

aiber tools



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C/LAS CRUCES S/N

31179 BEARIN - YERRI

(NAVARRA)

ESPAÑA



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MECANIZADO INTEGRAL

FRESA DE MDI

PAG.

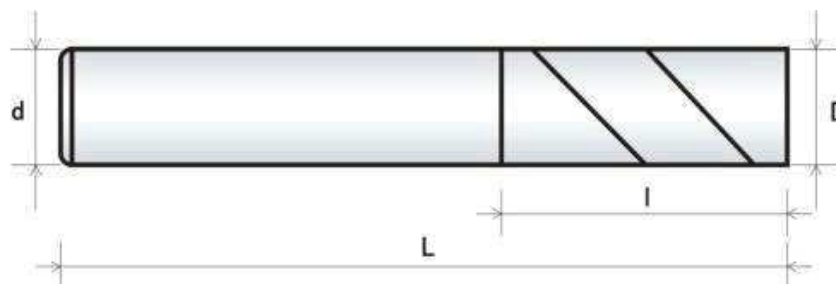
FRESA RECTA	4-7
FRESA ESFÉRICA	8
FRESA TÓRICA	9
FRESA DE DESBASTE	10

2Z TIALN



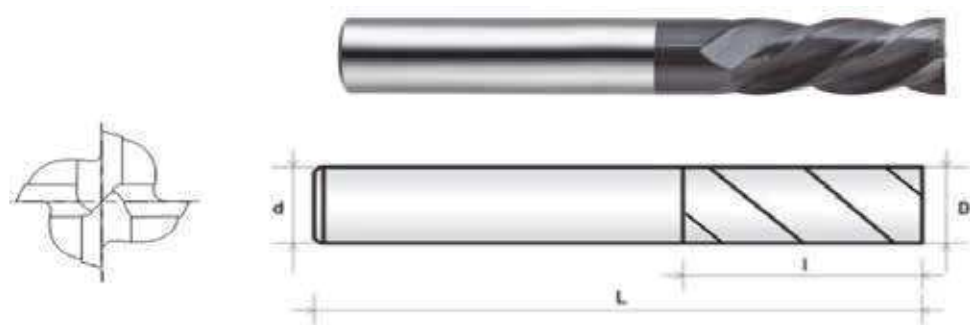
TIPO	Dimensiones (mm)				€
2Z TIALN	D	d	l	L	PRECIO
LONGITUD CORTA	1	4	3	50	4,20
	1,5	4	4	50	4,20
	2	4	6	50	4,20
	2,5	4	7	50	4,20
	3	3	8	50	4,20
	3	4	8	50	4,20
	3,5	4	10	50	4,20
	4	4	11	50	4,20
	5	5	13	50	6,50
	6	6	15	50	6,50
	7	8	20	60	11,60
	8	8	20	60	11,60
	9	10	25	75	16,75
	10	10	25	75	16,75
	11	12	30	75	20,70
	12	12	30	75	20,70
	13	14	45	100	47,90
	14	14	45	100	46,90
	16	16	45	100	57,50
	18	18	45	100	74,90
	20	20	45	100	86,50
	22	22	45	100	109,20

TIPO	Dimensiones (mm)				€
2Z TIALN	D	d	l	L	PRECIO
LONGITUD LARGA	3	3	8	100	8,70
	4	4	11	100	8,70
	5	5	13	100	11,80
	6	6	15	100	11,80
	8	8	20	100	15,20
	10	10	25	100	25,10
	10	10	50	150	33,10
	12	12	30	100	32,90
	12	12	50	150	47,60
	14	14	50	150	69,50
	16	16	50	150	76,90
	18	18	50	150	96,30
	20	20	50	150	109,50

3Z TIALN


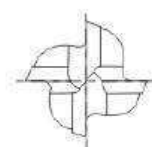
TIPO	Dimensiones (mm)				€
3Z TIALN	D	l	d	L	PRECIO
LONGITUD CORTA	1	3	4	50	4,57
	2	6	4	50	4,57
	3	8	4	50	4,57
	4	11	4	50	4,57
	5	13	6	50	7,29
	6	15	6	50	9,96
	7	17	8	60	12,99
	8	20	8	60	12,99
	9	23	10	75	18,18
	10	25	10	75	18,18
	11	28	12	75	24,40
	12	30	12	75	24,40
	14	35	16	100	45,70
	16	40	16	100	57,23
	18	40	20	100	73,21
	20	40	20	100	92,06

4Z TIALN



TIPO	Dimensiones (mm)				€
4Z TIALN	D	d	l	L	PRECIO
LONGITUD CORTA	1	4	3	50	4,20
	2	4	6	50	4,20
	3	3	8	50	4,20
	3	4	8	50	4,20
	4	4	11	50	4,20
	5	5	13	50	6,50
	6	6	15	50	6,50
	7	8	20	60	11,60
	8	8	20	60	11,60
	9	10	25	75	16,75
	10	10	25	75	16,75
	11	12	30	75	20,70
	12	12	30	75	20,70
	13	14	45	100	47,90
	14	14	45	100	46,90
	16	16	45	100	57,50
	18	18	45	100	74,90
	20	20	45	100	86,50
	22	22	45	100	109,20

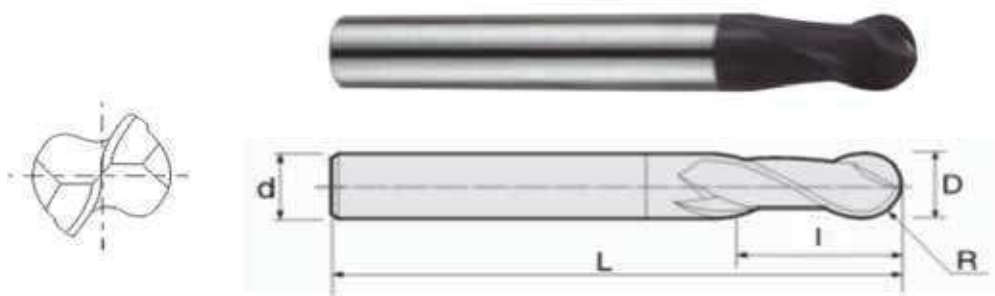
TIPO	Dimensiones (mm)				€
4Z TIALN	D	d	l	L	PRECIO
LONGITUD LARGA	3	3	8	100	8,70
	4	4	11	100	8,70
	5	5	13	100	11,80
	6	6	15	100	11,80
	8	8	20	75	12,20
	8	8	20	100	15,20
	10	10	25	100	25,10
	10	10	50	150	33,10
	12	12	30	100	32,90
	12	12	50	150	47,60
	14	14	50	150	69,50
	16	16	50	150	76,90
	18	18	50	150	96,30
	20	20	50	150	109,50

6Z TIALN


TIPO	Dimensiones (mm)				€
6Z TIALN	D	l	d	L	PRECIO
LONGITUD CORTA	4	11	6	50	10,42
	5	13	6	50	10,42
	6	15	6	50	10,42
	8	20	8	60	15,75
	10	25	10	75	24,31
	12	30	12	75	31,26
	16	40	16	100	56,96
	20	40	20	100	89,14
LONGITUD LARGA	4	16	6	75	12,50
	5	20	6	75	12,50
	6	25	6	75	12,50
	8	30	8	75	18,06

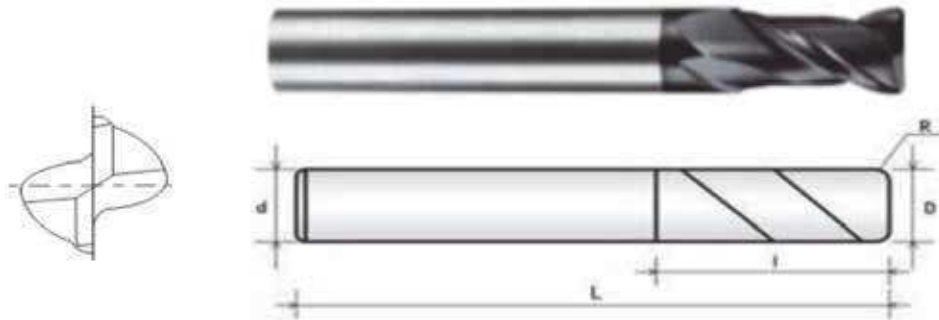
TIPO	Dimensiones (mm)				€
6Z TIALN	D	l	d	L	PRECIO
LONGITUD LARGA	4	20	6	100	13,89
	5	25	6	100	13,89
	6	30	6	100	13,89
	8	38	8	100	20,38
	10	40	10	100	28,94
	12	45	12	100	39,36
	8	50	8	150	28,94
	10	50	10	150	38,20
	12	50	12	150	49,78
	16	70	16	150	81,04
	20	80	20	150	129,67

2Z TIALN



TIPO	Dimensiones (mm)				€
2Z TIALN	D	d	l	L	PRECIO
LONGITUD CORTA	2	4	4	50	4,40
	3	4	6	50	4,40
	4	4	8	50	4,40
	5	5	10	50	6,90
	6	6	12	50	7,20
	8	8	16	60	12,90
	10	10	20	75	18,70
	12	12	25	75	26,30

TIPO	Dimensiones (mm)				€
2Z TIALN	D	d	l	L	PRECIO
LONGITUD LARGA	3	3	5	100	8,90
	4	4	10	75	8,20
	4	4	8	100	8,90
	5	5	10	100	11,50
	6	6	12	75	10,50
	6	6	12	100	11,60
	8	8	16	75	15,70
	8	8	16	100	18
	10	10	20	100	25
	10	10	40	150	34,90
	12	12	25	100	34,10
	12	12	40	150	51,60
	14	14	40	150	73,90
	16	16	40	150	79,50
	18	18	40	150	98,60
	20	20	40	150	121,50

2Z TIALN


TIPO	Dimensiones (mm)				€
2Z TIALN	R*D	d	l	L	PRECIO
LONGITUD CORTA	R1*Ø4	4	8	50	8,20
	R1*Ø6	6	12	50	11,60
	R1*Ø8	8	16	60	18,90
	R1*Ø10	10	20	75	24,80
	R1*Ø12	12	24	75	33,60

TIPO	Dimensiones (mm)				€
2Z TIALN	R*D	d	l	L	PRECIO
LONGITUD LARGA	R1*Ø4	4	8	75	9,80
	R1*Ø4	4	8	100	11,10
	R1*Ø6	6	12	75	12,30
	R1*Ø6	6	12	100	13,20
	R1*Ø8	8	16	75	20,70
	R1*Ø8	8	16	100	22,10
	R1*Ø10	10	20	100	28,20
	R1*Ø12	12	24	100	37,83

4Z TIALN



TIPO	Dimensiones (mm)				€
	D	d	l	L	
4Z TIALN					PRECIO
LONGITUD STANDARD	4	4	11	50	8,20
	5	5	13	50	12,95
	6	6	15	50	13,10
	7	8	20	60	18,90
	8	8	20	60	18,80
	9	10	25	75	27,90
	10	10	25	75	27,60
	11	12	30	75	38,60
	12	12	30	75	36,50
	13	14	45	100	59,80
	14	14	45	100	60,10
	16	16	45	100	71,90

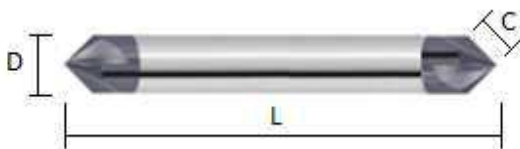
* NOTA: Se fabrican fresas de MDI especiales para cada cliente a precios muy competitivos.
Única condición: Cantidad mínima de pedido 5 unidades.

FRESA BISELADA CHAFLAN A 90° + TIALN

4Z

- Metal duro integral
- Con ángulo de 90 para desprendimiento suave del material
- Corte por ambos lados de la fresa

HRC55



D (mm)	Ángulo	L (mm)	C (mm)	PRECIO (€)
6	90	80	4,2	16,50
8		80	5,6	23,90
10		90	7,0	30,20
12		90	8,5	38,90

FRESA BISELADA CHAFLAN A 60° + TIALN

4Z

- Metal duro integral
- Con ángulo de 60 para desprendimiento suave del material
- Corte por ambos lados de la fresa

HRC55



D (mm)	Ángulo	L (mm)	C (mm)	PRECIO (€)
6	60	80	4,2	16,50
8		80	5,6	23,90
10		90	7,0	30,20
12		90	8,5	38,90

BROCA DE CENTRAR

MDI

DIN
333

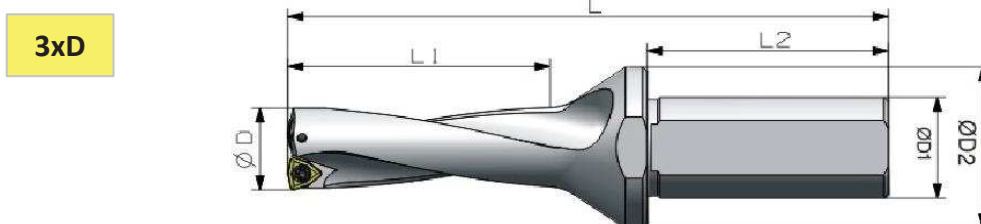
D1 (mm)	D (mm)	L (mm)	L1 (mm)	PRECIO (€)
2,5	6	55	4	12,10
3,15	8	60	5	16,80
4	10	60	6	26,40

BROCA HELICOIDAL CORTA

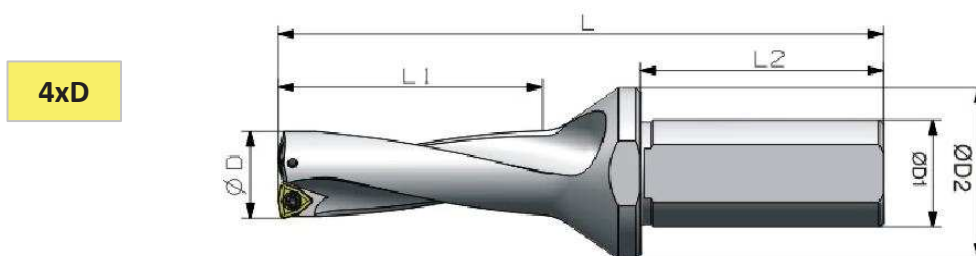
MDI



Ø BROCA (mm)	L1 (mm)	L (mm)	PRECIO (€)
2,5	14	43	4,80
3	15	50	5,01
3,3	18	49	5,01
4	20	55	5,04
4,2	22	55	6,20
4,5	25	55	6,20
5	26	62	6,72
5,2	26	62	7,10
6	28	66	10,58
6,8	34	74	14,77
7	34	74	14,77
8	37	79	19,76
8,5	37	79	23,71
9	40	84	23,71
10	43	89	32,41
10,2	43	89	35,57
11	47	95	35,57
12	51	102	40,07
12,5	51	102	41,90
14	55	105	46,10

