
G 1.3/4 x 11	105 x 22	4R25450
G 2 x 11	90 x 22	4R25452
G 2 x 11	105 x 22	4R25454
G 2.1/4 x 11	120 x 22	4R25458
G 2.1/2 x 11	120 x 22	4R25462
G 2.3/4 x 11	120 x 22	4R25466
G 3 x 11	130 x 25	4R25470
G 3.1/2 x 11	150 x 25	4R25474
G 4 x 11	160 x 25	4R25478

DIN 223 = DIN EN 22568

R(BSPT) ROSCA INGLESA PARA TUBO, CONICIDAD 1:16

TAPERED PIPE THREAD, TAPER 1:16
FILETAGE PAS GAZ CONIQUE, CONICITÉ 1:16



ACERO 400-800 N/mm²

HSS-G

FORM A

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
PT 1/8 x 28	38 x 11	4R97006
PT 1/4 x 19	38 x 16	4R97014
PT 3/8 x 19	50 x 18	4R97020
PT 1/2 x 14	50 x 22	4R97022

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
PT 3/4 x 14	50 x 24	4R97030
PT 1 x 11	63 x 28	4R97040
PT 1.1/4 x 11	75 x 32	4R97048

PG ROSCA PARA TUBOS BLINDADOS DIN 40 430

ARMOURED TUBE THREAD DIN 40 430
FILETAGE ÉLECTRIQUE DIN 40 430



ACERO 400-800 N/mm²

HSS-G

DIN 40434

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
PG 7 x 20	38 x 10	4R25807
PG 9 x 18	45 x 14	4R25809
PG 11 x 18	45 x 14	4R25811
PG 13.5 x 18	45 x 14	4R25813
PG 16 x 18	55 x 16	4R25816

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
PG 21 x 16	65 x 18	4R25821
PG 29 x 16	65 x 18	4R25829
PG 36 x 16	90 x 22	4R25836
PG 42 x 16	105 x 22	4R25842
PG 48 x 16	105 x 22	4R25848

NPT

ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16
AMERICAN TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16



ACERO 400-800 N/mm²

HSS-G

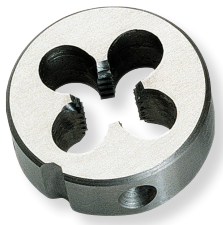
D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
NPT 1/16 x 27	25 x 9	4R23610
NPT 1/8 x 27	30 x 11	4R23612
NPT 1/4 x 18	38 x 14	4R23614
NPT 3/8 x 18	45 x 14	4R23616
NPT 1/2 x 14	45 x 18	4R23618
NPT 5/8 x 14	55 x 22	4R23620

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
NPT 3/4 x 14	55 x 22	4R23622
NPT 7/8 x 14	65 x 25	4R23624
NPT 1 x 11.5	65 x 25	4R23626
NPT 1.1/4 x 11.5	75 x 26	4R23634
NPT 1.1/2 x 11.5	90 x 27	4R23642
NPT 2 x 11.5	105 x 28	4R23654

DIN 223 = DIN EN 22568

VG

PARA ROSCAS DE VÁLVULAS DE NEUMÁTICO
FOR TIRE VALVES THREADS
POUR LES VALVES DES PNEUMATIQUES



ACERO 400-800 N/mm²

HSS-G

TOL 6g

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
VG 5 X 36	20 x 7	4R21501
VG 5,2 X 24	20 x 7	4R21502
VG 6 X 32	20 x 7	4R21503

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
VG 8 X 32	25 x 9	4R21504
VG 10 X 28	30 x 11	4R21505
VG 12 X 26	30 x 11	4R21506

BSC

PARA EJES DE PEDALIER
FOR BOTTOM BRACKET
POUR PÉDALIER VÉLO



ACERO 400-800 N/mm²

HSS-G

TOL 6g

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BSC 1/4" X 26	20,6 X 6,35	4R21507
BSC 5/16" X 26	25,4 X 9,5	4R21508
BSC 3/8" X 26	25,4 X 9,5	4R21509

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BSC 9/16" X 20 R	38,1 X 12,7	4R21510
BSC 9/16" X 20 L	38,1 X 12,7	4R21511
BSC 1" X 24	55 X 16	4R21512

* Consultar precio y disponibilidad / *Request price and availability / Consulter le prix et le disponibilité*

NPTF ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16

AMERICAN TAPERED PIPE THREAD, TAPER 1:16

FILETAGE NPT CONICITÉ 1:16



ACERO 400-800 N/mm² | HSS-G | FORM A

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
NPTF 1/8 x 27	50 x 11	4R98072
NPTF 1/4 x 18	50 x 14	4R98074
NPTF 3/8 x 18	50 x 14	4R98076

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
NPTF 1/2 x 14	50 x 18	4R98078
NPTF 3/4 x 14	50 x 22	4R98080
NPTF 1 x 11.5	50 x 25	4R98082

DIN 223 = DIN EN 22568

M MÉTRICA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13

MÉTRIQUE DIN-13



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 3 x 0,50	20 x 5	4R57426
M 4 x 0,70	20 x 5	4R57430
M 5 x 0,80	20 x 7	4R57434
M 6 x 1,00	20 x 7	4R57438
M 8 x 1,25	25 x 9	4R57442
M 10 x 1,50	30 x 11	4R57446
M 12 x 1,75	38 x 14	4R57450
M 14 x 2,00	38 x 14	4R57454

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 16 x 2,0	45 x 18	4R57458
M 18 x 2,5	45 x 18	4R57462
M 20 x 2,5	45 x 18	4R57466
M 22 x 2,5	55 x 22	4R57470
M 24 x 3,0	55 x 22	4R57474
M 27 x 3,0	65 x 25	4R57476
M 30 x 3,5	65 x 25	4R57478

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 6 x 0,75	20 x 7	4R56418
M 8 x 0,75	25 x 9	4R56424
M 8 x 1,00	25 x 9	4R56426
M 10 x 1,00	30 x 11	4R56436
M 10 x 1,25	30 x 11	4R56438
M 12 x 1,00	38 x 10	4R56444
M 12 x 1,25	38 x 10	4R56446
M 12 x 1,50	38 x 10	4R56448
M 14 x 1,25	38 x 10	4R56454
M 14 x 1,5	38 x 10	4R56456
M 16 x 1,5	45 x 14	4R56466
M 18 x 1,5	45 x 14	4R56472
M 18 x 2,0	45 x 14	4R56474
M 20 x 1,5	45 x 14	4R56484
M 20 x 2,0	45 x 14	4R56486
M 22 x 1,5	55 x 16	4R56494
M 24 x 1,5	55 x 16	4R56604

DIN 223 = DIN EN 22568

G(BSP) ROSCA GAS DIN ISO 228
PIPE TRHEAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | DIN 5158

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
G 1/8 x 28	30 x 11	4R55412
G 1/4 x 19	38 x 10	4R55414
G 3/8 x 19	45 x 14	4R55416
G 1/2 x 14	45 x 14	4R55418
G 3/4 x 14	55 x 16	4R55422
G 1 x 11	65 x 18	4R55426

DIN 5158 = DIN EN 24231

M MÉTRICA ISO-ROSCA DIN 13 IZQUIERDAS
METRIC ISO THREAD DIN 13 LEFT HAND
MÉTRIQUE DIN-13 Á GAUCHE



ACERO 400-800 N/mm² | HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 2 x 0,40	16 x 5	4R27216
M 3 x 0,50	20 x 5	4R27226
M 4 x 0,70	20 x 5	4R27230
M 5 x 0,80	20 x 7	4R27234
M 6 x 1,00	20 x 7	4R27238
M 8 x 1,25	25 x 9	4R27242
M 10 x 1,50	30 x 11	4R27246
M 12 x 1,75	38 x 14	4R27250
M 14 x 2,00	38 x 14	4R27254
M 16 x 2,00	45 x 18	4R27258
M 18 x 2,50	45 x 18	4R27262
M 20 x 2,50	45 x 18	4R27266

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 22 x 2,5	55 x 22	4R27270
M 24 x 3,0	55 x 22	4R27274
M 27 x 3,0	65 x 25	4R27276
M 30 x 3,5	65 x 25	4R27278
M 33 x 3,5	65 x 25	4R27280
M 36 x 4,0	65 x 25	4R27282
M 39 x 4,0	75 x 30	4R27284
M 42 x 4,5	75 x 30	4R27286
M 45 x 4,5	90 x 36	4R27288
M 48 x 5,0	90 x 36	4R27290
M 52 x 5,0	90 x 36	4R27292

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO ROSCA DIN 13 IZQUIERDAS
METRIC FINE ISO THREAD DIN 13 LEFT HAND
MÉTRIQUE FIN ISO DIN-13 Á GAUCHE



ACERO 400-800 N/mm²

HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 6 x 0,75	20 x 7	4R26207
M 8 x 0,75	25 x 9	4R26210
M 8 x 1,00	25 x 9	4R26211
M 10 x 1,00	30 x 11	4R26215
M 10 x 1,25	30 x 11	4R26216
M 12 x 1,00	38 x 10	4R26220
M 12 x 1,25	38 x 10	4R26221
M 12 x 1,50	38 x 10	4R26222
M 14 x 1,25	38 x 10	4R26227
M 14 x 1,5	38 x 10	4R26228
M 16 x 1,0	45 x 14	4R26231
M 16 x 1,5	45 x 14	4R26233
M 18 x 1,5	45 x 14	4R26236
M 20 x 1,5	45 x 14	4R26240
M 22 x 1,5	55 x 16	4R26245
M 24 x 1,5	55 x 16	4R26250
M 24 x 2,0	55 x 16	4R26251
M 30 x 2,0	65 x 18	4R26264

DIN 223 = DIN EN 22568

BSW ROSCA WITHWORTH BS 84 IZQUIERDAS

WITHWORTH THREAD BS 84 LEFT HAND
FILETAGE WHITWORTH BS 84 A GAUCHE



ACERO 400-800 N/mm²

HSS-G

DIN 223

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
1/8 x 40	20 x 5	4R22206
5/32 x 32	20 x 5	4R22208
3/16 x 24	20 x 7	4R22210
1/4 x 20	20 x 7	4R22214
5/16 x 18	25 x 9	4R22216
3/8 x 16	30 x 11	4R22218
7/16 x 14	30 x 11	4R22220

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
1/2 x 12	38 x 14	4R22222
9/16 x 12	38 x 14	4R22224
5/8 x 11	45 x18	4R22226
3/4 x 10	45 x 18	4R22230
7/8 x 9	55 x 22	4R22234
1 x 8	55 x 22	4R22238

DIN 223 = DIN EN 22568

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1. IZQUIERDAS

UNIFIED COARSE THREAD, ANSI B.1.1 LEFT HAND
FILETAGE UNIFIED GROSSE ANSI B 1.1 A GAUCHE



ACERO 400-800 N/mm²

HSS-G

DIN 223

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
UNC Nr. 6 x 32	20 x 7	4R23206
UNC Nr. 8 x 32	20 x 7	4R23208
UNC Nr.10 x 32	20 x 7	4R23210
UNC 1/4 x 20	20 x 7	4R23214
UNC 5/16 x 18	25 x 9	4R23216
UNC 3/8 x 16	30 x 11	4R23218
UNC 7/16 x 14	38 x 14	4R23220

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
UNC 1/2 x 13	38 x 14	4R23222
UNC 9/16 x 12	38 x 14	4R23224
UNC 5/8 x 11	45 x 18	4R23226
UNC 3/4 x 10	45 x 18	4R23230
UNC 7/8 x 9	55 x 22	4R23234
UNC 1 x 8	55 x 22	4R23238

DIN 223 = DIN EN 22568

UNF ROSCA FINA UNIFICADA ANSI B.1.1 IZQUIERDAS
UNIFIED FINE THREAD, ANSI B.1.1 LEFT HAND
FILETAGE UNIFIED GROSSE ANSI B 1.1 A GAUCHE



ACERO 400-800 N/mm²

HSS-G **DIN 223**

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
UNF Nr. 10 x 32	20 x 7	4R24210
UNF 1/4 x 28	20 x 7	4R24214
UNF 5/16 x 24	25 x 9	4R24216
UNF 3/8 x 24	30 x 11	4R24218
UNF 7/16 x 20	30 x 11	4R24220
UNF 1/2 x 20	38 x 10	4R24222

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
UNF 9/16 x 18	38 x 10	4R24224
UNF 5/8 x 18	45 x 14	4R24226
UNF 3/4 x 16	45 x 14	4R24230
UNF 7/8 x 14	55 x 16	4R24234
UNF 1 x 12	55 x 16	4R24238

DIN 223 = DIN EN 22568

G(BSP) ROSCA GAS DIN ISO 228 IZQUIERDAS
PIPE TRHEAD DIN ISO 228 LEFT HAND
FILETAGE PAS GAZ DIN ISO 228 A GAUCHE



ACERO 400-800 N/mm²

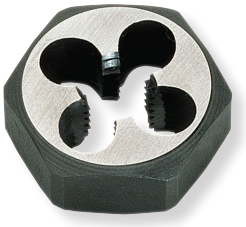
HSS-G **DIN 5158**

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
G 1/8 x 28	30 x 11	4R25212
G 1/4 x 19	38 x 10	4R25214
G 3/8 x 19	45 x 14	4R25216
G 1/2 x 14	45 x 14	4R25218
G 5/8 x 14	55 x 16	4R25220
G 3/4 x 14	55 x 16	4R25222
G 7/8 x 14	65 x 18	4R25224
G 1 x 11	65 x 18	4R25226

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
G 1.1/8 x 11	75 x 20	4R25230
G 1.1/4 x 11	75 x 20	4R25234
G 1.3/8 x 11	90 x 22	4R25238
G 1.1/2 x 11	90 x 22	4R25242
G 1.5/8 x 11	90 x 22	4R25246
G 1.3/4 x 11	105 x 22	4R25250
G 2 x 11	105 x 22	4R25254

DIN 5158 = DIN EN 24231

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



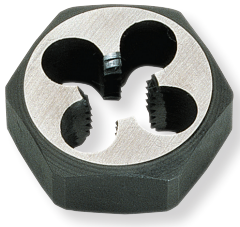
ACERO 400-800 N/mm²

HSS-G | **DIN 382** | TOL **6g**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 3,0 x 0,50	19 x 5	4R27126
M 3,5 x 0,60	19 x 5	4R27128
M 4,0 x 0,70	19 x 5	4R27130
M 5,0 x 0,80	19 x 7	4R27134
M 6,0 x 1,00	19 x 7	4R27138
M 7,0 x 1,00	22 x 9	4R27140
M 8,0 x 1,25	22 x 9	4R27142
M 9,0 x 1,25	22 x 9	4R27144
M 10,0 x 1,50	27 x 11	4R27146
M 11,0 x 1,50	27 x 11	4R27148
M 12,0 x 1,75	36 x 14	4R27150
M 14,0 x 2,00	36 x 14	4R27154
M 16,0 x 2,00	41 x 18	4R27158
M 18,0 x 2,50	41 x 18	4R27162
M 20,0 x 2,50	41 x 18	4R27166

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 22 x 2,5	50 x 22	4R27170
M 24 x 3,0	50 x 22	4R27174
M 27 x 3,0	60 x 25	4R27176
M 30 x 3,5	60 x 25	4R27178
M 33 x 3,5	60 x 25	4R27180
M 36 x 4,0	60 x 25	4R27182
M 39 x 4,0	70 x 30	4R27184
M 42 x 4,5	70 x 30	4R27186
M 45 x 4,5	85 x 36	4R27188
M 48 x 5,0	85 x 36	4R27190
M 52 x 5,0	85 x 36	4R27192
M 56 x 5,5	100 x 36	4R27194
M 60 x 5,5	100 x 36	4R27196
M 64 x 6,0	100 x 36	4R27198
M 68 x 6,0	115 x 36	4R27199

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm²

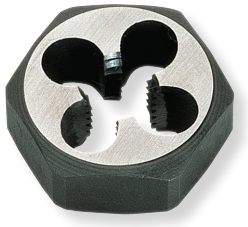
HSS-G | **DIN 382** | TOL **6g**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 3 x 0,35	19 x 5	4R26108
M 4 x 0,35	19 x 5	4R26110
M 4 x 0,50	19 x 5	4R26112
M 5 x 0,50	19 x 5	4R26114
M 5 x 0,75	19 x 7	4R26116
M 6 x 0,50	19 x 5	4R26117
M 6 x 0,75	19 x 7	4R26118
M 7 x 0,75	22 x 9	4R26120
M 8 x 0,50	22 x 9	4R26122
M 8 x 0,75	22 x 9	4R26124
M 8 x 1,00	22 x 9	4R26126
M 9 x 0,75	22 x 9	4R26128
M 9 x 1,00	22 x 9	4R26130
M 10 x 0,75	27 x 11	4R26132
M 10 x 1,00	27 x 11	4R26136
M 10 x 1,25	27 x 11	4R26138
M 11 x 1,00	27 x 11	4R26140
M 11 x 1,25	27 x 11	4R26142
M 12 x 0,75	36 x 10	4R26143
M 12 x 1,00	36 x 10	4R26144
M 12 x 1,25	36 x 10	4R26146
M 12 x 1,50	36 x 10	4R26148
M 13 x 1,00	36 x 10	4R26150
M 13 x 1,50	36 x 10	4R26151
M 14 x 0,75	36 x 10	4R26152
M 14 x 1,00	36 x 10	4R26153
M 14 x 1,25	36 x 10	4R26154
M 14 x 1,50	36 x 10	4R26156
M 15 x 1,00	36 x 10	4R26158
M 15 x 1,50	36 x 10	4R26160
M 16 x 1,00	41 x 14	4R26162
M 16 x 1,25	41 x 14	4R26164
M 16 x 1,50	41 x 14	4R26166
M 18 x 1,00	41 x 14	4R26170
M 18 x 1,25	41 x 14	4R26171
M 18 x 1,50	41 x 14	4R26172
M 18 x 2,00	41 x 14	4R26174
M 20 x 1,00	41 x 14	4R26178
M 20 x 1,25	41 x 14	4R26180
M 20 x 1,50	41 x 14	4R26184
M 20 x 2,00	41 x 14	4R26186
M 21 x 1,50	41 x 14	4R26188
M 22 x 1,00	50 x 16	4R26190
M 22 x 1,25	50 x 16	4R26192
M 22 x 1,50	50 x 16	4R26194
M 22 x 2,00	50 x 16	4R26196
M 23 x 1,50	50 x 16	4R26198
M 24 x 1,00	50 x 16	4R26700
M 24 x 1,25	50 x 16	4R26702
M 24 x 1,50	50 x 16	4R26704
M 24 x 2,00	50 x 16	4R26706

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
M 25 x 1,0	50 x 16	4R26707
M 25 x 1,5	50 x 16	4R26708
M 26 x 1,0	50 x 16	4R26710
M 26 x 1,5	50 x 16	4R26712
M 26 x 2,0	50 x 16	4R26714
M 27 x 1,0	60 x 18	4R26717
M 27 x 1,5	60 x 18	4R26716
M 27 x 2,0	60 x 18	4R26718
M 28 x 1,0	60 x 18	4R26720
M 28 x 1,5	60 x 18	4R26722
M 28 x 2,0	60 x 18	4R26724
M 29 x 1,5	60 x 18	4R26726
M 30 x 1,0	60 x 18	4R26728
M 30 x 1,5	60 x 18	4R26730
M 30 x 2,0	60 x 18	4R26732
M 30 x 3,0	60 x 25	4R26734
M 32 x 1,5	60 x 18	4R26736
M 32 x 2,0	60 x 18	4R26735
M 32 x 3,0	60 x 25	4R26737
M 33 x 1,5	60 x 18	4R26738
M 33 x 2,0	60 x 18	4R26740
M 33 x 3,0	60 x 25	4R26742
M 34 x 1,5	60 x 18	4R26744
M 34 x 2,0	60 x 18	4R26746
M 35 x 1,5	60 x 18	4R26748
M 36 x 1,5	60 x 18	4R26750
M 36 x 2,0	60 x 18	4R26752
M 36 x 3,0	60 x 25	4R26754
M 38 x 1,5	70 x 20	4R26756
M 39 x 1,5	70 x 20	4R26758
M 39 x 2,0	70 x 20	4R26760
M 39 x 3,0	70 x 30	4R26762
M 40 x 1,5	70 x 20	4R26764
M 40 x 2,0	70 x 20	4R26766
M 40 x 3,0	70 x 30	4R26768
M 42 x 1,5	70 x 20	4R26770
M 42 x 2,0	70 x 20	4R26772
M 42 x 3,0	70 x 30	4R26774
M 45 x 1,5	85 x 22	4R26776
M 45 x 2,0	85 x 22	4R26778
M 45 x 3,0	85 x 36	4R26780
M 48 x 1,5	85 x 22	4R26782
M 48 x 2,0	85 x 22	4R26784
M 48 x 3,0	85 x 36	4R26786
M 50 x 1,5	85 x 22	4R26788
M 50 x 2,0	85 x 22	4R26790
M 50 x 3,0	85 x 36	4R26792
M 52 x 1,5	85 x 22	4R26794
M 52 x 2,0	85 x 22	4R26796
M 52 x 3,0	85 x 36	4R26798

BSW ROSCA WITHWORTH BS 84

WITHWORTH THREAD BS 84
FILETAGE WHITWORTH BS 84



ACERO 400-800 N/mm²

HSS-G

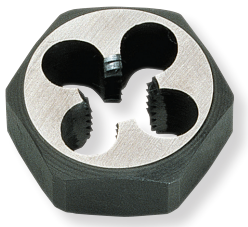
DIN 382

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BSW 1/8 x 40	19 x 5	4R22106
BSW 3/16 x 24	19 x 7	4R22110
BSW 1/4 x 20	19 x 7	4R22114
BSW 5/16 x 18	22 x 9	4R22116
BSW 3/8 x 16	27 x 11	4R22118
BSW 7/16 x 14	27 x 11	4R22120
BSW 1/2 x 12	36 x 14	4R22122
BSW 9/16 x 12	36 x 14	4R22124
BSW 5/8 x 11	41 x 18	4R22126
BSW 3/4 x 10	41 x 18	4R22130
BSW 7/8 x 9	50 x 22	4R22134

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BSW 1" x 8	50 x 22	4R22138
BSW 1.1/8 x 7	60 x 25	4R22142
BSW 1.1/4 x 7	60 x 25	4R22146
BSW 1.3/8 x 6	60 x 25	4R22150
BSW 1.1/2 x 6	70 x 30	4R22154
BSW 2 x 4.1/2	85 x 36	4R22170
BSW 2.1/4 x 4	100 x 22	4R22172
BSW 2.1/2 x 4	115 x 22	4R22174
BSW 2.3/4 x 3.1/2	115 x 36	4R22176
BSW 3 x 3.1/2	115 x 36	4R22178

BSF ROSCA BRITÁNICA STANDARD FINA BS 84

BRITISH STANDARD FINE THREAD BS 84
FILETAGE BRITANIQUE BSF, BS 84



ACERO 400-800 N/mm²

HSS-G

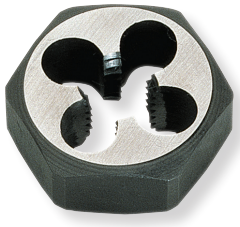
DIN 382

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BSF 3/16 x 32	19 x 7	4R22510
BSF 1/4 x 26	19 x 7	4R22514
BSF 5/16 x 22	22 x 9	4R22516
BSF 3/8 x 20	27 x 11	4R22518
BSF 7/16 x 18	27 x 11	4R22520
BSF 1/2 x 16	36 x 10	4R22522

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
BSF 9/16 x 16	36 x 10	4R22524
BSF 5/8 x 14	41 x 14	4R22526
BSF 3/4 x 12	41 x 14	4R22530
BSF 7/8 x 11	50 x 16	4R22534
BSF 1 x 10	50 x 16	4R22538

G(BSP) ROSCA GAS DIN ISO 228

PIPE TRHEAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm²

HSS-G **DIN 382**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
G 1/8 x 28	27 x 11	4R25512
G 1/4 x 19	36 x 10	4R25514
G 3/8 x 19	41 x 14	4R25516
G 1/2 x 14	41 x 14	4R25518
G 5/8 x 14	50 x 16	4R25520
G 3/4 x 14	50 x 16	4R25522
G 7/8 x 14	60 x 18	4R25524
G 1 x11	60 x 18	4R25526

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.
G 1.1/8 x 11	70 x 20	4R25530
G 1.1/4 x 11	70 x 20	4R25534
G 1.3/8 x 11	85 x 22	4R25538
G 1.1/2 x 11	85 x 22	4R25542
G 1.5/8 x 11	85 x 22	4R25546
G 1.3/4 x 11	100 x 22	4R25550
G 2 x 11	100 x 22	4R25554

ESTUCHE MACHOS MANO
HAND TAPS SET • COFFRET TARAUDS Á MAIN



3RH352 - 3RC352



3RB352 - 3RB529

Calidad / *Quality*		Machos / *Taps*	Brocas / *Drill Bits*	Giramachos / *Tap Wrenche*	Cod.
HSS-G	Machos Mano *Hand Taps*	M 3 - 4 - 5 - 6 - 8 - 10 - 12	-	-	3RH352
HSS-CO 5%	Machos Mano *Hand Taps*	M 3 - 4 - 5 - 6 - 8 - 10 - 12	-	-	3RC352
HSS-G	Macho Nº 3 *Tap Nº 3*	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1.1/2	3RB352
HSS-CO 5%	DIN 352/B	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1.1/2	3RB529

ESTUCHES MACHOS MÁQUINA
MACHINE TAPS SETS • COFFRETS TARAUDS MACHINE



3RM001



3RM002



3RM003



3RM004

Calidad / *Quality*		Machos / *Taps*	Cod.
HSS-CO 5%	FORM B	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM001
HSS-CO 5%	FORM C/35º	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM002

Calidad / *Quality*		Machos / *Taps*	Cod.
TIN	FORM B	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM003
TIN	FORM C/35º	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM004

ESTUCHES MACHOS MÁQUINA CON BROCA
MACHINE TAPS AND DRILL BITS SETS
COFFRETS TARAUDS MACHINE ET FORETS MÉTAUX



3RM011



3RM012

Calidad / *Quality*	Machos / *Taps*	Brocas / *Drill Bits*	Giramachos / *Tap Wrenche*	Cod.
HSS-CO 5% FORM B	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	-	3RM011
HSS-CO 5% FORM C/35º	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	-	3RM012

ESTUCHES MACHOS MÁQUINA DE BANDA
COLORED RING MACHINE TAPS SETS
COFFRETS TARAUDS MACHINE BANDE COLORÉE



3RM021



3RM022



3RM023



3RM024



3RM025



3RM026

Calidad / *Quality*	Banda/*Ring*	Machos/*Taps*	Cod.
PM HL FORM B		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM021
PM HL FORM C/35º		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM022
HSS-E-V3 TIN FORM B	MULTIUSOS	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM023

Calidad / *Quality*	Banda/*Ring*	Machos/*Taps*	Cod.	€/Unid.
HSS-E-V3 TIN FORM C/35º	MULTIUSOS	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM024	
HSS-CO 5% FORM B		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM025	
HSS-CO 5% FORM C/40º		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM026	

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
M 3 - 4 - 5 - 6 - 8 - 10 - 12 14 - 16 - 18 - 20 - 22 - 24	Nº 1 + 4	20 x 5 - 20 x 7 - 25 x 9 - 30 x 11 38 x 14 - 45 x 18 - 55 x 22	-	3R48006
M 5 - 6 - 8 - 10 - 12 - 14 - 16 18 - 20 - 22 - 24 - 27 - 30	Nº 1 + Nº 3 + 5	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22 - 65 x 25	-	3R48007

3R49101P





HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Brocas *Drill Bits* (mm)	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
M 3-4-5-6-8-10-12	2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	N.° 1	3R49101
M 3-4-5-6-8-10-12	2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49101P
M 3-4-5-6-8-10-12	-	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49107
M 3-4-5-6-8-10-12	2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49111

HSS-CO 5%

Machos Mano y Cojinetes *Hand Taps and Dies*	Brocas *Drill Bits* (mm)	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	2,5 - 3,3 - 4,2 - 5,0 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14	Nº 1	3R49151

HSS-G LH IZQUIERDAS

Machos Mano y Cojinetes *Hand Taps and Dies*	Brocas *Drill Bits* (mm)	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	2,5 - 3,3 - 4,2 - 5,0 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14	Nº 1	3R49171

CONJUNTO M3 – M12, Ref. 3R12
M3 – M12 SET, REF. 3R12
COFFRET M3 – M12, REF. 3R12



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	Nº 1	25 x 9	Nº 1	3R49501

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	Nº 1 - Nº 2	3R49201
M 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	Nº 1 + Nº 2	3R49301

HSS-CO 5%

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	-	3R49251

HSS-G  IZQUIERDAS

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	-	3R49271

M MÉTRICA ISO-529 FORMA B
METRIC ISO-529 B FORM
MÉTRIQUE ISO-529 FORME B



HSS-G

Machos Mano y Cojinetes / *Hand Taps and Dies*	**Brocas** / *Drill Bits* **(mm)**	**Cod.**
M 3 - 4 - 5 - 6 - 8 - 10	2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5	3R80501

Mf MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	**Giramachos** *Tap Holder*	**Volvedor** *Tap Wrenche* **(mm)**	**Giramachos con Criquet** *Tap Holder with Ratchet*	**Cod.**
Mf 3 x 0,35 - 4 x 0,5 - 5 x 0,5 - 6 x 0,75 8 x 0,75 - 8 x 1,0 - 10 x 1,0 - 12 x 1,5	Nº 1 + Nº 2	20 x 5 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48010
Mf 6 x 0,75 - 8 x 0,75 - 8 x 1,0 - 10 x 1,0 12 x 1,0 - 12 x 1,5 - 14 x 1,25 - 14 x 1,5 16 x 1,5 - 18 x 1,5 - 20 x 1,5	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14	-	3R48011
Mf 6 x 0,75 - 8 x 0,75 - 8 x 1,0 - 10 x 1,0 12 x 1,0 - 12 x 1,5 - 14 x 1,25 - 14 x 1,5 16 x 1,5 - 18 x 1,5 - 20 x 1,5 - 22 x 1,5 - 24 x 1,5	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14 - 55 x 16	-	3R48012

G(BSP) ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
G 1/8 - 1/4 - 3/8 - 1/2 - 3/4 - 1"	Nº 1 + Nº 3 + Nº 5	30 x 11 - 38 x 10 - 45 x 14 - 55 x 16 - 65 x 18	-	3R48020
G 1/8 - 1/4 - 3/8 - 1/2 - 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 3 + Nº 5	31 x 11 - 38 x 10 - 45 x 14 - 55 x 16 - 65 x 18	-	3R48021
G 1/4 - 3/8 - 1/2 - 3/4 - 1" - 1 1/4 - 1 1/2	Nº 2 + Nº 4 + Nº 7	38 x 10 - 45 x 14 - 65 x 18 - 75 x 20 - 90 x 22	-	3R48022

NPT ROSCA INGLESA PARA TUBO, CONOCIDAD 1:16
TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
NPT 1/8 - 1/4 - 3/8 - 1/2 -3/4 - 1"	Nº 1 + Nº 3 + Nº 5	31 x 11 - 38 x 14 - 45 x 18 55 x 22 - 65 x 25	-	3R48025
NPT 1/8 - 1/4 - 3/8 - 1/2 -3/4 - 1" 1 1/4 - 1 1/2 - 2"	Nº 2 + Nº 4 + Nº 7	30 x 11 - 38 x 14 - 45 x 18 - 55 x 22 65 x 25 - 75 x 30 - 90 x 36 - 105 x 36	-	3R48027

BSW ROSCA WHITWORTH BS 84
WITHWORTH THREAD BS 84
WHITWORTH BS 84



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
BSW 1/8 - 3/16 - 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48030
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48031
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48032
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22	-	3R48034
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 3/4 - 7/8 - 1" - 1" 1/8 - 1" 1/4 - 1" 3/8 - 1" 1/2	Nº 1 + Nº 3 + Nº 5	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22 - 65 x 25	-	3R48035

BSF ROSCA BRITÁNICA STANDARD FINA BS 84
BRITISH STANDARD FINE THREAD BS 84
BRITISH STANDARD FINE THREAD BS 84

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48041
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	21 x 7 - 25 x 9 - 30 x 11 - 38 x 10 - 45 x 14	-	3R48042
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	22 x 7 - 25 x 9 - 30 x 11 - 38 x 10 - 45 x 14 - 55 x 16	-	3R48044

BSW/BSF

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
BSW/BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48046

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
UNC 1/4 - 5/16 - 3/8 - 7/16 -1/2	Nº 1 + Nº 2	20 x 70 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48050
UNC 1/4 - 5/16 - 3/8 - 7/16 -1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 70 - 25 x 9 - 30 x 11 38 x 14 - 45 x 18	-	3R48051

UNF ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48060
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14	-	3R48061
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14 - 55 x 16	-	3R48063

UNC/UNF

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.
UNC/UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48066

M/Mf MALETIN AUTOMOCION REF.6000

THREADING SET REF.6000 FOR AUTOMOTIVE
ENSAMBLE FILETTAGE POUR GARAGE REF.6000



Basic

Cod.
6000FIAT

Contenido / *Contains* / *Contenu*

Machos Mano -2 machos- y Cojinetes / *Hand Taps -2 taps- and Dies*							
METRICA DIN352 / *METRIC DIN352*			**METRICA FINA DIN2181** / *FINE METRIC DIN2181*				
2 x 0,40	7 x 1,00	12 x 1,75	6 x 0,75	9 x 1,00	11 x 1,00	12 x 1,50	16 x 1,50
3 x 0,50	8 x 1,25	14 x 2,00	7 x 0,75	10 x 0,75	11 x 1,25	14 x 1,00	18 x 1,50
4 x 0,70	9 x 1,25	16 x 2,00	8 x 0,75	10 x 1,00	12 x 0,75	14 x 1,25	
5 x 0,80	10 x 1,50		8 x 1,00	10 x 1,25	12 x 1,00	14 x 1,50	
6 x 1,00	11 x 1,50		9 x 0,75	11 x 0,75	12 x 1,25	16 x 1,00	
Volvedor / *Tap Wrenche* **(mm)**							
25,4 - 38,1							
Giramachos / *Tap Holder*							
Nº 1 + Nº 3 + Nº 1 en forma de T / *Nº 1 + Nº 3 + Nº 1 in form T*							
TOTAL 110 pcs							

M TAMPÓN DE ROSCA PARA MÉTRICA ISO-ROSCA DIN 13
THREAD PLUG GAUGE FOR METRIC ISO-THREAD DIN 13
JAUGE DE FILETAGE POUR MÉTRIQUE ISO-FILETAGE DIN 13



DIN ISO 1502 | TOL 6H | CALIBRATION CERTIFICATE / CERTIFICADO DE CALIBRACIÓN / CERTIFICAT DE CALIBRAGE

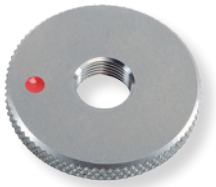
D Ø x P (mm)	PASA - NO PASA *GO - NO GO*	Uds. *Pcs.*
M 3 x 0.5	5R17326	1
M 3.5 x 0.6	5R17328	1
M 4 x 0.7	5R17330	1
M 4.5 x 0.75	5R17332	1
M 5 x 0.8	5R17334	1
M 5.5 x 0.9	5R17336	1
M 6 x 1.0	5R17338	1
M 7 x 1.0	5R17340	1
M 8 x 1.25	5R17342	1

D Ø x P (mm)	PASA - NO PASA *GO - NO GO*	Uds. *Pcs.*
M 9 x 1.25	5R17344	1
M 10 x 1.5	5R17346	1
M 11 x 1.5	5R17348	1
M 12 x 1.75	5R17350	1
M 14 x 2.0	5R17354	1
M 16 x 2.0	5R17358	1
M 18 x 2.5	5R17362	1
M 20 x 2.5	5R17366	1

Para otras medidas consultar / *Request for other sizes* / *Pour d'autres dimensions, nous consulter*

Plazo: 6-7días laborables / *6-7 business day* / *6 jours ouvrables*

M ANILLO DE ROSCA PARA MÉTRICA ISO-ROSCA DIN 13
RING PLUG GAUGE FOR METRIC ISO-THREAD DIN 13
JAUGE À ANNEAU POUR MÉTRIQUE ISO-FILETAGE DIN 13



DIN ISO 1502 | TOL 6g | CALIBRATION CERTIFICATE / CERTIFICADO DE CALIBRACIÓN / CERTIFICAT DE CALIBRAGE

D Ø x P (mm)	PASA *GO*	NO PASA *NO GO*	Uds. *Pcs.*
M 3 x 0.5	5R17426P	5R17426N	1
M 3.5 x 0.6	5R17428P	5R17428N	1
M 4 x 0.7	5R17430P	5R17430N	1
M 4.5 x 0.75	5R17432P	5R17432N	1
M 5 x 0.8	5R17434P	5R17434N	1
M 5.5 x 0.9	5R17436P	5R17436N	1
M 6 x 1.0	5R17438P	5R17438N	1
M 7 x 1.0	5R17440P	5R17440N	1
M 8 x 1.25	5R17442P	5R17442N	1

