



SESA[®]

CATÁLOGO | TARIFA 2024-25

CATALOGUE | PRICE LIST CATALOGUE | TARIF

RESPONSABILIDAD COLABORACIÓN



SERVICIO
EXPERIENCIA

CONFIANZA
CALIDAD

COMPROMISO
FIDELIDAD

CERCANÍA



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 atualizado, 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>

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SESA®



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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 PERSONALISÉE

SERVICIO
SERVICE
SERVICE



VALOR AÑADIDO
INNOVACIÓN
CALIDAD - GAMAS

ADDED VALUE
INNOVATION
QUALITY - RANGES

VALEUR AJOUTÉE
INNOVATION
QUALITÉ - GAMMES

PRODUCTO
PRODUCT
PRODUIT

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





CLIENTE
CUSTOMER
CLIENT

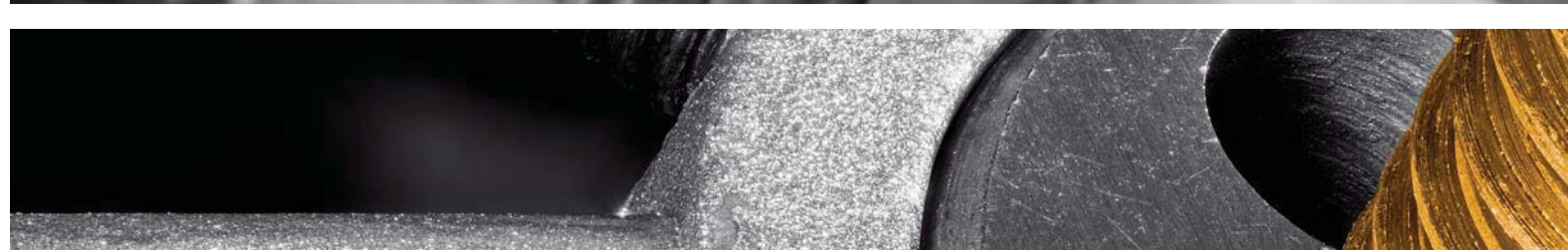
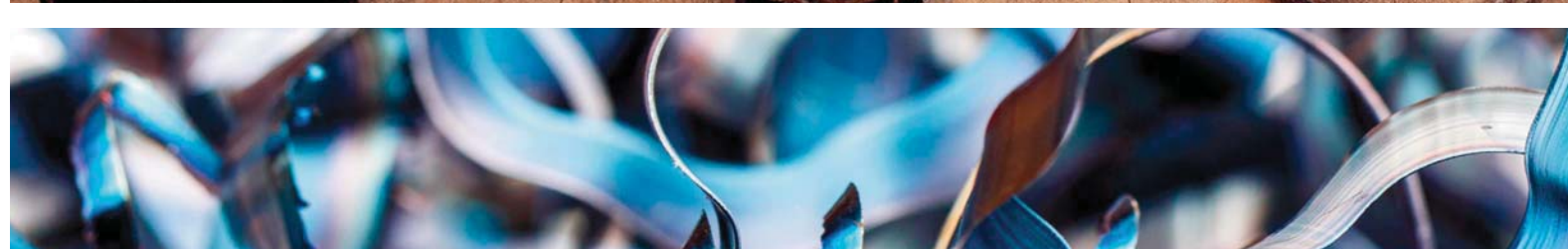
CONFIANZA
CONFIDENCE
CONFIANCE

COMPROMISO
COMMITMENT
CONFIANCE

COLABORACIÓN
COOPERATION
ENGAGEMENT

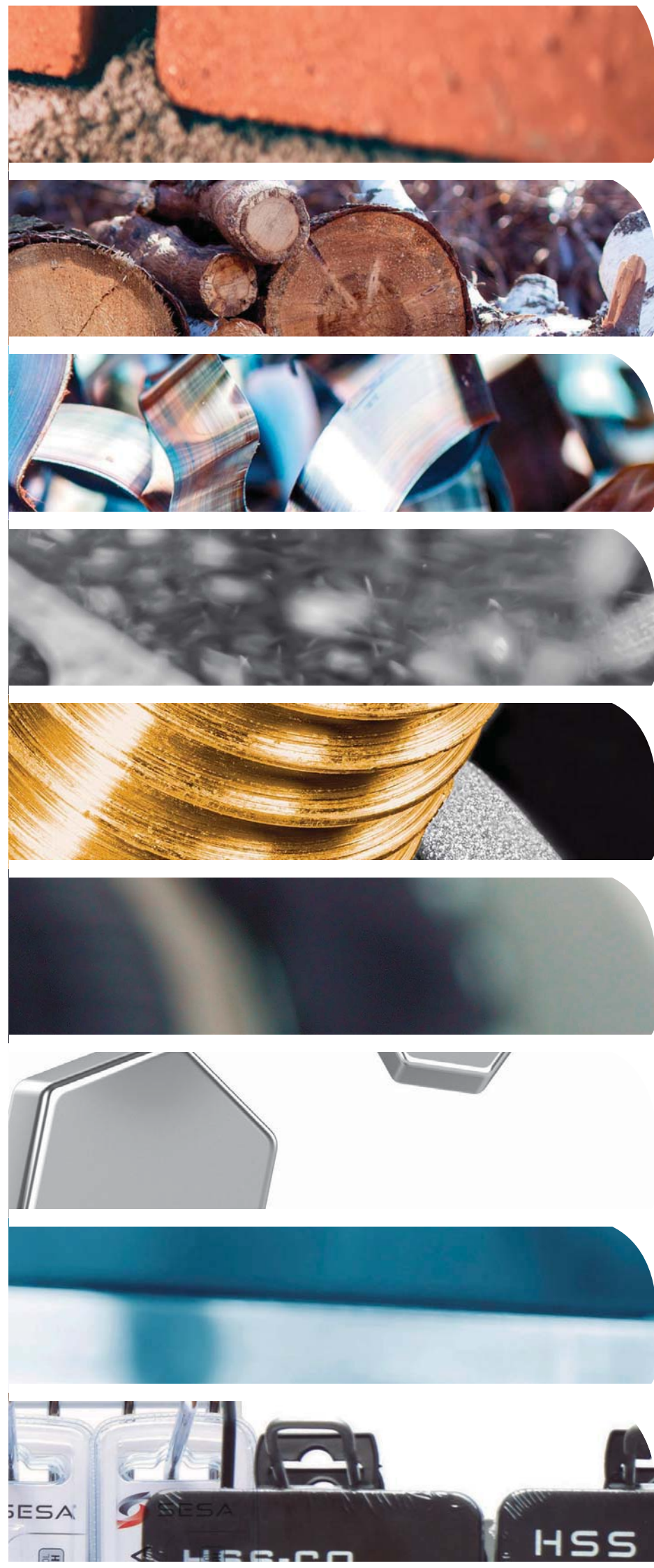
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FIDELITÉ





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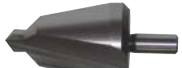
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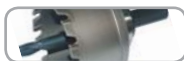
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HSS-G
WELDON 19,00


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 PARA MÁQUINA ELECTROMAGNÉTICA
 ELECTROMAGNETIC CORE BITS
 SCIES ELECTROMAGNETIQUES

HSS-CO 5%
WELDON 19,00


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MD
WELDON 19,00


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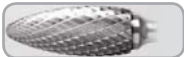
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FRESADO • MILLING • FRAISAGE

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E	OVAL OVAL OVALE			MD			201
F	ÁRBOL CON RADIO ROUND TREE OGIVE A RAYON			MD			201
G	ÁRBOL CON PUNTA POINTED TREE ARBRE			MD			202
H	LLAMA FLAME FLAMME			MD			202
K	CÓNICA 90° COUNTER SINK 90° CONIQUE 90°			MD			202
L	CÓNICA CON RADIO BALL NOSE CONE CONIQUE A RAYON			MD			203
M	CÓNICA CON PUNTA CONE CONIQUE TRONQUEE			MD			203
N	CONO INVERTIDO INVERTED CONE CONIQUE RENVERSEE			MD			203
P	PASTILLA RIM SHAPE DISQUE			MD			203
NEW	ESPECIAL CERRAJERÍA SPECIAL LOCKSMITH SERRURERIE SPÉCIAL			MD			204

FRESAS ROTATIVAS DE METAL DURO PARA INOX / HARD METAL ROTARY BURRS FOR STAINLESS STEEL / FRAISES ROTATIVES MÉTAL DUR POUR INOX 205

A	CILÍNDRICA CYLINDER CYLINDRIQUE			MD				205
C	CILÍNDRICA CON RADIO BULL NOSE CYLINDRIQUE A RAYON			MD				205
D	ESFÉRICA BALL SPHERIQUE			MD				205
F	ÁRBOL CON RADIO ROUND TREE OGIVE A RAYON			MD				205
	ESTUCHES Y EXPOSITOR SETS AND DISPLAYS COFFRETS ET DISPLAY			MD				206

FRESAS FRONTALES DE UN DIENTE / 1Z FINISHING END MILLS / FRAISES 1Z FINITION 209

FRESA CORTA END MILL FRAISE FINITION		HSS-CO 5%		1Z		209
FRESA LARGA LONG END MILL FRAISE FINITION LONGUE		HSS-CO 5%		1Z		209
FRESA PVC LONG END MILL FOR PVC FRAISE FINITION LONGUE POUR PVC		HSS-CO 5%		1Z		209

FRESADO MILLING • FRAISAGE

FRESAS CON MANGO CILINDRICO / STRAIGHT SHANK END MILLS / FRAISES QUEUE CYLINDRIQUE
210

DIN 844W	DIN 1835B		HSS-CO 8%		N	2Z	AL ACERO	210
DIN 844W	DIN 1835B		HSS-CO 8%		N	2Z	AL ACERO	211
DIN 327N	DIN 1835B		HSS-CO 8%		N	2Z	ACERO INOX F	212
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
DIN 1889	DIN 1835B		PM	ALTIN		N 2Z	ACERO F	216
DIN 844N	DIN 1835B		HSS-CO 8%		N	3Z-6Z	ACERO INOX F TI	217
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

FRESAS CON MANGO CILINDRICO / STRAIGHT SHANK END MILLS / FRAISES QUEUE CYLINDRIQUE										226
DIN 1833D	DIN 1835B		HSS-CO 5%	10Z-12Z	FRESA EN BISEL DOVETAIL MILLING CUTTERS FRAISES ANGULAIRES	ACERO	TI			226
DIN 6518	DIN 1835B		HSS-CO 8%	4Z-6Z	FRESA RADIO CORNER ROUNDING CUTTER FRAISE A RAYON	ACERO	TI			227
FRESAS CON MANGO CONICO / TAPER SHANK END MILLS / FRAISES QUEUE CONIQUE										228
DIN 326N			HSS-CO 5%	  2Z		ACERO	INOX			228
DIN 845N			HSS-CO 5%	  4Z-8Z		ACERO	INOX	F	TI	229
DIN 845N			HSS-CO 5%	  4Z-8Z		ACERO	INOX	F	TI	230
FRESAS DE AGUJERO / MILLING CUTTERS / FRAISES A TROU										231
DIN 1880N	DIN 138		HSS-CO 5%	 6Z-14Z		ACERO	INOX	F		231
DIN 1880N	DIN 138		HSS-CO 5%	TIALN  6Z-14Z		ACERO	INOX	F		231
DIN 1880N	DIN 138		HSS-CO 5%	 6Z-10Z		ACERO	INOX	F		232
DIN 1880N	DIN 138		HSS-CO 5%	TIALN  6Z-10Z		ACERO	INOX	F		232
DIN 885A	DIN 138		HSS-CO 5%			ACERO	INOX	F	CU	233
ESTUCHES DE FRESAS CON MANGO CILINDRICO / STRAIGHT SHANK END MILLS SET / COFFRETS DE FRAISES DE QUEUE CYLINDRIQUE										235
CONJUNTOS SETS COFFRETS										235
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ROSCADO THREADING • FILÉTAGE

ROSCADO CON COLGADOR / THREADING WITH HANGER / FILETÉ AVEC CINTRE
250

DIN 352		M	HSS-G	TOL 6H		250	
DIN 223		M	HSS-G	TOL 6g		250	
DIN 371	DIN 376		M	HSS-CO 5%	FORM C TOL 6H		250
DIN 371	DIN 376		M	HSS-CO 5%	FORM B TOL 6H		251
DIN 371	DIN 376		M	HSS-CO 5%	FORM C/35° TOL 6H		251

MACHOS MANO / HAND TAPS / TARAUDS À MAIN
252

DIN 352		M	HSS-G	TOL 6H	ACERO 400-800 N/mm²	252
DIN 352		M	HSS-G	TOL 6H	ACERO 400-800 N/mm²	253
ENTRADA CÓNICA NON-SERIAL LFORM ENTRÉE CONIQUE						
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
DIN 5157		G(BSP)	HSS-G		ACERO 400-800 N/mm²	264

MACHOS MANO / HAND TAPS / TARAUDS À MAIN

264

DIN 2181		VG	HSS-G		264
DIN 40432		PG	HSS-G		265
ISO 529 ENTRADA CÓNICA NON-SERIAL L FORM ENTREE CONIQUE		UNEF	HSS-G	TOL 2B	266
		TR	HSS-G	TOL 7H	266
DIN 352		M	HSS-CO 5%	TOL 6H	267
DIN 352 CON PUNTA PILOTO ROUGHER PILOTTED EBAUCHEUR À PILOTE		M	HSS-CO 5%	TOL 6H	267
DIN 2181		MF	HSS-CO 5%	TOL 6H	268
DIN 5157		G(BSP)	HSS-CO 5%		269
DIN 352		M	HSS-G	TOL 6H	270
DIN 2181		MF	HSS-G	TOL 6H	271
≈DIN 352		UNC	HSS-G	TOL 2B	272
DIN 2181		UNF	HSS-G	TOL 2B	272

ROSCADO THREADING • FILÉTAGÉ

MACHOS MANO / HAND TAPS / TARAUDS À MAIN
273

≈DIN 351		BSW	HSS-G	LH	ACERO 400-800 N/mm²	273
DIN 5157		G(BSP)	HSS-G	LH	ACERO 400-800 N/mm²	273

MACHOS MÁQUINA CORTOS / SHORT MACHINE TAPS / TARAUDS MACHINE COURTS
274

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

MACHOS MÁQUINA COMBINADOS / COMBINED MACHINE TAPS / TARAUDS COMBINÉS

281



M

HSS-G



TOL
6H



281



M

HSS-G

TIN



TOL
6H



281



UNC

HSS-G



282



UNF

HSS-G



282



M

HSS-CO 5%

TOL
6H



283



BSW

HSS-CO 5%

TOL
6H



283

INFORMACIÓN TÉCNICA MACHOS MÁQUINA / MACHINE TAPS TECHNICAL INFORMATION / INFORMATION TECHNIQUE TARAUDS MACHINE

284

MACHOS MÁQUINA / MACHINE TAPS / TARAUDS MACHINE

286

DIN 371
DIN 376



M

HSS-CO 5%

FORM
C

TOL
6H



286

DIN 371
DIN 376



M

HSS-CO 5%

FORM
B

TOL
6H



287

DIN 371
DIN 376



M

HSS-CO 5%

TIN

FORM
B

TOL
6H



288

DIN 371
DIN 376



M

HSS-CO 5%

VAP

FORM
B

TOL
6H



288

DIN 371
DIN 376



M

HSS-CO 5%

FORM
C/15°

TOL
6H



289

ROSCADO THREADING • FILÉTAGE

MACHOS MÁQUINA / MACHINE TAPS / TARAUDS MACHINE
290

DIN 371 DIN 376		M	HSS-CO 5%		FORM C/35°		TOL 6H		290	
DIN 371 DIN 376		M	HSS-CO 5%	TIN	FORM C/35°		TOL 6H		291	
DIN 371 DIN 376		M	HSS-CO 5%	VAP	FORM C/35°		TOL 6H		291	
DIN 371 DIN 376		M	HSS-CO 5%		FORM B-AZ		TOL 6H		292	
≈DIN 371 ≈DIN 376 EXTRALARGOS EXTRALONG EXTRALONG		M	HSS-CO 5%		FORM B		TOL 6H		293	
DIN 371 EXTRALARGOS EXTRALONG EXTRALONG		M	HSS-CO 5%		FORM C/35°		TOL 6H		294	
DIN 371 DIN 376 SOBREDIMENSIONADOS OVERSIZE SURCOTES		M	HSS-CO 5%		FORM B	TOL 6G	TOL 7G	TOL 6H +0,1 mm		295
DIN 371 DIN 376 SOBREDIMENSIONADOS OVERSIZE SURCOTES		M	HSS-CO 5%		FORM C/35°	TOL 6G	TOL 7G	TOL 6H +0,1 mm		296
DIN 374		MF	HSS-CO 5%		FORM C		TOL 6H		297	
DIN 374		MF	HSS-CO 5%		FORM B		TOL 6H		298	
DIN 374		MF	HSS-CO 5%		FORM C/35°		TOL 6H		300	
≈DIN 371 ≈DIN 376		BSW	HSS-CO 5%		FORM B				302	

MACHOS MÁQUINA / MACHINE TAPS / TARAUDS MACHINE

303

≈DIN 371 ≈DIN 376		BSW	HSS-CO 5%	FORM C/35°	ACERO 400-800 N/mm²	303
≈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/35°	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/35°	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/35°	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/35°	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
DIN 5156		G(BSP)	HSS-CO 5%	FORM C	ACERO 400-800 N/mm²	314

ROSCADO THREADING • FILÉTAGE

MACHOS MÁQUINA / MACHINE TAPS / TARAUDS MACHINE
314

DIN 5156		G(BSP)	HSS-CO 5%	FORM B		ACERO 400-800 N/mm²	314
DIN 5156		G(BSP)	HSS-CO 5%	FORM C/35°		ACERO 400-800 N/mm²	315
DIN 5156		RC (BSPT)	HSS-CO 5%	FORM C		ACERO 400-800 N/mm²	315
		NPT	HSS-CO 5%	FORM C		ACERO 400-800 N/mm²	316
DIN 374		VG	HSS-CO 5%	FORM C		ACERO 400-800 N/mm²	316
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/35°	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/35°	LH	TOL 6H ACERO 400-800 N/mm²	322
DIN 5156		G(BSP)	HSS-CO 5%	FORM C	LH	TOL 6H ACERO 400-800 N/mm²	323

MACHOS MÁQUINA DE BANDA / COLOURED RING MACHINE TAPS / TARAUDS MACHINE BANDE COLORÉE

324

DIN 371 DIN 376			M	PM	HL	FORM B	TOL 6H	ACERO 800-1100 N/mm²	INOX	CU	324
DIN 371 DIN 376			M	PM	HL	FORM C/35°	TOL 6H	ACERO 800-1100 N/mm²	INOX	CU	324
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/35°	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/40°	TOL 6H	INOX			326
DIN 374			MF	HSS-CO 5%	VAP	FORM B		INOX			327
DIN 374			MF	HSS-CO 5%	VAP	FORM C/39°		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/39°		INOX			328
DIN 371 DIN 376			UNF	HSS-CO 5%	VAP	FORM B		INOX			329
DIN 371 DIN 376			UNF	HSS-CO 5%	VAP	FORM C/39°		INOX			329
DIN 5156			G(BSP)	HSS-CO 5%	VAP	FORM B		INOX			330
DIN 5156			G(BSP)	HSS-CO 5%	VAP	FORM C/39°		INOX			330

ROSCADO THREADING • FILÉTAGE

MACHOS MÁQUINA DE BANDA / COLOURED RING MACHINE TAPS / TARAUDS MACHINE BANDE COLORÉE 331

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
DIN 371 DIN 376		M	HSS-CO 5%	ALUSPEED	FORM C/45°	TOL 6H	AL	332

MACHOS MÁQUINA POR LAMINACIÓN / FORMING TAPS / TARAUDS À REFOULER 333

DIN 2174		M	HSS-CO 5%	TIN	TOL 6HX	TOL ISO2X		333
DIN 2174	LUBRICACIÓN OIL GROOVE AVEC RANURE GRAISSAGE	M	HSS-CO 5%	TIN	TOL 6HX	TOL ISO2X		334

MACHOS TUERQUEROS / MACHINE NUT TAPS / TARAUDS MACHINE POUR ÉCROUS 335

DIN 357		M	HSS-CO 5%			TOL ISO2	ACERO 400-800 N/mm²	335
		TR	HSS-G		TOL 7H		ACERO 400-800 N/mm²	336
		TR	HSS-G		LH		ACERO 400-800 N/mm²	337

COJINETES / DIES / FILIÈRES 338

DIN 223		M	HSS-G			TOL 6g	ACERO 400-800 N/mm²	338
Ø 25 / Ø25.4 / Ø 38.1	ESPECIALES ESPECIFIC SPÉCIALES	M	HSS-G	FORM A	TOL 6e	TOL 6g	ACERO 400-800 N/mm²	339
DIN 223		MF	HSS-G			TOL 6g	ACERO 400-800 N/mm²	340
DIN 223		BSW	HSS-G				ACERO 400-800 N/mm²	343
DIN 223		BSF	HSS-G				ACERO 400-800 N/mm²	344
BS1127		BA	HSS-G	FORM A			ACERO 400-800 N/mm²	344
DIN 223		UNC	HSS-G				ACERO 400-800 N/mm²	345
DIN 223		UNF	HSS-G				ACERO 400-800 N/mm²	346
DIN 223		UNEF	HSS-G				ACERO 400-800 N/mm²	347
DIN 5158		G(BSP)	HSS-G				ACERO 400-800 N/mm²	348

COJINETES / DIES / FILIÉRES						348
		R (BSPT)	HSS-G	FORM A	ACERO 400-800 N/mm²	348
DIN 40434		PG	HSS-G		ACERO 400-800 N/mm²	348
		NPT	HSS-G		ACERO 400-800 N/mm²	349
		VG	HSS-G		TOL 6g ACERO 400-800 N/mm²	349
		BSC	HSS-G		TOL 6g ACERO 400-800 N/mm²	349
		NPTF	HSS-G	FORM A	ACERO 400-800 N/mm²	350
DIN 223		M	HSS-CO 5%		TOL 6g ACERO 800-1100 N/mm²	350
DIN 223		MF	HSS-CO 5%		TOL 6g ACERO 800-1100 N/mm²	351
DIN 5158		G(BSP)	HSS-CO 5%		ACERO 800-1100 N/mm²	351
DIN 223		M	HSS-G	LH	TOL 6g ACERO 400-800 N/mm²	352
DIN 223		MF	HSS-G	LH	TOL 6g ACERO 400-800 N/mm²	353
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
DIN 5158		G(BSP)	HSS-G	LH	ACERO 400-800 N/mm²	355
DIN 382		M	HSS-G		TOL 6g ACERO 400-800 N/mm²	356
DIN 382		MF	HSS-G		TOL 6g ACERO 400-800 N/mm²	357
DIN 382		BSW	HSS-G		ACERO 400-800 N/mm²	358
DIN 382		BSF	HSS-G		ACERO 400-800 N/mm²	358
DIN 382		G(BSP)	HSS-G		ACERO 400-800 N/mm²	359

ESTUCHES Y CONJUNTOS / SETS AND ASSORTMENTS / COFFRETS ET ENSEMBLES 360



360

ROSCADO THREADING • FILÉTAGE

CALIBRES PARA ROSCAS / THREAD GAUGES / JAUGES DE FILETAGE
369
DIN ISO 1502

M **TOL 6H**
369
DIN ISO 1502

M **TOL 6g**
369
INFORMACIÓN TÉCNICA REPARACIÓN DE ROSCAS / THREAD REPAIR TECHNICAL INFORMATION / INFORMATION TECHNIQUE RÉPARATION
372
MACHOS PARA INSERTOS REPARADORES / TAPS FOR WIRE THREAD INSERTS / TARAUDS POUR FILETS RAPPORTÉS
378

 INTERMEDIO / SECOND LEAD
 INTERMÈDE

M **HSS-G** **FORM D** **TOL ISO1 4H** **ACERO 400-800 N/mm²**
378

2 PIEZAS / 2 PIECES / 2 PIÈCES


M **HSS-G** **FORM D** **TOL ISO1 4H** **ACERO 400-800 N/mm²**
379

 INTERMEDIO / SECOND LEAD
 INTERMÈDE

UNC **HSS-G** **FORM D** **TOL 3B** **ACERO 400-800 N/mm²**
380

2 PIEZAS / 2 PIECES / 2 PIÈCES


UNC **HSS-G** **FORM D** **TOL 3B** **ACERO 400-800 N/mm²**
380

 INTERMEDIO / SECOND LEAD
 INTERMÈDE

UNF **HSS-G** **FORM D** **TOL 3B** **ACERO 400-800 N/mm²**
381

2 PIEZAS / 2 PIECES / 2 PIÈCES


UNF **HSS-G** **FORM D** **TOL 3B** **ACERO 400-800 N/mm²**
381

 INTERMEDIO / SECOND LEAD
 INTERMÈDE

G(BSP) **HSS-G** **FORM D** **TOL ISO1 4H** **ACERO 400-800 N/mm²**
382

2 PIEZAS / 2 PIECES / 2 PIÈCES


G(BSP) **HSS-G** **FORM D** **TOL ISO1 4H** **ACERO 400-800 N/mm²**
382

 INTERMEDIO / SECOND LEAD
 INTERMÈDE

BSW **HSS-G** **FORM D** **TOL ISO1 4H** **ACERO 400-800 N/mm²**
383

 INTERMEDIO / SECOND LEAD
 INTERMÈDE

BSF **HSS-G** **FORM D** **TOL ISO1 4H** **ACERO 400-800 N/mm²**
383

 INTERMEDIO
 SECOND LEAD
 INTERMÈDE

BA **HSS-G** **FORM D** **TOL ISO1 4H** **ACERO 400-800 N/mm²**
384

 INTERMEDIO
 SECOND LEAD
 INTERMÈDE

BS **HSS-G** **FORM D** **TOL ISO1 4H** **ACERO 400-800 N/mm²**
384

 PASANTE
 SPIRAL POINT
 ENTRÉE GUN

M **HSS-CO 5%** **FORM B** **TOL ISO1 4H** **ACERO 800-1100 N/mm²**
385

 CIEGO
 SPIRAL FLUTE
 HÉLICOIDALE

M **HSS-CO 5%** **FORM C/35°** **TOL ISO1 4H** **ACERO 800-1100 N/mm²**
386

 CON PUNTA PILOTO
 ROUGHER PILOTTED
 EBAUCHEUR À PILOTE

M **HSS-G** **TOL ISO1 4H** **ACERO 400-800 N/mm²**
386

 LAMINACIÓN
 FORMING TAPS
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M **HSS-CO 5%** **TOL ISO1 4H**
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COMPASSES



448

DISPLAYS DISPLAYS • DISPLAYS

MINI EXPOSITOIR
MINI DISPLAY
MINI EXPOSITEUR



452

DISPLAY JR061
DISPLAY JR061
DISPLAY JR061



457

DISPENSADOR DE SOBREMESA CERRADO
CLOSED DESKTOP DISPENSER
DISTRIBUTEUR DE BUREAU FERMÉ



457

NEW

EXPOSITORES SESA KUBO
DISPLAYS SESA KUBO
EXPOSITEURS SESA KUBO



458

MÓDULOS CONSTRUCCIÓN
CONSTRUCTION MODULE
MODULE CONSTRUCTION



460

MÓDULOS MADERA
WOOD MODULE
MODULE BOIS



464

MÓDULOS METAL
METAL MODULE
MODULE METAL



466

COMBINADO STANDARD
STANDARD COMBINED
STANDARD COMBINÉE



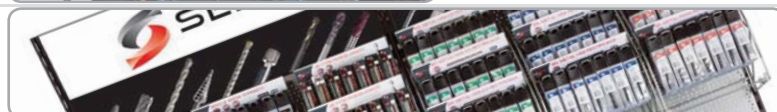
469

MÓDULOS ESTUCHES
SETS MODULE
MODULE COFFRETS



470

EXPOSITOIR LINEAL
METER DISPLAY
PRÉSENTOIRE LINÉALE



472

EXPOSITORES SOBREMESA METAL
TABLE DISPLAY - METAL
EXPOSITEUR BASE TABLE MÉTAL



474

EXPOSITORES ROSCADO
DISPLAY - THREADING TOOLS
EXPOSITEUR D'OUTILS DE FILÉTAGE



474





CONSTRUCCIÓN

CONSTRUCTION



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.

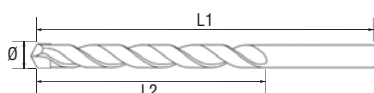
DUREZA	TRÁFICO	USO	Nº de agujeros broca JR (con refrigeración)
PEI I	Ultra ligero	Residencial e interiores	20
PEI II	Ligero	Residencial con acceso directo de exteriores (cocinas, pasillos, recibidores)	15
PEI III	Medio	Comercial con tráfico de personas moderado (pequeño comercio, garajes, terrazas)	12-15
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 PORCELAINIC
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

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

NEW

Medidas / Sizes

5 - 5 - 5 - 6 - 6 - 6 - 8 - 8 - 8 mm

Uds. / Pcs. Cod.
1 19JR339



EXPOSITOR SOBREMESA JR
BASIC DISPLAY JR • ÉXPOSITEUR BASE TABLE JRadvance
MAXIMO RENDIMIENTO

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 MINI
470 x 190 x 140
mm

ACCESORIOS PORCELANATO • PORCELANIC ACCESSORIES • ACCESSOIRES CÉRAMIQUE



DISPENSADOR DE AGUA

WATER DISPENSER
DISPENSEUR D'EAUCod.
JRZZZ*

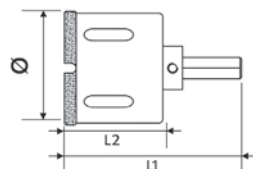
GUÍA CON VENTOSA

SUCTION DRILLING GUIDE
GUIDE AVEC VENTOUSECod.
JRZ01*

MARCADOR PUNTERO AUTOMÁTICO

AUTOMATIC CENTER PUNCH
MARQUEUR AUTOMATIQUECod.
5PU5000advance
MAXIMO RENDIMIENTO

*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

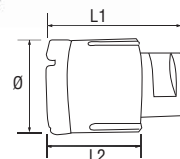
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
22	90	50	1	01020622
25	90	50	1	01020625
30	90	50	1	01020630
34	90	50	1	01020634
35	90	50	1	01020635
40	90	50	1	01020640
45	90	50	1	01020645

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 desagües de los electrodomésticos / installation of drainage for domestic appliances / installation des évacuations des appareils électroménagers
50 mm	Instalación desagües / installation of industrial drainage / installation d'évacuations industrielles
60 mm	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

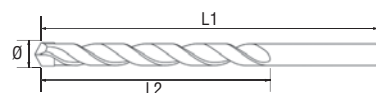
COFRET DE TRÉPAN DIAMANTÉ POR BROYEUR

	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 manche hexagonal	1	1CDM1403
Adaptador	De M14 a mango SDS-PLUS from M14 to SDS-PLUS shank / de M14 a manche SDS-PLUS	1	



TORNADO *TORNADO • TORNADO*


DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
3	60	30	1	1T003060
4	75	40	1	1T004075
5	85	50	1	1T005085
5	150	110	1	1T005150
6	100	60	1	1T006100
6	150	110	1	1T006150
6	200	135	1	1T006200
7	100	60	1	1T007100
8	120	80	1	1T008120
8	200	135	1	1T008200
8	400	350	1	1T008400
9	120	80	1	1T009120
10	120	80	1	1T010120
10	200	135	1	1T010200
10	400	350	1	1T010400

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
11	150	90	1	1T011150
12	150	90	1	1T012150
12	200	135	1	1T012200
12	400	350	1	1T012400
13	150	90	1	1T013150
14	150	90	1	1T014150
14	400	350	1	1T014400
16	150	90	1	1T016150
16	400	350	1	1T016400
18	160	100	1	1T018160
18	400	350	1	1T018400*
20	160	100	1	1T020160
20	400	350	1	1T020400*

*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.

1

Cod.

1917T327N


Medidas / Sizes

3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / Pcs.

1

Cod.

1917T333N


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

ADVANCE BOX (9 UDS. / PCS.)



Composición / Contains / Composition

Medidas / Sizes

Cod.

HSS CO

HSS-CO 5%

+

TORNADO



+

MADERA



5 - 6 - 8 mm

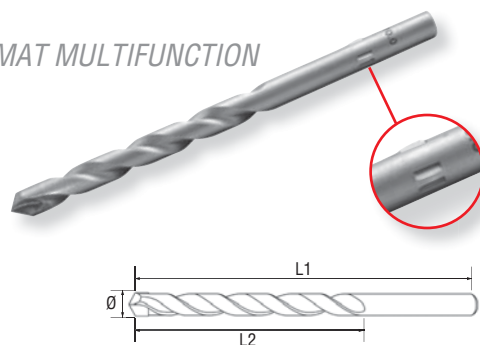
19CA339



HORMAT MULTIMATERIAL *HORMAT MULTI-PURPOSE • HORMAT MULTIFUNCTION*

NEW

advance
MÁXIMO RENDIMIENTO



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

NEW

Medidas / Sizes

4 - 5 - 6 - 6 - 8 mm

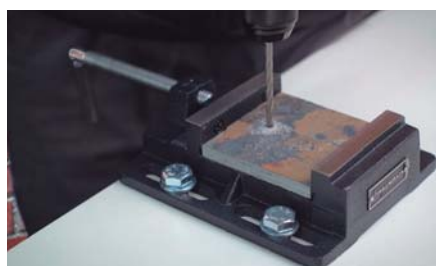
Uds. / Pcs.	Cod.
1	1GR327N



Medidas / Sizes

5 - 5 - 5 - 6 - 6 - 6 - 8 - 8 - 8 mm

Uds. / Pcs.	Cod.
1	19GP339



PIZARRA



MÁRMOL



TABLERO DE FENÓLICO



SILESTONE



GRANITO

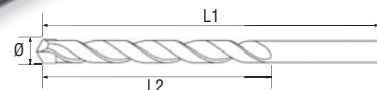
GRANITO: BLISTER RÍGIDO

GRANITE: RIGID PLATIC BLISTER

GRANITE: BLISTER DE PLASTIQUE RIGIDE



DIN 8039

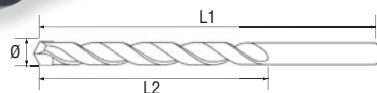
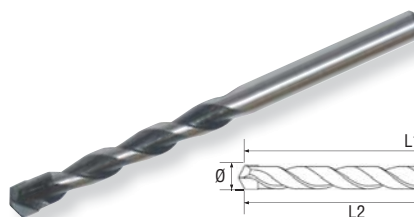


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
3	60	30	1	105A03060BL
4	75	40	1	105A04075BL
5	85	50	1	105A05085BL
6	100	60	1	105A06100BL

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.)

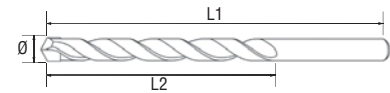
Contenido / Contents / Composition				Medidas / Sizes	Cod.
HSS G	HSS-G	+	GRANITO	5 - 6 - 8 mm	19CM339



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 / <i>Contains</i> / <i>Composition</i>						Medidas / <i>Sizes</i>	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

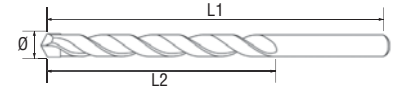
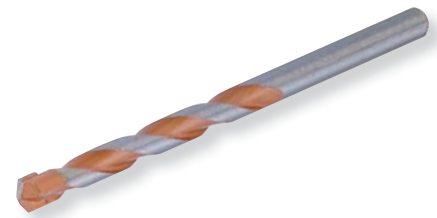


Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 13	JR PORCELANATO 	010205S1	4-5-6-6-8mm	7
	GRANITO 	1915A327N	4-5-6-8-10mm	7
	BASIC 	1916F327N	4-5-6-8-10mm	7
KUBO 16	JR PORCELANATO 	010205S1	4-5-6-6-8mm	7
	JR PORCELANATO 	19JR339	5-6-8mm (3 de cada)	7
KUBO 17	GRANITO 	1915A327N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



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

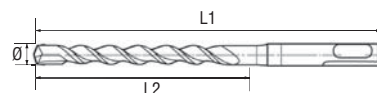
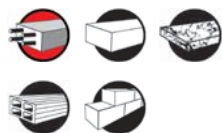


Ø (mm)	L1 (mm)	D2 (mm)	Uds. / Pcs.	Cod.
3,00	58	3,00	1	1VI0300
4,00	58	3,00	1	1VI0400
5,00	58	4,00	1	1VI0500
6,00	58	5,00	1	1VI0600
7,00	78	5,00	1	1VI0700

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



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.

7

Cod.