BROCA DE PLAQUITA INTERCAMBIALBLE 3xD**PLACA TRIGONA**

D (mm)	PLAQUITAS	D1(mm)	L(mm)	L1(mm)	Tornillo	PRECIO (€)
16	WCMX 030208	25	129	52	M2,5x6,5	61,9
17			133	55		63
18			137	58		63
19			140	61		63
20	WCMX 040208		143	64		75
21			153	67		75
22			156	70		75
23			159	73		75
24			162	76		75
25	WCMX 050308		32	165		79
26		176		83	86,1	
27		180		86	103,3	
28		184		89	103,3	
29		188		92	103,3	
30		192		95	103,3	
31	WCMX 06T308	40	203	98	M3,5x8	103,3
32			206	101		103,3
33			209	104		103,3
34			212	107		103,3
35			215	110		110,2
36			218	113		110,2
37			221	116		110,2
38			225	119		110,2
39			228	122		110,2
40			231	125		110,2
41			234	128		126,2
42	WCMX 080412		239	131	M4x10	126,2
43			242	134		126,2
44			245	137		133,2
45			248	140		133,2
46			251	143		133,2
47			253	146		133,2
48			255	149		149,2
49			257	152		149,2
50			259	155		149,2
51			261	158		149,2
52			263	161		149,2
53			265	164		149,2
54			267	167		158,4
55			269	170		158,4
56			271	173		158,4
57			273	176		158,4
58		275	179	161,9		

BROCA DE PLAQUITA INTERCAMBIALBLE 4xD**PLACA TRIGONA**

D (mm)	PLAQUITAS	D ₁ (mm)	L(mm)	L ₁ (mm)	Tornillo	PRECIO (€)
16	WCMX 030208	25	142	69	M2,5x6,5	118,75
17			146	73		118,75
18			150	77		118,75
19			154	81		118,75
20	WCMX 040208		159	85		118,75
21			163	89		118,75
22			167	94		118,75
23			171	97		118,75
24			175	101		118,75
25	WCMX 050308		32	191		105
26		195		109	130,63	
27		199		113	130,63	
28		203		117	130,63	
29		207		121	130,63	
30		211		125	130,63	
31	WCMX 06T308	40	215	129	M3,5x8	130,63
32			219	133		130,63
33			223	137		130,63
34			227	141		130,63
35			231	145		142,50
36			235	149		142,50
37			239	153		142,50
38			243	157		142,50
39			247	161		142,50
40			251	165		142,50
41			255	169		154,38
42	WCMX 080412		259	173	M4x10	154,38
43			263	177		166,25
44			267	181		166,25
45			271	185		166,25
46			275	189		166,25
47			279	193		166,25
48			283	197		178,13
49			287	201		178,13
50			291	205		178,13
51		295	209	190,00		
52		299	213	190,00		
53		303	217	190,00		
54		307	221	190,00		
55		311	225	190,00		
56		315	229	190,00		
57		319	233	201,88		
58	323	237	201,88			

PLACAS PARA LAS BROCAS

REFERENCIA	CALIDAD	PLACA	PRECIO (€/Ud)
WCMX 030208	P10-P35 M10-M35		4,60
WCMX 040208			4,60
WCMX 050308			4,90
WCMX 06T308			5,10
WCMX 080412			6,65

NOTA:

- Disponemos de brocas de plaquita intercambiable de longitud 5xD.
- Y de broca de plaquita intercambiable con placa cuadrada.

ACCESORIOS

TORNILOS	PRECIO (€/Ud)
M2,5x6,5	1,8
M3x8	1,8
Mx3,5x8	1,8
M4x10	1,8
M4.5x12	1,8
M5x12	1,8

FRESADO CON PLAQUITAS

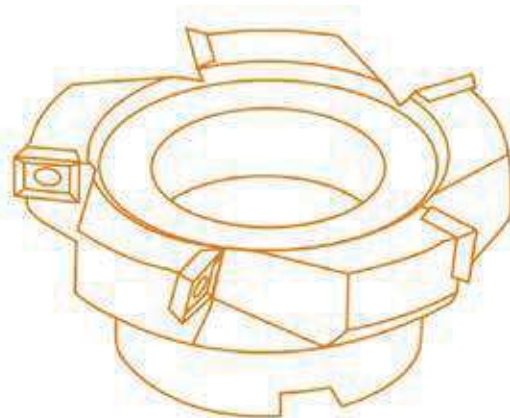
CÓDIGO CLAVE 20-21

FRESA DE PLACAS INTERCAMBIABLES	PAG.
FRESA FRONTAL	22-49
FRESA DE ESCUADRAR	50-67
FRESA DE CONTORNO	68-74
FRESA DE RANURADO	75-81
FRESA DE CHAFLÁN	82-84
FRESA FRONTAL HELICOIDAL	85-86

FRESADO CON PLAQUITAS

CÓDIGO CLAVE: FRESA DE PLACAS INTERCAMBIABLES

ÁNGULO DE AVANCE		TIPOS DE HERRAMIENTAS	
A	45°	F	FRESA FRONTAL
D	60°	E	FRESA DE ESCUADRAR
E	75°	C	FRESA DE CONTORNO
P	90°	R	FRESA DE RANURADO
Z	30°	A	FRESA DE ALTO AVANCE
PR	PLACA REDONDA	CH	FRESA DE CHAFLÁN
S	ESPECIAL	H	FRESA FRONTAL HELICOIDAL



1. ÁNGULO DE AVANCE

2. TIPOS DE HERRAMIENTAS

3. Nº DE TIPO

4. DIÁMETRO

A F 01. 050.

ESTRUCTURA DEL ADAPTADOR

A TIPO DE ADAPTADOR		B TIPO DE ADAPTADOR	

CIRCUNFERENCIA INSCRITA	FORMA DE LA CUCHILLA					
	C	D	R	S	T	L
5,556	-	-	-	-	09	-
6,350	06	07	-	-	11	-
9,525	09	11	09	09	16	-
12,700	12	15	12	12	22	-
15,875	16	19	15	15	27	-
19,050	19	-	19	19	33	-
25,400	25	-	25	25	44	25

DIRECCIÓN DE CORTE	R: DERECHA		CARA DE LA HTA
	L: IZQUIERDA		
LONGITUD DE LA HTA	S	CORTA	MANDRIL CORTADOR
	M	ESTÁNDAR	
	L	LARGA	
ANCHURA RANURA	H 12		FRESADO FRONTAL Y LATERAL
MECANIZADO PROFUNDO	104		FRESADO LATERAL HELICOIDAL

5. LONGITUD DE CORTE

12 A22.

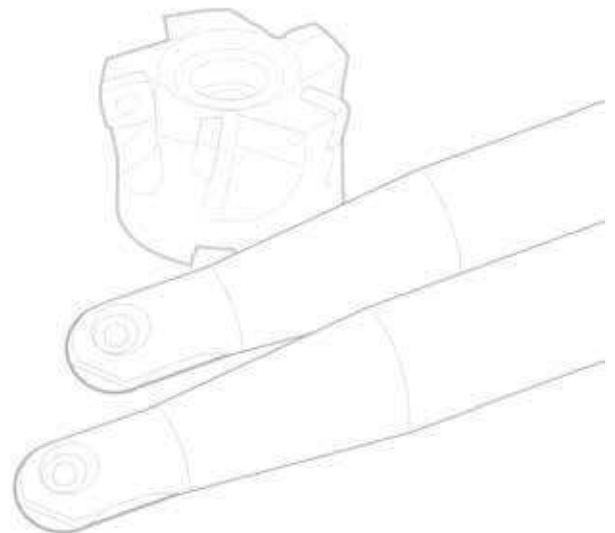
8. DIRECCIÓN DE CORTE

04. R

6. TIPO DE SUJECCIÓN DE LA HERRAMIENTA

A	A TIPO DE ADAPTADOR	W	WELDON
B	B TIPO DE ADAPTADOR	T	CABEZA DE CONVERSIÓN
C	C TIPO DE ADAPTADOR	MT	MORSE
D	D TIPO DE ADAPTADOR	BT	CONO BT
Z	MANGO CILÍNDRICO	J	RANURA

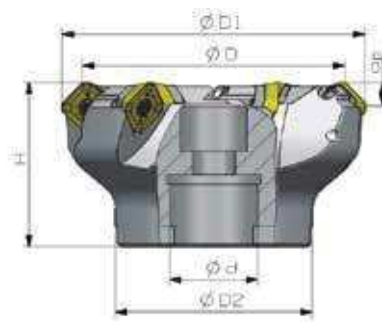
7. DIENTES / PLAQUITAS



AFO 1



KR:45°



PIEZAS DE RECAMBIO

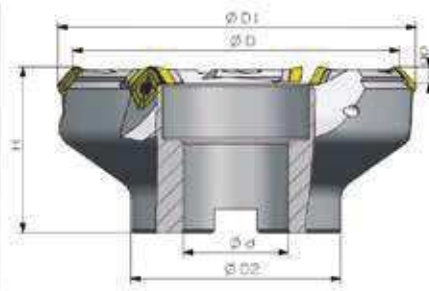
Placas aplicables	Placa base	Tornillo de ajuste	Tornillo	Llave	Llave
					
SEDT12T3	S13BS	SM0507	L60 M3,5X10	T15	S3.5

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
050.12A22.04	40	62,4	50	22	22	6	A	4	
063.12A22.05	50	75,4	63	22	22	6	A	5	
080.12A27.06	60	92,4	80	27	27	6	A	6	
100.12B32.07	70	112,4	100	32	32	6	B	7	
125.12B40.08	80	137,4	125	40	40	6	B	8	
160.12B40.10	100	172,4	160	40	40	6	B	10	
200.12C60.12	160	212,4	200	60	60	6	C	12	
250.12C60.14	200	262,4	250	60	60	6	C	14	
315.12D60.18	270	327,4	315	60	60	6	D	18	



KR:45°



PIEZAS DE RECAMBIO

Placas aplicables	Placa base	Tornillo de ajuste	Tornillo	Llave	Llave
					
SE□T12T3	S13B5	SM0507	L60 M3,5X10	T15	S3.5

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
050.12A22.03	40	62,4	50	22	40	6	A	3	
063.12A22.04	50	75,4	63	22	40	6	A	4	
080.12A27.04	60	92,4	80	27	50	6	A	4	
100.12B32.05	70	112,4	100	32	50	6	B	5	
125.12B40.06	80	137,4	125	40	63	6	B	6	

FRESADO CON PLAQUITAS

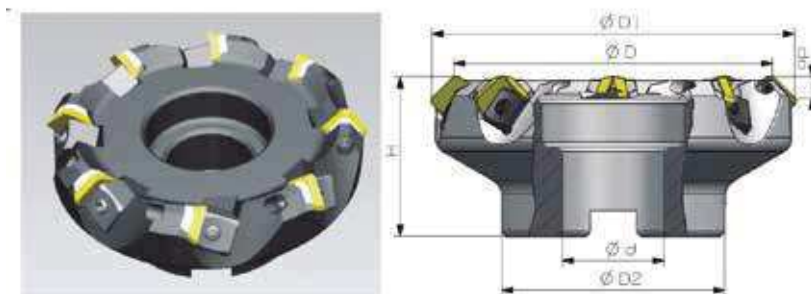
AIBER
HIGHTOOLS

FRESA FRONTAL

AF03



KR:45°



PIEZAS DE RECAMBIO

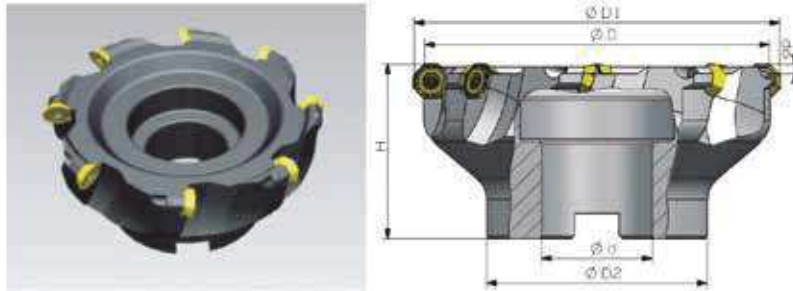
Placas aplicables	Placa base	Tornillo de ajuste	Tornillo	Brida	Llave	Llave
SE0N1203	S13BS	SM0507	WS0620	WST01	S3	S3.5

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
AF03									
080.12B27.04	60	92,4	80	27	50	5,5	B	4	
100.12B32.05	70	112,4	100	32	50	5,5	B	5	
125.12B40.06	80	137,4	125	40	63	5,5	B	6	
160.12B40.08	100	172,4	160	40	63	5,5	B	8	
200.12C60.10	160	212,4	200	60	63	5,5	C	10	
080.12B27.06	60	92,4	80	27	50	5,5	B	6	
100.12B32.08	70	112,4	100	32	50	5,5	B	8	
125.12B40.10	80	137,4	125	40	63	5,5	B	10	
160.12B40.12	100	172,4	160	40	63	5,5	B	12	
200.12C60.16	160	212,4	200	60	63	5,5	C	16	



KR:45°



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
ODKT05T3	L60 M4X10	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
050.05A22.04	40	56	50	22	40	3,5	A	4	
050.05A22.05	40	56	50	22	40	3,5	A	5	
063.05A22.05	50	69	63	22	40	3,5	A	5	
080.05A27.06	60	86	80	27	50	3,5	A	6	
100.05B32.07	70	106	100	30	50	3,5	B	7	
125.05B40.08	80	130	125	40	63	3,5	B	8	
160.05B40.10	100	165	160	40	63	3,5	B	10	
160.05C40.10	100	165	160	40	63	3,5	C	10	

FRESADO CON PLAQUITAS

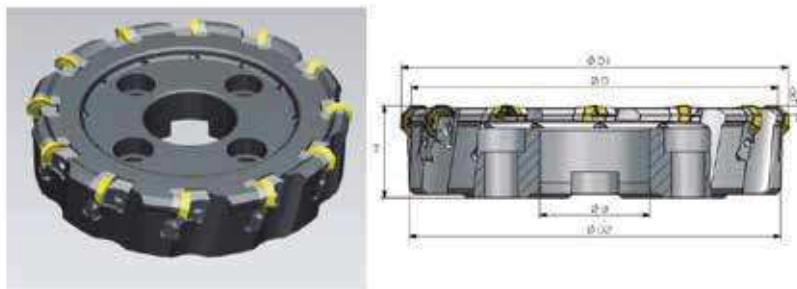
AIBER
HIGHTOOLS

FRESA FRONTAL

AF04



KR:45°



PIEZAS DE RECAMBIO

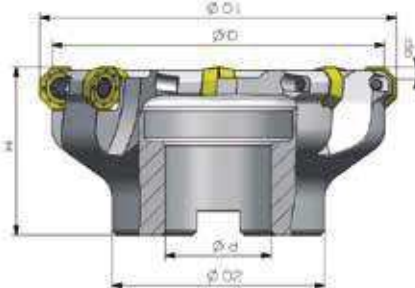
Placas aplicables	Porta brocas	Brida	Tornillo doble cabeza	Tornillo porta brocas	Tornillo de ajuste	Llave
DFKR0704	LOF07R/L	WST02	WS0820	LO M5X15	TM0608	S3 S4

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	N° de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
AF04									
080.07A27.05	60	91	80	27	63	5	A	5	
100.07B32.06	70	111	100	32	63	5	B	6	
125.07B40.08	80	136	125	40	63	5	B	8	
160.07B40.10	100	171	160	40	63	5	B	10	
200.07C60.12	204	211	200	60	50	5	C	12	
250.07C60.16	254	261	250	60	50	5	C	16	
315.07D60.20	319	321	315	60	50	5	C	20	