D Ø x P (mm)	PASA *GO*	NO PASA *NO GO*	Uds. *Pcs.*
M 9 x 1.25	5R17444P	5R17444N	1
M 10 x 1.5	5R17446P	5R17446N	1
M 11 x 1.5	5R17448P	5R17448N	1
M 12 x 1.75	5R17450P	5R17450N	1
M 14 x 2.0	5R17454P	5R17454N	1
M 16 x 2.0	5R17458P	5R17458N	1
M 18 x 2.5	5R17462P	5R17462N	1
M 20 x 2.5	5R17466P	5R17466N	1

Para otras medidas consultar / *Request for other sizes* / *Pour d'autres dimensions, nous consulter*

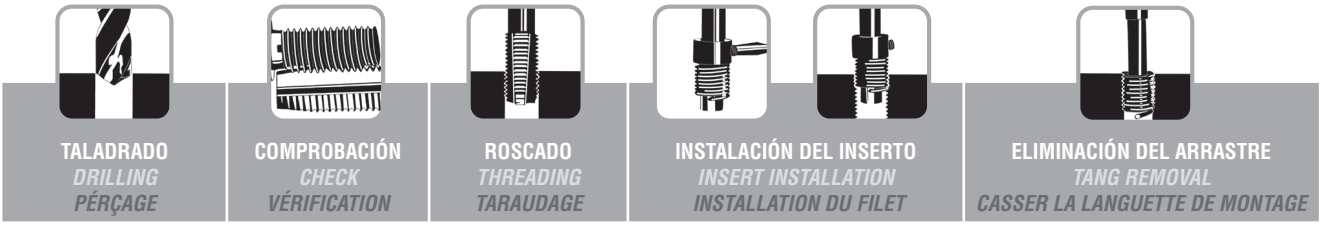
Plazo: 6-7días laborables / *6-7 business day* / *6 jours ouvrables*





SESA® COIL

MODO DE USO
OPERATINSG INSTRUCTIONS • INSTRUSCTIONS D´UTILISATION



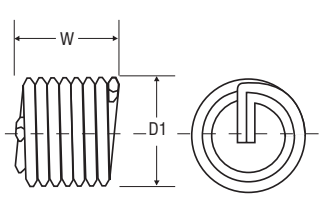
TALADRADO	COMPROBACIÓN	ROSCADO	INSTALACIÓN DEL INSERTO	ELIMINACIÓN DEL ARRASTRE
DRILLING	*CHECK*	*THREADING*	*INSERT INSTALLATION*	*TANG REMOVAL*
PÉRÇAGE	*VÉRIFICATION*	*TARAUDAGE*	*INSTALLATION DU FILET*	*CASSER LA LANGUETTE DE MONTAGE*

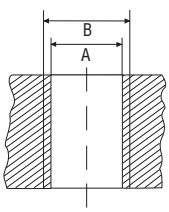
INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140
TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TÉCHNIQUE POUR L´INSTALLATION DES FILETS RAPPORTÉS DIN 8140

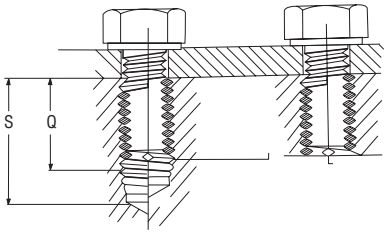
	TALADRADO / *DRILLING* / *PREÇAGE*					ROSCADO / *THREADING* / *FILETAGE*		
D Ø X P (mm)	C	LONGITUD (S) / *LENGTH (S)* / *LONGEUR (S)*				B	A	
M / MF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
M 2,0 x 0,40	2,10	3,80	4,80	5,80	6,80	7,80	2,52	2,09	2,18
M 2,5 x 0,45	2,60	4,53	5,77	7,02	8,27	9,52	3,08	2,60	2,70
M 3,0 x 0,50	3,20	5,25	6,75	8,25	9,75	11,25	3,65	3,11	3,22
M 3,5 x 0,60	3,70	6,20	7,95	9,70	11,45	13,20	4,28	3,63	3,76
M 4,0 x 0,70	4,20	7,15	9,15	11,15	13,15	15,15	4,91	4,15	4,29
M 5,0 x 0,80	5,20	8,60	11,10	13,60	16,10	18,60	6,04	5,17	5,33
M 6,0 x 1,00	6,30	10,50	13,50	16,50	19,50	22,50	7,30	6,22	6,41
M 7,0 x 1,00	7,30	11,50	15,00	18,50	22,00	25,52	8,30	7,22	7,41
M 8,0 x 1,25	8,30	13,63	17,62	21,62	25,62	29,62	9,62	8,27	8,48
M 8,0 x 1,00	8,30	12,50	16,50	20,50	24,50	28,50	9,30	8,22	8,41
M 9,0 x 1,25	9,30	14,63	19,12	23,62	28,13	32,62	10,62	9,27	9,48
M 10,0 x 1,50	10,40	13,50	21,75	26,75	31,75	36,75	11,95	10,32	10,56
M 10,0 x 1,25	10,30	15,63	20,62	25,62	30,62	35,62	11,62	10,27	10,48
M 10,0 x 1,00	10,30	14,50	19,50	24,50	29,50	34,50	11,30	10,22	10,41
M 11,0 x 1,50	11,40	17,75	23,25	28,75	34,25	39,75	12,95	11,33	11,56
M 12,0 x 1,75	12,40	19,87	25,87	31,87	37,87	43,87	14,27	12,38	12,64
M 12,0 x 1,50	12,40	18,75	24,75	30,75	36,75	42,75	14,10	12,32	12,56
M 12,0 x 1,25	12,30	17,62	23,62	29,62	35,62	41,62	13,62	12,27	12,48
M 12,0 x 1,00	12,30	16,50	22,50	28,50	34,50	40,50	13,30	12,22	12,41
M 14,0 x 2,00	14,50	23,00	30,00	37,00	44,00	51,00	16,60	14,43	14,73
M 14,0 x 1,50	14,40	20,75	27,75	34,75	41,75	48,75	15,95	14,35	14,56
M 14,0 x 1,25	14,40	19,62	26,62	33,62	40,62	47,62	15,62	14,27	14,48
M 14,0 x 1,00	14,30	18,50	25,50	32,50	39,50	46,50	15,30	14,22	14,41
M 16,0 x 2,00	16,50	25,00	33,00	41,00	49,00	57,00	18,60	16,43	16,73
M 16,0 x 1,50	16,40	22,75	30,75	38,75	46,75	54,75	17,95	16,32	16,56
M 18,0 x 2,50	18,60	29,25	38,25	47,25	56,25	65,25	21,25	18,54	18,90
M 18,0 x 2,00	18,50	27,00	36,00	45,00	54,00	63,00	20,60	18,43	18,73
M 18,0 x 1,50	18,50	24,75	33,75	42,75	51,75	60,75	19,95	18,32	18,56
M 20,0 x 2,50	20,60	31,25	41,25	51,25	61,25	71,25	23,25	20,54	20,90
M 20,0 x 2,00	20,50	29,00	39,00	49,00	59,00	69,00	22,60	20,43	20,73
M 20,0 x 1,50	20,50	26,75	36,75	46,75	56,75	66,75	21,95	20,32	20,56
M 22,0 x 2,50	22,60	33,25	44,25	55,25	66,25	77,25	25,25	22,54	22,90
M 22,0 x 2,00	22,50	31,00	42,00	53,00	64,00	75,00	24,60	22,43	22,73
M 22,0 x 1,50	22,50	28,75	39,75	50,75	61,75	72,75	23,95	22,32	22,56
M 24,0 x 3,00	24,75	37,50	49,50	61,50	73,50	85,50	27,90	24,65	25,05
M 24,0 x 2,00	24,50	33,00	45,00	57,00	69,00	81,00	26,60	24,43	24,73
M 24,0 x 1,50	24,50	30,75	42,75	54,75	66,75	78,75	26,02	24,33	24,56

C Diámetro de broca previa / *Recommended drill diameter* / *Perçage avant trou*
S Longitud de taladrado / *Drilling Length* / *Longueur perçage*
B Ø mayor de rosca / *Maximum diameter of thread* / *Diametre maximum du filet*
A Ø menor de rosca / *Minimum diameter of thread* / *Diametre minimum du filet*
Q Longitud nominal / *Nominal Length* / *Longeur nominale*
d1 exterior del casquillo / *External Ø of wire insert* / *Diametre extérieur di filet rapporté*
W N° de hilos / *N° of coils* / *Nombre de spires*

ROSCADO / *THREADING* / *FILETAGE*					NSERTO / *INSERTS* / *FILETS RAPPORTÉS*						
LONGITUD ÚTIL (Q) / *LENGTH (Q)* / *LONGEUR (Q)*					D1		Nº DE HILOS (W) / *Nº OF COILS (W)* / *LONGEUR (W)*				
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
2,00	3,00	4,00	5,00	6,00	2,60	2,80	2,90	4,90	6,90	8,90	10,90
2,50	3,75	5,00	6,25	7,50	3,20	3,70	3,50	5,90	8,10	10,50	12,90
3,00	4,50	6,00	7,50	9,00	3,80	4,35	3,90	6,30	8,70	11,10	13,50
3,50	5,25	7,00	8,75	10,50	4,55	4,75	3,70	6,30	8,70	11,20	13,30
4,00	6,00	8,00	10,00	12,00	5,05	5,60	3,70	6,10	8,40	10,90	13,20
5,00	7,50	10,00	12,50	15,00	6,25	6,80	4,30	6,90	9,70	12,30	14,80
6,00	9,00	12,00	15,00	18,00	7,40	7,95	4,20	6,90	9,60	12,30	14,60
7,00	10,50	14,00	17,50	21,00	8,65	9,20	5,30	8,20	11,10	14,30	17,40
8,00	12,00	16,00	20,00	24,00	9,80	10,35	4,70	7,40	10,60	13,50	16,40
8,00	12,00	16,00	20,00	24,00	9,70	10,25	6,10	9,50	12,90	16,50	19,90
9,00	13,50	18,00	22,50	27,00	10,85	11,10	5,30	8,60	11,90	15,30	18,10
10,00	15,00	20,00	25,00	30,00	11,95	12,50	5,00	8,10	11,20	14,20	17,20
10,00	15,00	20,00	25,00	30,00	12,10	12,65	6,00	9,70	13,10	16,90	20,10
10,00	15,00	20,00	25,00	30,00	12,10	12,50	7,60	12,10	16,30	20,70	25,00
11,00	16,50	22,00	27,50	33,00	13,10	13,50	5,60	9,00	12,30	15,70	19,10
12,00	18,00	24,00	30,00	36,00	14,30	15,00	5,20	8,40	11,70	14,70	18,00
12,00	18,00	24,00	30,00	36,00	14,25	14,95	6,20	9,80	13,50	17,10	20,80
12,00	18,00	24,00	30,00	36,00	14,30	15,00	7,40	11,60	15,90	20,00	24,30
12,00	18,00	24,00	30,00	36,00	14,40	14,80	9,30	14,50	19,50	24,80	30,00
14,00	21,00	28,00	35,00	42,00	16,65	17,35	5,60	8,80	12,00	15,20	18,40
14,00	21,00	28,00	35,00	42,00	15,96	16,64	7,40	11,70	15,70	19,90	24,10
14,00	21,00	28,00	35,00	42,00	15,74	16,00	8,40	12,55	18,20	23,10	28,00
14,00	21,00	28,00	35,00	42,00	15,35	15,65	11,20	19,05	12,20	29,20	35,20
16,00	24,00	32,00	40,00	48,00	18,90	19,60	6,50	10,10	13,80	17,50	21,10
16,00	24,00	32,00	40,00	48,00	18,10	18,40	8,70	13,60	18,10	22,90	27,60
18,00	27,00	36,00	45,00	54,00	21,30	22,00	5,60	9,00	12,30	15,70	19,00
18,00	27,00	36,00	45,00	54,00	20,80	21,45	7,10	11,40	15,20	19,20	23,20
18,00	27,00	36,00	45,00	54,00	20,15	20,80	9,50	15,10	20,20	25,50	30,80
20,00	30,00	40,00	50,00	60,00	23,55	24,40	6,30	10,00	13,70	17,40	21,10
20,00	30,00	40,00	50,00	60,00	22,80	23,45	8,00	12,60	16,80	21,20	25,60
20,00	30,00	40,00	50,00	60,00	22,20	22,80	10,70	17,10	22,40	28,30	34,20
22,00	33,00	44,00	55,00	66,00	25,90	26,90	6,90	10,90	15,00	19,10	23,10
22,00	33,00	44,00	55,00	66,00	24,85	25,50	8,70	14,20	18,50	23,40	28,30
22,00	33,00	44,00	55,00	66,00	24,20	24,60	11,70	18,35	24,50	30,90	37,30
24,00	36,00	48,00	60,00	72,00	28,00	29,00	6,20	10,00	14,00	17,90	21,90
24,00	36,00	48,00	60,00	72,00	26,85	27,50	9,60	15,50	20,20	25,10	30,00
24,00	36,00	48,00	60,00	72,00	26,20	26,80	12,90	20,00	26,70	33,60	40,50







INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140

TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TÉCHNIQUE POUR L´INSTALLATION DES FILETS RAPPORTÉS DIN 8140

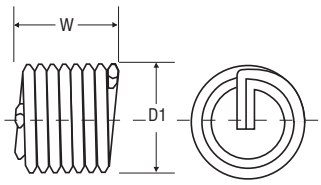
	TALARADO / *DRILLING* / *PREÇAGE*						ROSCADO / *THREADING* / *FILETAGE*		
D Ø X P (")	C	LONGITUD (S) / *LENGTH (S)* / *LONGEUR (S)*					B	A	
UNC	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
Nr. 2 x 56	2,40	4,80	5,90	7,00	8,10	9,20	2,84	2,29	2,44
Nr. 4 x 40	3,00	6,30	7,70	9,20	10,60	12,10	3,67	3,00	3,10
Nr. 5 x 40	3,40	6,60	8,20	9,80	11,10	13,00	4,00	3,33	3,48
Nr. 6 x 32	3,70	7,70	9,50	11,20	13,20	14,70	4,54	3,68	3,81
Nr. 8 x 32	4,40	8,40	10,50	12,50	14,70	16,80	5,11	4,34	4,45
Nr. 10 x 24	5,10	5,20	12,30	14,70	17,20	19,50	6,20	5,05	5,21
Nr. 12 x 24	5,70	5,80	13,30	16,10	18,80	21,60	6,86	5,72	5,84
1/4 x 20	6,70	6,70	15,70	18,90	22,10	25,40	8,00	6,63	6,86
5/16 x 18	8,30	8,30	19,20	23,20	27,10	31,00	9,77	8,26	8,48
3/8 x 16	9,90	9,90	21,60	26,40	31,10	35,80	11,59	9,88	10,11
7/16 x 14	11,60	11,60	25,00	30,50	36,10	41,60	13,47	11,51	11,76
1/2 x 13	13,00	13,00	28,40	34,70	41,10	47,40	15,23	13,13	13,39
9/16 x 12	14,80	14,80	30,80	37,90	45,00	52,20	17,04	14,76	15,01
5/8 x 11	16,50	16,50	35,00	43,00	50,90	58,90	18,87	16,38	16,66
3/4 x 10	19,75	19,75	39,80	49,30	58,80	68,50	22,35	19,61	19,89
7/8 x 9	23,00	23,00	46,40	57,60	68,70	79,70	25,89	22,83	23,16
1 x 8	26,25	26,25	51,20	63,90	76,60	89,30	29,52	26,09	26,47
1.1/8 x 7	29,50	29,50	58,10	72,40	86,70	101,00	33,29	29,36	29,74
1.1/4 x 7	33,00	33,00	62,80	78,70	94,70	110,60	36,46	32,54	32,92
1.3/8 x 6	36,00	36,00	69,20	86,70	104,50	121,50	40,42	35,84	36,35
1.1/2 x 6	39,50	39,50	74,00	93,00	112,50	131,10	43,60	39,01	39,52

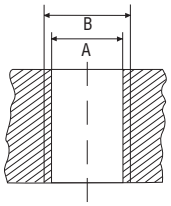
UNF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
Nr. 4 x 40	3,00	5,600	6,655	8,500	9,900	11,200	3,53	2,972	3,048
Nr. 6 x 32	3,70	5,900	8,103	10,400	12,200	13,900	4,33	3,658	3,759
Nr. 8 x 36	4,40	8,000	9,423	12,100	14,300	16,400	5,08	4,318	4,420
Nr. 10 x 32	5,10	9,000	10,820	13,800	16,300	18,600	5,86	5,004	5,105
1/4 x 28	6,60	11,500	13,614	17,800	21,000	24,300	7,53	6,553	6,706
5/16 x 24	8,20	13,000	16,662	21,000	24,900	28,800	9,31	8,179	8,331
3/8 x 24	9,80	14,600	19,050	24,200	28,900	33,600	10,90	9,754	9,906
7/16 x 20	11,50	17,300	22,377	28,400	34,000	39,500	12,76	11,405	11,582
1/2 x 20	13,00	18,900	24,765	31,600	38,000	44,300	14,35	12,979	13,157
9/16 x 18	14,80	21,600	27,762	35,900	43,000	50,200	16,12	14,605	14,783
5/8 x 18	16,25	23,200	30,150	39,100	47,000	55,000	17,70	16,180	16,358
3/4 x 16	19,50	26,400	35,712	45,400	55,000	64,600	21,11	19,406	19,583
7/8 x 14	22,75	30,500	41,504	52,800	63,900	74,900	24,58	22,606	22,835
1 x 12	26,00	34,700	47,625	60,100	72,800	85,500	28,15	25,857	26,111
1.1/8 x 12	29,00	37,900	52,375	66,500	80,800	95,100	31,33	29,032	29,312
1.1/4 x 12	32,50	41,100	57,150	72,800	88,800	104,700	34,50	32,207	32,487
1.3/8 x 12	35,50	44,200	61,925	79,200	96,550	114,000	37,68	35,382	35,662
1.1/2 x 12	38,50	47,400	66,675	85,500	104,550	123,600	40,85	38,557	38,837

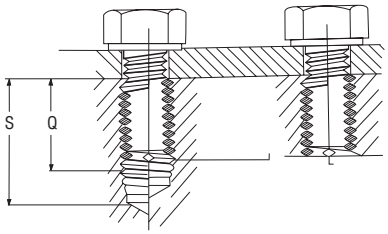
C Diámetro de broca previa / *Recommended drill diameter* / *Perçage avant trou*
S Longitud de taladrado / *Drilling Length* / *Longueur perçage*
B Ø mayor de rosca / *Maximum diameter of thread* / *Diametre maximum du filet*
A Ø menor de rosca / *Minimum diameter of thread* / *Diametre minimum du filet*
Q Longitud nominal / *Nominal Length* / *Longeur nominale*
d1 exterior del casquillo / *External Ø of wire insert* / *Diametre extérieur di filet rapporté*
W N° de hilos / *N° of coils* / *Nombre de spires*

ROSCADO / *THREADING* / *FILETAGE*					NSERTO / *INSERTS* / *FILETS RAPPORTÉS*						
LONGITUD ÚTIL (Q) / *LENGTH (Q)* / *LONGEUR (Q)*					D1		Nº DE HILOS (W) / *Nº OF COILS (W)* / *LONGEUR (W)*				
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
2,20	3,30	4,40	5,50	6,60	2,69	2,90	3,00	5,25	7,40	9,60	11,80
2,90	4,27	5,80	7,20	8,70	3,66	4,04	2,80	4,70	6,80	8,80	10,80
3,20	4,80	6,40	7,90	9,60	3,99	4,39	3,30	5,50	7,80	10,00	10,30
3,50	5,26	7,00	8,80	10,50	4,52	4,90	2,80	4,70	6,70	8,70	10,70
4,20	6,25	8,40	10,50	12,60	5,21	5,59	3,50	6,00	8,30	10,70	13,10
4,80	7,24	9,60	12,10	14,40	6,20	6,58	2,90	5,00	7,10	9,20	11,30
5,50	8,23	11,00	13,70	16,50	6,86	7,24	3,50	5,90	8,30	10,70	13,10
6,40	9,53	12,70	15,90	19,20	7,87	8,38	3,40	5,70	8,00	10,30	12,60
7,90	11,91	15,90	19,80	23,70	9,65	10,16	4,00	6,60	9,30	11,90	14,50
9,50	14,27	19,10	23,80	28,50	11,48	11,99	4,40	7,20	10,10	12,90	15,70
11,10	16,66	22,20	27,80	33,30	13,36	14,00	4,50	7,40	10,30	13,10	15,90
12,70	19,05	25,40	31,80	38,10	15,16	15,80	4,80	7,90	10,90	13,90	16,90
14,30	21,44	28,60	35,70	42,90	16,99	17,63	5,10	8,30	11,50	14,70	17,90
15,90	23,80	31,80	39,70	47,70	18,85	19,48	5,30	9,30	11,80	15,00	18,20
19,10	28,58	38,10	47,60	57,30	22,38	23,01	5,90	9,40	13,00	16,60	20,20
22,20	33,32	44,50	55,60	66,60	25,78	26,16	6,30	10,10	13,70	17,40	21,10
25,40	38,10	50,80	63,50	76,20	29,34	29,72	6,40	10,30	14,00	17,80	21,60
28,60	42,85	57,20	71,50	85,80	33,71	34,11	6,30	9,90	13,80	17,60	21,40
31,80	47,63	63,50	79,50	95,40	37,01	37,39	7,10	11,25	15,40	19,60	23,70
34,90	52,37	69,90	87,25	104,70	40,89	41,40	6,60	10,50	14,40	18,30	22,30
38,10	57,15	76,20	95,25	114,30	44,09	44,60	7,40	11,50	15,90	20,10	24,30

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
2,800	4,267	5,700	7,100	8,400	3,734	4,115	3,400	5,60	7,900	10,300	27,700
3,500	5,258	7,000	8,800	10,500	4,394	4,902	3,600	6,00	8,400	10,800	13,200
4,200	6,248	8,300	10,500	12,600	5,182	5,690	4,000	6,60	9,100	11,700	14,300
4,800	7,239	9,600	12,100	14,400	5,994	6,502	4,100	6,80	9,500	12,100	14,700
6,400	9,525	12,700	15,900	19,200	7,772	8,280	5,000	8,10	11,300	14,400	17,500
7,900	11,913	15,900	19,800	23,700	9,652	10,160	5,500	8,90	12,200	15,600	19,000
9,500	14,275	19,100	23,800	28,500	11,379	11,887	6,900	10,90	14,900	19,000	23,100
11,100	16,662	22,200	27,800	33,300	13,310	13,945	6,600	10,60	14,500	18,400	22,300
12,700	19,050	25,400	31,800	38,100	15,037	15,672	7,800	12,30	16,800	21,300	25,800
14,300	21,438	28,600	35,700	42,900	16,916	17,551	7,900	12,50	17,100	21,600	26,200
15,900	23,800	31,800	39,700	47,700	18,618	19,253	8,900	14,10	19,100	24,300	29,500
19,100	28,575	38,100	47,700	57,300	22,250	22,885	9,700	15,10	20,600	26,000	31,400
22,200	33,325	44,500	55,600	66,600	24,765	25,019	9,900	16,20	21,000	26,600	32,200
25,400	38,100	50,800	63,500	76,200	28,194	28,575	9,700	15,70	20,600	26,100	31,400
28,600	42,850	57,200	71,500	85,800	31,750	32,106	10,100	17,50	24,400	31,500	38,600
31,800	47,625	63,500	79,500	95,400	35,001	35,408	12,400	19,60	26,100	33,000	39,900
34,900	52,375	69,900	87,250	104,700	38,202	38,608	13,800	21,60	28,900	36,400	43,900
38,100	57,150	76,200	95,250	114,300	41,402	41,808	15,200	23,75	31,600	39,800	48,000







INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140

TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TÉCHNIQUE POUR L´INSTALLATION DES FILETS RAPPORTÉS DIN 8140

	TALARADO / *DRILLING* / *PREÇAGE*					ROSCADO / *THREADING* / *FILETAGE*		
D Ø X P (")	C	LONGITUD (S) / *LENGTH (S)* / *LONGUEUR (S)*				B	A	
BSW	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín,	máx,
1/8 x 40	3,40	6,600	8,204	9,800	11,100	13,000	3,93	3,277	3,429
3/16 x 24	5,10	9,900	12,192	14,700	17,000	19,500	6,01	4,978	5,105
1/4 x 20	6,70	12,600	15,240	18,900	26,100	25,400	7,80	6,629	6,782
5/16 x 18	8,30	15,200	18,237	23,200	27,100	31,000	9,60	8,331	8,484
3/8 x 16	9,90	16,800	21,438	26,400	31,100	35,800	11,40	9,906	10,109
7/16 x 14	11,60	19,400	24,816	30,500	36,100	41,600	13,20	11,506	11,760
1/2 x 12	13,00	22,000	28,575	34,700	41,100	47,400	15,20	13,081	13,335
9/16 x 12	14,80	23,600	30,963	37,900	45,000	52,200	16,80	14,681	14,935
5/8 x 11	16,70	27,100	34,214	43,000	50,900	58,900	18,60	16,586	16,840
3/4 x 10	20,00	30,300	40,005	49,300	58,800	68,500	22,00	19,837	20,091
7/8 x 9	23,00	35,300	46,025	57,600	68,700	79,700	25,50	23,012	23,266
1 x 8	26,50	38,500	52,375	63,900	76,600	89,300	29,10	26,187	26,518

BSF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
3/16 x 32	5,00	8,331	11,303	13,081	15,469	17,856	5,71	4,877	5,029
1/4 x 26	6,60	10,744	13,919	17,094	20,269	23,444	7,50	6,528	6,706
5/16 x 22	8,30	13,132	17,094	21,057	25,044	29,007	9,30	8,204	8,382
3/8 x 20	9,90	15,240	19,990	24,765	29,515	34,290	11,00	9,779	9,957
7/16 x 18	11,60	17,450	23,012	28,550	34,112	39,675	12,80	11,430	11,633
1/2 x 16	13,00	19,837	26,187	32,537	38,887	45,237	14,60	13,030	13,259
9/16 x 16	14,80	21,438	28,575	35,712	42,850	50,013	16,20	14,656	14,884
5/8 x 14	16,40	24,028	31,979	39,903	47,854	55,778	18,00	16,256	16,485
3/4 x 12	19,50	28,575	38,100	47,625	57,150	66,675	21,50	19,431	19,685
7/8 x 11	22,70	32,614	43,739	54,839	65,938	77,064	24,90	22,606	22,860
1 x 10	26,50	36,830	49,530	62,230	74,930	87,630	28,40	26,187	26,518

BSP	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
1/8 x 28	10,00	7,264	8,640	10,439	11,100	13,614	10,82	9,900	10,160
1/4 x 19	13,60	12,370	15,540	18,720	21,895	25,070	14,74	13,460	13,720
3/8 x 19	17,10	15,545	20,290	25,070	29,820	34,595	18,25	17,000	17,270
1/2 x 14	21,50	20,853	27,200	33,553	39,903	46,253	23,09	21,330	21,600
5/8 x 14	23,40	24,028	31,950	39,903	47,828	55,778	25,05	23,240	23,550
3/4 x 14	27,00	27,203	36,720	46,253	55,778	65,303	28,59	26,750	27,070
7/8 x 14	30,60	30,378	41,500	52,603	63,729	74,828	32,35	30,480	30,810
1 x 11	33,70	35,789	49,490	61,189	73,889	86,589	35,96	33,530	33,900

C Diámetro de broca previa / *Recommended drill diameter* / *Perçage avant trou*
S Longitud de taladrado / *Drilling Length* / *Longueur perçage*
B Ø mayor de rosca / *Maximum diameter of thread* / *Diametre maximum du filet*
A Ø menor de rosca / *Minimum diameter of thread* / *Diametre minimum du filet*
Q Longitud nominal / *Nominal Length* / *Longeur nominale*
d1 exterior del casquillo / *External Ø of wire insert* / *Diametre extérieur di filet rapporté*
W N° de hilos / *N° of coils* / *Nombre de spires*

RESISTENCIA DE LOS INSERTOS ROSCADOS

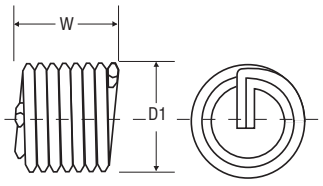
RESISTENCES OF WIRE TRHEAD INSERTS • RÉSISTENCES DÉS FILETS RAPPORTÉS

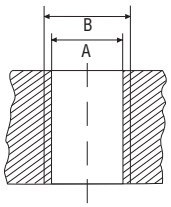
MATERIAL *MATERIAL / MATÉRIEL*	TEMP. MÁXIMA *MAX. TEMPERATURE / TEMPERATURE MAX.*	RESISTENCIA MÍNIMA A LA TRACCIÓN *MIN. TENSILE STRENGTH / RÉSISTENCE MIN. À LA TRACTION*
X10 Cr Ni 18-8	425° C (peak) / 315° C (cont.)	1400 N/mm²

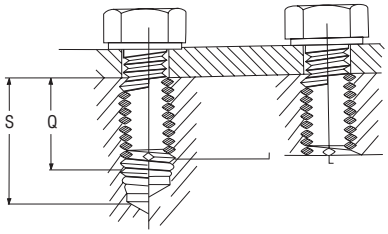
ROSCADO / *THREADING* / *FILETAGE*					NSERTO / *INSERTS* / *FILETS RAPPORTÉS*						
LONGITUD ÚTIL (Q) / *LENGTH (Q)* / *LONGEUR (Q)*					D1		Nº DE HILOS (W) / *Nº OF COILS (W)* / *LONGEUR (W)*				
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín,	máx,	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
3,200	4,801	6,400	7,900	9,600	3,988	4,394	3,400	7,90	7,900	10,300	12,500
4,800	7,112	9,600	11,900	14,400	6,096	6,502	2,900	5,10	7,200	9,300	11,500
6,400	9,525	12,700	15,900	19,200	7,899	8,407	3,400	5,90	8,100	10,500	12,900
7,900	11,913	15,900	19,800	23,700	9,703	10,185	4,100	6,70	9,400	12,000	14,600
9,500	14,275	19,100	23,800	28,500	11,506	11,989	4,500	7,30	10,200	13,000	15,800
11,100	16,662	22,200	27,800	33,300	13,487	13,995	4,600	7,50	10,400	13,300	16,200
12,700	19,050	25,400	31,800	38,100	15,392	16,002	4,400	7,30	10,100	13,000	15,900
14,300	21,438	28,600	35,700	42,900	16,993	17,628	5,200	8,40	11,600	14,800	18,000
15,900	23,800	31,800	39,700	47,700	18,898	19,482	5,400	8,70	11,900	15,300	18,700
19,100	28,575	38,100	47,600	57,300	22,403	22,987	6,000	9,70	13,200	16,800	20,400
22,200	33,325	44,500	55,600	66,600	26,010	26,695	6,400	10,10	13,900	17,700	21,400
25,400	38,100	50,800	63,500	76,200	27,686	30,404	6,500	10,30	14,100	17,900	21,700

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
4,750	7,112	9,525	11,913	14,275	5,994	6,401	4,100	6,80	9,400	12,100	-
6,350	9,525	12,700	15,875	19,050	7,899	8,407	4,600	7,60	10,400	13,400	-
7,925	11,913	15,875	19,837	23,800	9,804	10,312	5,000	8,10	11,200	14,300	-
9,525	14,275	19,050	23,800	28,575	11,608	12,090	5,600	9,00	12,400	15,800	-
11,100	16,662	22,225	27,788	33,325	13,589	14,097	5,900	9,50	13,100	16,600	-
12,700	19,050	25,400	31,750	38,100	15,494	16,002	6,100	9,70	13,300	16,900	-
14,275	21,438	28,575	35,712	42,850	17,196	17,780	7,000	11,10	15,100	19,300	-
15,875	23,800	31,750	39,675	47,625	19,101	19,685	6,800	10,80	14,800	18,700	-
19,050	28,575	38,100	47,625	57,150	22,911	23,495	7,000	11,10	15,200	19,300	-
22,225	33,325	44,450	55,550	66,675	26,492	27,305	7,600	11,90	16,400	20,800	-
25,400	38,100	50,800	63,500	76,200	30,201	30,988	7,900	12,50	17,100	21,600	-

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
3,175	4,760	6,350	7,925	9,525	11,100	11,400	1,90	3,80	5,10	6,70	-
6,350	9,500	12,700	15,875	19,050	15,050	15,350	3,10	5,50	7,40	9,60	-
9,525	14,300	19,050	23,800	28,575	18,550	18,850	5,30	8,75	11,80	15,00	-
12,700	19,100	25,400	31,750	38,100	23,400	23,700	5,20	8,60	11,60	14,80	-
15,875	23,800	31,750	39,675	47,625	25,350	25,650	6,80	11,00	14,80	18,80	-
19,050	28,600	38,100	47,625	57,150	28,900	29,200	8,40	13,50	18,10	22,90	-
22,225	33,300	44,450	55,550	66,675	32,750	33,150	10,00	15,80	21,30	-	-
25,400	38,100	50,800	63,500	76,200	36,400	36,800	8,90	14,10	19,00	-	-





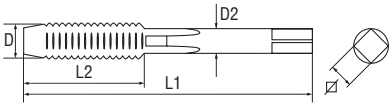


M MACHOS STI (INTERMEDIO)

STI TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H

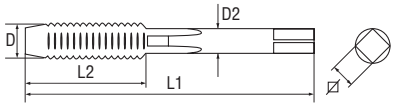


D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 2,00 x 0,40	2,5	44,5	9,5	2,8	2,24	1C03001
M 2,50 x 0,45	3,1	48,0	11,0	3,15	2,50	1C03003
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03005
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03006
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03007
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03008
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,30	1C03009
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03010
M 8,00 x 1,25	9,6	80,0	24,0	10,0	8,00	1C03011
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03012
M 9,00 x 1,25	10,6	85,0	25,0	8,0	6,30	1C03013
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03015
M 10,00 x 1,25	11,6	85,0	25,0	8,0	6,30	1C03016
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03017
M 11,00 x 1,50	12,9	89,0	29,0	9,0	7,10	1C03018
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03020
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03021
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03022
M 12,00 x 1,00	13,3	95,0	30,0	11,2	9,00	1C03023
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03027
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03028
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03029
M 14,00 x 1,00	15,3	102,0	32,0	12,5	10,00	1C03030
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03033
M 16,00 x 1,50	18,0	104,0	29,0	14,0	11,20	1C03034
M 18,00 x 2,50	21,3	118,0	38,0	16,0	12,50	1C03035
M 18,00 x 2,00	20,6	104,0	29,0	14,0	11,20	1C03036
M 18,00 x 1,50	20,0	104,0	29,0	14,0	11,20	1C03037
M 20,00 x 2,50	23,3	118,0	38,0	16,0	12,50	1C03038
M 20,00 x 2,00	22,6	113,0	33,0	16,0	12,50	1C03039
M 20,00 x 1,50	22,0	113,0	33,0	16,0	12,50	1C03040
M 22,00 x 2,50	25,3	130,0	45,0	18,0	14,00	1C03041
M 22,00 x 2,00	24,6	120,0	35,0	18,0	14,00	1C03042
M 22,00 x 1,50	24,0	120,0	35,0	18,0	14,00	1C03043
M 24,00 x 3,00	27,9	138,0	48,0	20,0	16,00	1C03044
M 24,00 x 2,00	26,6	127,0	37,0	20,0	16,00	1C03045
M 24,00 x 1,50	26,0	120,0	35,0	18,0	14,00	1C03046

MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES



HSS-G | FORM D | TOL ISO1 4H



D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod,
M 26,00 x 1,50	28,0	127,0	37,0	20,0	16,00	1C03049
M 27,00 x 3,00	30,9	151,0	51,0	22,4	18,00	1C03050
M 27,00 x 2,00	29,6	127,0	37,0	20,0	16,00	1C03051
M 27,00 x 1,50	29,0	127,0	37,0	20,0	16,00	1C03052
M 28,00 x 1,50	30,0	127,0	37,0	20,0	16,00	1C03053
M 30,00 x 3,50	34,6	162,0	57,0	25,0	20,00	1C03054
M 30,00 x 2,00	32,6	137,0	37,0	22,4	18,00	1C03055
M 30,00 x 1,50	32,0	137,0	37,0	22,4	18,00	1C03056
M 33,00 x 3,50	37,6	162,0	57,0	25,0	20,00	1C03057
M 33,00 x 2,00	35,6	144,0	37,0	25,0	20,00	1C03058
M 36,00 x 4,00	41,2	170,0	60,0	28,0	22,40	1C03060
M 36,00 x 3,00	39,9	170,0	60,0	28,0	22,40	1C03061
M 36,00 x 2,00	38,6	150,0	39,0	28,0	22,40	1C03062
M 36,00 x 1,50	38,0	150,0	39,0	28,0	22,40	1C03063
NEW M 39,00 x 4,00	44,2	187,0	67,0	31,5	28,00	1C03064*
NEW M 39,00 x 3,00	42,9	149,0	39,0	28,0	26,00	1C03065*
NEW M 40,00 x 3,00	43,9	149,0	39,0	28,0	26,00	1C03066*
NEW M 42,00 x 4,50	47,9	187,0	67,0	31,5	28,00	1C03067*
NEW M 42,00 x 3,00	45,9	165,0	45,0	31,5	28,00	1C03068*
NEW M 45,00 x 4,50	50,9	200,0	70,0	35,5	31,00	1C03069*
NEW M 45,00 x 3,00	48,9	175,0	45,0	35,5	31,00	1C03070*
NEW M 48,00 x 4,00	54,5	200,0	70,0	35,5	31,00	1C03076*
NEW M 48,00 x 5,00	53,2	175,0	45,0	35,5	31,00	1C03071*
NEW M 48,00 x 3,00	51,9	175,0	45,0	35,5	31,00	1C03072*
NEW M 50,00 x 3,00	53,9	175,0	45,0	35,5	31,00	1C03073*
NEW M 52,00 x 5,00	58,5	221,0	76,0	40,0	34,00	1C03074*
NEW M 52,00 x 3,00	55,9	193,0	48,0	40,0	34,00	1C03075*