1105P71



Medidas / Sizes

 6 x 160, 8 x 160, 10 x 160,
 12 x 160 mm

Uds. / Pcs.

4

Puntero / Point Chisel

Cíncel / Flat Chisel

 Cíncel Ancho / Spade Chisel
 x 140 mm

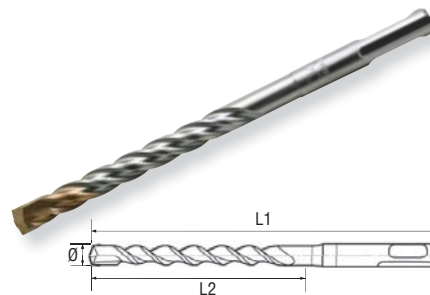
3

Cod.

1106P71



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



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



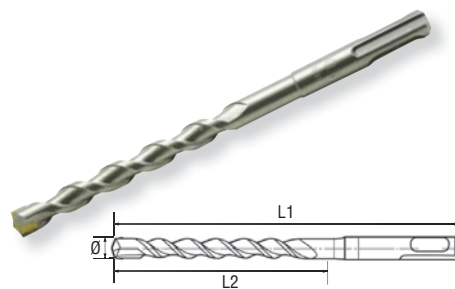
Medidas / Sizes	Uds. / Pcs.
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4
Puntero / Point Chisel Cinzel / Flat Chisel Cinzel Ancho / Spade Chisel x 140 mm	3
Cod.	1106P73



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

Basic

DIN 8035



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.

7

Cod.

1105P72



Medidas / Sizes

6 x 160, 8 x 160, 10 x 160,
12 x 160 mm

Uds. / Pcs.

4

Puntero / Point Chisel

Cíncel / Flat Chisel

Cíncel Ancho / Spade Chisel
x 140 mm

3

Cod.

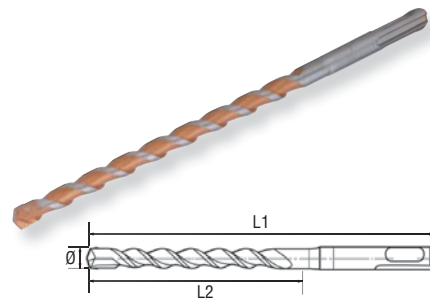
1106P72



BROCA MULTI-USO SDS-PLUS

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

DIN 8035



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

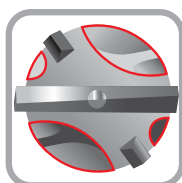
SDS-MAX STORM

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 extracción.

- 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.



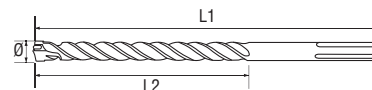
Broca fabricada bajo los estándares de calidad PGM / Manufactured on PGM quality standards / Fabriqué sous les normes de qualité PGM

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	540	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

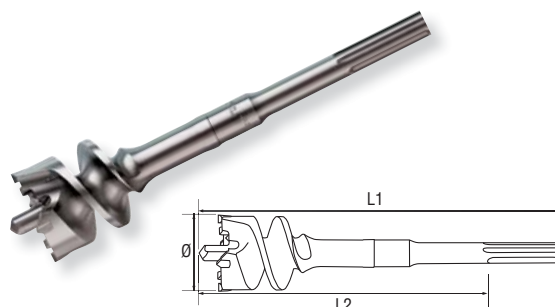
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
4 ARISTAS / 4 CUTTING EDGES				
25	340	200	1	11021225320
25	540	400	1	11021225520
25	920	800	1	11021225920
28	380	250	1	11021228370
28	570	450	1	11021228570
30	380	250	1	11021230370
30	570	450	1	11021230570
32	380	250	1	11021232370
32	570	450	1	11021232570
32	920	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



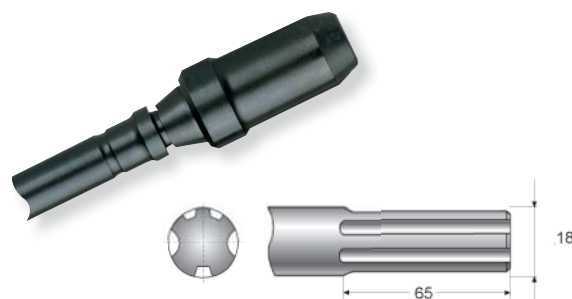
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
55,00	590	480	1	1R055550
55,00	990	880	1	1R055990
65,00	590	480	1	1R065550

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
65,00	990	880	1	1R065990
80,00	590	480	1	1R080550
80,00	990	880	1	1R080990

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	1C02250	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 système 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

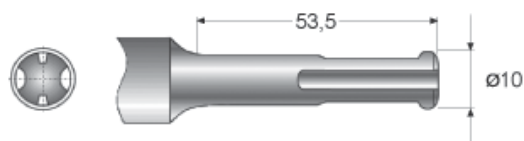


DIN 7490



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

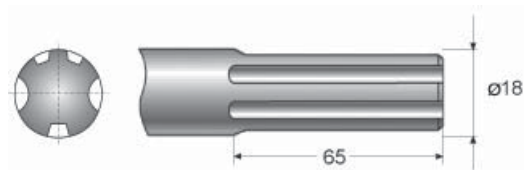
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.
PUNTERO POINT CHISEL				
	250	-	1	01040101
ROTO-PERCUSSION ROTO-PERCUSSION				
	250	-	1	01040102
CINCEL FLAT CHISEL				
	250	20	1	01040103
CINCEL ANCHO SPADE CHISEL				
	250	40	1	01040104

	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

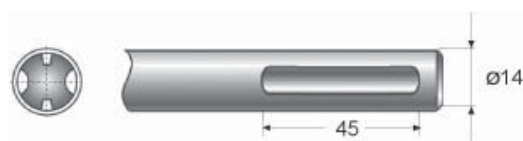
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.
CINCEL ANCHO SPADE CHISEL				
	300	80	1	01040213
	400	50	1	01040208
CINCEL AZULEJO TILE CHISEL				
	300	50	1	01040251
ACANALADOR HOLLOW CHISEL				
	300	26	1	01040210
ACANALADOR ALAS CHISEL WITH GLIDES				
	380	35	1	01040211

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

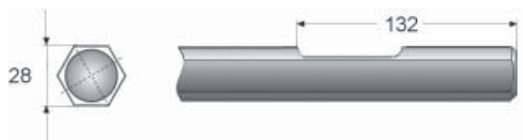
*Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

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

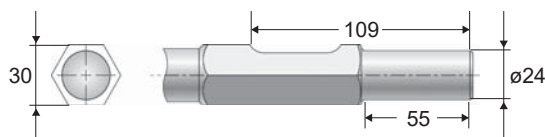
CINCEL FLAT CHISEL				
	400	35	1	01040236

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



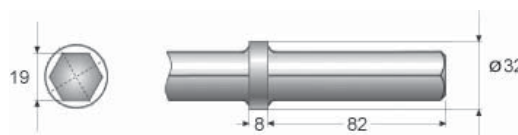
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.
PUNTERO POINT CHISEL				
	400	-	1	01040216

	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

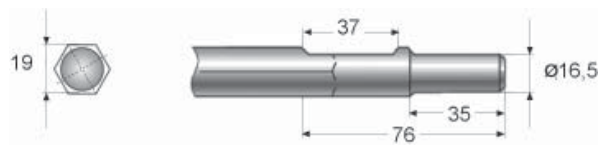
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.
CINCEL ANCHO SPADE CHISEL				
	300	80	1	01040247

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

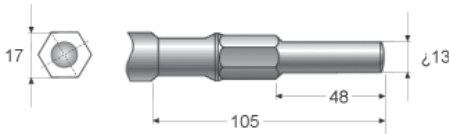
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Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

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

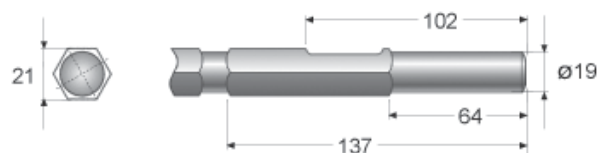


	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.
PUNTERO POINT CHISEL				
	450	-	1	01040220

	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

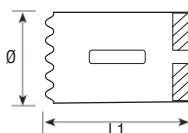
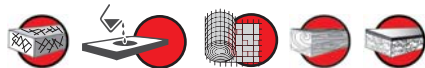
Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

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 SCIÉS 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
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 popular 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 fracciones 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

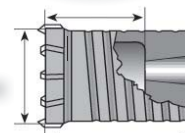
CARACTÉRISTIQUES DE LA TREPAN SESAGRIT

- 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 déversoirs					
40,00	73	60	1	3	1CT040
Tubería de agua, aislamientos y desagües / Water pipes, insulation and wastepipes / Tuyauteries, isolations et déversoirs					
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 / Boîtes 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'air					
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 recommandé avec trépan supérieures à 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 à 45 mm, système recommandé 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

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)	POSSIBLE POSSIBLE POSSIBLE
	1AH200	HEXAGONAL L=200 mm (Pág. 65) HEXAGONAL SHANK ADAPTER L=200 mm (Pag. 65) QUEUE HEXAGONAL L=200 mm (Pág. 65)	POSSIBLE POSSIBLE POSSIBLE
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 SHANK 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.

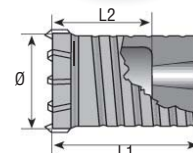
Lorsque vous devez percer avec des rallonges de plus de 200 mm de long, il faut utiliser une perceuse au préalable avec les adaptateurs de moindre longueur afin d'éviter des cassures dérivées des tensions. Ainsi, il est possible d'augmenter la vie utile aussi bien de la rallonge que de la couronne. Ne 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

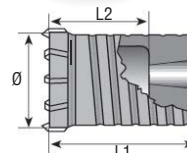
Entrada cónica 1:20 / Tapper insert 1:20 / Entrée conique 1:20

			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



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

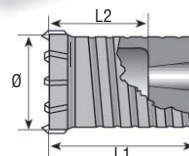


MODO DE EMPLEO USING GUIDE • UTILISATION



- Introducir el adaptador en la corona.
- Insert the adapter on the hole saw.
- Introduire 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.
- Après 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 • ACCESSOIRES

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 Recommended Speed: 1.500 R.P.M. / Maximum Vitesse Recommandée: 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 • SYSTÈME S94

Para taladrados en profundidades de hasta 2 metros / Drilling depth 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. to 150 mm. / Niveau de diamètres entre 35 mm et 150 mm



ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÈME S94

CORONA
HOLE SAW
TRÉPAN

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE



ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÈME 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 SYSTÈME S94

PROLONGADORES
EXTENSION
PROLONGATEURS

HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D'EXTRACTION

PROLONGADORES
EXTENSION
PROLONGATEURS

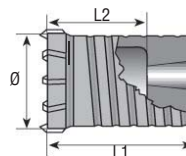


HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D'EXTRACTION

BROCA TIPO S
S TYPE DRILL BIT
FORET TYPE S

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE

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 SYSTÈME 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, Maki-ta 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

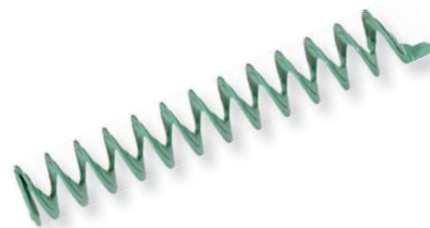
HÉLICES EXTRACTORAS S94

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



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)

PLATOS DIAMANTADOS

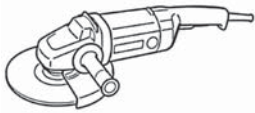
GRINDING WHEELS • MEULES POUR DÉGROSSISSEMENT



PLATO DIAMANTADO HORMIGÓN

GRINDING WHEELS FOR CONCRETE

MEULE POUR DÉGROSSISSEMENT POUR BÉTON



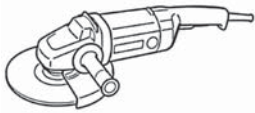
Ø (mm)	Conexión	Uds. / Pcs.	Cod.
100	M14	1	213010001400
125	M14	1	213012501400



PLATO DIAMANTADO PIEDRA NATURAL

GRINDING WHEELS FOR NATURAL STONE

MEULE POUR DÉGROSSISSEMENT POUR PIERRE NATURELLE



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



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

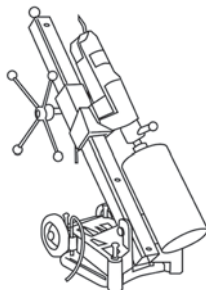
ROSCADO
THREADING • FILÉTAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

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. / Length (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 PERFORADORAS DIAMANTE

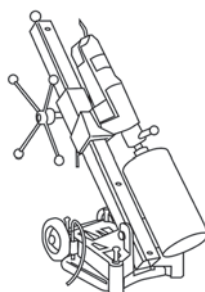
DIAMOND DEEP DRILLING HOLE SAWS
TRÉPAN POUR CARROTAGE B.K.1A



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. / Length (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.
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De 1" 1/4 UNC a HILTI
from 1" 1/4 UNC to HILTI / de 1" 1/4 UNC a HILTI

1 601605

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS





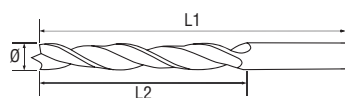
MAADERA

WOOD - BOIS



BROCA 3 PUNTAS: BLISTER RÍGIDO

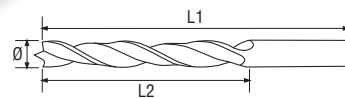
BRAD POINT DRILL BIT: RIGID PLASTIC BLISTER • FORET 3 POINTES: BLISTER RIGIDE A PLASTIQUE



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		+	BASIC		+	MADERA		5 - 6 - 8 mm	19CB339



STANDARD BOX (9 UDS. / PCS.)

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



ADVANCE BOX (9 UDS. / PCS.)



Contenido / Contents / Composition					Medidas / Sizes	Cod.	
HSS CO		+	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**

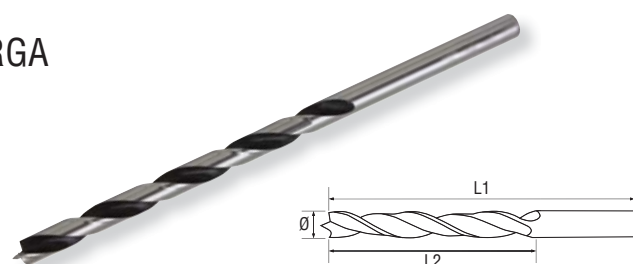
Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 18	GRANITO 	1915A327N	4-5-6-8-10mm	7
	MADERA 	196333	3-4-5-6-7-8-9-10mm	7



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

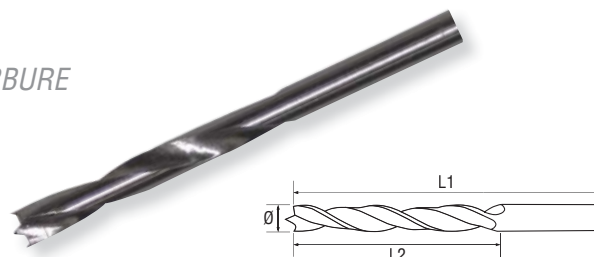


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
13,00	245	200	1	1021L13
14,00	245	200	1	1021L14
15,00	245	200	1	1021L15
16,00	245	200	1	1021L16
18,00	245	200	1	1021L18
20,00	245	200	1	1021L20

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

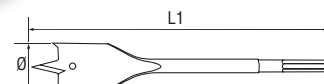
DEPTH ADJUSTING COLLAR • BUTÉES DE PERÇAGE



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 TYPE 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

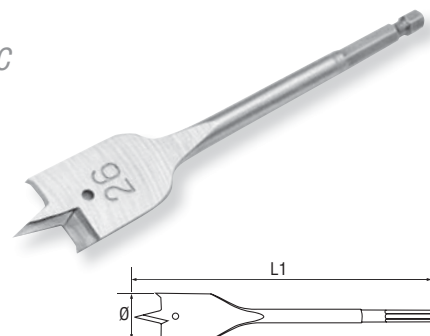
ESTUCHE BROCAS PALA TIPO B

FLAT DRILL BIT SET TYPE B • COFFRET MÉCHE PLATE TYPE 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*



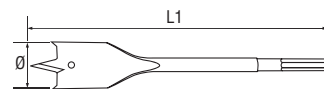
Ø (mm)	L1 (mm)	Uds. Pcs.	Cod.
6,00	152	1	103C06
8,00	152	1	103C08
10,00	152	1	103C10
11,00	152	1	103C11
12,00	152	1	103C12
13,00	152	1	103C13
14,00	152	1	103C14
15,00	152	1	103C15
16,00	152	1	103C16
18,00	152	1	103C18
19,00	152	1	103C19
20,00	152	1	103C20
22,00	152	1	103C22

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

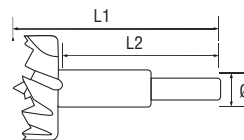
ALARGADOR PARA BROCA PALA
FLAT DRILL BIT EXTENSION • RALLONGE POUR MÉCHE PLATE

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

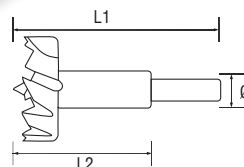


Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.
20,00	90	8	1	102120
25,00	90	8	1	102125
26,00	90	8	1	102126

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

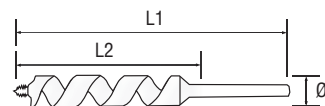
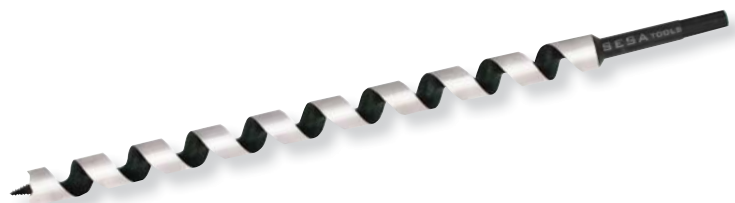
FORSTNER TYPE WITH HSS SPECIAL CUT
MÈCHE À FAÇONNER FORSTNER HSS AFILAGE SPÉCIAL



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



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 • MÊCHE ÉTAGÉE POUR VIS D'ASSEMBLAGE

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

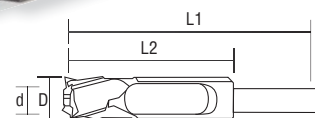
BARRENA *GIMLET • VRILLE*

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 • MÊCHE À BOUCHONNER

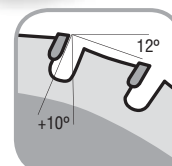
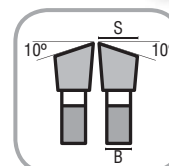
d (mm)	D (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
15,00	27,00	140	160	1	12010715

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

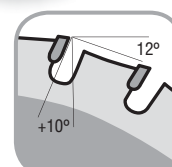
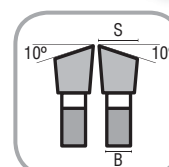
DISCO PARA MADERA BASTA

ROUGH WOOD CIRCULAR SAWBLADES

DISQUE POUR BOIS A TEXTURE GROSSIERE



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

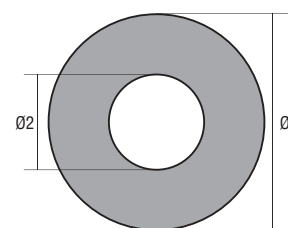


Ø (mm)	S Grosor / Thickness (mm)	B Grosor / Thickness (mm)	Ø Eje / Shaft (mm)	Z	Cod.
250	3,2	2,2	30	80	2DM25080
300	3,2	2,2	30	96	2DM30096

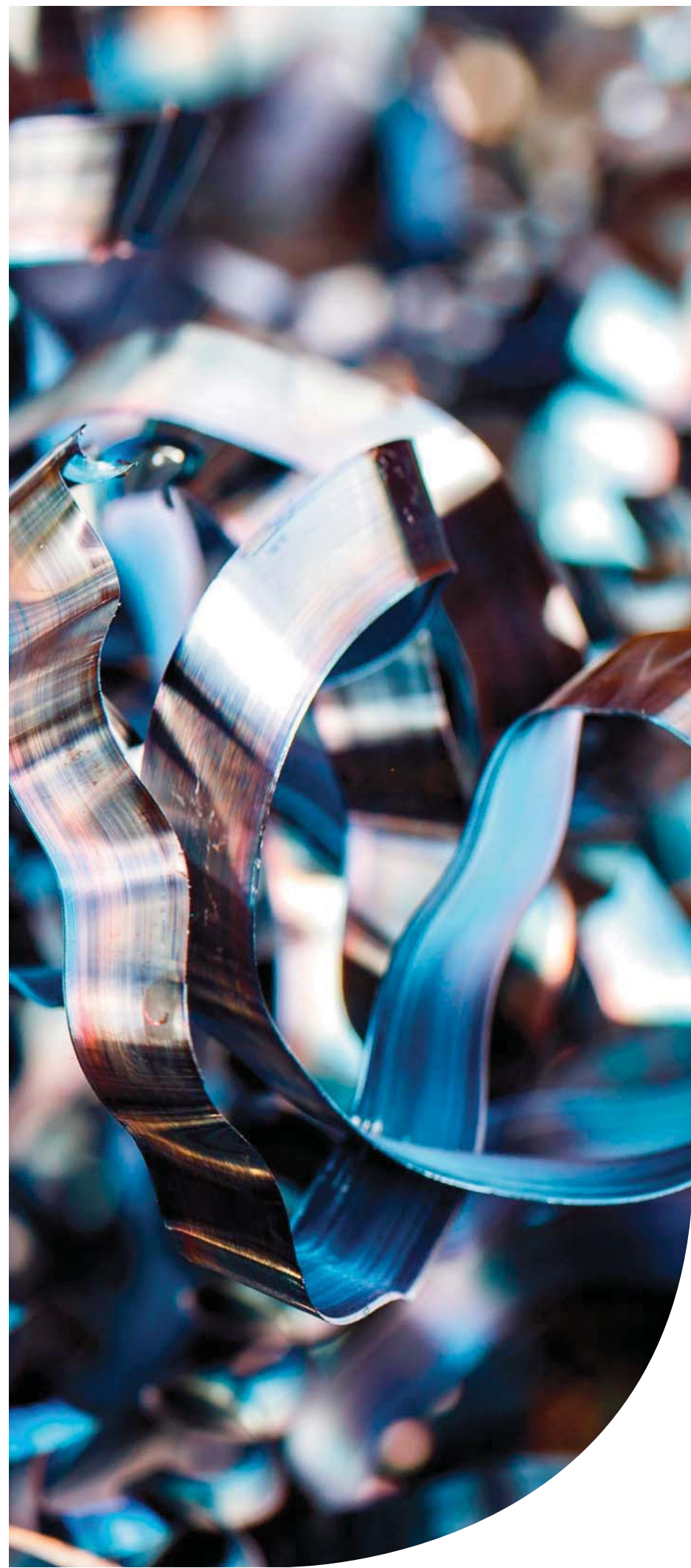
ANILLOS REDUCTORES

REDUCTIONS RINGS • BAGUES DE RÉDUCTION

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







MÉTAL

MÉTAL - MÉTAL



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 RECOMMANDÉ
POUR HM FORETS

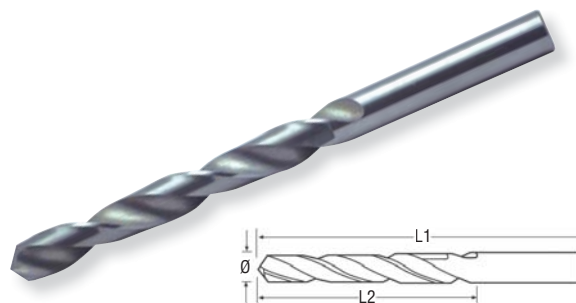


MATERIAL / MATERIAL / MATIERE		Resistencia / Resistance Resistance N/mm²	DIN 338 MDI Pág. 97	DIN 6537K - 3XØ MD Pág. 98	DIN 6537L - 5XØ MD Pág. 99
ACEROS STEELS • ACIERS	Decoletaje Machining • Décolletage	<500	70-80	80-90	80-90
	Carbono <0,4% <0,4% Carbon • Carbon <0,4%	<850	55-70	60-80	60-80
	Acero 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 copper • 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

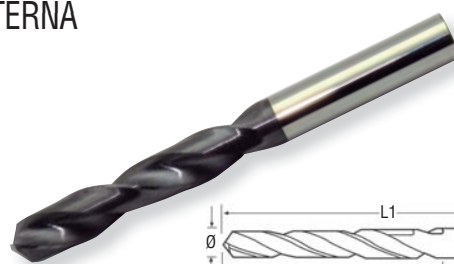
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
7,00	109	69	1	31XMD0700
7,50	109	69	1	31XMD0750
8,00	117	75	1	31XMD0800
8,50	117	75	1	31XMD0850
9,00	125	81	1	31XMD0900
9,50	125	81	1	31XMD0950
10,00	133	87	1	31XMD1000
11,00	142	94	1	31XMD1100
12,00	151	101	1	31XMD1200
13,00	151	101	1	31XMD1300

*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



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



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



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS

APPLICATION GUIDE AND CUTTING SPEED
TABLE D'APPLICATIONS ET VITESSE DE COUPE RECOMMANDÉE



MATERIAL / MATERIAL / MATIERE		Resistencia / Resistance 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	E S P E C I A L P E R F I L E R Í A T U B O Y C H A P A
	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 recommendation and cutting speed
Foret recommandé 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 recommandée (M/Min)



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 *Recommended progression values, see the guide on 100 page.

**Les valeurs indiquées c'est le classement des vitesses de coupe recommandées *Les valeurs d'avances recommandés, aller à la page 100.

TABLA DE AVANCES
PROGRESSIONS GUIDE • TABLE D'AVANCES

Ø (mm)	BLOQUE (mm x r) / BLOCK (mm x r) / BLOQUE (mm x r)					
	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 matériel

CÁLCULO DE LAS R.P.M. R.P.M. CALCULATION • CALCUL DES R.P.M.

$$R.P.M. = \frac{V_c \times 1.000}{\pi \times \varnothing} \longrightarrow R.P.M. = \frac{20 \times 1.000}{3,1416 \times 10} = \frac{20.000}{31,416} = 641,84$$

PRINCIPALES MATERIALES DE FABRICACIÓN DE BROCAS

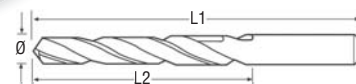
DRILL BIT MANUFACTURING MAIN MATERIALS
PRINCIPALES MATÉRIAUX DE FABRICATION DES FORETS

Denominación Name / Nom	Nº MATERIAL	COMPOSICIÓN % COMPOSITION % / COMPOSITION %								ID. INTERNACIONAL / ID. IMINTERNATIONAL / ID. INTERNATIONALE					
		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	Z110DKCWV	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 <i>Tensile Strength Resistance à la traction</i>		
			Rm		
			N/mm ²	KP/mm ²	
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 <i>Tensile Strength Resistance à la traction</i>		
			Rm		
			N/mm ²	KP/mm ²	
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

BROCAS PARA METAL MANGO CILÍNDRICO

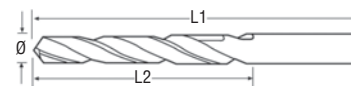
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE



DIN 338 N HSS-G ALTO RENDIMIENTO

DIN 338 N HSS-G HIGH PERFORMANCE

DIN 338 N HSS-G GRAND RENDEMENT



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

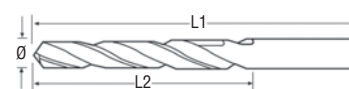
METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN 338 N HSS-G ALTO RENDIMIENTO

DIN 338 N HSS-G HIGH PERFORMANCE

DIN 338 N HSS-G GRAND RENDEMENT


HSS-G
DIN 338 N


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

BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE



DIN 338 N HSS-G ALTO RENDIMIENTO

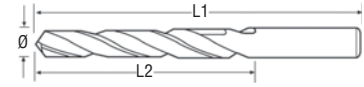
DIN 338 N HSS-G HIGH PERFORMANCE

DIN 338 N HSS-G GRAND RENDEMENT



HSS-G

DIN 338 N



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

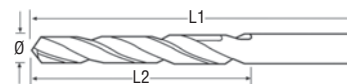
METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN 338 N HSS-G ALTO RENDIMIENTO

DIN 338 N HSS-G HIGH PERFORMANCE

DIN 338 N HSS-G GRAND RENDEMENT


HSS-G
DIN 338 N


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

BROCAS PARA METAL MANGO CILÍNDRICO

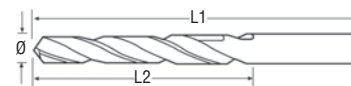
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE



DIN 338 N HSS-G ALTO RENDIMIENTO

DIN 338 N HSS-G HIGH PERFORMANCE

DIN 338 N HSS-G GRAND RENDEMENT



HSS-G

DIN 338 N



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

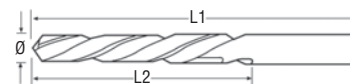
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN 338 N HSS-G, IZQUIERDAS

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



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

BROCAS PARA METAL MANGO CILÍNDRICO

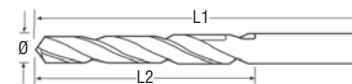
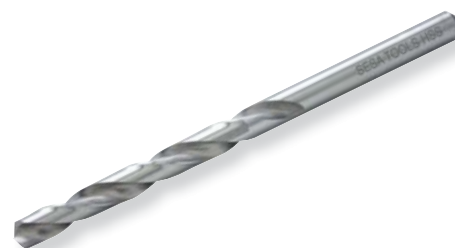
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE



DIN 338 N HSS WHITE

DIN 338 N HSS WHITE

DIN 338 N HSS WHITE



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

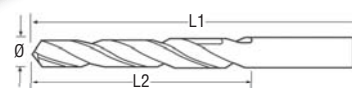
ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN-338 N HSS-CO: BLISTER RÍGIDO
DIN 338 N HSS-CO: RIGID PLASTIC BLISTER
DIN 338 N HSS-CO: BLISTER DE PLASTIQUE RIGIDE**HSS-CO 5%****DIN 338 N**

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

BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE



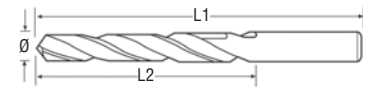
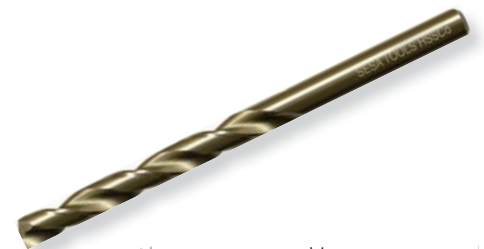
DIN 338 N HSS-CO

DIN 338 N HSS-CO • DIN 338 N HSS-CO



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

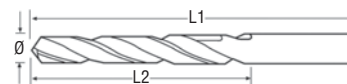
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN 338 N HSS-CO

DIN 338 N HSS-CO • DIN 338 N HSS-CO



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

BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE



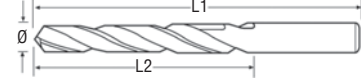
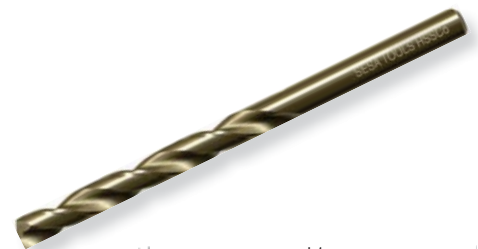
DIN 338 N HSS-CO

DIN 338 N HSS-CO • DIN 338 N HSS-CO



HSS-CO 5%

DIN 338 N



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

DIN 338 HSS-G ST STEP

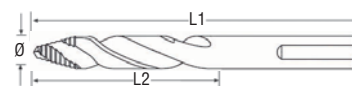
DIN 338 HSS-G ST STEP • DIN 338 HSS-G ST STEP

NEW



HSS-G

DIN 338 N



Ø mm	L1 (mm)	L2 (mm)	Nº escalones / N° 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

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



1SD019

1SD025

BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE



DIN 338 N HSS-G INOX PROGRESIVA

DIN 338 N HSS-G PROGRESSIVE INOX

DIN 338 N HSS-G INOX PROGRESSIVE

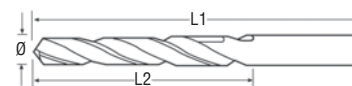


HSS-G

DIN 338 N

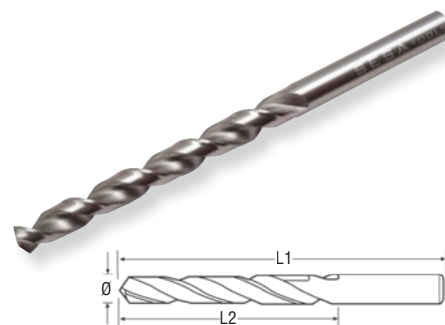


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
1,00	34	9	10	14P0100
1,25	38	10	10	14P0125
1,50	40	11	10	14P0150
1,75	46	12	10	14P0175
2,00	49	13	10	14P0200
2,25	53	14	10	14P0225
2,50	57	16	10	14P0250
2,75	61	18	10	14P0275
3,00	61	18	10	14P0300
3,25	65	20	10	14P0325
3,50	70	22	10	14P0350
3,75	75	25	10	14P0375
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

DIN 338 W HSS-CO PARA INOX
DIN 338 W HSS-CO SPECIAL INOX
DIN 338 W HSS-CO SPÉCIAL INOX



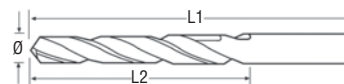
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
1,00	34	12	10	130104100
1,50	40	18	10	130104150
2,00	49	24	10	130104200
2,50	57	30	10	130104250
3,00	61	33	10	130104003
3,25	65	36	10	130104325
3,50	70	39	10	130104350
4,00	75	43	10	130104004
4,25	75	43	10	130104425
4,50	80	47	10	130104450
5,00	86	52	10	130104005
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

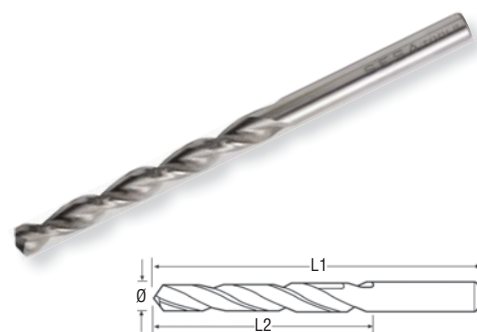
DIN 338 N HSS-G+TIN • DIN 338 N HSS-G+TIN



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

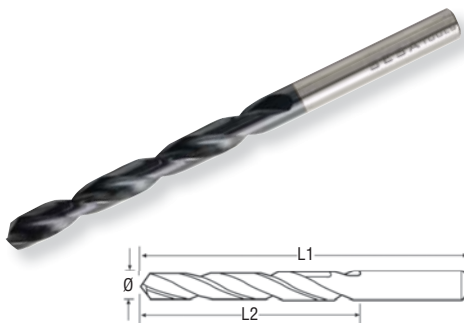
*Hasta agotar existencias / Until end of stock / Jusqu'à épuisement des stocks

DIN 338 S HSS-G PARA ALUMINIO
DIN 338 S HSS-G SPECIAL ALUMINIUM
DIN 338 S HSS-G SPÉCIALE ALUMINIUM

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



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

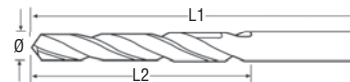
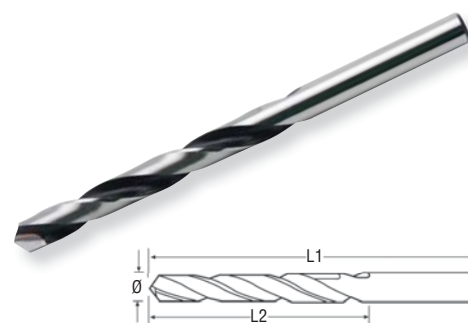
K20 DIN 338 N HSS-MD

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



MD

DIN 338 N



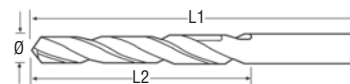
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
3,00	61	33	1	16M0300
3,50	70	39	1	16M0350
4,00	75	43	1	16M0400
4,50	80	47	1	16M0450
5,00	86	52	1	16M0500
5,50	93	57	1	16M0550
6,00	93	57	1	16M0600
6,50	101	63	1	16M0650
7,00	109	69	1	16M0700
7,50	109	69	1	16M0750
8,00	117	75	1	16M0800

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



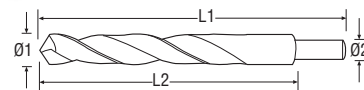
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
5	86	26	1	14HX0500
6	93	28	1	14HX0600
8	117	37	1	14HX0800