KR:45°


PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
00000605	L60 M5X12	T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
050.06A22.04	40	60	50	22	40	10	A	4	
063.06A22.05	50	73	63	22	40	10	A	5	
080.06A27.06	60	90	80	27	50	10	A	6	
100.06B32.07	70	110	100	100	50	10	B	7	
125.06B40.08	80	135	125	125	63	10	B	8	
160.06C40.09	100	170	160	160	63	10	C	9	

FRESADO CON PLAQUITAS

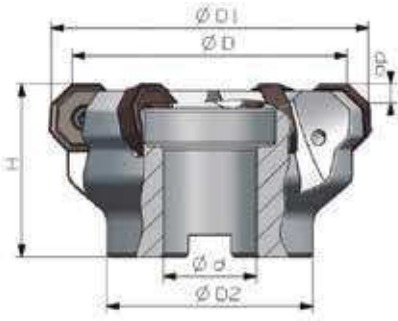


FRESA FRONTAL

AF06



KR:45°



PIEZAS DE RECAMBIO

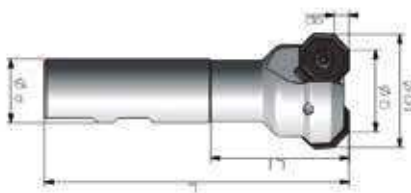
Placas aplicables	Tornillo	Llave
		
0N00060400	L60 M4X10	T15
0N0008T500	L60 M5X12	T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
050.06A22.05	40	62	50	22	40	4	A	5	
063.06A22.06	50	75	63	22	40	4	A	6	
080.06B27.07	60	92	80	27	50	4	B	7	
100.06B32.08	70	112	100	32	50	4	B	8	
125.06B40.09	80	137	125	40	63	4	B	9	
160.06C40.11	100	172	160	40	63	4	C	11	
200.06C60.13	160	212	200	60	63	4	C	13	
250.06C60.15	200	262	250	60	63	4	C	15	
315.06D60.17	270	327	315	60	63	4	D	17	
063.08A22.05	50	78	63	22	40	5	A	5	
080.08B27.06	60	95	80	27	50	5	B	6	
100.08B32.07	70	115	100	32	50	5	B	7	
125.08B40.08	80	140	125	40	63	5	B	8	
160.08C40.10	100	175	160	40	63	5	C	10	
200.08C60.12	160	215	200	60	63	5	C	12	
250.08C60.14	200	265	250	60	63	5	C	14	
315.08D60.16	270	330	315	60	63	5	D	16	



KR:45°



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
0N00060400	L60 M4X10	T15
0N0008T500	L60 M5X12	T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	N° de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
AF06									
025.06W20.02	37	25	20	100	45	4	W	2	
032.06W25.03	44	32	25	110	50	4	W	3	
040.06W32.04	52	40	32	120	55	4	W	4	
032.08W25.02	47	32	25	120	55	5	W	2	
040.08W32.03	55	40	32	120	55	5	W	3	
050.08W32.04	65	50	32	120	55	5	W	4	

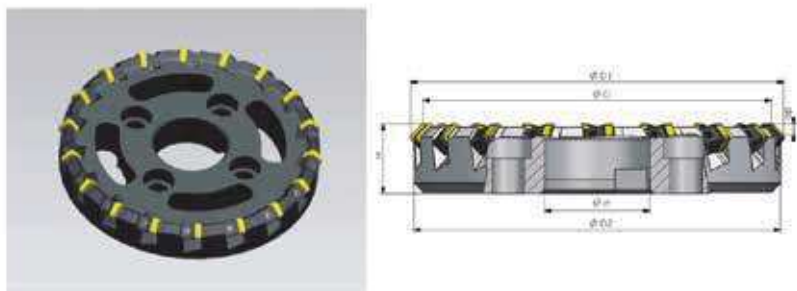
FRESADO CON PLAQUITAS

FRESA FRONTAL

AF07



KR:45°



PIEZAS DE RECAMBIO

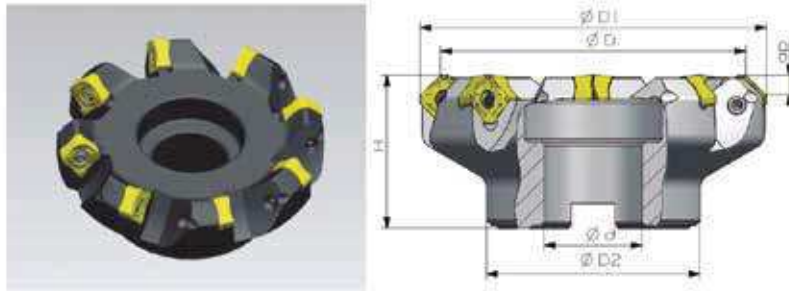
Placas aplicables	Brida	Tornillo	Llave
SN□N1204	WST01	WS0620	S3

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	N° de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
AF07									
200.12C60.18	209	215	200	60	40	5	C	18	
250.12C60.24	259	265	250	60	40	5	C	24	
315.12D60.30	324	330	315	60	40	5	D	30	
355.12D60.34	364	370	355	60	40	5	D	34	
400.12D60.38	409	415	400	60	40	5	D	38	
450.12D60.44	459	465	450	60	40	5	D	44	



KR:45°



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
SNEX1206ANN	L60 M4X10	T15

TIPO DE HERRAMIENTA

TIPO AF08	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
050.12A22.04	40	63	50	22	40	6	A	4	
063.12A22.06	50	76	63	22	40	6	A	6	
080.12B27.07	60	93	80	27	50	6	B	7	
100.12B32.08	70	113	100	32	50	6	B	8	
125.12B40.10	80	138	125	40	63	6	B	10	
160.12C40.12	100	173	160	40	63	6	C	12	
200.12C60.14	150	213	200	60	63	6	C	14	
250.12C60.16	160	263	250	60	63	6	C	16	

FRESADO CON PLAQUITAS

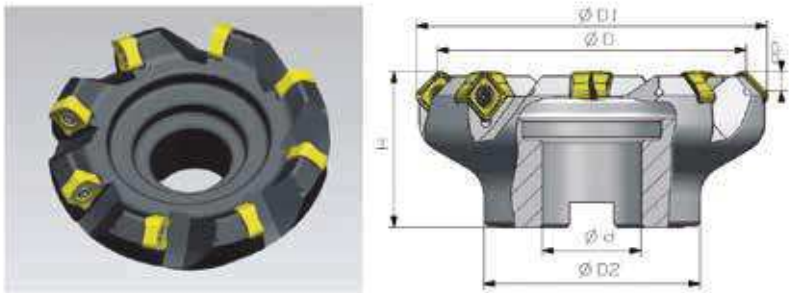


FRESA FRONTAL

AF09



KR:45°



PIEZAS DE RECAMBIO

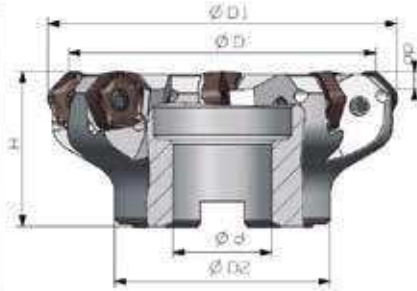
Placas aplicables	Tornillo	Llave
SNMX1205XTN	L60 M4X10	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€
AF09	ØD ₂	ØD ₁	ØD	Ød	H	ap			PRECIO
050.12A22.04	40	63	50	22	40	6	A	4	
063.12A22.05	50	76	63	22	40	6	A	5	
080.12B27.06	60	93	80	27	50	6	B	6	
100.12B32.08	70	113	100	32	50	6	B	8	
125.12B40.10	80	138	125	40	63	6	B	10	
160.12C40.14	100	173	160	40	63	6	C	14	
200.12C60.18	150	213	200	60	63	6	C	18	
250.12C60.20	160	263	250	60	63	6	C	20	



KR:45°



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
PNMU1205ANER	L60 M5X13	T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
063.12A22.05	50	76	63	22	40	5,5	A	5	
080.12B27.06	60	93	80	27	50	5,5	B	6	
100.12B32.08	70	113	100	32	50	5,5	B	8	
125.12B40.10	80	138	125	40	63	5,5	B	10	
160.12C40.12	100	173	160	40	63	5,5	C	12	
200.12C60.14	150	213	200	60	63	5,5	C	14	
250.12C60.16	160	263	250	60	63	5,5	C	16	

FRESADO CON PLAQUITAS

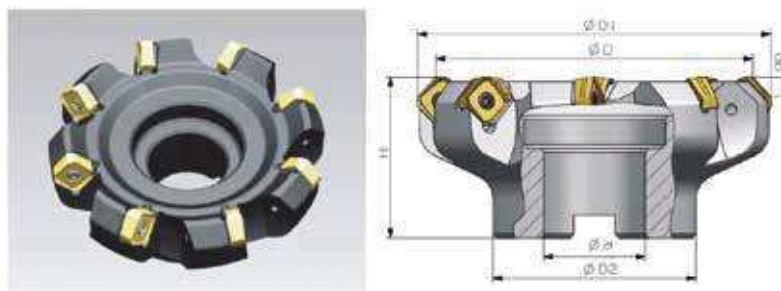
AIBER
HIGHTOOLS

FRESA FRONTAL

AFO 11



KR:45°



PIEZAS DE RECAMBIO

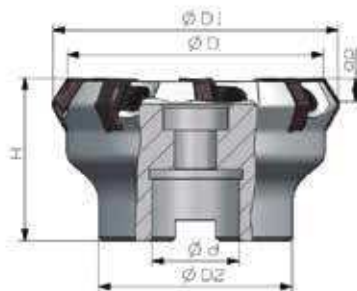
Placas aplicables	Tornillo	Llave
		
SNMU1305	L60 M5X13	T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
AFO 11									
050.13A22.04	50	64	50	22	40	7,5	A	4	
063.13A22.05	50	77	63	22	40	7,5	A	5	
080.13A27.06	60	94	80	27	50	7,5	A	6	
100.13B32.07	70	114	100	32	50	7,5	B	7	
125.13B40.08	80	139	125	40	63	7,5	B	8	
160.13C40.10	100	174	160	40	63	7,5	C	10	
200.13C60.14	150	214	200	60	63	7,5	C	14	
250.13C60.16	160	264	250	60	63	7,5	C	16	



KR:45°



PIEZAS DE RECAMBIO

Placas aplicables	Brida	Tornillo	Llave
HNEX0905	WST18	WS0620T	S3

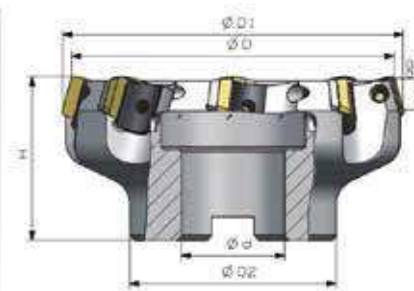
TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
DFO1									
080.09A27.08	60	88,5	80	27	50	8,5	A	8	
100.09B32.10	70	108,5	100	32	50	8,5	B	10	
125.09B40.14	80	133,5	125	40	63	8,5	B	14	
160.09B40.18	100	168,5	160	40	63	8,5	B	18	
200.09C60.22	150	208,5	200	60	63	8,5	C	22	
250.09C60.28	160	258,5	250	60	63	8,5	C	28	
315.09D60.32	270	323,5	315	60	63	8,5	D	32	

EF03



KR:75°

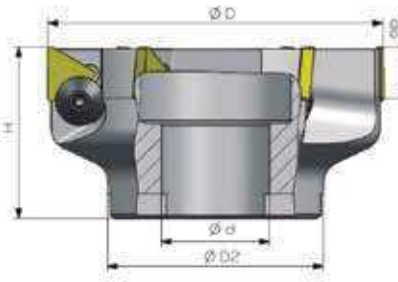
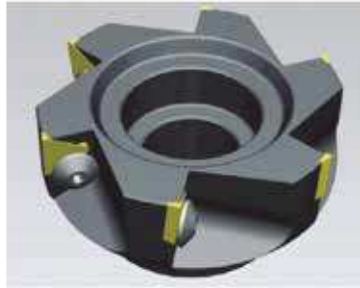


PIEZAS DE RECAMBIO

Diámetro	Placas aplicables	Placa base	Brida	Tornillo de ajuste	Tornillo	Llave
Ø80	 SPKN1504	 SP15BSX	 WST04	 SM0809	 WMD717T	 S4
Ø100~Ø160	SPKN1504	SP15BSX	WST04	SM0809	WMD722T	S4

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD ₁	ØD	Ød	H	ap			
EF03									
080.15A27.05	60	84	80	27	63	8	A	5	
100.15A32.07	70	104	100	32	63	8	A	7	
125.15B40.08	80	129	125	40	63	8	B	8	
160.15B40.10	100	164	160	40	63	8	B	10	


KR:90°

PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
TPKN2204	MY LBX18	S4

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD	Ød	H	ap			
PFO 1								
063.22A22.03	50	63	22	50	15	A	3	
080.22A27.04	60	80	27	50	15	A	4	
100.22B32.05	70	100	32	50	15	A	5	
125.22B40.06	80	125	40	63	15	B	6	
160.22B40.07	100	160	40	63	15	B	7	

FRESADO CON PLAQUITAS

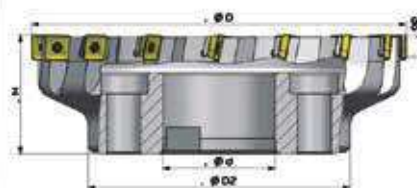


FRESA FRONTAL

PFO2



KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Placa base	Tornillo de ajuste	Tornillo	Llave	Llave
					
SEET120308PER	S12BSK	SM0507	L60 M3,5X10	T15	S3.5

TIPO DE HERRAMIENTA

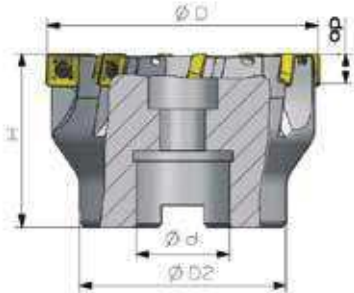
TIPO	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	ØD ₂	ØD	Ød	H	ap			
050.12A22.03	40	50	22	40	10	A	3	
063.12A22.04	50	63	22	40	10	A	4	
080.12A27.04	60	80	27	50	10	A	4	
100.12B32.05	70	100	32	50	10	B	5	
125.12B40.06	80	125	40	63	10	B	6	
160.12C40.08	100	160	40	63	10	C	8	
200.12C60.10	150	200	60	63	10	C	10	
250.12C60.12	160	250	60	63	10	C	12	

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
PFO1	ØD ₂	ØD	Ød	H	ap			
050.12A22.04	40	50	22	40	10	A	4	
063.12A22.05	50	63	22	40	10	A	5	
080.12A27.06	60	80	27	50	10	A	6	
100.12B32.07	70	100	32	50	10	B	7	
125.12B40.08	80	125	40	63	10	B	8	
160.12C40.12	100	160	40	63	10	C	12	
050.12A22.05	40	50	22	40	10	A	5	
063.12A22.06	50	63	22	40	10	A	6	
080.12A27.08	60	80	27	50	10	A	8	
100.12B32.10	70	100	32	50	10	B	10	
125.12B40.12	80	125	40	63	10	B	12	
160.12C40.14	100	160	40	63	10	C	14	
200.12C60.16	150	200	60	63	10	C	16	
250.12C60.18	160	250	60	63	10	C	18	
315.12D60.24	250	315	60	63	10	D	24	