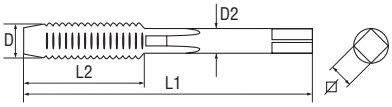
*Consultar plazo / *Request delivery time* / *Vérifier la date limite*

UNC MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL 3B



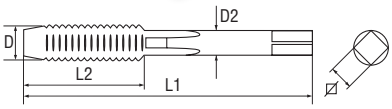
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC/NC						
Nr. 2 x 56	2,8	48,0	10,0	3,15	2,50	1C03100
Nr. 4 x 40	3,7	53,0	13,0	4,00	3,15	1C03101
Nr. 5 x 40	4,0	53,0	13,0	4,00	3,15	1C03102
Nr. 6 x 32	4,5	58,0	16,0	5,00	4,00	1C03103
Nr. 8 x 32	5,2	62,0	17,0	5,60	4,50	1C03104
Nr. 10 x 24	6,2	66,0	19,0	6,30	5,00	1C03105
Nr. 12 x 24	6,9	66,0	19,0	7,10	5,60	1C03106
1/4 x 20	8,0	72,0	22,0	8,00	6,30	1C03107
5/16 x 18	9,8	80,0	24,0	10,00	8,00	1C03108
3/8 x 16	11,6	85,0	25,0	8,00	6,30	1C03109
7/16 x 14	13,5	95,0	30,0	11,20	9,00	1C03110
1/2 x 13	15,2	102,0	32,0	12,50	10,00	1C03111
9/16 x 12	17,0	112,0	37,0	14,00	11,20	1C03112
5/8 x 11	18,9	112,0	37,0	14,00	11,20	1C03113
3/4 x 10	22,4	118,0	38,0	16,00	12,50	1C03114
7/8 x 9	25,9	130,0	45,0	18,00	14,00	1C03115
1 x 8	29,5	138,0	48,0	20,00	16,00	1C03116

UNC MACHOS STI, JUEGO 2 PIEZAS

STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES



HSS-G | FORM D | TOL 3B



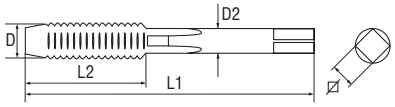
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC/NC						
1.1/8 x 7	33,3	151,0	51,0	22,4	18,00	1C03117
1.1/4 x 7	36,5	162,0	57,0	25,0	20,00	1C03118
1.3/8 x 6	40,4	170,0	60,0	28,0	22,40	1C03119
1.1/2 x 6	43,6	187,0	67,0	31,5	25,00	1C03120

UNF

MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL 3B



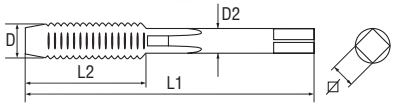
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF/NF						
Nr. 4 x 48	3,5	53,0	13,0	4,0	3,15	1C03151
Nr. 6 x 40	4,3	53,0	13,0	4,5	3,55	1C03152
Nr. 8 x 36	5,1	62,0	17,0	5,6	4,50	1C03153
Nr. 10 x 32	5,9	66,0	19,0	6,3	5,00	1C03154
1/4 x 28	7,5	69,0	19,0	8,0	6,30	1C03155
5/16 x 24	9,3	76,0	20,0	10,0	8,00	1C03156
3/8 x 24	10,9	82,0	22,0	8,0	6,30	1C03157
7/16 x 20	12,8	84,0	24,0	9,0	7,10	1C03158
1/2 x 20	14,4	90,0	25,0	11,2	9,00	1C03159
9/16 x 18	16,1	104,0	29,0	12,5	10,00	1C03160
5/8 x 18	17,7	104,0	29,0	14,0	11,20	1C03161
3/4 x 16	21,1	104,0	29,0	14,0	11,20	1C03162
7/8 x 14	24,6	120,0	35,0	18,0	14,00	1C03163
1 x 12	28,2	127,0	37,0	20,0	16,00	1C03164
1 x 14	27,8	127,0	37,0	20,0	16,00	1C03165

UNF

MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES



HSS-G | FORM D | TOL 3B



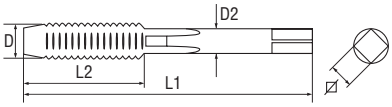
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF/NF						
1.1/8 x 12	31,3	137,0	37,0	22,4	18,00	1C03166
1.1/4 x 12	34,5	144,0	39,0	25,0	20,00	1C03167
1.3/8 x 12	37,7	150,0	39,0	28,0	22,40	1C03168
1.1/2 x 12	40,9	150,0	39,0	28,0	22,40	1C03169

G(BSP) MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H



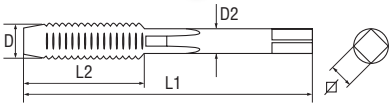
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/8 x 28	10,8	59,0	15,0	8,00	6,30	1C03301
1/4 x 19	14,7	67,0	19,0	11,20	9,00	1C03302
3/8 x 19	18,3	75,0	21,0	14,00	11,20	1C03303
1/2 x 14	23,1	87,0	26,0	16,00	12,50	1C03304
5/8 x 14	25,0	91,0	26,0	18,00	14,00	1C03305
3/4 x 14	28,6	96,0	28,0	20,00	16,00	1C03306
1 x 11	36,0	109,0	33,0	25,00	20,00	1C03307

G(BSP) MACHOS STI, JUEGO 2 PIEZAS

STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES



HSS-G | FORM D | TOL ISO1 4H



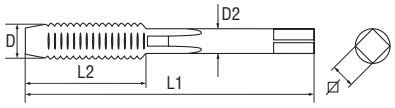
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/8 x 28	10,0	59,0	15,0	8,0	6,30	1C03311
1/4 x 19	14,7	67,0	19,0	11,2	9,00	1C03312
3/8 x 19	18,3	75,0	21,0	14,0	11,20	1C03313
1/2 x 14	23,1	87,0	26,0	16,0	12,50	1C03314
5/8 x 14	25,1	91,0	26,0	18,0	14,00	1C03315
3/4 x 14	28,6	96,0	28,0	20,0	16,00	1C03316
7/8 x 14	32,4	102,0	29,0	22,4	18,00	1C03318
1 x 11	36,0	109,0	33,0	25,0	20,00	1C03317

BSW MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H



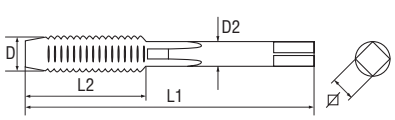
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/8 x 40	3,9	53,0	13,0	4,0	3,15	1C03201
3/16 x 24	6,0	56,0	19,0	6,3	5,00	1C03202
1/4 x 20	7,8	72,0	22,0	8,0	6,30	1C03203
5/16 x 18	9,6	80,0	24,0	10,0	8,00	1C03204
3/8 x 16	11,4	85,0	25,0	8,0	6,30	1C03205
7/16 x 14	13,2	95,0	30,0	11,2	9,00	1C03206
1/2 x 12	15,2	102,0	32,0	12,5	10,00	1C03207
9/16 x 12	16,8	102,0	32,0	12,5	10,00	1C03208
5/8 x 11	18,6	112,0	37,0	14,0	11,20	1C03209
11/16 x 11	20,2	112,0	37,0	14,0	11,20	1C03210
3/4 x 10	22,0	118,0	38,0	16,0	12,50	1C03211
7/8 x 9	25,5	130,0	45,0	18,0	14,00	1C03212
1 x 8	29,1	138,0	48,0	20,0	16,00	1C03213

BSF MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H



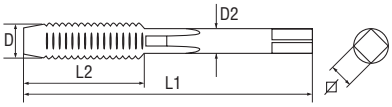
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
3/16 x 32	5,7	66,0	19,0	6,3	5,00	1C03251
1/4 x 26	7,5	72,0	22,0	8,0	6,30	1C03253
5/16 x 22	9,3	80,0	24,0	10,0	8,00	1C03255
3/8 x 20	11,0	85,0	25,0	8,0	6,30	1C03256
7/16 x 18	12,8	89,0	29,0	9,0	7,10	1C03257
1/2 x 16	14,6	95,0	30,0	11,2	9,00	1C03258
9/16 x 16	16,2	102,0	32,0	12,5	10,00	1C03259
5/8 x 14	18,0	112,0	37,0	14,0	11,20	1C03260
11/16 x 14	19,6	112,0	37,0	14,0	11,20	1C03261
3/4 x 12	21,5	118,0	38,0	16,0	12,50	1C03262
7/8 x 11	24,9	130,0	45,0	18,0	14,00	1C03264
1 x 10	28,4	138,0	48,0	20,0	16,00	1C03265

BA MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H



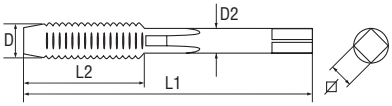
D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
BA 0	7,1	66,0	19,0	7,10	5,60	1C03321
BA 2	5,6	66,0	19,0	6,30	5,00	1C03323
BA 4	4,4	53,0	13,0	4,50	3,55	1C03325
BA 6	3,4	50,0	13,0	3,55	2,80	1C03327

BS. Brass MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H



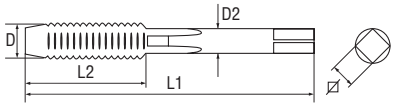
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/4 x 26	7,5	69,0	19,0	8,00	6,30	1C03341
5/16 x 26	9,1	76,0	20,0	10,00	8,00	1C03342
3/8 x 26	10,7	82,0	22,0	8,00	6,30	1C03343
7/16 x 26	12,3	84,0	24,0	9,00	7,10	1C03344
1/2 x 26	13,9	90,0	25,0	11,20	9,00	1C03345

Consultar precio y plazo para kit / *Request price and availability for kit* / *Consulter de prix et le disponibilité pour kit*

MACHOS MÁQUINA STI (PASANTE)
STI MACHINE TAPS (SPIRAL POINT)
TARAUDS MACHINE STI ENTRÉE GÜN



HSS-CO 5% | FORM B | TOL ISO1 4H

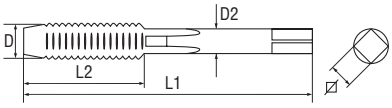


D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03505
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03506
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03507
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03508
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03509
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03510
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03511
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03512
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03515
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03517
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03520
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03521
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03522
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03527
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03528
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03529
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03533

MACHOS MÁQUINA STI (CIEGO)
STI MACHINE TAPS (SPIRAL FLUTE)
TARAUDS MACHINE STI HÉLICOIDAL



HSS-CO 5% | FORM C/35° | TOL ISO1 4H

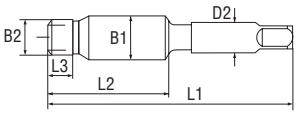


D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03705
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03706
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03707
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03708
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03709
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03710
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03711
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03712
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03715
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03717
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03720
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03721
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03722
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03727
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03728
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03729
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03733

MACHOS STI "SPARK PLUG" CON PUNTA PILOTO
STI-SPARK PLUG TAPS WITH PILOT NOSE
TARAUDS STI ÉTAGÉS



HSS-G | TOL ISO1 4H



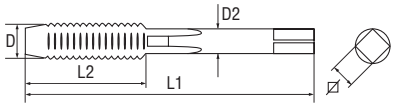
D Ø x P (mm)	B1 (mm)	B2 (mm)	L3 (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 6,00 x 1,00	7,3	6	7	28	70	8	6,3	1C03630
M 8,00 x 1,25	9,6	8	9	32	75	8	6,3	1C03631
M 10,00 x 1,50	11,9	10	9	37	80	9	7,1	1C03632
M 10,00 x 1,00	11,3	10	8	30	74	8	6,3	1C03633
M 12,00 x 1,25	13,6	12	9	32	75	9	7,1	1C03634
M 14,00 x 1,25	15,6	14	10	45	90	12	9,2	1C03635
M 18,00 x 1,50	20,0	18	10	47	116	16	12,5	1C03636

MACHOS STI POR LAMINACIÓN
STI-FLUTELESS TAPS
TARAUDS STI À REFOULER



HSS-CO 5%

TOL ISO1 4H



D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M **3,00 x 0,50**	3,6	53,0	13,0	4,0	3,15	1C03605
M **4,00 x 0,70**	4,9	58,0	16,0	5,0	4,00	1C03607
M **5,00 x 0,80**	6,0	66,0	19,0	6,3	5,00	1C03608
M **6,00 x 1,00**	7,3	72,0	22,0	8,0	6,40	1C03609
M **8,00 x 1,25**	9,5	80,0	24,0	10,0	8,00	1C03611
M **10,00 x 1,50**	11,9	89,0	29,0	9,0	7,10	1C03615
M **12,00 x 1,75**	14,3	95,0	30,0	11,2	9,00	1C03620

DIÁMETRO BROCA PREVIA / *RECOMMENDED TAPPINNG DRILL SIZES* / *DIAMÈTRES PRÉALABLES AU FILETAGE*

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12
3,40	4,60	5,60	6,80	9,00	11,20	13,40

M y Mf

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 **6H**



		1,0 x DØ	1,5 x DØ	2,0 x DØ	2,5 x DØ	3,0 x DØ
D Ø x P (mm)	Uds. / *Pcs.*	Cod.	Cod.	Cod.	Cod.	Cod.
M 2.0 x 0.40	100	2C07202	2C07302	2C07402	2C07502	2C07602
M 2,2 x 0,45	100	2C07203	2C07303	2C07403	2C07503	2C07603
M 2,5 x 0,45	100	2C07204	2C07304	2C07404	2C07504	2C07604
M 3,0 x 0,50	100	2C07205	2C07305	2C07405	2C07505	2C07605
M 3,5 x 0,60	100	2C07206	2C07306	2C07406	2C07506	2C07606
M 4,0 x 0,70	100	2C07207	2C07307	2C07407	2C07507	2C07607
M 5,0 x 0,80	100	2C07208	2C07308	2C07408	2C07508	2C07608
M 6,0 x 1,00	100	2C07209	2C07309	2C07409	2C07509	2C07609
M 7,0 x 1,00	100	2C07210	2C07310	2C07410	2C07510	2C07610
M 8,0 x 1,25	100	2C07211	2C07311	2C07411	2C07511	2C07611
M 8,0 x 1,00	100	2C07212	2C07312	2C07412	2C07512	2C07612
M 9,0 x 1,25	100	2C07213	2C07313	2C07413	2C07513	2C07613
M 10,0 x 1,50	100	2C07215	2C07315	2C07415	2C07515	2C07615
M 10,0 x 1,25	100	2C07216	2C07316	2C07416	2C07516	2C07616
M 10,0 x 1,00	100	2C07217	2C07317	2C07417	2C07517	2C07617
M 11,0 x 1,50	100	2C07219	2C07319	2C07419	2C07519	2C07619
M 12,0 x 1,75	100	2C07221	2C07321	2C07421	2C07521	2C07621
M 12,0 x 1,50	100	2C07222	2C07322	2C07422	2C07522	2C07622
M 12,0 x 1,25	100	2C07223	2C07323	2C07423	2C07523	2C07623
M 12,0 x 1,00	100	2C07224	2C07324	2C07424	2C07524	2C07624
M 14,0 x 2,00	50	2C07225	2C07325	2C07425	2C07525	2C07625
M 14,0 x 1,50	50	2C07226	2C07326	2C07426	2C07526	2C07626
M 14,0 x 1,25	50	2C07227	2C07327	2C07427	2C07527	2C07627
M 14,0 x 1,00	50	2C07231	2C07331	2C07431	2C07531	2C07631
M 16,0 x 2,00	50	2C07234	2C07334	2C07434	2C07534	2C07634
M 16,0 x 1,50	50	2C07235	2C07335	2C07435	2C07535	2C07635
M 18,0 x 2,50	25	2C07236	2C07336	2C07436	2C07536	2C07636
M 18,0 x 2,00	25	2C07237	2C07337	2C07437	2C07537	2C07637
M 18,0 x 1,50	25	2C07238	2C07338	2C07438	2C07538	2C07638
M 20,0 x 2,50	25	2C07239	2C07339	2C07439	2C07539	2C07639
M 20,0 x 2,00	25	2C07240	2C07340	2C07440	2C07540	2C07640
M 20,0 x 1,50	25	2C07241	2C07341	2C07441	2C07541	2C07641
M 22,0 x 2,50	10	2C07242	2C07342	2C07442	2C07542	2C07642
M 22,0 x 2,00	10	2C07243	2C07343	2C07443	2C07543	2C07643
M 22,0 x 1,50	10	2C07244	2C07344	2C07444	2C07544	2C07644
M 24,0 x 3,00	10	2C07245	2C07345	2C07445	2C07545	2C07645
M 24,0 x 2,00	10	2C07246	2C07346	2C07446	2C07546	2C07646
M 24,0 x 1,50	10	2C07247	2C07347	2C07447	2C07547	2C07647
M 26,0 x 1,50	5	-	2C07349	-	-	-
M 27,0 x 3,00	5	-	2C07350	-	-	-
M 27,0 x 2,00	5	-	2C07351	-	-	-
M 27,0 x 1,50	5	-	2C07352	-	-	-
M 28,0 x 1,50	5	-	2C07353	-	-	-
M 30,0 x 3,50	5	-	2C07354	-	-	-
M 30,0 x 2,00	5	-	2C07355	-	-	-
M 30,0 x 1,50	5	-	2C07356	-	-	-
M 33,0 x 3,50	5	-	2C07357	-	-	-
M 33,0 x 2,00	5	-	2C07358	-	-	-
M 36,0 x 4,00	5	-	2C07360	-	-	-
M 36,0 x 3,00	5	-	2C07361	-	-	-
M 36,0 x 2,00	5	-	2C07362	-	-	-
M 36,0 x 1,50	5	-	2C07363	-	-	-
NEW M 39,0 x 4,00	5	-	2C07364*	-	-	-
NEW M 39,0 x 3,00	5	-	2C07365*	-	-	-

*Consultar plazo / *Request delivery time* / *Vérifier la date limite*

M y Mf

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 6H



	D Ø x P (mm)	Uds. / *Pcs.*	1,0 x DØ Cod.	1,5 x DØ Cod.	2,0 x DØ Cod.	2,5 x DØ Cod.	3,0 x DØ Cod.
NEW	M 40 x 3.00	5	-	2C07368*	-	-	-
NEW	M 42 x 4.50	5	-	2C07372*	-	-	-
NEW	M 42 x 3.00	5	-	2C07373*	-	-	-
NEW	M 45 x 4.50	5	-	2C07377*	-	-	-
NEW	M 45 x 3.00	5	-	2C07378*	-	-	-
NEW	M 48 x 5.00	5	-	2C07382*	-	-	-
NEW	M 48 x 4.00	5	-	2C07384*	-	-	-
NEW	M 48 x 3.00	5	-	2C07383*	-	-	-
NEW	M 50 x 3.00	5	-	2C07387*	-	-	-
NEW	M 52 x 5.00	5	-	2C07390*	-	-	-
NEW	M 52 x 3.00	5	-	2C07391*	-	-	-

*Consultar plazo / *Request delivery time* / *Vérifier la date limite*

M y Mf

INSERTOS ROSCADOS DE ACERO INOXIDABLE NEW
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 6H



D Ø x P (mm)	Uds. x caja *Units x box*	1,0 x DØ Cod.	1,5 x DØ Cod.
M 2 x 0,4	20	BL-2C07202	BL-2C07302
M 2,2 x 0,45	20	BL-2C07203	BL-2C07303
M 2,5 x 0,45	20	BL-2C07204	BL-2C07304
M 3 x 0,5	20	BL-2C07205	BL-2C07305
M 3,5 x 0,6	20	BL-2C07206	BL-2C07306
M 4 x 0,7	20	BL-2C07207	BL-2C07307
M 5 x 0,8	20	BL-2C07208	BL-2C07308
M 6 x 1,0	20	BL-2C07209	BL-2C07309
M 7 x 1,0	20	BL-2C07210	BL-2C07310
M 8 x 1,25	20	BL-2C07211	BL-2C07311
M 8 x 1,0	20	BL-2C07212	BL-2C07312
M 9 x 1,25	20	BL-2C07213	BL-2C07313
M 10 x 1,5	20	BL-2C07215	BL-2C07315
M 10 x 1,25	20	BL-2C07216	BL-2C07316
M 10 x 1,0	20	BL-2C07217	BL-2C07317
M 11 x 1,5	20	BL-2C07219	BL-2C07319
M 12 x 1,75	20	BL-2C07221	BL-2C07321
M 12 x 1,5	20	BL-2C07222	BL-2C07322
M 12 x 1,25	20	BL-2C07223	BL-2C07323
M 12 x 1,0	20	BL-2C07224	BL-2C07324
M 14 x 2,0	25	BL-2C07225	BL-2C07325
M 14 x 1,5	25	BL-2C07226	BL-2C07326
M 14 x 1,25	25	BL-2C07227	BL-2C07327
M 14 x 1,0	25	BL-2C07231	BL-2C07331
M 16 x 2,0	25	BL-2C07234	BL-2C07334
M 16 x 1,5	25	BL-2C07235	BL-2C07335

SESA COIL

M y Mf

INSERTOS ROSCADOS DE ACERO INOXIDABLE NEW

STAINLESS STEEL WIRE THREAD INSERTS

FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 **6H**



D Ø x P (mm)	Uds. x caja *Units x box*	2,0 x DØ Cod.	2,5 x DØ Cod.	3,0 x DØ Cod.
M 2 x 0,4	20	BL-2C07402	BL-2C07502	BL-2C07602
M 2,2 x 0,45	20	BL-2C07403	BL-2C07503	BL-2C07603
M 2,5 x 0,45	20	BL-2C07404	BL-2C07504	BL-2C07604
M 3 x 0,5	20	BL-2C07405	BL-2C07505	BL-2C07605
M 3,5 x 0,6	20	BL-2C07406	BL-2C07506	BL-2C07606
M 4 x 0,7	20	BL-2C07407	BL-2C07507	BL-2C07607
M 5 x 0,8	20	BL-2C07408	BL-2C07508	BL-2C07608
M 6 x 1,0	20	BL-2C07409	BL-2C07509	BL-2C07609
M 7 x 1,0	20	BL-2C07410	BL-2C07510	BL-2C07610
M 8 x 1,25	20	BL-2C07411	BL-2C07511	BL-2C07611
M 8 x 1,0	20	BL-2C07412	BL-2C07512	BL-2C07612
M 9 x 1,25	20	BL-2C07413	BL-2C07513	BL-2C07613
M 10 x 1,5	20	BL-2C07415	BL-2C07515	BL-2C07615
M 10 x 1,25	20	BL-2C07416	BL-2C07516	BL-2C07616
M 10 x 1,0	20	BL-2C07417	BL-2C07517	BL-2C07617
M 11 x 1,5	20	BL-2C07419	BL-2C07519	BL-2C07619
M 12 x 1,75	20	BL-2C07421	BL-2C07521	BL-2C07621
M 12 x 1,5	20	BL-2C07422	BL-2C07522	BL-2C07622
M 12 x 1,25	20	BL-2C07423	BL-2C07523	BL-2C07623
M 12 x 1,0	20	BL-2C07424	BL-2C07524	BL-2C07624
M 14 x 2,0	25	BL-2C07425	BL-2C07525	BL-2C07625
M 14 x 1,5	25	BL-2C07426	BL-2C07526	BL-2C07626
M 14 x 1,25	25	BL-2C07427	BL-2C07527	BL-2C07627
M 14 x 1,0	25	BL-2C07431	BL-2C07531	BL-2C07631
M 16 x 2,0	25	BL-2C07434	BL-2C07534	BL-2C07634
M 16 x 1,5	25	BL-2C07435	BL-2C07535	BL-2C07635

Mf INSERTOS ROSCADOS PARA LAS ROSCAS DE LAS BUJÍAS
STAINLESS STEEL WIRE THREAD INSERTS FOR SPARK PLUG
FILETS RAPPORTÉS INOX POUR BOUGIES

DIN 8140 | TOL ISO2 6H





		8,40	12,40	16,40
D Ø x P (mm)	**Uds. / *Pcs.***	**Cod.**	**Cod.**	**Cod.**
M 14 x 1,25	50	2C07128	2C07228	2C07328

M INSERTOS ROSCADOS AUTOFRENANTES DE ACERO INOXIDABLE
SCREW LOCKING STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX INDESSERRABLES

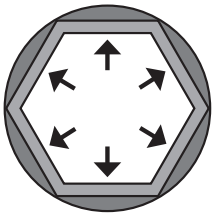
DIN 8140 | TOL ISO2 6H





		1,0 x DØ	1,5 x DØ	2,0 x DØ
D Ø x P (mm)	**Uds. / *Pcs.***	**Cod.**	**Cod.**	**Cod.**
M 3 x 0,50	100	2C05205	2C05305	2C05405
M 4 x 0,70	100	2C05207	2C05307	2C05407
M 5 x 0,80	100	2C05208	2C05308	2C05408
M 6 x 1,00	100	2C05209	2C05309	2C05409
M 8 x 1,25	100	2C05211	2C05311	2C05411
M 10 x 1,50	100	2C05215	2C05315	2C05415
M 12 x 1,75	100	2C05221	2C05321	2C05421
M 14 x 2,00	50	2C05225	2C05325	2C05425
M 16 x 2,00	50	2C05234	2C05334	2C05434

Consultar precio y plazo para largos de 2,5xD y 3,0xD
Request prices and availability for length of 2,5xD and 3,0xD
Consulter de prix et le disponibilité pour longueur 2,5xD et 3,0xD



- Insertos con sistema de frenado interno
  Wire thread inserts with a locking internal system
  Filets rapportés avec systéme interne autofreinage.
- Indicados en mecanismos con altas vibraciones o impactos
  Suited to high impact and vibrations systems
  ndiqués pour mécanismes avec grandes vibrations et impacts
- Se recomienda su utilización con tornillería lubrificada o con recubrimientos
  Recommended for using with oil lubricated bolts
  Utilisation recommandé avec boulons lubrifiés

UNC INSERTOS ROSCADOS DE ACERO INOXIDABLE

STAINLESS STEEL WIRE THREAD INSERTS

FILETS RAPPORTÉS INOX

DIN 8140 TOL **2B**



D Ø x P (")	Uds. / *Pcs.*	1,0 x DØ Cod.	1,5 x DØ Cod.	2,0 x DØ Cod.	2,5 x DØ Cod.	3,0 x DØ Cod.
Nr. 2 x 56	100	2C08200	2C08300	2C08400	2C08500	2C08600
Nr. 4 x 40	100	2C08201	2C08301	2C08401	2C08501	2C08601
Nr. 5 x 40	100	2C08202	2C08302	2C08402	2C08502	2C08602
Nr. 6 x 32	100	2C08203	2C08303	2C08403	2C08503	2C08603
Nr. 8 x 32	100	2C08204	2C08304	2C08404	2C08504	2C08604
Nr. 10 x 24	100	2C08205	2C08305	2C08405	2C08505	2C08605
Nr. 12 x 24	100	2C08206	2C08306	2C08406	2C08506	2C08606
1/4 x 20	100	2C08207	2C08307	2C08407	2C08507	2C08607
5/16 x 18	100	2C08208	2C08308	2C08408	2C08508	2C08608
3/8 x 16	100	2C08209	2C08309	2C08409	2C08509	2C08609
7/16 x 14	100	2C08210	2C08310	2C08410	2C08510	2C08610
1/2 x 13	100	2C08211	2C08311	2C08411	2C08511	2C08611
9/16 x 12	50	2C08212	2C08312	2C08412	2C08512	2C08612
5/8 x 11	50	2C08214	2C08314	2C08414	2C08514	2C08614
3/4 x 10	25	2C08216	2C08316	2C08416	2C08516	2C08616
7/8 x 9	10	2C08218	2C08318	2C08418	2C08518	2C08618
1 x 8	10	2C08219	2C08319	2C08419	2C08519	2C08619
1.1/8 x 7	5	-	2C08320	-	-	-
1.1/4 x 7	5	-	2C08321	-	-	-
1.3/8 x 6	5	-	2C08322	-	-	-
1.1/2 x 6	5	-	2C08323	-	-	-

UNF

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL 2B



			1,0 x DØ	1,5 x DØ	2,0 x DØ		2,5 x DØ	3,0 x DØ
	D Ø x P (")	Uds. / *Pcs.*	Cod.	Cod.	Cod.	€/Unid.	Cod.	Cod.
Nr.	4 x 48	100	2C08290	2C08390	2C08490		2C08590	2C08690
Nr.	6 x 40	100	2C08291	2C08391	2C08491		2C08591	2C08691
Nr.	8 x 36	100	2C08292	2C08392	2C08492		2C08592	2C08692
Nr.	10 x 32	100	2C08293	2C08393	2C08493		2C08593	2C08693
	1/4 x 28	100	2C08225	2C08325	2C08425		2C08525	2C08625
	5/16 x 24	100	2C08226	2C08326	2C08426		2C08526	2C08626
	3/8 x 24	100	2C08227	2C08327	2C08427		2C08527	2C08627
	7/16 x 20	100	2C08228	2C08328	2C08428		2C08528	2C08628
	1/2 x 20	100	2C08229	2C08329	2C08429		2C08529	2C08629
	9/16 x 18	50	2C08230	2C08330	2C08430		2C08530	2C08630
	5/8 x 18	50	2C08231	2C08331	2C08431		2C08531	2C08631
	3/4 x 16	25	2C08233	2C08333	2C08433		2C08533	2C08633
	7/8 x 14	10	2C08235	2C08335	2C08435		2C08535	2C08635
	1 x 12	10	2C08237	2C08337	2C08437		2C08537	2C08637
	1.1/8 x 12	5	-	2C08396	-		-	-
	1.1/4 x 12	5	-	2C08397	-		-	-
	1.3/8 x 12	5	-	2C08398	-		-	-
	1.1/2 x 12	5	-	2C08399	-		-	-

BSW

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 TOL ISO2 **6H**



		1,0 x DØ	1,5 x DØ	2,0 x DØ	2,5 x DØ	3,0 x DØ
D Ø x P (")	**Uds. / *Pcs.***	**Cod.**	**Cod.**	**Cod.**	**Cod.**	**Cod.**
1/8 x 40	100	2C08241	2C08341	2C08441	2C08541	2C08641
3/16 x 24	100	2C08242	2C08342	2C08442	2C08542	2C08642
1/4 x 20	100	2C08243	2C08343	2C08443	2C08543	2C08643
5/16 x 18	100	2C08244	2C08344	2C08444	2C08544	2C08644
3/8 x 16	100	2C08245	2C08345	2C08445	2C08545	2C08645
7/16 x 14	100	2C08246	2C08346	2C08446	2C08546	2C08646
1/2 x 12	100	2C08247	2C08347	2C08447	2C08547	2C08647
9/16 x 12	50	2C08248	2C08348	2C08448	2C08548	2C08648
5/8 x 11	50	2C08249	2C08349	2C08449	2C08549	2C08649
3/4 x 10	25	2C08251	2C08351	2C08451	2C08551	2C08651
7/8 x 9	10	2C08253	2C08353	2C08453	2C08553	2C08653
1 x 8	10	2C08255	2C08355	2C08455	2C08555	2C08655

G(BSP) INSERTOS ROSCADOS DE ACERO INOXIDABLE

WIRE THREAD INSERTS "FREE RUNNING" STAINLESS STEEL
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 6H



		1,0 x DØ	1,5 x DØ	2,0 x DØ	2,5 x DØ	3,0 x DØ
D Ø x P (")	**Uds. / *Pcs.***	**Cod.**	**Cod.**	**Cod.**	**Cod.**	**Cod.**
1/8 x 28	50	-	2C08380	-	-	-
1/4 x 19	50	-	2C08381	-	-	-
3/8 x 19	50	-	2C08382	-	-	-
1/2 x 14	50	-	2C08383	-	-	-
5/8 x 14	5	-	2C08384	-	-	-
3/4 x 14	5	-	2C08385	-	-	-
7/8 x 14	5	-	2C08386	-	-	-
1 x 11	5	-	2C08387	-	-	-

BSF INSERTOS ROSCADOS "FACIL INSERCIÓN", INOXIDABLE

WIRE THREAD INSERTS "FREE RUNNING" STAINLESS STEEL
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 6H



		1,0 x DØ	1,5 x DØ	2,0 x DØ	2,5 x DØ	3,0 x DØ
D Ø x P (")	**Uds. / *Pcs.***	**Cod.**	**Cod.**	**Cod.**	**Cod.**	**Cod.**
3/16 x 32	100	2C08262	2C08362	2C08462	2C08562	2C08662
1/4 x 26	100	2C08263	2C08363	2C08463	2C08563	2C08663
5/16 x 22	100	2C08265	2C08365	2C08465	2C08565	2C08665
3/8 x 20	100	2C08266	2C08366	2C08466	2C08566	2C08666
7/16 x 18	100	2C08267	2C08367	2C08467	2C08567	2C08667
1/2 x 16	100	2C08268	2C08368	2C08468	2C08568	2C08668
9/16 x 16	50	2C08269	2C08369	2C08469	2C08569	2C08669
5/8 x 14	50	2C08270	2C08370	2C08470	2C08570	2C08670
3/4 x 12	25	2C08272	2C08372	2C08472	2C08572	2C08672
7/8 x 11	10	2C08274	2C08374	2C08474	2C08574	2C08674
1 x 10	10	2C08276	2C08376	2C08476	2C08576	2C08676

HERRAMIENTA PARA INSERTAR CON TOPE AJUSTABLE

INSERTING TOOL WITH LOCKING RING

APPAREIL DE POSE MANUEL



Nº	M - Mf	UNC / UNF / BSW / BSF	Uds. / *Pcs.*	Cod.
2	**M 2,00 x 0,40** **M 2,20 x 0,45**	UNC Nr. 2	1	3C08002
3	**M 2,50 x 0,45**	-	1	3C08003
4	**M 3,00 x 0,50**	UNC/UNF Nr. 4	1	3C08004
5	**M 3,50 x 0,60**	UNC/UNF Nr. 6	1	3C08005
6	**M 4,00 x 0,70**	UNC/UNF Nr. 8	1	3C08006
7	-	BSW 3/16 UNC Nr.10	1	3C08007
8	**M 5,00 x 0,80**	UNC/UNF Nr.10 UNC Nr. 12	1	3C08008
9	**M 6,00 x 1,00**	UNC/UNF 1/4 BSW/BSF 1/4	1	3C08009
10	**M 7,00 x 1,00**	UNC/BSW 5/16	1	3C08010
11	**M 8,00 x 1,25** **M 8,00 x 1,00**	UNC/BSF 5/16	1	3C08011
12	**M 9,00 x 1,25** **M 9,00 x 1,00**	UNC 3/8 BSW/BSF 3/8	1	3C08012
13	**M 10,00 x 1,50** **M 10,00 x 1,00** **M 10,00 x 1,25**	UNF 3/8	1	3C08013
14	**M 11,00 x 1,50** **M 11,00 x 1,25**	UNC/UNF 7/16 BSW/BSF 7/16	1	3C08014
15	**M 12,00 x 1,75** **M 12,00 x 1,50** **M 12,00 x 1,25** **M 12,00 x 1,00**	UNC/UNF 1/2 BSW/BSF 1/2	1	3C08015
16	**M 14,00 x 2,00** **M 14,00 x 1,50**	UNC/UNF 9/16 BSW/BSF 9/16	1	3C08016
17	**M 14,00 x 1,25** **M 14,00 x 1,00**	-	1	3C08017
18	**M 16,00 x 2,00** **M 16,00 x 1,50**	UNC/UNF 5/8 BSW/BSF 5/8	1	3C08018
20	**M 18,00 x 2,50** **M 18,00 x 2,00** **M 18,00 x 1,50**	UNC 3/4 BSW/BSF 3/4	1	3C08020
21	**M 20,00 x 2,50** **M 20,00 x 2,00** **M 20,00 x 1,50**	UNF 3/4	1	3C08021
22	**M 22,00 x 2,50** **M 22,00 x 2,00** **M 22,00 x 1,50**	UNC/UNF 7/8 BSW/BSF 7/8	1	3C08022
23	**M 24,00 x 3,00** **M 24,00 x 2,00** **M 24,00 x 1,50**	UNC/UNF 1" BSW/BSF 1"	1	3C08023