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

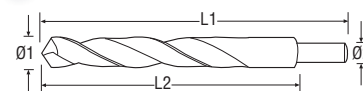


Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.
10,00	9,70	133	87	1	181000
10,50	9,70	133	87	1	181050
11,00	9,70	142	94	1	181100
11,50	9,70	142	94	1	181150
12,00	9,70	151	101	1	181200
12,25	9,70	151	101	1	181225
12,50	9,70	151	101	1	181250
12,75	9,70	151	101	1	181275
13,00	9,70	151	101	1	181300
13,25	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

DIN 338 N HSS-CO MANGO REDUCIDO

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

**HSS-CO 5%****DIN 338 N**

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



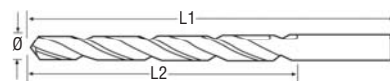
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
1,00	56	33	1	100100
1,25	65	41	1	100125
1,50	70	45	1	100150
1,75	80	53	1	100175
2,00	85	56	1	100200
2,10	85	56	1	100210
2,25	90	59	1	100225
2,50	95	62	1	100250
2,60	95	62	1	100260
2,75	100	66	1	100275
2,80	100	66	1	100280
3,00	100	66	1	100300
3,10	106	69	1	100310
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



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

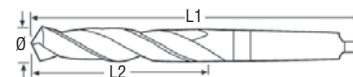


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
2,00	125	85	1	130127020125
2,50	140	95	1	130127250140
3,00	150	100	1	130127030150
3,25	155	105	1	130127325155
3,50	210	145	1	130127350210
4,00	175	120	1	130127040175
4,00	220	150	1	130127040220
4,25	220	150	1	130127425220
4,50	235	160	1	130127450235
5,00	195	135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

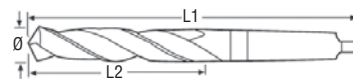


Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.
4,00	1	124	43	1	150400
4,50	1	128	47	1	150450
5,00	1	133	52	1	150500
5,50	1	138	57	1	150550
5,75	1	138	57	1	150575
6,00	1	138	57	1	150600
6,25	1	144	63	1	150625
6,50	1	144	63	1	150650
6,75	1	150	69	1	150675
7,00	1	150	69	1	150700
7,50	1	150	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



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

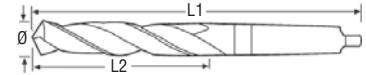
DIN 345 N HSS-CO

DIN 345 N HSS-CO • DIN 345 N HSS-CO



HSS-CO 5%

DIN 345 N

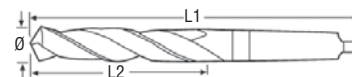


Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.
10,00	1	168	87	1	14C1000
11,00	1	175	94	1	14C1100
11,50	1	175	94	1	14C1150
12,00	1	182	101	1	14C1200
12,50	1	182	101	1	14C1250
13,00	1	182	101	1	14C1300
13,50	1	189	102	1	14C1350
14,00	1	189	102	1	14C1400
14,50	2	212	114	1	14C1450
15,00	2	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

DIN 345 N HSS-G+TIN

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



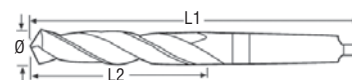
Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.
13,50	1	189	108	1	1351350
14,00	1	189	108	1	1351400
14,50	2	212	114	1	1351450
15,00	2	212	114	1	1351500
15,50	2	218	120	1	1351550
16,00	2	218	120	1	1351600
16,50	2	223	125	1	1351650
17,00	2	223	125	1	1351700
17,50	2	228	130	1	1351750
18,00	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 - HARDX

3XD TAPER SHANK DRILL FOR HARD METALS - HARDX

FORET CONIQUE 3XD POUR MATÉRIAUX DURS - HARDX

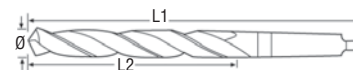


Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.
8,00	1	124	43	1	15HX0800
9,00	1	127	46	1	15HX0900
10,00	1	131	50	1	15HX1000
11,00	1	136	55	1	15HX1100
12,00	2	157	59	1	15HX1200
13,00	2	157	59	1	15HX1300
14,00	2	161	63	1	15HX1400
15,00	2	164	66	1	15HX1500
16,00	2	168	70	1	15HX1600
17,00	2	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

DIN 341 N HSS-G SERIE LARGA

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



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

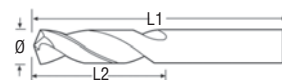


Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.
10,00	1	285	185	1	15B1000
10,50	1	285	185	1	15B1050
11,00	1	300	195	1	15B1100
11,50	1	300	195	1	15B1150
12,00	1	310	205	1	15B1200
12,50	1	310	205	1	15B1250
13,00	1	310	205	1	15B1300
13,50	1	325	220	1	15B1350
14,00	1	325	220	1	15B1400
14,50	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

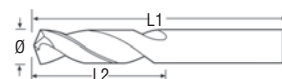


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
3,00	46	16	10	104300
3,25	49	18	10	104325
3,50	52	20	10	104350
3,75	52	20	10	104375
4,00	55	22	10	104400
4,25	55	22	10	104425
4,50	58	24	10	104450
4,75	58	24	10	104475
5,00	62	26	10	104500
5,25	62	26	10	104525
5,50	66	28	10	104550
5,75	66	28	10	104575
6,00	66	28	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



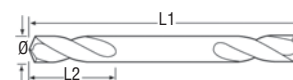
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
3,00	46	16	10	14E300
3,25	49	18	10	14E325
3,50	52	20	10	14E350
3,75	52	20	10	14E375
4,00	55	22	10	14E400
4,25	55	22	10	14E425
4,50	58	24	10	14E450
4,75	58	24	10	14E475
5,00	62	26	10	14E500
5,25	62	26	10	14E525
5,50	66	28	10	14E550
5,75	66	28	10	14E575
6,00	66	28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

EXTRACORTA DOBLE PUNTA DIN 1897 N HSS-G

STUB SERIES DOUBLE POINT DIN 1897 N HSS-G

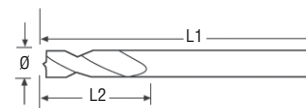
EXTRA COURTE DOUBLE POINT DIN 1897 N HSS-G



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



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



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



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 / Recommended for Boron steel / Recommandé pour aciers au Bore

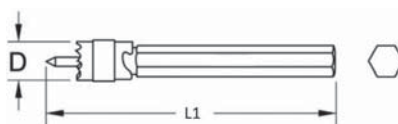
BROCA PARA PUNTO DE SOLDADURA NEW
WELD POINT DRILL BITS
FORETS DEPOINTEUR



HSS-G



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

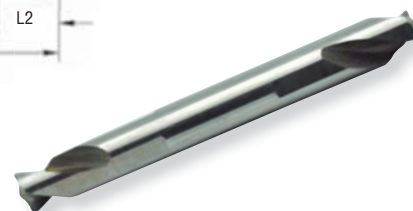
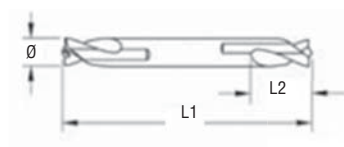


Aplicaciones: Para eliminar puntos de soldadura en paneles de carrocería de vehículos y todo tipo de chapas
Applications: To eliminate welding points in vehicle body panels and all types of sheet metal
Applications: Pour éliminer les points de soudure sur les panneaux de carrosserie et tous les types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

BROCA PARA PUNTO DE SOLDADURA - DOBLE PUNTA

WELD POINT DRILL BITS - DOUBLE POINT

FORETS DEPOINTEUR - DOUBLE POINT

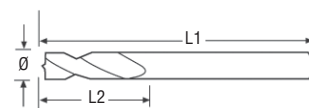


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
8,00	70,00	16,30	1,00	TSD0800

BROCA CON CHAVETERO PARA MÁQUINA NEUMÁTICA

WELD POINT DRILL BITS PNEUMATIC TOOLS

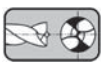
FORETS DEPOINTEUR QUEUE CYLINDRIQUE MACHINES NEUMATIQUES



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



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



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 / Recommended for Boron steel / Recommandé 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 cierre, herramienta siempre bien guardada	Closing system, well kept tools	Système de fermeture, outils toujours bien gardés
ACCESO A LA HERRAMIENTA	ACCES TO THE TOOLS	ACCÈS 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 ultrarresistente	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



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



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	AIZQUIERDAS 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



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



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 0,1 mm

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



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 0,1 mm



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 0,1 mm

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



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



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 	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



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



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

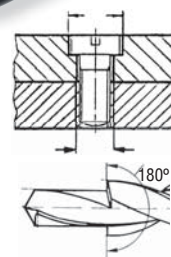
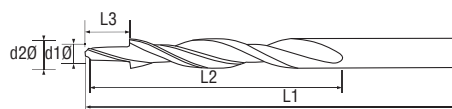
ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

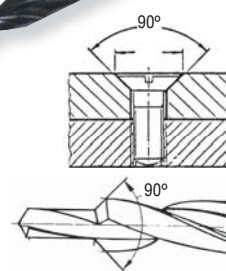
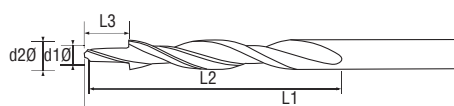
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BROCA BIDIAMETRAL PARA ASIENTOS DE TORNILLO 180°
SUBLAND DRILL BITS 180° • FORETS ÉTAGÉS À VIS 180°**HSS-G****DIN 8376****180°**

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 90°
SUBLAND DRILL BITS 90° • FORETS ÉTAGÉS À VIS 90°**HSS-G****DIN 8374****90°**

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 180°
TAPPER SHANK SUBLAND DRILL BITS 180°
FORETS ÉTAGÉS Á VIS 180° QUEUE CONIQUE

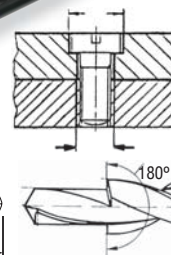
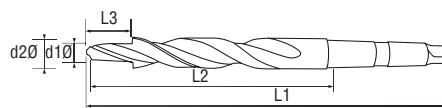


HSS-G

DIN 8377



180°



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 90°
TAPPER SHANK SUBLAND DRILL BITS 90°
FORETS ÉTAGÉS Á VIS 90° QUEUE CONIQUE

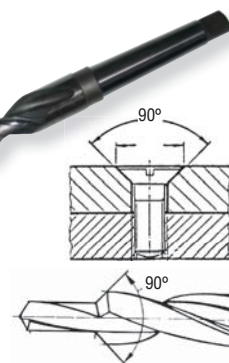
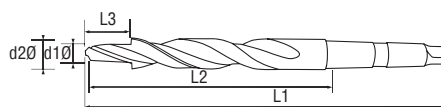


HSS-G

DIN 8375



90°



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION
MADERA
WOOD • BOIS
METAL
METAL • MÉTAL
FRESADO
MILLING • FRAISAGE
ROSCADO
THREADING • FILETAGE
ACCESORIOS
ACCESSORIES • ACCESSOIRES
HEXAGONAL
HEXAGONAL • HEXAGONAL
METROLOGÍA
METROLOGY • MÉTROLOGIE
DISPLAYS
DISPLAYS • DISPLAYS



BROCAS ESCALONADAS Y CÓNICAS

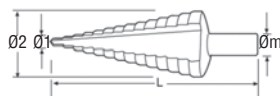
STEP DRILL BITS • FORETS ÉTAGÉES

BROCAS ESCALONADAS RECTAS

STEP DRILL-BITS • FRAISES ÉTAGÉES



HSS-G



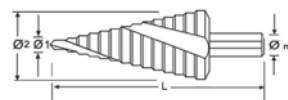
Ø 1 (mm)	L1 (mm)	Ø Mango / Ø Shank (mm)	Uds. / Pcs.	Cod.
4 a 12 / 1	74	6,5	1	109401
4 a 20 / 2	68	10	1	109402
4 a 30 / 2	101	10	1	109403
6 a 38 / 2	101	10	1	109632

BROCAS ESCALONADAS CANAL HELICOIDAL

SPIRAL STEP DRILL-BITS • FRAISES ÉTAGÉES SPIRAL



HSS-G



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 ÉTAGÉES

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

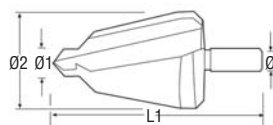
Tipo / Type	Uds. Pcs.	Cod.
HELICOIDAL 35° SPIRAL 35°	3	109170



BROCAS CÓNICA PARA TUBO Y CHAPA

SHEET METAL DRILL-BITS • FORETS CONIQUES

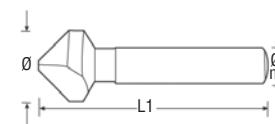
HSS-G



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 90°

90° HSS-G COUNTERSINK CUTTERS • FRAISES CONIQUE 90° HSS-G



HSS-G

DIN 335C



3Z

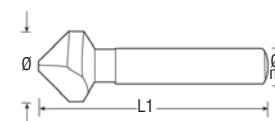
90°

Ø (mm)	L1 (mm)	Mango/Shank Ø (mm)	Para tornillos Forscrews	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 Forscrews	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 90°

90° HSS-CO COUNTERSINK CUTTERS • FRAISES CONIQUE 90° HSS-CO



HSS-CO 5%

DIN 335C



3Z

90°

Ø (mm)	L1 (mm)	Mango/Shank Ø (mm)	Para tornillos Forscrews	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 Forscrews	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 90°

90° COUNTERSINKS SETS • COFFRETS FRAISES À CHANFREINER 90°



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

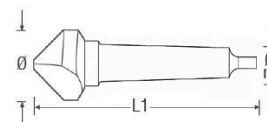
HSS-G

DIN 335D



3Z

90°



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 60°
60° HSS-G COUNTERSINK CUTTERS
FRAISES CONIQUE 60° HSS-G

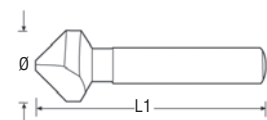
HSS-G

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

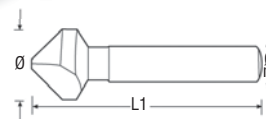
AVELLANADORES HSS-G 90° HEXAGONAL
90° HSS-G HEXAGONAL COUNTERSINK
FRAISE CONIQUE 90° HSS-G HEXAGONALE



HSS-G



90°



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

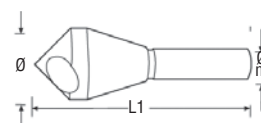


AVELLANADOR 90° HSS-G CON AGUJERO
90° HSS-G COUNTERSINK CUTTERS WITH HOLE
FRAISES À TROU ET À CHANFREINER 90° HSS-G



HSS-G

90°



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

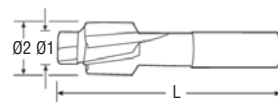
Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.
15-20	85	12	1	T50004
20-25	100	15	1	T50005

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



HSS-G

DIN 373



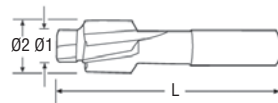
Ø (mm)	Ø 1 (mm)	Ø 2 (mm)	Uds. / Pcs.	Cod.
3,00	3,2	6,0	1	TAAM03
4,00	4,3	8,0	1	TAAM04
5,00	5,3	10,0	1	TAAM05
6,00	6,4	11,0	1	TAAM06
8,00	8,4	15,0	1	TAAM08
10,00	10,5	18,0	1	TAAM10
12,00	13,0	20,0	1	TAAM12

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



HSS-G

DIN 375



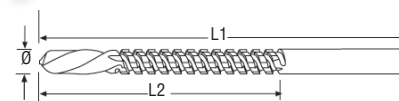
Ø (mm)	Ø 1 (mm)	Ø 2 (mm)	Cono Morse / Tapper Shank	Uds. / Pcs.	Cod.
8,00	8,4	15,0	2	1	TABM08
10,00	10,5	18,0	2	1	TABM10
12,00	13,0	20,0	2	1	TABM12
14,00	15,0	24,0	2	1	TABM14
16,00	17,0	26,0	3	1	TABM16
18,00	19,0	30,0	3	1	TABM18
20,00	21,0	33,0	3	1	TABM20

BROCA FRESA CUTTING DRILL BITS • FORETS FRAISEUR



HSS-G

TIN



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

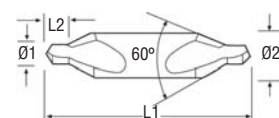
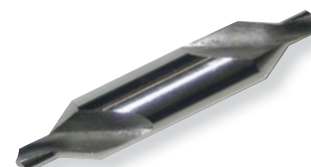
BROCAS DE CENTRAR
CENTER DRILLS • FORETS À CENTRER

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



HSS-G

DIN 333 A

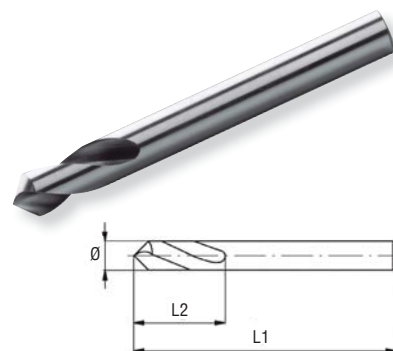


Ø 1 (mm)	Ø 2 (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
1,00	3,15	31,5	1,6	1	106100
1,25	3,15	33,5	1,9	1	106125
1,60	4,00	37,5	2,4	1	106160
2,00	5,00	42,0	2,9	1	106200
2,50	6,30	47,0	3,6	1	106250
3,15	8,00	52,0	4,4	1	106315
4,00	10,00	59,0	5,6	1	106400
5,00	12,50	66,0	6,9	1	106500
6,30	16,00	74,0	8,6	1	106630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

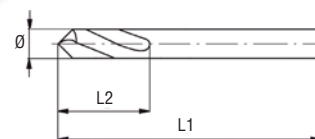
BROCA DE PUNTEAR 90°

90° NC SPOTTING DRILLS • FORETS À CENTRER 90°

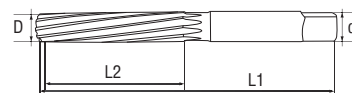


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
3,00	46,00	12,00	1	11590030
4,00	55,00	12,00	1	11590040
5,00	62,00	14,00	1	11590050
6,00	66,00	16,00	1	11590060
8,00	79,00	21,00	1	11590080
10,00	89,00	25,00	1	11590100
12,00	102,00	30,00	1	11590120
14,00	107,00	34,00	1	11590140
16,00	115,00	38,00	1	11590160

BROCA DE PUNTEAR 120°
120° NC SPOTTING DRILLS • FORETS À CENTRER 120°



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**HSS-G****DIN 206 B****TOL**
7H

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

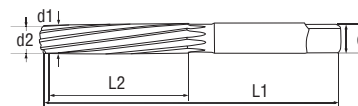
Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

ESCARIADOR CÓNICO DE MANO - CONICIDAD 2:100
TAPERED REAMER - 2 IN 100 TAPPER
ALÉSOIR CONIQUE À MAIN - CONICITÉ 2:100



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

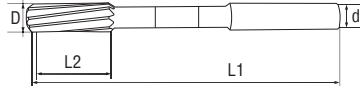
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ESCARIADOR HELICOIDAL DE MÁQUINA
MACHINE REAMER • ALÉSOIR MACHINE



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

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

20 - 25

Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
SESA TOOLS recommendation and cutting speed
Foret recommandé 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 recommandée (M/Min)

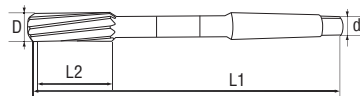
ESCARIADOR HELICOIDAL DE MÁQUINA ANCLAJE CÓNICO TAPPER SHANK MACHINE REAMER ALÉSOIR MACHINE QUEUE CONIQUE



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ESCARIADOR HELICOIDAL DE MÁQUINA TIPO "GAMMON"

"GAMMON TYPE" MACHINE REAMER

ALÈSOIR MACHINE TIPE "GAMMON"

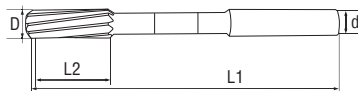


HSS-CO 5%

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 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	6-8		
	Acero para herramientas Steel for tools • Acier pour outils	<1200	4-6		
	Templado - Revenido Tempered - Quenched • Trempé - Revenu	<1400			
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		
ALUMINIO ALUMINIUM • ALUMINIUM	Puro Pure • Pure	<350		0,080	0,2 mm
	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		
	Cobre viruta corta Short chip copper • Cuivre coupage court	<700	8-15		
	Latón duro Hard Brass • Laiton dur	<700	8-15		
	Latón tenaz Tough Brass • Laiton tenace	<700	8-15		
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 recommendation and cutting speed
Foret recommandé 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 recommandée (M/Min)

ESCARIADOR HELICOIDAL DE MÁQUINA "GAMMON" ANCLAJE CÓNICO
TAPPER SHANK "GAMMON TYPE" MACHINE REAMER
ALÉSOIR MACHINE TIPE "GAMMON" QUEUE CONIQUE

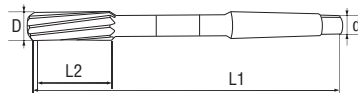


HSS-CO 5%

DIN 208 C

TOL 7H

45°



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

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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		0,200	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	0,2 mm	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


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



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILÉTAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

RECOMENDACIONES TÉCNICAS

TECHNICAL RECOMMENDATIONS • RECOMMANDATIONS TECHNIQUES



TABLA DE VELOCIDADES RECOMENDADAS / RECOMMENDED SPEED / VITESSES RECOMMANDÉES

								
VC=m/min	25-30	13-17	12-15	10-15	30-35	30-40	15-20	35-45
Refrigeración	Emulsión	Emulsión	Emulsión	Aire a	Aire a	Aceite de corte	Aire	Aire a
	Aceite de corte	Aceite de corte	Aceite de corte	presión	presión	Spray		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



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



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



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	6,35x150mm
UH20A3T - Amarre hexagonal 9,50	Ref. UB1014A
UH200A4 - Amarre SDS-PLUS	

HUSILLOS PARA CORONAS BIMETAL ARBORS FOR BIMETAL HOLE SAWS ARBRES POUR SCIÉS TRÉPAN BIMÉTAL



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

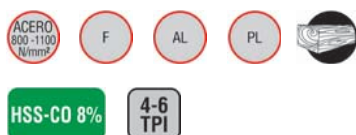


* Las brocas piloto de 6,35 x 105 también se recomiendan para taladrado de difícil acceso. / * 6.35 x 105 pilot bits are also recommended for drilling in difficult to access locations / * Les forets pilote de 6,35 x 105 sont aussi recommandés pour le perçage à des endroits d'accès difficile

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

HSS-CO 8%

4-6
TPI

Contenido / Contains / Contenu				
Cod.	Modelo / Model / Modèle	Coronas Hole Saws / Scies Trépons	Diámetros / Diameters Diamètres (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 INDUSTRIELLE	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



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 DATUM SEGURIDAD	€/Unid.	Basic
			Cod.		Cod.
12,7 (1/2")	M 8	1	P0013	79,15	PS013
14,00		1	P0014	79,15	PS014
15,00		1	P0015	79,15	PS015
16 (5/8")		1	P0016	79,15	PS016
17,00		1	P0017	86,49	-
18,00		1	P0018	86,49	PS018
19 (3/4")	M 10	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		1	P0023	116,32	-
24,00		1	P0024	116,32	-
25 (1")	M 12	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	M 14	1	P0031	136,62	-
32 (1.1/4")		1	P0032	136,62	PS032
33,00		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	M 20	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	M 20	1	P0043	182,45	-
44,00		1	P0044	182,45	-
45,00		1	P0045	182,45	PS045
46,00		1	P0046	182,45	-
47,00		1	P0047	196,79	PS047
48,00		1	P0048	196,79	-
49,00	M 20	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	M 20	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		1	P0080	590,93	-
85,00	M 20	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

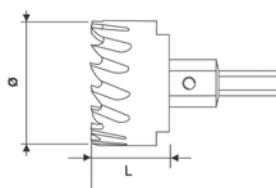


Ø	 Cod.	€/Unid.	 Cod.
18-22-25-32 mm	PJ003	435,10	PSJ001
15-20-22-28 mm	PJ006	410,69	PSJ002
5/8"-3/4"-1"-1.1/4"	PJ007	419,92	PSJ003
1/2"-3/4"-1"-1.1/4"	PJ008	419,92	PSJ004

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



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 / *Intengrale / *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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

RECOMENDACIONES TÉCNICAS

TECHNICAL RECOMMENDATIONS • RECOMMANDATIONS TECHNIQUES

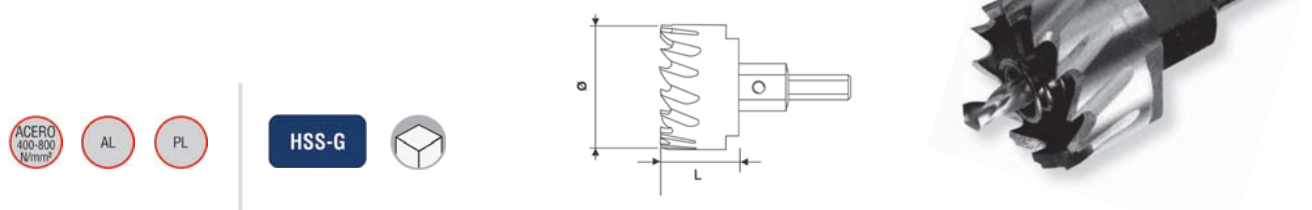
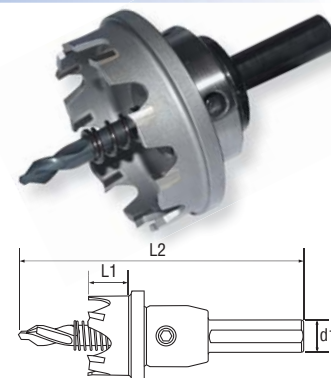


TABLA DE VELOCIDADES RECOMENDADAS / RECOMMENDED SPEED / VITESSES RECOMMANDÉES

	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 TIPPED HOLE SAWS SHORT SERIES
SCIÉS TRÉPANS AU CARBURE DE TUNGSTENE SERIE COURTE



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

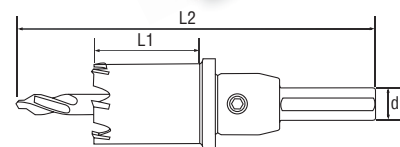
Tipo Broca / Drill Bit Type	Uds. / Pcs.	Cod.
Para Corona Serie Corta For short series	1	UIB0660

TABLA DE VELOCIDADES RECOMENDADAS / RECOMMENDED SPEED / VITESSES RECOMMANDÉES

VELOCIDAD DE CORTE RECOMENDADAS (R.P.M.) CUTTING SPEED / VITESSE DE COUP			
Ø (mm)	INOX	ACERO 400-800 N/mm²	F
	Inox	Acero / Steel	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 recomendadas para espesores de hasta 4 mm. En caso de aceros inoxidables se recomienda no sobrepasar los 2 mm. de espesor. / Recommended maximum cutting depth of 4 mm, for stainless steel 2 mm / Profondeur de coupage maximum recommandée 4 mm, pour INOX 2 mm

CORONAS CON DIENTE METAL DURO SERIE LARGA
TUNGSTEN CARBIDE TIPPED HOLE SAWS LONG SERIES
SCIES TRÉPANS AU CARBURE DE TUNGSTENE SERIE LONGUE



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 / RECOMMENDED SPEED / VITESSES RECOMMANDÉES

VELOCIDAD DE CORTE RECOMENDADAS (R.P.M.) CUTTING SPEED / VITESSE DE COUP			
Ø (mm)	INOX	ACERO 400-800 N/mm²	F
20,00	Inox	Acero / Steel	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 recomendadas para espesores de hasta 4 mm. En caso de aceros inoxidables se recomienda no sobrepasar los 2 mm. de espesor. / Recommended maximum cutting depth of 4 mm, for stainless steel 2 mm / Profondeur de coupage maximum recommandée 4 mm, pour INOX 2 mm

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G

HSS-G ELECTROMAGNETIC CORE BITS

SCIÉS ELECTROMAGNETIQUES HSS-G



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



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS



CORONAS

HOLE SAWS • SCIÉS TRÉPANS

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G

HSS-G ELECTROMAGNETIC CORE BITS

SCIÉS ELECTROMAGNETIQUES HSS-G



HSS-G



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



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



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



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



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

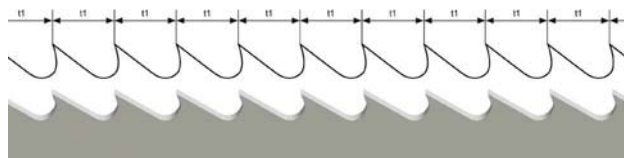


DENTADO FIJO / *CONSTANT TOOTH PITCH / DENTURE CONSTANCE*

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, appropriés pour des matériaux solides.

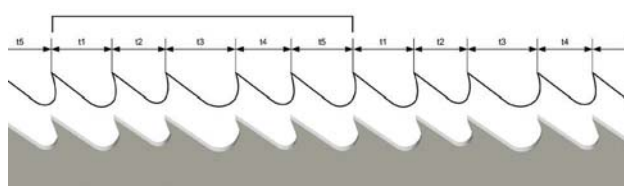


DENTADO VARIABLE / *VARIABLE TOOTH PITCH / DENTURE VARIABLE*

Dentado alterno en intervalos regulares an toda la longitud. Para cortes en perfiles y tubos, reduce la vibración.

Variable pitch, recommended to suppress the resonance phenomena and vibrations.

Denture variable, recommandés pour supprimer 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 qualité 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 SOLUTIONSProcedente
Procédente
ProcédenteNo procedente
No procédente
No procédenteROTURA DE LA SIERRA / **BROKEN SAW** / **RUPTURE DE LA SCIE**

	CAUSA / CAUSE	SOLUCIÓN / SOLUTION
	Guías laterales demasiado prietas. <i>Side guide rails too tight.</i> <i>Guides latéraux trop serrés.</i>	Comprobar y ajustar las guías. <i>Check and adjust the guide rails.</i> <i>Vérifier et ajuster les guides.</i>
	Guías desgastadas, rotas o no alineadas. <i>Worn, broken or misaligned guide rails.</i> <i>Guides usés, cassés ou non alignés.</i>	Revisar o reemplazar las guías. <i>Service or replace the guide rails.</i> <i>Vérifier ou remplacer les guides.</i>
	Tensión excesiva, volantes de la máquina desgastados o problemas de rodamientos. <i>Excessive tension, worn flywheels or bearing problems.</i> <i>Tension excessive, volants de la machine usés ou problèmes de roulements.</i>	Revisar la máquina. <i>Service the machine.</i> <i>Vérifier la machine.</i>
	Rotura limpia por la soldadura. <i>Clean break from welding.</i> <i>Cassure propre à cause de la soudure.</i>	Reclamación procedente. <i>Appropriate complaint.</i> <i>Réclamation adaptée.</i>

DESGASTE DE LOS DIENTES / **WORN TEETH** / **USURE DES DENTS**

	CAUSA / CAUSE	SOLUCIÓN / SOLUTION
	Velocidad de corte superior a la recomendada. <i>Cutting speed higher than recommended.</i> <i>Vitesse de coupe supérieure à la vitesse recommandée.</i>	Reducción de la velocidad de corte. <i>Reduce the cutting speed.</i> <i>Réduction de la vitesse de coupe.</i>
	Refrigeración insuficiente. <i>Insufficient cooling.</i> <i>Faible réfrigération.</i>	Aumentar refrigeración o concentración. <i>Increase cooling or concentration.</i> <i>Augmenter réfrigération ou concentration.</i>
	El material no está bien sujeto. <i>The material is not securely fastened.</i> <i>Le matériel n'est pas bien fixé.</i>	Ajustar la mordaza de la máquina. <i>Adjust the jaws of the machine.</i> <i>Ajuster la fixation de la machine.</i>
	Material poco homogéneo. <i>The material is not sufficiently uniform.</i> <i>Matériel peu homogène.</i>	Realizar un análisis metalúrgico del material. <i>Conduct a metallurgical analysis of the material.</i> <i>Réaliser une analyse métallurgique du matériel.</i>
	Rodaje inadecuado. <i>Incorrect running-in.</i> <i>Rodage non adapté.</i>	Realizar el proceso de rodaje correcto. <i>Conduct the running in process correctly.</i> <i>Réaliser la procédure de de rodage correctement.</i>

ROTURA DE LOS DIENTES / **BROKEN TEETH** / **RUPTURE DES DENTS**

	CAUSA / CAUSE	SOLUCIÓN / SOLUTION
	Velocidad de corte baja. <i>Low cutting speed.</i> <i>Vitesse de coupe faible.</i>	Adaptar la velocidad de corte al material a cortar. <i>Adjust the cutting speed to the material to be cut.</i> <i>Adapter la vitesse de coupe au matériel à couper.</i>
	Avance demasiado alto. <i>Feed rate too high.</i> <i>Avancée trop élevée.</i>	Reducir el avance. <i>Reduce the feed rate.</i> <i>Réduire l'avancée.</i>
	Dentado inapropiado. <i>Unsuitable tooth size.</i> <i>Dents non adaptées.</i>	Seleccionar el dentado correcto. <i>Select the correct tooth size.</i> <i>Sélectionner les dents adaptées.</i>
	El material no está bien sujeto. <i>The material is not securely fastened.</i> <i>Le matériel n'est pas bien fixé.</i>	Ajustar la mordaza de la máquina. <i>Adjust the jaw of the machine.</i> <i>Ajuster la fixation de la machine.</i>
	Refrigeración insuficiente. <i>Insufficient cooling.</i> <i>Faible réfrigération.</i>	Aumentar refrigeración o concentración. <i>Increase cooling or concentration.</i> <i>Augmenter réfrigération ou concentration.</i>
	Cepillo limpia virutas no funciona. <i>Shavings cleaning brush not working.</i> <i>Brosse qui nettoie les copeaux ne fonctionne pas.</i>	Comprobar o sustituir el cepillo limpia viruta. <i>Check or replace shavings cleaning brush.</i> <i>Vérifier ou remplacer la brosse.</i>

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. <i>Blunt band saw blade.</i> <i>Feuille de scie du tapis mal aiguisée.</i>	Cambiar la cinta. <i>Replace the blade.</i> <i>Changer le tapis.</i>
	Guías de la hoja de sierra de cinta flojas o desalineadas. <i>Loose or misaligned band saw blade guides.</i> <i>Guides de la feuille peu serrés ou mal alignés.</i>	Ajustar o sustituir las guías. <i>Adjust or replace the guides.</i> <i>Ajuster ou remplacer les guides.</i>
	Brazos guía de la máquina están demasiado separados. <i>The machine's guide arms are too far apart.</i> <i>Bras guide la machine trop séparée.</i>	Ajustar al máximo la apertura de los brazos guías al tamaño de la pieza a cortar. <i>Open the guide arms as far as possible to the size of the piece to be cut.</i> <i>Ajuster au maximum l'ouverture des bras guides aux dimensions de la pièce à couper.</i>
	Dentado demasiado pequeño. <i>Blade teeth too small.</i> <i>Dents trop petites.</i>	Seleccionar el dentado apropiado. <i>Select the correct blade teeth size.</i> <i>Sélectionner les dents adaptées.</i>
	Avance demasiado alto. <i>Feed rate too high.</i> <i>Avancée trop élevée.</i>	Reducir el avance. <i>Reduce the feed rate.</i> <i>Réduire l'avancée.</i>
	Tensión baja de la hoja. <i>Blade tension too low.</i> <i>Tension de la feuille faible.</i>	Aumentar la tensión. <i>Increase the tension.</i> <i>Augmenter la tension.</i>
	Cepillo limpia virutas no funciona. <i>Shavings cleaning brush not working.</i> <i>Brosse qui nettoie les copeaux ne fonctionne pas.</i>	Comprobar o sustituir el cepillo. <i>Check or replace the brush.</i> <i>Vérifier ou remplacer la brosse.</i>

RECOMENDACIONES

TIPS • RECOMMANDATIONS

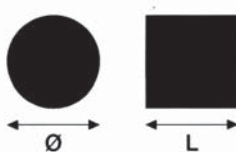
- Comprobar con frecuencia el buen estado de la máquina, el funcionamiento del cepillo, el desgaste y la alineación de las guías, la tensión de la cinta, etc.
Conduct frequent checks of the condition of the machine, the operation of the brush, the wear and alignment of the guide rails, the tension of 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.
- 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.
- 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.
- 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	10/14			10/14	10/14	6/10			6/10	6/10
4									6/10				
5			10/14	10/14			10/14	6/10	6/10			6/10	6/10
6	8/12	8/12			6/10	5/8	4/6			3/4			
7													
8													
10			-	6/10				5/8	5/8		4/6	3/4	3/4
12	-												
15	-												
20	-												
30	-	-	-	4/6	3/4	3/4	3/4	3/4	3/4	3/4			
50	-	-	-	-	-	3/4	2/3	2/3	2/3	2/3	2/3		