PF02



KR:90°



PIEZAS DE RECAMBIO

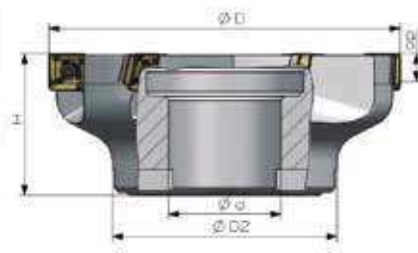
Placas aplicables	Tornillo	Llave
SEET09T308PER	L60 M3X7	T08

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD	Ød	H	ap			
PF02								
050.09A22.05	40	50	22	40	6,5	A	5	
063.09A22.06	50	63	22	40	6,5	A	6	
080.09A27.08	60	80	27	50	6,5	A	8	
100.09B32.08	70	100	32	50	6,5	B	8	
100.09B32.10	70	100	32	50	6,5	B	10	
125.09B40.12	80	125	40	63	6,5	B	12	



KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Placa base	Tornillo de ajuste	Tornillo	Llave	Llave
R290-12T308	S1285	SM0507	L60 M3,5X10	T15	S3.5

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	ØD ₂	ØD	Ød	H	ap			
PFO4								
050.12A22.03	40	50	22	40	9	A	3	
063.12A22.04	50	63	22	40	9	A	4	
080.12B27.04	60	80	27	50	9	B	4	
100.12B32.05	70	100	32	50	9	B	5	
125.12B40.06	80	125	40	63	9	B	6	
160.12C40.08	100	160	40	63	9	C	8	
200.12C60.10	150	200	60	63	9	C	10	
250.12C60.12	160	250	60	63	9	C	12	

FRESADO CON PLAQUITAS

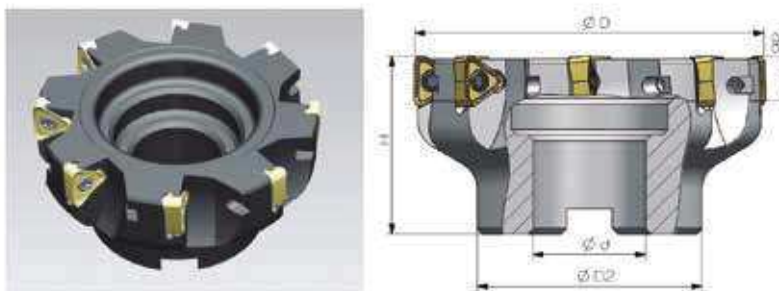


FRESA FRONTAL

PF05



KR:90°



PIEZAS DE RECAMBIO

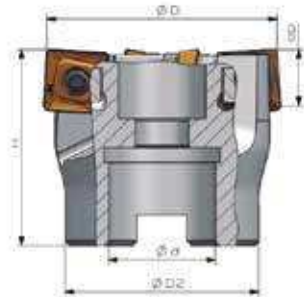
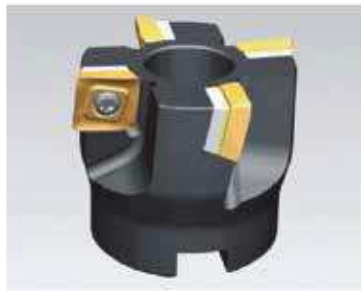
Placas aplicables	Tornillo	Llave
		
TNGX2207PNTN	L60 M5X12	T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€
PF05	ØD ₂	ØD	Ød	H	ap			PRECIO
080.22A27.05	60	80	27	50	14	A	5	
100.22B32.06	70	100	32	50	14	B	6	
125.22B40.08	80	125	40	63	14	B	8	
160.22C40.10	100	160	40	63	14	C	10	
200.22C60.12	150	200	60	63	14	C	12	
250.22C60.14	160	250	60	63	14	C	14	



KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Placa base	Tornillo de ajuste	Tornillo	Llave	Llave
SOMT12T308PEER	S12B5	SM0507	L60 M3,5X10	T15	S3.5

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	ØD ₂	ØD	Ød	H	ap			
050.12A22.04	40	50	22	40	10	A	4	
063.12A22.05	50	63	22	40	10	A	5	
080.12B27.06	60	80	27	50	10	B	6	
100.12B32.07	70	100	32	50	10	B	7	
125.12B40.08	80	125	40	63	10	B	8	
160.12C40.12	100	160	40	63	10	C	12	
200.12C60.16	150	200	60	63	10	C	16	
250.12C60.18	160	250	60	63	10	C	18	

FRESADO CON PLAQUITAS

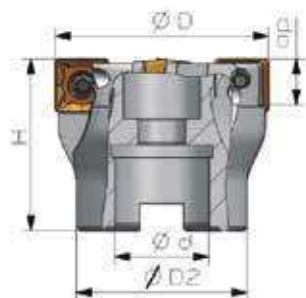


FRESA FRONTAL

PF07



KR:90°

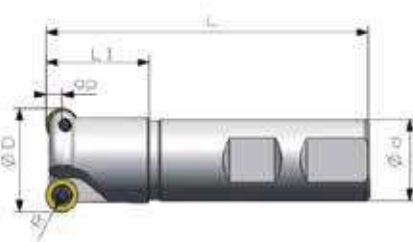


PIEZAS DE RECAMBIO

Placas aplicables	Placa base	Tornillo de ajuste	Tornillo	Llave	Llave
					
XDMT120408PDER	S12BS	SM0507	L60 M3,5X10	T15	S3.5

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD ₂	ØD	Ød	H	ap			
PF07								
050.12A22.04	40	50	22	40	10	A	4	
063.12A22.05	50	63	22	40	10	A	5	
080.12A27.06	60	80	27	50	10	A	6	
100.12B32.07	70	100	32	50	10	B	7	
125.12B40.08	80	125	40	63	10	B	8	
160.12C40.10	100	160	40	63	10	C	10	
200.12C60.12	150	200	60	63	10	C	12	



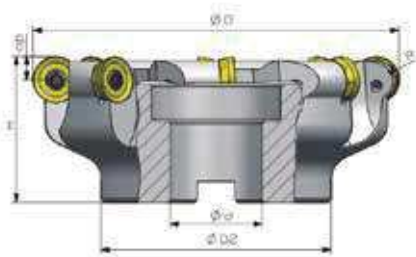
PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
RCKT10T3M3-DM	L60 M4X10	T15
RCKT1204MD-DR	L60 M4X10	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)						Adaptador	N° de dientes (Z)	€ PRECIO
	R	ØD	Ød	L	L1	ap			
PRFO1									
025.10W20.02	5	25	20	100	30	5	W	2	
032.10W25.02	5	32	25	120	35	5	W	2	
040.12W32.03	6	40	32	120	40	6	W	3	
050.12W32.03	6	50	32	120	40	6	W	3	

PRFO 1

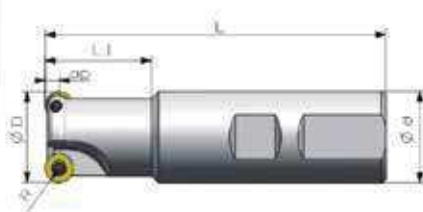


PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
RCKT1204MO-DR	L60 M4X10	T15
RCKT1606MO-DR	L60 M5X13	T20
RCKT2006MO-DR	L60 M6X16	T25

TIPO DE HERRAMIENTA

TIPO PRFO 1	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	R	ØD	Ød	H	ØD ₂	ap			
063.12A22.04	6	63	22	50	50	6	A	4	
080.16B27.05	8	80	27	50	60	8	B	5	
100.16B32.06	8	100	32	63	70	8	B	6	
125.20B40.07	10	125	40	63	80	10	B	7	
160.20B40.08	10	160	40	63	100	10	B	8	


PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
RDKW0803MD	L60 M3X7	T10
RDKW10T3MD	L60 M4X10	T15
RDKW1204MD	L60 M4X10	T15

TIPO DE HERRAMIENTA

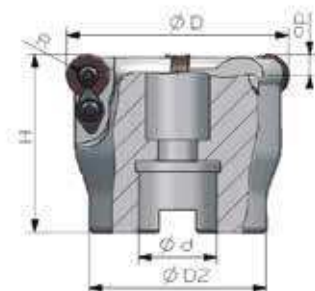
TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	R	ØD	Ød	L	L1	ap			
PRF01									
016.08W16.02	4	16	16	100	25	4	W	2	
025.08W25.02	4	25	25	100	30	4	W	2	
032.10W32.02	5	32	32	120	40	5	W	3	
040.12W32.03	6	40	40	120	40	6	W	4	
050.12W32.04	6	50	50	120	40	6	W	5	

FRESADO CON PLAQUITAS



FRESA FRONTAL

PRF02

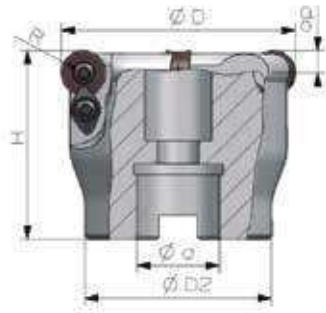


PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Brida	Llave
			
RDKW1204M0	L60 M4X10	WST204	T15
RDKW1602M0	L60 M5X13		T20
RDKW2006M0	L60 M6X16		T25

TIPO DE HERRAMIENTA

TIPO PRF02	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	R	ØD	Ød	H	ØD ₂	ap			
050.12A22.03	6	50	22	40	40	6	A	3	
063.12A22.04	6	63	22	40	50	6	A	4	
080.16B27.05	8	80	27	50	60	8	B	5	
100.16B32.06	8	100	32	50	70	8	B	6	
125.20B40.06	10	125	40	63	80	10	B	6	
160.20B40.07	10	160	40	63	100	10	B	7	



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Tornillo	Brida	Llave
				
RPMT08T2MOE	L60 M3X8	L60 M3X8	WD-202	T08
RPMW1003MD	L60 M3,5X10	L60 M4X10	WD-202	T15
RPMT10T3MOE	L60 M3,5X10	L60 M4X10	WD-202	T15
RPMWT1204MD	L80 M4X10	L80 M4X10	WD-204	T15

TIPO DE HERRAMIENTA

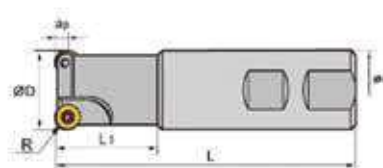
TIPO PRF03	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	R	ØD	Ød	H	ap			
050.10A22.04	5	50	22	40	5	A	4	
063.10A22.05	5	63	22	50	5	A	5	
080.10A27.06	5	80	27	50	5	A	6	
100.10B32.06	5	100	32	50	5	B	6	
050.12A22.04	6	50	22	40	6	A	4	
063.12A22.05	6	63	22	50	6	A	5	
080.12A27.06	6	80	27	50	6	A	6	
100.12B32.06	6	100	32	50	6	B	6	
125.12B32.06	6	125	32	63	6	B	6	
160.12B40.09	6	160	40	63	6	B	9	
100.16B32.06	6	200	60	63	6	C	9	
063.16A22.04	8	63	22	50	8	A	4	
080.16A22.05	8	80	22	50	8	A	5	
100.16B32.06	8	100	32	50	8	B	6	

FRESADO CON PLAQUITAS

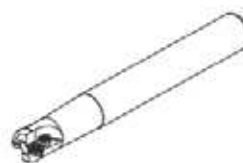
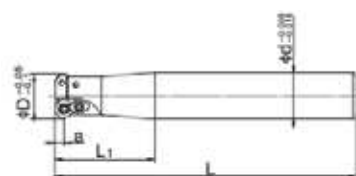


FRESA FRONTAL

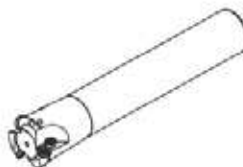
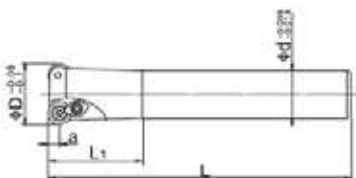
PRF03



TIPO A



TIPO B



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Tornillo	Brida	Llave
				
RPMT08T2M0E	L60 M3X8	L60 M3X8	WD-202	T08
RPMW1003M0	L60 M3,5X10	L60 M4X10	WD-202	T15
RPMT10T3M0E	L60 M3,5X10	L60 M4X10	WD-202	T15
RPMWT1204M0	L80 M4X10	L80 M4X10	WD-204	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	PRF03	ØD	Ød	L	L1	ap		
012.08Z12.01.120		12	12	120	40	4	A	1
013.08Z13.01.120		13	12	120	40	4	A	1
016.08Z16.02.120		16	16	120	40	4	A	2
016.08Z16.02.150		16	16	150	40	4	A	2
016.08Z15.02.150		16	15	150	40	4	A	2
017.08Z16.02.150		17	16	150	40	4	A	2
020.08Z20.02.150		20	20	150	50	4	A	2
021.08Z20.02.150		21	20	150	50	4	A	2
020.10Z20.02.150		20	20	150	50	5	A	2
021.10Z20.02.150		21	20	150	50	5	A	2
025.10Z25.02.150		25	25	150	50	5	A	2
025.10Z20.02.150		25	20	150	50	5	A	2
025.10Z24.02.150		25	24	150	50	5	A	2
025.10Z25.02.200		25	25	200	75	5	A	2
025.10Z20.02.200		25	20	200	50	5	B	2
025.10Z24.02.200		25	24	200	50	5	A	2
030.10Z25.02.150		30	25	150	50	5	B	2
030.10Z25.02.200		30	25	200	60	5	B	2
030.10Z25.02.250		30	25	250	60	5	B	2
035.10Z32.02.160		35	32	160	50	5	B	2
035.10Z32.02.200		35	32	200	50	5	B	2
035.10Z32.02.250		35	32	250	60	5	B	2
035.10Z32.03.300		35	32	300	60	5	B	3
035.10Z32.03.350		35	32	350	60	5	B	3
040.10Z32.03.160		40	32	160	50	5	B	3
040.10Z32.04.200		40	32	200	50	5	B	4
032.12Z25.02.160		32	25	160	50	6	B	2
032.12Z32.02.160		32	32	160	50	6	A	2
032.12Z25.02.200		32	25	200	60	6	B	2
032.12Z32.02.200		32	32	200	80	6	A	2
035.12Z32.03.160		35	32	160	50	6	B	3
035.12Z32.03.200		35	32	200	60	6	B	3
035.12Z32.03.250		35	32	250	60	6	B	3
035.12Z32.03.300		35	32	300	60	6	B	3
035.12Z32.03.350		35	32	350	60	6	B	3
040.12Z32.03.160		40	32	160	50	6	B	3
040.12Z32.03.200		40	32	200	50	6	B	3
040.12Z32.03.250		40	32	250	60	6	B	3
050.12Z32.03.200		50	32	200	60	6	B	3