M HERRAMIENTA PARA INSERTAR A MÁQUINA
MACHINE INSERTING TOOL
APPAREIL DE POSE À MACHINE



	D Ø x P (mm)	L1 (mm)		(")	Uds. / *Pcs.*	Cod.
M	**3,00 x 0,50**	46	6	1/4	1	3C08070
M	**4,00 x 0,70**	56	7	1/4	1	3C08071
M	**5,00 x 0,80**	62	8	1/4	1	3C08072
M	**6,00 x 1,00**	76	10	1/4	1	3C08073
M	**8,00 x 1,25**	85	12	1/4	1	3C08074
M	**10,00 x 1,50**	96	14	1/4	1	3C08075
M	**12,00 x 1,75**	107	16	1/4	1	3C08076

M HERRAMIENTA PARA INSERTAR
INSERTING TOOL
APPAREIL DE POSE À MACHINE



Ø Nominal Ø x Paso / Ø Nominal Ø x Paso	Uds. / *Pcs.*	⬡	Cod.
M - Mf			
M 26,00 x 1,50	1	1/2"	3C08024
M 27,00 x 3,00	1	1/2"	3C08025
M 27,00 x 2,00	1	1/2"	3C08026
M 27,00 x 1,50	1	1/2"	3C08027
M 28,00 x 1,50	1	1/2"	3C08028
M 30,00 x 3,50	1	1/2"	3C08029
M 30,00 x 2,00	1	1/2"	3C08030
M 30,00 x 1,50	1	1/2"	3C08031
M 33,00 x 3,50	1	1/2"	3C08032
M 33,00 x 2,00	1	1/2"	3C08033
M 36,00 x 4,00	1	1/2"	3C08034
M 36,00 x 3,00	1	1/2"	3C08035
M 36,00 x 2,00	1	1/2"	3C08036
M 36,00 x 1,50	1	1/2"	3C08037
UNC			
1.1/8 x 7	1	1/2"	3C08050
1.1/4 x 7	1	1/2"	3C08051
1.3/8 x 6	1	1/2"	3C08052
1.1/2 x 6	1	1/2"	3C08053
UNF			
1.1/8 x 7	1	1/2"	3C08060
1.1/4 x 7	1	1/2"	3C08061
1.3/8 x 6	1	1/2"	3C08062
1.1/2 x 6	1	1/2"	3C08063
G (BSP)			
1/8 x 28	1	1/4"	3C08080
1/4 x 19	1	1/4"	3C08081
3/8 x 19	1	1/4"	3C08082
1/2 x 14	1	1/4"	3C08083
5/8 x 14	1	1/2"	3C08084
3/4 x 14	1	1/2"	3C08085
7/8 x 14	1	1/2"	3C08086
1" x 11	1	1/2"	3C08087

HERRAMIENTA ROMPE ARRASTRE
TANG BREAK TOOL
RUPTEUR



Nº	M - Mf	UNC / UNF / BSW / BSF	Uds. / *Pcs.*	Cod.
2	M 2,00 x 0,40 M 2,20 x 0,45	UNC Nº 2	1	3C07002
3	M 2,50 x 0,45	-	1	3C07003
4	M 3,00 x 0,50	UNC/UNF Nº 4	1	3C07004
5	M 3,50 x 0,60	UNC/UNF Nº 6	1	3C07005
6	M 4,00 x 0,70	UNC/UNF Nº 8	1	3C07006
8	M 5,00 x 0,80	UNC/UNF Nº10 UNC Nº12	1	3C07008
9	M 6,00 x 1,00	UNC/UNF 1/4 BSW/BSF 1/4	1	3C07009
11	M 7,00 x 1,00 M 8,00 x 1,00 M 8,00 x 1,25	UNC/UNF 5/16 BSW/BSF 5/16	1	3C07011
12	M 9,00 x 1,25 M 9,00 x 1,00	UNC 3/8 BSW/BSF 3/8	1	3C07012
13	M 10,00 x 1,50 M 10,00 x 1,00 M 10,00 x 1,25	UNF 3/8	1	3C07013
14	M 11,00 x 1,50 M 11,00 x 1,25	UNC/UNF 7/16 BSW/BSF 7/16	1	3C07014
15	M 12,00 x 1,75 M 12,00 x 1,50 M 12,00 x 1,25 M 12,00 x 1,00	UNC/UNF 1/2 BSW/BSF 1/2	1	3C07015

HERRAMIENTA EXTRACTORA
EXTRACTING TOOL
EXTRACTEUR



Nº	Métrica / Métrica	Pulgadas / Inches	Uds. / *Pcs.*	Cod.
2	M 3 - M 10	3/16 - 3/8	1	3C07052
3	M 11 - M 24	3/8 - 1	1	3C07053

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

M y Mf KITS REPARADORES DE ROSCA

THREAD REPAIR KIT

KITS DE RÉPARATION DE FILETAGE



				x 1,5D	Uds. / *Pcs.*	Cod.
M 2,00 x 0,40	2,1 mm	Nº 2	Nº 2	20	1	4C04001
M 2,50 x 0,45	2,6 mm	Nº 3	Nº 3	20	1	4C04003
M 3,00 x 0,50	3,2 mm	Nº 4	Nº 4	20	1	4C04005
M 3,50 x 0,60	3,7 mm	Nº 5	Nº 5	20	1	4C04006
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04007
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04009
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04010
M 7,00 x 1,00	7,3 mm	Nº 10	Nº 11	20	1	4C04011
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04012
M 8,00 x 1,00	8,3 mm	Nº 11	Nº 11	20	1	4C04013
M 9,00 x 1,25	9,3 mm	Nº 12	Nº 12	15	1	4C04014
M 10,00 x 1,50	10,4 mm	Nº 13	Nº 13	15	1	4C04016
M 10,00 x 1,25	10,3 mm	Nº 13	Nº 13	15	1	4C04017
M 10,00 x 1,00	10,3 mm	Nº 13	Nº 13	15	1	4C04018
M 11,00 x 1,50	11,4 mm	Nº 14	Nº 14	10	1	4C04019
M 12,00 x 1,75	12,4 mm	Nº 15	Nº 15	10	1	4C04021
M 12,00 x 1,50	12,4 mm	Nº 15	Nº 15	10	1	4C04022
M 12,00 x 1,25	12,3 mm	Nº 15	Nº 15	10	1	4C04023
M 12,00 x 1,00	12,3 mm	Nº 15	Nº 15	10	1	4C04024
M 14,00 x 2,00		Nº 16		10	1	4C04028
M 14,00 x 1,50		Nº 16		10	1	4C04029
M 14,00 x 1,25		Nº 17		10	1	4C04030
M 14,00 x 1,00		Nº 17		10	1	4C04031
M 16,00 x 2,00		Nº 18		10	1	4C04032
M 16,00 x 1,50		Nº 18		10	1	4C04033
M 18,00 x 2,50		Nº 20		5	1	4C04034
M 18,00 x 2,00		Nº 20		5	1	4C04035
M 18,00 x 1,50		Nº 20		5	1	4C04036
M 20,00 x 2,50		Nº 21		5	1	4C04037
M 20,00 x 2,00		Nº 21		5	1	4C04038
M 20,00 x 1,50		Nº 21		5	1	4C04039
M 22,00 x 2,50		Nº 22		5	1	4C04040
M 22,00 x 2,00		Nº 22		5	1	4C04041
M 22,00 x 1,50		Nº 22		5	1	4C04042
M 24,00 x 3,00		Nº 23		5	1	4C04043
M 24,00 x 2,00		Nº 23		5	1	4C04044
M 24,00 x 1,50		Nº 23		5	1	4C04045

M y Mf KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



		x 1,5D	Uds. / *Pcs.*	Cod.
M 26,00 x 1,50	3C08024	10	1	4C04049
M 27,00 x 3,00	3C08025	10	1	4C04050
M 27,00 x 2,00	3C08026	10	1	4C04051
M 27,00 x 1,50	3C08027	10	1	4C04052
M 28,00 x 1,50	3C08028	10	1	4C04053
M 30,00 x 3,50	3C08029	10	1	4C04054
M 30,00 x 2,00	3C08030	10	1	4C04055
M 30,00 x 1,50	3C08031	10	1	4C04056
M 33,00 x 3,50	3C08032	10	1	4C04057
M 33,00 x 2,00	3C08033	10	1	4C04058
M 36,00 x 4,00	3C08034	10	1	4C04060
M 36,00 x 3,00	3C08035	10	1	4C04061
M 36,00 x 2,00	3C08036	10	1	4C04062
M 36,00 x 1,50	3C08037	10	1	4C04063
M 39.00 x 4.00	3C08038	10	1	4C04231
M 39.00 x 3.00	3C08039	10	1	4C04232
M 40.00 x 3.00	3C08040	10	1	4C04233
M 42.00 x 4.50	3C08041	10	1	4C04234
M 42.00 x 3.00	3C08042	10	1	4C04235
M 45.00 x 4.50	3C08043	10	1	4C04236
M 45.00 x 3.00	3C08044	10	1	4C04237
M 48.00 x 5.00	3C08045	10	1	4C04238
M 48.00 x 3.00	3C08046	10	1	4C04239
M 50.00 x 3.00	3C08047	10	1	4C04240
M 52.00 x 5.00	3C08048	10	1	4C04241
M 52.00 x 3.00	3C08049	10	1	4C04242

*Consultar disponibilidad / *Request availability* / *Consulter le disponibilité*

KIT PARA LAS ROSCAS DE LAS BUJÍAS
INSERTING TOOL
KITS DE RÉPARATION DE FILETAGE POUR BOUGIES D´ALLUMAGE



		8,40 mm	12,40 mm	16,40 mm	Uds. / *Pcs.*	Cod.
M 14 x 1,25	Nº 17	5	5	5	1	4C04096

MACHOS SPARK-PLUG / *STI-SPARK PLUG TAPS* / *TARAUDS STI ÉTAGÉS*

UNC KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



				x 1,5D	Uds. / *Pcs.*	Cod.
Nr. 2 x 56	2,4 mm	Nº 2	Nº 2	20	1	4C04100
Nr. 4 x 40	3,1 mm	Nº 4	Nº 4	20	1	4C04101
Nr. 5 x 40	3,4 mm	Nº 4	Nº 4	20	1	4C04106
Nr. 6 x 32	3,8 mm	Nº 5	Nº 5	20	1	4C04102
Nr. 8 x 32	4,4 mm	Nº 6	Nº 6	20	1	4C04103
Nr. 10 x 24	5,2 mm	Nº 7	Nº 6	20	1	4C04104
Nr. 12 x 24	5,8 mm	Nº 8	Nº 8	20	1	4C04105
1/4 x 20	6,7 mm	Nº 9	Nº 9	20	1	4C04107
5/16 x 18	8,3 mm	Nº 10	Nº 10	20	1	4C04108
3/8 x 16	9,9 mm	Nº 12	Nº 12	15	1	4C04109
7/16 x 14	11,6 mm	Nº 14	Nº 14	10	1	4C04110
1/2 x 13	13,0 mm	Nº 15	Nº 15	10	1	4C04111
9/16 x 12		Nº 16		10	1	4C04112
5/8 x 11		Nº 18		10	1	4C04113
3/4 x 10		Nº 20		5	1	4C04114
7/8 x 9		Nº 22		5	1	4C04115
1 x 8		Nº 23		4	1	4C04116

UNC KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



		x 1,5D	Uds. / *Pcs.*	Cod.
1.1/8 x 7	3C08050	10	1	4C04117
1.1/4 x 7	3C08051	10	1	4C04118
1.3/8 x 6	3C08052	10	1	4C04119
1.1/2 x 6	3C08053	10	1	4C04135

UNF

KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



				x 1,5D	Uds. / *Pcs.*	Cod.
Nr. 4 x 48	3,0 mm	Nº 4	Nº 4	20	1	4C04120
Nr. 6 x 40	3,8 mm	Nº 5	Nº 5	20	1	4C04121
Nr. 8 x 36	4,4 mm	Nº 6	Nº 6	20	1	4C04122
Nr. 10 x 32	5,1 mm	Nº 8	Nº 8	20	1	4C04123
1/4 x 28	6,7 mm	Nº 9	Nº 9	20	1	4C04125
5/16 x 24	8,3 mm	Nº 11	Nº 11	20	1	4C04126
3/8 x 24	9,8 mm	Nº 13	Nº 13	15	1	4C04127
7/16 x 20	11,5 mm	Nº 14	Nº 14	10	1	4C04128
1/2 x 20	13,0 mm	Nº 15	Nº 15	10	1	4C04129
9/16 x 18		Nº 16		10	1	4C04130
5/8 x 18		Nº 18		10	1	4C04131
3/4 x 16		Nº 21		5	1	4C04132
7/8 x 14		Nº 22		5	1	4C04133
1 x 12		Nº 23		4	1	4C04134

UNF

KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



		x 1,5D	Uds. / *Pcs.*	Cod.
1.1/8 x 12	3C08060	10	1	4C04136
1.1/4 x 12	3C08061	10	1	4C04137
1.3/8 x 12	3C08062	10	1	4C04138
1.1/2 x 12	3C08063	10	1	4C04139

BSW KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



				x 1,5D	Uds. / *Pcs.*	Cod.
1/8 x 40	3,4 mm	Nº 4	Nº 4	20	1	4C04141
3/16 x 24	5,0 mm	Nº 8	Nº 8	20	1	4C04142
1/4 x 20	6,7 mm	Nº 9	Nº 9	20	1	4C04143
5/16 x 18	8,3 mm	Nº 10	Nº 11	20	1	4C04144
3/8 x 16	9,9 mm	Nº 12	Nº 12	15	1	4C04145
7/16 x 14	11,5 mm	Nº 14	Nº 14	10	1	4C04146
1/2 x 12	13,0 mm	Nº 15	Nº 15	10	1	4C04147
9/16 x 12		Nº 16		10	1	4C04148
5/8 x 11		Nº 18		10	1	4C04149
3/4 x 10		Nº 20		5	1	4C04150
7/8 x 9		Nº 22		5	1	4C04151
1 x 8		Nº 23		4	1	4C04152

BSF KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



				x 1,5D	Uds. / *Pcs.*	Cod.
3/16 x 32	5,0 mm	Nº 8	Nº 6	20	1	4C04162
1/4 x 26	6,6 mm	Nº 9	Nº 9	20	1	4C04163
5/16 x 22	8,3 mm	Nº 11	Nº 11	20	1	4C04165
3/8 x 20	9,9 mm	Nº 12	Nº 13	15	1	4C04166
7/16 x 18	11,5 mm	Nº 14	Nº 14	10	1	4C04167
1/2 x 16	13,0 mm	Nº 15	Nº 15	10	1	4C04168
9/16 x 16		Nº 16		10	1	4C04169
5/8 x 14		Nº 18		10	1	4C04170
3/4 x 12		Nº 20		5	1	4C04172
7/8 x 11		Nº 22		5	1	4C04174
1 x 10		Nº 23		4	1	4C04176

G(BSP) KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



		x 1,5D	Uds. / *Pcs.*	Cod.
1/8 x 28	3C08080	10	1	4C04190
1/4 x 19	3C08081	10	1	4C04191
3/8 x 19	3C08082	10	1	4C04192
1/2 x 14	3C08083	10	1	4C04193
5/8 x 14	3C08084	10	1	4C04194
3/4 x 14	3C08085	10	1	4C04195
7/8 x 14	3C08086	10	1	4C04196
1 x 11	3C08087	10	1	4C04197

M REPARADOR DE ROSCA CON ANCLAJE DE 1/4"
1/4" SHANK REPAIR KIT
KIT DE RÉPARATION DE FILETAGE AVEC QUEU 1/4"



CLICK & DRILL

				x 1,5D	Uds. / *Pcs.*	Cod.
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04307
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04309
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04310
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04312

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

KIT REPARADOR DE ROSCADO PARA TALLER

THREAD REPAIR WORKSHOP KITS

KITS DE RÉPARATION DE FILETAGE POUR ATÉLIERS



				x 1,5D	Uds. / *Pcs.*	Cod.
M5-M 12					1	4C04081
M 5.00 x 0.80	5,2 mm	Nº 8	Nº 8	25		
M 6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25		
M 8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25		
M 10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25		
M 12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10		
M6-M 14 x 1.25 /NP					1	4C04082
M 6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25		
M 8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25		
M 10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25		
M 12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10		
M 14.00 x 1.25		Nº 17		10		
M 6 - M 14 x 1.25 / PT (*Machos Plug - Punta Piloto / **Plug Taps - Pilot Nose*)					1	4C04083
M 6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25		
M 8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25		
M 10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25		
M 12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10		
M 14.00 x 1.25*		Nº 17		10		
UNC 1/4 - 1/2"					1	4C04184
UNC 1/4 x 20	6,7 mm	Nº 9	Nº 9	25		
UNC 5/16 x 18	8,3 mm	Nº 10	Nº 11	25		
UNC 3/8 x 16	9,9 mm	Nº 12	Nº 12	25		
UNC 7/16 x 14	11,6 mm	Nº 14	Nº 14	10		
UNC 1/2 x 13	13,0 mm	Nº 15	Nº 15	10		
UNF 1/4 - 1/2"					1	4C04185
UNF 1/4 x 28	6,7 mm	Nº 9	Nº 9	25		
UNF 5/16 x 24	8,3 mm	Nº 11	Nº 11	25		
UNF 3/8 x 24	9,8 mm	Nº 13	Nº 13	25		
UNF 7/16 x 20	11,5 mm	Nº 14	Nº 14	10		
UNF 1/2 x 20	13,0 mm	Nº 15	Nº 15	10		
BSW 1/4 - 1/2"					1	4C04186
BSW 1/4 x 20	6,7 mm	Nº 9	Nº 9	25		
BSW 5/16 x 18	8,3 mm	Nº 10	Nº 11	25		
BSW 3/8 x 1 6	9,9 mm	Nº 12	Nº 12	25		
BSW 7/16 x 14	11,5 mm	Nº 14	Nº 14	10		
BSW 1/2 x 12	13,0 mm	Nº 15	Nº 15	10		
BSF 1/4 - 1/2"					1	4C04187*
BSF 1/4 x 26	6,6 mm	Nº 9	Nº 9	25		
BSF 5/16 x 22	8,3 mm	Nº 11	Nº 11	25		
BSF 3/8 x 20	9,9 mm	Nº 12	Nº 12	25		
BSF 7/16 x 18	11,5 mm	Nº 14	Nº 14	10		
BSF 1/2 x 16		Nº 15		10		

*Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

M KIT CON HERRAMIENTAS PARA INSERTAR A MÁQUINA
THREAD REPAIR KIT WITH MACHINE INSERTING TOOL
COFFRET RÉPARATION AVEC DES OUTILS À MACHINE



FORM B				x 1,5D	Uds. / *Pcs.*	Cod.
M 3,00 x 0,50	3,2 mm	M 3	Nº 4	20	1	4C04070
M 4,00 x 0,70	4,2 mm	M 4	Nº 6	20	1	4C04071
M 5,00 x 0,80	5,2 mm	M 5	Nº 8	20	1	4C04072
M 6,00 x 1,00	6,3 mm	M 6	Nº 9	20	1	4C04073
M 8,00 x 1,25	8,3 mm	M 7	Nº 11	20	1	4C04074
M 10,00 x 1,50	10,4 mm	M 8	Nº 13	15	1	4C04075
M 12,00 x 1,75	12,4 mm	M 9	Nº 15	10	1	4C04076

M KIT CON HERRAMIENTAS PARA INSERTAR A MÁQUINA
THREAD REPAIR KIT WITH MACHINE INSERTING TOOL
COFFRET RÉPARATION AVEC DES OUTILS À MACHINE



FORM B				x 1,5D	Uds. / *Pcs.*	Cod.
M5 - M12					1	4C04087
M 5,00 x 0,80	5,2 mm	M 5	Nº 8	25		
M 6,00 x 1,00	6,3 mm	M 6	Nº 9	25		
M 8,00 x 1,25	8,3 mm	M 8	Nº 11	25		
M 10,00 x 1,50	10,4 mm	M 10	Nº 13	25		
M 12,00 x 1,75	12,4 mm	M 12	Nº 15	10		

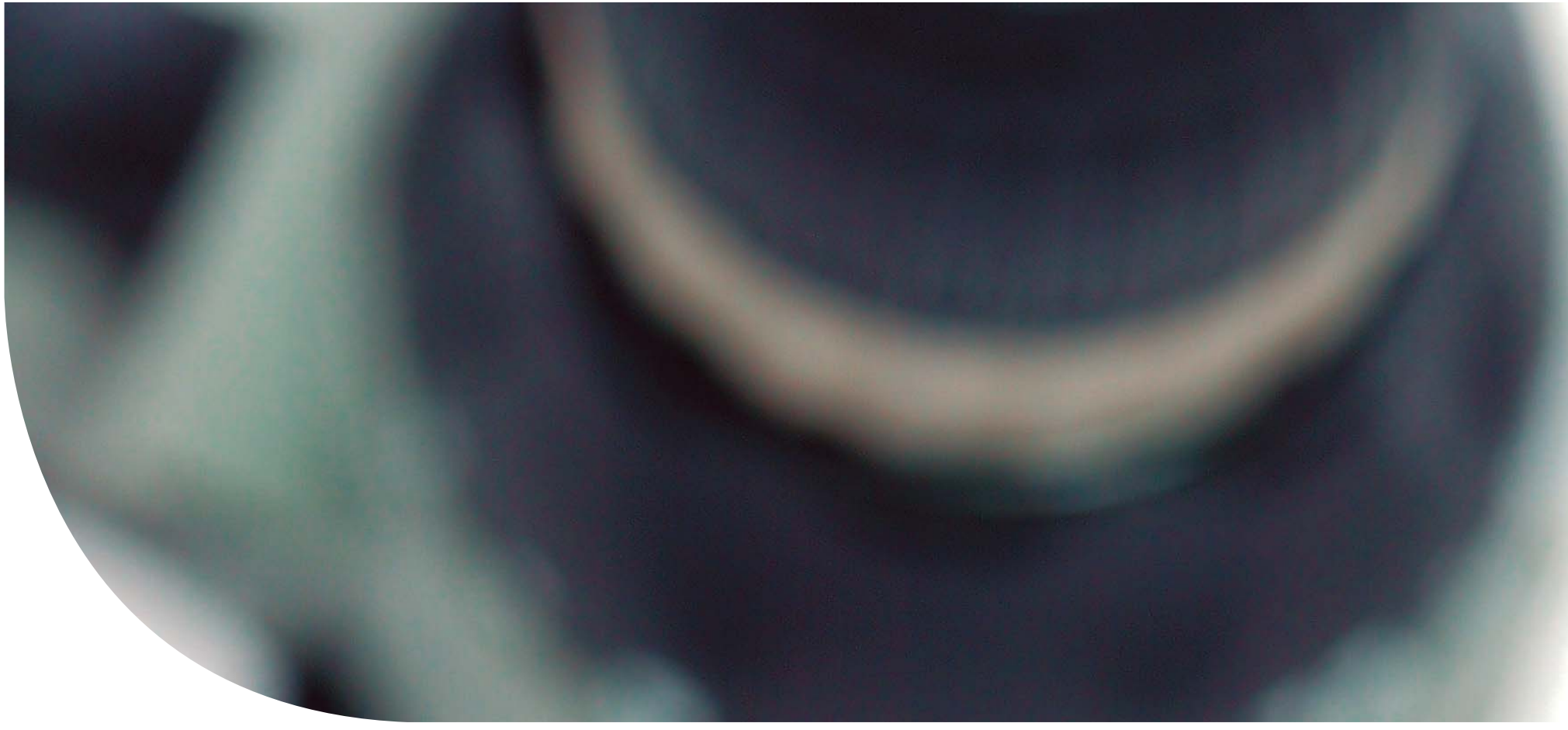
EXPOSITORES SESA KUBO
DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

NEW

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 22	KIT REPARADOR DE ROSCAS	4C04007 4C04009 4C04010 4C04012 4C04016 4C04021	M4-M5-M6-M8 M10-M12	6







SESA®

ACCESORIOS

ACCESORIES - ACCESSOIRES

PORTABROCAS PERCUSIÓN CIERRE RÁPIDO
PERCUSSIVE DRILL AND FAST LOCK DRILL CHUCK
PERCEUSES À PERCUSSION EN FERMETURE RAPIDE


V021220


V021221


V023824

Capacidad *Range* (mm)	Acople / *Mount*	Ø ext. (mm)	LONGITUD / *LENGHT* Abierto / *Opened* (mm)	Cerrado / *Closed* (mm)	Peso *Weight* (kg)	Uds. *Pcs.*	Cod.
2 - 13	1/2 - 20 UNF	43	62	75	0,250	1	V021220
2 - 13	1/2 - 20 UNF	43	62	75	0,280	1	V021221
1,50 - 13	3/8 - 24 UNF	43	62	72	0,290	1	V023824

PORTABROCAS DE LLAVE
KEY TYPE CHUCK • MANDRIN FERMETURE AVEC CLÉ





Capacidad *Range* (mm)	Acople / *Mount*	Ø ext. (mm)	LONGITUD / *LENGHT* Abierto / *Opened* (mm)	Cerrado / *Closed* (mm)	Peso *Weight* (kg)	Uds. *Pcs.*	Cod.
1,50 - 13	1/2 - 20 UNF	42	57	70	0,34	1	V021520

LLAVE *SINGLE KEY • CLÉ DE RECHANGE*

Uds. / *Pcs.*	Cod.
1	V031520



PORTABROCAS ROTACIÓN CON CIERRE RÁPIDO
FAST LOCK DRILL CHUCK
MANDRIN FÉRMÉTURE RAPIDE ET AUTOAJUTABLE



Capacidad *Range* (mm)	Acople / *Mount*	Ø ext. (mm)	LONGITUD / *LENGHT* Abierto / *Opened* (mm)	Cerrado / *Closed* (mm)	Peso *Weight* (kg)	Uds. *Pcs.*	Precisión *Precision* (mm)	Cod.
1 - 13	1/2 - 20 UNF	44	85	95	0,73	1	0,20	V0131220
1 - 16	B - 16	51	102	115	1,09	1	0,07	V016116
1 - 16	B - 18	51	102	115	1,08	1	0,07	V018116
5 - 20	B - 22	57	105	129	1,53	1	0,18	V022520

PORTAFRESAS CONO MORSE
BUR HOLDER MORSE TAPER • QUEUE CONIQUE



Ø (mm)	Uds. / *Pcs.*	Cod.
C.M. 2 + accesorios / *C.M. 2 + accessories*	1	18003
C.M. 3 + accesorios / *C.M. 3 + accessories*	1	18025

Portafresas con entrada para refrigerante para máquinas con base electromagnética SIN AMARRES WELDON. Permite el uso de estas fresas en tornos, fresadoras y taladros.
Tool holders with internal cooling system for electromagnetic drilling machines without WELDON SHANK. It alows the use of WELDON SHANK milling cutters on lathes, milling machines and drill machines. / Porte-fraises à réfrigération interne pour machines à base électromagnétique SANS ANCRAGE WELDON. Pour l'utilisation de fraises à ancrage Weldon sur des tours, fraiseuses ou perceuses.

ADAPTADOR
ADAPTOR • ADAPTATEUR



Conversión / *Conversion*	Uds. / *Pcs.*	Cod.
De WELDON a FEIN / *From WELDON to FEIN* / *Du WELDON au FEIN*	1	193010

ACEITE DE CORTE Y ROSCADO
CUTTING AND TAPPING FLUID
FLUIDE POUR FILETAGE ET DE COUP



Contenido / *Content*	Uds.	Cod
400 ml	1	1AC4000

Metales duros y blandos. Alto poder refrigerante y anticorrosivo.
Suitable for hard and soft metals. High refrigerating and anti-corrision capacity.
Métaux doux et durs. Haut pouvoir anticorrosion.

ESPIGAS TEMPLADAS Y RECTIFICADAS
HARDENED AND GROUNDED TAPER SHANK ARBORS
ARBRES DE MONTAGE TREMPÉS ET RECTIFIÉS

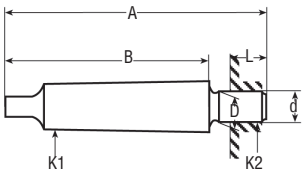


DIN 228 — CONO MORSE
DIN 238 — ESPIGA

Cono Morse / *Morse Cone*	Espiga / *Arbor*	L (mm)	Peso / *Weight* (Kg)	Uds. / *Pcs.*	Cod.
1	B - 10	86	0,050	1	V2001B10
1	B - 12	88	0,060	1	V2001B12
1	B - 16	99	0,090	1	V2001B16
1	B - 18	107	0,110	1	V2001B18
2	B - 10	105	0,130	1	V2002B10
2	B - 12	106	0,140	1	V2002B12
2	B - 16	112	0,160	1	V2002B16
2	B - 18	119	0,185	1	V2002B18
3	B - 12	125	0,280	1	V2003B12
3	B - 16	130	0,300	1	V2003B16
3	B - 18	138	0,330	1	V2003B18
3	B - 22	147	0,390	1	V2003B22
4	B - 16	156	0,615	1	V2004B16
4	B - 18	164	0,635	1	V2004B18
4	B - 22	173	0,700	1	V2004B22
5	B - 18	200	1,570	1	V2005B18

Para medidas no tarifadas consultar precio y disponibilidad / *Check prices and availability for no tarified articles* / *Demandez pour des produits non tarifiqués*

DIMENSIONES APROXIMADAS ESPIGAS DE ASIENTO
SLEEVES MEASURES
DIMENSIONS DES DOUILLES DE RÉDUCTION



Cono Morse *Morse Cone* DIN 228 (K-1)	Cono interior del portabrocas *Drill Chuck Internal Cone* DIN 228 K-2)	A (mm)	B (mm)	D (mm)	d (mm)	L (mm)
1	B - 10	86	65,5	10,094	9,4	14,5
1	B - 12	88	65,5	12,065	11,1	18,5
1	B - 16	99	65,5	15,733	14,5	24,0
1	B - 18	107	65,5	17,780	16,2	32,0
2	B - 10	105	80	10,094	9,4	14,5
2	B - 12	106	80	12,065	11,1	18,5
2	B - 16	112	80	15,733	14,5	24,0
2	B - 18	119	80	17,780	16,2	32,0
3	B - 12	125	99	12,065	11,1	18,5
3	B - 16	130	99	15,733	14,5	24,0
3	B - 18	138	99	17,780	16,2	32,0
3	B - 22	148	99	21,793	19,8	40,5
4	B - 16	156	124	15,733	14,5	24,0
4	B - 18	164	124	17,780	16,2	32,0
4	B - 22	171	124	21,793	19,8	40,5
5	B - 16	198	156	15,733	14,5	24,0
5	B - 18	198	156	17,780	16,2	32,0

CASQUILLOS REDUCTORES TEMPLADOS Y RECTIFICADOS
HARDENED AND GROUND SLEEVES
DOUILLES DE RÉDUCTION TREMPÉS ET RECTIFIÉS

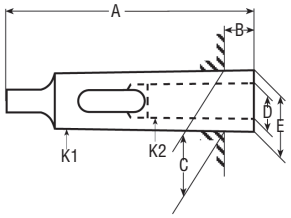


DIN 2185

Exterior / *External*	Interior / *Internal*	L (mm)	Peso / *Weight* (Kg)	Uds. / *Pcs.*	Cod.
2	1	92	0,090	1	V1000021
3	1	99	0,205	1	V1000031
3	2	112	0,180	1	V1000032
3*	2	195	0,470	1	V1000L32
4	1	124	0,500	1	V1000041
4	2	124	0,430	1	V1000042
4	3	140	0,385	1	V1000043
5	1	155	1,400	1	V1000051
5	2	157	1,340	1	V1000052
5	3	157	1,150	1	V1000053
5	4	170	1,010	1	V1000054
5*	4	300	2,071	1	V1000L54
6	3	218	3,790	1	V1000063
6	4	218	3,450	1	V1000064
6	5	218	3,450	1	V1000065

* Casquillos serie larga / *Long series* / *Série longue*

DIMENSIONES APROXIMADAS CASQUILLOS REDUCTORES
TAPER SHANK ARBOR MEASURES
DIMENSIONS DES ARBRES DE MONTAGE



CONO MORSE / *MORSE CONE*						
Exterior / *External* (K-1)	Interior / *Internal* (K-2)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
2	1	92	17,0	17,780	12,065	18,6
3	1	99	5,0	23,825	12,065	24,1
3	2	112	18,0	23,825	17,780	24,7
4	1	124	6,5	31,267	12,065	31,6
4	2	124	6,5	31,267	17,780	31,6
4	3	140	22,5	31,267	23,825	32,4
5	1	156	6,5	44,399	12,065	44,7
5	2	156	6,5	44,399	17,780	44,7
5	3	156	6,5	44,399	23,825	44,7
5	4	170	21,5	44,399	31,267	45,5
6	2	218	8,0	63,348	17,780	63,8
6	3	218	8,0	63,348	23,825	63,8
6	4	218	8,0	63,348	31,267	63,8
6	5	218	8,0	63,348	44,399	63,8

CASQUILLOS AUMENTADORES TEMPLADOS Y RECTIFICADOS
HARDENED AND GROUNDED EXTENSION SLEEVES
DOUILLES RALLONGÉS TREMPÉS ET RECTIFIÉS



Exterior / *External*	Interior / *Internal*	L (mm)	Peso / *Weight* (Kg)	Uds. / Pcs.	Cod.
2	3	195	0,69	1	V1L00032
3	4	239	1,54	1	V1L00043

CUÑAS PARA CASQUILLOS
EXTRACTION WEDGE • ÉCROUS D´EXTRACTION



DIN 317

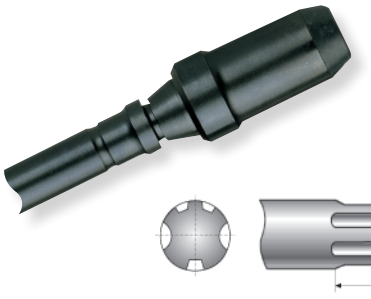
Utilidad / *Utility*	Uds. / *Pcs.*	Cod.
Para Conos Morse Nº 1 y Nº 2 / *For Morse tapper Nº 1 y Nº 2*	1	VC31712
Para Conos Morse Nº 3 / *For Morse tapper Nº 3*	1	VC31703
Para Conos Morse Nº 4 y Nº 5 / *For Morse tapper Nº 4 y Nº 5*	1	VC31704

TOPES DE PROFUNDIDAD PARA BROCAS
DEPTH ADJUSTING COLLAR • BUTÉES DE PERÇAGE



Ø (mm)	Gama de medidas / *Range* (mm)	Uds. / *Pcs.*	Cod.
3,5	De 2,0 a 3,5	1	Y10035
5,0	De 4,0 a 5,0	1	Y10050
6,0	De 5,0 a 6,0	1	Y10065
8,0	De 7,0 a 8,0	1	Y10080
10,0	De 8,5 a 10,0	1	Y10100
12,0	De 10,5 a 12,0	1	Y10120

CONVERSOR DE ANCLAJE SDS-MAX A SDS-PLUS
CONVERSOR FROM SDS-MAX SHANK TO SDS-PLUS
CONVERTEUR DE SDS-MAX A SDS-PLUS



L1 (mm)	Uds. / *Pcs.*	Cod.
225	1	1CO2250

Para taladros con sistema SDS-MAX, HILTI Y-Groove y Licencia Bosch.
Drills with SDS-MAX, HILTI Y-Groove and Bosch License system
Perceuse avec systéme SDS-MAX, HILTI Y-Groove et Bosch Licence.