PARA EL CORTE DE SECCIONES MACIZAS / TO CUT SOLID MATERIALS / POUR LA COUPE DE MATÉRIAUX PLEINS



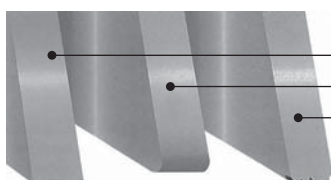
Ø (mm) / L (mm)	Dentado Variable / Variable Tooth Pitch	Dentado Fijo / Constant Tooth Pitch
- 10	10 / 14	14,00
10 - 20	8 / 12	10,00
20 - 40	6 / 10	8,00
40 - 70	4 / 6	6,00
70 - 140	3 / 4	4,00
140 - 200	3 / 4	3,00
200 - 400	2 / 3	2,00
+ 400	1 / 2	1,25

- 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 nueva / **New saw / Nouvelle scie**
 Sierra con rodaje / **Saw with running / Scie avec rodage**
 Sierra sin rodaje / **Saw without running / Scie sans rodage**

SIERRAS DE CINTA BIMETAL M42

M42 BIMETAL BANDSAW BLADES • LAMES DE SCIES À RUBAN M42



SIERRA DE CINTA M42 - PARA DIVERSAS TAREAS DE CORTE M42 BIMETAL BANDSAW BLADES - FOR DIVERSE CUTTING TASKS LAMES DE SCIES À RUBAN M42 - POUR DIVERSES TÂCHES DE DÉCOUPE

CÁLCULO DEL PRECIO DE UNA SIERRA DE CINTA PRICE CALCULATION • CALCULE DU PRIX



Tipo de diente / Tipo de diente / Tipo de diente

HSS-CO 8%

HRC
68-69



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 À 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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

SIERRA DE CINTA M42 - PARA PERFILES Y TUBOS TIPO "P"
M42 BIMETAL BANDSAW BLADES - FOR PROFILES AND TUBES TYPE "P"
LAMES DE SCIES À RUBAN M42 - POUR PROFILÉS ET TUBES TIPE "P"

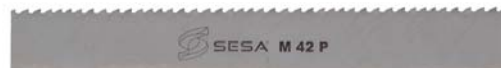
NEW



CÁLCULO DEL PRECIO DE UNA SIERRA DE CINTA
PRICE CALCULATION • CALCULE DU PRIX



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 À 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 RECOMMANDÉE



HSS-CO 8%

HRC
68-69

MATERIAL	Selección Del Dentado <i>Tooth Selecting</i>		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte <i>Coolant Cutting Fluid</i>	
	Dimensión A Cortar / <i>To Cut</i>		0 - 13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad <i>Speed</i> (m / min)	Velocidad <i>Speed</i> (m / min)	Velocidad <i>Speed</i> (m / min)	Velocidad <i>Speed</i> (m / min)	Velocidad <i>Speed</i> (m / min)	SI / YES	NO
Aceros Al Carbono <i>Carbon Steels</i>	F-151	1010	105	100	90	85	80		X
	F-111 - F-112	1015 - 1025	110	105	100	95	85		X
	F-113	1035	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 <i>Free Cutting Steels</i>	-	1108-1111	105	105	105	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 <i>Manganese Steels</i>	-	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 <i>Molybdenum Steels</i>	-	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 <i>Chrome Molybdenum Steels</i>	-	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 <i>Nickel Steels</i>	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 <i>Chrome Nickel Steels</i>	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% à 20% dans les mesures plus grandes.*



RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION
VITESSE RECOMMANDÉE



MATERIAL	Selección Del Diente <i>Tooth Selecting</i>		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte <i>Coolant Cutting Fluid</i>	
	Dimensión A Cortar / <i>To Cut</i>		0 - 13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm	SI / YES	NO
	REF - I.HA	REF - SAE / AISI	Velocidad <i>Speed</i> (m / min)	Velocidad <i>Speed</i> (m / min)	Velocidad <i>Speed</i> (m / min)	Velocidad <i>Speed</i> (m / min)	Velocidad <i>Speed</i> (m / min)		
Aceros Cromo Níquel Molibdeno <i>CR-Ni-Mb Steels</i>	-	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 - 8750	63	78	75	69	54	X	
	F-156	9310 - 9317	73	66	55	52	45	X	
	-	9437 - 9446	86	78	74	68	65	X	
Aceros Níquel Molibdeno <i>Ni-Mb Steels</i>	-	9447 - 9763	80	77	74	66	62	X	
	-	9840 - 9850	78	75	70	66	52	X	
	-	4608 - 4626	89	84	80	75	65	X	
	-	4640	79	72	68	63	64	X	
Aceros Cromo <i>Chrome Steel</i>	-	4812	74	67	62	60	52	X	
	-	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
Aceros Cromo Vanadio <i>Chrome Vanadium Steels</i>	F-131	50100 - 52100	63	56	52	48	35		X
	-	6117 - 6120	80	77	70	70	49		X
	F-143	6145 - 6152	76	69	63	60	47		X
Aceros 5(Uck) Manganeso <i>5 (UCK)-Mg Steels</i>	F-144	9255 - 9260	69	63	60	57	46		X
	-	9261 - 9262	67	60	57	54	45		X
	F-522 - F-520 H	01 - 02	74	67	65	60	50		
Aceros Trabajados en Frío <i>Cold Worked Steels</i>	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% à 20% dans les mesures plus grandes.*

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION

VITESSE RECOMMANDÉE



HSS-CO 8%

HRC
68-69

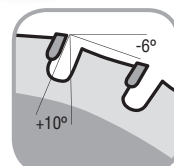
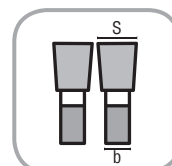
MATERIAL	Selección Del Dentado Tooth Selecting		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte Coolant Cutting Fluid	
	Dimensión A Cortar / To Cut		0 - 13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad Speed (m / min)	Velocidad 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 Rápidos 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% à 20% dans les mesures plus grandes.

DISCO PARA ALUMINIO Y METALES NO FÉRRICOS
ALUMINIUM AND NON-FERROUS METAL DISCS
DISQUE POUR ALUMINIUM ET METAUX NON FERREUX

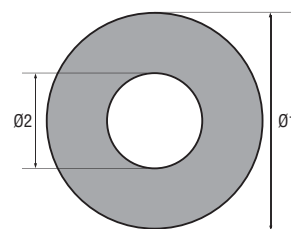
MD



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



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



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



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



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, ROCKWELL...
For pneumatic and electric machines with anchor FEIN, SPITZHAS, PREMAG, ROCKWELL...
Pour machines pneumatiques et électriques avec ancre FEIN, SPITZHAS, PREMAG, ROCKWELL...

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



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 référer au nombre de dents par pouce

Ejemplo para pedir: / Example to order: / Exemple de commande:

300 x 25 x 1,20 8 TPI → Cod. S730025128

300 x 25 x 1,20 10 TPI → Cod. S7300251210

DESBARBADOR
DEBURRING TOOL
ÉBAVUREUR



Uds. / Pcs.

1

Cod.

3DE1000



CUCHILLAS RECAMBIO
DEBURRING TOOLS BLADES • LAMES

Uds. / Pcs.

10

Cod.

3DE1001



DESBARBADOR PARA VARILLAS
BOLT CHAMFER
CHAMFER À BOULON



Uds. / Pcs.

1

Cod.

3DE1003

Ø

8-22mm



GRANETES
POUNCHES • POINTEAU

GRANETE AUTOMÁTICO
AUTHOMATIC CENTER PUNCH • POINTEAU AUTOMATIQUE

NEW



Uds. / Pcs.

1

Cod.

5PU5000





FRESADDO

MILLING - FRAISAGE

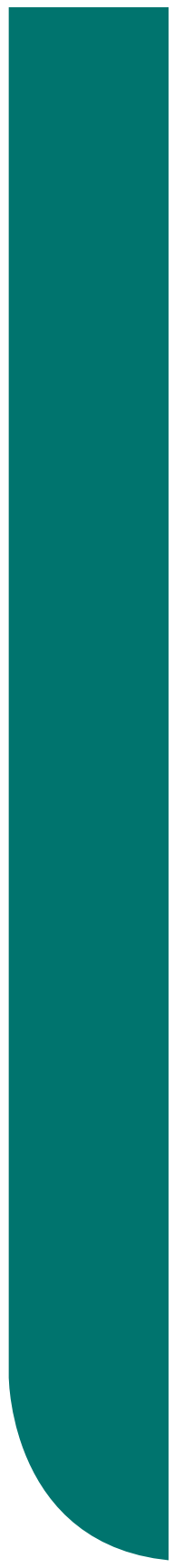


TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS APPLICATION GUIDE AND CUTTING SPEED TABLE D'APPLICATIONS ET VITESSE DE COUPE RECOMMANDÉE



MD



MD



MD



MATERIAL / MATERIAL / MATIERE		Resistencia Resistance 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 copper • 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

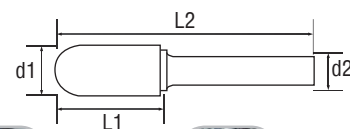
Ø 12 mm

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
100	60-80	65	65	45-60	50	55	30-40	30	35	22-30	25	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
	60-80	65		15-60	40		10-50	25		7-30	20		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

MD

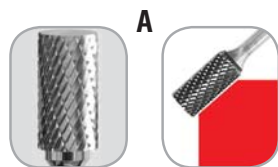
CILÍNDRICA *CYLINDER • CYLINDRIQUE*

3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
3,00		3,00	14,00	38,00	FRA3104	FRA6100
		6,35	12,70	45,00	FRA3105	FRA6101
		4,00	14,00	50,00	*	FRA6107
		6,00	18,00	50,00	FRA3102	FRA6102
6,00		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

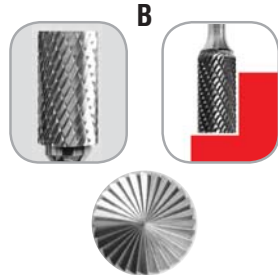
CILÍNDRICA CORTE FRONTAL
CYLINDER END CUT • CYLINDRIQUE COUP FRONTALE

3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
3,00		3,00	14,00	38,0	FRB3103	FRB6100
		6,35	12,70	45,00	FRB3104	FRB6101
		4,00	14,00	50,00	*	FRB6107
		6,00	18,00	50,00	FRB3100	FRB6102
6,00		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

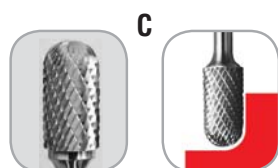
CILÍNDRICA CON RADIO *BULL NOSE • CYLINDRIQUE A RAYON*

3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

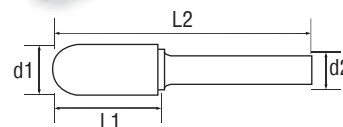
Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
3,00		3,00	14,00	38,00	FRC3104	FRC6100
		6,35	12,70	45,00	FRC3105	FRC6101
		4,00	14,00	50,00	*	FRC6108
		6,00	18,00	50,00	FRC3102	FRC6102
6,00		8,00	19,00	64,00	FRC3103	FRC6103
		9,60	19,00	64,00	FRC3100	FRC6104
		12,70	19,00	64,00	*	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



MD



ESFÉRICA *BALL • SPHERIQUE*



D



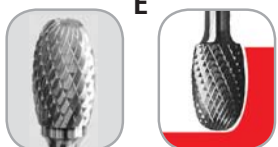
3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	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



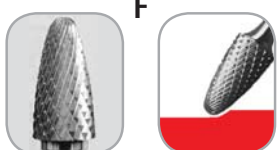
3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
	3,00	3,00	6,00	38,00	*	FRE6100
		6,35	9,50	42,00	*	FRE6101
		8,00	15,00	60,00	*	FRE6102
	6,00	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



3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

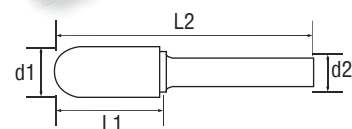
Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
	3,00	3,00	14,00	38,00	*	FRF6100
		6,35	12,70	45,00	*	FRF6101
	6,00	6,00	18,00	50,00	FRF3102	FRF6102
		8,00	20,00	65,00	FRF3103	FRF6106
		9,60	19,00	64,00	FRF3100	FRF6103
		12,70	25,00	70,00	FRF3101	FRF6104
		16,00	25,00	70,00	FRF3104	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



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.
 	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.
 	3,00	3,00	6,00	38,00	*	FRH6104
		6,00	14,00	50,00	*	FRH6101
	6,00	8,00	19,00	64,00	*	FRH6102
		9,60	19,00	65,00	FRH3102	FRH6103
		12,70	32,00	77,00	FRH3103	FRH6100

CÓNICA 90° *COUNTER SINK 90° • CONIQUE 90°*



3 Cortes / 3 Cuts



6 Cortes / 6 Cuts

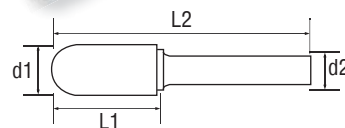
Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
 	6,00	9,60	4,70	53,00	*	FRK6101
		16,00	8,00	57,00	*	FRK6102

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



MD



CÓNICA CON RADIO *BALL NOSE CONE • CONIQUE A RAYON*

Tipo / Type		Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
		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*

Tipo / Type		Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
		3,00	3,00	11,00	38,00	*	FRM6100
			6,00	20,00	50,00	*	FRM6101
			8,00	18,00	18,00	*	FRM6104
		6,00	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*

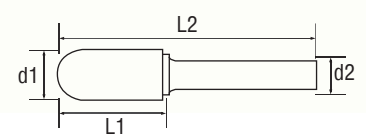
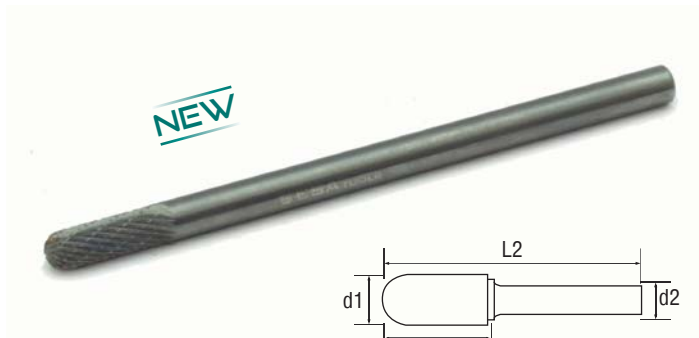
Tipo / Type		Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
		3,00	3,00	4,00	38,00	*	FRN6101
			6,00	8,00	50,00	*	FRN6102
		6,00	12,70	12,70	58,00	*	FRN6103

PASTILLA *RIM SHAPE • DISQUE*

Tipo / Type		Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	Cod.
		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 SERRURERIE SPÉCIAL*

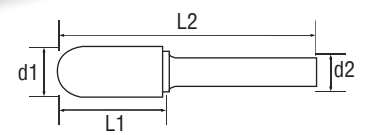


Ø d2 Mango / Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.
6	6,00	18,00	100,00	FRC6109

Recomendaciones / Recommendations / Recommendations:

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



Ø d2 Mango / Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.
6	6,00	33,00	60,00	FRQ6106

Recomendaciones / Recommendations / Recommendations:

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

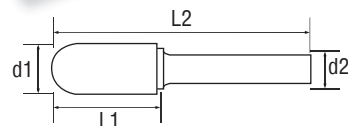
HARD METAL ROTARY BURRS

RECOMMENDED FOR STAINLESS STEEL

FRAISES ROTATIVAS MÉTAL DUR

RECOMMANDÉ POUR INOX

MD



CILÍNDRICA *CYLINDER • CYLINDRIQUE*



INOX

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	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*



INOX

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.
C  	6,00	6,00	18,00	50,00	FRC3102-INOX
		12,70	25,00	70,00	FRC3101-INOX

ESFÉRICA *BALL • SPHERIQUE*



INOX

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	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*



INOX

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	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



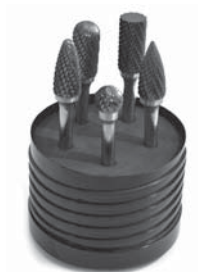
130801965

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



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

*Diámetro fresa/mango 3 mm,
dentado cruzado
*Burr and shank diameter 3
mm, 6 cuts
*Diametre fraise et queue 3
mm, 6 coups

EXPOSITOR 40 PIEZAS DISPLAY 40 PIECES • DISPLAY 40 PIECES



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
FRF6104	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



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

EXPOSITORES SESA KUBO

DISPLAYS SESA KUBO

EXPOSITEURS SESA KUBO

NEW

MD



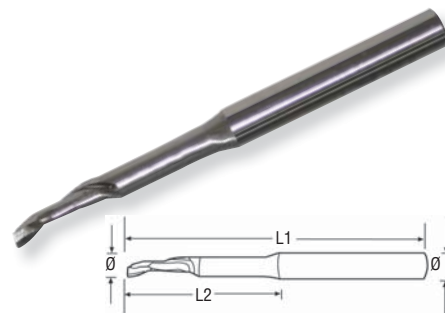
Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 24	FRESAS ROTATIVAS METAL DURO 	FREST6DT	FRB6106-FRC6106-FRD6105-FRF6104-FRG6105	6

FRESA FRONTAL UN DIENTE
1Z FINISHING END MILLS • FRAISE 1Z FINITION



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



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

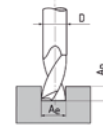
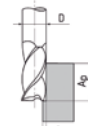
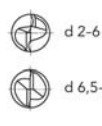
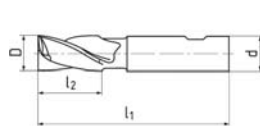
FRESA FRONTAL LARGA UN DIENTE PARA PVC
1Z FINISHING LONG END MILLS FOR PVC
FRAISE LONGUE 1Z FINITION POUR PVC



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

Material	Composición	Vc	fz(mm/z)			
			Ø 3	Ø 6	Ø 8	Ø 10
AL	Si ≤ 12%	160-260	0.008	0.018	0.024	0.03

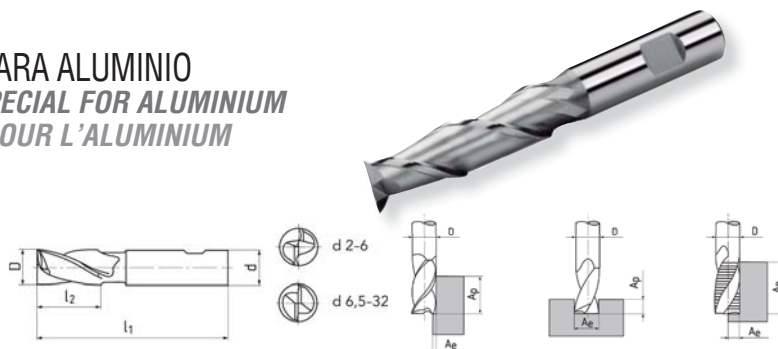
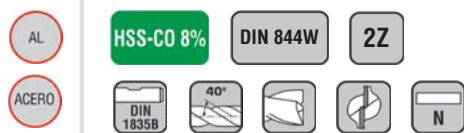
FRESA FRONTAL DOS DIENTES PARA ALUMINIO
2Z STRAIGHT SHANK END MILLS ESPECIAL FOR ALUMINIUM
FRAISES QUEUE CYLINDRIQUE 2Z POUR L'ALUMINIUM

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

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
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

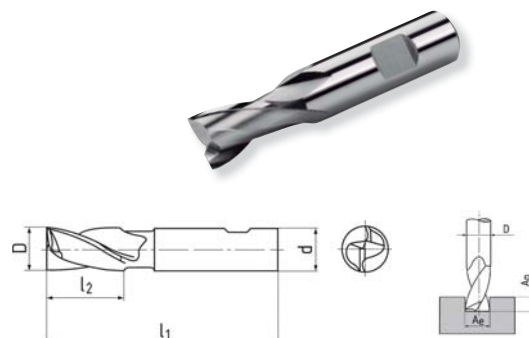
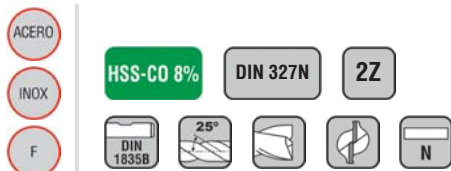
FRESA FRONTAL LARGA DOS DIENTES PARA ALUMINIO
2Z STRAIGHT SHANK LONG END MILLS ESPECIAL FOR ALUMINIUM
FRAISE LONGUE QUEUE CYLINDRIQUE 2Z POUR L'ALUMINIUM



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

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
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


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
ACERO	≤ 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
	≤ 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

FRESAS CON MANGO CILÍNDRICO

STRAIGHT SHANK- END MILLS • FRAISES QUEUE CYLINDRIQUE



FRESA FRONTAL LARGA ACABADO DOS DIENTES

2Z FINISHING STRAIGHT SHANK LONG END MILLS

FRAISE LONGUE QUEUE CYLINDRIQUE FINITION 2Z



HSS-CO 8%

DIN 327N

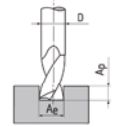
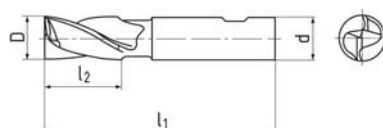
2Z

DIN 1835B

25°



N

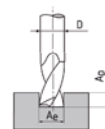
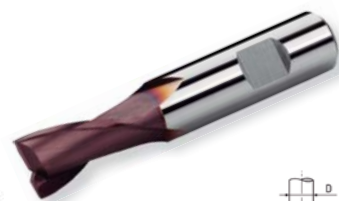
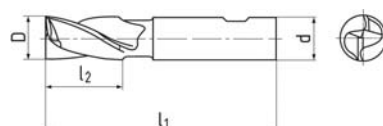


Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.
2,00	54	7	6	2	1	TDCL0200
3,00	56	8	6	2	1	TDCL0300
3,50	59	10	6	2	1	TDCL0350
4,00	63	11	6	2	1	TDCL0400
4,50	63	11	6	2	1	TDCL0450
5,00	68	13	6	2	1	TDCL0500
5,50	68	13	6	2	1	TDCL0550
6,00	68	13	6	2	1	TDCL0600
6,50	80	16	10	2	1	TDCL0650
7,00	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
ACERO	≤ 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
	≤ 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


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

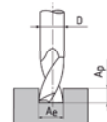
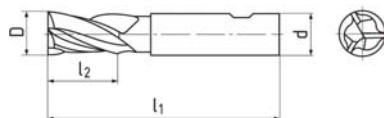
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)							
					Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	67	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	58	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	36	0.009	0.022	0.029	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

FRESAS CON MANGO CILÍNDRICO

STRAIGHT SHANK END MILLS • FRAISES QUEUE CYLINDRIQUE



FRESA FRONTAL ACABADO TRES DIENTES - PM ALTIN 3Z FINISHING STRAIGHT SHANK END MILLS - PM ALTIN FRAISES QUEUE CYLINDRIQUE FINITION 3Z - PM ALTIN



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

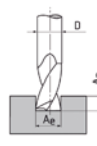
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)						
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	114	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 850 N/mm²	0,5xD	1xD	99	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 1100 N/mm²	0,5xD	1xD	62	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 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

HSS-CO 8%

DIN 1889

2Z



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

Condiciones de corte / <i>Cutting conditions</i> / <i>Conditions de coupe</i>					fz(mm/z)						
Material	Dureza / <i>Strength</i> / <i>Dureté</i>	Ap	Ae	Vc	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 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
	≤ 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

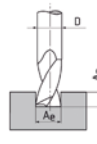
FRESA FRONTAL RADIAL ACABADO DOS DIENTES - PM ALTIN
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS - PM ALTIN
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z - PM ALTIN

PM

ALTIN

DIN 1889

2Z



Ø min (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

Condiciones de corte / <i>Cutting conditions</i> / <i>Conditions de coupe</i>					fz(mm/z)						
Material	Dureza / <i>Strength</i> / <i>Dureté</i>	Ap	Ae	Vc	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 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
	≤ 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

FRESAS CON MANGO CILÍNDRICO

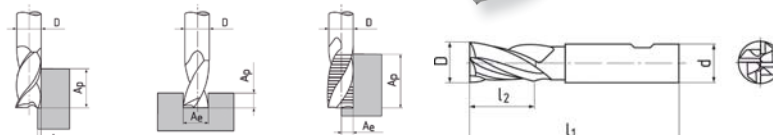
STRAIGHT SHANK END MILLS • FRAISES QUEUE CYLINDRIQUE



FRESA FRONTAL ACABADO - VARIOS DIENTES

NZ FINISHING STRAIGHT SHANK END MILLS

FRAISES QUEUE CYLINDRIQUE FINITION NZ



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

Condiciones de corte / Cutting conditions / Conditions de coupe					fz(mm/z)										
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	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

HSS-CO 8%

DIN 844N

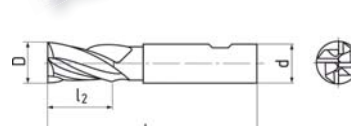
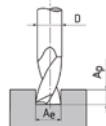
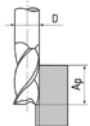
3Z-6Z

DIN 1835B

30°



N



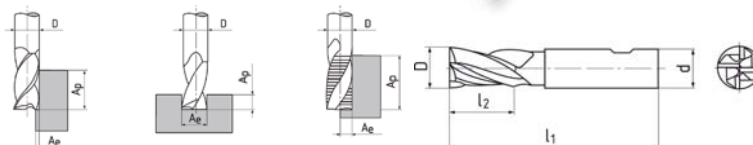
Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.
2,00	54	10	6	3	1	TVCL0200
3,00	56	12	6	4	1	TVCL0300
3,50	59	15	6	4	1	TVCL0350
4,00	63	19	6	4	1	TVCL0400
4,50	63	19	6	4	1	TVCL0450
5,00	68	24	6	4	1	TVCL0500
5,50	68	24	6	4	1	TVCL0550
6,00	68	24	6	4	1	TVCL0600
7,00	80	30	10	4	1	TVCL0700
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

					fz(mm/z)										
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	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 ACABADO VARIOS DIENTES -TIALN
NZ FINISHING STRAIGHT SHANK END MILLS-TIALN
FRAISES QUEUE CYLINDRIQUE FINITION NZ- TIALN

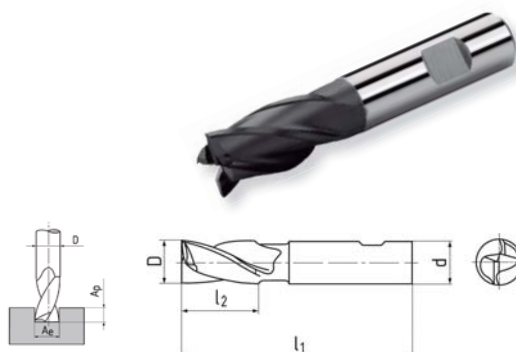


Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.
2,00	51	7	6	3	1	TVC0200T
2,50	52	8	6	3	1	TVC0250T
3,00	52	8	6	4	1	TVC0300T
3,50	55	11	6	4	1	TVC0350T
4,00	55	11	6	4	1	TVC0400T
4,50	57	13	6	4	1	TVC0450T
5,00	57	13	6	4	1	TVC0500T
5,50	57	13	6	4	1	TVC0550T
6,00	57	13	6	4	1	TVC0600T
6,50	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

Condiciones de corte / Cutting conditions / Conditions de coupe					fz(mm/z)										
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40
ACERO	≤ 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
	≤ 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

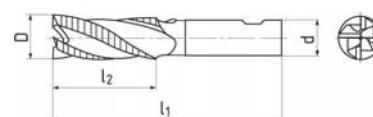
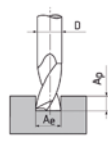
FRESA FRONTAL ACABADO VARIOS DIENTES - PM ALTIN
NZ FINISHING STRAIGHT SHANK END MILLS - PM ALTIN
FRAISES QUEUE CYLINDRIQUE FINITION NZ - PM ALTIN

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

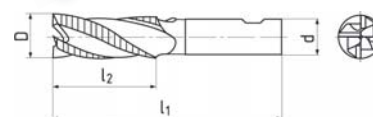
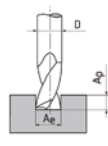
					fz (mm/z)								
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 850 N/mm ²	1xD	0,1xD	99	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 1100 N/mm ²	1xD	0,1xD	61.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 900 N/mm ²	1xD	0,1xD	76.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 1100 N/mm ²	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/mm ²	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/mm ²	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/mm ²	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



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



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

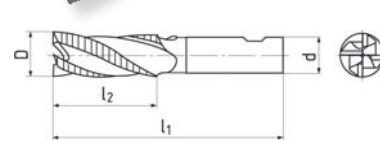
Condiciones de corte / Cutting conditions / Conditions de coupe (TVG Y TVGL)

Condiciones de corte / <i>Cutting conditions</i> / <i>Conditions de coupe</i> (TVG Y TVGL)						fz(mm/z)								
Material	Dureza / <i>Strength</i> / <i>Dureté</i>	Ap	Ae	Vc	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
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	0.115	0.14
	≤ 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



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

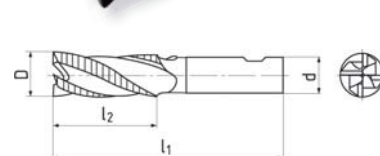
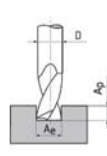
Condiciones de corte / Cutting conditions / Conditions de coupe

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 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



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

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 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

FRESAS CON MANGO CILÍNDRICO

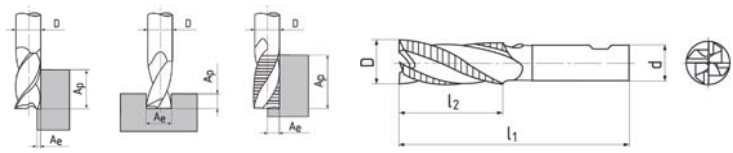
STRAIGHT SHANK END MILLS • FRAISES QUEUE CYLINDRIQUE



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



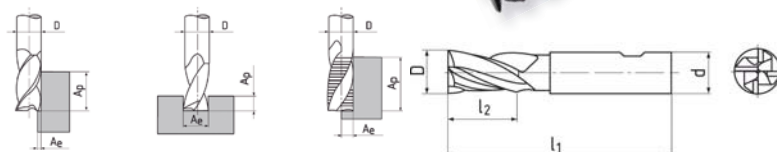
Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.
6,00	57	13	6	4	1	TVFH0600PM
8,00	69	19	10	4	1	TVFH0800PM
10,00	72	22	10	4	1	TVFH1000PM
11,00	79	22	12	4	1	TVFH1100PM
12,00	83	26	12	4	1	TVFH1200PM
13,00	83	26	12	4	1	TVFH1300PM
14,00	83	26	12	4	1	TVFH1400PM
15,00	83	26	12	4	1	TVFH1500PM
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 / Dureté	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/mm ²	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/mm ²	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/mm ²	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/mm ²	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/mm ²	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/mm ²	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 MILLS
FRAISES QUEUE CYLINDRIQUE FINITION NZ



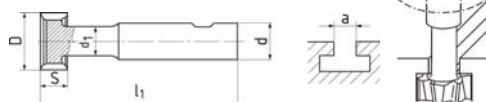
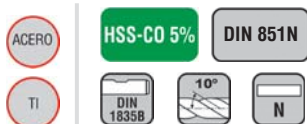
Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.
6,00	57	7	6	4	1	TVC0600PMC
8,00	65	9	8	4	1	TVC0800PMC
10,00	72	11	10	4	1	TVC1000PMC
12,00	83	13	12	4	1	TVC1200PMC
16,00	92	17	16	4	1	TVC1600PMC
20,00	104	21	20	4	1	TVC2000PMC

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ae	Ap	Vc	fz(mm/z)					
					Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 20
ACERO	≤ 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
	≤ 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
INOX	> 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
	750 - 850 N/mm²	1xD	0,1xD	48	0.018	0.024	0.03	0.036	0.042	0.054
	> 850 N/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"



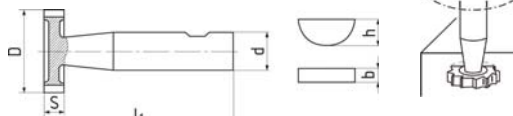
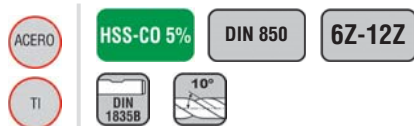
Ø mm (d11)	d (h6)	s (d11)	d1	l1	z	a	Uds. / Pcs.	Cod.
11,00	10	4	4	53,5	6	5	1	T851N01100
12,50	10	6	5	57	6	6	1	T851N01250
16,00	10	8	7	62	6	8	1	T851N01600
18,00	12	8	8	70	6	10	1	T851N01800
21,00	12	9	10	74	6	12	1	T851N02100
25,00	16	11	12	82	8	14	1	T851N02500
32,00	16	14	15	90	8	18	1	T851N03200
40,00	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

Material	Dureza / Strength / Dureté	Ae	Ap	Vc	fz(mm/z)			
					Ø 21	Ø 25	Ø 40	Ø 50
ACERO	≤ 600 N/mm²	0,1xD	1xb	37.5	0.07	0.08	0.04	0.05
	≤ 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



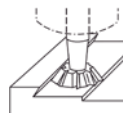
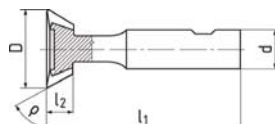
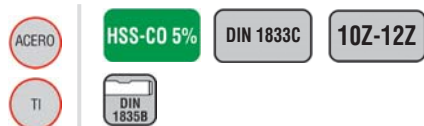
Ø mm (h12)	d (h6)	s (e8) / b	l1	z	h	Uds. / Pcs.	Cod.
4,50	6	1	50	6	1,4	1	T850045010
7,50	6	1,5	50	6	2,6	1	T850075015
7,50	6	2	50	6	2,6	1	T850075020
10,50	6	2	50	6	3,7	1	T850105020
10,50	6	2,5	50	6	3,7	1	T850105025
10,50	6	3	50	6	3,7	1	T850105030
13,50*	10	2	56	6		1	T850135020
13,50	10	3	56	6	5	1	T850135030
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

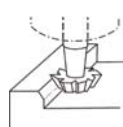
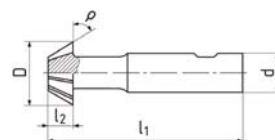
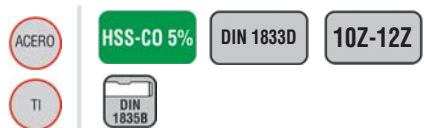
Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	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


P° (±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


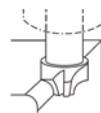
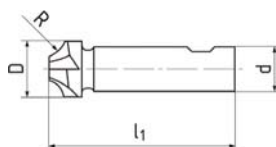
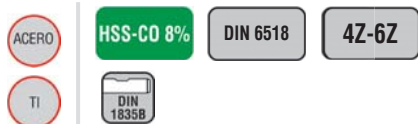
P° (±30°)	Ø mm (js16)	Ø Mango / Shank (h6)	L1	L2	Z	Uds. / Pcs.	Cod.
45	16,00	12	60	4	10	1	T1833D4516
45	20,00	12	63	5	10	1	T1833D4520
45	25,00	12	67	6,3	10	1	T1833D4525
45	32,00	16	71	8	12	1	T1833D4532
45	40,00	16	80	10	12	1	T1833D4540
60	16,00	12	60	6,3	10	1	T1833D6016
60	20,00	12	63	8	10	1	T1833D6020
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 / Dureté	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



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

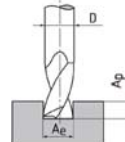
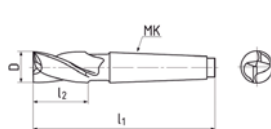
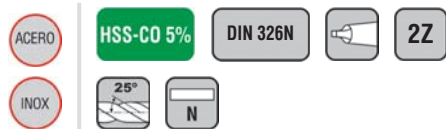
Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	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



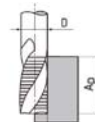
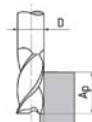
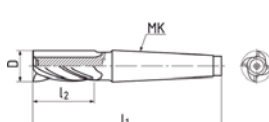
Ø mm (e8)	MK	L1	L2	Z	Uds. / Pcs.	Cod.
12,00	1	85	14	2	1	TDMC1200
14,00	2	100	16	2	1	TDMC1400
16,00	2	105	18	2	1	TDMC1600
18,00	2	110	20	2	1	TDMC1800
20,00	2	115	20	2	1	TDMC2000
22,00	2	120	22	2	1	TDMC2200
24,00	3	140	25	2	1	TDMC2400
25,00	3	140	25	2	1	TDMC2500
28,00	3	145	28	2	1	TDMC2800
30,00	3	150	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 / Dureté	Ap	Ae	Vc	fz(mm/z)			
					Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm ²	0,5xD	1xD	45	0.044	0.058	0.065	0.073
	≤ 850 N/mm ²	0,5xD	1xD	39	0.044	0.058	0.065	0.073
	≤ 1100 N/mm ²	0,5xD	1xD	24	0.044	0.058	0.065	0.073
	≤ 900 N/mm ²	0,5xD	1xD	30	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm ²	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