FRESADO CON PLAQUITAS

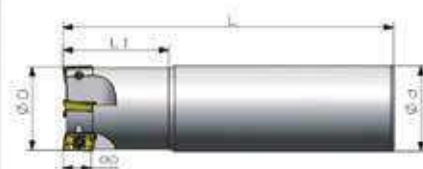
AIBER
HIGHTOOLS

FRESA DE ESCUADRAR

PEO 1



KR:90°

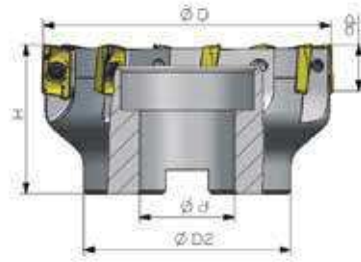


PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
APKT11T3□□	L60 M2,5X6,5	T08
APKT1604□□	L60 M4X10	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	Ød	L	L1	ap			
PEO 1								
012.11Z16.01	12	16	85	25	10,5	Z	1	
016.11Z16.02	16	16	90	25	10,5	Z	2	
016.11Z16.02	16	16	150	30	10,5	Z	2	
020.11Z20.02	20	20	100	30	10,5	Z	2	
020.11Z20.02	20	20	150	30	10,5	Z	2	
025.11Z25.03	25	25	115	35	10,5	Z	3	
025.11Z25.03	25	25	150	35	10,5	Z	3	
032.11Z32.04	32	32	125	40	10,5	Z	4	
012.11W16.01	12	16	85	25	10,5	W	1	
016.11W16.02	16	16	90	25	10,5	W	2	
020.11W20.02	20	20	100	30	10,5	W	2	
025.11W25.03	25	25	115	35	10,5	W	3	
032.11W32.04	32	32	125	40	10,5	W	4	
025.16Z25.02	25	25	115	35	15,5	Z	2	
032.16Z32.03	32	32	125	40	15,5	Z	3	
040.16Z32.04	40	32	130	42	15,5	Z	4	
025.16W25.02	25	25	115	35	15,5	W	2	
032.16W32.03	32	32	125	40	15,5	W	3	
040.16W32.04	40	32	130	42	15,5	W	4	


KR:90°

PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
APKT11T3□□	L60 M2,5X6,5	T08
APKT1604□□	L60 M4X10	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	N° de dientes (z)	€
PEO 1	ØD	Ød	ØD ₂	H	ap			PRECIO
050.11A22.06	50	22	40	40	11	A	6	
063.11A22.08	63	22	50	40	11	A	8	
080.11A27.08	80	27	60	50	11	A	8	
100.11B32.10	100	32	70	50	11	B	10	
040.16A16.04	40	16	35	40	15,5	A	4	
050.16A22.05	50	22	40	40	15,5	A	5	
063.16A22.06	63	22	50	40	15,5	A	6	
080.16A27.07	80	27	60	50	15,5	A	7	
100.16B32.08	100	32	70	50	15,5	B	8	
125.16B40.10	125	40	80	63	15,5	B	10	
160.16B40.10	160	40	100	63	15,5	B	10	

FRESADO CON PLAQUITAS

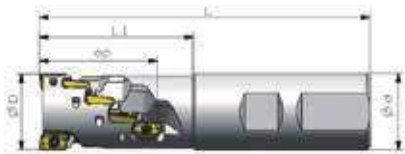


FRESA DE ESCUADRAR

PE02



KR:90°



PIEZAS DE RECAMBIO

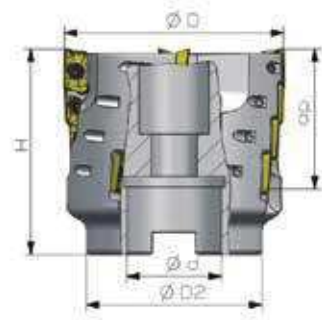
Placas aplicables	Tornillo	Llave
		
APKT11T3□□	L60 M2,5X6,5	T08

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	Ød	L	L1	ap			
PE02								
020.11W20.01	20	20	120	45	29	W	1	
025.11W25.02	25	25	130	55	39	W	2	
032.11W32.02	32	32	140	65	48	W	2	
040.11W32.02	40	32	150	75	55	W	2	



KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
APKT11T300	L60 M2,5X6,5	T08

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	ØD	Ød	ØD ₂	H	ap			
050.11A22.14	50	22	40	58	39	A	4	
063.11A27.04	63	27	50	58	39	A	4	
080.11B32.05	80	32	60	63	39	B	5	
100.11B40.06	100	40	70	63	39	B	6	

FRESADO CON PLAQUITAS

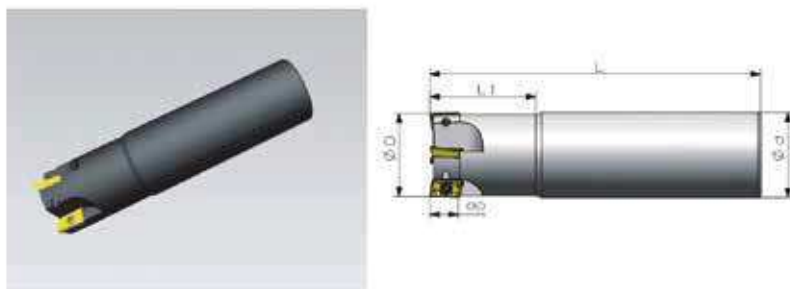
AIBER
HIGHTOOLS

FRESA DE ESCUADRAR

PE03



KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
APMT1135PDER	M2,5X5	T08
	M2,5X6	

PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
APMT1604PDER	M4X10	T15

TIPO DE HERRAMIENTA

TIPO						N° de dientes (Z)	€ PRECIO
	PE03	ØD	Ød	L	L1	H	
010.11Z10.01.130		10	10	130	30	9	1
011.11Z10.01.130		11	10	130	30	9	1
012.11Z12.01.130		12	12	130	30	9	1
013.11Z12.01.130		13	12	130	40	9	1
016.11Z16.02.130		16	16	130	40	9	2
016.11Z16.02.160		16	16	160	40	9	2
016.11Z16.02.200		16	16	200	40	9	2
017.11Z16.02.160		17	16	160	40	9	2
017.11Z16.02.200		17	16	200	40	9	2
020.11Z20.02.130		20	20	130	40	9	2
020.11Z20.02.160		20	20	160	50	9	2
020.11Z20.02.200		20	20	200	50	9	2
021.11Z20.02.160		21	20	160	75	9	2
021.11Z20.02.200		21	20	200	50	9	2
025.11Z25.02.160		25	25	160	50	9	2
025.11Z25.02.200		25	25	200	75	9	2
026.11Z25.02.160		26	25	160	50	9	2
026.11Z25.02.200		26	25	200	50	9	2
025.11Z25.02.160		25	25	160	50	9	2
025.16Z25.02.200		25	25	200	75	14	2
025.16Z25.02.250		25	25	250	75	14	2
026.16Z25.02.160		26	25	160	50	14	2
026.16Z25.02.200		26	25	200	50	14	2
026.16Z25.02.250		26	25	250	50	14	2
032.16Z25.02.160		32	25	160	50	14	2
032.16Z25.02.200		32	25	200	50	14	2
032.16Z32.03.160		32	32	160	80	14	3
032.16Z32.03.200		32	32	200	80	14	3
032.16Z32.03.250		32	32	250	80	14	3
032.16Z32.03.300		32	32	300	80	14	3
035.16Z32.03.160		35	32	160	81	14	3
035.16Z32.03.200		35	32	200	82	14	3
035.16Z32.03.250		35	32	250	50	14	3
035.16Z32.03.300		35	32	300	60	14	3
035.16Z32.03.350		35	32	350	60	14	3
035.16Z32.03.400		35	32	400	60	14	3
040.16Z32.03.200		40	32	200	50	14	3
040.16Z32.03.250		40	32	250	60	14	3
040.16Z32.03.300		40	32	300	60	14	3
040.16Z32.03.350		40	32	350	60	14	3
040.16Z32.03.400		40	32	400	60	14	3

FRESADO CON PLAQUITAS

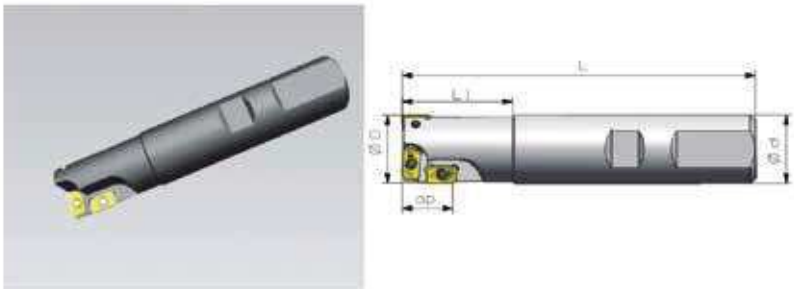


FRESA DE ESCUADRAR

PE03



KR:90°



PIEZAS DE RECAMBIO

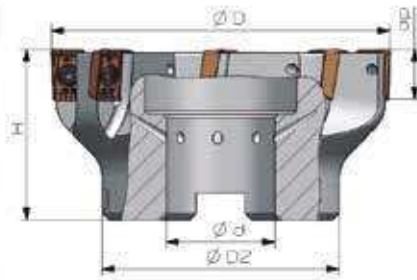
Placas aplicables	Tornillo	Llave
		
APMT113504PDER	L60 M2,5X6,5	T08
APMT160408PDER	L60 M4X10	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	Ød	L	L1	ap			
PE03								
025.11W25	25	25	130	40	20	W	3	
032.11W32	32	32	140	50	30	W	3	
040.16W32	40	32	150	60	40	W	4	



KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
LD00150400	L60 M3,5X12	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	ØD ₂	ØD	Ød	H	ap			
040.15A16.04	35	40	16	40	13	A	4	
050.15A22.05	40	50	22	40	13	A	5	
063.15A22.06	50	63	22	40	13	A	6	
080.15B27.07	60	80	27	50	13	B	7	
100.15B32.08	70	100	32	50	13	B	8	
125.15B40.10	80	125	40	63	13	B	10	
160.15B40.12	100	160	40	63	13	B	12	

FRESADO CON PLAQUITAS



FRESA DE ESCUADRAR

PE05



KR:90°

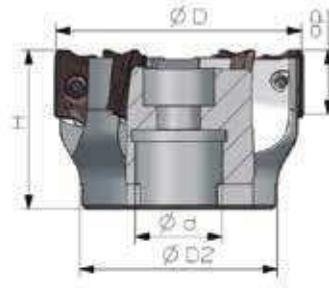


PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
APKT1705PER	L60 M4X10	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€
PE05	ØD	Ød	L	L1	ap			PRECIO
025.17W25.02	25	25	100	35	14	W	2	
025.17Z25.02	25	25	200	45	14	Z	2	
032.17W32.03	32	32	110	40	14	W	3	
032.17Z32.03	32	32	200	45	14	Z	3	
040.17W32.04	40	32	115	45	14	W	4	
040.17Z32.04	40	32	250	45	14	Z	4	


KR:90°

PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
APKT1705PER	L60 M4X10	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	ØD ₂	ØD	Ød	H	ap			
040.17A16.04	35	40	16	40	14	A	4	
050.17A22.05	40	50	22	40	14	A	5	
063.17A22.06	50	63	22	40	14	A	6	
080.17A27.07	60	80	27	50	14	A	7	
100.17B32.08	70	100	32	50	14	B	8	
125.17B40.09	80	125	40	63	14	B	9	
160.17C40.10	100	160	40	63	14	C	10	
200.17C60.12	150	200	60	63	14	C	12	

FRESADO CON PLAQUITAS



FRESA DE ESCUADRAR

PE06



KR:90°



PIEZAS DE RECAMBIO

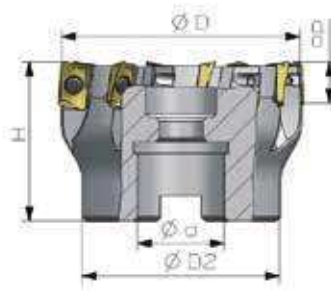
Placas aplicables	Tornillo	Llave
		
AXMT1235□□PEER	L60 M3X8	T08
AXMT1705□□PEER	L60 M4X8	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	Ød	L	L1	ap			
PE06								
016.12Z16.02.S	16	16	100	25	10	Z	2	
016.12Z16.02.M	16	16	145	25	10	Z	2	
020.12Z20.03.S	20	20	110	30	10	Z	3	
020.12Z20.03.M	20	20	150	40	10	Z	3	
025.12Z25.04.S	25	25	120	35	10	Z	4	
025.12Z25.04.M	25	25	170	50	10	Z	4	
032.12Z32.05.S	32	32	130	40	10	Z	5	
032.12Z32.05.M	32	32	180	60	10	Z	5	
040.12Z32.06.S	40	32	150	30	10	Z	6	
040.12Z32.06.M	40	32	180	30	10	Z	6	
025.17Z25.02.S	25	25	120	35	14	Z	2	
025.17Z25.02.M	25	25	170	50	14	Z	2	
032.17Z32.03.S	32	32	130	40	14	Z	3	
032.17Z32.03.M	32	32	180	60	14	Z	3	
040.17Z32.04.S	40	32	170	50	14	Z	4	
040.17Z32.04.M	40	32	220	50	14	Z	4	



KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
AXMT1235□□PEER	L60 M3X8	T08
AXMT1705□□PEER	L60 M4X8	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	ØD	Ød	ØD ₂	H	ap			
040.12A16.06	40	16	35	40	10	A	6	
050.12A22.07	50	22	40	40	10	A	7	
063.12A22.08	63	22	50	40	10	A	8	
040.17A16.04	40	16	35	40	14	A	4	
050.17A22.05	50	22	40	40	14	A	5	
063.17A22.06	63	22	50	40	14	A	6	
080.17A27.07	80	27	60	50	14	A	7	
100.17B32.08	100	32	70	50	14	B	8	
125.17B40.09	125	40	80	63	14	B	9	

FRESADO CON PLAQUITAS

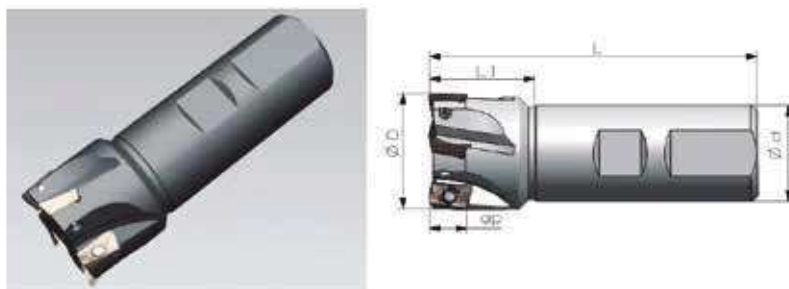


FRESA DE ESCUADRAR

PE08



KR:90°



PIEZAS DE RECAMBIO

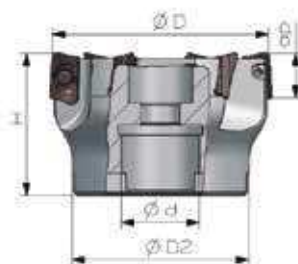
Placas aplicables	Tornillo	Llave
		
ADMT080304R	L60 M2,5X6,5	T08
		
ADMT120408R	L60 M3X8	T10

TIPO DE HERRAMIENTA

TIPO PE08	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	ØD	Ød	L	L1	ap			
016.08W16.02	16	16	90	34	8	W	2	
020.08W20.03	20	20	90	39	8	W	3	
025.08W25.04	25	25	100	43	8	W	4	
032.08W32.05	32	32	110	49	8	W	5	
040.08W32.06	40	32	110	49	8	W	6	
016.08Z16.02	16	16	180	34	8	Z	2	
020.08Z20.02	20	20	200	39	8	Z	2	
025.08Z25.03	25	25	200	43	8	Z	3	
025.12W25.03	25	25	100	43	11,5	W	3	
032.12W32.04	32	32	110	49	11,5	W	4	
040.12W32.05	40	32	110	49	11,5	W	5	
025.12Z25.03	25	25	200	43	11,5	Z	3	
032.12Z32.04	32	32	250	49	11,5	Z	4	
040.12Z32.05	40	32	250	49	11,5	Z	5	



KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
ADMT080304R	L60 M2,5X6,5	T08
ADMT120404R	L60 M3X7	T15
ADMT160608R	L60 M4X10	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	Ød	ØD ₂	H	ap			
040.08A16.06	40	16	35	40	8	A	6	
050.08A22.07	50	22	40	40	8	A	7	
040.12A16.05	40	16	35	40	11,5	A	5	
050.12A22.06	50	22	40	40	11,5	A	6	
063.12A22.07	63	22	50	40	11,5	A	7	
080.12A27.08	80	27	60	50	11,5	A	8	
040.16A16.04	40	16	35	40	15	A	4	
050.16A22.05	50	22	40	40	15	A	5	
063.16A22.06	63	22	50	40	15	A	6	
080.16A27.07	80	27	60	50	15	A	7	
100.16B32.08	100	32	70	50	15	B	8	
125.16B40.10	125	40	80	63	15	B	10	
160.16C40.12	160	40	100	63	15	C	12	

FRESADO CON PLAQUITAS

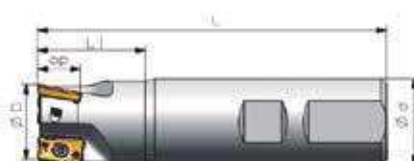


FRESA DE ESCUADRAR

PE09



KR:90°



PIEZAS DE RECAMBIO

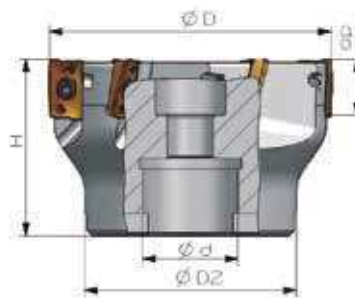
Placas aplicables	Tornillo	Llave
		
R390-11T300	L60 M2,5X6,5	T08
R390-170400	L60 M3,5X10	T10

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	ØD	Ød	L	L1	ap			
PE09								
016.11Z16.02	16	16	100	16	10	Z	2	
020.11Z20.02	20	20	110	20	10	Z	2	
025.11Z25.03	25	25	120	32	10	Z	3	
032.11Z32.03	32	32	130	40	10	Z	3	
040.11Z32.04	40	32	170	50	10	Z	4	
016.11W16.02	16	16	73	25	10	W	2	
020.11W20.02	20	20	81	25	10	W	2	
025.11W25.03	25	25	88	32	10	W	3	
032.11W32.03	32	32	100	40	10	W	3	
040.11W32.04	40	32	110	50	10	W	4	
025.17Z25.02	25	25	120	32	15,7	Z	2	
032.17Z32.03	32	32	130	40	15,7	Z	3	
032.17Z40.03	40	32	170	50	15,7	Z	3	
025.17W25.02	25	25	88	32	15,7	W	2	
032.17W32.03	32	32	100	40	15,7	W	3	
032.17W40.03	40	32	110	50	15,7	W	3	



KR:90°


PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
R390-11T300	L60 M2,5X6,5	T08
R390-170400	L60 M3,5X10	T10

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	Ød	ØD ₂	H	ap			
PE09								
040.11A16.04	40	16	35	40	10	A	4	
050.11A22.05	50	22	40	40	10	A	5	
063.11A22.06	63	22	50	40	10	A	6	
080.11A27.07	80	27	60	50	10	A	7	
040.17A16.03	40	16	35	40	15,7	A	3	
063.17A22.05	63	22	50	40	15,7	A	5	
100.17B32.07	100	32	70	50	15,7	B	7	

FRESADO CON PLAQUITAS

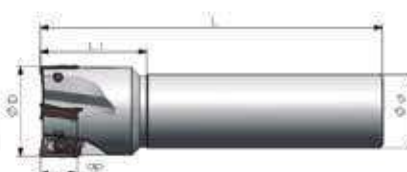


FRESA DE ESCUADRAR

PE 10



KR:90°



PIEZAS DE RECAMBIO

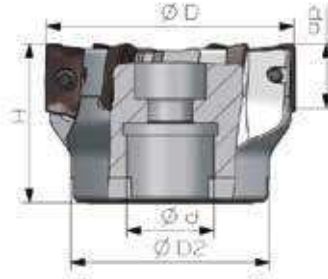
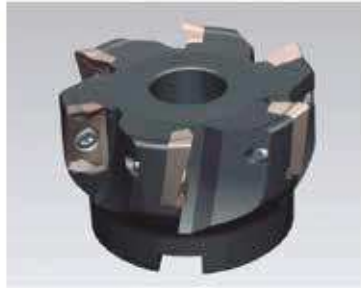
Placas aplicables	Tornillo	Llave
		
BDMT1103000ER	L60 M2,5X6,5	T08
		
BDMT1704000ERV	L60 M4X8	T10

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€
PE 10	ØD	Ød	L	L1	ap			PRECIO
016.11Z16.02	16	16	100	30	10	Z	2	
020.11Z20.03	20	20	110	32	10	Z	3	
025.11Z25.03	25	25	120	32	10	Z	3	
032.11Z32.04	32	32	130	40	10	Z	4	
025.17Z25.02	25	25	120	36	15,7	Z	2	
032.17Z32.03	32	32	130	40	15,7	Z	3	
040.17Z32.04	40	32	150	40	15,7	Z	4	



KR:90°


PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
BDMT1103□□ER	L60 M2,5X6,5	T08
BDMT1704□□ER	L60 M4X8	T15

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	Ød	ØD ₂	H	ap			
050.11A22.07	50	22	40	40	10	A	7	
063.11A22.08	63	22	50	40	10	A	8	
080.11A22.10	80	27	60	50	10	A	10	
050.17A22.05	50	22	40	40	15,7	A	5	
063.17A22.06	63	22	50	40	15,7	A	6	
080.17A27.08	80	27	60	50	15,7	B	8	
100.17B32.09	100	32	70	50	15,7	B	9	

FRESADO CON PLAQUITAS

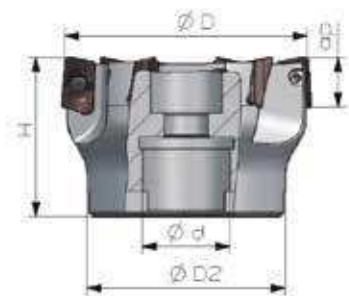


FRESA DE ESCUADRAR

PE 1 1



KR:90°



PIEZAS DE RECAMBIO

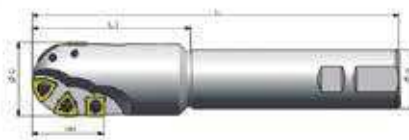
Placas aplicables	Tornillo	Llave
		
APKT100304PDER	L60 M2,5X6,5	T08

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	N° de dientes (Z)	€ PRECIO
	ØD	Ød	ØD ₂	H	ap			
PE 1 1								
040.10A16.05	40	16	32	40	8	A	5	
050.10A22.06	50	22	40	40	8	A	6	
063.10S22.07	63	22	50	40	8	A	7	
080.10A27.08	80	27	60	50	8	A	8	
100.10B32.10	100	32	70	50	8	B	10	



KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Placas aplicables	Tornillo	Llave
ZDET08T2CYR10	SPMT060304	L60 M2,5X5	T08
ZDET1103CYR12.5	SPMT060304	L60 M2,5X5	T08
ZDET13T3CYR16	SDMT090308	L60 M4X8	T15
ZPNT2204CYR20	SPMT120408	L60 M5X13	T20

TIPO DE HERRAMIENTA

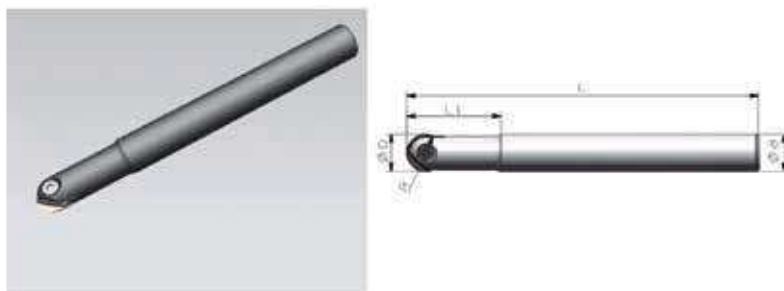
TIPO	Dimensiones (mm)					Adaptador	N° de dientes (z)	€ PRECIO
	ØD	Ød	L	L1	ap			
PRC01								
020.20W20.S	20	20	125	50	20	W	4	
020.20W20.M	20	20	150	75	20	W	4	
020.20W20.L	20	20	200	100	20	W	4	
025.25W25.S	25	25	150	70	23	W	4	
025.25W25.M	25	25	175	95	23	W	4	
025.25W25.L	25	25	200	100	23	W	4	
032.32W32.S	32	32	175	85	31	W	4	
032.32W32.M	32	32	200	100	31	W	4	
032.32W32.L	32	32	250	150	31	W	4	
040.40W32.S	40	32	175	50	41	W	5	
040.40W32.M	40	32	200	50	41	W	5	
040.40W32.L	40	32	250	50	41	W	5	

FRESADO CON PLAQUITAS



FRESA DE CONTORNO

PRC03



PIEZAS DE RECAMBIO

Diámetro	Placas aplicables	Tornillo	Llave
			
Ø 12	ZOHX1203	L90 M4X10TT	T15
Ø 16	ZOHX1604	L90 M5X13TT	T20
Ø 20	ZOHX2005	L90 M5X13,5TT	T20
Ø 25	ZOHX2506	L70 M6X20TT	T20
Ø 30	ZOHX3007	L70 M8X25TT	T30S
Ø 32	ZOHX3207	L70 M8X25TT	T30S

TIPO DE HERRAMIENTA

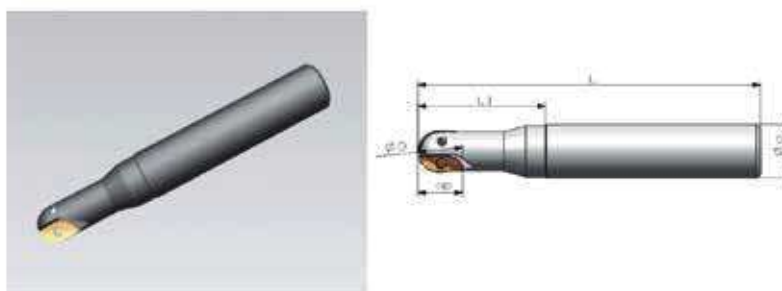
TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€
PRC03	ØD	Ød	L	L1	R			PRECIO
012.12Z12.M	12	12	125	35	6	Z	1	
012.12Z12.L	12	12	150	45	6	Z	1	
012.12Z16.M	12	16	125	50	6	Z	1	
012.12Z16.L	12	16	150	70	6	Z	1	
016.16Z16.M	16	16	150	40	8	Z	1	
016.16Z16.L	16	16	180	55	8	Z	1	
016.16Z20.M	16	20	150	60	8	Z	1	
016.16Z20.L	16	20	180	80	8	Z	1	
020.20Z20.M	20	20	180	65	10	Z	1	
020.20Z20.L	20	20	250	100	10	Z	1	
020.20Z25.M	20	25	180	75	10	Z	1	
020.20Z25.L	20	25	200	95	10	Z	1	
025.25Z25.M	25	25	200	70	12.5	Z	1	
025.25Z25.L	25	25	250	100	12.5	Z	1	
025.25Z32.M	25	32	200	90	12.5	Z	1	
025.25Z32.L	25	32	250	110	12.5	Z	1	
030.30Z32.M	30	32	250	80	15	Z	1	
030.30Z32.L	30	32	300	110	15	Z	1	
032.32Z32.M	32	32	250	80	15	Z	1	
032.32Z32.L	32	32	300	110	15	Z	1	

FRESADO CON PLAQUITAS



FRESA DE CONTORNO

PRC04

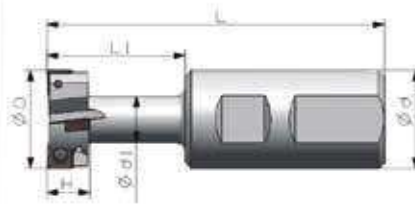


PIEZAS DE RECAMBIO

Placas aplicables	Placas aplicables	Tornillo	Llave
			
ZNMT1804100-C	ZNMT2004100-S	L60 M3X7	T10
ZNMT2205125-C	ZNMT2305125-S	L60 M4X10	T15
ZNMT2706150-C	ZNMT2806150-S	L60 M4X10 L60 M5X12	T15 T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	Ød	L	L1	ap			
PRC04								
020.20Z25.S	20	25	140	60	20	Z	2	
020.20Z25.M	20	25	200	60	20	Z	2	
020.20Z25.L	20	25	250	80	20	Z	2	
025.25Z32.S	25	32	150	70	23	Z	2	
025.25Z32.M	25	32	220	75	23	Z	2	
025.25Z32.L	25	32	300	100	23	Z	2	
030.30Z32.S	30	32	160	80	28	Z	2	
030.30Z32.M	30	32	240	85	28	Z	2	
030.30Z32.L	30	32	350	120	28	Z	2	



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
MPHT060304-DM	L60 M2,5X6,5	T08
MPHT080305-DM	L60 M3X7	T10
MPHT120408-DM	L60 M5X10	T20

TIPO DE HERRAMIENTA

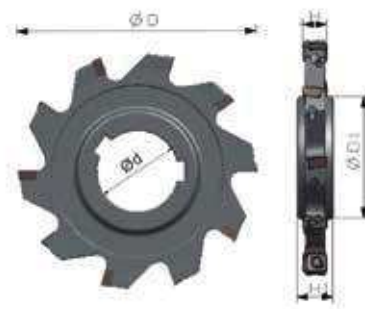
TIPO	Dimensiones (mm)						Nº de dientes (Z)	€ PRECIO
	ØD	Ød	Ød1	L	L1	H		
PRO 1								
021.06W25.01.H9	21	25	10	100	32	9	1	
025.06W25.01.H11	25	25	12	100	35	11	1	
032.08W32.02.H14	32	32	15	110	45	14	1	
040.12W32.02.H18	40	32	19	125	55	18	2	
050.12W40.02.H22	50	40	25	140	65	22	2	