ELEMENTOS DE UNIÓN Y ÚTILES DE SUJECCIÓN
ADAPTERS • ADAPTATEURS



V945212
V945024

264 000 001

V945138

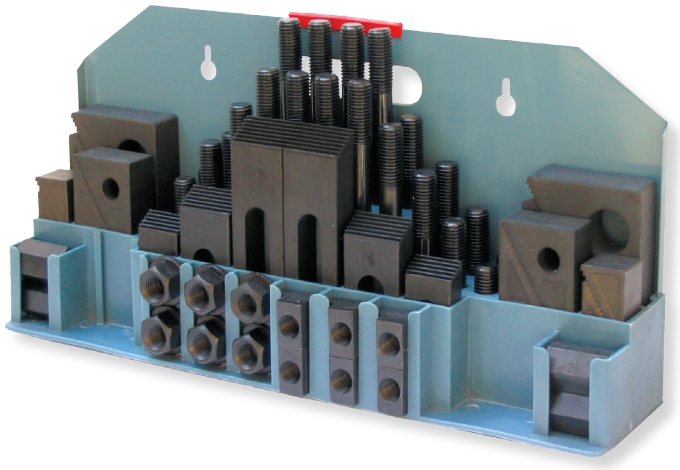
V930001

V931021

V931121
V935816

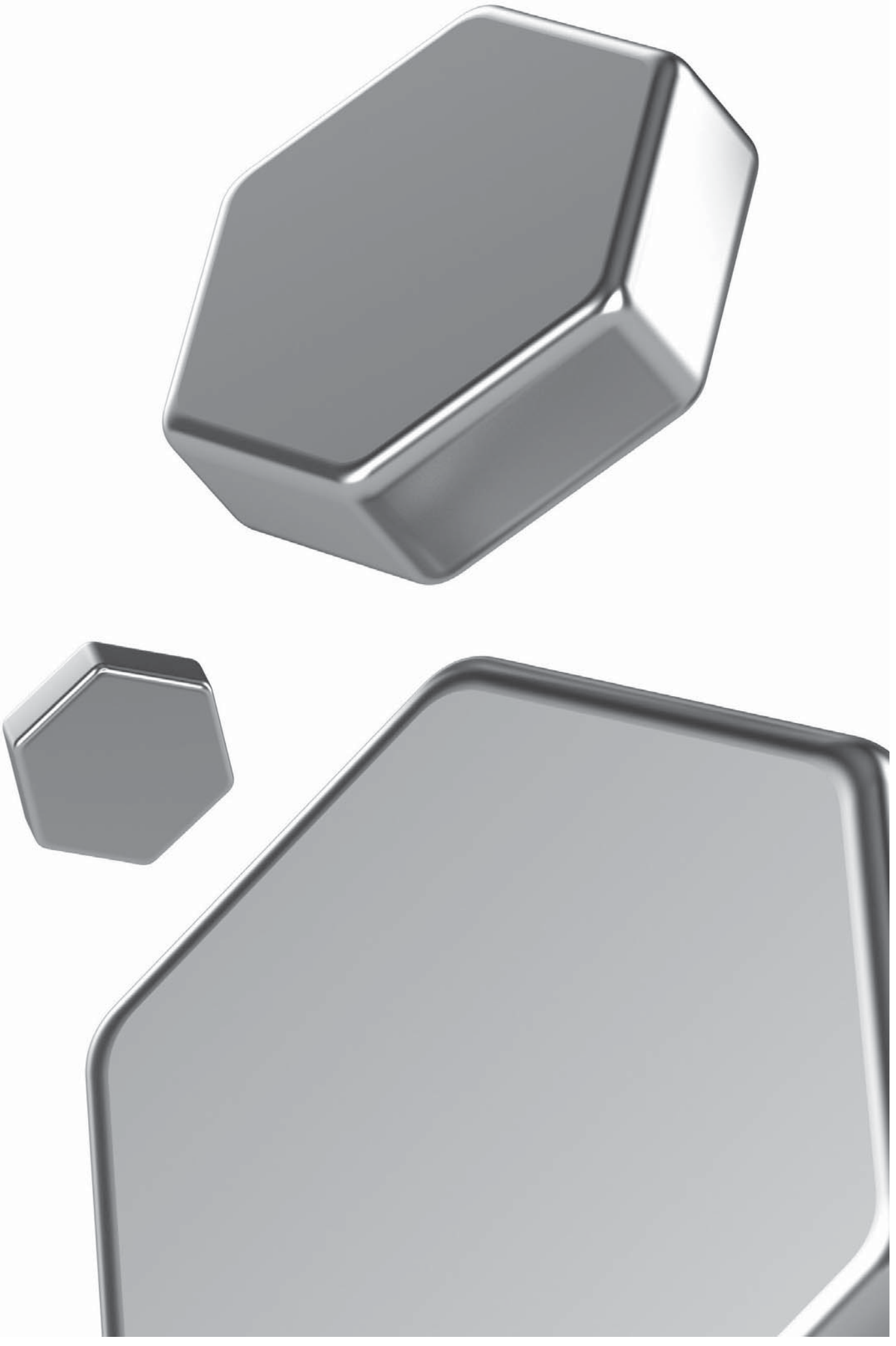
Conversión / *System*	Uds. / *Pcs.*	Cod.
SDS-PLUS a 1/2" - 20 H (M6 Izq.) / *From SDS-PLUS to Thread 1/2" - 20 tpi (M6 LH)*	1	V945212
SDS-PLUS a 3/8" - 24 H (M5 Izq.) / *From SDS-PLUS to Thread 3/8" - 24 tpi (M5 LH)*	1	V945024
TORNILLO REPUESTO M6 Izq. / *Replacement Screw M6 LH*	1	V945406
TORNILLO REPUESTO M4 Izq. / *Replacement Screw M4 LH*	1	V945404
SDS-plus a hexag. 1/4" / *From SDS-PLUS to 1/4"*	1	264 000 001
HEXAGONAL 1/4" a 3/8" - 24 H / *From HEXAGONAL 1/4" to thread 3/8" - 24tpi*	1	V945138
Rosca 3/8" - 24 H / *Thread 3/8" 24 tpi*	1	V930001
Rosca 3/8" - 24 H a 1/2" - 20 H / *From Thread 3/8" 24 tpi to Thread 1/2" 20 tpi*	1	V931021
Rosca 1/2" - 20 H a 3/8" - 24 H / *From Thread 1/2 - 20 tpi to 3/8 - 24 tpi*	1	V931121
Rosca 5/8" - 16 H a 1/2" - 20 H / *Thread 5/8" - 16tpi to 1/2" - 20 tpi*	1	V935816

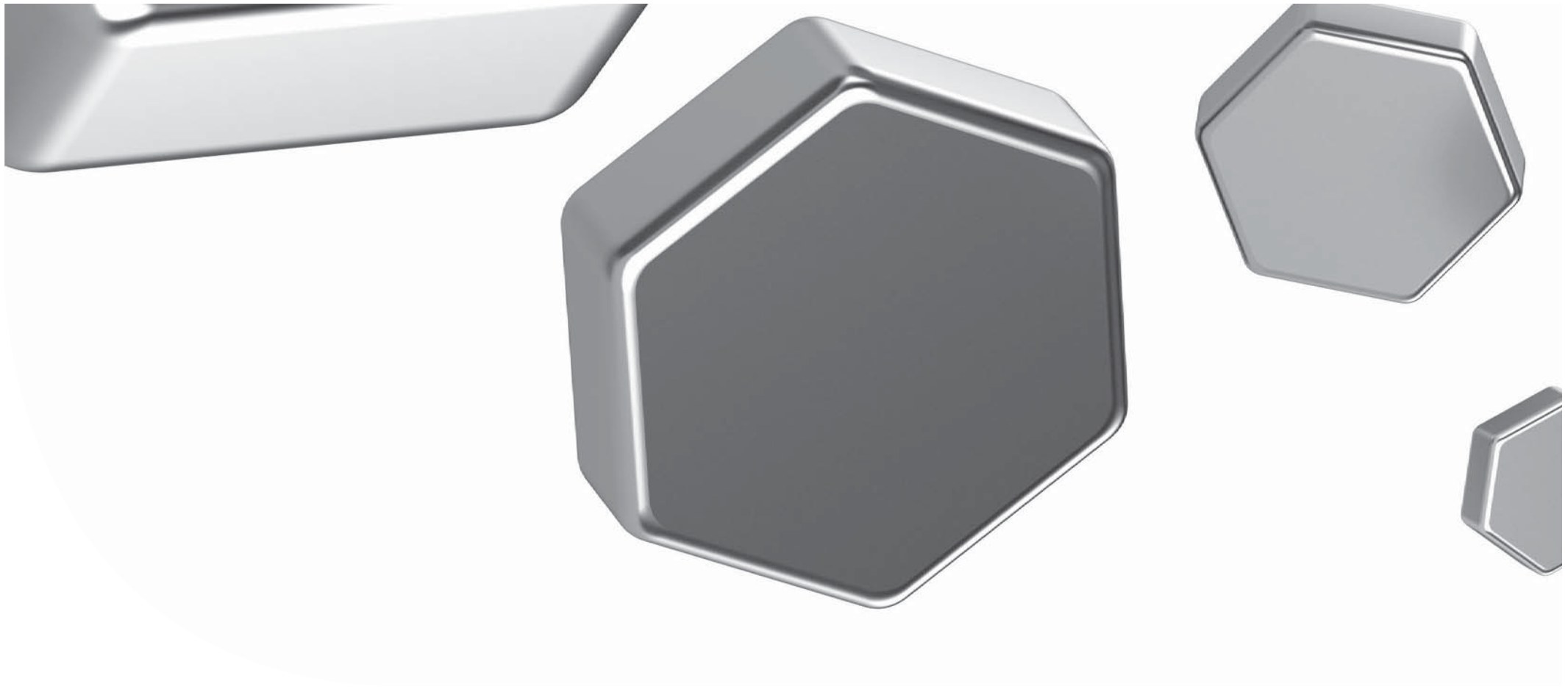
ÚTILES DE SUJECIÓN CONJUNTO DE 52 PIEZAS
CLAMPING TOOLS - 52 PCS. KIT • OUTILS DE FIXATION - 52 PCS.



Ref.	Rosca / *Thread*	a	Uds. / *Pcs.*	Cod.
RH. M - 10	M 10	12,00 mm	1	V40RHM10
RH. M - 12	M 12	14,00 mm	1	V40RHM12
RH. M - 14	M 14	16,00 mm	1	V40RHM14
RH. M - 16	M 16	18,00 mm	1	V40RHM16

Hasta fin de existencias / *Until end of stock / Jusqu´à épuisement des stocks*





SESA®

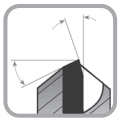
HEXAGONAL

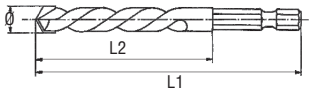
HEXAGONAL

BROCAS HEXAGONAL PARA CONSTRUCCIÓN
HEXAGONAL SHANK DRILL BITS • FORETS QUEUE HEXAGONALE

MULTIUSOS
MULTIPURPOSE • MULTI USAGE







Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
4	95	50	1	1HX0040
5	95	50	1	1HX0050
6	100	55	1	1HX0060

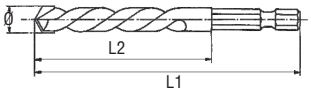
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
8	120	65	1	1HX0080
10	120	65	1	1HX0100
12	140	85	1	1HX0120

BROCA 3 PUNTAS PARA MADERA HSS

HSS 3 POINT WOOD DRIL BIT
FORET A BOIS 3 POINTES HSS



HSS · CLICK & DRILL · 1/4



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3	82	33	1	120106003
4	96	43	1	120106004
5	106	52	1	120106005

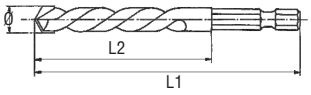
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6	113	57	1	120106006
8	117	75	1	120106008
10	133	87	1	120106010

BROCA 3 PUNTAS PARA MADERA HSS-G SERIE CORTA

HSS-G 3 POINT WOOD DRILL BIT SHORT SERIES
FORET A BOIS 3 POINTE HSS-G SERIE COURTE



HSS-G · 1/4



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3	39	22	1	3R67630
4	43	26	1	3R67640
5	48	31	1	3R67650

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6	49	33	1	3R67660
8	50	37	1	3R67680
10	53	40	1	3R67698

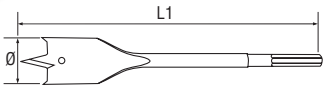
BROCA PALA TIPO B *FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B*











Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.
6,00	157	6,5	1	103006
8,00	157	6,5	1	103008
10,00	157	6,5	1	103010
12,00	157	6,5	1	103012
14,00	157	6,5	1	103014
15,00	157	6,5	1	103015
16,00	157	6,5	1	103016
17,00	157	6,5	1	103017
18,00	157	6,5	1	103018
19,00	157	6,5	1	103019
20,00	157	6,5	1	103020
22,00	157	6,5	1	103022

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.
24,00	157	6,5	1	103024
25,00	157	6,5	1	103025
26,00	157	6,5	1	103026
28,00	157	6,5	1	103028
30,00	157	6,5	1	103030
32,00	157	6,5	1	103032
33,00	157	6,5	1	103033
34,00	157	6,5	1	103034
35,00	157	6,5	1	103035
36,00	157	6,5	1	103036
38,00	157	6,5	1	103038
40,00	157	6,5	1	103040

ESTUCHE BROCAS PALA TIPO B
FLAT DRILL BIT SET TYPE B • COFFRET MÉCHE PLATE TIPE B

Ref.	Medidas / *Sizes*	Tipo / *Type*
PB13	6-8-10-12-13-14-16-18-19-20-22-24-25	B



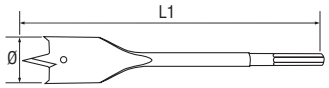
BROCA PALA TIPO C *FLAT DRILL BIT TYPE C • MÉCHE PLATE TIPE C*











Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.
6,00	157	6,5	1	103C06
8,00	157	6,5	1	103C08
10,00	157	6,5	1	103C10
11,00	157	6,5	1	103C11
12,00	157	6,5	1	103C12
13,00	157	6,5	1	103C13
14,00	157	6,5	1	103C14
15,00	157	6,5	1	103C15
16,00	157	6,5	1	103C16
18,00	157	6,5	1	103C18
19,00	157	6,5	1	103C19
20,00	157	6,5	1	103C20
22,00	157	6,5	1	103C22

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.
23,00	152	6,5	1	103C23
24,00	152	6,5	1	103C24
25,00	152	6,5	1	103C25
26,00	152	6,5	1	103C26
28,00	152	6,5	1	103C28
30,00	152	6,5	1	103C30
32,00	152	6,5	1	103C32
33,00	152	6,5	1	103C33
34,00	152	6,5	1	103C34
35,00	152	6,5	1	103C35
36,00	152	6,5	1	103C36
38,00	152	6,5	1	103C38
40,00	152	6,5	1	103C40

ESTUCHE BROCAS PALA TIPO C
FLAT DRILL BIT SET TYPE C • COFFRET MÉCHE PLATE TIPE C

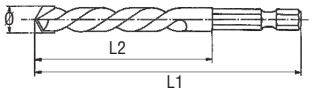
Ref.	Medidas / *Sizes*	Tipo / *Type*
PC13	6-8-10-12-13-14-16-18-19-20-22-24-25	C



BROCA METAL HSS-G
HSS-G METAL DRILL BIT • FORETS METAL HSS-G



ACERO 400-800 N/mm² | HSS-G | CLICK & DRILL | 1/4 | 30° | 118°



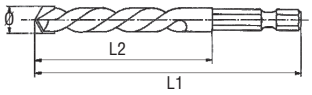
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
3	62	35	1	130132003
4	75	50	1	130132004
5	85	60	1	130132005

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6	94	68	1	130132006
8	117	90	1	130132008

BROCA METAL HSS-G SERIE CORTA
HSS-G METAL DRILL BIT SHORT SERIES
FORETS METAL HSS-G SÉRIE COURTE



ACERO 400-800 N/mm² | HSS-G | 1/4 | 30° | 118°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
1,0	32	7	1	3R67110
1,5	32	10	1	3R67115
2,0	34	12	1	3R67120
2,5	36	14	1	3R67125
3,0	38	16	1	3R67130
3,3	40	18	1	3R67133
3,5	40	18	1	3R67135
4,0	44	20	1	3R67140
4,2	45	20	1	3R67142
4,5	46	24	1	3R67145
5,0	50	26	1	3R67150
5,5	50	26	1	3R67155

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,0	50	26	1	3R67160
6,5	50	30	1	3R67165
6,8	50	30	1	3R67168
7,0	50	30	1	3R67170
7,5	51	32	1	3R67175
8,0	51	32	1	3R67180
8,5	53	33	1	3R67185
9,0	53	33	1	3R67190
9,5	54	38	1	3R67195
10,0	54	38	1	3R67198
10,2	54	38	1	3R67199

ESTUCHE DE BROCAS
DRILL BITS SET
COFFRET FORETS



Medidas / *Sizes*
De 1,0 a 10,0 x 0,5 mm

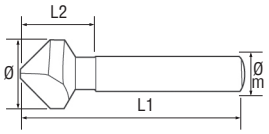
Uds. / *Pcs.*	Cod.
19	3R67100

AVELLANADORES 90º
COUNTERSINK HSS 90º • CHANFRENEUR HSS 90º



ACERO 400-800 N/mm²

HSS-G | 1/4 | 90º



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.
6,3	31	2,0 a 5,7	1	3R67306
8,3	31	2,5 a 7,6	1	3R67308
10,4	34	3,0 a 9,7	1	3R67310
12,4	35	3,2 a 12,0	1	3R67312
16,5	40	3,6 a 16,0	1	3R67316
20,5	41	4,0 a 20,0	1	3R67320

CJTO. AVELLANANADORES C/ADAPTADOR Y MANGO
COUNTERSINK SET
COFFRET CHANFREINEURS



Medidas / *Sizes*
6,3, 8,3, 10,4, 12,4, 16,5, 20,5 mm

Uds. / *Pcs.*	Cod.
8	3R67423

MACHO CON ANCLAJE DE 1/4”
1/4” SHANK TAPS
TARAUDS MÉCHE 1/4”



ACERO 400-800 N/mm²

HSS-G

DIN 13

1/4

Ø (mm)	L1	L2	Uds, / *Pcs,*	Cod,
M 3,00 x 0,50	33,0	11	1	3R67026
M 3,50 x 0,60	33,5	10	1	3R67028
M 4,00 x 0,70	35,0	12	1	3R67030
M 4,50 x 0,75	35,0	12	1	3R67032
M 5,00 x 0,80	36,0	15	1	3R67034
M 5,50 x 0,90	35,0	15	1	3R67036
M 6,00 x 1,00	39,0	18	1	3R67038
M 7,00 x 1,00	37,5	16	1	3R67040
M 8,00 x 1,25	40,0	19	1	3R67042
M 9,00 x 1,25	40,5	18	1	3R67044
M 10,00 x 1,50	41,0	21	1	3R67046

ESTUCHE MACHOS MANGO HEXAGONAL HSS-G
HSS-G HEXAGON SHANK TAPS SET
COFFRET DE TARAUDS HEXAGONALES HSS-G



Medidas / *Sizes*
M 3, 4, 5, 6, 8, 10 mm

Uds. / *Pcs.*	**Cod.**
7	3R67010

Métrica *Dimensions*	M 3	M 4	M 5	M 6	M 8	M 10
Ø Broca previa *Core hole dia*	2,5 mm	3,3 mm	4,2 mm	5,0 mm	6,8 mm	8,5 mm
N° de revoluciones *RPM*	Regulación más baja (0 – 450 revoluciones/min.) *Lowest setting (0 - 450 RPM)*					
Par de giro *Torque*	Regulación máxima *Maximum setting*					

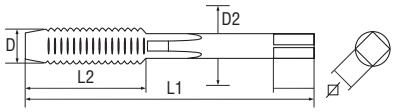
MACHOS COMBINADOS HSS-G
HSS-G COMBINED TAPS
TARAUDS COMBINÉS HSS-G



ACERO 400-800 N/mm²

HSS-G

1/4



Macho / *Tap* Ø (mm)	Broca / *Drill Bit* Ø (mm)	L1 (mm)	L2 (mm)	Uds, / *Pcs,*	Cod,
M 3,00 x 0,50	2,5	36	18	1	3R67226
M 4,00 x 0,70	3,3	39	23	1	3R67230
M 5,00 x 0,80	4,2	41	25	1	3R67234
M 6,00 x 1,00	5,0	44	27	1	3R67238
M 8,00 x 1,25	6,8	50	35	1	3R67242
M 10,00 x 1,50	8,5	59	42	1	3R67246

ESTUCHE MACHOS COMBINADOS HSS-G
HSS-G COMBINED TAPS SET
COFFRET TARUADS COMBINÉS HSS-G



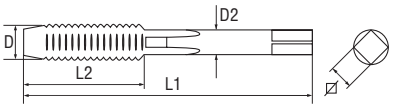
Medidas / *Sizes*
M 3, 4, 5, 6, 8, 10 (mm).

Uds. / *Pcs.*	Cod.
7	3R67200

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 800-1100 N/mm² | HSS-G | TIN | TOL 6H | 1/4

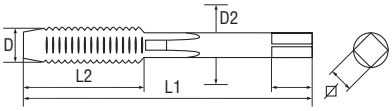


D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.
M 3 x 0,50	2,5	36	3R67210
M 4 x 0,70	3,3	39	3R67211
M 5 x 0,80	4,2	41	3R67212
M 6 x 1,00	5,0	44	3R67213
M 8 x 1,25	6,8	50	3R67214
M 10 x 1,50	8,5	59	3R67215

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



ACERO 400-800 N/mm² | HSS-G | 1/4



D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.
Nr. 4 x 40	2.30	36	3R67280
Nr. 5 x 40	2.60	36	3R67281
Nr. 6 x 32	2.85	39	3R67282
Nr. 8 x 32	3.50	39	3R67283
Nr. 10 x 24	3.90	41	3R67284
Nr. 12 x 24	4.50	41	3R67285
1/4 x 20	5.20	44	3R67286
5/16 x 18	6.60	50	3R67287
3/8 x 16	8.00	59	3R67288

UNF ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1

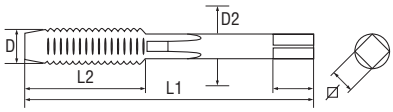
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



ACERO 400-800 N/mm²

HSS-G

1/4



D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.
Nr. 4 x 48	2.4	36	3R67290
Nr. 5 x 44	2.7	36	3R67291
Nr. 6 x 40	3.0	39	3R67292
Nr. 8 x 36	3.5	39	3R67293
Nr. 10 x 32	4.1	41	3R67294
Nr. 12 x 28	4.7	41	3R67295
1/4 x 28	5.5	44	3R67296
5/16 x 24	6.9	50	3R67297
3/8 x 24	8.5	59	3R67298

M REPARADOR DE ROSCA CON ANCLAJE DE 1/4"

1/4" SHANK REPAIR KIT

KIT DE RÉPARATION DE FILETAGE AVEC QUEU 1/4"



CLICK & DRILL

1/4

				x 1,5D	Uds. / *Pcs.*	Cod.
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04307
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04309
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04310
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04312

Hasta fin de existencias / *Until end of stock / Jusqu´à épuisement des stocks*

PH

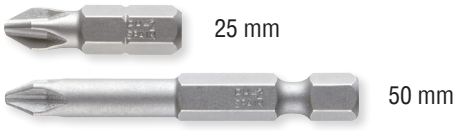
EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
PH - 1 x 25	EXTRA	100	NM0PH1
PH - 2 x 25	EXTRA	100	NM0PH2
PH - 3 x 25	EXTRA	100	NM0PH3
PH - 4 x 32	EXTRA	50	NM0PH4
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
PH - 1 x 50	EXTRA	50	NN0PH1
PH - 2 x 50	EXTRA	50	NN0PH2
PH - 3 x 50	EXTRA	50	NN0PH3

PH

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
PH - 0 x 25	EXTRA	10	NMCPH0
PH - 1 x 25	EXTRA	10	NMCPH1
PH - 2 x 25	EXTRA	10	NMCPH2
PH - 3 x 25	EXTRA	10	NMCPH3
PH - 4 x 32	EXTRA	10	NMCPH4
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
PH - 1 x 50	EXTRA	5	NNCPH1
PH - 2 x 50	EXTRA	5	NNCPH2
PH - 3 x 50	EXTRA	5	NNCPH3

PH

TIN



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
PH - 1 x 25	TIN - CVD	100	NM1PH1
PH - 2 x 25	TIN - CVD	100	NM1PH2
PH - 3 x 25	TIN - CVD	100	NM1PH3
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
PH - 1 x 50	TIN - CVD	50	NN1PH1
PH - 2 x 50	TIN - CVD	50	NN1PH2
PH - 3 x 50	TIN - CVD	50	NN1PH3

PH

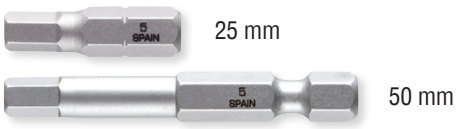
TIN



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
PH - 1 x 25	TIN - CVD	10	NMTPH1
PH - 2 x 25	TIN - CVD	10	NMTPH2
PH - 3 x 25	TIN - CVD	10	NMTPH3
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
PH - 1 x 50	TIN - CVD	5	NNTPH1
PH - 2 x 50	TIN - CVD	5	NNTPH2
PH - 3 x 50	TIN - CVD	5	NNTPH3

HEX

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
HEX 2,0 x 25	EXTRA	50	NS0H20
HEX 2,5 x 25	EXTRA	50	NS0H25
HEX 3,0 x 25	EXTRA	100	NS0H30
HEX 4,0 x 25	EXTRA	100	NS0H40
HEX 5,0 x 25	EXTRA	100	NS0H50
HEX 6,0 x 25	EXTRA	100	NS0H60
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
HEX 2,0 x 50	EXTRA	25	NT0H20
HEX 2,5 x 50	EXTRA	25	NT0H25
HEX 3,0 x 50	EXTRA	50	NT0H30
HEX 4,0 x 50	EXTRA	50	NT0H40
HEX 5,0 x 50	EXTRA	50	NT0H50
HEX 6,0 x 50	EXTRA	50	NT0H60

HEX

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
HEX 2,0 x 25	EXTRA	10	NSCH20
HEX 2,5 x 25	EXTRA	10	NSCH25
HEX 3,0 x 25	EXTRA	10	NSCH30
HEX 4,0 x 25	EXTRA	10	NSCH40
HEX 5,0 x 25	EXTRA	10	NSCH50
HEX 6,0 x 25	EXTRA	10	NSCH60
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
HEX 2,0 x 50	EXTRA	5	NTCH20
HEX 2,5 x 50	EXTRA	5	NTCH25
HEX 3,0 x 50	EXTRA	5	NTCH30
HEX 4,0 x 50	EXTRA	5	NTCH40
HEX 5,0 x 50	EXTRA	5	NTCH50
HEX 6,0 x 50	EXTRA	5	NTCH60

PZ

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
PZ - 1 x 25	EXTRA	100	NP0PZ1
PZ - 2 x 25	EXTRA	100	NP0PZ2
PZ - 3 x 25	EXTRA	100	NP0PZ3
PZ - 4 x 32	EXTRA	50	NP0PZ4
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
PZ - 1 x 50	EXTRA	50	NQ0PZ1
PZ - 2 x 50	EXTRA	50	NQ0PZ2
PZ - 3 x 50	EXTRA	50	NQ0PZ3

PZ

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
PZ - 1 x 25	EXTRA	10	NPCPZ1
PZ - 2 x 25	EXTRA	10	NPCPZ2
PZ - 3 x 25	EXTRA	10	NPCPZ3
PZ - 4 x 32	EXTRA	10	NPCPZ4
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
PZ - 1 x 50	EXTRA	5	NQCPZ1
PZ - 2 x 50	EXTRA	5	NQCPZ2
PZ - 3 x 50	EXTRA	5	NQCPZ3

PZ

TIN



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
PZ - 1 x 25	TIN - CVD	100	NP1PZ1
PZ - 2 x 25	TIN - CVD	100	NP1PZ2
PZ - 3 x 25	TIN - CVD	100	NP1PZ3
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
PZ - 1 x 50	TIN - CVD	50	NQT1Z1
PZ - 2 x 50	TIN - CVD	50	NQT1Z2
PZ - 3 x 50	TIN - CVD	50	NQT1Z3

PZ

TIN



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
PZ - 1 x 25	TIN - CVD	10	NPTPZ1
PZ - 2 x 25	TIN - CVD	10	NPTPZ2
PZ - 3 x 25	TIN - CVD	10	NPTPZ3
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
PZ - 1 x 50	TIN - CVD	5	NQTPZ1
PZ - 2 x 50	TIN - CVD	5	NQTPZ2
PZ - 3 x 50	TIN - CVD	5	NQTPZ3

R-CUADRADA
R-SQUARE
R-CARRÉ

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
R - 1 x 25	EXTRA	50	NU00R1
R - 2 x 25	EXTRA	50	NU00R2
R - 3 x 25	EXTRA	50	NU00R3
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
R - 1 x 50	EXTRA	25	NV00R1
R - 2 x 50	EXTRA	25	NV00R2
R - 3 x 50	EXTRA	25	NV00R3

R-CUADRADA
R-SQUARE
R-CARRÉ

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
R - 1 x 25	EXTRA	10	NU0CR1
R - 2 x 25	EXTRA	10	NU0CR2
R - 3 x 25	EXTRA	10	NU0CR3
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
R - 1 x 50	EXTRA	5	NV0CR1
R - 2 x 50	EXTRA	5	NV0CR2
R - 3 x 50	EXTRA	5	NV0CR3

TORX

EXTRA



25 mm



50 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
T - 6 x 25	EXTRA	50	NJ0T06
T - 7 x 25	EXTRA	50	NJ0T07
T - 8 x 25	EXTRA	50	NJ0T08
T - 9 x 25	EXTRA	50	NJ0T09
T - 10 x 25	EXTRA	100	NJ0T10
T - 15 x 25	EXTRA	100	NJ0T15
T - 20 x 25	EXTRA	100	NJ0T20
T - 25 x 25	EXTRA	100	NJ0T25
T - 27 x 25	EXTRA	100	NJ0T27
T - 30 x 25	EXTRA	100	NJ0T30
T - 40 x 25	EXTRA	100	NJ0T40
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
T - 10 x 50	EXTRA	50	NK0T10
T - 15 x 50	EXTRA	50	NK0T15
T - 20 x 50	EXTRA	50	NK0T20
T - 25 x 50	EXTRA	50	NK0T25
T - 27 x 50	EXTRA	50	NK0T27
T - 30 x 50	EXTRA	50	NK0T30
T - 40 x 50	EXTRA	50	NK0T40

TORX

EXTRA



25 mm



50 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
T - 6 x 25	EXTRA	10	NJCT06
T - 7 x 25	EXTRA	10	NJCT07
T - 8 x 25	EXTRA	10	NJCT08
T - 9 x 25	EXTRA	10	NJCT09
T - 10 x 25	EXTRA	10	NJCT10
T - 15 x 25	EXTRA	10	NJCT15
T - 20 x 25	EXTRA	10	NJCT20
T - 25 x 25	EXTRA	10	NJCT25
T - 27 x 25	EXTRA	10	NJCT27
T - 30 x 25	EXTRA	10	NJCT30
T - 40 x 25	EXTRA	10	NJCT40
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
T - 10 x 50	EXTRA	5	NKCT10
T - 15 x 50	EXTRA	5	NKCT15
T - 20 x 50	EXTRA	5	NKCT20
T - 25 x 50	EXTRA	5	NKCT25
T - 27 x 50	EXTRA	5	NKCT27
T - 30 x 50	EXTRA	5	NKCT30
T - 40 x 50	EXTRA	5	NKCT40

TORX

TIN



25 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
T - 10 x 25	TIN - CVD	100	NJ1T10
T - 15 x 25	TIN - CVD	100	NJ1T15
T - 20 x 25	TIN - CVD	100	NJ1T20
T - 25 x 25	TIN - CVD	100	NJ1T25
T - 27 x 25	TIN - CVD	100	NJ1T27
T - 30 x 25	TIN - CVD	100	NJ1T30
T - 40 x 25	TIN - CVD	100	NJ1T40

TORX

TIN



25 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
T - 10 x 25	TIN - CVD	10	NJTT10
T - 15 x 25	TIN - CVD	10	NJTT15
T - 20 x 25	TIN - CVD	10	NJTT20
T - 25 x 25	TIN - CVD	10	NJTT25
T - 27 x 25	TIN - CVD	10	NJTT27
T - 30 x 25	TIN - CVD	10	NJTT30
T - 40 x 25	TIN - CVD	10	NJTT40

TORX INVIOLABLE
TORX TAMPER
TORX PERCÉ BAGUÉ

EXTRA



25 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
T x - 10 x 25	EXTRA	50	NL0T10
T x - 15 x 25	EXTRA	50	NL0T15
T x - 20 x 25	EXTRA	50	NL0T20
T x - 25 x 25	EXTRA	50	NL0T25
T x - 27 x 25	EXTRA	50	NL0T27
T x - 30 x 25	EXTRA	50	NL0T30
T x - 40 x 25	EXTRA	50	NL0T40

TORX INVIOLABLE
TORX TAMPER
TORX PERCÉ BAGUÉ

EXTRA



25 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
T x - 10 x 25	EXTRA	10	NLCT10
T x - 15 x 25	EXTRA	10	NLCT15
T x - 20 x 25	EXTRA	10	NLCT20
T x - 25 x 25	EXTRA	10	NLCT25
T x - 27 x 25	EXTRA	10	NLCT27
T x - 30 x 25	EXTRA	10	NLCT30
T x - 40 x 25	EXTRA	10	NLCT40

PLANA
SLOTTED
PLAT

EXTRA



25 mm



50 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
PLANA 3,0 x 0,5 x 25	EXTRA	50	NH3005
PLANA 4,0 x 0,5 x 25	EXTRA	100	NH4005
PLANA 4,5 x 0,6 x 25	EXTRA	100	NH4506
PLANA 5,5 x 0,8 x 25	EXTRA	100	NH5508
PLANA 5,5 x 1,0 x 25	EXTRA	100	NH5510
PLANA 6,5 x 1,2 x 25	EXTRA	100	NH6512
PLANA 8,0 x 1,2 x 25	EXTRA	50	NH8012
PLANA 8,0 x 1,6 x 25	EXTRA	50	NH8016
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
PLANA 3,0 x 0,5 x 50	EXTRA	25	NI3005
PLANA 4,0 x 0,5 x 50	EXTRA	50	NI4005
PLANA 4,5 x 0,6 x 50	EXTRA	50	NI4506
PLANA 5,5 x 0,8 x 50	EXTRA	50	NI5508
PLANA 5,5 x 1,0 x 50	EXTRA	50	NI5510
PLANA 6,5 x 1,2 x 50	EXTRA	50	NI6512
PLANA 8,0 x 1,2 x 50	EXTRA	25	NI8012
PLANA 8,0 x 1,6 x 50	EXTRA	25	NI8016

PLANA
SLOTTED
PLAT

EXTRA



25 mm



50 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.
PLANA 3,0 x 0,5 x 25	EXTRA	10	NHC3005
PLANA 4,0 x 0,5 x 25	EXTRA	10	NHC4005
PLANA 4,5 x 0,6 x 25	EXTRA	10	NHC4506
PLANA 5,5 x 0,8 x 25	EXTRA	10	NHC5508
PLANA 5,5 x 1,0 x 25	EXTRA	10	NHC5510
PLANA 6,5 x 1,2 x 25	EXTRA	10	NHC6512
PLANA 8,0 x 1,2 x 25	EXTRA	10	NHC8012
PLANA 8,0 x 1,6 x 25	EXTRA	10	NHC8016
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**
PLANA 3,0 x 0,5 x 50	EXTRA	5	NIC3005
PLANA 4,0 x 0,5 x 50	EXTRA	5	NIC4005
PLANA 4,5 x 0,6 x 50	EXTRA	5	NIC4506
PLANA 5,5 x 0,8 x 50	EXTRA	5	NIC5508
PLANA 5,5 x 1,0 x 50	EXTRA	5	NIC5510
PLANA 6,5 x 1,2 x 50	EXTRA	5	NIC6512
PLANA 8,0 x 1,2 x 50	EXTRA	5	NIC8012
PLANA 8,0 x 1,6 x 50	EXTRA	5	NIC8016

Otras puntas, CONSULTAR. / *For measurements not listed, request.* / *Pour des mesures non cotées consulter.*

EXPENDEDOR DE PUNTAS
SCREWDRIVER BITS BOX • CAISSE ÉMBOUTS

advance MAXIMO RENDIMIENTO

EXTRA

CLICK & DRILL



Descripción / *Description*	Uds. / *Pcs.*	Cod.
Composición Puntas 25 mm / *Bits 25 mm* / *Embouts 25 mm*	325	NX0017
Composición Puntas 50 mm / *Bits 50 mm* / *Embouts 50 mm*	150	NX0018

Contenido / *Contains* / *Contenu*

EXPENDEDOR DE PUNTAS 25 mm / *SCREWDRIVER BITS BOX 25 mm* / *CAISSE ÉMBOUTS 25 mm*

Puntas / *Bits*	Uds. / *Pcs.*
PLANA / *SLOTTED* / *PLAT* 4,5 x 0,6 x 25	20
PLANA / *SLOTTED* / *PLAT* 5,5 x 0,8 x 25	50
PLANA / *SLOTTED* / *PLAT* 6,5 x 1,2 x 25	20
TORX-10 x 25	10
TORX-15 x 25	10
TORX-20 x 25	10
TORX-25 x 25	10
PH-1 x 25	20
PH-2 x 25	50
PH-3 x 25	10

Puntas / *Bits*	Uds. / *Pcs.*
HEX 3,0 x 25	10
HEX 4,0 x 25	10
HEX 5,0 x 25	10
PZ-1 x 25	20
PZ-2 x 25	50
PZ-3 x 25	10
ADAPTADOR MAGNETICO / *MAGNETIC HOLDER* *ADAPTATEUR MAGNETIQUE* 10 x 60	5

EXPENDEDOR DE PUNTAS 50 mm / *SCREWDRIVER BITS BOX 50 mm* / *CAISSE ÉMBOUTS 50 mm*

Puntas / *Bits*	Uds. / *Pcs.*
PLANA / *SLOTTED* / *PLAT* 4,5 x 0,6 x 50	10
PLANA / *SLOTTED* / *PLAT* 5,5 x 0,8 x 50	20
PLANA / *SLOTTED* / *PLAT* 6,5 x 1,2 x 50	10
TORX-10 x 50	5
TORX-15 x 50	5
TORX-20 x 50	5
TORX-25 x 50	5
PH-1 x 50	5
PH-2 x 50	20
PH-3 x 50	5