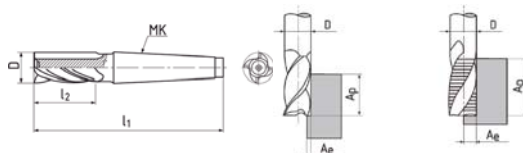
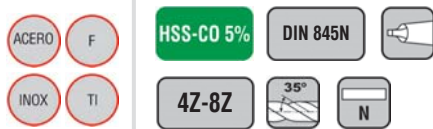


Ø mm (e8)	MK	L1	L2	Z	Uds. / Pcs.	Cod.
10,00	1	92	22	4	1	TVMC1000
12,00	2	111	26	4	1	TVMC1200
14,00	2	111	26	4	1	TVMC1400
16,00	2	117	32	4	1	TVMC1600
18,00	2	117	32	4	1	TVMC1800
20,00	2	123	38	4	1	TVMC2000
22,00	2	123	38	5	1	TVMC2200
24,00	3	147	45	5	1	TVMC2400
25,00	3	147	45	5	1	TVMC2500
26,00	3	147	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 / Dureté	Ap	Ae	Vc	fz (mm/z)								
					Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40	Ø 50
ACERO	≤ 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
	≤ 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
F	> 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
	> 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

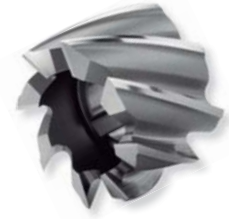
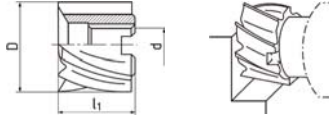
Ø mm (e8)	MK	L1	L2	Z	Uds. / Pcs.	Cod.
10,00	1	115	45	4	1	TVMCL1000
12,00	2	138	53	4	1	TVMCL1200
14,00	2	138	53	4	1	TVMCL1400
16,00	2	148	63	4	1	TVMCL1600
18,00	2	148	63	4	1	TVMCL1800
20,00	2	160	75	4	1	TVMCL2000
22,00	2	160	75	5	1	TVMCL2200
24,00	3	192	90	5	1	TVMCL2400
25,00	3	192	90	5	1	TVMCL2500
26,00	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

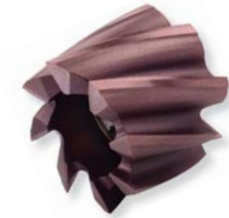
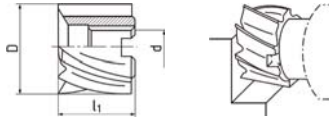
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z)								
					Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40	Ø 50
ACERO	≤ 600 N/mm²	1xD	0,1xD	37.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 850 N/mm²	1xD	0,1xD	32.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm²	1xD	0,1xD	18	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



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

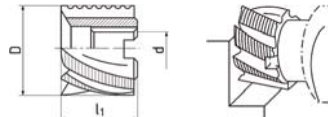
FRESA FRONTAL ACABADO AGUJERO-TIALN
FINISHING END MILLS-TIALN • FRAISE À TROU FINITION-TIALN



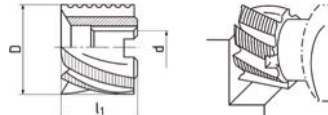
Ø mm (js16)	d (H7)	L1	Z	Uds. / Pcs.	Cod.
40,00	16	32	6	1	T1880N040T
50,00	22	36	8	1	T1880N050T
63,00	27	40	8	1	T1880N063T
80,00	27	45	10	1	T1880N080T
100,00	32	50	10	1	T1880N100T
125,00	40	56	14	1	T1880N125T

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc HSSCO 5%	Vc TIALN	fz (mm/z)			
						Ø 40	Ø 50	Ø 80	Ø 100
ACERO	≤ 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
	≤ 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


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


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 / Dureté	Ap	Ae	Vc HSSCO 5%	Vc TIALN	fz(mm/z)			
						Ø 40	Ø 50	Ø 80	Ø 100
ACERO	≤ 600 N/mm²	0,05xD	0,75xD	45,00	67,5	0,08	0,085	0,11	0,11
	≤ 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

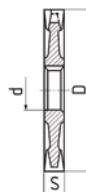
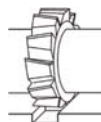


HSS-CO 5%

DIN 885A

DIN 138

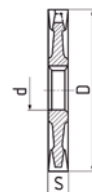
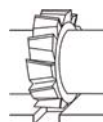
H



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



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

Material	Dureza / Strength / Dureté	Ae	Ap	Vc	fz(mm/z)				
					Ø 50	Ø 80	Ø 100	Ø 160	Ø 200
ACERO	≤ 600 N/mm ²	0,1xD	1xb	37.5	0.05	0.07	0.08	0.09	0.09
	≤ 850 N/mm ²	0,1xD	1xb	32.5	0.05	0.07	0.08	0.09	0.09
	≤ 900 N/mm ²	0,1xD	1xb	25	0.05	0.07	0.08	0.09	0.09
	≤ 1100 N/mm ²	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/mm ²	0,1xD	1xb	10	0.05	0.07	0.08	0.09	0.09
CU	≤ 800 N/mm ²	0,1xD	1xb	60-100	0.05	0.07	0.08	0.09	0.09

ESTUCHES DE FRESAS CON MANGO CILÍNDRICO

STRAIGHT SHANK END MILLS SET

COFFRETS DE FRAISES DE QUEUE CYLINDRIQUE



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 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 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 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 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 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



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



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS





ROSSCADO

THREADING - FILETAGE

TABLA DE ROSCAS Y PASOS EN PULGADAS
TABLE OF THREADS AND PICHES IN INCHES
TABLE DES FILLETAGES ET PAS EN POUÇES

	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
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
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HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

EQUIVALENCIAS DE PULGADAS EN MM

EQUIVALENTS OF INCHES IN MM • ÉQUIVALENCES DES POUÇES EN MM

	BSW BSF	UNC UNF	G (BSP)	NPS NPT	PG		BSW BSF	UNC UNF	G (BSP)	NPS NPT
Ø (")	Ø (mm)	Ø (mm)	Ø (mm)	Ø (mm)	Ø (")	Ø (mm)	Ø (")	Ø (mm)	Ø (mm)	Ø (mm)
No 0	-	1,52	-	-	PG 7	12,5	9/16	14,288	14,288	-
No 1	-	1,854	-	-	PG 9	15,2	5/8	15,876	15,876	22,911
No 2	-	2,184	-	-	PG 11	18,6	3/4	19,051	19,051	26,441
No 3	-	2,515	-	-	PG 13,5	20,4	7/8	22,226	22,226	30,201
No 4	-	2,845	-	-	PG 16	22,5	1	25,401	25,401	33,249
No 5	-	3,175	-	-	PG 21	28,3	1 1/8	28,576	28,576	37,897
No 6	-	3,505	-	-	PG 29	37,0	1 1/4	31,751	31,751	41,910
No 8	-	4,166	-	-	PG 36	47,0	1 3/8	34,926	34,926	44,323
No 10	-	4,826	-	-	PG 42	54,0	1 1/2	38,101	38,101	47,803
No 12	-	5,486	-	-	PG 48	59,5	1 5/8	41,277	41,277	-
1/16	1,587	1,587	-	-			1 3/4	44,452	44,452	53,746
3/32	2,381	2,381	-	-			1 7/8	47,627	47,627	-
1/8	3,175	3,175	9,728	10,287			2	50,802	50,802	59,614
5/32	3,969	3,969	-	-			2 1/4	57,152	57,152	65,710
3/16	4,762	4,762	-	-			2 1/2	63,502	63,502	75,184
7/32	5,556	5,556	-	-			2 3/4	69,853	69,853	81,534
1/4	6,35	6,35	13,157	13,716			3	76,203	76,203	87,884
5/16	7,938	7,938	-	-			3 1/4	-	-	93,980
3/8	9,525	9,525	16,662	17,145			3 1/2	-	-	100,330
7/16	11,113	11,113	-	-			3 3/4	-	-	106,680
1/2	12,700	12,700	20,955	21,336			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	227	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

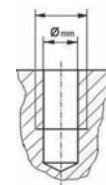
TRANSFORMACIÓN DEL PASO EN HILOS PULGADA EN MM
TRANSFORMATION OF PITCH IN INCH THREADS IN MM • TRANSFORMATION DU PAS EN POUCES FILETAGES EN MM

Paso Pitch	mm	Paso Pitch	mm
80	0,317	13	1,953
72	0,352	12	2,116
64	0,396	11 1/2	2,208
60	0,423	11	2,309
56	0,453	10	2,540
48	0,529	9	2,822
44	0,577	8	3,174
40	0,635	7	3,628
36	0,705	6	4,233
32	0,793	5	5,080
28	0,907	4 1/2	5,644
27	0,940	4	6,349
26	0,976	3 1/2	7,257
24	1,058	3 1/4	7,815
22	1,154	3	8,466
20	1,270	2 7/8	8,834
19	1,336	2 3/4	9,236
18	1,411	2 5/8	9,676
16	1,587	2 1/2	10,160
14	1,814		

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 TAPPING 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	Nº 3-48	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	Nº 8-36	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		
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				

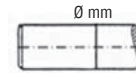
DIÁMETRO DE BROCA PREVIA PARA ROSCADO POR LAMINACIÓN

RECOMMENDED DRILL SIZE FOR FORMING THREADS • DIAMÈTRES PRÉALABLES POUR FILETAGE ROULANT

M	Ø (mm)	M	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)
1 x 0,25	0,90	9 x 1,25	8,40	2 x 0,25	1,90	7 x 0,5	6,80	M12 x 1	11,50	M18 x 1	17,50
1,2 x 0,25	1,10	10 x 1,5	9,30	2,2 x 0,25	2,10	7 x 0,75	6,65	M12 x 1,25	11,40	M18 x 1,5	17,30
1,4 x 0,3	1,26	11 x 1,5	10,30	2,5 x 0,25	2,40	8 x 0,5	7,80	M12 x 1,5	11,30	M18 x 2	17,00
1,6 x 0,35	1,45	12 x 1,75	11,20	2,5 x 0,35	2,35	8 x 0,75	7,65	M13 x 0,75	12,70	M20 x 1	19,50
1,8 x 0,35	1,65	14 x 2	13,00	3 x 0,25	2,90	8 x 1	7,55	M13 x 1	12,50	M20 x 1,5	19,30
2 x 0,4	1,85	16 x 2	15,10	3 x 0,35	2,85	9 x 0,5	8,80	M13 x 1,5	12,30	M20 x 2	19,00
2,2 x 0,45	2,00	18 x 2,5	16,80	3,5 x 0,35	3,35	9 x 0,75	8,65	M14 x 0,75	13,70	M22 x 1,5	21,30
2,5 x 0,45	2,30	20 x 2,5	18,80	3,5 x 0,5	3,30	9 x 1	8,55	M14 x 1	13,50	M22 x 2	21,00
3 x 0,5	2,80	22 x 2,5	20,80	4 x 0,35	3,85	10 x 0,5	9,80	M14 x 1,25	13,40	M24 x 1,5	23,30
3,5 x 0,6	3,25	24 x 3	22,50	4 x 0,5	3,80	10 x 0,75	9,65	M14 x 1,5	13,30	M24 x 2	23,00
4 x 0,7	3,70			4,5 x 0,5	4,30	10 x 1	9,55	M15 x 0,75	14,70	M25 x 1,5	24,30
4,5 x 0,75	4,15			5 x 0,5	4,80	10 x 1,25	9,40	M15 x 1	14,50	M26 x 1,5	25,30
5 x 0,8	4,65			5 x 0,75	4,65	11 x 0,75	10,70	M15 x 1,5	14,30	M27 x 2	26,00
6 x 1	5,55			5,5 x 0,5	5,30	11 x 1	10,50	M16 x 0,75	15,70	M28 x 1,5	27,25
7 x 1	6,55			6 x 0,5	5,80	12 x 0,75	11,70	M16 x 1	15,50	M30 x 1,5	29,25
8 x 1,25	7,45			6 x 0,75	5,65			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	Nº 3-48	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	Nº 8-36	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		Ø (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		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	1R13000
1	M 1 - 10	1/16 - 3/8	G 1/8	176	0,095	1	1R13010
1.1/2	M 1 - 12	1/16 - 1/2	G 1/8	176	0,120	1	1R13015
2	M 4 - 12	5/32 - 1/2	G 1/8	280	0,285	1	1R13020
3	M 5 - 20	7/32 - 3/4	G 1/8 - 1/2	380	0,660	1	1R13030
4	M 11 - 27	7/16 - 1	G 1/4 - 3/4	505	1,500	1	1R13040
5 L	M 13 - 32	1/2 - 1.1/4	G 1/4 - 1	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	0,120	1	1R14015
2	M 4 - 12	5/32 - 1/2	G 1/8	3,0 - 9,0	0,285	1	1R14020
3	M 5 - 20	7/32 - 3/4	G 1/8 - 1/2	4,9 - 12	0,660	1	1R14030
4	M 11 - 27	7/16 - 1	G 1/4 - 3/4	5,5 - 16	1,500	1	1R14040
5	M 13 - 32	1/2 - 1.1/4	G 1/4 - 1	7 - 20	1,800	1	1R14050
6	M 18 - 42	3/4 - 1.1/2	G 1/2 - 1.1/4	11 - 24	2,600	1	1R14060
7	M 25 - 52	1 - 2.1/8	G 3/4 - 2.1/4	16 - 32	4,500	1	1R14070
8	M 25 - 64	1 - 2.1/2	G 3/4 - 3	16 - 40	4,500	1	1R14080

PROLONGADOR PARA MACHOS DIN 377

TAP EXTENSION 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 POUÇES Á 3 VISSÉS



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-corrosion capacity.
Métaux doux et durs. Haut pouvoir anticorrosion.



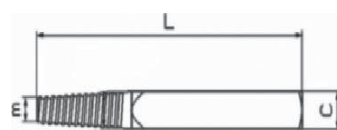
EXTRACTOR DE TORNILLOS 5 PIEZAS ADVANCE

5 PCS ADVANCE SCREW EXTRACTORS
EXTRACTEURS DE VIS ADVANCE 5 PCS



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



Para Tornillos / Screws	Uds. / Pcs.	Cod.
3 - 18	5	6Z00GR15
3 - 24	6	6Z00GR16
3 - 45	8	6Z00GR18



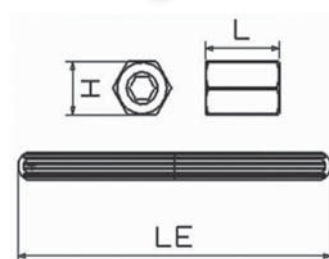
JUEGOS DE MACHOS ESTRIADOS 5 PIEZAS

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

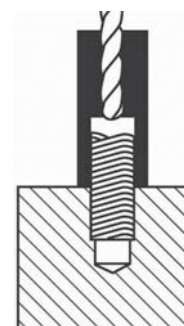
Guía / Guide	1	2	3	4	5	6	7	8	9	10
Ext.	M5	M6	M7	M8	M8	M9	M10	M11	M12	M14
Int.	-	M6	M8	3/8"	1/2"	M10	7/16"	M12	M14	M16
Broca / Drill Bit	4	4	4	4	5	5	5	6	7,5	8,5
Extractor	H1	H1	H1	H1	H2	H2	H2	H3	H4	H5

Instrucciones de uso / Instructions / Mode d'emploi

INTERIOR

EXTERIOR

- 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 which corresponds.
- The extractor is introduced with a hammer.
- With a wrench turn the inverse way to the screw.

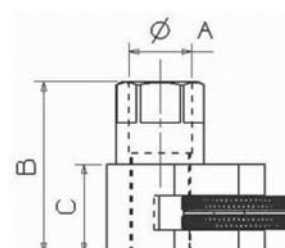


EXTRACTORES DE ESPÁRRAGOS SALIENTES

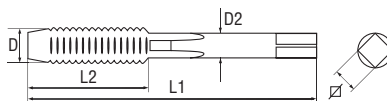
STUD EXTRACTORS • EXTRACTEURS DE GOUJONS



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-THREAD DIN 13 HAND TAPS - WITH HANGER
JEUX DE TARAUDS À MAIN, MÉTRIQUE DIN-13 - AVEC CROCHET
**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

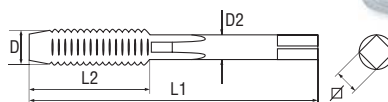
M

MÉTRICA ISO-ROSCA DIN 13 CON COLGADOR
METRIC ISO-THREAD DIN 13 WITH HANGER
MÉTRIQUE DIN-13 AVEC CROCHET
**HSS-G****DIN 223****TOL 6g**

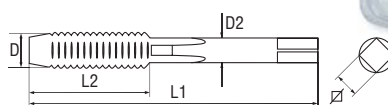
D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.
M 3 x 0.50	20 x 5	4R27426BL
M 4 x 0.70	20 x 5	4R27430BL
M 5 x 0.80	20 x 7	4R27434BL
M 6 x 1.00	20 x 7	4R27438BL

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
**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

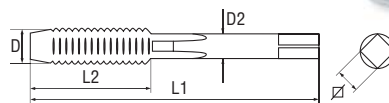
**HSS-CO 5%****DIN 376****FORM C****TOL 6H**

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

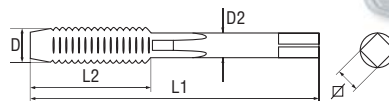
M

MÉTRICA ISO-ROSCA DIN 13 - BLISTER

METRIC ISO-THREAD DIN 13 - BLISTER
MÉTRIQUE DIN-13 - BLISTER



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

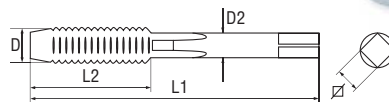


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1.75	110	29	9.0	7.0	3R38550BL

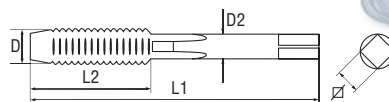
M

MÉTRICA ISO-ROSCA DIN 13 - BLISTER

METRIC ISO-THREAD DIN 13 - BLISTER
MÉTRIQUE DIN-13 - BLISTER



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



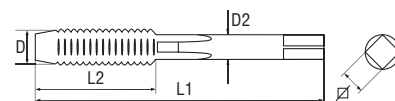
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1.75	110	18	9.0	7.0	3R38750BL

M

JUEGOS DE MACHOS MÉTRICA ISO- ROSCA DIN 13
 METRIC ISO-THREAD DIN 13 HAND TAPS
 JEUX DE TARAUDS À MAIN, METRIQUE DIN 13


HSS-G

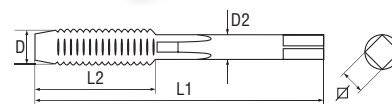
DIN 352

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
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
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 x 2.0	80	32.0	12.0	9.0	2R27356
M 16 x 2.0	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

M 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



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 1,00	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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

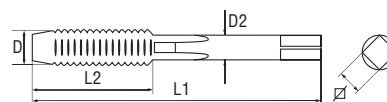
METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

Mf

JUEGOS DE MACHOS MÉTRICA FINA DIN 13

METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13

**HSS-G****DIN 2181****TOL 6H**

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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 x 1,00	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

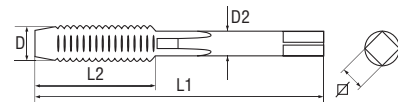
JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



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

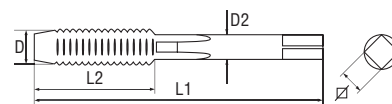
JUEGOS DE MACHOS MÉTRICA FINA DIN 13

METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



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

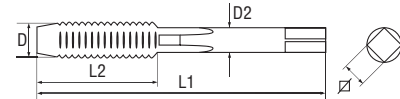
JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



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

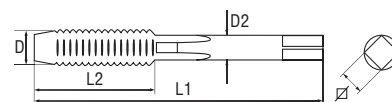
JUEGOS DE MACHOS MÉTRICA FINA DIN 13

METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



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 x 1,50	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

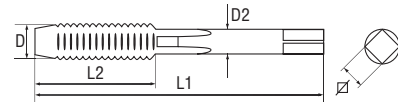
JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSW

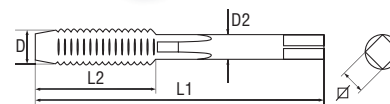
JUEGOS DE MACHOS WHITWORTH BS 84
METRIC HAND TAPS WHITWORTH BS 84
JEUX DE TARAUDS À MAIN WHITWORTH



HSS-G

DIN 351

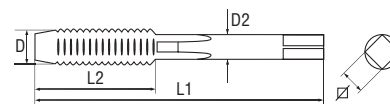
≈DIN 352



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



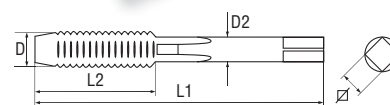
HSS-G

≈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



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

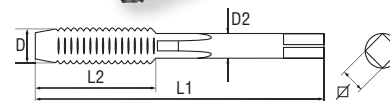
UNC

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



HSS-G

≈DIN 352

TOL
2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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

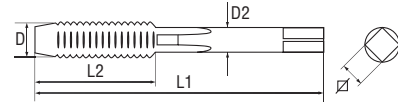
JUEGOS DE MACHOS ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
JEUX DE TARAUDS À MAIN FILETAGE UNIFIÉ
PAS FIN ANSI B 1.1



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

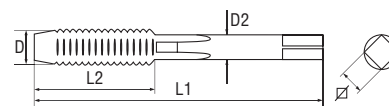
G(BSP)

JUEGOS DE MACHOS ROSCA GAS DIN ISO 228
 PIPE THREAD DIN ISO 228
 JEUX DE TARAUDS À MAIN FILETAGE
 PAS GAZ DIN ISO 228



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

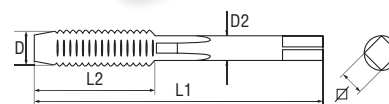
VG

PARA ROSCAS DE VALVULAS DE NEUMÁTICO DIN 7756
 FOR TIRE VALVES THREADS DIN 7756
 POUR LES VALVES DES PNEUMATIQUES DIN 7756



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

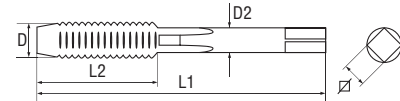
PG

ROSCA PARA TUBOS BLINDADOS DIN 40 430
ARMoured TUBE THREAD DIN 40 430
JEUX DE TARAUDS À MAIN FILETAGE ÉLECTRIQUE DIN 40 430



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

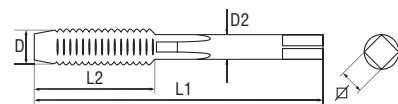
JUEGOS DE MACHOS ROSCA EXTRAFINA
UNIFICADA ANSI B 1.1, ENTRADA CÓNICA
UNIFIED EXTRA FINE THREAD
ANSI B 1.1, NON SERIAL FORM
JEUX DE TARAUDS À MAIN FILETAGE
UNIFIÉ PAS FIN ANSI B 1.1



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

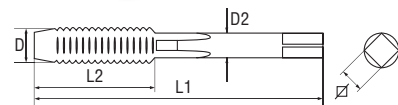
Tr

JUEGOS DE MACHOS ROSCA TRAPEZOIDAL DIN 103
TRAPEZOIDAL THREAD DIN 103
JEUX DE TARAUDS À MAIN FILETAGE TRAPÉZOÏDAL DIN 103



HSS-G

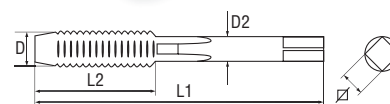
TOL 7H



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

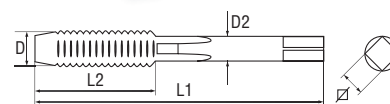
COBALT METRIC HAND TAPS
JEUX DE TARAUDS À MAIN COBALT, METRIQUE



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



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

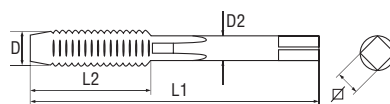
JUEGOS DE MACHOS MANO MÉTRICA FINA COBALTO
COBALT METRIC FINE HAND TAPS
JEUX DE TARAUDS À MAIN, METRIQUE FIN



HSS-CO 5%

DIN 2181

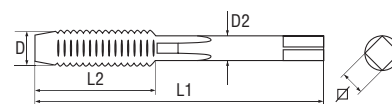
TOL 6H



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



HSS-CO 5%

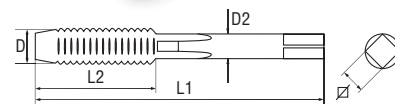
DIN 5157

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


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	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

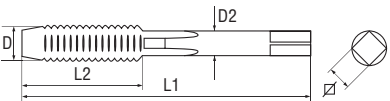
JUEGO DE MACHOS MÉTRICA FINA IZQUIERDAS
FINE METRIC LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, METRIQUE FIN



HSS-G

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	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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

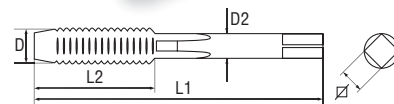
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

UNC

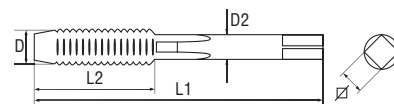
JUEGO DE MACHOS ROSCA UNIFICADA ANSI B 1.1 IZQUIERDAS
UNC LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, UNC



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



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

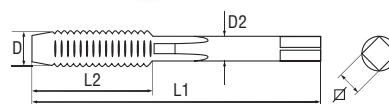
BSW

JUEGO DE MACHOS WHITWORTH BS 84 IZQUIERDAS
WHITWORTH BS 84 LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, WHITWORTH BS 84



HSS-G

≈DIN 351



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

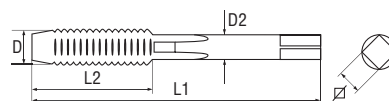
G(BSP)

JUEGO DE MACHOS ROSCA GAS DIN ISO 228 IZQUIERDAS
BSP LEFT HAND TAP SETS
JEUX DE TARAUDS À MAIN À GAUCHE, BSP



HSS-G

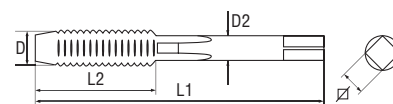
DIN 5157



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
G 1/8 x 28	63	20	7,0	5,5	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)



HSS-CO 5%

DIN 352



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	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)



HSS-CO 5%

DIN 352



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	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) • WITH INTERRUPTED THREADS (THROUGH) • AVEC ALTERNANCE DENT (INTERNE)



HSS-CO 5%

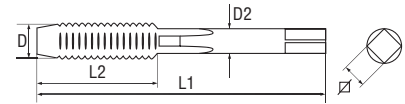
DIN 352



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	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

M

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



FORMA B • FORM B • FORME B



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)



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION
MADERA
WOOD • BOIS
METAL
METAL • MÉTAL
FRESADO
MILLING • FRAISAGE
ROSCADO
THREADING • FILETAGE
ACCESORIOS
ACCESSORIES • ACCESSOIRES
HEXAGONAL
HEXAGONAL • HEXAGONAL
METROLOGÍA
METROLOGY • MÉTROLOGIE
DISPLAYS
DISPLAYS • DISPLAYS

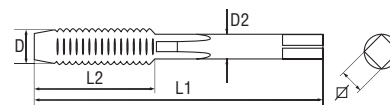


MACHOS CORTOS
SHORT TAPS • TARAUDS COURTS

M

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13

FORMA C/35° RPS • FORM C/35° RPS



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

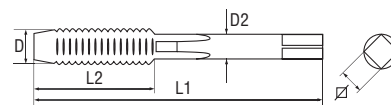
Mf

MÉTRICA FINA ISO ROSCA DIN 13
METRIC FINE ISO THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



HSS-G

DIN 2181



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSW

WHITWORTH BS 84
WHITWORTH THREAD BS 84
FILETAGE WHITWORTH BS 84

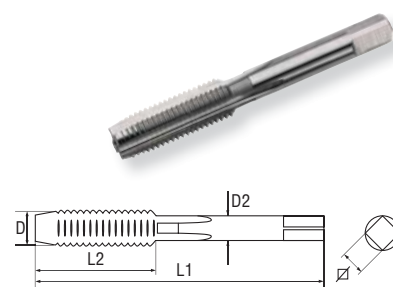


HSS-G

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)

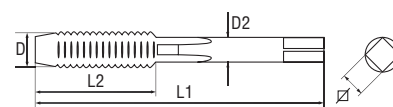
GAS DIN ISO 228
BSP PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



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

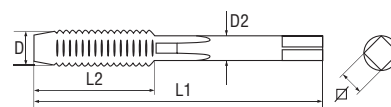
UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1 UNC
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



HSS-G

≈DIN 352



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
9/16 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

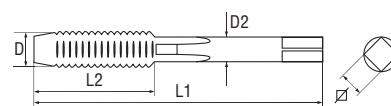
UNF

ROSCA FINA UNIFICADA ANSI B 1.1 UNF
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



HSS-G

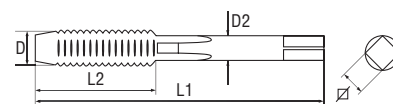
≈DIN 352



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
9/16 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 x 12	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



HSS-G



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



HSS-G



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



HSS-G



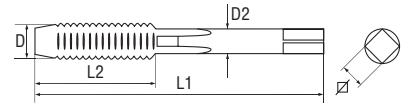
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
NPT 1/16 x 27	55	17,5	6,0	6,0	3R98702
NPT 1/8 x 27	55	19,0	8,0	6,0	3R98706
NPT 1/4 x 18	62	28,0	11,0	9,0	3R98714
NPT 3/8 x 18	65	28,0	14,0	11,0	3R98718
NPT 1/2 x 14	80	35,0	18,0	14,0	3R98722
NPT 3/4 x 14	85	35,0	23,0	17,0	3R98730
NPT 1 x 11.5	95	45,0	26,0	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



HSS-G



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

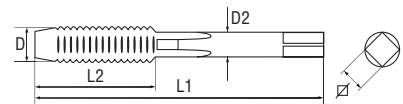
M

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G

TIN



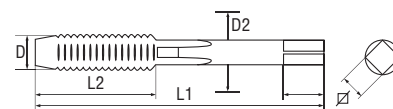
D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.
M 3 x 0,50	2,5	36	3R67210
M 4 x 0,70	3,3	39	3R67211
M 5 x 0,80	4,2	41	3R67212
M 6 x 1,00	5,0	44	3R67213
M 8 x 1,25	6,8	50	3R67214
M 10 x 1,50	8,5	59	3R67215

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
 UNIFIED COARSE THREAD ANSI B 1.1
 FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



HSS-G



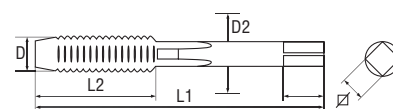
D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.
Nr. 4 x 40	2.30	36	3R67280
Nr. 5 x 40	2.60	36	3R67281
Nr. 6 x 32	2.85	39	3R67282
Nr. 8 x 32	3.50	39	3R67283
Nr. 10 x 24	3.90	41	3R67284
Nr. 12 x 24	4.50	41	3R67285
1/4 x 20	5.20	44	3R67286
5/16 x 18	6.60	50	3R67287
3/8 x 16	8.00	59	3R67288

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
 UNIFIED FINE THREAD ANSI B 1.1
 FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



HSS-G



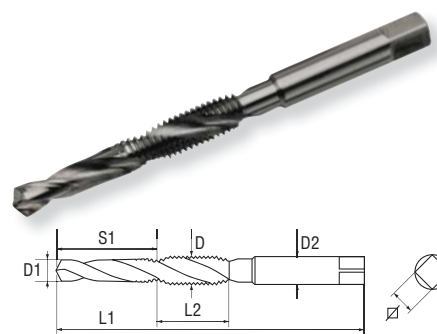
D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.
Nr. 4 x 48	2.4	36	3R67290
Nr. 5 x 44	2.7	36	3R67291
Nr. 6 x 40	3.0	39	3R67292
Nr. 8 x 36	3.5	39	3R67293
Nr. 10 x 32	4.1	41	3R67294
Nr. 12 x 28	4.7	41	3R67295
1/4 x 28	5.5	44	3R67296
5/16 x 24	6.9	50	3R67297
3/8 x 24	8.5	59	3R67298

M

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-CO 5%



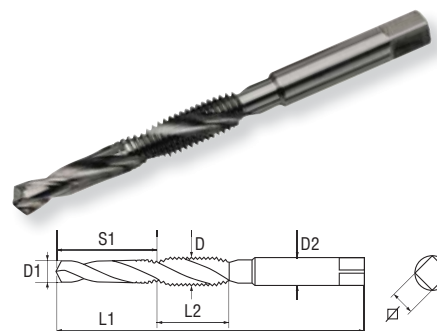
D Ø x P (mm)	L1 (mm)	S1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	16	11	2.5	3.0	2.4	3R37026
M 4 x 0,70	63	18	14	3.3	4.0	3.0	3R37030
M 5 x 0,80	71	20	18	4.2	5.0	3.8	3R37034
M 6 x 1,00	80	22	22	5.0	6.0	4.9	3R37038
M 8 x 1,25	95	26	25	6.8	8.0	6.2	3R37042
M 10 x 1,50	106	30	31	8.5	10.0	8.0	3R37046
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



HSS-CO 5%



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 RECOMMANDÉ POUR
TARAUDS MACHINE



HSS-CO 5%

HSS-CO 5%

HSS-CO 5%

HSS-CO 5%

TIN

VAP

TOL
6H

TOL
6H

TOL
6H

TOL
6H

FORM
B

FORM
C

FORM
C/35°

FORM
B

FORM
C/35°

FORM
B

FORM
C/35°

FORM
C/15°

MATERIAL / MATERIAL / MATIÈRE		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 ALUMINIUM	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 copper • 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 recommendation and cutting speed
Foret recommandé par SESA TOOLS et vitesse de coupe

20 - 25

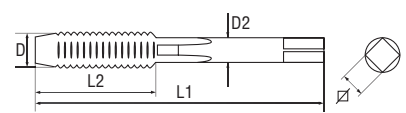
Buen rendimiento y velocidad de corte (RPM)
Good performance and speed of the cut (RPM)
Bon rendement et vitesse de coup recommandée (RPM)

													
HSS-CO 5%	PM		HSS-E-V3		HSS-CO 5%		PM			HSS-CO 5%		HSS-CO 5%	
	HL		TIN				FUTURA			ALUSPEED		TIN	
TOL 6H	TOL 6H		TOL 6H		TOL 6H		TOL 6H			TOL 6H		TOL 6HX	
FORM B-AZ	FORM B	FORM C/35°	FORM B	FORM C/35°	FORM B	FORM C/39°	FORM B	FORM C/35°	FORM C/15°	FORM B	FORM C/45°	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 - 10										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 - 10	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 - 20								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



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



HSS-CO 5%

DIN 376

FORM C

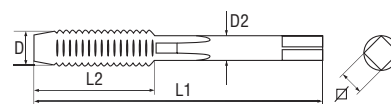
TOL 6H



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



HSS-CO 5%

DIN 371



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



HSS-CO 5%

DIN 376



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

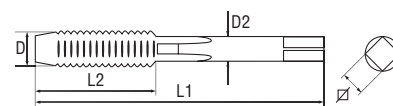
METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M

MÉTRICA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

**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

**HSS-CO 5%****VAP****DIN 371****FORM B****TOL 6H**

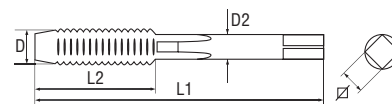
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	3,5	2,7	3R31570
M 4 x 0,70	63	13	4,5	3,4	3R31571
M 5 x 0,80	70	16	6,0	4,9	3R31572
M 6 x 1,00	80	19	6,0	4,9	3R31573
M 8 x 1,25	90	22	8,0	6,2	3R31574
M 10 x 1,50	100	24	10,0	8,0	3R31575

**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



HSS-CO 5%

DIN 371



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



HSS-CO 5%

DIN 376

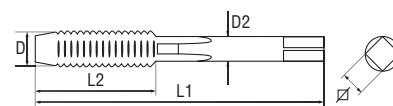


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	2,2	-	3R38626
M 4 x 0,70	63	13	2,8	2,1	3R38630
M 5 x 0,80	70	16	3,5	2,7	3R38634
M 6 x 1,00	80	19	4,5	3,4	3R38638
M 8 x 1,25	90	22	6,0	4,9	3R38642
M 10 x 1,50	100	24	7,0	5,5	3R38646
M 12 x 1,75	110	29	9,0	7,0	3R38650
M 14 x 2,00	110	30	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