FRESADO CON PLAQUITAS

AIBER
HIGHTOOLS

FRESA DE RANURADO

PRO 1

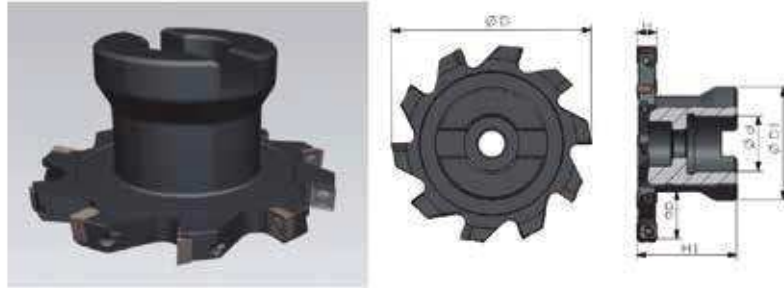


PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
MPHT060304-DM	L60 M2,5X6,5	T08
MPHT080305-DM	L60 M3X7	T10
MPHT120408-DM	L60 M5X10	T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Nº de dientes (Z)	€ PRECIO
	ØD	ØD1	Ød	H1	H		
PRO 1							
080.06J27.10.H8	80	41	27	12	8	10	
100.06J32.14.H8	100	47	32	12	8	14	
100.06J32.14.H10	100	47	32	14	10	14	
125.06J40.16.H10	125	55	40	14	10	16	
125.08J40.12.H12	125	55	40	16	12	12	
160.08J40.14.H12	160	62	40	16	12	14	
160.12J40.12.H16	160	62	40	20	16	12	
160.12J40.12.H18	160	62	40	24	18	12	
160.12J40.12.H20	160	62	40	26	20	12	
200.12J50.14.H16	200	72	50	20	16	14	
200.12J50.14.H18	200	72	50	14	18	14	
200.12J50.14.H20	200	72	50	16	20	14	



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
MPHT060304-DM	L60 M2,5X6,5	T08
MPHT080305-DM	L60 M3X7	T10
MPHT120408-DM	L60 M5X10	T20

TIPO DE HERRAMIENTA

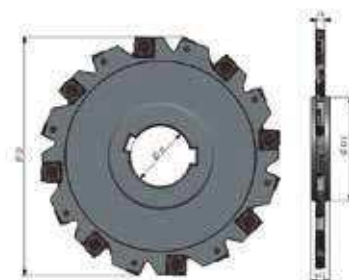
TIPO	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	ØD1	Ød	H1	H	ap			
PRO 1									
080.06A22.10.H8	80	45	22	40	8	21	A	10	
100.06B27.14.H8	100	55	27	40	8	24	B	14	
100.06B27.14.H10	100	55	27	40	10	24	B	14	
125.06B32.16.H10	125	65	32	45	10	33	B	16	
125.08B32.12.H12	125	65	32	45	12	33	B	12	
160.08B40.14.H12	160	80	40	45	12	45	B	14	
200.08C40.18.H12	200	92	40	50	12	53	C	18	
125.12B32.10.H16	125	65	32	50	16	30	B	10	
160.12B40.12.H16	160	80	40	60	16	45	B	12	
160.12B40.12.H18	160	80	40	60	18	45	B	12	
200.12C40.14.H16	200	92	40	50	16	53	C	14	
200.12C40.14.H18	200	92	40	50	18	53	C	14	
200.12C40.14.H20	200	92	40	50	20	53	C	14	

FRESADO CON PLAQUITAS



FRESA DE RANURADO

PRO2



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
XSEQ1202	L91 M4X3,3X	T10
XSEQ1203	L91 M4X4,3X	T10
XSEQ12T3	L91 M4X5,3X	T10
XSEQ1204	L91 M4X6,3X	T10
XSEQ12T4	L91 M4X7,3X	T10

TIPO DE HERRAMIENTA

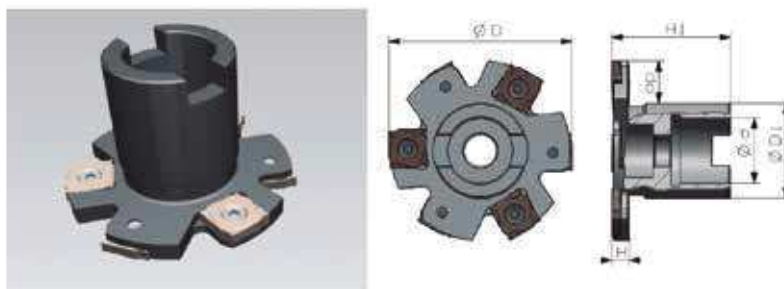
TIPO PROZ	Dimensiones (mm)					N° de dientes (Z)	€ PRECIO
	ØD	ØD1	Ød	H1	H		
100.12J27.10.H4	100	40,7	27	12	4	10	
125.12J40.12.H4	125	50,5	40	12	4	12	
160.12J40.16.H4	160	66,7	40	12	4	16	
100.12J27.10.H5	100	45	27	12	5	10	
125.12J40.12.H5	125	58	40	12	5	12	
160.12J40.16.H5	160	68	40	12	5	16	
100.12J27.10.H6	100	45	27	12	6	10	
125.12J40.12.H6	125	58	40	12	6	12	
160.12J40.16.H6	160	68	40	12	6	16	
200.12J50.18.H6	200	67,7	50	12	6	18	
250.12J50.24.H6	250	72	50	12	6	24	
100.12J27.10.H7	100	45	27	12	7	10	
125.12J40.12.H7	125	58	40	12	7	12	
160.12J40.16.H7	160	68	40	12	7	16	
200.12J50.18.H7	200	72	50	12	7	18	
250.12J50.24.H7	250	72	50	12	7	24	
100.12J27.10.H8	100	45	27	12	8	10	
125.12J40.12.H8	125	58	40	12	8	12	
160.12J40.16.H8	160	68	40	12	8	16	
200.12J50.18.H8	200	72	50	12	8	18	
250.12J50.24.H8	250	72	50	12	8	24	

FRESADO CON PLAQUITAS



FRESA DE RANURADO

PRO2



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
XSEQ1202	L91 M4X3,3X	T10
XSEQ1203	L91 M4X4,3X	T10
XSEQ12T3	L91 M4X5,3X	T10
XSEQ1204	L91 M4X6,3X	T10
XSEQ12T4	L91 M4X7,3X	T10

TIPO DE HERRAMIENTA

TIPO PRO2	Dimensiones (mm)						Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	ØD1	Ød	H1	H	ap			
063.12A22.06.H4	63	40	22	50	4	10	A	6	
080.12A22.08.H4	80	40	22	50	4	18	A	8	
100.12A27.10.H4	100	48	27	50	4	23	A	10	
063.12A22.06.H5	63	40	22	50	5	10	A	6	
080.12A22.08.H5	80	40	22	50	5	18	A	8	
100.12A27.10.H5	100	48	27	50	5	23	A	10	
063.12A22.06.H6	63	40	22	50	6	10	A	6	
080.12A22.08.H6	80	40	22	50	6	18	A	8	
100.12A27.10.H6	100	48	27	50	6	23	A	10	
125.12B40.12.H6	125	70	40	50	6	24	B	12	
160.12B40.16.H6	140	70	40	50	6	41	B	16	
063.12A22.06.H7	63	40	22	50	7	10	A	6	
080.12A22.08.H7	80	40	22	50	7	18	A	8	
100.12A27.10.H7	100	48	27	50	7	23	A	10	
125.12B40.12.H7	125	70	40	50	7	24	B	12	
160.12B40.16.H7	140	70	40	50	7	41	B	16	
063.12A22.06.H8	63	40	22	50	8	10	A	6	
080.12A22.08.H8	80	40	22	50	8	18	A	8	
100.12A27.10.H8	100	48	27	50	8	23	A	10	
125.12B40.12.H8	125	70	40	50	8	24	B	12	
160.12B40.16.H8	140	70	40	50	8	41	B	16	

FRESADO CON PLAQUITAS

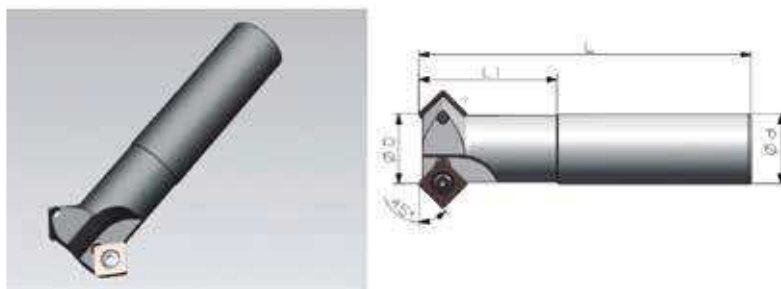
AIBER
HIGHTOOLS

FRESA DE CHAFLÁN

ACH01



KR:45°



PIEZAS DE RECAMBIO

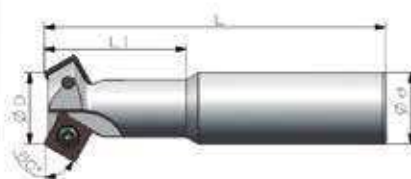
Placas aplicables	Tornillo	Llave
SPMT120408	L60 M5X13	T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)				Adaptador	N° de dientes (Z)	€ PRECIO
	ØD	Ød	L	L1			
ACH01							
012.12Z20.01	12	20	100	40	Z	1	
012.12W20.01	12	20	100	40	W	1	
025.12Z25.02	25	25	120	40	Z	2	
025.12W25.02	25	25	120	40	W	3	
032.12Z32.03	32	32	180	40	Z	4	
032.12W32.03	32	32	180	40	W	4	



KR:60°


PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
SPMT120408	L60 M5X13	T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)				Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	Ød	L	L1			
DCH01							
012.12Z20.01	12	20	100	40	Z	1	
012.12W20.01	12	20	100	40	W	1	
025.12Z25.02	25	25	120	40	Z	2	
025.12W25.02	25	25	120	40	W	3	
032.12Z32.03	32	32	180	40	Z	4	
032.12W32.03	32	32	180	40	W	4	

FRESADO CON PLAQUITAS

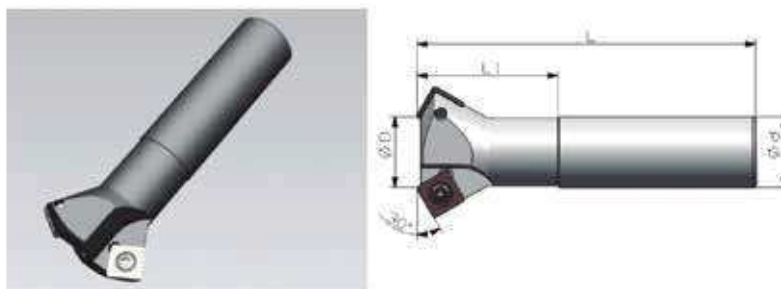


FRESA DE CAFLÁN

ZCH01



KR:30°



PIEZAS DE RECAMBIO

Placas aplicables	Tornillo	Llave
		
SPMT120408	L60 M5X13	T20

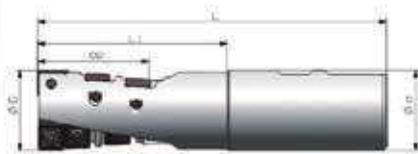
TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)				Adaptador	Nº de dientes (Z)	€ PRECIO
	ØD	Ød	L	L1			
ZCH01							
012.12Z20.01	12	20	100	40	Z	1	
012.12W20.01	12	20	100	40	W	1	
025.12Z25.02	25	25	120	40	Z	2	
025.12W25.02	25	25	120	40	W	3	
032.12Z32.03	32	32	180	40	Z	4	
032.12W32.03	32	32	180	40	W	4	



PH01

KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Placa corte lateral	Tornillo	Llave
			
WNMX09T3T6ZNN-MN	SPMT120408	L60 M5X13	T20

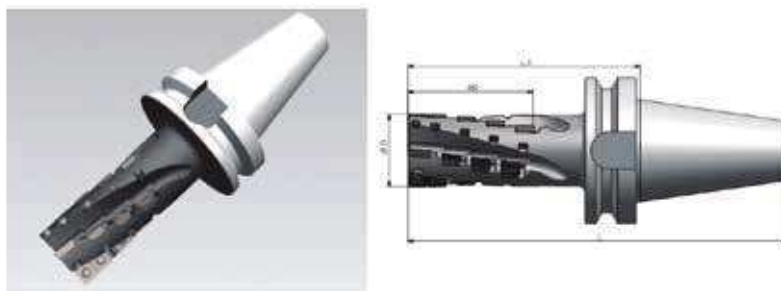
TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)					Adaptador	Nº de dientes (Z)	€
PH01	ØD	ØD	Ød	H	ap			PRECIO
040.12W40.02.E55	40	40	175	95	55	W	2	
050.12W40.02.E55	50	40	172	95	55	W	2	

PH02



KR:90°



PIEZAS DE RECAMBIO

Placas aplicables	Placa corte lateral	Tornillo	Llave
WNMX09T3T6ZNN-MN	SPMT120408	L60 M5X13	T20

TIPO DE HERRAMIENTA

TIPO	Dimensiones (mm)				Adaptador	N° de dientes (Z)	€ PRECIO
	ØD	L1	L	ap			
PH02							
050.12JT50.04.084	50	246,75	145	84	JT50	4	
063.12JT50.04.074	63	136,75	135	74	JT50	4	
063.12JT50.04.104	63	266,75	165	104	JT50	4	
063.12JT50.04.134	63	296,75	195	134	JT50	4	
080.12JT50.04.104	80	266,75	165	104	JT50	4	
080.12JT50.04.144	80	306,75	205	144	JT50	4	
050.12BT50.04.084	50	246,75	145	84	BT50	4	
063.12BT50.04.074	63	136,75	135	74	BT50	4	
063.12BT50.04.104	63	266,75	165	104	BT50	4	
063.12BT50.04.134	63	296,75	195	134	BT50	4	
080.12BT50.04.104	80	266,75	165	104	BT50	4	
080.12BT50.04.144	80	306,75	205	144	BT50	4	

HERRAMIENTAS DE TORNEADO

PORTAHERRAMIENTAS DE TORNEADO EXTERNO PAG.