Puntas / *Bits*	Uds. / *Pcs.*
HEX 3,0 x 50	5
HEX 4,0 x 50	5
HEX 5,0 x 50	5
PZ-1 x 50	10
PZ-2 x 50	20
PZ-3 x 50	10
ADAPTADOR MAGNETICO / *MAGNETIC HOLDER* *ADAPTATEUR MAGNETIQUE* 10 x 60	5

JUEGOS DE PUNTAS
SCREWDRIVER BIT SETS • COFFRET ÉMBOUT

Basic



Descripción / *Description*	Uds. / *Pcs.*	Cod.
Juego Puntas y Adaptador EXTRA ***Screwdriver Bit Sets & Adapter EXTRA*** / *Coffret Émbout et Adaptateur EXTRA*	32	NX0019

Contenido / *Contains* / *Contenu*

Puntas / *Bits*
PH-1, PH-2, PH-2, PH-3
PZ-1, PZ-2, PZ-2, PZ-3
PLANA / *SLOTTED* / *PLAT* 3-4-5-6
HEX-3, HEX-4, HEX-5, HEX-6

Puntas / *Bits*
TORX-10, TORX-15, TORX-20, TORX-25, TORX-27, TORX-30, TORX-40
TX.INV.-10, TX.INV.-15, TX.INV.-20, TX.INV.-25, TX.INV.-27, TX.INV.-30, TX.INV.-40
ADAPTADOR MAGNETICO *MAGNETIC HOLDER* / *ADAPTATEUR MAGNETIQUE*
ADAPTADOR PORTA VASOS *NUT DRIVER SOCKETS* / *ADAPTATEUR Á BILLE*

JUEGOS DE PUNTAS
SCREWDRIVER BIT SETS • COFFRET ÉMBOUT

ADVANCE MAXIMO RENDIMIENTO

EXTRA



Descripción / *Description*	Uds. / *Pcs.*	Cod.
Juego Puntas y Adaptador EXTRA ***Screwdriver Bit Sets & Adapter EXTRA*** / *Coffret Émbout et Adaptateur EXTRA*	32	NX0020

Contenido / *Contains* / *Contenu*

Puntas / *Bits*
PH-1, PH-2, PH-3 x 2
PZ-1, PZ-2, PZ-3 x 2
HEX-2, HEX-2,5, HEX-3, HEX-4, HEX-5, HEX-6

Puntas / *Bits*
PLANA[0] / *SLOTTED* / *PLAT* 3 - 4 - 4,5 - 5,5 - 6,5 - 8
TORX-10, TORX-15, TORX-20, TORX-25, TORX-27, TORX-30
ADAPTADOR MAGNETICO 10x60 *MAGNETIC HOLDER 10x60* / *ADAPTATEUR MAGNETIQUE 10x60*

JUEGOS DE BROCAS 1/4"
1/4" DRILL BIT SET • COFFRET FORET 1/4"



Descripción / *Description*	Uds. / *Pcs.*	Cod.
Construcción + Madera Extracorta + Adaptador Magnético ***Masonry + Wood Extrashort + Magnetic Holder*** ***Béton + Bois Extracourte + Adpatateur Magnétique***	12	6JG001
Construcción + Metal Extracorta + Adaptador Magnético ***Masonry + Metal Extrashort + Magnetic Holder*** ***Béton + Metal Extracourte + Adpatateur Magnétique***	12	6JG002
Madera + Madera Extracorta + Adaptador Magnético ***Wood + Wood Extrashort + Magnetic Holder*** ***Bois + Bois Extracourte + Adpatateur Magnétique***	12	6JG003
Madera + Metal Extracorta + Adaptador Magnético ***Wood + Metal Extrashort + Magnetic Holder*** ***Bois + Metal Extracourte + Adpatateur Magnétique***	12	6JG004
Metal + Metal Extracorta + Adaptador Magnético ***Metal + Metal Extrashort + Magnetic Holder*** ***Metal + Metal Extracourte + Adpatateur Magnétique***	12	6JG005
Metal + Madera Extracorta + Adaptador Magnético ***Metal + Wood Extra Short + Magnetic Holder*** ***Metal + Bois Extracourte + Adpatateur Magnétique***	12	6JG006

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

Diámetros / *Diameters* / *Diametres*	
SERIE NORMAL / *NORMAL SERIES* / *SÉRIE NORMALE*	4, 5, 6, 8, 10 mm
SERIE EXTRACORTA / *EXTRASHORT SERIES* / *SÉRIE EXTRACOURTE*	3, 4, 5, 6, 8, 10 mm

ADAPTADOR
ADAPTER • ADAPTATEUR



ADAPTADOR MAGNETICO 1/4'' DE 10 x 60 mm
MAGNETIC HOLDER 10 x 60 mm
ADAPTATEUR MAGNETIQUE 10 x 60 mm

Uds. / *Pcs.*	Cod.
1	NZAD10



ADAPTADOR MAGNETICO 1/4'' DE 10 x 100 mm
MAGNETIC HOLDER 10 x 100 mm
ADAPTATEUR MAGNETIQUE 10 x 100 mm

Uds. / *Pcs.*	Cod.
1	NZAD100



ADAPTADOR 1/4'' CAMBIO RÁPIDO
QUICK GRIP HOLDER
ADAPTATEUR RAPIDE

Uds. / *Pcs.*	Cod.
1	NZAD14



MANGO SILICONA GRIP HEXAGONAL 1/4''
SILICONE SHANK HOLDER
MANCHE DE SILICONE

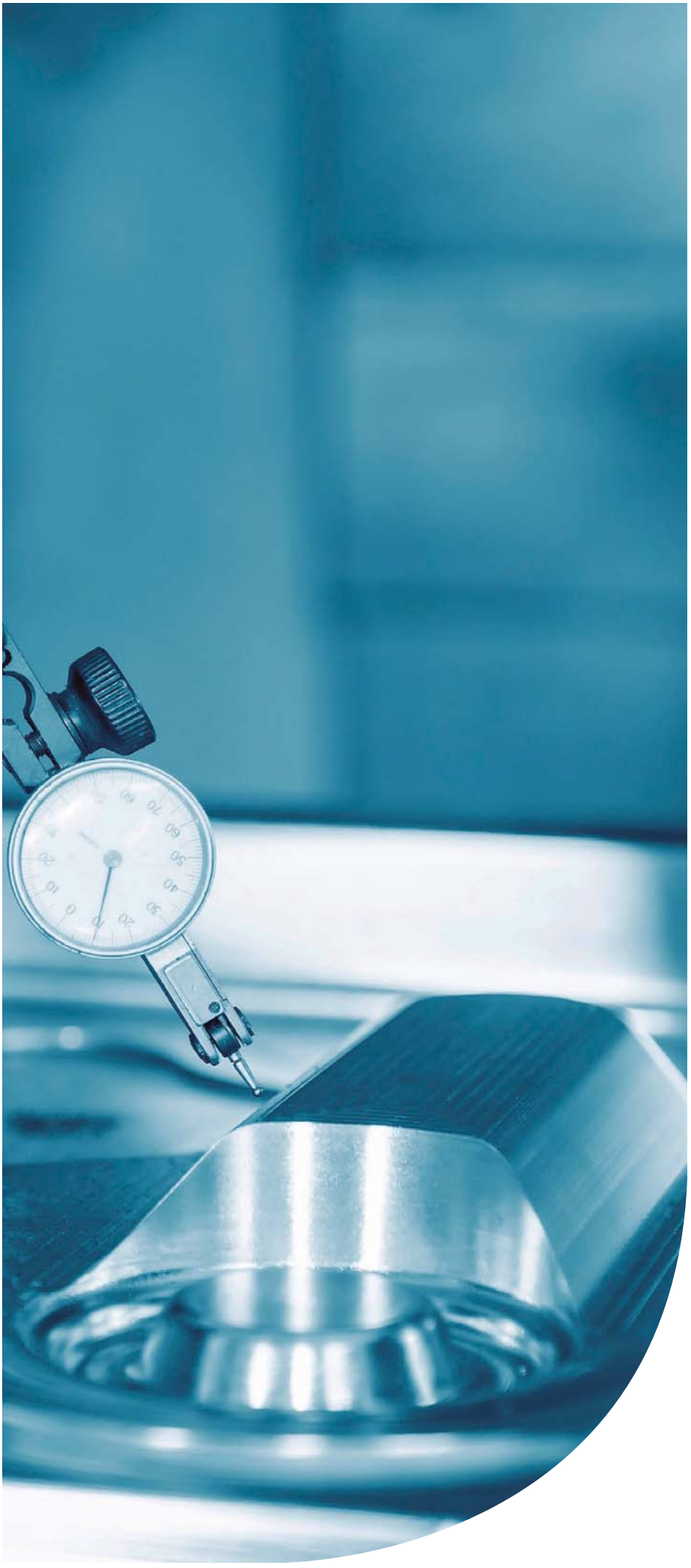
Uds. / *Pcs.*	Cod.
1	NZBD14

ALARGADOR PARA BROCA PALA
FLAT DRILL BIT EXTENSION • RALLONGE POUR MÉCHE PLATE



Entrada *Inlet* (mm)	Mango *Shank* (mm)	L1 (mm)	Uds. *Pcs.*	Cod.
Hex. 1/4"	Hex. 1/4"	305	1	UL00334



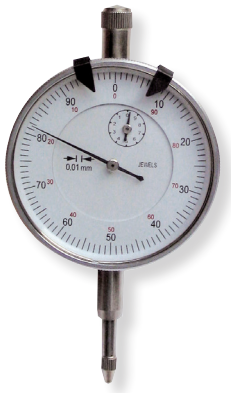


METROLOGÍA

METROLOGY - MÉTROLOGIE

SESA®

RELOJ COMPARADOR ANALÓGICO
DIAL INDICATOR • COMPARATEUR



Ref.	Modelo / *Model*	Esfera / *Oval* (Ø mm)	MEDICIÓN / *MEASUREMENT* Capacidad / *Range*	Resolución *Resolution* (mm)	Uds. *Pcs.*	Cod.
851	ANALÓGICO	55	0 - 10 mm / 0 - 0,5"	0,01	1	XD0511

RELOJ COMPARADOR DIGITAL
ELECTRONIC DIAL INDICATOR
COMPARATEUR AFFICHAGE DIGITAL



Ref.	Modelo / *Model*	Esfera / *Oval* (Ø mm)	MEDICIÓN / *MEASUREMENT* Capacidad / *Range*	Resolución *Resolution* (mm)	Uds. *Pcs.*	Cod.
852	DIGITAL	55	0 - 10 mm / 0 - 0,5"	0,01	1	XD0512

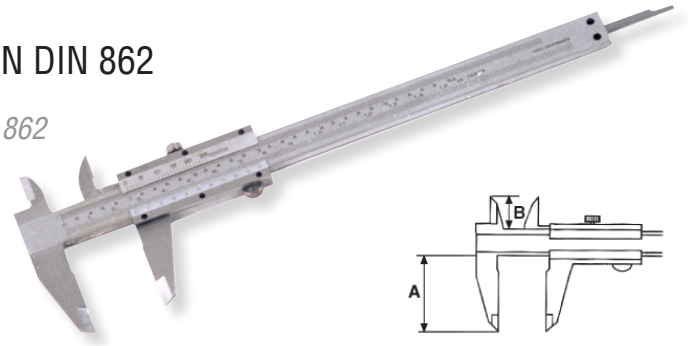
BASE MAGNÉTICA
MAGNETIC BASE • SUPPORT MAGNETIQUE



Ref.	Soporte / *Base* (mm)	Torreta Vertical *Height of Column* (mm)	Torreta Articulada *Articulated Arm* (mm)	Cod.
801	50 x 55 x 66	180 x 12	150 x 10	XD0510

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

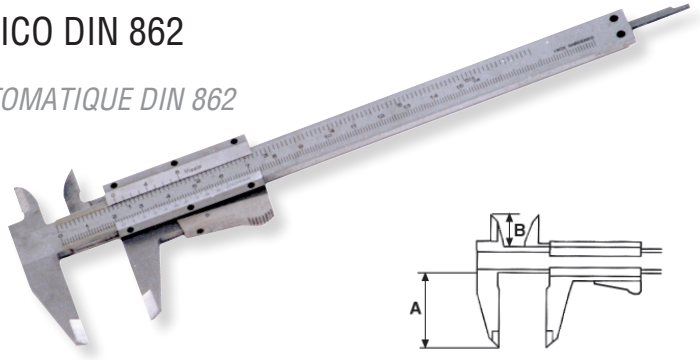
CALIBRE INOX CON TORNILLO DE FIJACIÓN DIN 862
INOX CALIPER WITH LOCKING SCREW DIN 862
PIED À COULISSE INOX AVEC VIS DE BLOCKAGE DIN 862



DIN 862

Ref.	A - B (mm)	MEDICIÓN / *MEASUREMENT* Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.
103	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X10150
103-L	46 - 23	0 - 200	0,05	MATE	ABS-PLASTIC	X10150L

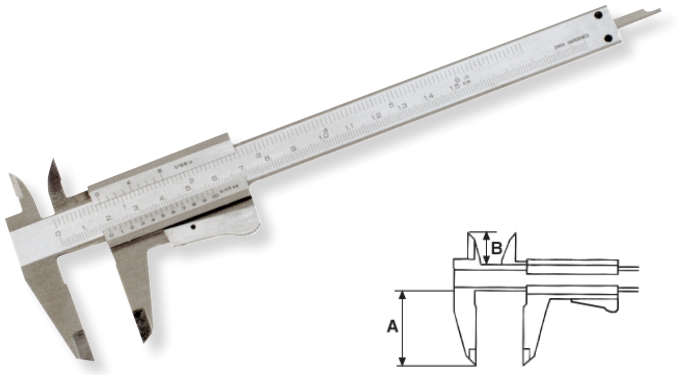
CALIBRE INOX CON PULSADOR AUTOMÁTICO DIN 862
INOX CALIPER WITH LOCKING DEVICE DIN 862
PIED Á COULISSE INOX AVEC VIS DE BLOCKAGE AUTOMATIQUE DIN 862



DIN 862

Ref.	A - B (mm)	MEDICIÓN / *MEASUREMENT* Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.
105	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X20515

CALIBRE INOX MONOBLOCK DIN 862
INOX MONOBLOCK CALIPER DIN 862
PIED Á COULISSE INOX MONOBLOCK DIN 862



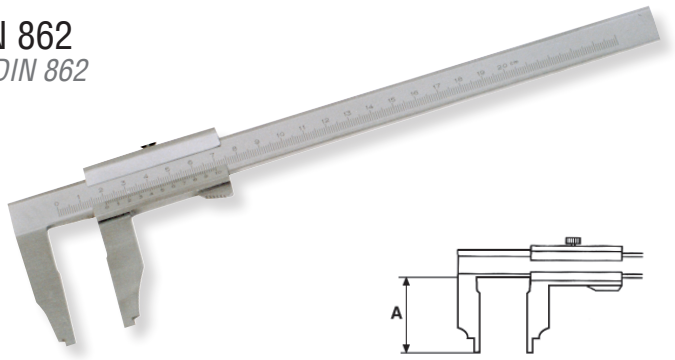
DIN 862

Ref.	A - B (mm)	MEDICIÓN / *MEASUREMENT* Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.
107	40 - 20	0 - 150	0,05	MATE	CUERO	X30715
107-B	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X3071B

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

CALIBRE TORNERO INOX MONOBLOCK DIN 862

INOX MONOBLOCK CALIPER WITH LOCKING SCREW DIN 862
PIED Á COULISSE DE TOURNEUR INOX DIN 862

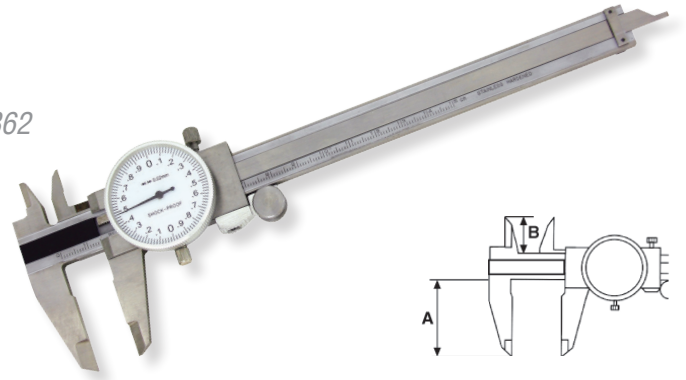


DIN 862

		MEDICIÓN / *MEASUREMENT*				
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.
110-B	59	0 - 200	0,02	MATE	ABS-PLASTIC	X5102B

CALIBRE INOX CON RELOJ DIN 862

DIAL INOX CALIPER DIN 862
PIED Á COULISSE INOX AVEC COMPARATEUR DIN 862

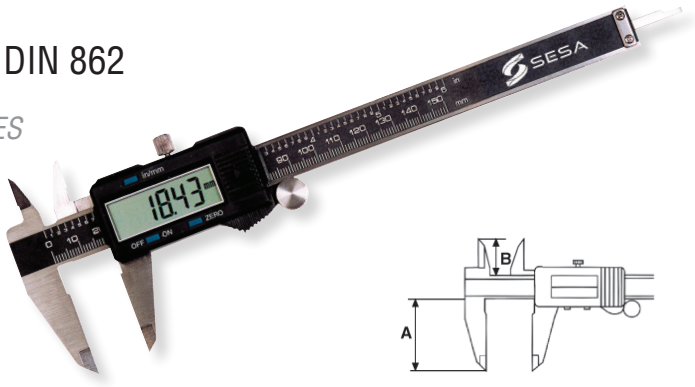


DIN 862

		MEDICIÓN / *MEASUREMENT*				
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.
111	40 - 20	0 - 150	0,02	MATE	ABS-PLASTIC	X61115
111-X	58 - 20	0 - 300	0,02	MATE	ABS-PLASTIC	X61115X

CALIBRE DIGITAL INOX - MM / PULGADAS DIN 862

DIGITAL INOX CALIPER DIN 862 MM / INCHES
PIED Á COULISSE INOX DIGITAL DIN 862 MM / POUCES

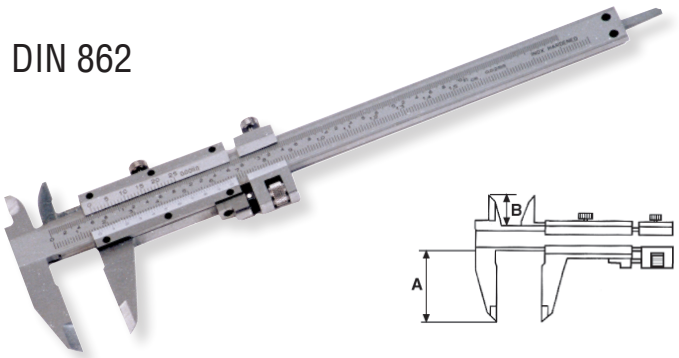


DIN 862

		MEDICIÓN / *MEASUREMENT*				
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.
112-G	40 - 20	0 - 150	0,01	MATE	ABS-PLASTIC	X71215G
112-L	46 - 23	0 - 200	0,01	MATE	ABS-PLASTIC	X71215L
112-X	46 - 23	0 - 300	0,01	MATE	ABS-PLASTIC	X71215X

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

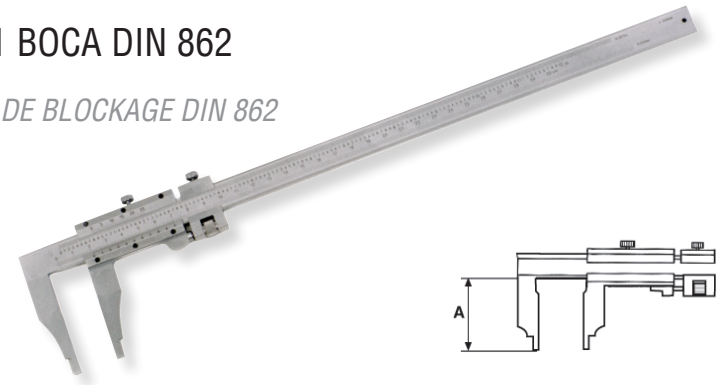
CALIBRE INOX CON TORNILLO DE APROX. DIN 862
INOX CALIPER WITH FINE ADJUSTMENT DIN 862
PIED Á COULISSE INOX AVEC VIS DE BLOCKAGE



DIN 862

		MEDICIÓN / *MEASUREMENT*				
Ref.	**A - B (mm)**	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**
109-C	40 - 20	0 - 150	0,02	MATE	ABS-PLASTIC	X40920C
109	46 - 26	0 - 200	0,02	MATE	ABS-PLASTIC	X40920
116	55 - 26,5	0 - 300	0,02	MATE	ABS-PLASTIC	X10300
116-A	130 - 45	0 - 1.000	0,02	MATE	MADERA	X01000A

CALIBRE CON TORNILLO DE APROX. - 1 BOCA DIN 862
INOX CALIPER WITH LOCKING SCREW DIN 862
PIED Á COULISSE DE TOURNEUR INOX AVEC VIS DE BLOCKAGE DIN 862



DIN 862

		MEDICIÓN / *MEASUREMENT*				
Ref.	**A - B (mm)**	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**
117-N	126	0 - 800	0,02	MATE	MADERA	X00800
118	150	0 - 1.000	0,02	MATE	MADERA	X01000

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

CALIBRE CALIBRE INOX PROFUNDIDAD DIN 862
INOX DEPTH GAUGE DIN 862
JAUGES DE PROFONDEUR INOX DIN 862



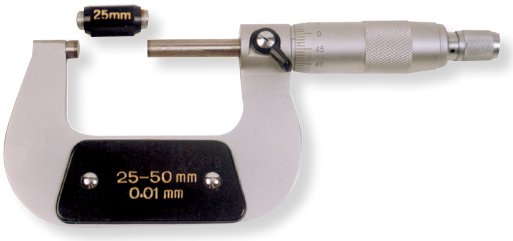
DIN 862

	MEDICIÓN / *MEASUREMENT*				
Ref.	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**
113	0 - 200	0,02	MATE	MADERA	X81320

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

MICRÓMETRO INOX PARA EXTERIORES DIN 863

INOX OUTSIDE MICROMETERS
MICROMÈTRES POUR EXTERIEURES



DIN 863

			MEDICIÓN / *MEASUREMENT*				
Ref.	**Anillo / *Ring* (mm)**	**Contacto *Contact***	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**
201	6,5	WIDIA	0 - 25	0,01	MATE	ABS-PLASTIC	X91025
202	6,5	WIDIA	25 - 50	0,01	MATE	ABS-PLASTIC	X92050
203	6,5	WIDIA	50 - 75	0,01	MATE	ABS-PLASTIC	X93075
204	6,5	WIDIA	75 - 100	0,01	MATE	ABS-PLASTIC	X94100
205	6,5	WIDIA	100 - 125	0,01	MATE	ABS-PLASTIC	X94125
206	6,5	WIDIA	125 - 150	0,01	MATE	ABS-PLASTIC	X94150

MICRÓMETRO INOX DIGITAL PARA EXTERIORES DIN 863

ELECTRONIC OUTSIDE MICROMETERS
MICROMÉTRES EXTERIEURES DIGITALES

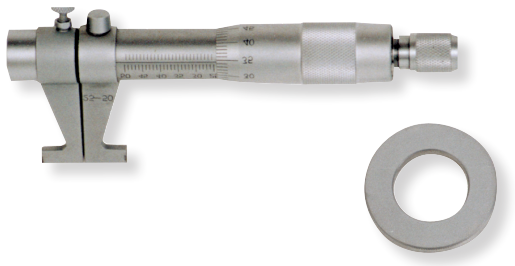


DIN 863

			MEDICIÓN / *MEASUREMENT*				
Ref.	**Anillo / *Ring* (mm)**	**Contacto *Contact***	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**
301	6,5	WIDIA	0 - 25	0,001	MATE	ABS-PLASTIC	XA1025

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

MICRÓMETRO INOX PARA INTERIORES
INTERNAL INOX MICROMETERS
ALÉSOMETRES



			MEDICIÓN / *MEASUREMENT*				
Ref.	**Anillo / *Ring* (mm)**	**Contacto *Contact***	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**
401	17	WIDIA	5 - 30	0,01	MATE	MADERA	XB1530
402	17	WIDIA	25 - 50	0,01	MATE	MADERA	XB2255

MICRÓMETRO INOX DE PROFUNDIDAD
INOX DEPTH MICROMETRES
MICROMÈTRES DE PROFONDEUR



		MEDICIÓN / *MEASUREMENT*				
Ref.	**Varillas *Reading Rod***	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**
501	INTERCAMBIABLES	0 - 100	0,01	MATE	MADERA	XC1100

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

KIT RELOJ ANALÓGICO + BASE MAGNÉTICA
SET WITH MAGNETIC BASE AND DIAL INDICATOR
COFFRET AVEC COMPARATEUR ET SUPPORT MAGNETIQUE



Ref.	Composición / *Composition*	Uds. *Pcs.*	Rango Medición *Measurement Range*	Resolución *Resolution* (mm)	Estuche *Pack*	Cod.
212	Reloj comparador analógico / *Dial Indicator*	1	0 - 10 mm.	0,01/0,0005"	Plástico / Plastic	X97150
	Base magnética / *Magnetic base*	1	-	-		

CONJUNTO DE MEDICIÓN DIGITAL PARA TORNERO
TOURNER DIGITAL MEASURING SET
COFFRET MÉSURE DIGITAL POUR TOURNEUR



Ref.	Composición / *Composition*	Uds. *Pcs.*	Rango Medición *Measurement Range*	Resolución *Resolution* (mm)	Estuche *Pack*	Cod.
	Calibre digital electrónico / *Inox Digital caliper*	1	0 - 150 mm.	0,01/0,0005"		
213	Reloj comparador digital / *Digital Dial Indicator*	1	0 - 10 mm.	0,01/0,0005"	Plástico / Plastic	X98150
	Base magnética / *Magnetic base*	1	-	-		

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

CONJUNTO DE MEDICION DIGITAL
DIGITAL MEASURING SET
COFFRET MESURE DIGITAL



Ref.	Composición / *Composition*	Uds. *Pcs.*	Rango Medición *Measurement Range*	Resolución *Resolution* (mm)	Estuche *Pack*	Cod.
	Calibre digital electrónico 112-G / *Inox Digital caliper*	1	0 - 150 mm.	0,01/0,0005"		
214	Micrómetro electrónico / *Outside Micrometer*	1	0 - 25 mm.	0,01/0,0005"	Plástico / Plastic	X99100
	Pilas / *Batteries*	2				

CONJUNTO DE MICRÓMETROS INOX EXTERIORES
INOX OUTSIDE MICROMETERS SET
COFFRET MICROMÈTRES EXTERIEURES INOX



		MEDICIÓN / *MEASUREMENT*			
Ref.	Uds. / *Pcs.*	Rango Medición / *Measurement Range*	Resolución / *Resolution* (mm)	Estuche / *Pack*	Cod.
210	4	0 - 100 mm.	0,01	Madera / Wood	X95100
211	6	0 - 150 mm.	0,01	Madera / Wood	X96150

Se ofrece servicio de certificado de calibración, para más información consultar precios.
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GALGAS DE ROSCA COMBINADAS, MÉTRICA Y WHITHWORTH

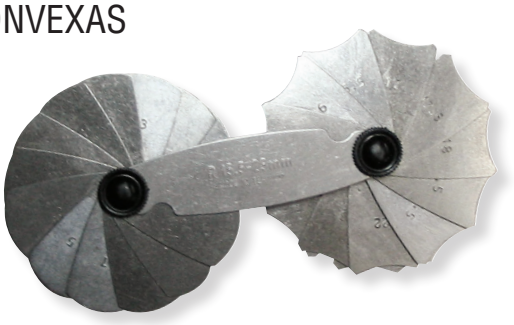
METRIC AND WHITWORTH SCREW PITCH GAUGES
CALIBRES DE FILETAGE PUR MÉTRIQUE ET WHITWORTH



Ref.	Láminas / *Blades*	Uds. / *Pcs.*	Cod.
1102	52	1	NB1102
1103	58	1	NB1103

GALGAS DE ROSCA COMBINADAS, CÓNCAVAS Y CONVEXAS

CONCAVE AND CONVEX RADIUS GAUGE SETS
JAUGES À RAYONS CONCAVES ET CONVEXES



Ref.	Láminas / *Blades*	Gama / *Range*	Uds. / *Pcs.*	Cod.
1203	34	R 1,0 - 7,0	1	NB1203
1202	32	R 7,5 - 15,0	1	NB1202
1201	30	R 15,5 - 25,0	1	NB1201

GALGAS DE ESPESORES, LONGITUD 100mm

THICKNESS GAUGE SETS, LENGTH 100mm
JAUGES D´ÉPAISSEUR, LONGEUR 100mm



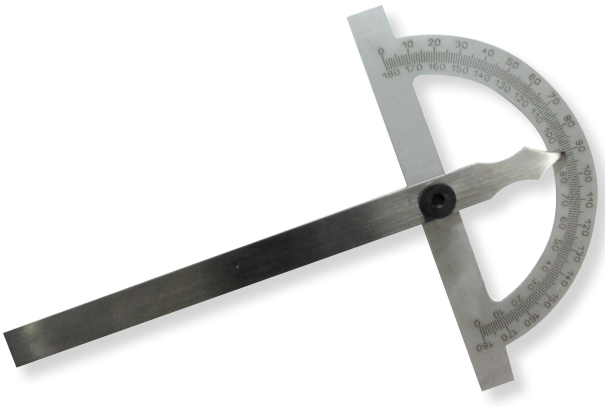
Ref.	Láminas / *Blades*	Gama / *Range*	Uds. / *Pcs.*	Cod.
1001	13	0,05 - 1,00	1	NB1001
1002	20	0,05 - 1,00	1	NB1002

ESCUADRAS DE ZINC
SQUARES OF ZINC
EQUERRES DU ZINC



Ref.	Dimensiones / *Size* (mm)	Tipo / *Type*	Sección / *Section* (mm)	Uds. / *Pcs.*	Cod.
901	100 x 70	Lisa / *Without base*	15 x 5	1	NA0901
950	100 x 70	Tacón / *With base*	15 x 5	1	NA0950
902	150 x 100	Lisa / *Without base*	20 x 5	1	NA0902
951	150 x 100	Tacón / *With base*	20 x 5	1	NA0951
903	200 x 130	Lisa / *Without base*	20 x 5	1	NA0903
952	200 x 130	Tacón / *With base*	20 x 5	1	NA0952
904	300 x 175	Lisa / *Without base*	25 x 5	1	NA0904
953	300 x 175	Tacón / *With base*	25 x 5	1	NA0953
905	400 x 230	Lisa / *Without base*	30 x 5	1	NA0905
954	400 x 230	Tacón / *With base*	30 x 5	1	NA0954
906	500 x 280	Lisa / *Without base*	30 x 5	1	NA0906
955	500 x 280	Tacón / *With base*	30 x 5	1	NA0955

TRANSPORTADORES DE ÁNGULOS 0 - 180º
ANGLE PROTRACTORS
RAPPORTEURS



Ref.	Ø mm.	L. Caña (mm)	Uds. / *Pcs.*	Cod.
975	**80**	120	1	NA0975
976	**120**	150	1	NA0976
977	**150**	200	1	NA0977
978	**200**	300	1	NA0978

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

COMPASES CIRCULARES DE ACERO FORJADO
ROUGHT STEEL DIVIDERS WITH QUADRANT
COMPAS ACIER FORGE AVEC ARC DE CERCLE



Ref.	L (mm)	Uds. / *Pcs.*	Patas / *Legs*	Cod.
601	150	1	Cuadradas / *Square*	NC0601
602	200	1	Cuadradas / *Square*	NC0602
603	250	1	Cuadradas / *Square*	NC0603
604	300	1	Cuadradas / *Square*	NC0604

COMPASES INTERIORES DE ACERO FORJADO
ROUGHT STEEL INSIDE CALIPERS
COMPAS D´INTERIEUR



Ref.	L (mm)	Uds. / *Pcs.*	Patas / *Legs*	Cod.
701	150	1	Planas / *Flat*	NC0701
702	200	1	Planas / *Flat*	NC0702
703	250	1	Planas / *Flat*	NC0703
704	300	1	Planas / *Flat*	NC0704

COMPASES EXTERIORES DE ACERO FORJADO
ROUGHT STEELOUTSIDE CALIPERS
COMPAS D´ÉXTERIEUR



Ref.	L (mm)	Uds. / *Pcs.*	Patas / *Legs*	Cod.
801	150	1	Planas / *Flat*	NC0801
802	200	1	Planas / *Flat*	NC0802
803	250	1	Planas / *Flat*	NC0803
804	300	1	Planas / *Flat*	NC0804


SESA
PORCELANATO
MACHO MÁQUINA
ESTUCHES DE BROC
BROCA METAL
HSS-G
DIN-338
ACERO RÁPIDO
CRT-19

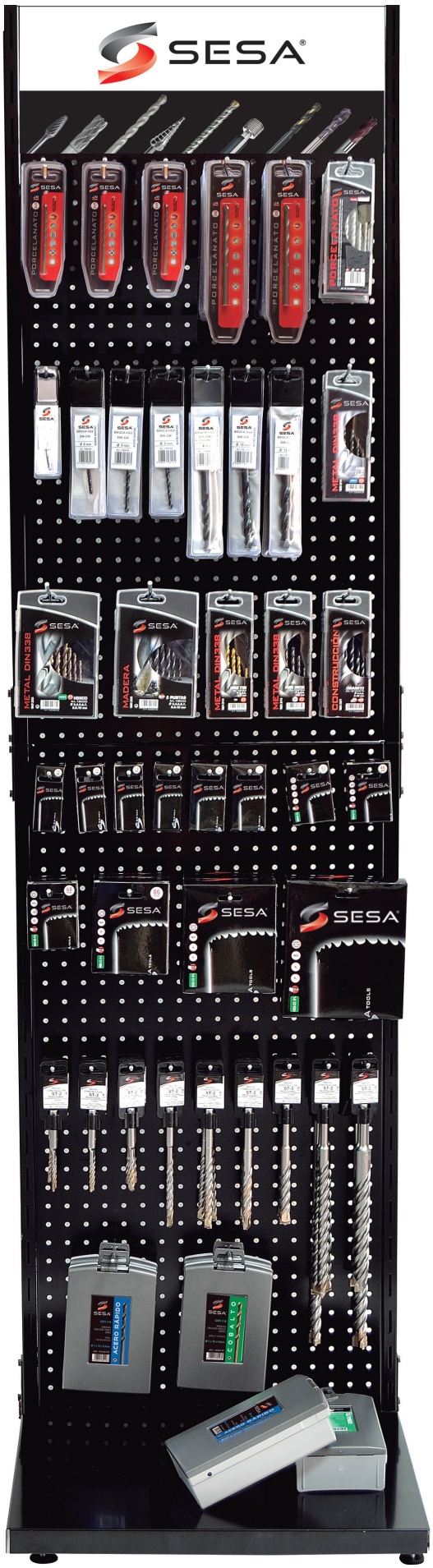
DISPLAYS

DISPLAYS

SESA®

MINI EXPOSITOR
MINI DISPLAY
MINI ÉXPOSITEUR

Expositor MINI
1.830 x 500 x 430 mm



MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

COMBINADO *CONBINED • COMBINÉ*

Art.	Ø (mm)	Uds.
BROCA DIN 338N HSS-G	3,00	10
	3,50	10
	4,00	10
	4,50	10
	5,00	10
	6,00	10
	8,00	10
	10,00	5
	12,00	5
BROCA GRANITO	3 X 60	5
	4 X 75	5
	5 X 85	10
	6 X 100	15
	8 X 120	15
	10X 120	10
	12 X 150	10
	SESABOX GRANITO	5
BROCA JR PORCELANATO	4X85	10
	5X85	10
	6X100	15
	8X125	5
	10X150	5
	SESABOX JR 4-5-6-6-8	5
BROCA ST-2 (SDS-PLUS)	4X110	5
	5X110	10
	6X160	15
	8X160	10
	10X160	10
	12X160	5
	14x200	5
	16x260	5
	18x300	5
CORONAS BIMETAL M42	16	3
	20	3
	24	3
	27	3
	30	3
	35	3
	40	3
	51	2
	60	2
	70	2
	83	2
	A1 14-30	3
	A2T 32-152	3

Cod. MIN001

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

METAL *METAL • MÉTAL*

Art.	Ø (mm)	Uds.
BROCA DIN 338N HSS-G	3,00	10
	3,50	10
	4,00	10
	4,50	10
	5,00	10
	6,00	10
	8,00	10
	10,00	5
	12,00	5
BROCA DIN 338N HSS-G MANGO REDUCIDO	14	2
	16	2
	18	2
	20	2
	22	2
	24	2
	25	2
	26	2
ESTUCHES DE BROCAS	1915314	2
	194314	2
	1915333	2
	194333	2
	1915015T	2
	194019T	2
	1915025T	2
	194025T	2
CORONAS BIMETAL M42	16	2
	20	2
	24	2
	27	2
	30	2
	35	2
	40	2
	51	2
	60	2
	70	1
	83	1
	A1 14-30	2
	A2T 32-152	2