**HSS-CO 5%****DIN 371**

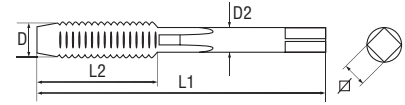
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 2,0 x 0,40	45	6	2,8	2,1	3R37716
M 2,5 x 0,45	50	6	2,8	2,1	3R37722
M 3,0 x 0,50	56	6	3,5	2,7	3R37726
M 3,5 x 0,60	56	13	4,0	3,0	3R37728
M 4,0 x 0,70	63	7	4,5	3,4	3R37730
M 5,0 x 0,80	70	8	6,0	4,9	3R37734
M 6,0 x 1,00	80	10	6,0	4,9	3R37738
M 7,0 x 1,00	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

**HSS-CO 5%****DIN 376**

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



HSS-CO 5%

TIN

DIN 371



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



HSS-CO 5%

VAP

DIN 371



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



HSS-CO 5%

VAP

DIN 376



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

CONSTRUCCIÓN
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HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

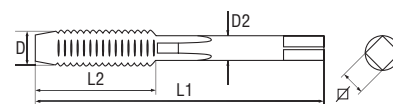


MACHOS MÁQUINA
MACHINE TAPS • TARAUDS MACHINE

M

MÉTRICA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-CO 5%

DIN 371



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



HSS-CO 5%

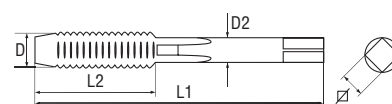
DIN 376



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

M

MÉTRICA ISO-ROSCA DIN 13 EXTRA-LARGOS
METRIC ISO-THREAD DIN 13 EXTRALONG
MÉTRIQUE DIN-13 EXTRALONG



100 mm



HSS-CO 5%

≈DIN 371



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



HSS-CO 5%

≈DIN 371



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



HSS-CO 5%

≈DIN 371



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



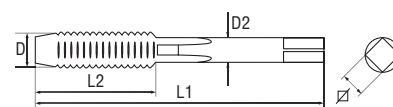
HSS-CO 5%

≈DIN 376



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 x 1.5	150	24	7.0	5,5	3R32075
M 12 x 1.75	150	29	9.0	7,0	3R32076

M

MÉTRICA ISO-ROSCA DIN 13 EXTRA-LARGOS
 METRIC ISO-THREAD DIN 13 EXTRALONG
 MÉTRIQUE DIN-13 EXTRALONG


100 mm



HSS-CO 5%

≈DIN 371



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



HSS-CO 5%

≈DIN 371



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



HSS-CO 5%

≈DIN 371

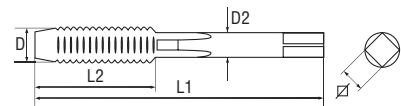


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 4 x 0,70	150	7	4,5	3,4	3R32061
M 5 x 0,80	150	8	6,0	4,9	3R32062
M 6 x 1,00	150	10	6,0	4,9	3R32063
M 8 x 1,25	150	14	8,0	6,2	3R32064
M 10 x 1,50	150	16	10,0	8,0	3R32065
M 12 x 1,75	150	18	12,0	9,0	3R32066

M

MÉTRICA ISO-ROSCA DIN 13 SOBREDIMENSIONADO

METRIC ISO-THREAD DIN 13 OVERSIZED
MÉTRIQUE DIN-13 SURDIMENSIONNÉ



HSS-CO 5%

DIN 371

DIN 376



DIN 371

DIN 376

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



HSS-CO 5%

DIN 371

DIN 376



DIN 371

DIN 376

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



HSS-CO 5%

DIN 371

DIN 376



DIN 371

DIN 376

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 / Surcottage 0.02 - 0.04 mm

Materiales tratados superficialmente (galvanizados, cromados...) / For pre plate material for galvanising / Pour matériaux présentant une couche de galvanisation

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

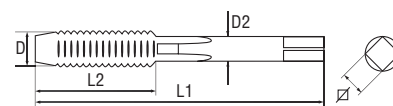
DISPLAYS
DISPLAYS • DISPLAYS

M

MÉTRICA ISO-ROSCA DIN 13 SOBREDIMENSIONADO

METRIC ISO-THREAD DIN 13 OVERSIZED

MÉTRIQUE DIN-13 SURDIMENSIONNÉ



HSS-CO 5%

DIN 371

DIN 376

FORM C/35°

TOL 6G



DIN 371

DIN 376

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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



HSS-CO 5%

DIN 371

DIN 376

FORM C/35°

TOL 7G



DIN 371

DIN 376

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	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



HSS-CO 5%

DIN 371

DIN 376

FORM C/35°

TOL 6H +0,1 mm



DIN 371

DIN 376

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	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

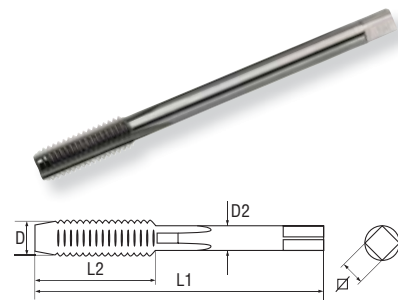


HSS-CO 5%

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

CONSTRUCCIÓN
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MADERA
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METAL • MÉTAL

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ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

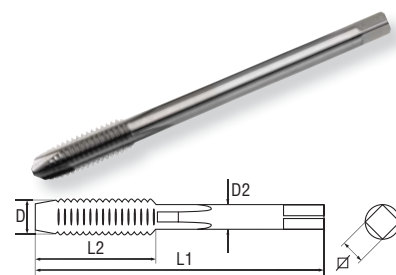
METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

Mf

MÉTRICA FINA ISO-ROSCA DIN 13

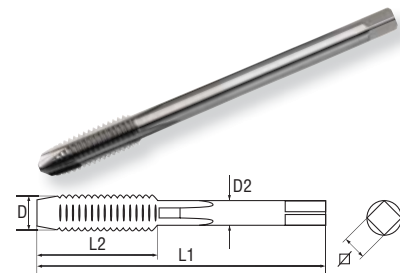
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

**HSS-CO 5%****DIN 374****FORM
B****TOL
6H**

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

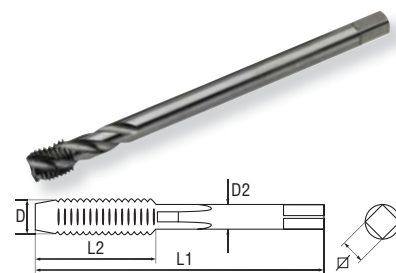
Mf

MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



HSS-CO 5%

DIN 374



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

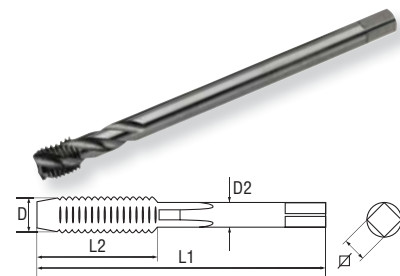


HSS-CO 5%

DIN 374



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

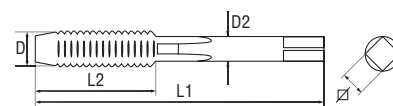
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSW

WHITWORTH BS 84
WHITWORTH BS 84
FILETAGE WHITWORTH BS 84



HSS-CO 5%

≈DIN 371



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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



HSS-CO 5%

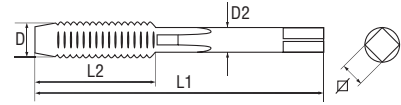
≈DIN 376



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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



HSS-CO 5%

≈DIN 371



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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



HSS-CO 5%

≈DIN 376

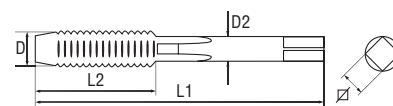


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
BSW 1/4 x 20	80	13	4,5	3,4	3R71714
BSW 5/16 x 18	90	14	6,0	4,9	3R71716
BSW 3/8 x 16	100	16	7,0	5,5	3R71718
BSW 7/16 x 14	100	17	8,0	6,2	3R71720
BSW 1/2 x 12	110	20	9,0	7,0	3R71722
BSW 9/16 x 12	110	20	11,0	9,0	3R71724
BSW 5/8 x 11	110	22	12,0	9,0	3R71726
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

**HSS-CO 5%**

≈DIN 371



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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

**HSS-CO 5%**

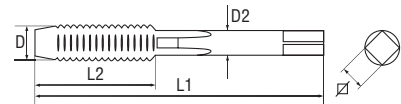
≈DIN 376



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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



HSS-CO 5%

≈DIN 371



	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



HSS-CO 5%

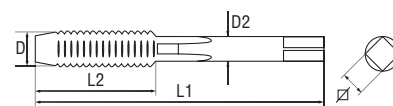
≈DIN 376



	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 x 13	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 UNIFIÉ À PAS FINE ANSI B 1.1

**HSS-CO 5%**

≈DIN 371

**FORM
B****TOL
2B**

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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

**HSS-CO 5%**

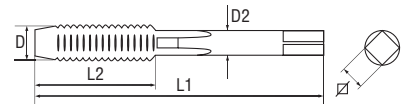
≈DIN 376

**FORM
B****TOL
2B**

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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 UNIFIÉ À PAS FINE ANSI B 1.1



HSS-CO 5%

≈DIN 371



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



HSS-CO 5%

≈DIN 376



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

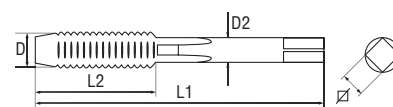
ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1

8-UN



HSS-CO 5%

ISO 529

FORM
BTOL
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



HSS-CO 5%

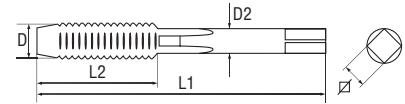
ISO 529

FORM
BTOL
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



HSS-CO 5%

ISO 529

FORM C/35°

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



HSS-CO 5%

ISO 529

FORM C/35°

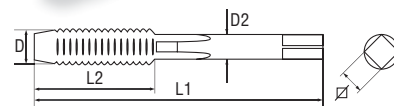
TOL 2B



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

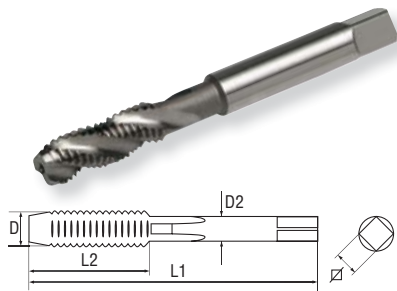
ROSCA EXTRA FINA UNIFICADA ANSI B 1.1
UNIFIED EXTRA FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B 1.1



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

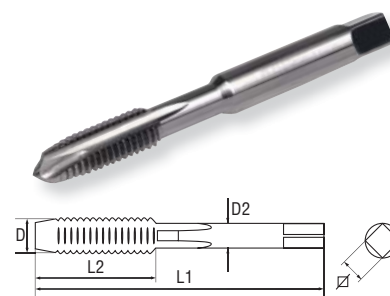
ROSCA EXTRA FINA UNIFICADA ANSI B 1.1
UNIFIED EXTRA FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B 1.1



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

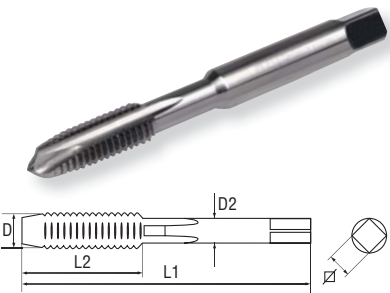
ROSCA UNIFICADA ANSI B 1.1
UNIFIED THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1

**HSS-CO 5%****ISO 529****FORM
B****TOL
2B**

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

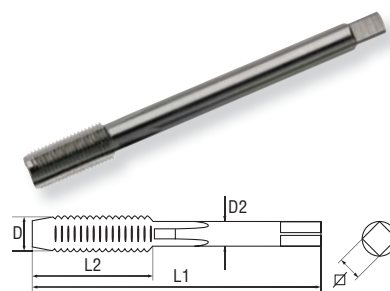
G(BSP)

ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228



HSS-CO 5%

DIN 5156



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

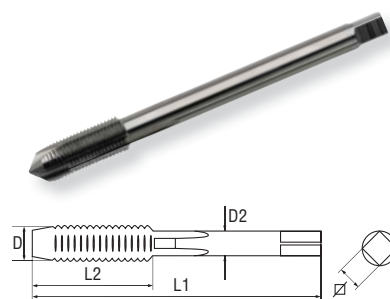
G(BSP)

ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228



HSS-CO 5%

DIN 5156



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

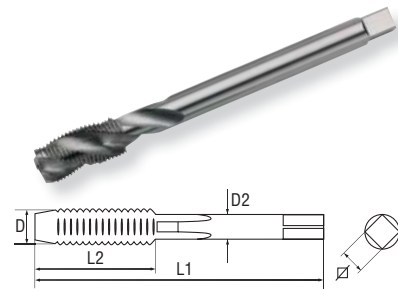
G(BSP)

ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228



HSS-CO 5%

DIN 5156



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

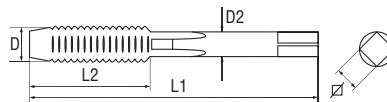
Rc(BSPT)

ROSCA INGLESA PARA TUBO, CONICIDAD 1:16
TAPERED PIPE THREAD, TAPER 1:16
FILETAGE PAS GAZ CONIQUE, CONICITÉ 1:16



HSS-CO 5%

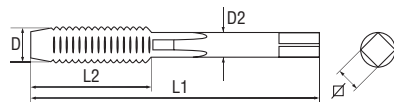
DIN 5156



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

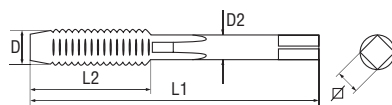
ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16
TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16



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

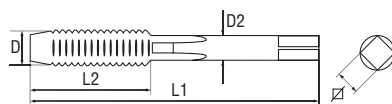
PARA ROSCAS DE VÁLVULAS DE NEUMÁTICO DIN 7756
FOR TIRE VALVES THREADS DIN 7756
POUR LES VALVES DES PNEUMATIQUES DIN 7756



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

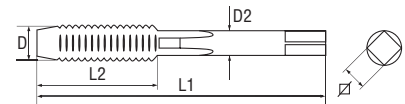


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
BSC 1/4" X 26	56	14	7	4,9	3R30507
BSC 5/16" X 26	63	16	6	4,9	3R30508
BSC 3/8" X 26	63	16	7	5,5	3R30509
BSC 9/16" X 20 R	70	22	11,00	9,00	3R30510
BSC 9/16" X 20 L	70	22	11,00	9,00	3R30511
BSC 1" X 24	70	22	11,00	11,00	3R30512

* Consultar precio y disponibilidad / Request price and availability / Consulter le prix et la disponibilité

M

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



HSS-CO 5%

DIN 371



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



HSS-CO 5%

DIN 376

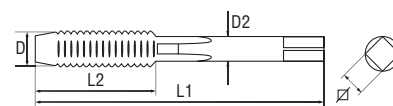


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1,75	110	29	9,0	7,0	3R34450
M 14 x 2,00	110	30	11,0	9,0	3R34454
M 16 x 2,00	110	32	12,0	9,0	3R34458
M 18 x 2,50	125	34	14,0	11,0	3R34462
M 20 x 2,50	140	34	16,0	12,0	3R34466
M 22 x 2,50	140	34	18,0	14,5	3R34470
M 24 x 3,00	160	38	18,0	14,5	3R34474

M

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS

METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE

**HSS-CO 5%****DIN 371**

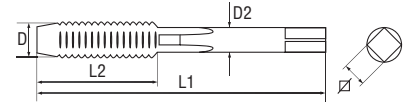
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	11	3,5	2,7	3R33526
M 4 x 0,70	63	13	4,5	3,4	3R33530
M 5 x 0,80	70	16	6,0	4,9	3R33534
M 6 x 1,00	80	19	6,0	4,9	3R33538
M 7 x 1,00	80	19	7,0	5,5	3R33540
M 8 x 1,25	90	22	8,0	6,2	3R33542
M 10 x 1,50	100	24	10,0	8,0	3R33546

**HSS-CO 5%****DIN 376**

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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

M

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



HSS-CO 5%

DIN 371



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



HSS-CO 5%

DIN 376

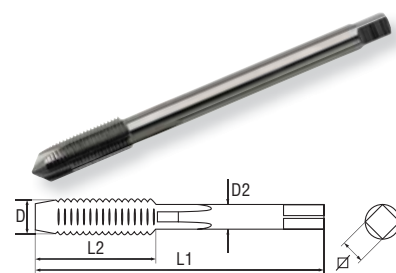


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3 x 0,50	56	6	2,2	-	3R34726
M 4 x 0,70	63	7	2,8	2,1	3R34730
M 5 x 0,80	70	8	3,5	2,7	3R34734
M 6 x 1,00	80	10	4,5	3,4	3R34738
M 8 x 1,25	90	14	6,0	4,9	3R34742
M 10 x 1,50	100	16	7,0	5,5	3R34746
M 12 x 1,75	110	18	9,0	7,0	3R34750
M 14 x 2,00	110	20	11,0	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

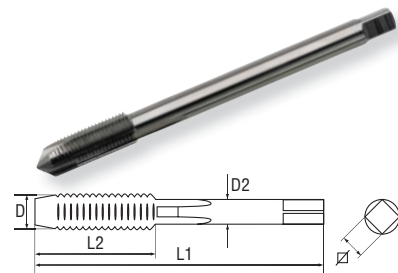
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE

**HSS-CO 5%****DIN 374**

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



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

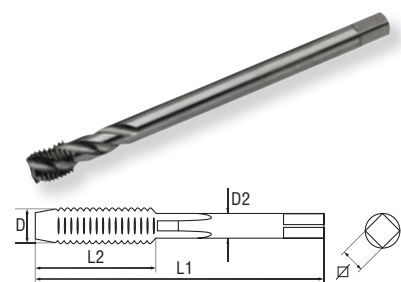
METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

Mf

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS

METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



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

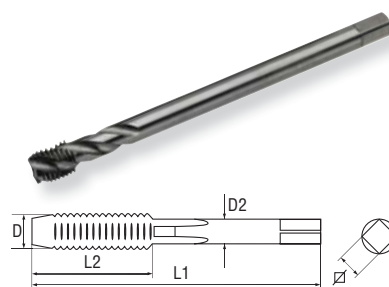
Mf

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



HSS-CO 5%

DIN 374



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

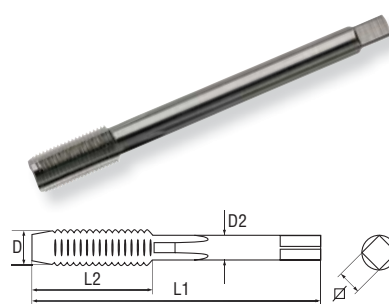
G(BSP)

ROSCA GAS DIN ISO 228, IZQUIERDAS
PIPE THREAD DIN ISO 228, LEFT HAND
FILETAGE PAS GAZ DIN ISO 228, GAUCHE



HSS-CO 5%

DIN 5156



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

CONSTRUCCIÓN
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ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M

MÉTRICA ISO-ROSCA DIN 13 BANDA VERDE PM
METRIC ISO-THREAD DIN 13 GREEN RING PM
MÉTRIQUE DIN-13 BANDE VERT PM
advance
 MAXIMO RENDIMIENTO
ACERO
800-1100
N/mm²

INOX

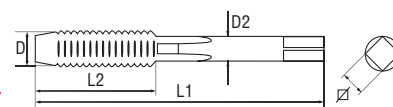
CU

PM

DIN 371

FORM
BTOL
6H

HL

 SPECIAL
 STAINLESS STEEL
ESPECIAL INOX
 SPECIAL ACIER
 INOXYDABLE


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
BTOL
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

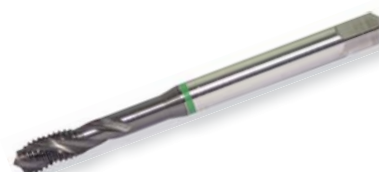
CU

PM

DIN 371

FORM
C/35°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/35°TOL
6H

HL



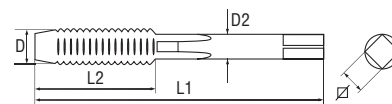
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 x 1,75	110	18	9,00	7,00	3R30150
M 14,0 x 2,00	110	20	11,00	9,00	3R30154
M 16,0 x 2,00	110	20	12,00	9,00	3R30158
M 18,0 x 2,50	125	25	14,00	11,00	3R30162
M 20,0 x 2,50	140	25	16,00	12,00	3R30166

*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



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



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

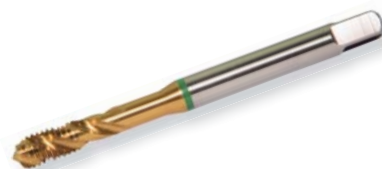


advance
MAXIMO RENDIMIENTO



HSS-E-V3 **DIN 371** **FORM C/35°** **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



HSS-E-V3 **DIN 376** **FORM C/35°** **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



M

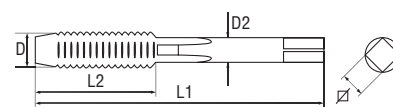
MÉTRICA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE DIN-13

BANDA BLANCA WHITE RING • **BANDE BLANC**


HSS-CO 5%

VAP

DIN 371



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



HSS-CO 5%

VAP

DIN 376



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

M

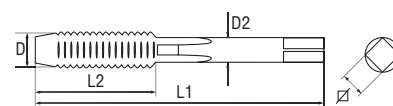
MÉTRICA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE DIN-13

BANDA BLANCA WHITE RING • **BANDE BLANC**


HSS-CO 5%

VAP

DIN 371



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



HSS-CO 5%

VAP

DIN 376

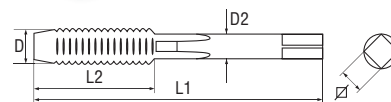


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12 x 1,75	110	18	9,0	7,0	3R36250
M 14 x 2,00	110	20	11,0	9,0	3R36254
M 16 x 2,00	110	22	12,0	9,0	3R36258
M 18 x 2,50	125	25	14,0	11,0	3R36262
M 20 x 2,50	140	25	16,0	12,0	3R36266

Mf

MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

BANDA BLANCA WHITE RING • BANDE BLANC

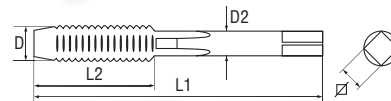


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 5 x 0,50	70	12	3,5	2,7	3R35903
M 6 x 0,75	80	14	4,5	3,4	3R35904
M 8 x 0,75	80	19	6,0	4,9	3R35906
M 8 x 1,00	90	22	6,0	4,9	3R35907
M 10 x 1,00	90	20	7,0	5,5	3R35909
M 10 x 1,25	100	24	7,0	5,5	3R35910
M 12 x 1,25	100	22	9,0	5,5	3R35913
M 12 x 1,50	100	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

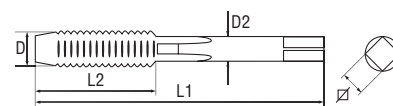
BANDA BLANCA WHITE RING • BANDE BLANC



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*



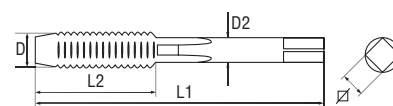
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC 1/4 x 20	80	17	7,0	5,5	3R35945
UNC 5/16 x 18	90	20	8,0	6,2	3R35946
UNC 3/8 x 16	100	22	9,0	7,0	3R35947



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*



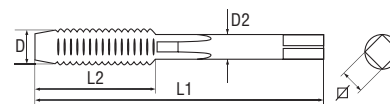
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC 1/4 x 20	80	17	7,0	5,5	3R36945
UNC 5/16 x 18	90	20	8,0	6,2	3R36946
UNC 3/8 x 16	100	22	9,0	7,0	3R36947



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



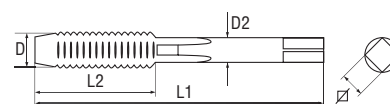
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF 1/4 x 2 8	80	17	7,0	5,5	3R35965
UNF 5/16 x 24	90	17	8,0	6,2	3R35966
UNF 3/8 x 24	100	18	9,0	7,0	3R35967



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



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

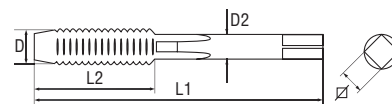


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF 7/16 x 20	100	13	8,0	6,2	3R36968
UNF 1/2 x 20	100	13	9,0	7,0	3R36969

G(BSP)

ROSCA GAS DIN ISO 228
PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228

BANDA BLANCA WHITE RING • BANDE BLANC

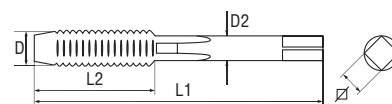


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
G 1/8 x 28	90	20	7,0	5,5	3R35992
G 1/4 x 19	100	22	11,0	9,0	3R35993
G 3/8 x 19	100	22	12,0	9,0	3R35994
G 1/2 x 14	125	25	16,0	12,0	3R35995

G(BSP)

ROSCA GAS DIN ISO 228
PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228

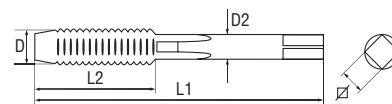
BANDA BLANCA WHITE RING • BANDE BLANC



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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

M

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



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



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



PM

DIN 371

FORM
C/40°

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



PM

DIN 376

FORM
C/40°

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



PM

DIN 371

FORM
C/15°

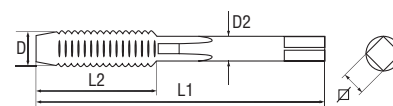
TOL
6H

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

M

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


HSS-CO 5%
DIN 371

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


HSS-CO 5%
DIN 376

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


HSS-CO 5%
DIN 371

TOL 6H
ALUSPEED

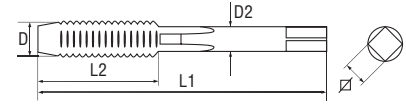

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,0 x 0,50	56	5	3,5	2,7	3R36426
M 4,0 x 0,70	63	7	4,5	3,4	3R36430
M 5,0 x 0,80	70	8	6	4,9	3R36434
M 6,0 x 1,00	80	10	6	4,9	3R36438
M 8,0 x 1,25	90	13	8	6,2	3R36442
M 10,0 x 1,50	100	15	10	8	3R36446


HSS-CO 5%
DIN 376

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**

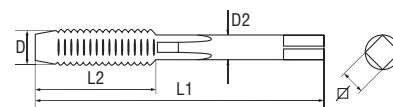


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 x 1,75	110	28	9	7	3R35537

DIÁMETRO BROCA PREVIA / RECOMMENDED 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

M

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
6HXTOL
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	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

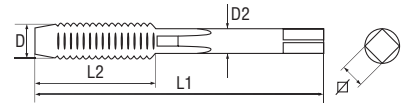
TOL
6HXTOL
ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 12,0 x 1,75	110	28	9	7	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

M

MÉTRICA ISO-ROSCA DIN 13
 METRIC ISO-THREAD DIN 13
 MÉTRIQUE DIN-13


HSS-CO 5%

DIN 357

TOL
6HTOL
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



HSS-CO 5%

DIN 357

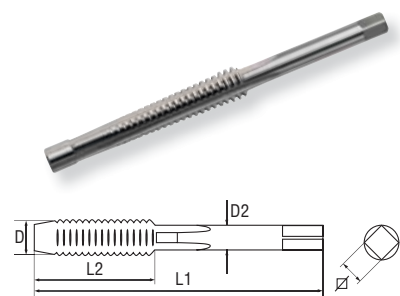
TOL
6HTOL
ISO2

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

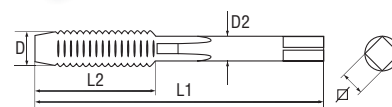
PUNTA PILOTO, TRAPEZOIDAL DIN 13
PILOTED, TRAPEZOIDAL THREAD DIN103
POUR FILETAGE TRAPÉZOIDAL DIN 103



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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 TRAPÉZOÏDAL DIN 103 À GAUCHE



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 disponibilidad / Request availability / Consulter le disponibilité

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M

MÉTRICA ISO-ROSCA DIN 13

MÉTRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

**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
NEW 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 • DIMÈTRES EXTÉRIEURES SPÉCIALES



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

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	4R27842
M 10 x 1,50	25 x 9	4R27846
M 12 x 1,75	25 x 9	4R27850



HSS-G

TOL
6g



D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.
M 3 x 0,50	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

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.
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



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

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.
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



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



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

Mf

MÉTRICA FINA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

**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 x 1,5	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



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

BSF

ROSCA BRITÁNICA STANDARD FINA BS 84
BRITISH STANDARD FINE THREAD BS 84
FILETAGE BRITANIQUE BSF, BS 84

**HSS-G****DIN 223**

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.
BSF 3/16 x 32	20 x 7	4R22810
BSF 1/4 x 26	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
FILETAGE BA, BS 93

**HSS-G****BS1127**

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



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

UNF

ROSCA FINA UNIFICADA ANSI B.1.1
 UNIFIED FINE THREAD, ANSI B.1.1
 FILETAGE UNIFIÉ À PAS FINE ANSI B 1.1



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 x 12	55 x 16	4R24438
	1 x 14	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



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


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


HSS-G


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


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



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



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



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



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



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



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

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.
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



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

D Ø x P (")	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.
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 À GAUCHE

**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 À GAUCHE



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

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.
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


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 x 18	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


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



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



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



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



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



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



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



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 x 11	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 N° 3 Tap N° 3	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	N° 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	N° 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/35°	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/35°	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/35°	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.	Calidad / Quality	Banda/Ring	Machos/Taps	Cod.	€/Unid.
PM HL FORM B		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM021	HSS-E-V3 TIN FORM C/35° MULTIUSOS		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM024	
PM HL FORM C/35°		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM022	HSS-CO 5% FORM B		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM025	
HSS-E-V3 TIN FORM B MULTIUSOS		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM023	HSS-CO 5% FORM C/40°		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM026	

M

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.º 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**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

M

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

M

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

M 3 - 4 - 5 - 6 - 8 - 10

Brocas / Drill Bits (mm)

2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5

Cod.

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

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

Giramachos
Tap Holder

Nº 1 + Nº 2

Volvedor
Tap Wrenche (mm)

20 x 5 - 25 x 9 - 30 x 11 - 38 x 10

Giramachos con Crique
Tap Holder with Ratchet

Nº 1

Cod.

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 Crique 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 Crique 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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

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 Crique 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 Crique 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 Crique 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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
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METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M/Mf

MALETIN AUTOMOCION REF.6000
THREADING SET REF.6000 FOR AUTOMOTIVE
ENSEMBLE 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



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: 6-7 días 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



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: 6-7 días laborables / 6-7 business day / 6 jours ouvrables

DISPLAYS
DISPLAYS • DISPLAYS

METROLOGÍA
METROLOGY • MÉTROLOGIE

HEXAGONAL
HEXAGONAL • HEXAGONAL

ACCESORIOS
ACCESSORIES • ACCESSOIRES

ROSCADO
THREADING • FILETAGE

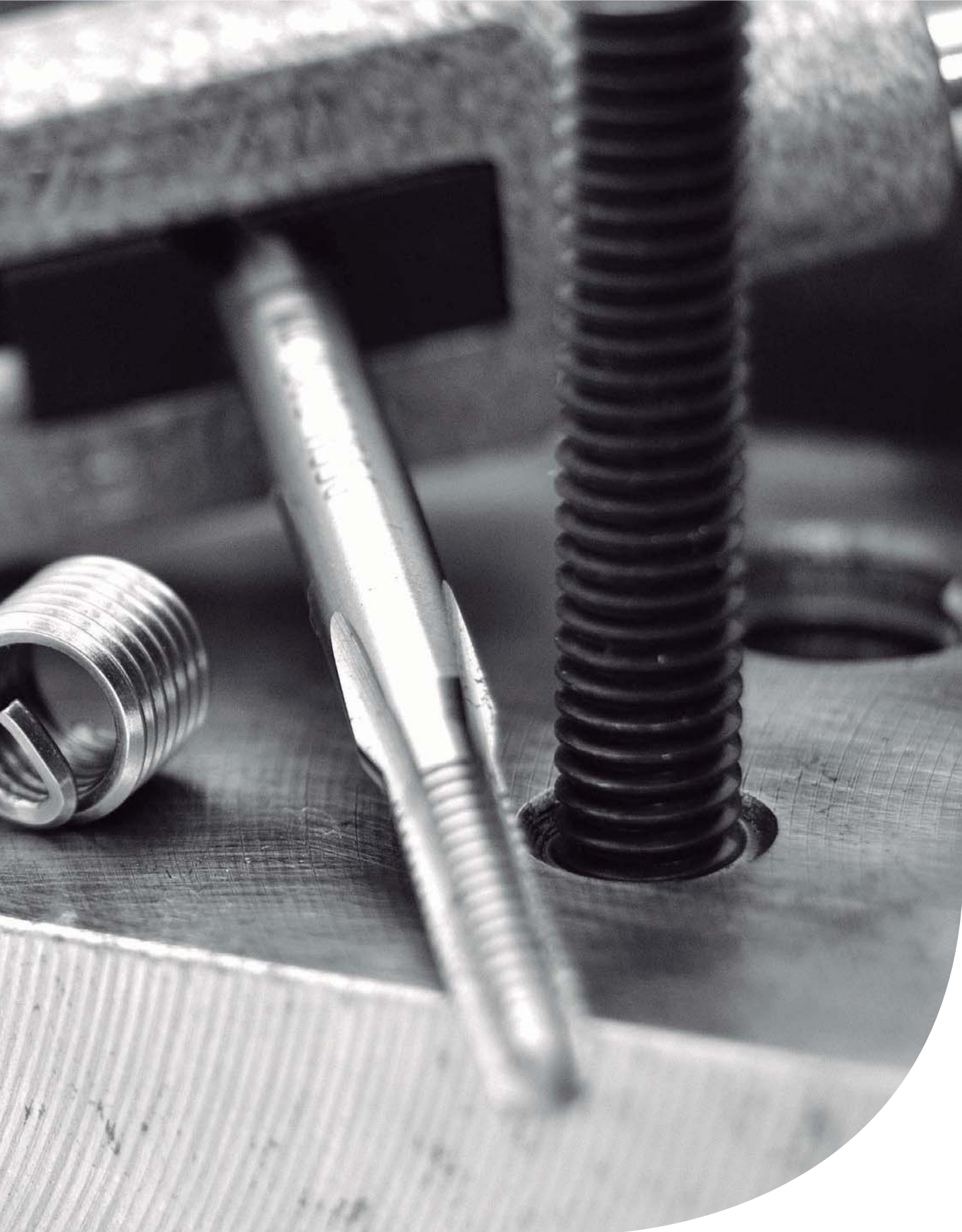
FRESADO
MILLING • FRAISAGE

METAL
METAL • MÉTAL

MADERA
WOOD • BOIS

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION





SESA[®]
COIL

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
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HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

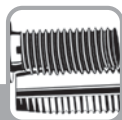
DISPLAYS
DISPLAYS • DISPLAYS

MODO DE USO

OPERATING INSTRUCTIONS • INSTRUCTIONS D'UTILISATION



TALADRADO
DRILLING
PÉRÇAGE



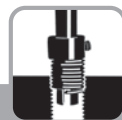
COMPROBACIÓN
CHECK
VÉRIFICATION



ROSCADO
THREADING
TARAUDAGE



INSTALACIÓN DEL INSERTO
INSERT INSTALLATION
INSTALLATION DU FILET



ELIMINACIÓN DEL ARRASTRE
TANG REMOVAL
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 TECHNIQUE POUR L'INSTALLATION DES FILETS RAPPORTÉS DIN 8140

D Ø X P (mm)	TALARADO / DRILLING / PRÉÇAGE						ROSCADO / THREADING / FILETAGE		
	C	LONGITUD (S) / LENGTH (S) / LONGUEUR (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 / Longueur 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

INFORMACIÓN TÉCNICA INSERTOS DE ROSCADO

WIRE THREAD INSERTS TECHNICAL INFORMATION
INFORMATION TECHNIQUE FILETS RAPPORTÉS



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

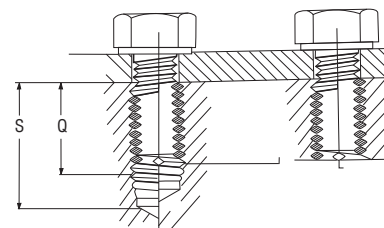
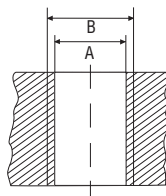
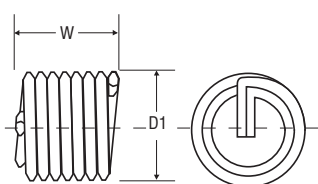
ACCESORIOS
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HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ROSCADO / THREADING / FILETAGE					INSERTO / 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 TECHNIQUE POUR L'INSTALLATION DES FILETS RAPPORTÉS DIN 8140