Cod. MIN002

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

Art.	Ø (mm)	Uds.
BROCA TORNADO PARED 	3X60	5
	4X75	5
	5X85	10
	6X100	15
	8X120	10
	10X120	5
	12X150	5
	14X150	3
BROCA JR PORCELANATO 	4X85	10
	5X85	10
	6X100	20
	8X125	10
	10X150	5
	SESABOX JR 4-5-6-6-8	5
BROCA ST-2 (SDS-PLUS) 	4X110	5
	5X110	10
	6X110	15
	8X160	5
	10X160	5
	12X160	5
	14x200	3
	16x260	4
	18x300	3
PUNTEROS Y CINCELES 	PUNT 250	2
	CINCEL 250/20	2
	CINCEL 250/40	2
	CINCEL 200/40 AZ.	2
	ACAN. 240/22	2
	ACAN. ALAS 250/22	2
	PUNT 280 (MAX)	2
	PUNT 400 (MAX)	2
	CINCEL 280/24 (MAX)	2
	CINCEL 400/24 (MAX)	2
	CINCEL 300/80 (MAX)	2
	ACAN. 300/26 (MAX)	2
	ACAN. ALAS 380/35 (MAX)	2

Cod. MIN003

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

CASH

Art.	Ø (mm)	Uds.
BROCA DIN 338N HSS-G	3,00	10
	3,50	10
	4,00	10
	4,50	10
	5,00	10
	6,00	10
	8,00	10
	10,00	5
	12,00	5
BROCA DIN 338 N HSS-CO	3,00	10
	3,50	10
	4,00	10
	4,50	10
	5,00	10
	6,00	10
	8,00	10
	10,00	5
	12,00	5
BROCA JR PORCELANATO	4X85	5
	5X85	10
	6X100	10
	8X125	10
	10X150	5
	SESABOX JR 4-5-6-6-8	3
BROCA MADERA 3 PUNTAS	3,00	5
	4,00	5
	5,00	5
	6,00	5
	8,00	5
	10,00	5
	12,00	5
CORONAS BIMETAL M42	16	3
	20	3
	24	3
	27	3
	30	3
	35	3
	40	3
	51	2
	60	2
	70	2
	83	2
	A1 14-30	3
	A2T 32-152	3

Cod. MIN004

EXPOSITOR SOBREMESA JR PORCELANATO

BASIC DISPLAY JR PORCELANIC
ÉXPOSITEUR BASE TABLE JR CÉRAMIQUE

Expositor MINI 470 x 190 x 140 mm



Ø (mm)	L (mm)	Uds. / *Pcs.*
4,00	85	8
5,00	85	16
6,00	100	16
8,00	125	8
10,00	150	8
SET BROCA JR 5 PIEZAS *SET 5 PIECES*		5
COD. JR061		61

NOTA: Composición con 6 ganchos / *Stand with 6 hooks* / *Présentoirs avec 6 crochets*

EXPOSITOR - DISPENSADOR DE SOBREMESA CERRADO

DISPLAY - CLOSED DESKTOP DISPENSER
ÉXPOSITEUR - DISTRIBUTEUR DE BUREAU FERMÉ

Expositor 35 x 30 x 25 mm



Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS	WHITE *WHITE*	475	EXP01 BW
HSS-G		475	EXP01 AR
HSS-CO 5%		475	EXP01 CO
INOX HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	475	EXP01 IP
TIN		475	EXP01 TI

Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
2,00	50	4,00	50	5,50	30	7,00	20	8,50	15	11,00	5
3,00	50	4,50	40	6,00	30	7,50	20	9,00	10	12,00	5
3,50	50	5,00	40	6,50	30	8,00	15	10,00	10	13,00	5

EXPOSITOR - DISPENSADOR COMBINADO DE SOBREMESA CERRADO

DISPLAY - CLOSED COMBINED DESKTOP DISPENSER
ÉXPOSITEUR - DISTRIBUTEUR DE BUREAU COMBINÉ FERMÉ

Expositor 35 x 30 x 25 mm



Composición / *Contains* / *Composition*					Uds. / *Pcs.*	Cod.
BASIC EXPO	HSS HSS WHITE	+	BASIC	+ MADERA	610	EXP02 BASIC
STANDARD EXPO	HSS-G HSS G	+	GRANITO	+ MADERA	610	EXP02 STANDARD
ADVANCE EXPO	HSS-CO 5% HSS CO	+	TORNADO	+ MADERA	610	EXP02 ADVANCE

Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
3,00	50	6,00	40	3,00	50	6,00	30	3,00	50	6,00	30
4,00	50	8,00	20	4,00	50	8,00	15	4,00	50	8,00	15
5,00	50	10,00	10	5,00	40	10,00	10	5,00	40	10,00	10
METAL / *METAL* / *MÉTAL*				**MADERA** / *WOOD* / *BOIS*				**CONSTRUCCIÓN** / *CONSTRUCTION* / *CONSTRUCTION*			

EXPOSITORES SESA KUBO

DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

NEW

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 01	JR PORCELANATO	010205S1	4-5-6-6-8 mm	10
KUBO 02	HORMAT	1GR327N	4-5-6-6-8mm	10
KUBO 03	HSS-G	1915314	3-4-5-6-8 mm	10
KUBO 03P	HSS	155P314	3-4-5-6-8 mm	10
KUBO 04	HSS-CO	194314	3-4-5-6-8 mm	10
KUBO 05	HSS-G INOX	194P314	3-4-5-6-8 mm	10
KUBO 06	ST STEP	19SD314	3-4-5-6-8 mm	10
KUBO 07	JR PORCELANATO	010205S1	4-5-6-6-8 mm	5
	HSS-CO	194314	3-4-5-6-8 mm	5
KUBO 08	HSS-G	1915314	3-4-5-6-8 mm	5
	HORMAT	1GR327N	4-5-6-6-8 mm	5
KUBO 09	HSS-G	1915314	3-4-5-6-8 mm	5
	HSS-CO	194314	3-4-5-6-8 mm	5



Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 12	HSS-G	1915314	3-4-5-6-8 mm	7
	HSS-CO	194314	3-4-5-6-8 mm	7
	HSS-G INOX	194P314	3-4-5-6-8 mm	7
KUBO 13	JR PORCELANATO	010205S1	4-5-6-6-8mm	7
	GRANITO	1915A327N	4-5-6-8-10mm	7
	BASIC	1916F327N	4-5-6-8-10mm	7



EXPOSITORES SESA KUBO

DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

NEW

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 10	ST STEP HSS-G	19SD314	3-4-5-6-8 mm	7
	ST STEP HSS-G	19SD333	3-4-5-6-7-8-9-10 mm	7
KUBO 14	HSS-G HSS-G	1915314	3-4-5-6-8 mm	7
	HSS-G HSS-G	1915333	3-4-5-6-7-8-9-10 mm	7
KUBO 15	HSS-CO HSS-CO 5%	194314	3-4-5-6-8 mm	7
	HSS-CO HSS-CO 5%	194333	3-4-5-6-7-8-9-10 mm	7
KUBO 16	JR PORCELANATO	010205S1	4-5-6-6-8mm	7
	JR PORCELANATO	19JR339	5-6-8mm (3 de cada)	7
KUBO 17	GRANITO	1915A327N	4-5-6-8-10mm	7
	HORMAT	19GP339	5-6-8mm (3 de cada)	7
KUBO 18	GRANITO	1915A327N	4-5-6-8-10mm	7
	MADERA	196333	3-4-5-6-7-8-9-10mm	7



Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 22	KIT REPARADOR DE ROSCAS	4C04007 4C04009 4C04010 4C04012 4C04016 4C04021	M4-M5-M6-M8 M10-M12	6



Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 24	FRESAS ROTATIVAS METAL DURO advance MAXIMO RENDIMIENTO	FREST6DT	FRB6106 FRC6106 FRD6105 FRF6104 FRG6105	6

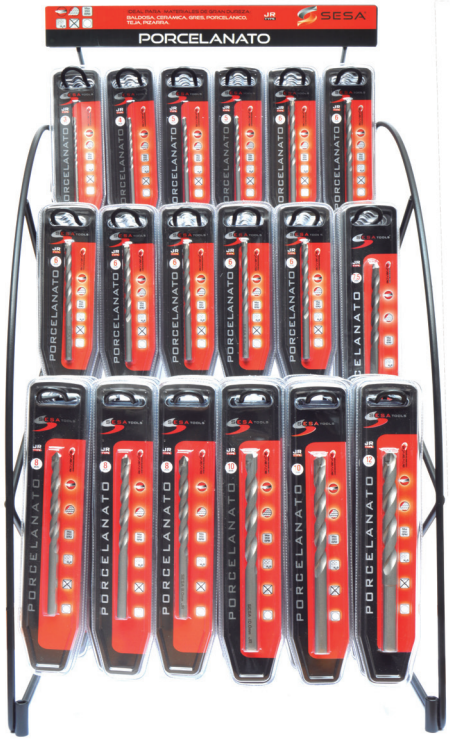


BROCA JR PARA PORCELANATO *JR DRILL-BIT FOR PORCELANIC • FORET JR POUR CÉRAMIQUE*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

advance MAXIMO RENDIMIENTO

Ø (mm)	L (mm)	Uds. / *Pcs.*
3,00	85	10
4,00	85	10
4,00	85	10
5,00	85	10
5,00	100	10
6,00	100	10
6,00	100	10
6,00	100	10
6,00	100	10
6,00	100	10
6,00	100	10
7,00	125	10
8,00	125	10
8,00	125	10
8,00	125	10
10,00	150	8
10,00	150	8
12,00	150	8
Cod. HR01JR		174



*Composición con 18 ganchos / *Stand with 18 hooks* / *Présentoirs avec 18crochets* *Detalles del producto en la página 37 / *Product information at page 37* / *Info sur le produit á la page 37*

BASIC *BASIC • BASIC*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

Basic

DIN 8039

Ø (mm)	L (mm)	Uds. / *Pcs.*
3,00	60	20
4,00	75	20
5,00	85	20
6,00	100	15
6,00	100	15
8,00	120	15
8,00	120	15
10,00	120	10
10,00	120	10
12,00	150	8
12,00	150	8
14,00	150	5
14,00	150	5
16,00	150	5
18,00	160	5
20,00	160	5
6,00	200	10
8,00	200	10
10,00	200	5
12,00	200	5
14,00	200	5
Cod. HR01BA		216



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 43 / *Product information at page 43* / *Info sur le produit á la page 43*

GRANITO *GRANITO • GRANITO*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*



DIN 8039



Ø (mm)	L (mm)	Uds. / *Pcs.*
3,00	60	20
4,00	75	20
5,00	85	20
6,00	100	15
6,00	100	15
8,00	120	15
8,00	120	15
10,00	120	10
10,00	120	10
12,00	150	8
12,00	150	8
14,00	150	5
14,00	150	5
16,00	150	5
18,00	160	5
20,00	160	5
6,00	200	10
8,00	200	10
10,00	200	5
12,00	200	5
14,00	400	5
Cod. HR01GR		216



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 42 / *Product information at page 42* / *Info sur le produit á la page 42*

TORNADO *TORNADO • TORNADO*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*



DIN 8039



Ø (mm)	L (mm)	Uds. / *Pcs.*
3,00	60	20
4,00	75	20
5,00	85	20
6,00	100	15
6,00	100	15
8,00	120	15
8,00	120	15
10,00	120	10
10,00	120	10
12,00	150	8
12,00	150	8
14,00	150	5
14,00	150	5
16,00	150	5
18,00	160	5
20,00	160	5
6,00	200	10
8,00	200	10
10,00	200	5
12,00	200	5
14,00	200	5
Cod. HR01TN		216



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 40 / *Product information at page 40* / *Info sur le produit á la page 40*

SDS-PLUS CYCLONE *CYCLONE SDS-PLUS • SDS-PLUS CYCLONE*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

Basic

DIN 8035 | SDS plus

Ø (mm)	L (mm)	Uds. / *Pcs.*
3,00	60	20
4,00	75	20
5,00	85	20
6,00	100	15
6,00	100	15
8,00	120	15
8,00	120	15
10,00	120	10
10,00	120	10
12,00	150	8
12,00	150	8
14,00	150	5
14,00	150	5
16,00	150	5
18,00	160	5
20,00	160	5
6,00	200	10
8,00	200	10
10,00	200	5
12,00	200	5
14,00	200	5
Cod. HR01CY		164



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 48 / *Product information at page 46* / *Info sur le produit á la page 48*

SDS-PLUS ST-2 *ST-2 SDS-PLUS • SDS-PLUS ST-2*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

DIN 8035 | PGM | SDS plus

Ø (mm)	L (mm)	Uds. / *Pcs.*
4,00	110	8
5,00	110	8
6,00	110	8
8,00	110	8
10,00	110	8
6,00	160	8
6,00	160	8
8,00	160	8
8,00	160	8
10,00	160	8
12,00	160	8
14,00	160	5
16,00	160	5
18,00	200	5
8,00	260	5
10,00	260	5
12,00	260	5
14,00	260	5
16,00	450	4
18,00	450	4
20,00	450	4
Cod. HR01ST		135



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 47 / *Product information at page 47* / *Info sur le produit á la page 47*

SDS-PLUS HURRICANE *HURRICANE SDS-PLUS • SDS-PLUS HURRICANE*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

advance MAXIMO RENDIMIENTO

DIN 8035 | PGM | SDS plus

Ø (mm)	L (mm)	Uds. / *Pcs.*
5,00	110	8
6,00	110	8
8,00	110	8
10,00	110	8
6,00	160	8
6,00	160	8
6,00	160	8
8,00	160	8
8,00	160	8
10,00	160	8
12,00	160	8
14,00	160	8
8,00	210	5
10,00	210	5
12,00	210	5
14,00	210	5
12,00	260	5
14,00	310	5
16,00	310	4
18,00	450	4
20,00	450	4
Cod. HR01HU		138



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 46 / *Product information at page 46* / *Info sur le produit á la page 46*

SDS-MAX STORM *SDS-MAX STORM • SDS-MAX STORM*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

DIN 8035 | PGM | SDS max

Ø (mm)	L (mm)	Uds. / *Pcs.*
12,00	340	2
14,00	340	2
16,00	340	2
18,00	340	2
20,00	340	2
22,00	340	2
24,00	340	2
14,00	540	2
16,00	540	2
18,00	540	2
20,00	540	2
22,00	540	2
25,00	540	2
30,00	570	2
Cod. HR01SM		28



*Composición con 14 ganchos / *Stand with 14 hooks* / *Présentoirs avec 14 crochets* *Detalles del producto en la página 50 / *Product information at page 50* / *Info sur le produit á la page 50*

PUNTEROS Y CINCELES *CHISELS AND POINTERS • BURINS ET PICS*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

Descripción / Description	L (mm)	Uds. / *Pcs.*
SDS-PLUS		
Puntero / *Point Chisel*	250	4
Puntero / *Point Chisel*	250	4
Cincel / *Flat Chisel*	250 / 20	3
Cincel / *Flat Chisel*	250 / 20	3
Cincel ancho / *Spade Chisel*	200 / 40	3
Acanalador / *Hollow Chisel*	240 / 22	3
Cincel azulejo / *Tile Chisel*	200 / 40	3
SDS-MAX		
Puntero / *Point Chisel*	400	3
Puntero / *Point Chisel*	400	3
Cincel / *Flat Chisel*	400 / 24	3
Cincel / *Flat Chisel*	400 / 24	3
Cincel ancho / *Spade Chisel*	300 / 80	3
Acanalador / *Hollow Chisel*	300 / 26	3
Cincel azulejo / *Tile Chisel*	300 / 50	3
Cod. HR01CP		44



*Composición con 14 ganchos / *Stand with 14 hooks* / *Présentoirs avec 14 crochets*
*Detalles del producto en las páginas 54-55 / *Product information at pages 54-55* / *Info sur le produit á les pages 54-55*

BROCA MADERA 3 PUNTAS
STANDARD BRAD POINT DRILL BIT • FORET 3 POINTES STANDARD

MADERA *WOOD • BOIS*

Ø (mm)	L (mm)	Uds. / *Pcs.*
3,00	70	20
4,00	80	20
5,00	90	20
6,00	100	20
7,00	110	15
8,00	120	15
9,00	130	10
10,00	133	10
11,00	150	10
12,00	155	10
13,00	160	8
14,00	160	8
15,00	165	8
6,00	245	20
7,00	245	15
8,00	245	15
9,00	245	10
10,00	245	10
11,00	245	10
12,00	245	10
13,00	245	8
14,00	245	8
15,00	245	8
Cod. HR02BL		288



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 84 / *Product information at page 84* / *Info sur le produit á la page 84*

BROCAS PALA B *FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B*

MADERA *WOOD • BOIS*

Ø (mm)	Uds. / *Pcs.*
6,00	15
8,00	15
10,00	15
12,00	15
14,00	15
15,00	15
16,00	15
18,00	15
19,00	15
20,00	15
22,00	15
24,00	15
25,00	15
26,00	15
28,00	15
30,00	15
32,00	10
33,00	10
34,00	10
35,00	10
36,00	10
38,00	10
40,00	10
Cod. HR02PB	310



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 86 / *Product information at page 86* / *Info sur le produit á la page 86*

BROCAS PALA C *FLAT DRILL BIT TYPE C • MÉCHE PLATE TIPE C*

MADERA *WOOD • BOIS*

Ø (mm)	Uds. / *Pcs.*
6,00	8
8,00	8
10,00	8
12,00	8
14,00	8
15,00	8
16,00	8
18,00	8
19,00	8
20,00	8
22,00	8
24,00	8
25,00	8
26,00	8
28,00	8
30,00	8
32,00	8
33,00	8
34,00	8
35,00	8
36,00	8
38,00	8
40,00	8
Cod. HR02PC	184



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 87 / *Product information at page 87* / *Info sur le produit á la page 87*

LEWIS *LEWIS • LEWIS*

MADERA *WOOD • BOIS*

Ø (mm)	L (mm)	Uds. / *Pcs.*
6,00	200	4
8,00	200	4
10,00	200	4
12,00	200	4
14,00	200	4
16,00	200	4
18,00	200	4
8,00	300	3
10,00	300	3
12,00	300	3
14,00	300	3
16,00	300	3
18,00	300	3
20,00	300	3
10,00	450	2
12,00	450	2
14,00	450	2
16,00	450	2
18,00	450	2
20,00	450	2
22,00	450	2
Cod. HR02LE		63



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 90 / *Product information at page 90* / *Info sur le produit á la page 90*

DIN 338N HSS-G ALTO RENDIMIENTO

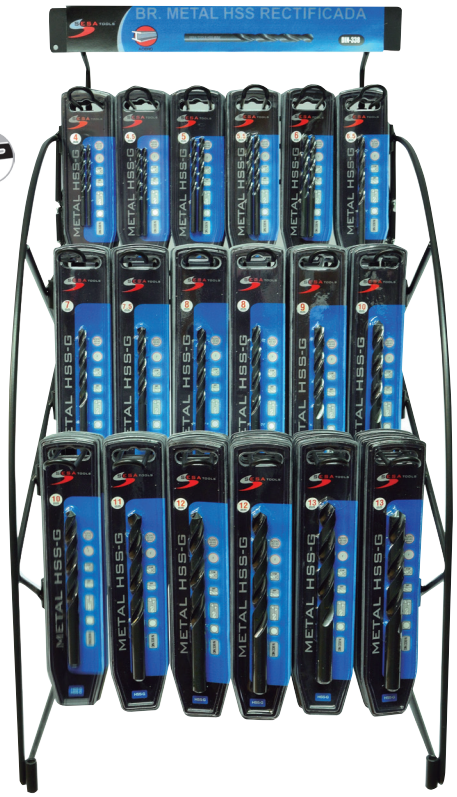
DIN 338N HSS-G HIGH PERFORMANCE DRILL BIT • DIN 338N HSS-G GRAND PERFORMANCE

BLISTER RÍGIDO *RIGID BLISTER • BLISTER RIGIDE*

METAL *METAL • MÉTAL*

ACERO 400-800 N/mm² | F | HSS-G | DIN 338 N | 118° | 30°

Ø (mm)	Uds. / *Pcs.*
1,00	15
1,50	10
2,00	15
2,50	10
3,00	15
3,50	10
4,00	15
4,50	10
5,00	15
5,50	10
6,00	15
7,00	5
8,00	20
9,00	5
10,00	10
11,00	5
12,00	10
13,00	5
Cod. HR03ARB	



*Composición con 18 ganchos / *Stand with 18hooks* / *Présentoirs avec 18 crochets* *Detalles del producto en la página 104 / *Product information at page 104* / *Info sur le produit á la page 104*

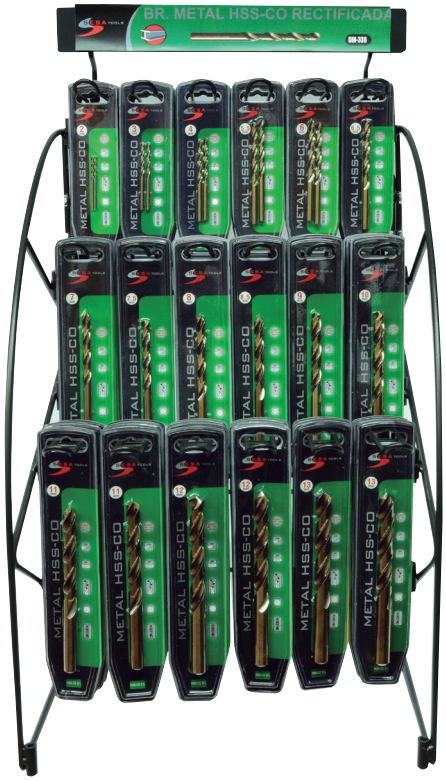
DIN 338N HSS-CO *DIN 338N HSS-CO • DIN 338N HSS-E COBALT*

BLISTER RÍGIDO *RIGID BLISTER • BLISTER RIGIDE*

METAL *METAL • MÉTAL*

ACERO 800 -1100 N/mm² | HSS-CO 5% | DIN 338 N | 135° | 30°

Ø (mm)	Uds. / *Pcs.*
1,00	15
1,50	10
2,00	15
2,50	10
3,00	15
3,50	10
4,00	15
4,50	10
5,00	15
5,50	10
6,00	15
7,00	5
8,00	20
9,00	5
10,00	10
11,00	5
12,00	10
13,00	5
Cod. HR03COB	



*Composición con 18 ganchos / *Stand with 18hooks / Présentoirs avec 18 crochets* *Detalles del producto en la página 112 / *Product information at page 112 / Info sur le produit á la page 112*

BLISTER BLANDO *SOFT BLISTER • BLISTER DOUX*

METAL *METAL • MÉTAL*

Calidad / *Quality*		Uds. *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	330	HR03AR
HSS-CO 5%		330	HR03CO
HSS-G	INOX	330	HR03IP
HSS-CO 5%	INOX	330	HRC3IC
TIN		330	HRCO3TI

Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
1,00	30	4,00	30	7,00	5
1,50	20	4,25	10	8,00	20
2,00	30	4,50	10	9,00	5
2,50	20	5,00	30	10,00	10
3,00	20	5,25	10	11,00	5
3,25	10	5,50	10	12,00	10
3,50	10	6,00	30	13,00	5



DIN338N M/RED. HSS-G *DIN 338N HSS-G REDUCED SHANK • DIN338N HSS-G QUEUE RÉDUITE*

METAL *METAL • MÉTAL*

ACERO 400-800 N/mm² | F | HSS-G | DIN 338 N | 118° | 30°

Ø (mm)	Uds. / *Pcs.*
13,00	6
13,50	3
14,00	6
14,50	3
15,00	5
15,50	2
16,00	5
16,50	2
17,00	4
17,50	2
18,00	4
18,50	2
19,00	4
19,50	2
20,00	4
20,50	2
21,00	4
21,50	2
22,00	3
22,50	2
23,00	3
23,50	2
24,00	3
24,50	2
25,00	3
Cod. HRC03MR	80



*Composición con 23 ganchos / *Stand with 23 hooks* / *Présentoirs avec 23 crochets*
*Detalles del producto en la página 123
Product information at page 123 / *Info sur le produit á la page 123*

DIN 338N M/RED. HSS-CO *DIN 338N HSS-CO REDUCED SHANK • DIN 338N HSS-CO QUEUE RÉDUITE*

METAL *METAL • MÉTAL*

ACERO 800 -1100 N/mm² | HSS-CO 5% | DIN 338 N | 135° | 30°

Ø (mm)	Uds. / *Pcs.*
12,00	3
12,00	3
13,00	3
13,50	2
14,00	3
14,00	3
15,00	3
15,50	2
16,00	3
16,00	3
16,00	3
16,50	2
17,00	3
17,50	2
18,00	3
18,00	3
18,50	2
19,00	3
19,50	2
20,00	3
20,00	3
Cod. HR03MC	57



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 124 / *Product information at page 124* / *Info sur le produit á la page 124*

CORONAS BIMETAL M42
BIMETAL HOLE SAWS M42
SCIES TRÉPAN BIMETAL M42

METAL *METAL • MÉTAL*

ACERO 400-800 N/mm² | F | AL | PL | HSS-CO 8% | 4-6 TPI

Ø (mm)	Uds. / *Pcs.*
16,00	3
19,00	3
20,00	3
22,00	3
25,00	3
27,00	3
30,00	3
32,00	2
33,00	2
35,00	2
38,00	2
44,00	2
48,00	2
51,00	2
Husillo / *Arbor* A0	3
Husillo / *Arbor* A1	3
Husillo / *Arbor* A2T	2
Husillo / *Arbor* A3T	2
Cod. HR03CB	45

*Composición con 18 ganchos / *Stand with 18 hooks* / *Présentoirs avec 18 crochets*
*Detalles del producto en la página 168 / *Product information at page 168* / *Info sur le produit á la page 168*



COMBINADO STANDARD
STANDARD COMBINED
STANDARD COMBINÉE

BLISTER RÍGIDO *RIGID BLISTER • BLISTER RIGIDE*

COMBINADO *CONBINED • COMBINÉ*

	Ø (mm)	Uds. / *Pcs.*
HSS-G METAL *METAL MÉTAL*	3,00	10
	4,00	10
	5,00	15
	6,00	15
	8,00	20
	10,00	10
GRANITO *GRANITE*	3,00	20
	4,00	20
	5,00	30
	6,00	30
	8,00	20
	10,00	10
MADERA *WOOD BOIS*	3,00	20
	4,00	20
	5,00	30
	6,00	30
	8,00	20
	10,00	10
Cod. HR0STAND		

*Composición con 18 ganchos / *Stand with 18hooks* / *Présentoirs avec 18 crochets*



ESTUCHES *SETS • COFFRETS*

Descripción / *Description*	Calidad / *Composition*	Uds. / *Pcs.*
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-G	4
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-CO 5%	4
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-G INOX	4
SESABOX 5 Pcs. 3 - 4 - 5 - 6 - 8 mm	HSS-G	4
SESABOX 5 Pcs. 3 - 4 - 5 - 6 - 8 mm	HSS-CO 5%	4
SESABOX 5 Pcs. 3 - 4 - 5 - 6 - 8 mm	HSS-G INOX	4
Cod. HR03ET		24

*Composición con 9 ganchos / *Stand with 9 hooks* / *Présentoirs avec 9 crochets*



ESTUCHES *SETS • COFFRETS*

Descripción / *Description*	Calidad / *Composition*	Uds. / *Pcs.*
CR 19 pcs. 1-10x0,5mm.	HSS	6
CR 19 pcs. 1-10x0,5mm.	HSS-CO 5%	6
SESABOX 5 pcs.	HSS-G	4
SESABOX 5 pcs.	HSS-CO 5%	8
Cod. HR04ET		24

*Composición con 9 ganchos / *Stand with 9 hooks* / *Présentoirs avec 9 crochets*



ESTUCHES SESABOX *SESABOX SET • COFFRETS SESABOX*

Descripción / Description	Uds. / *Pcs.*	Uds. / *Pcs.*
SESABOX 5 Pcs.	HSS-G	4
SESABOX 5 Pcs.	HSS-CO 5%	4
SESABOX 5 Pcs.	HSS TIN	4
SESABOX 5 Pcs.	TORNADO	4
SESABOX 5 Pcs.	GRANITO	4
SESABOX 5 Pcs.	JR	4
SESABOX 8 Pcs.	HSS-G	3
SESABOX 8 Pcs.	HSS-CO 5%	3
SESABOX 8 Pcs.	TORNADO	3
SESABOX 8 Pcs.	GRANITO	3
SESABOX 8 Pcs.	MADERA 3P *STANDARD BRAD POINT*	3
Cod. HR03ES		39

*Composición con11 ganchos / *Stand with 11 hooks* / *Présentoirs avec 11 crochets*




SESA®
SESA®
BROCA PALA TIPO "C"
BROCA WIDIA TORNADO
JR TYPE PORCELANATO
BR. METAL HSS-CO RECTIFICADA
BR. METAL HSS RECTIFICADA
BR. METAL PARA INOX HSS
BROCA STORM
CINCELES Y PUNTEROS
BROCA LEWIS
BR. METAL HSS-CO M./RED.
ESTUCHES BR. RECTIFICADAS HSS Y HSS-CO
BR. METAL HSS M./REDUCIDO
MADERA 3 PUNTAS
ST-2
ESTUCHE DE BROCAS
BR. METAL PARA INOX HSS-CO
BR. METAL HSS-CO TIALN
BR. METAL HSS-TIN RECTIFICADA
CORONA BI-METAL HSS-CO
BR. HSS AMARRE HEXAGONAL

DOBLE METRO LINEAL "COMBINADO"
"COMBINED" DOUBLE METRE DISPLAY • PRÉSENTOIRE DOUBLE "COMBINÉ"

Cod.	Expositor / *Displays*
HR03AR	**DIN 338 HSS M2** / *DIN 338 HSS M2*
HR03CO	**DIN 338 HSSCO** / *DIN 338 HSSCO*
HR03IP	**DIN 338N HSS-INOX Progresiva** / *DIN 338N HSS Progressive INOX*
HR03MR	**DIN338N M/RED. HSS-G** / *DIN 338N HSS-G Reduced Shank*
HR03CB	**Corona Bi-Metal** / *Bimetal Hole Saw*
HR03ET	**Estuches** / *Sets*
HR03ES	**SESABOX** / *SESABOX*
HR01JR	**JR para Porcelanato** / *JR Drill-Bit for Porcelanic*

Cod.	Expositor / *Displays*
HR01GR	**Granito** / *Granito*
HR01TN	**Tornado** / *Tornado*
HR01HU	**SDS-PLUS Hurricane** / *Hurricane SDS-PLUS*
HR01ST	**SDS-PLUS ST-2** / *SDS-PLUS ST-2*
HR01SM	**SDS-MAX Storm** / *Storm SDS-MAX*
HR01CP	**Punteros y Cinceles** / *Chisels and Pointers*
HR02LE	**Lewis** / *Lewis*
HR02PC	**Brocas Pala Tipo C** / *Flat Drill Bit Type C*
HR02BL	**Madera 3 Puntas** / *Standard Brad Point Drill Bit*

MLCOM

METRO LINEAL "PROFESIONAL"
"PROFESSIONAL" METRE DISPLAY
PRÉSENTOIRE METRE "PROFESSIONNEL"

Cod.	Expositor / *Displays*
HR03AR	**DIN 338 HSS M2** / *DIN 338 HSS M2*
HR03CO	**DIN 338 HSSCO** / *DIN 338 HSSCO*
HR03CB	**Corona Bi-Metal** / *Bimetal Hole Saw*
HR01TN	**Tornado** / *Tornado*
HR01ST	**SDS-PLUS ST-2** / *SDS-PLUS ST-2*
HR01JR	**JR para Porcelanato** / *JR Drill-Bit for Porcelanic*
HR03ES	**SESABOX** / *SESABOX*
HR03ET	**Estuches** / *Sets*
HR02PB	**Brocas Pala Tipo B** / *Flat Drill Bit Type B*

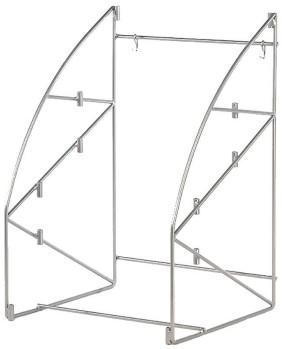
MLPRO

METRO LINEAL "FERRETERÍA"
"IRONMONGERY" METRE DISPLAY
PRÉSENTOIRE METRE "QUINCAILLERIE"

Cod.	Expositor / *Displays*
HR03AR	**DIN 338 HSS M2** / *DIN 338 HSS M2*
HR03CO	**DIN 338 HSSCO** / *DIN 338 HSSCO*
HR03CB	**Corona Bi-Metal** / *Bimetal Hole Saw*
HR01BA	**Basic** / *Basic*
HR01CY	**SDS-PLUS Cyclone** / *Cyclone SDS-PLUS*
HR01JR	**JR para Porcelanato** / *JR Drill-Bit for Porcelanic*
HR03ES	**SESABOX** / *SESABOX*
HR02PC	**Brocas Pala Tipo C** / *Flat Drill Bit Type C*
HR02BL	**Madera 3 Puntas** / *Standard Brad Point Drill Bit*

MLFER

PIECERÍA *PIECES • PIÈCES*



ESTRUCTURA / ***STRUCTURE*** / ***STRUCTURE***

Cod.
HR0



SOPORTE CARÁTULA
LABEL BASE / ***BASE ÉTIQUETTE***

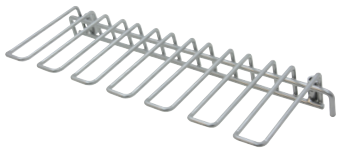
Cod.
HR0CAR



GANCHO REDONDO
ROUND HOOK / ***CROCHET ROND***

Cod.
HR0GRD

Hasta fin de existencias / *Until end of stock*
Jusqu´à épuisement des stocks



TIRA DE GANCHOS
HOOK BAND / ***BANDE DE CROCHETS***

Cod.	Descripción / *Description*
HR0T7IN	gancho redondo / *round hook*
HR0T6IN	gancho redondo / *round hook*
000201007	gancho varilla / *rod hook*
000201009	gancho varilla / *rod hook*



NEW **GANCHOS**
HOOKS / ***CROCHETS***

Cod.	Descripción / *Description*
HR04120	gancho / *hook* 4 x 120 mm
HR04150	gancho / *hook* 4 x 150 mm
HR048200	gancho / *hook* 4 x 200 mm
HR04150G	gancho con porta precios *hook with porta prices* 4 x 150 mm



BASE PARA GANCHO
BASE FOR HOOKS / ***BASE POUR CROCHETS***

Cod.
HR0BAS

Hasta fin de existencias / *Until end of stock*
Jusqu´à épuisement des stocks

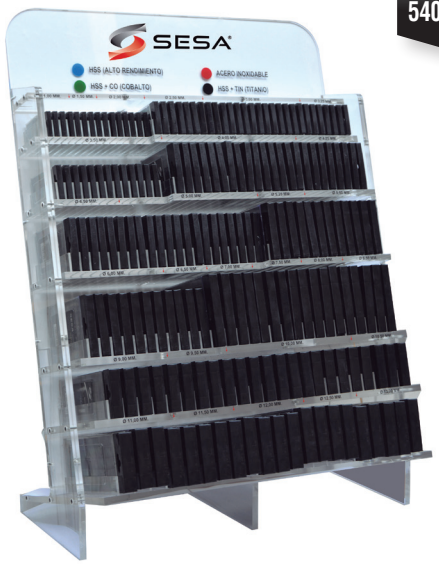
*Para otras composiciones consultar / **For other compositions, request* / **Pour d'autres compositions consulter*

EXPOSITOR INDIVIDUAL
INDIVIDUAL DISPLAY • DISPLAY INDIVIDUEL

METAL *METAL • MÉTAL*

Calidad / *Quality*		Uds. / *Pcs.*	Cod.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1.630	3EM01
HSS-CO 5%		1.630	3EM03
HSS-G	INOX	1.630	3EM04
HSS-CO 5%	INOX	1.630	3EM05
TIN		1.630	3EM06

METACRILATO 540 x 370 x 735 mm



Contenido / *Contains* / *Contenu*

Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
1,00	40	**4,00**	160	**6,50**	40	**10,00**	50
1,50	40	**4,25**	70	**7,00**	40	**10,50**	20
2,00	70	**4,50**	60	**7,50**	40	**11,00**	20
2,50	80	**5,00**	150	**8,00**	40	**11,50**	20
3,00	140	**5,25**	50	**8,50**	40	**12,00**	25
3,25	60	**5,50**	70	**9,00**	25	**12,50**	20
3,50	140	**6,00**	80	**9,50**	20	**13,00**	20

EXPOSITORES ROSCADO MANUAL
HAND THREADING DISPLAY
DISPLAY FILETAGE MANUEL

ROSCADO *THREADING • FILÉTAGE*

HSS-G

METACRILATO 390 x 155 x 235 mm



Cod.	Descripción / *Description*	Uds. / *Pcs.*
	Giramachos con Criqué / *Tap Holder with Ratchet* / *Porte Tarauds*	
1R10001	**Gr. 1/C**	3
1R10002	**Gr. 2/C**	2
	Juegos de Machos / *Hand Taps* / *Tarauds À Main*	
2R27326	**M3 x 0,50**	5
2R27330	**M4 x 0,70**	5
2R27334	**M5 x 0,80**	5
2R27338	**M6 x 1,00**	10
2R27342	**M8 x 1,25**	5
2R27346	**M10 x 1,50**	5
2R27350	**M12 x 1,75**	5
	Cojinetes / *Round Dies* / *Filières Rondes*	
4R27434	**M5 x 0,80 - 20 x 7**	3
4R27438	**M6 x 1,00 - 20 x 7**	3
4R27442	**M8 x 1,25 - 25 x 9**	3
4R27446	**M10 x 1,50 - 30 x 11**	3
4R27450	**M12 x 1,75 - 38 x 14**	3
	COD. 19RAJV	60

EXPOSITORES ROSCADO MANUAL
HAND THREADING DISPLAY
DISPLAY FILETAGE MANUEL

ROSCADO *THREADING • FILÉTAGE*

HSS-G | DIN 352 | DIN 223

Expositor MINI 470 x 190 x 140 mm



Cod.	Descripción / *Description*	Uds. / *Pcs.*
	Juegos de Machos / *Hand Taps* / *Tarauds À Main*	
2R27326BL	M3 x 0,50	3
2R27330BL	M4 x 0,70	3
2R27334BL	M5 x 0,80	3
2R27338BL	M6 x 1,00	3
2R27342BL	M8 x 1,25	3
2R27346BL	M10 x 1,50	3
2R27350BL	M12 x 1,75	3
	Cojinetes / *Round Dies* / *Filières Rondes*	
4R27426BL	M3 x 0,50 - 20 x 5	3
4R27430BL	M4 x 0,70 - 20 x 5	3
4R27434BL	M5 x 0,80 - 20 x 7	3
4R27438BL	M6 x 1,00 - 20 x 7	3
4R27442BL	M8 x 1,25 - 25 x 9	3
4R27446BL	M10 x 1,50 - 30 x 11	3
4R27450BL	M12 x 1,75 - 38 x 14	3
COD. 19RAJC		

EXPOSITORES MACHOS ANCLAJE 1/4”
1/4” SHANK TAPS DISPLAY
PRÉSENTOIR TARAUDS MÉCHE 1/4”

ROSCADO *THREADING • FILÉTAGE*

HSS-G | 1/4 | CLICK & DRILL

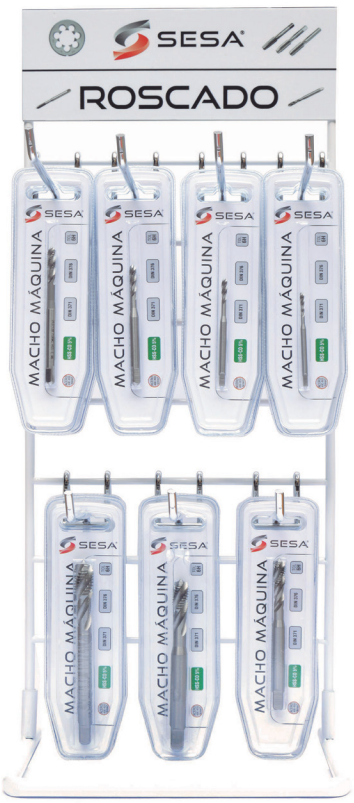
METACRILATO 190 x 190 x 175 mm



Descripción / *Description*	Uds. / *Pcs.*
Machos / *Taps* / *Tarauds*	
M3	10
M4	10
M5	10
M6	10
M8	10
M10	10
Brocas / *Drill Bits* / *Forets*	
2,5 mm.	10
3,3 mm.	10
4,2 mm.	10
5,0 mm:	10
6,8 mm.	10
8,5 mm.	10
Cod. 3R48960	120

EXPOSITORES MACHOS MÁQUINA
MACHINE TAPS DISPLAY
PRÉSENTOIR TARAUDS MACHINE

Expositor MINI 470 x 190 x 140 mm



ROSCADO *THREADING • FILÉTAGE*

Calidad / *Quality*				Uds. / *Pcs.*	Cod.
ACERO 400-800 N/mm²	HSS-CO 5%	DIN 371/376	FORM B	35	3R48933
ACERO 400-800 N/mm²	HSS-CO 5%	DIN 371/376	FORM C	35	3R48934
ACERO 400-800 N/mm²	HSS-CO 5%	DIN 371/376	FORM C/35°	35	3R48935

Contenido / *Contains* / *Contenu*

Medida / *Size*	DIN	Uds. / *Pcs.*
M3 x 0,50	371	5
M4 x 0,70	371	5
M5 x 0,80	371	5
M6 x 1,00	371	5
M8 x 1,25	371	5
M10 x 1,50	371	5
M12 x 1,75	376	5

EXPOSITORES MACHOS MÁQUINA
MACHINE TAPS DISPLAY
PRÉSENTOIR TARAUDS MACHINE

ROSCADO *THREADING • FILÉTAGE*

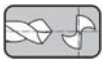
METACRILATO 330 x 140 x 180 mm



Calidad / *Quality*				Mat.	Banda *Ring*	Nº Filas *Rows Nº*	Contenido / *Contains / Contenu* M3	M4	M5	M6	M8	M10	M12	TOTAL
PM	HL	DIN 371/376	FORM B	INOX		1	1	1	2	2	2	1	1	10
PM	HL	DIN 371/376	FORM C/35º	INOX		1	1	1	2	2	2	1	1	10
HSS-E-V3	TIN	DIN 371/376	FORM B		MULTIUSOS	1	1	1	2	2	2	1	1	10
HSS-E-V3	TIN	DIN 371/376	FORM C/35º		MULTIUSOS	1	1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM B	ACERO 800 -1100 N/mm²		1	1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM C/40º	ACERO 800 -1100 N/mm²		1	1	1	2	2	2	1	1	10
PM	FUTURA	DIN 371/376	FORM B	ACERO 1100 -1400 N/mm²		1	1	1	2	2	2	1	1	10
PM	FUTURA	DIN 371/376	FORM C/40º	ACERO 1100 -1400 N/mm²		1	1	1	2	2	2	1	1	10
PM	ALUSPEED	DIN 371/376	FORM B	AL		1	1	1	2	2	2	1	1	10
PM	ALUSPEED	DIN 371/376	FORM C/45º	AL		1	1	1	2	2	2	1	1	10
HSS-CO 5%	TIN	DIN 371/376	FORM B	ACERO 400-800 N/mm²		1	1	1	2	2	2	1	1	10
HSS-CO 5%	TIN	DIN 371/376	FORM C/35º	ACERO 400-800 N/mm²		1	1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM C	ACERO 400-800 N/mm²		2	2	2	4	4	4	2	2	20
HSS-CO 5%		DIN 371/376	FORM B	ACERO 400-800 N/mm²		3	3	3	6	6	6	3	3	30
HSS-CO 5%		DIN 371/376	FORM C/35º	ACERO 400-800 N/mm²		3	3	3	6	6	6	3	3	30
COD. 3R48932					TOTAL FILAS	20							TOTAL PZAS	200

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FILOS DE CORTE / *SHARPENED* / *AFFUTAGE*


PUNTA CONVENCIONAL
CONVENTIONAL POINT
POINTE UNIVERSEL

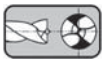

PUNTA SPLIT POINT
SPLIT POINT
AFFUTAGE EN CROIX


GEOMETRÍA RECTA
STRAIGHT HEAD GEOMETRY
GEOMÉTRIE DROITE


PUNTA FILO CORREGIDO
LIP CORRECTION
LÉVRE CORRIGÉ


PUNTA PLACA DE CARBURO
CARBIDE TIPPED
POINTE CARBURE


GEOMETRÍA RADIAL
RADIAL HEAD GEOMETRY
GEOMÉTRIE RADIALE


PUNTA CENTRADORA
CENTERING POINT
POINTE À CENTRER


CORTE AL CENTRO 2 DIENTES
CENTER CUTTING 2 FLUTES
2 DENTS ET COUPE AU CENTRE


CORTE AL CENTRO 3 DIENTES
CENTER CUTTING 3 FLUTES
3 DENTS ET COUPE AU CENTRE


CORTE AL CENTRO 4 Ó MÁS DIENTES
CENTER CUTTING 4 OR MORE FLUTES
4 DENTS OU PLUS ET COUPE AU CENTRE

CORTES / *CUTS* / *DENTS*



Nº DE CORTES
Nº OF CUTS / *Nº DE DENTS.*
2Z / 3Z / 4Z / 3Z - 5Z / 4Z - 6Z



DIENTES POR PULGADA
TOOTH PER INCH
DENT PAR POUCE



DIENTES POR PULGADA
TOOTH PER INCH
DENT PAR POUCE



DENTADO DE ACABADO TIPO N
N FINISHING
FINITION N



DENTADO PARA GRAN DESBASTE TIPO NR
NR GRINDING
NR DÉGROSSISSAGE



DENTADO PARA DESBASTE FINO TIPO NRF
NR-F FINE GRINDING
NR-F DÉGROSSISMENT FIN



DENTADO PARA GRAN DESBASTE EN MATERIALES DUROS
COARSE ROUGHING FOR HARD METALS
EBAUCHE GROSSIÈRE POUR MATÉRIAUX DURS



DENTADO PARA DESBASTE FINO EN MATERIALES DUROS
FINE PITCH ROUGHING FOR HARD MATERIALS
EBAUCHE PAS FIN POUR MATÉRIAUX DURS



DENTADO DE ACABADO TIPO H PARA MATERIALES DUROS
H FINISHING FOR HARD METALS
FINITION H POUR MATÉRIAUX DURS

TIPO ROSCA / *THREAD TYPE* / *TYPE FILETAGE*



FORMA A
A FORM
FORME A



FORMA D
D FORM
FORME D



FORMA B-AZ
B-AZ FORM
FORME B-AZ



FORMA B
B FORM
FORME B



FORMA C/º
C/º FORM - FORME C/º
C/15º - C/35º - C/39º - C/40º - C/50º



FORMA COJINETE A
DIES FORM A
FILIÉRE FORME A



FORMA C
C FORM
FORME C

ÁNGULOS HÉLICES / *HELIX ANGLES* / *ANGLE D´HÉLICE*



HÉLICE ÁNGULO º
º HELIX ANGLE
ANGLE D´HELICE º
8º / 30º / 35º / 40º / 45º



HÉLICE TIPO "S"
"S" TYPE HELIX
HÉLICE TIPE "S"

ANGULOS DE PUNTA / *POINT ANGLES* / *ANGLES POINTES*



ÁNGULO PUNTA º
º TIP ANGLE
ANGLE DE POINTE º
118º / 120º / 130º / 135º / 140º

ÁNGULO DE ASIENTO Y AVELLANADO / *ANGLES* / *ANGLES*



35º / 60º / 90º / 180º

MANGOS / *SHANK TYPES* / *QUEUES*



SDS MAX
SDS MAX
SDS MAX


MANGO CILÍNDRICO
STRAIGHT SHANK
QUEUE CYLINDRIQUE


MANGO CÓNICO
MORSE TAPER SHANK
QUEUE CONIQUE



SDS PLUS
SDS PLUS
SDS PLUS


MANGO HEXAGONAL
HEXAGONAL SHANK
QUEUE HEXAGONALE


MANGO MÁQUINA NEUMÁTICA
PNEUMATIC MACHINE SHANK
QUEUE MACHINE PNEUMATIQUE


SDS TOP
SDS TOP
SDS TOP



MANGO HEXAGONAL 1/4
HEXAGONAL SHANK 1/4
QUEUE HEXAGONALE 1/4



ANCLAJE WELDON DIN 1835B
WELDON SHANK DIN 1835B
QUEUE WELDON DIN 1835B


MANGO 3 PLANOS
3 FLAT SHANK
QUEUE 3 PLANS

MANGO REBAJADO
REDUCED SHANK
QUEUE RÉDUITE

ANCLAJE WELDON 19,00
WELDON SHANK 19,00
QUEUE WELDON 19,00

TOLERANCIAS / *TOLERANCES* / *TOLERANCES*

6H / 7H / 6g / 6e / 2B / ISO2X / 3B / ISO1 - 4H
ISO2 - 6H / 6H + 0,1mm / 6HX / 6GX

SISTEMAS ANCLAJE / *ANCHOR SYSTEMS* / *SYSTÈME ANCRAGE*

SISTEMA 1:8
1:8 SYSTEM
SYSTÈME 1:8

SISTEMA M16
M16 SYSTEM
SYSTÈME M16

SISTEMA M14
M14 SYSTEM
SYSTÈME M14

DIN 138
DIN 138
DIN 138

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OTROS ICONOS / *OTHER ICONOGRAPHY* / *AUTRE ICONOGRAPHIE*

REFRIGERACIÓN *COOLING* *REFROIDISSEMENT*	SIN REFRIGERACIÓN *NO COOLING* *SANS RÉFROIDISSEMENT*	CORTE IZQUIERDA *LEFT HAND* *COUP À GAUCHE*
PERCUSION *PERCUSSION* *PERCUSSION*	SIN PERCUSIÓN *NO PERCUSSION* *NON PERCUSSION*	ALTURA DE SEGMENTO *SEGMENT HEIGHT* *HAUTEUR SEGMENT*
PGM *PGM* *PGM*	RPM *RPM* *RPM*	

CALIDAD HERRAMIENTA Y RECUBRIMIENTOS / *TOOL COMPOSITION AND COATINGS* / *CALITÉ OUTILS ET RECOUVREMENTS*

HSS-G ACERO RÁPIDO HSS-G (M2) *HIGH SPEED STEEL HSS-G (M2)* *ACIER RAPIDE HSS-G (M2)*	FUTURA FUTURA *FUTURA* *FUTURA*	ALUSPEED ALUSPEED *ALUSPEED* *ALUSPEED*
HSS M3 ACERO RÁPIDO HSS (M3) *HIGH SPEED STEEL HSS (M3)* *ACIER RAPIDE HSS (M3)*	HSS-CO 8% ACERO RÁPIDO COBALTO 8% (M42) *HIGH SPEED 8% COBALT STEEL (M42)* *ACIER RAPIDE COBALT 8% (M42)*	TIALN NITRURO DE TIT. ALUMINIO (RECUBRIMIENTO) *TITANIUM ALUMINIUM NITRIDE* *NITRURE DE TITANE ALUMINIUM*
HSS ACERO RÁPIDO HSS *HIGH SPEED STEEL HSS* *ACIER RAPIDE HSS*	HSS-R LAMINADO *ROLL FORGED* *LAMINÉ*	TIN NITRURO DE TITANIO (RECUBRIMIENTO) *TITANIUN NITRIDE (COATING)* *NITRURE DE TITANE (RECOUVREMENT)*
HSS-CO 5% ACERO RÁPIDO COBALTO 5% (M35) *HIGH SPEED 5% COBALT STEEL (M35)* *ACIER RAPIDE COBALT 5% (M35)*	MD METAL DURO - CARBURO DE TUNGSTENO *HARD METAL - CARBURE TUNGSTEN* *METAL DUR - CARBURE TUNGSTÉNE*	VAP VAPORIZADO (TRATAMIENTO) *VAPORIZED (TREATMENT)* *VAPORISÉ (TRAITEMENT)*
MDI METAL DURO INTEGRAL *HARD METAL INTEGRAL* *METAL DUR PLEIN*	PM PULVIMETALÚRGICO *POWDER METALURGY* *MÉTALLURGIE DES POUDRES*	HSS-E-V3 ACERO RÁPIDO VANADIO 3% *HIGH SPEED STEEL 3% VANADIUM* *ACIER RAPIDE VANADIUM 3%*
ALTIN NITRURO DE TITANIO ALUMNIO *TITANIUM ALUMINIUM NITRIDE* *NITRURE DE TITANE ALUMINIUM*	ALCrN NITRURO DE CROMO ALUMINIO *ALUMINUM CHROMIUM NITRIDE* *NITRURE DE CHROME ALUMINIUM*	HL HARD LUBE *HARD LUBE* *HARD LUBE*

APLICACIONES CONSTRUCCIÓN / *APLICATIONS CONSTRUCTION* / *APLICATIONS CONSTRUCTION*

HORMIGÓN REFORZADO *REINFORCED CONCRETE* *BÉTON ARMÉ*	HORMIGÓN *CONCRETE* *BÉTON*	HORMIGÓN BLOQUE *CONCRETE BLOCK* *BRIQUE BÉTON*	FIBROCEMENTO *FIBROCEMENT* *FIBROCEMENT*
PIEDRA NATURAL - GRANITO - MÁRMOL *NATURAL STONE - GRANITE - MARBLE* *PIERRE NATURELLE*	PIEDRA ARTIFICIAL *ARTIFICIAL STONE* *PIERRE ARTIFICIELLE*	CERÁMICA - PORCELANATO - GRES *CERAMIC - GRES - HARD TILE* *CÉRAMIQUE - GRÈS*	
VIDRIO *GLASS* *VERRE*	LADRILLO *BRICK* *BRIQUE*	TEJA *TILE* *TILE*	EPOXI *EPOXY* *ÉPOXY*
MAMPOSTERÍA *PLYWOOD* *MAÇONNERIE*	MULTIUSOS *MULTIPURPOSE* *MULTIMATÉRIL*	PVC - ACRÍLICO *PVC* *PVC*	FIBRA DE VIDRIO *FIBER GLASS* *FIBRE DE VERRE*
MADERA *WOOD* *BOIS*	AGLOMERADO *SOFTWOOD* *AGGLOMÉRÉS*	CONTRACHAPADO *PLYWOOD* *CONTRAPLAQUÉ*	TUBO *TUBE* *TUBE*

APLICACIONES METAL / *METAL APLICATIONS* / *APLICATIONS MÉTAL*

ACERO 400-800 *STEEL 400-800* *ACIER 400-800*	ALUMINIO *ALUMINIUM* *ALUMINIUM*	INOX *STAINLESS STEEL* *INOX*	TITANIO *TITANIUM* *TITANIUM*
ACERO 800-1100 *STEEL 800-1100* *ACIER 800-1100*	COBRE *COPPER* *CUIVRE*	ALEACIONES ESPECIALES *SPECIAL ALLOYS* *ALLIAGES SPÉCIAUX*	LATÓN *BRASS* *LAITON*
ACERO 1100-1400 *STEEL 1100-1400* *ACIER 1100-1400*	FUNDICIÓN *CAST IRON* *FONTE*	PLÁSTICO *PLASTIC* *PLASTIQUE*	

ENVASES / *PACKAGINGS* / *EMBALLAGES*

BLISTER *BLISTER* *BLISTER*	COLGADOR *CLIP* *CLIP*	PETACA *PACK* *PACK*	TUBO CON COLGADOR *TUBE WITH HANGER* *TUBE AVEC CONGATEUR*	TUBO SIN COLGADOR *TUBE WITHOUT HANGER* *TUBE SANS CONGATEUR*	CAJA SIN COLGADOR *BOX WITHOUT HANGER* *BOÎTE SANS CONGATEUR*

CARACTERÍSTICAS DEL ACERO
CHARACTERISTICS OF STEEL
CARACTERISTIQUES DE L'ACIER

HSS

Acero rápido con buena tenacidad y rendimiento para herramientas de corte.

High Speed Steel with good toughness and good performance for cutting tools.

Acier rapide avec une bonne ténacité et une bonne performance pour les outils de coupe.

HSS-G

Acero rápido de gran rendimiento y buena tenacidad, para el trabajo en materiales hasta 850 N/mm^2.

Very high performance HSS with good toughness, for milling and cutting of materials up to 850 N/mm^2.

Acier rapide à haut rendement et bonne ténacité, pour le broyage et le coupe des matériaux jusqu'à 850 N/mm^2.

HSS M3

Acero rápido de gran rendimiento y alta tenacidad, con alta estabilidad en la arista de corte.

Very high performance and good toughness HSS with high stability at the cutting edge.

Acier rapide à haut rendement et bonne ténacité, avec une grande stabilité à la arête de coupe des outils.

HSS-CO 5%

Acero rápido de gran rendimiento y buena tenacidad, para el fresado de materiales hasta 1200 n/mm^2

Very high performance HSS with good toughness, for milling of materials up to 1200 n/mm^2

Acier rapide à haut rendement et bonne ténacité, pour le broyage des matériaux jusqu'à 1200 n/mm^2

HSS-CO 8%

Acero rápido de excelente rendimiento, buena tenacidad y gran resistencia a la temperatura. para el fresado de materiales de gran dureza.

Extra high performance HSS with good toughness and great temperature resistence. For milling of hard materials.

Acier rapide à excellent rendement, bonne ténacité et haute résistance à la température. Pour l'usinage de matériaux très durs.

HSS-E-V3

Acero rápido de gran rendimiento y buena tenacidad. Especialmente usado en piezas de gran diámetro y fresas de disco.

HSS with high performance and good toughness. Applicable for tools of big diameters and for face milling cutters.

Acier rapide à haut rendement et bonne ténacité, notamment utilisé dans les pièces à grand diamètre et fraises de disque.

PM

Acero rápido pulvi-metalúrgico. Estructura homogénea, gran estabilidad y mayor vida útil de las herramientas. Para trabajar materiales muy duros.

Powder metallurgical HSS, extra high performance. Homogeneous structure, more stability and longer life for tools. For very hard materials.

Acier rapide pulvimétallurgique. Structure homogène, grande stabilité et durée de vie des outils prolongée. Pour l'usinage de matériaux très durs.

MDI

Aleación sinterizada de Carburo de Tungsteno, de gran dureza, estabilidad y resistencia al desgaste, que permite trabajar a velocidades muy altas y en grandes producciones.

Sintered alloy of Tungsten Carbide, with great hardness, excellent stability and resistance to wear, which allows working at very high speeds and in large productions.

Alliage fritté de carbure de tungstène, avec une grande dureté, une excellente stabilité et une résistance à l'usure, ce qui permet de travailler à des vitesses très élevées et dans les grandes productions.

RECUBRIMIENTOS
COATINGS
REVETEMENTS

TIALN

Recubrimiento que aumenta la resistencia, la dureza y la oxidación a altas temperaturas. Permite trabajar a altas velocidades sin refrigerar.

Increases resistance, hardness and high temperature oxidation. It allows high speed without cooling.

Revêtement qui accroît la résistance, la dureté et l'oxydation à des températures élevées. Possibilité de travail à des vitesses élevées sans réfrigérer.

ALTIN

Mayor contenido en Al que el TiAlN. Aumenta ligeramente la dureza respecto a éste.

With more Al than TiAlN. Lightly increases hardness.

Teneur plus importante que celle du "TIALN".

ALCrN

Recubrimiento con excelente resistencia a la tracción en caliente.

Great tensile strength and excellent hot hardness.

Revêtement avec excellente résistance à la traction à chaud.

TIN

Disminuye el coeficiente de fricción, aumenta la vida útil de la herramienta.

More sliding properties and tool life increase.

Diminution du coefficient de frottement, prolongation de la durée de vie utile de l'outil.

HL

Disminuye mucho la fricción. Gran adhesión del recubrimiento en todo tipo de materiales.

Very good sliding properties. Great adhesión to all kind of tools.

Réduction considérable des frottements.

FUTURA

Mejora la dureza, disminuye la fricción y aumenta la resistencia química.

Increases hardness, better sliding properties and chemical resistance.

Amélioration de la dureté, diminution des frottement et accroissement de la résistance chimique.

ALUSPEED

Recubrimiento antiadherente AlSi al 10%. Propiedades auto-lubricantes y muy buena evacuación de viruta debido a su baja fricción.

Better sliding properties. AlSi 10% coating. Low friction coefficient and chip extraction.

Revêtement anti-adhésif "ALSI" à 10 % des propriétés auto-lubrifiantes et très bonne évacuation des copeaux en raison de sa faible friction.

VAP

Recubrimiento PVD, mayor vida útil de la herramienta y mayor productividad con menor coste.

PVD coating: longer tool life and higher productivity at a lower cost.

Revêtement PVD: durée de vie outils prolongée et et une meilleure productivité à moindre coût de l'outil.

CONDICIONES GENERALES DE VENTA
GENERAL CONDITIONS OF SALES
CONDITIONS GENERALES DE VENTE

1º. CONDICIONES DE PAGO

La forma de pago será adecuada a la ley vigente en cada país. En el mercado nacional, según la Ley 15/2010 del 05 de Julio de 2010.

Reposición, mediante cheque o transferencia a los 11días de fecha factura tendrá un Dto. Adicional del 2%.

2º. VENCIMIENTOS FIJOS

En caso de fechas fijas de pago que rebasen los plazos de pago estipulados, giraremos a la fecha fijada pero inmediatamente anterior, según corresponda, siendo el plazo máximo el límite establecido por la ley vigente de cada país.

3º. SEGURO

Las mercancías viajarán siempre por exclusiva cuenta y riesgo del comprador, siendo a cargo del mismo la prima del seguro que se realice, en los casos en los que el cliente desee asegurarla.

4º. RECLAMACIONES

En discrepancias por diferencias observadas en la recepción del material, se atenderán todas aquellas reclamaciones que se planteen dentro de los 8 días siguientes a la recepción del material, no aceptando ninguna devolución sin previo conocimiento de SESA TOOLS, S.A.

5º. CONDICIONALIDAD

La aceptación de las mercancías sin el rechazo inmediato por parte del comprador, supone la aprobación de estas condiciones generales de venta y su modificación sólo tendrá validez si consta por escrito la conformidad de SESA TOOLS, S.A.

6º. GARANTIAS

Todas las herramientas del programa de ventas están garantizadas contra cualquier defecto de fabricación y materiales, sin responsabilizarse SESA TOOLS, S.A. de la utilización inadecuada de las mismas. En cualquier caso, nuestra responsabilidad estará limitada al valor de la herramienta suministrada. Nos reservamos el derecho de modificar, sin previo aviso, las dimensiones, calidades de acero y en general todas las características técnicas de las herramientas. No será sustituida ninguna herramienta sin el informe previo de nuestro Departamento de Control de Calidad. Para la elaboración de dicho informe será imprescindible remitir debidamente cumplimentada la ficha de devolución del producto correspondiente.

7º. DEVOLUCIONES

No se admitirá ninguna devolución sin comunicación previa del cliente y es necesario el consentimiento de SESA TOOLS, S.A., estipulando como plazo máximo para atenderlas un **periodo de 30 días** desde la recepción de la mercancía por parte del cliente.

Cualquier devolución deberá ser documentada adjuntando el albarán o factura de venta del material afectado. En caso de tratarse de una devolución **por error en el pedido efectuado por el cliente o no venta**, siendo consentida por SESA TOOLS, S.A., se realizará un cargo de un 15% en factura de abono en concepto de gastos de manipulación, reenvasado, etc.

Siempre deberán realizarse a portes pagados. **No se aceptarán** devoluciones de herramientas enviadas a portes debidos por agencias no autorizadas por SESA TOOLS, S.A.

Para la tramitación de una **devolución de un producto en caso de incidencia**, será necesario que se adjunte un formulario con las condiciones de trabajo, que será proporcionado por SESA TOOLS, S.A.

Una vez recibida la herramienta, nuestro departamento de calidad lo verificará y emitirá el informe correspondiente.

8º. PORTES

PENINSULA Y BALEARES

Pedidos inferiores a 150 € NETOS por expedición: Portes debidos o cargados en factura, siempre que se utilicen nuestros medios habituales.

Pedidos superiores a 150 € NETOS: PORTES PAGADOS

CANARIAS, CEUTA Y MELILLA

PAGADOS, exclusivamente en pedidos superiores a 600 € NETOS, por VÍA MARÍTIMA.

Otros envíos por paquete postal express, mensajeros, etc., se cargarán en factura los costos de envío, más los gastos de DESPACHO, si los hubiera.

PORTUGAL

Pedidos inferiores a 150 € NETOS por expedición: Portes debidos o cargados en factura, siempre que se utilicen nuestros medios habituales.

Pedidos superiores a 150 € NETOS: PORTES PAGADOS.

FRANCIA

Pedidos inferiores a 300 €: Portes debidos o cargados en factura

Pedidos superiores a 300 €: PORTES PAGADOS.

9º. IMPORTE MÍNIMO DE PEDIDO

No existe límite mínimo de pedido. A los pedidos inferiores a 50 € se cargará un coste adicional de 4 €.

10º. I.V.A.

Todos los precios están sujetos al Impuesto sobre el Valor Añadido, siendo a cargo del cliente el recargo correspondiente.

11º. RESERVA DE DOMINIO

Nuestras ventas se consideran siempre bajo la condición de “RESERVA DE DOMINIO”, según el artículo 1.506 del C.C. hasta que se haya hecho efectivo íntegramente el pago de todo lo adeudado.

12º. JURISDICCIÓN COMPETENTE

Para cualquier discrepancia acerca de la interpretación de estas condiciones, o litigio por razón de incumplimiento por cualquiera de las partes, ambas se someterán al fuero de los Juzgados y Tribunales de San Sebastián, con renuncia al que pudiera corresponderles.

1º. TERMS OF PAYMENT

Payment shall be made in accordance with the laws in force in each country. Payment in Spain shall be governed by Law 15/2010 of 05 July 2010.

Payment by means of a cheque or bank transfer 11 days after the invoice due date shall be subject to an additional charge of 2%.

2º. FIXED MATURITIES

In the case of fixed payment dates exceeding the predefined payment deadlines, we shall bill on the date immediately previous to the set date, as applicable, up to the maximum deadline established under the law in force in each country.

3º. INSURANCE

Goods shall be transported at the sole risk of the purchaser, which shall also be responsible for the respective insurance premium in cases where the customer wishes to take out insurance coverage.

4º. COMPLAINTS

In relation to discrepancies detected on delivery of the goods, only complaints filed within 8 days of receipt of the material will be dealt with, and no returned goods will be accepted without the previous knowledge of SESA TOOLS, S.A.

5º. CONDITIONALITY

The acceptance of goods with no immediate rejection by the puchaser implies the approval of these general conditions of sale and the amendment of the same shall only be valid with the written consent of SESA TOOLS, S.A.

6º. GUARANTEES

All sales program tools are guaranteed against any manufacturing and material defects, and SESA TOOLS, S.A. shall not be held liable for any improper use of the same. Furthermore, our liability shall be limited to the value of the tool supplied. We reserve the right to modify the dimensions, steel quality and overall technical characteristics of the tools. No tool shall be replaced without the submission of a report by our quality control department. This report shall only be issued on receipt of the duly completed product rejection sheet for the item in question.

7º. RETURNS

*No return will be accepted without previous communication from the client and the consent of SESA TOOLS, S.A. is required. To attend returns, it´s stipulated a maximum term of **30 days** from the receipt of the goods by the client.*

*Any return must be documented attaching the delivery note or invoice of the affected items. In case of a return **by customer´s mistake placing the order or non-sale**, previously being consented by SESA TOOLS, SA shall be subject to a 15% surcharge for handling, repackaging, etc.*

*Returns should always be done free of freight. SESA TOOLS, S.A. **shall not accept** returned tools with freight charged by not authorized agencies.*

*For processing of a return of items in **the event of an incident**, it will be necessary to send attached a form with working conditions. This document will be provided by SESA TOOLS, S.A.*

Once the tool is received, our quality department will verify it and issue the corresponding report.

8º. FREIGHT

THE MAINLAND AND THE BALEARIC ISLANDS

Orders below €150 net per shipment: Freight paid or billed by invoice whenever using our habitual means.

Orders above €150 net: FREIGHT INCLUDED.

THE CANARY ISLANDS, CEUTA AND MELILLA

INCLUDED, exclusively for orders of over € 600 net, by SEA.

Other express delivery services via courier, etc., delivery costs will be billed for by invoice, plus shipment costs, if applicable.

PORTUGAL

Orders below €150 net per shipment: Freight paid or billed by invoice whenever using our habitual means.

Orders above €150 net: FREIGHT INCLUDED.

FRANCE

Orders below € 300 net: Freight paid or billed by invoice.

Orders above € 300 net: FREIGHT INCLUDED.

9º. MINIMUM ORDERS

There is no minimum order limit. Orders of less than € 50 shall be subject to an additional cost of 4 €.

10º. I.V.A. (VAT)

All prices are subject to value added tax and the customer shall bear the cost of the same.

11º. RESERVATION OF RIGHT OF OWNERSHIP

Our sales are always conducted under the condition of "RIGHT OF OWNERSHIP" in accordance with article 1506 of the Constitution until full payment of all that is owed has been effected.

12º. JURISDICTION

All disputes arising from the interpretation of these terms or litigation due to non-compliance by either party shall be settled by the courts of the city of San Sebastian, with the express waiver of any other.

1º. CONDITIONS DE PAIEMENT

Le mode de paiement sera adapté à la loi en vigueur de chaque pays. Sur le marché national, il sera conforme à la Loi 15/2010 du 05 juillet 2010.

Lors du paiement par chèque ou virement dans les 11 jours à partir de la date de facturation vous aurez droit à une remise supplémentaire de 2%.

2º. ECHEANCES FIXES

Dans le cas de dates de règlement fixes qui réduiraient les délais de paiement établis, nous procéderons au virement à la date fixe la plus immédiatement antérieure audit délai correspondant, le délai maximum étant la limite établie par la loi en vigueur dans chaque pays.

3º. ASSURANCE

Les marchandises voyageront toujours à la charge et au risque de l'acheteur, qui devra prendre en charge la prime de l'assurance éventuellement souscrite, si le client souhaite assurer ses marchandises.

4º. RECLAMATIONS

En cas de divergences suite à des non-conformités par rapport à la commande constatées lors de la réception du matériel, nous répondrons à toutes les réclamations présentées dans un délai de 8 jours après la réception du matériel, aucun retour de marchandise ne sera accepté sans que SESA TOOLS, S.A. en soit informée au préalable.

5º. CONDITIONS

L'acceptation des marchandises sans leur refus immédiat de la part de l'acheteur implique l'approbation des présentes conditions générales de vente et toute modification de ces dernières ne sera valide que si elle est approuvée par écrit par SESA TOOLS, S.A.

6º. GARANTIES

Tous les outils de notre programme de ventes sont garantis contre tout défaut de fabrication et de matériels, sans que SESA TOOLS, S.A. puisse être tenue pour responsable d'une utilisation inadéquate de ses produits. Dans tous les cas, notre responsabilité est limitée à la valeur de l'outil fourni. Nous nous réservons le droit de modifier sans préavis les dimensions, les qualités d'acier et en général toutes les caractéristiques techniques des outils. Aucun outil ne sera remplacé sans le rapport préalable de notre Département de Contrôle Qualité. Pour l'élaboration dudit rapport il sera indispensable de remplir comme il se doit la fiche de retour du produit concerné.

7º. RETOUR DE MARCHANDISES

*Aucun retour ne sera accepté sans une communication préalable du client et le consentement de SESA TOOLS, S.A. est requis. Il est stipulé un délai maximum **de 30 jours** à compter de la réception des marchandises par le client pour y assister.*

*Tout retour doit être documenté en joignant le bon de livraison ou la facture des articles concernés. Dans le cas d'un retour **par erreur dans la commande du client ou de la non-vente**, préalablement consenti par SESA TOOLS, SA, sera soumis à un supplément de 15% pour la manutention, le reconditionnement, etc.*

Les retours doivent toujours être effectués sans fret. SESA TOOLS, S.A. n'acceptera pas de retours d'outils qui arriveraient avec le fret sans payer par l'intermédiaire d'agences non autorisées.

*Pour le traitement d'un retour d'articles **en cas d'incident**, il sera nécessaire d'envoyer ci-joint un formulaire avec conditions de travail. Ce document sera fourni par SESA TOOLS, S.A.*

Une fois l'outil reçu, notre service qualité le vérifie et émet le rapport correspondant.

8º. FRAIS DE PORT

PENINSULE IBERIQUE ET BALEARES

Pour les commandes inférieures à 150 € NETS par expédition : Port dû ou inclus dans la facture, à condition d'utiliser nos moyens de livraison habituels.

Pour les commandes supérieures à 150 € NETS : PORT PAYE.

CANARIES, CEUTA ET MELILLA

PORT PAYE exclusivement pour les commandes supérieures à 600 € NETS, par VOIE MARITIME.

Pour les autres modes d'envoi par colis postal express, messagerie, etc., les frais d'envoi, ainsi que les frais d'EXPEDITION, si existantes, seront inclus dans la facture.

PORTUGAL

Pour les commandes inférieures à 150 € NETS par expédition : Port dû ou inclus dans la facture, à condition d'utiliser nos moyens de livraison habituels.

Pour les commandes supérieures à 150 € NETS : PORT PAYE.

FRANCE

Pour les commandes inférieures 300 € : Port dû ou inclus dans la facture

Pour les commandes supérieures à 300 € : PORT PAYE.

9º. MONTANT MINIMUM DE LA COMMANDE

Il n'y a pas de limite minimum de commande. Un coût additionnel de 4 € sera appliqué aux commandes inférieures à 50 €.

10º. T.V.A.

Tous les prix sont soumis à la Taxe sur la Valeur Ajoutée, qui sera à la charge du client.

11º. RESERVE DE PROPRIETE

Nos ventes se Font toujours sous la condition de "RESERVE DE PROPRIETE", conformément aux dispositions de l'article 1.506 du C.C. jusqu'au recouvrement effectif et intégral du montant dû.

12º. JURIDICTION COMPETENTE

Pour toute divergence concernant l'interprétation des présentes conditions ou tout litige découlant du non-accomplissement de ses obligations par l'une des parties, les deux parties se soumettront à la juridiction des Tribunaux de San Sebastián, en renonçant à tout autre tribunal.



SESA®

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