D Ø x P (")	TALARADO / DRILLING / PREÇAGE						ROSCADO / THREADING / FILETAGE		
	C	LONGITUD (S) / LENGTH (S) / LONGEUR (S)					B	A	
		1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø		mín.	máx.
UNC	mm						mm		
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 / Longueur 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

INFORMACIÓN TÉCNICA INSERTOS DE ROSCADO

WIRE THREAD INSERTS TECHNICAL INFORMATION

INFORMATION TECHNIQUE FILETS RAPPORTÉS



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

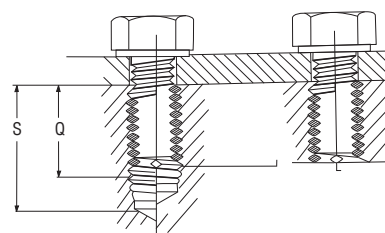
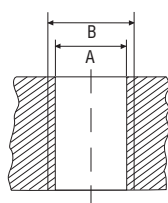
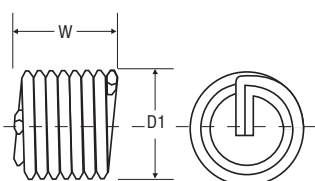
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

ROSCADO / THREADING / FILETAGE					INSERTO / 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 TECHNIQUE POUR L'INSTALLATION DES FILETS RAPPORTÉS DIN 8140

D Ø x P (")	TALARADO / DRILLING / PREÇAGE						ROSCADO / THREADING / FILETAGE		
	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 / Longueur 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 DES 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/mm ²

INFORMACIÓN TÉCNICA INSERTOS DE ROSCADO

WIRE THREAD INSERTS TECHNICAL INFORMATION

INFORMATION TECHNIQUE FILETS RAPPORTÉS



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

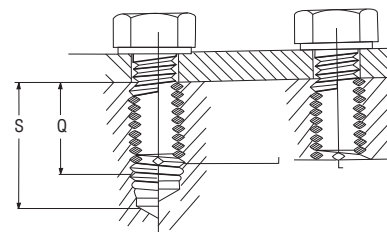
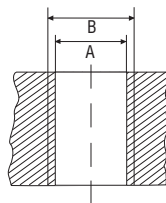
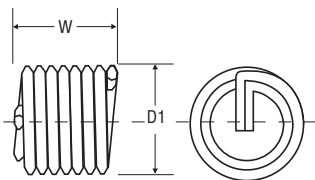
METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

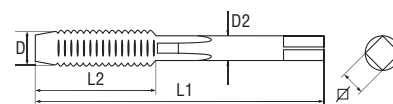
ROSCADO / THREADING / FILETAGE					INSERTO / INSERTS / FILETS RAPPORTÉS							
LONGITUD ÚTIL (Q) / LENGTH (Q) / LONGEUR (Q)					D1		Nº DE HILOS (W) / Nº OF COILS (W) / LONGEUR (W)					
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	
3,200	4,801	6,400	7,900	9,600	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**

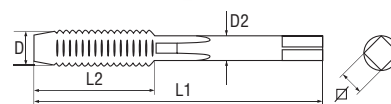
D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 2,00 x 0,40	2,5	44,5	9,5	2,8	2,24	1C03001
M 2,50 x 0,45	3,1	48,0	11,0	3,15	2,50	1C03003
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03005
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03006
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03007
M 5,00 x 0,80	6,0	66,0	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

M

MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÈCES



HSS-G **FORM D** **TOL ISO1 4H**



D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

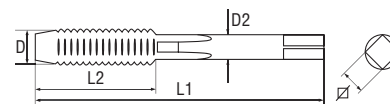
UNC

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

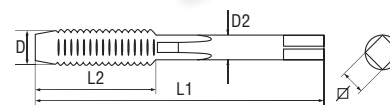
UNC

MACHOS STI, JUEGO 2 PIEZAS

STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES



HSS-G FORM D TOL 3B



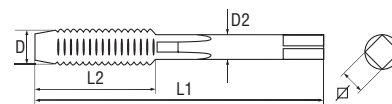
	D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNC/NC							
	1.1/8 x 7	33,3	151,0	51,0	22,4	18,00	1C03117
	1.1/4 x 7	36,5	162,0	57,0	25,0	20,00	1C03118
	1.3/8 x 6	40,4	170,0	60,0	28,0	22,40	1C03119
	1.1/2 x 6	43,6	187,0	67,0	31,5	25,00	1C03120

UNF

MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G **FORM D** **TOL 3B**



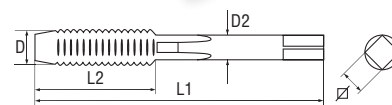
	D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
UNF/NF							
Nr.	4 x 48	3,5	53,0	13,0	4,0	3,15	1C03151
Nr.	6 x 40	4,3	53,0	13,0	4,5	3,55	1C03152
Nr.	8 x 36	5,1	62,0	17,0	5,6	4,50	1C03153
Nr.	10 x 32	5,9	66,0	19,0	6,3	5,00	1C03154
	1/4 x 28	7,5	69,0	19,0	8,0	6,30	1C03155
	5/16 x 24	9,3	76,0	20,0	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 PIÈCES



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)

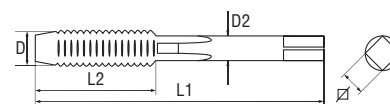
STI-TAPS (SECOND LEAD)
TARAUDS STI



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

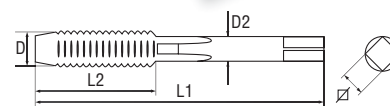
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÈCES



HSS-G

FORM
D

TOL ISO1
4H



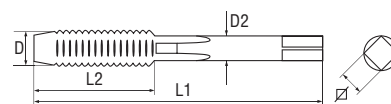
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/8 x 28	10,0	59,0	15,0	8,0	6,30	1C03311
1/4 x 19	14,7	67,0	19,0	11,2	9,00	1C03312
3/8 x 19	18,3	75,0	21,0	14,0	11,20	1C03313
1/2 x 14	23,1	87,0	26,0	16,0	12,50	1C03314
5/8 x 14	25,1	91,0	26,0	18,0	14,00	1C03315
3/4 x 14	28,6	96,0	28,0	20,0	16,00	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



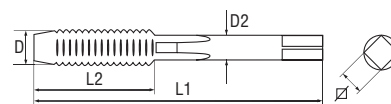
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
1/8 x 40	3,9	53,0	13,0	4,0	3,15	1C03201
3/16 x 24	6,0	56,0	19,0	6,3	5,00	1C03202
1/4 x 20	7,8	72,0	22,0	8,0	6,30	1C03203
5/16 x 18	9,6	80,0	24,0	10,0	8,00	1C03204
3/8 x 16	11,4	85,0	25,0	8,0	6,30	1C03205
7/16 x 14	13,2	95,0	30,0	11,2	9,00	1C03206
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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION
MADERA
WOOD • BOIS
METAL
METAL • MÉTAL
FRESADO
MILLING • FRAISAGE
ROSCADO
THREADING • FILETAGE
ACCESORIOS
ACCESSORIES • ACCESSOIRES
HEXAGONAL
HEXAGONAL • HEXAGONAL
METROLOGÍA
METROLOGY • MÉTROLOGIE
DISPLAYS
DISPLAYS • DISPLAYS



MACHOS PARA INSERTOS REPARADORES

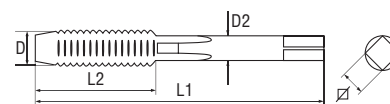
TAPS FOR WIRE THREAD INSERTS
TARAUDS POUR FILETS RAPPORTÉS

BA MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G FORM D TOL ISO1 4H



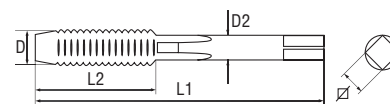
D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
BA 0	7,1	66,0	19,0	7,10	5,60	1C03321
BA 2	5,6	66,0	19,0	6,30	5,00	1C03323
BA 4	4,4	53,0	13,0	4,50	3,55	1C03325
BA 6	3,4	50,0	13,0	3,55	2,80	1C03327

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)

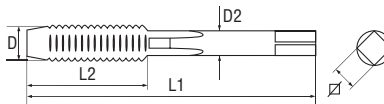
STI MACHINE TAPS (SPIRAL POINT)
TARAUDS MACHINE STI ENTRÉE GUN



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

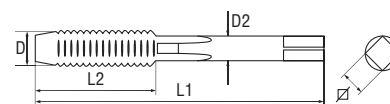
DISPLAYS
DISPLAYS • DISPLAYS

M MACHOS MÁQUINA STI (CIEGO)

STI MACHINE TAPS (SPIRAL FLUTE)
TARAUDS MACHINE STI HÉLICOIDAL



HSS-CO 5%

FORM
C/35°TOL ISO1
4H

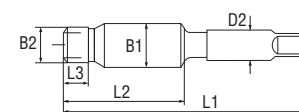
D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03705
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03706
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03707
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03708
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03709
M 7,00 x 1,00	8,3	72,0	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

M 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

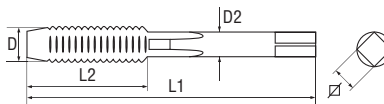
M

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 TAPPING DRILL SIZES / DIAMÈTRES PRÉALABLES AU FILETAGE

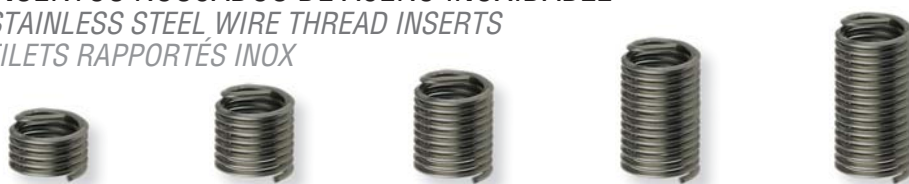
Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12
3,40	4,60	5,60	6,80	9,00	11,20	13,40

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	-	-	-
M 39,0 x 4,00	5	-	2C07364*	-	-	-
M 39,0 x 3,00	5	-	2C07365*	-	-	-

NEW
NEW

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.
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



			1,0 x DØ	1,5 x DØ
	D Ø x P (mm)	Uds. x caja Units x box	Cod.	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

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	2,5 x DØ	3,0 x DØ
		Cod.	Cod.	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


D Ø x P (mm)	Uds. / Pcs.	8,40	12,40	16,40
		Cod.	Cod.	Cod.
M 14 x 1,25	50	2C07128	2C07228	2C07328

M

INSERTOS ROSCADOS AUTOFRENANTES DE ACERO INOXIDABLE

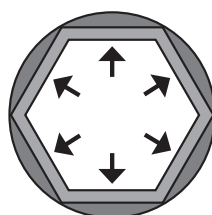
SCREW LOCKING STAINLESS STEEL WIRE THREAD INSERTS
 FILETS RAPPORTÉS INOX INDESSERRABLES

DIN 8140

 TOL ISO2
 6H


D Ø x P (mm)	Uds. / Pcs.	1,0 x DØ	1,5 x DØ	2,0 x DØ
		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 système interne autofreinage.
- Indicados en mecanismos con altas vibraciones o impactos
 Suited to high impact and vibrations systems
 Indiqués pour mécanismes avec grandes vibrations et impacts
- Se recomienda su utilización con tornillería lubricada 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

			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.	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	-	-	-	-

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS



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



D Ø x P (")	Uds. / Pcs.	1,0 x DØ	1,5 x DØ	2,0 x DØ	2,5 x DØ	3,0 x DØ
		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



D Ø x P (")	Uds. / Pcs.	1,0 x DØ	1,5 x DØ	2,0 x DØ	2,5 x DØ	3,0 x DØ
		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)		Hexagon (")	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	UNC N° 2	1	3C07002
	M 2,20 x 0,45			
3	M 2,50 x 0,45	-	1	3C07003
4	M 3,00 x 0,50	UNC/UNF N° 4	1	3C07004
5	M 3,50 x 0,60	UNC/UNF N° 6	1	3C07005
6	M 4,00 x 0,70	UNC/UNF N° 8	1	3C07006
8	M 5,00 x 0,80	UNC/UNF N°10	1	3C07008
		UNC N°12		
9	M 6,00 x 1,00	UNC/UNF 1/4	1	3C07009
		BSW/BSF 1/4		
11	M 7,00 x 1,00	UNC/UNF 5/16 BSW/BSF 5/16	1	3C07011
	M 8,00 x 1,00			
	M 8,00 x 1,25			
12	M 9,00 x 1,25	UNC 3/8	1	3C07012
	M 9,00 x 1,00	BSW/BSF 3/8		
13	M 10,00 x 1,50	UNF 3/8	1	3C07013
	M 10,00 x 1,00			
	M 10,00 x 1,25			
14	M 11,00 x 1,50	UNC/UNF 7/16	1	3C07014
	M 11,00 x 1,25	BSW/BSF 7/16		
15	M 12,00 x 1,75	UNC/UNF 1/2 BSW/BSF 1/2	1	3C07015
	M 12,00 x 1,50			
	M 12,00 x 1,25			
	M 12,00 x 1,00			

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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

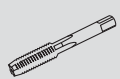
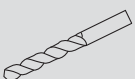
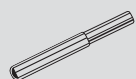
DISPLAYS
DISPLAYS • DISPLAYS

M y Mf

KITS REPARADORES DE ROSCA

THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE

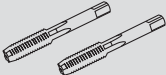


    					x 1,5D		Uds. / Pcs.	Cod.
M	2,00 x 0,40	2,1 mm	Nº 2	Nº 2	20		1	4C04001
M	2,50 x 0,45	2,6 mm	Nº 3	Nº 3	20		1	4C04003
M	3,00 x 0,50	3,2 mm	Nº 4	Nº 4	20		1	4C04005
M	3,50 x 0,60	3,7 mm	Nº 5	Nº 5	20		1	4C04006
M	4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20		1	4C04007
M	5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20		1	4C04009
M	6,00 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



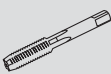
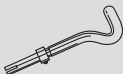
					
		x 1,5D	Uds. / Pcs.	Cod.	
M 26,00 x 1,50	3C08024	10	1	4C04049	
M 27,00 x 3,00	3C08025	10	1	4C04050	
M 27,00 x 2,00	3C08026	10	1	4C04051	
M 27,00 x 1,50	3C08027	10	1	4C04052	
M 28,00 x 1,50	3C08028	10	1	4C04053	
M 30,00 x 3,50	3C08029	10	1	4C04054	
M 30,00 x 2,00	3C08030	10	1	4C04055	
M 30,00 x 1,50	3C08031	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 la disponibilité

KIT PARA LAS ROSCAS DE LAS BUJÍAS

INSERTING TOOL
KITS DE RÉPARATION DE FILETAGE POUR BOUGIES D'ALLUMAGE

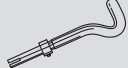
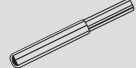


							
M 14 x 1,25	Nº 17	8,40 mm	12,40 mm	16,40 mm	Uds. / Pcs.	Cod.	
		5	5	5	1	4C04096	

MACHOS SPARK-PLUG / STI-SPARK PLUG TAPS / TARAUDS STI ÉTAGÉS

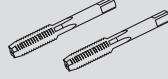
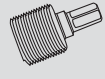
UNC

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

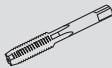
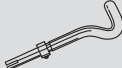
KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE


		 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

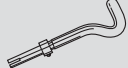
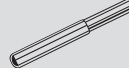
KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



				
		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

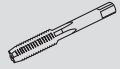
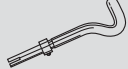
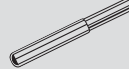
BSW

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

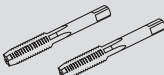
KITS REPARADORES DE ROSCA
 THREAD REPAIR KIT
 KITS DE RÉPARATION DE FILETAGE


				 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

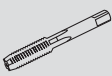
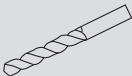
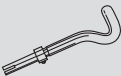
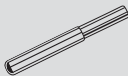


		 x 1,5D	Uds. / Pcs.	Cod.
1/8 x 28	3C08080	10	1	4C04190
1/4 x 19	3C08081	10	1	4C04191
3/8 x 19	3C08082	10	1	4C04192
1/2 x 14	3C08083	10	1	4C04193
5/8 x 14	3C08084	10	1	4C04194
3/4 x 14	3C08085	10	1	4C04195
7/8 x 14	3C08086	10	1	4C04196
1 x 11	3C08087	10	1	4C04197

M

REPARADOR DE ROSCA CON ANCLAJE DE 1/4"
1/4" SHANK REPAIR KIT
KIT DE RÉPARATION DE FILETAGE AVEC QUEU 1/4"



				 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 16	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							
M 5,00 x 0,80		5,2 mm	M 5	Nº 8	25	1	4C04087
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	M4-M5-M6-M8 M10-M12	6
		4C04009		
		4C04010		
		4C04012		
		4C04016		
		4C04021		

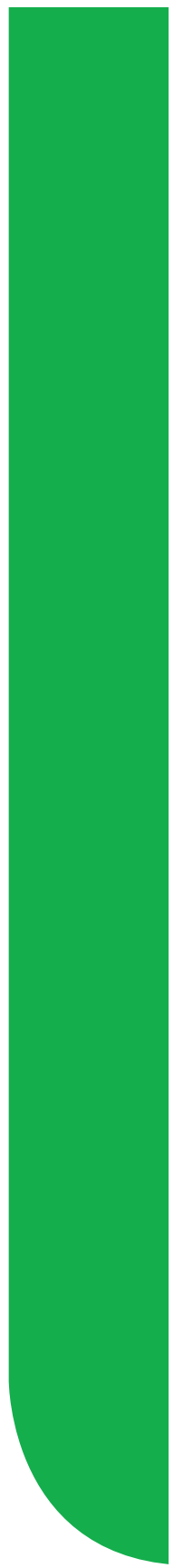






ACCESORIOS

ACCESORIES - ACCESSOIRES



PORTABROCAS PERCUSIÓN CIERRE RÁPIDO

PERCUSSIVE DRILL AND FAST LOCK DRILL CHUCK
 PERCEUSES À PERCUSSION EN FERMETURE RAPIDE



V021220

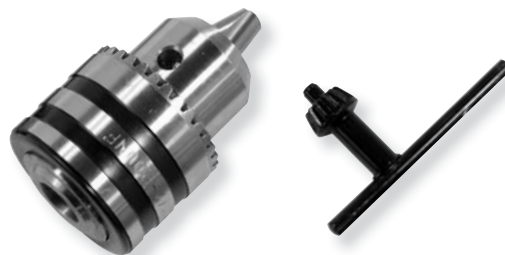
V021221

V023824

LONGITUD / LENGHT							
Capacidad Range (mm)	Acople / Mount	Ø ext. (mm)	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



LONGITUD / LENGHT							
Capacidad Range (mm)	Acople / Mount	Ø ext. (mm)	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 FERMÉTURE RAPIDE ET AUTOAJUTABLE



Capacidad Range (mm)	Acople / Mount	Ø ext. (mm)	LONGITUD / LENGTH		Peso Weight (kg)	Uds. Pcs.	Precisión Precision (mm)	Cod.
			Abierto / Opened (mm)	Cerrado / Closed (mm)				
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 allows 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-corrosion capacity. Métaux doux et durs. Haut pouvoir anticorrosion.

ESPIGAS TEMPLADAS Y RECTIFICADAS

HARDENED AND GROUNDED TAPER SHANK ARBORS
ARBRES DE MONTAGE TREMPÉS ET RECTIFIÉS

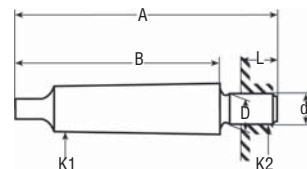


Cono Morse / Morse Cone	Espiga / Arbor	L (mm)	Peso / Weight (Kg)	Uds. / Pcs.	Cod.
1	B - 10	86	0,050	1	V2001B10
1	B - 12	88	0,060	1	V2001B12
1	B - 16	99	0,090	1	V2001B16
1	B - 18	107	0,110	1	V2001B18
2	B - 10	105	0,130	1	V2002B10
2	B - 12	106	0,140	1	V2002B12
2	B - 16	112	0,160	1	V2002B16
2	B - 18	119	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



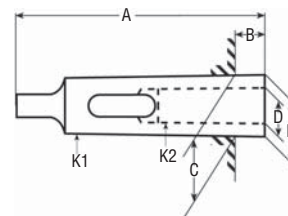
Exterior / External	Interior / Internal	L (mm)	Peso / Weight (Kg)	Uds. / Pcs.	Cod.
2	1	92	0,090	1	V1000021
3	1	99	0,205	1	V1000031
3	2	112	0,180	1	V1000032
3*	2	195	0,470	1	V1000L32
4	1	124	0,500	1	V1000041
4	2	124	0,430	1	V1000042
4	3	140	0,385	1	V1000043
5	1	155	1,400	1	V1000051
5	2	157	1,340	1	V1000052
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 taper Nº 1 y Nº 2	1	VC31712
Para Conos Morse Nº 3 / For Morse taper Nº 3	1	VC31703
Para Conos Morse Nº 4 y Nº 5 / For Morse taper Nº 4 y Nº 5	1	VC31704

TOPES DE PROFUNDIDAD PARA BROCAS

DEPTH ADJUSTING COLLAR • BUTÉES DE PERÇAGE



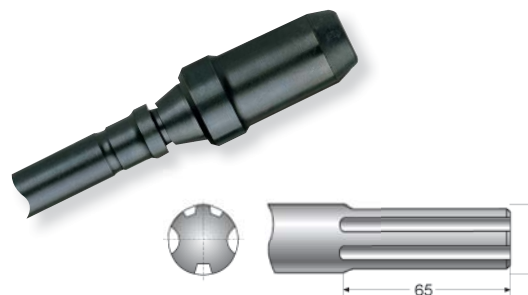
Ø (mm)	Gama de medidas / Range (mm)	Uds. / Pcs.	Cod.
3,5	De 2,0 a 3,5	1	Y10035
5,0	De 4,0 a 5,0	1	Y10050
6,0	De 5,0 a 6,0	1	Y10065
8,0	De 7,0 a 8,0	1	Y10080
10,0	De 8,5 a 10,0	1	Y10100
12,0	De 10,5 a 12,0	1	Y10120

CONVERSOR DE ANCLAJE SDS-MAX A SDS-PLUS

CONVERSION FROM SDS-MAX SHANK TO SDS-PLUS
 CONVERTEUR DE SDS-MAX A SDS-PLUS



L1 (mm)	Uds. / Pcs.	Cod.
225	1	1C02250



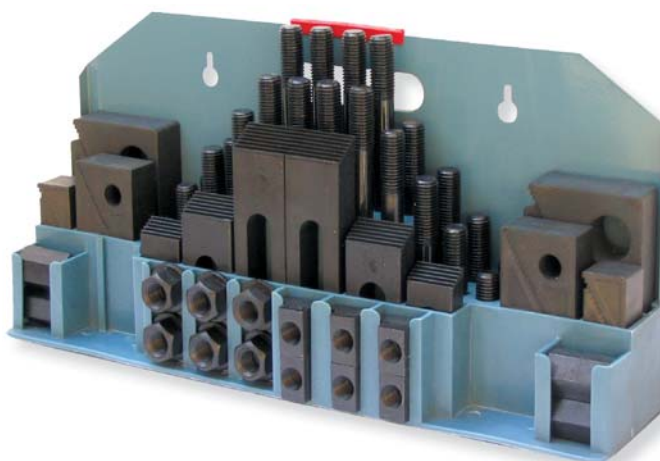
Para taladros con sistema SDS-MAX, HILTI Y-Groove y Licencia Bosch.
 Drills with SDS-MAX, HILTI Y-Groove and Bosch License system
 Perceuse avec système SDS-MAX, HILTI Y-Groove et Bosch Licence.

ELEMENTOS DE UNIÓN Y ÚTILES DE SUJECCIÓN
ADAPTERS • ADAPTATEURS



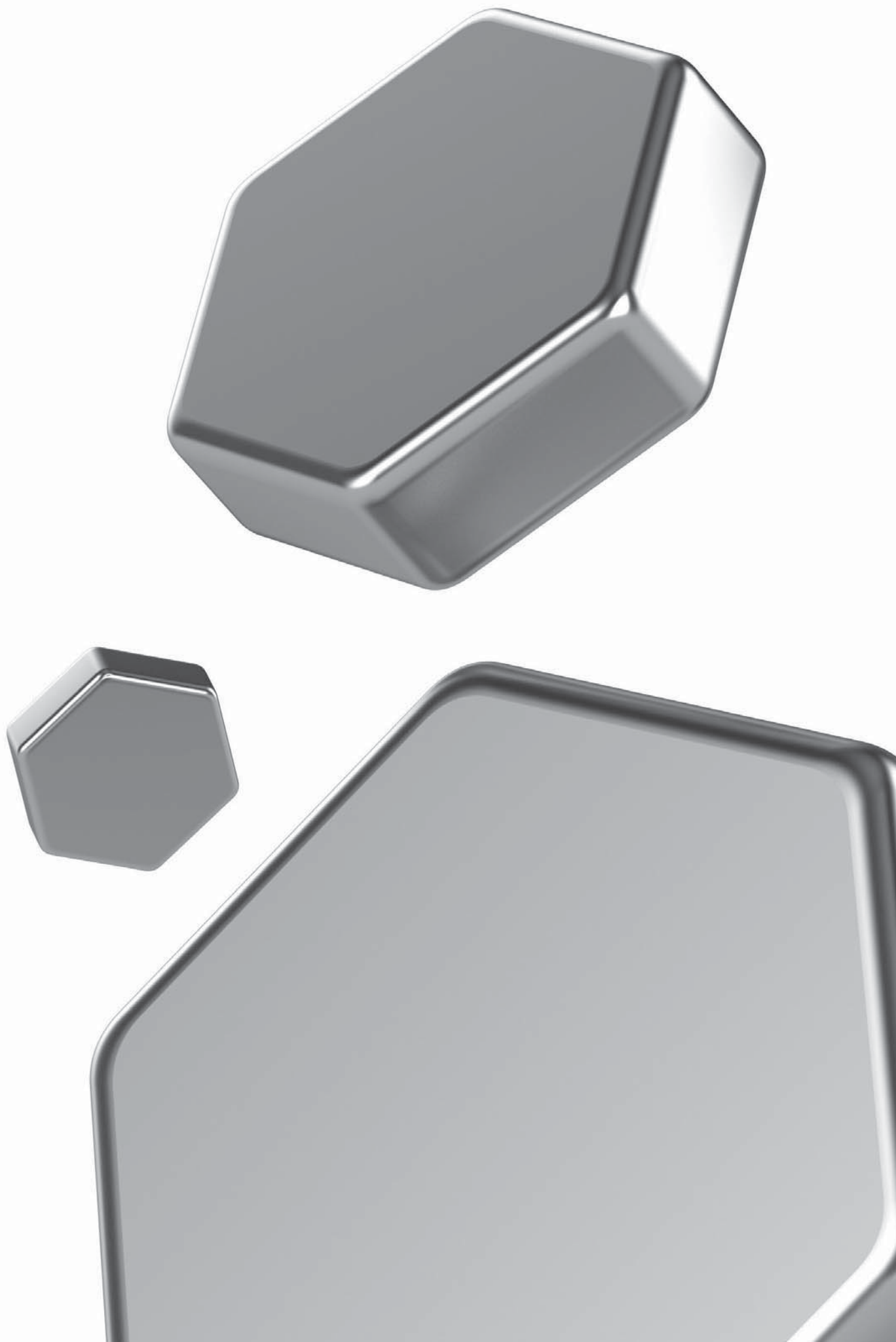
Conversión / System	Uds. / Pcs.	Cod.
SDS-PLUS a 1/2" - 20 H (M6 Izq.) / From SDS-PLUS to Thread 1/2" - 20 tpi (M6 LH)	1	V945212
SDS-PLUS a 3/8" - 24 H (M5 Izq.) / From SDS-PLUS to Thread 3/8" - 24 tpi (M5 LH)	1	V945024
TORNILLO REPUESTO M6 Izq. / Replacement Screw M6 LH	1	V945406
TORNILLO REPUESTO M4 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 SUJECCIÓN CONJUNTO DE 52 PIEZAS
CLAMPING TOOLS - 52 PCS. KIT • OUTILS DE FIXATION - 52 PCS.



Ref.	Rosca / Thread		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

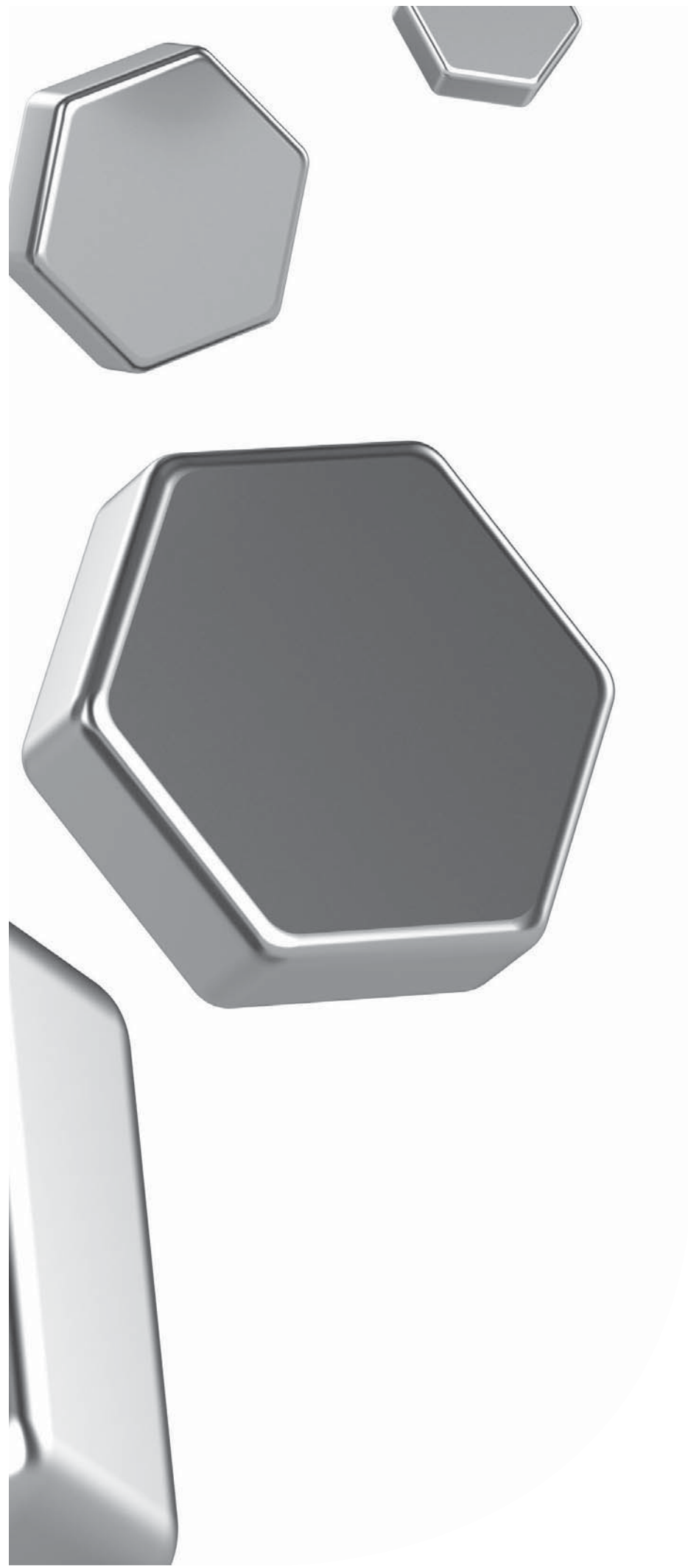
Hasta fin de existencias / Until end of stock / Jusqu'à épuisement des stocks





HEXAGONAL

HEXAGONAL



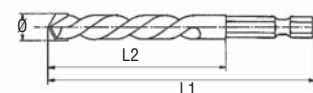


BROCAS HEXAGONAL PARA CONSTRUCCIÓN

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

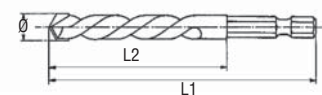
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
8	120	65	1	1HX0080
10	120	65	1	1HX0100
12	140	85	1	1HX0120

BROCA 3 PUNTAS PARA MADERA HSS

HSS 3 POINT WOOD DRILL BIT
 FORET A BOIS 3 POINTES HSS



HSS



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
3	82	33	1	120106003
4	96	43	1	120106004
5	106	52	1	120106005

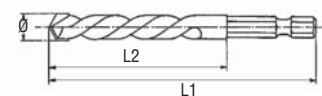
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
6	113	57	1	120106006
8	117	75	1	120106008
10	133	87	1	120106010

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



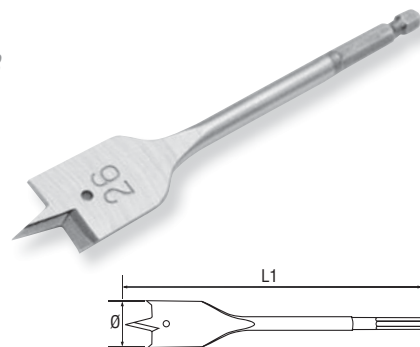
HSS-G



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

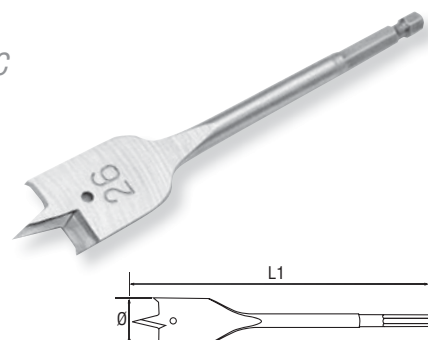


BROCAS HEXAGONAL PARA MADERA

HEXAGONAL WOOD DRILL BITS • HEXAGONALE FORETS À BOIS



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

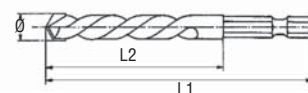
FLAT DRILL BIT SET TYPE C • COFFRET MÉCHE PLATE TIPE C

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



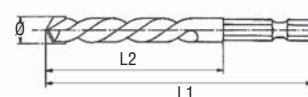
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
3	62	35	1	130132003
4	75	50	1	130132004
5	85	60	1	130132005

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



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



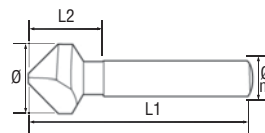
AVELLANADORES 90°
 COUNTERSINK HSS 90° • CHANFRENEUR HSS 90°



HSS-G



90°



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

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.
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. AVELLANADORES
 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

M MACHO CON ANCLAJE DE 1/4"

1/4" SHANK TAPS
TARAUDS MÊCHE 1/4"



HSS-G

DIN 13



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

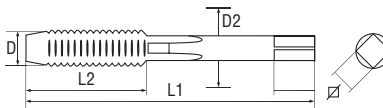
Métrica Dimensions	M 3	M 4	M 5	M 6	M 8	M 10
Ø Broca previa Core hole dia	2,5 mm	3,3 mm	4,2 mm	5,0 mm	6,8 mm	8,5 mm
Nº de revoluciones RPM	Regulación más baja (0 – 450 revoluciones/min.) Lowest setting (0 - 450 RPM)					
Par de giro Torque	Regulación máxima Maximum setting					

MACHOS COMBINADOS HSS-G

HSS-G COMBINED TAPS
TARAUDS COMBINÉS HSS-G



HSS-G



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 TARAUDS COMBINÉS HSS-G



Medidas / Sizes	
M 3, 4, 5, 6, 8, 10 (mm).	
Uds. / Pcs.	Cod.
7	3R67200

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

M MÉTRICA ISO-ROSCA DIN 13

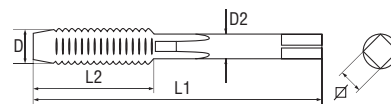
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G

TIN

TOL
6H



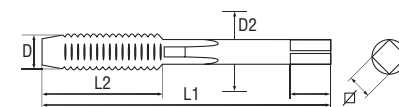
D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.
M 3 x 0,50	2,5	36	3R67210
M 4 x 0,70	3,3	39	3R67211
M 5 x 0,80	4,2	41	3R67212
M 6 x 1,00	5,0	44	3R67213
M 8 x 1,25	6,8	50	3R67214
M 10 x 1,50	8,5	59	3R67215

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



HSS-G



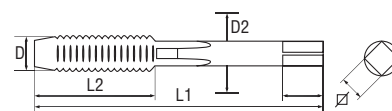
D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.
Nr. 4 x 40	2.30	36	3R67280
Nr. 5 x 40	2.60	36	3R67281
Nr. 6 x 32	2.85	39	3R67282
Nr. 8 x 32	3.50	39	3R67283
Nr. 10 x 24	3.90	41	3R67284
Nr. 12 x 24	4.50	41	3R67285
1/4 x 20	5.20	44	3R67286
5/16 x 18	6.60	50	3R67287
3/8 x 16	8.00	59	3R67288

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



HSS-G



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"



				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	NMOPH1
PH - 2 x 25	EXTRA	100	NMOPH2
PH - 3 x 25	EXTRA	100	NMOPH3
PH - 4 x 32	EXTRA	50	NMOPH4

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.
PH - 1 x 50	EXTRA	50	NNOPH1
PH - 2 x 50	EXTRA	50	NNOPH2
PH - 3 x 50	EXTRA	50	NNOPH3

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	NSOH20
HEX 2,5 x 25	EXTRA	50	NSOH25
HEX 3,0 x 25	EXTRA	100	NSOH30
HEX 4,0 x 25	EXTRA	100	NSOH40
HEX 5,0 x 25	EXTRA	100	NSOH50
HEX 6,0 x 25	EXTRA	100	NSOH60

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.
HEX 2,0 x 50	EXTRA	25	NTOH20
HEX 2,5 x 50	EXTRA	25	NTOH25
HEX 3,0 x 50	EXTRA	50	NTOH30
HEX 4,0 x 50	EXTRA	50	NTOH40
HEX 5,0 x 50	EXTRA	50	NTOH50
HEX 6,0 x 50	EXTRA	50	NTOH60

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

PUNTAS DE ATORNILLAR 1/4"

1/4" SCREWDRIVER BITS • ÉMBOUTS 1/4"



PZ



EXTRA



25 mm



50 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.
PZ - 1 x 25	EXTRA	100	NPOPZ1
PZ - 2 x 25	EXTRA	100	NPOPZ2
PZ - 3 x 25	EXTRA	100	NPOPZ3
PZ - 4 x 32	EXTRA	50	NPOPZ4

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.
PZ - 1 x 50	EXTRA	50	NQOPZ1
PZ - 2 x 50	EXTRA	50	NQOPZ2
PZ - 3 x 50	EXTRA	50	NQOPZ3

PZ



EXTRA



25 mm



50 mm

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



25 mm



50 mm

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



25 mm



50 mm

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



25 mm



50 mm

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



25 mm



50 mm

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	NJOT06
T - 7 x 25	EXTRA	50	NJOT07
T - 8 x 25	EXTRA	50	NJOT08
T - 9 x 25	EXTRA	50	NJOT09
T - 10 x 25	EXTRA	100	NJOT10
T - 15 x 25	EXTRA	100	NJOT15
T - 20 x 25	EXTRA	100	NJOT20
T - 25 x 25	EXTRA	100	NJOT25
T - 27 x 25	EXTRA	100	NJOT27
T - 30 x 25	EXTRA	100	NJOT30
T - 40 x 25	EXTRA	100	NJOT40
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.
T - 10 x 50	EXTRA	50	NKOT10
T - 15 x 50	EXTRA	50	NKOT15
T - 20 x 50	EXTRA	50	NKOT20
T - 25 x 50	EXTRA	50	NKOT25
T - 27 x 50	EXTRA	50	NKOT27
T - 30 x 50	EXTRA	50	NKOT30
T - 40 x 50	EXTRA	50	NKOT40

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

PUNTAS DE ATORNILLAR 1/4"

1/4" SCREWDRIVER BITS • ÉMBOUTS 1/4"



TORX INVOLABLE

TORX TAMPER
TORX PERCÉ BAGUÉ



EXTRA



25 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.
T x - 10 x 25	EXTRA	50	NLOT10
T x - 15 x 25	EXTRA	50	NLOT15
T x - 20 x 25	EXTRA	50	NLOT20
T x - 25 x 25	EXTRA	50	NLOT25
T x - 27 x 25	EXTRA	50	NLOT27
T x - 30 x 25	EXTRA	50	NLOT30
T x - 40 x 25	EXTRA	50	NLOT40

TORX INVOLABLE

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



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.			Puntas / Bits		Uds. / Pcs.
	PLANA / SLOTTED / PLAT 4,5 x 0,6 x 25	20			HEX 3,0 x 25	10	
	PLANA / SLOTTED / PLAT 5,5 x 0,8 x 25	50			HEX 4,0 x 25	10	
	PLANA / SLOTTED / PLAT 6,5 x 1,2 x 25	20			HEX 5,0 x 25	10	
	TORX-10 x 25	10			PZ-1 x 25	20	
	TORX-15 x 25	10			PZ-2 x 25	50	
	TORX-20 x 25	10			PZ-3 x 25	10	
	TORX-25 x 25	10			ADAPTADOR MAGNETICO / MAGNETIC HOLDER		
	PH-1 x 25	20			ADAPTATEUR MAGNETIQUE 10 x 60		
	PH-2 x 25	50					
	PH-3 x 25	10					

EXPENDEDOR DE PUNTAS 50 mm / SCREWDRIVER BITS BOX 50 mm / CAISSE ÉMBOUTS 50 mm

Puntas / Bits			Uds. / Pcs.	Puntas / Bits			Uds. / Pcs.
	PLANA / SLOTTED / PLAT	4,5 x 0,6 x 50	10		HEX	3,0 x 50	5
	PLANA / SLOTTED / PLAT	5,5 x 0,8 x 50	20		HEX	4,0 x 50	5
	PLANA / SLOTTED / PLAT	6,5 x 1,2 x 50	10		HEX	5,0 x 50	5
	TORX-10	x 50	5		PZ-1	x 50	10
	TORX-15	x 50	5		PZ-2	x 50	20
	TORX-20	x 50	5		PZ-3	x 50	10
	TORX-25	x 50	5		ADAPTADOR MAGNETICO / MAGNETIC HOLDER		5
	PH-1	x 50	5	ADAPTATEUR MAGNETIQUE 10 x 60			
	PH-2	x 50	20				
	PH-3	x 50	5				

PUNTAS DE ATORNILLAR 1/4"

1/4" SCREWDRIVER BITS • ÉMBOUTS 1/4"



JUEGOS DE PUNTAS

SCREWDRIVER BIT SETS • COFFRET ÉMBOUT



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



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° / 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 <i>Masonry + Wood Extrashort + Magnetic Holder</i> <i>Béton + Bois Extracourte + Adaptateur Magnétique</i>	12	6JG001
Construcción + Metal Extracorta + Adaptador Magnético <i>Masonry + Metal Extrashort + Magnetic Holder</i> <i>Béton + Metal Extracourte + Adaptateur Magnétique</i>	12	6JG002
Madera + Madera Extracorta + Adaptador Magnético <i>Wood + Wood Extrashort + Magnetic Holder</i> <i>Bois + Bois Extracourte + Adaptateur Magnétique</i>	12	6JG003
Madera + Metal Extracorta + Adaptador Magnético <i>Wood + Metal Extrashort + Magnetic Holder</i> <i>Bois + Metal Extracourte + Adaptateur Magnétique</i>	12	6JG004
Metal + Metal Extracorta + Adaptador Magnético <i>Metal + Metal Extrashort + Magnetic Holder</i> <i>Metal + Metal Extracourte + Adaptateur Magnétique</i>	12	6JG005
Metal + Madera Extracorta + Adaptador Magnético <i>Metal + Wood Extra Short + Magnetic Holder</i> <i>Metal + Bois Extracourte + Adaptateur Magnétique</i>	12	6JG006

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

Diámetros / Diameters / Diamètres	
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 MÊCHE PLATE



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





METROLOGÍA

METROLOGY - MÉTROLOGIE



RELOJ COMPARADOR ANALÓGICO

DIAL INDICATOR • COMPAREUR



MEDICIÓN / MEASUREMENT						
Ref.	Modelo / Model	Esfera / Oval (Ø mm)	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
COMPAREUR AFFICHAGE DIGITAL



MEDICIÓN / MEASUREMENT						
Ref.	Modelo / Model	Esfera / Oval (Ø mm)	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)	Torre Vertical Height of Column (mm)	Torre Articulada Articulated Arm (mm)	Cod.
801	50 x 55 x 66	180 x 12	150 x 10	XD0510

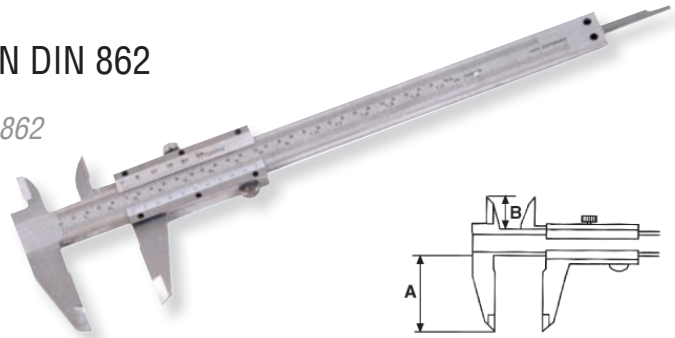
Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

CALIBRE INOX CON TORNILLO DE FIJACIÓN DIN 862

INOX CALIPER WITH LOCKING SCREW DIN 862

PIED À COULISSE INOX AVEC VIS DE BLOQUEGE DIN 862

DIN 862



MEDICIÓN / MEASUREMENT

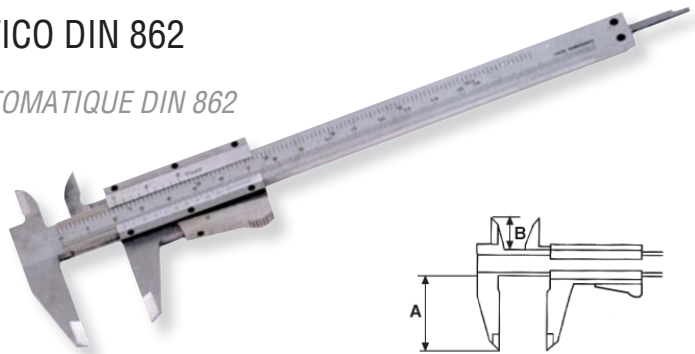
Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.
103	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X10150
103-L	46 - 23	0 - 200	0,05	MATE	ABS-PLASTIC	X10150L

CALIBRE INOX CON PULSADOR AUTOMÁTICO DIN 862

INOX CALIPER WITH LOCKING DEVICE DIN 862

PIED À COULISSE INOX AVEC VIS DE BLOQUEGE AUTOMATIQUE DIN 862

DIN 862



MEDICIÓN / MEASUREMENT

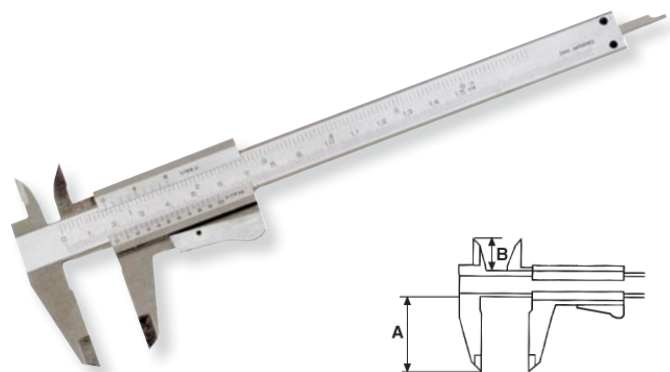
Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.
105	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X20515

CALIBRE INOX MONOBLOCK DIN 862

INOX MONOBLOCK CALIPER DIN 862

PIED À COULISSE INOX MONOBLOCK DIN 862

DIN 862



MEDICIÓN / MEASUREMENT

Ref.	A - B (mm)	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

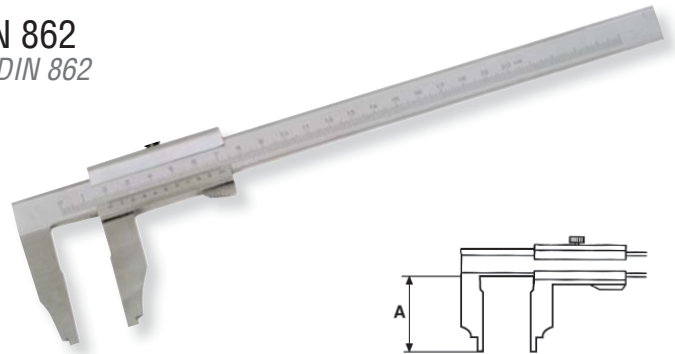
Se ofrece servicio de certificado de calibración, para más información consultar precios.

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 À COULISSE DE TOURNEUR INOX DIN 862



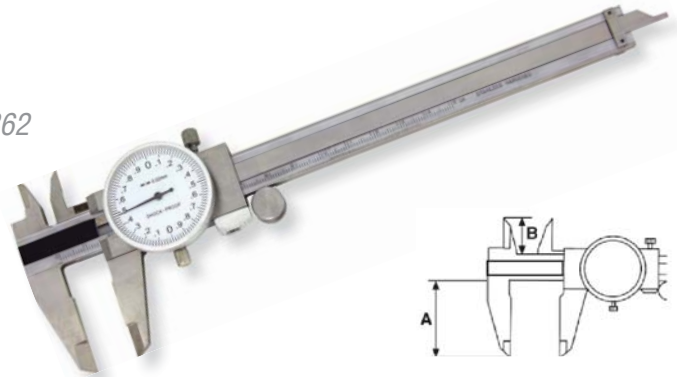
DIN 862

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 À COULISSE INOX AVEC COMPARETEUR DIN 862



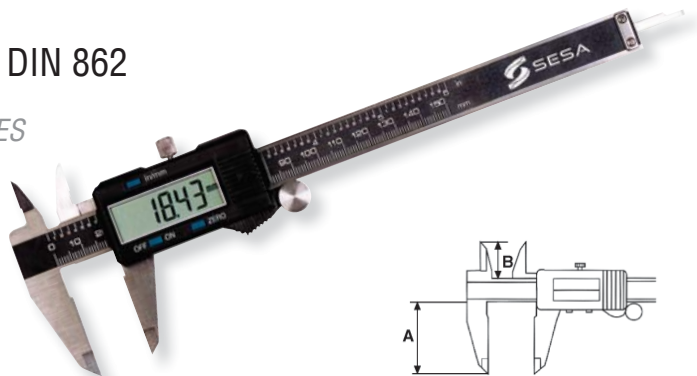
DIN 862

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 À COULISSE INOX DIGITAL DIN 862 MM / POUÇES



DIN 862

MEDICIÓN / MEASUREMENT

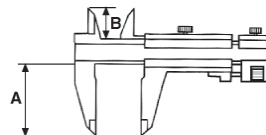
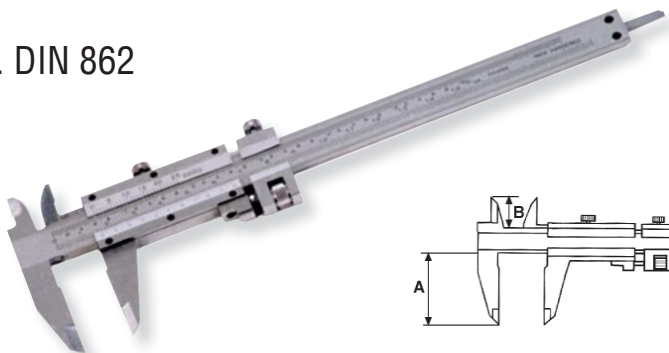
Ref.	A - B (mm)	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.
112-G	40 - 20	0 - 150	0,01	MATE	ABS-PLASTIC	X71215G
112-L	46 - 23	0 - 200	0,01	MATE	ABS-PLASTIC	X71215L
112-X	46 - 23	0 - 300	0,01	MATE	ABS-PLASTIC	X71215X

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 À COULISSE INOX AVEC VIS DE BLOCKAGE

DIN 862



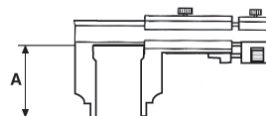
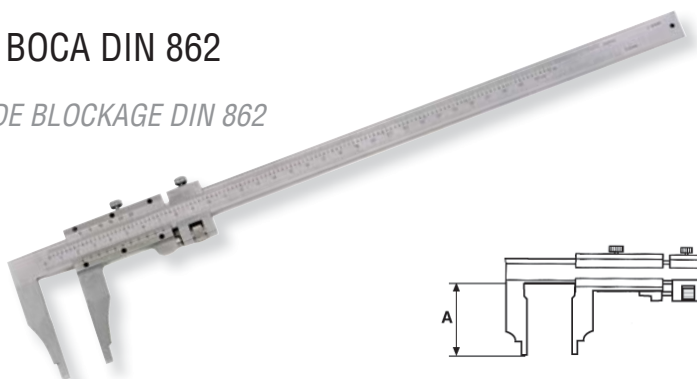
MEDICIÓN / MEASUREMENT

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 À 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

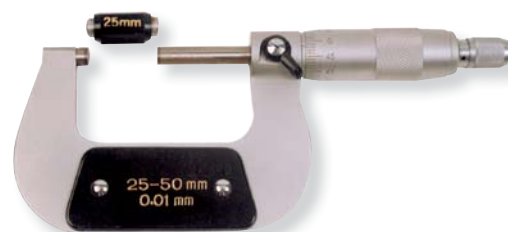
Ref.	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.
113	0 - 200	0,02	MATE	MADERA	X81320

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
MICROMÈTRES EXTERIEURES DIGITALES

DIN 863

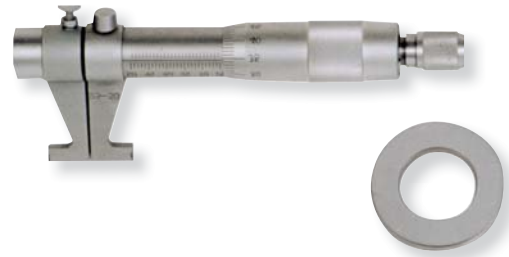


MEDICIÓN / MEASUREMENT							
Ref.	Anillo / Ring (mm)	Contacto Contact	Capacidad / Range (mm)	Resolución Resolution (mm)	Acabado Finishing	Estuche / Pack	Cod.
301	6,5	WIDIA	0 - 25	0,001	MATE	ABS-PLASTIC	XA1025

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 MICROMETERS
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 COMPAREUR 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.
214	Calibre digital electrónico 112-G / Inox Digital caliper	1	0 - 150 mm.	0,01/0,0005"	Plástico / Plastic	X99100
	Micrómetro electrónico / Outside Micrometer	1	0 - 25 mm.	0,01/0,0005"		
	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.
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.

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 - 180°
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.
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Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

COMPASES CIRCULARES DE ACERO FORJADO

ROUGH 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

ROUGH 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 - ACERO FORJADO Y PUNTAS TRATADAS

SPRING CALIPERS - FORGED STEEL AND TREATED POINTS

COMPASSES - ACIER FORGÉ ET POINTES TRAITÉS



COMPASES EXTERIORES DE ACERO FORJADO

ROUGH STEEL OUTSIDE CALIPERS

COMPAS D'EXTÉRIEUR



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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILÉTAGÉ

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS



SESA

SESA

SESA

SESA

SESA
BROCA METAL
HSS-G
DIN-338
Ø 12.00 mm
1461200

SESA
BROCA METAL
HSS-G
DIN-338
Ø 12.50 mm
1461250

SESA
BROCA METAL
HSS-G
DIN-338
Ø 13.00 mm
1461300

SESA
BROCA METAL
HSS-G
DIN-338
Ø 8.50 mm
1460850

SESA
BROCA METAL
HSS-G
DIN-338
Ø 9.00 mm
1460900

SESA
BROCA METAL
HSS-G
DIN-338
Ø 9.50 mm
1460950

SESA
BROCA METAL
HSS-G
DIN-338
Ø 5.50 mm
1460550

SESA
BROCA METAL
HSS-G
DIN-338
Ø 6.00 mm
1460600

SESA

SESA

SESA

SESA

SESA

SESA

PORCELANATO

PORCELANATO

PORCELANATO

MÁQUINA

ACERO RÁPIDO

ACERO RÁPIDO

ESTUCHES DE BROCA

MÁQUINA

MÁQUINA

MÁQUINA

TOL 6H
DIN 376
DIN 371

CRT-19
BROCAS
DIN-338 HSS-G
(M2)

[Alto rendimiento]

Art. N° 01020551

CRT. 1915019T

CRT-19
BROCAS
DIN-338 HSS-G
(M2)

[Alto rendimiento]

CRT. 1915019T



DISPLAYS

DISPLAYS



MINI EXPOSITOR
MINI DISPLAY
MINI ÉXPOSITEURExpositor MINI
1.830 x 500 x 430
mm

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

COMBINADO *COMBINED • 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
	4X85	10
 BROCA JR PORCELANATO	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

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILÉTAGÉ

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

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
 CORONAS BIMETAL M42	194025T	2
	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		

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

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

advance
MAXIMO RENDIMIENTO



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 MINI
470 x 190 x 140
mm

EXPOSITOR - DISPENSADOR DE SOBREMESA CERRADO

DISPLAY - CLOSED DESKTOP DISPENSER
ÉXPOSITEUR - DISTRIBUTEUR DE BUREAU FERMÉ

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



Expositor
35 x 30 x 25
mm

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

Composición / Contains / Composition	Uds. / Pcs.	Cod.
BASIC EXPO HSS WHITE + BASIC + MADERA	610	EXP02 BASIC
STANDARD EXPO HSS-G + GRANITO + MADERA	610	EXP02 STANDARD
ADVANCE EXPO HSS-CO 5% + TORNADO + MADERA	610	EXP02 ADVANCE



Expositor
35 x 30 x 25
mm

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 	19SD314	3-4-5-6-8 mm	7
	ST STEP 	19SD333	3-4-5-6-7-8-9-10 mm	7
KUBO 14	HSS-G 	1915314	3-4-5-6-8 mm	7
	HSS-G 	1915333	3-4-5-6-7-8-9-10 mm	7
KUBO 15	HSS-CO 	194314	3-4-5-6-8 mm	7
	HSS-CO 	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	M4-M5-M6-M8 M10-M12	6
		4C04009		
		4C04010		
		4C04012		
		4C04016		
		4C04021		

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE
KUBO 24	FRESAS ROTATIVAS METAL DURO 	FREST6DT	FRB6106 FRC6106 FRD6105 FRF6104 FRG6105	6



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

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 18 crochets *Detalles del producto en la página 37 / Product information at page 37 / Info sur le produit à la page 37

BASIC BASIC • BASIC

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

Basic



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 à 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 à la page 42

TORNADO TORNADO • TORNADO

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

advance
MAXIMO RENDIMIENTO



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 à la page 40

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

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

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

Basic



DIN 8035



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 à la page 48

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

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*



DIN 8035



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 à la page 47

SDS-PLUS HURRICANE HURRICANE SDS-PLUS • SDS-PLUS HURRICANE

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

advance
MAXIMO RENDIMIENTO



DIN 8035



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 à la page 46

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

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION



DIN 8035



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 à la page 50

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

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
Cinzel / Flat Chisel	250 / 20	3
Cinzel / Flat Chisel	250 / 20	3
Cinzel ancho / Spade Chisel	200 / 40	3
Acanalador / Hollow Chisel	240 / 22	3
Cinzel azulejo / Tile Chisel	200 / 40	3
SDS-MAX		
Puntero / Point Chisel	400	3
Puntero / Point Chisel	400	3
Cinzel / Flat Chisel	400 / 24	3
Cinzel / Flat Chisel	400 / 24	3
Cinzel ancho / Spade Chisel	300 / 80	3
Acanalador / Hollow Chisel	300 / 26	3
Cinzel 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 à 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 à 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 à 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 à 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 à 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



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 18 hooks / Présentoirs avec 18 crochets *Detalles del producto en la página 104 / Product information at page 104 / Info sur le produit à 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



HSS-CO 5%

DIN 338 N



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 18 hooks / Présentoirs avec 18 crochets *Detalles del producto en la página 112 / Product information at page 112 / Info sur le produit à 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	HRC03TI

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**HSS-G****DIN 338 N**

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 à la page 123

DIN 338N M/RED. HSS-CO *DIN 338N HSS-CO REDUCED SHANK • DIN 338N HSS-CO QUEUE RÉDUITE***METAL** METAL • MÉTAL**HSS-CO 5%****DIN 338 N**

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 à la page 124

CORONAS BIMETAL M42

BIMETAL HOLE SAWS M42

SCIES TRÉPAN BIMETAL M42

METAL METAL • MÉTAL



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 à la page 168



COMBINADO STANDARD

STANDARD COMBINED

STANDARD COMBINÉE

BLISTER RÍGIDO RIGID BLISTER • BLISTER RIGIDE

COMBINADO COMBINED • COMBINÉ

	Ø (mm)	Uds. / Pcs.
HSS-G METAL METAL	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 18 hooks / Présentoirs avec 18 crochets

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

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 con 11 ganchos / Stand with 11 hooks / Présentoirs avec 11 crochets



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILETAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

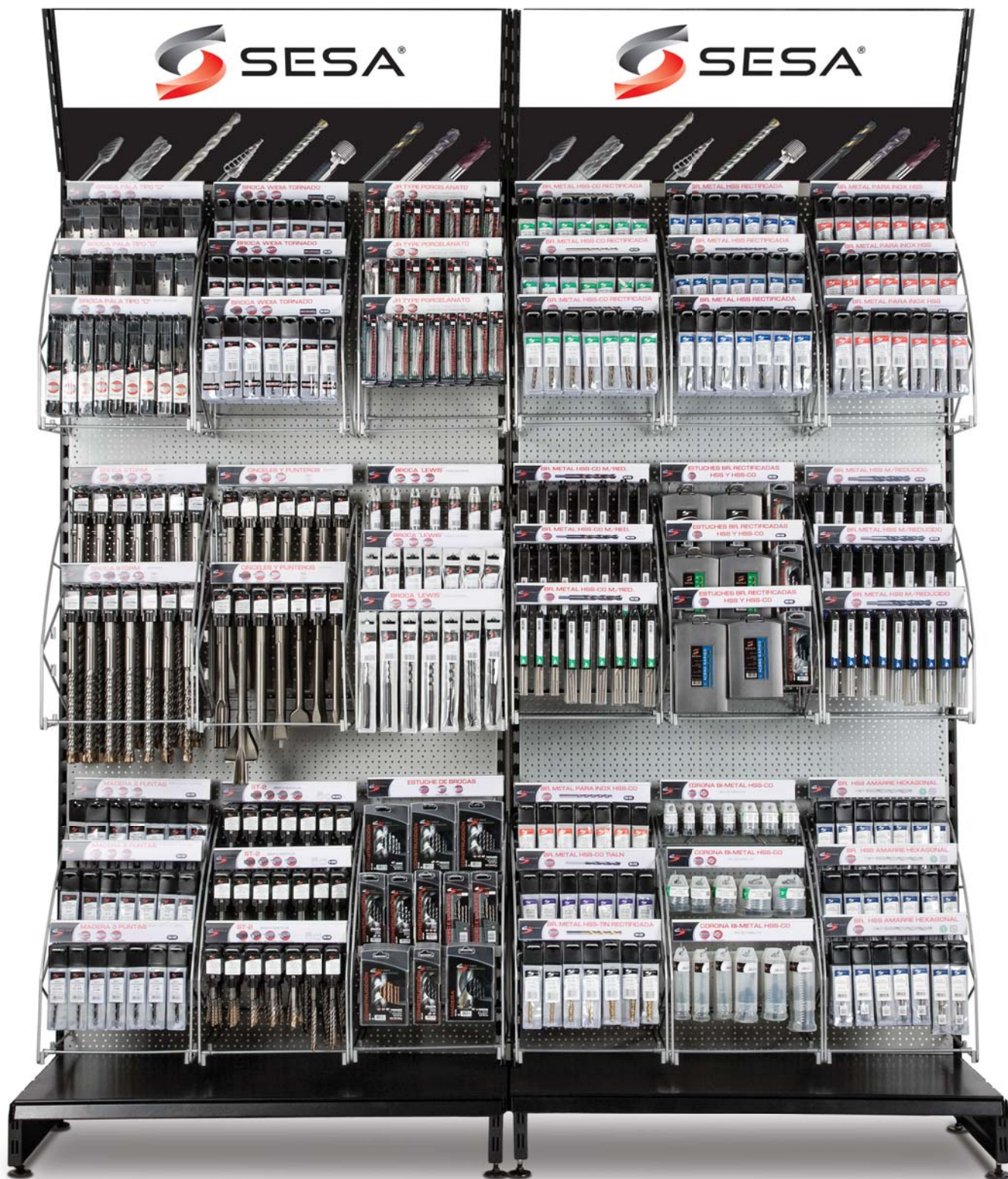
HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS



MUEBLES EXPOSITORES
PRODUCT DISPLAYS • PRÉSENTATION PRODUIT



DOBLE METRO LINEAL “COMBINADO”

“COMBINED” DOUBLE METRE DISPLAY • PRÉSENTOIRE DOUBLE “COMBINÉ”

Cod.	Expositor / Displays	Cod.	Expositor / Displays
HR03AR	DIN 338 HSS M2 / DIN 338 HSS M2	HR01GR	Granito / Granito
HR03CO	DIN 338 HSSCO / DIN 338 HSSCO	HR01TN	Tornado / Tornado
HR03IP	DIN 338N HSS-INOX Progressiva / DIN 338N HSS Progressive INOX	HR01HU	SDS-PLUS Hurricane / Hurricane SDS-PLUS
HR03MR	DIN338N M/RED. HSS-G / DIN 338N HSS-G Reduced Shank	HR01ST	SDS-PLUS ST-2 / SDS-PLUS ST-2
HR03CB	Corona Bi-Metal / Bimetal Hole Saw	HR01SM	SDS-MAX Storm / Storm SDS-MAX
HR03ET	Estuches / Sets	HR01CP	Punteros y Cinceles / Chisels and Pointers
HR03ES	SESABOX / SESABOX	HR02LE	Lewis / Lewis
HR01JR	JR para Porcelanato / JR Drill-Bit for Porcelanic	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

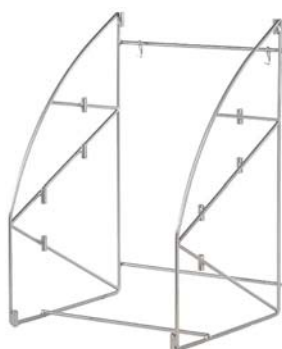
METRO LINEAL “FERRETERÍA”

“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.
HRO



SOPORTE CARÁTULA
LABEL BASE / BASE ÉTIQUETTE

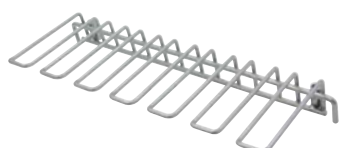
Cod.
HROCAR



GANCHO REDONDO
ROUND HOOK / CROCHET ROND

Cod.
HROGRD

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



TIRA DE GANCHOS
HOOK BAND / BANDE DE CROCHETS

Cod.	Descripción / Description
HR07IN	gancho redondo / round hook
HR076IN	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.
HROBAS

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

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 	1.630	3EM04
HSS-CO 5% 	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 FILETAGÉ MANUEL

ROSCADO THREADING • FILÉTAGÉ

HSS-G

Cod.	Descripción / Description	Uds. / Pcs.
Giramachos con Crique / 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


METACRILATO
 390 x 155 x 235
 mm

EXPOSITORES ROSCADO MANUAL HAND THREADING DISPLAY DISPLAY FILETAGE MANUEL

Expositor MINI
470 x 190 x 140
mm

ROSCADO THREADING • FILÉTAGE

HSS-G

DIN 352

DIN 223



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 MÊCHE 1/4"

METACRILATO
190 x 190 x 175
mm

ROSCADO THREADING • FILÉTAGE

HSS-G



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



CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILÉTAGE

ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

EXPOSITORES MACHOS MÁQUINA

MACHINE TAPS DISPLAY
PRÉSENTOIR TARAUDS MACHINE

ROSCADO THREADING • FILÉTAGÉ

Expositor MINI
470 x 190 x 140
mm

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

METACRILATO
330 x 140 x 180
mm

ROSCADO • THREADING • FILÉTAGE



							Contenido / Contains / Contenu							
Calidad / Quality				Mat.	Banda Ring	Nº Filas Rows N°	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/35°	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/35°		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/40°	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/40°	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/45°	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/35°	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/35°	ACERO 400-800 N/mm²		3	3	3	6	6	6	3	3	30
COD. 3R48932				TOTAL FILAS		20	TOTAL PZAS						200	

CONSTRUCCIÓN
CONSTRUCTION • CONSTRUCTION

MADERA
WOOD • BOIS

METAL
METAL • MÉTAL

FRESADO
MILLING • FRAISAGE

ROSCADO
THREADING • FILÉTAGE

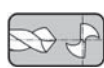
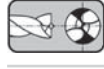
ACCESORIOS
ACCESSORIES • ACCESSOIRES

HEXAGONAL
HEXAGONAL • HEXAGONAL

METROLOGÍA
METROLOGY • MÉTROLOGIE

DISPLAYS
DISPLAYS • DISPLAYS

FILOS DE CORTE / SHARPENED / AFFUTAGE

	PUNTA CONVENCIONAL CONVENTIONAL POINT POINTE UNIVERSEL		PUNTA SPLIT POINT SPLIT POINT AFFUTAGE EN CROIX		GEOMETRÍA RECTA STRAIGHT HEAD GEOMETRY GÉOMÉTRIE DROITE
	PUNTA FILO CORREGIDO LIP CORRECTION LÈVRE CORRIGÉ		PUNTA PLACA DE CARBURO CARBIDE TIPPED POINTE CARBURE		GEOMETRÍA RADIAL RADIAL HEAD GEOMETRY GÉOMÉTRIE 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 NR-F NR-F FINE GRINDING NR-F DÉGROSSISSEMENT 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/15° C/15° FORM - FORME C/15° C/15° - C/35° - C/39° - C/40° - C/50°		FORMA COJINETE A DIES FORM A FILIERE FORME A
	FORMA C C FORM FORME C				

ÁNGULOS HÉLICES / HELIX ANGLES / ANGLE D'HÉLICE

	HÉLICE ÁNGULO ° ° HELIX ANGLE ANGLE D'HÉLICE °	8° / 30° / 35° / 40° / 45°		HÉLICE TIPO "S" "S" TYPE HELIX HÉLICE TIPE "S"
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ANGULOS DE PUNTA / POINT ANGLES / ANGLES POINTES

	ÁNGULO PUNTA ° ° TIP ANGLE ANGLE DE POINTE °	118° / 120° / 130° / 135° / 140°		35° / 35° / 60° / 90° / 180°
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ÁNGULO DE ASIENTO Y AVELLANADO / ANGLES / ANGLES

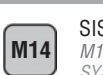
MANGOS / SHANK TYPES / QUEUES

	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				
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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
	PERCUSIÓN 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 COBALTO 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) TITANIUM NITRIDE (COATING) NITRURE DE TITANE (RECOUVREMENT)
HSS-CO 5%	ACERO RÁPIDO COBALTO 5% (M35) HIGH SPEED 5% COBALT STEEL (M35) ACIER RAPIDE COBALTO 5% (M35)	MD	METAL DURO - CARBURO DE TUNGSTENO HARD METAL - CARBURE TUNGSTEN METAL DUR - CARBURE TUNGSTÈNE	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 ALUMINIO 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 / APPLICATIONS CONSTRUCTION / APPLICATIONS 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 EPOXY
	MAMPOSTERÍA PLYWOOD MAÇONNERIE		MULTIUSOS MULTIPURPOSE MULTIMATÉRIEL		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 APPLICATIONS / APPLICATIONS 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
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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/mm².
Very high performance HSS with good toughness, for milling and cutting of materials up to 850 N/mm².
Acier rapide à haut rendement et bonne ténacité, pour le broyage et le coupe des matériaux jusqu'à 850 N/mm².

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/mm².
Very high performance HSS with good toughness, for milling of materials up to 1200 n/mm².
Acier rapide à haut rendement et bonne ténacité, pour le broyage des matériaux jusqu'à 1200 n/mm².

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 resistance. 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 adhesion 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 une meilleure productivité à moindre coût de l'outil.

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 11 días 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 purchaser 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.

8°. 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.

9°. MINIMUM ORDERS

There is no minimum order limit. Orders of less than € 50 shall be subject to an additional cost of 4 €.

10°. I.V.A. (VAT)

All prices are subject to value added tax and the customer shall bear the cost of the same.

11°. 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.

12°. 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.

1°. 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%.

2°. 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.

3°. 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.

4°. 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.

5°. 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.

6°. 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.

7°. 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.

8°. 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.

9°. 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 €.

10°. T.V.A.

Tous les prix sont soumis à la Taxe sur la Valeur Ajoutée, qui sera à la charge du client.

11°. 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.

12°. 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 TOOLS, S.A.

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