CÓDIGO CLAVE	4-5
TIPO M	6-17
TIPO P	18-25
TIPO S	26-37
TIPO C	38-41
TIPO D	42-49
TIPO W	50-51

PORTAHERRAMIENTAS DE TORNEADO INTERNO

CÓDIGO CLAVE	52-53
TIPO M	54-61
TIPO P	62-65
TIPO S	66-75

PORTAHERRAMIENTAS DE ROSCADO

CÓDIGO CLAVE	77
EXTERNO	78
ROSCADO INTERNO	79

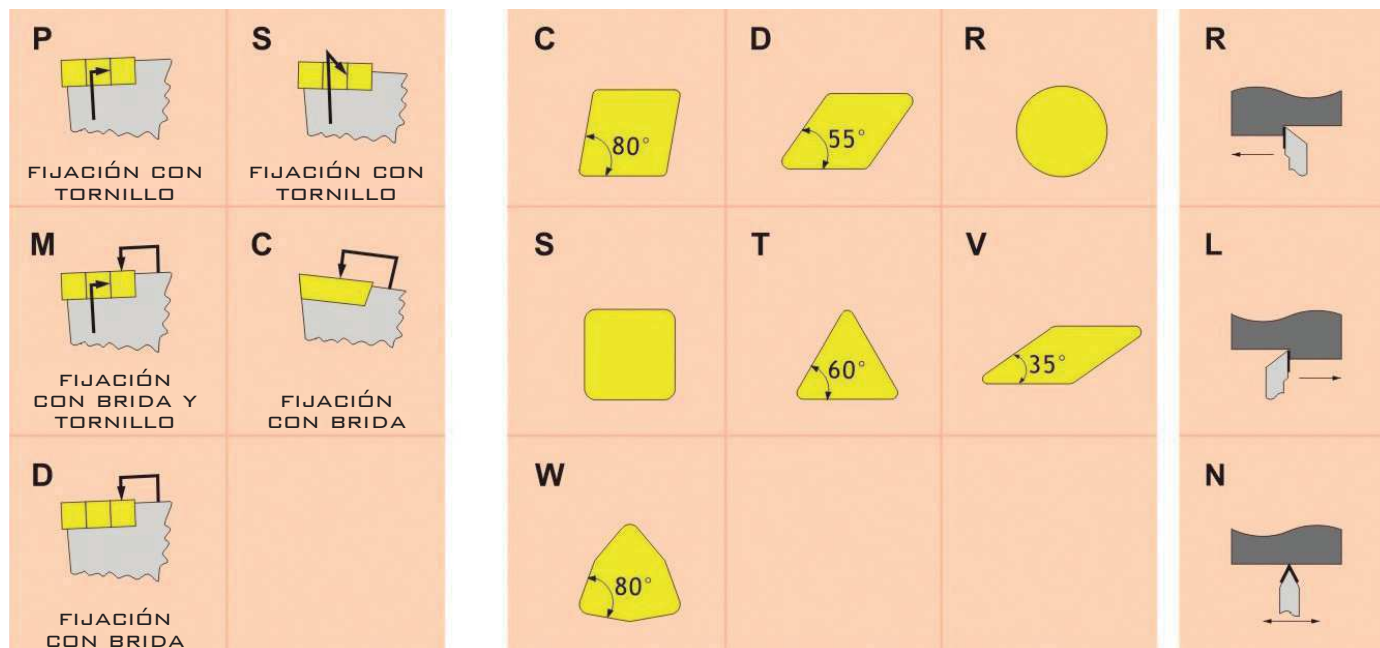
PORTAHERRAMIENTAS DE TRONZADO Y RANURADO

TRONZADO Y RANURADO EXTERNO	80-82
TRONZADO Y RANURADO EXTERNO/SUPERFICIE	83-88
TRONZADO Y RANURADO INTERNO	89-90
PORTACUCHILLAS TRONZADO	91

HERRAMIENTAS DE TORNEADO

AIBER
 HPTTOOLS

CÓDIGO CLAVE: HERRAMIENTAS DE TORNEADO EXTERNO



1. SISTEMA DE FIJACIÓN

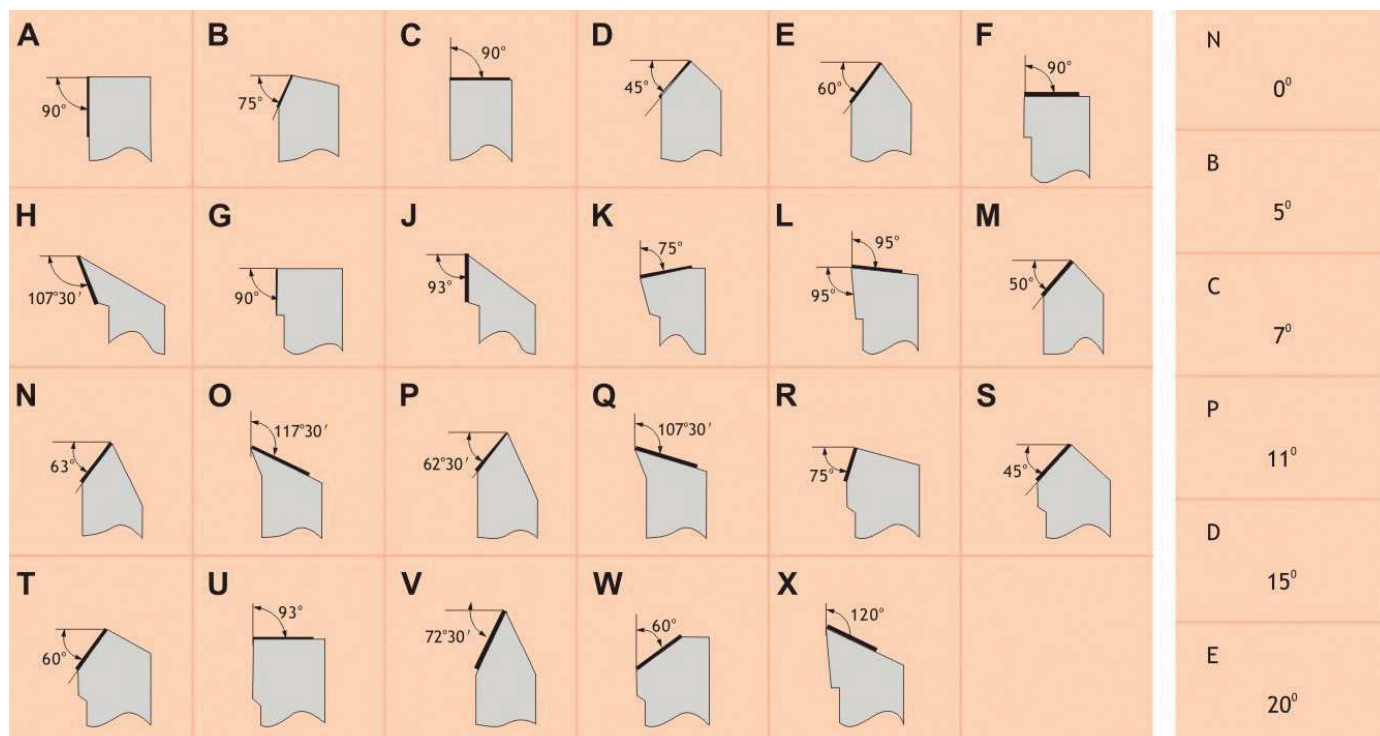
2. PLACAS APLICABLES

5. DIRECCIÓN DE CORTE

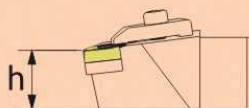
M
C
L
N
R

3. ESTILO Y ÁNGULO DE AVANCE

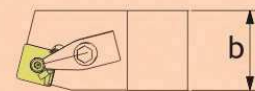
5. ÁNGULO LIBRE



SÍMBOLO	ALTURA
12	12
16	16
20	20
25	25
32	32
40	40
50	50



SÍMBOLO	ANCHURA
12	12
16	16
20	20
25	25
32	32
40	40
50	50



6. ALTURA

7. ANCHURA

25

25

M

12

8. LONGITUD DE
HERRAMIENTA

9. LONGITUD DE CORTE

CÓD.	LONG.	CÓD.	LONG.
D	60	Q	180
E	70	R	200
F	80	S	250
G	90	T	300
H	100	U	350
K	125	V	400
M	150	W	450
P	170		

	C	D	R	S	T	V	W
PLACAS APLICABLES							
FORMA INSCRITA	LONGITUD DE CORTE						
5.556					09		
6.350	06	07			11		
9.525	09	11	09	09	16	16	
12.700	12	15	12	12	22	22	
15.875	16	19	15	15	27		
19.050	19		19	19	33		
25.400	25		25	25	44		

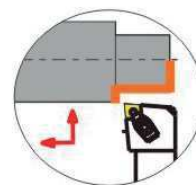
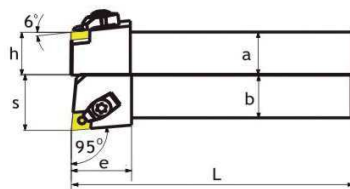
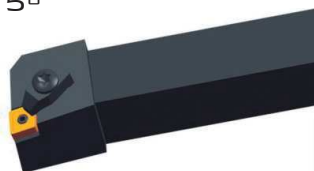
HERRAMIENTAS DE TORNEADO

alber
HIGHTOOLS

TIPO M/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

MCLNR/L

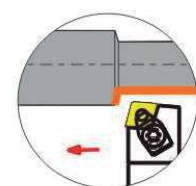
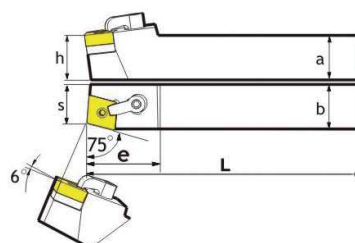
95°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MCLNR/L	a	b	L	h	s	e							PRECIO
1616H12	16	16	100	16	20	32		WS061025					
2020K12	20	20	125	20	25	32							
2525M12	25	25	150	25	32	32		WS061030					
3225P12	32	25	170	32	32	32							
3232P12	32	32	170	32	40	32							
2525M16	25	25	150	25	32	38		WS061030					
3225P16	32	25	170	32	32	38							
3232P16	32	32	170	32	40	38							
3232P19	32	32	170	32	40	45							
4040R19	40	40	200	40	50	45							

MCBNR/L

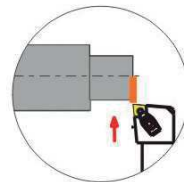
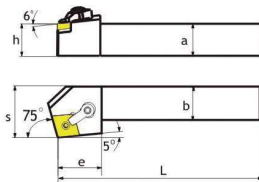
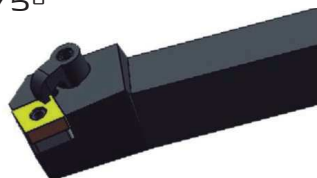
75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MCBNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	17	32	CN 00 1204 00	WS061025	MC1204	S3	MCL1814	MSP617	
2525M12	25	25	150	25	22	32		WS061030					
3225P12	32	25	170	32	22	32							
2525M16	25	25	150	25	22	40	CN 00 1606 00	WS061030	MC1604	S3	MCL2114	MSP821	
3225P16	32	25	170	32	22	40							
3232P16	32	32	170	32	27	40							
3232P19	32	32	170	32	27	45	CN 00 1906 00	WS081030	MC1904	S4	MCL2217	MSP1021	
4040R19	40	40	200	40	35	45							

MCKNR/L

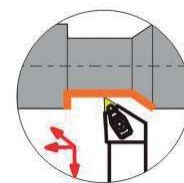
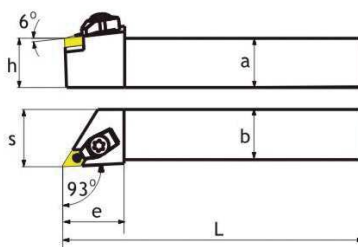
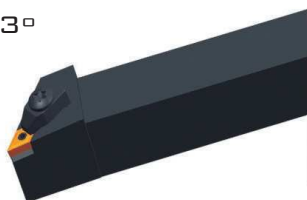
75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MCKNR/L	a	b	L	h	s	e							PRECIO
1616H12	16	16	100	16	20	32		WS061025		S3			
2020K12	20	20	125	20	25	32		WS061025					
2525M12	25	25	150	25	32	32							
3225P12	32	25	170	32	32	32		WS061030		S3			
3232P12	32	32	170	32	40	32							
2525M16	25	25	150	25	32	38							
3225P16	32	25	170	32	32	38		WS061030		S3			

MDJNR/L

93°

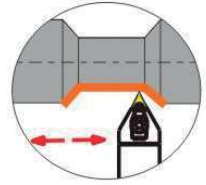
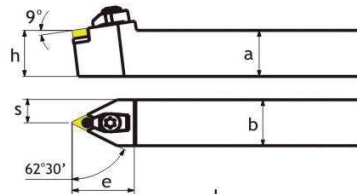
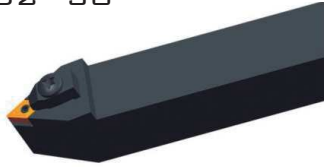


TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MDJNR/L	a	b	L	h	s	e							PRECIO
1616H11	16	16	100	16	20	32		WS061025		S2			
2020K11	20	20	125	20	25	32							
2525M11	25	25	150	25	32	32		WS061030		S3			
3225P11	32	25	170	32	32	32		WS061025					
2020K150406	20	20	125	20	25	38							
2525M150406	25	25	150	25	32	38		WS061030		S3			
3225P150406	32	25	170	32	32	38							
3232P150406	32	32	170	32	40	38							
4040P15	40	40	170	40	48	45							

TIPO M/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

MDPNN

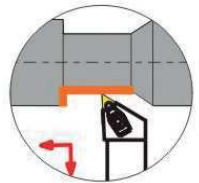
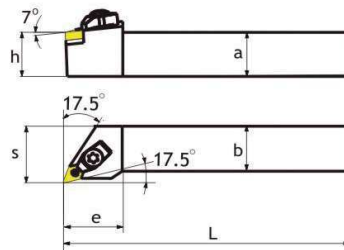
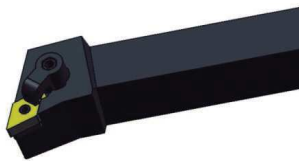
62° 30'



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MDPNN	a	b	L	h	s	e							PRECIO
1616H11	16	16	100	16	8	35	 DN 00 1104 00	WS061025	MD1103	S2	MCL1814	MSP513	
2020K11	20	20	125	20	10	35				S3			
2525M11	25	25	150	25	12,5	35		WS061030					
3225P11	32	25	170	32	12,5	35							
2020K150406	20	20	125	20	10	40	 DN 00 1504 00	WS061025	MD1504	S3	MCL2114	O4:MSP617	
2525M150406	25	25	150	25	12,5	40		WS061030				O6:MSP619	
3225P150406	32	25	170	32	12,5	40							
3232P150406	32	32	170	32	16	42							

MDQNR/L

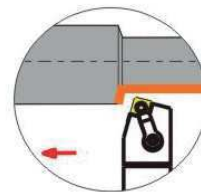
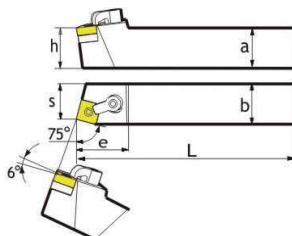
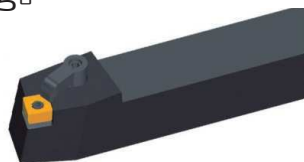
107° 30'



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MDQNR/L	a	b	L	h	s	e							PRECIO
1616H11	16	16	100	16	21	35	DN 00 1104 00	WS061025	MD1103	S2	MCL1814	MSP513	
2020K11	20	20	125	20	25	35		WS061030		S3			
2525M11	25	25	150	25	30	35							
3225P11	32	25	170	32	30	35	DN 00 1504 00	WS061025	MD1504	S3	MCL2114	04:MSP617	
2020K150406	20	20	125	20	27	40		WS061030				06:MSP619	
2525M150406	25	25	150	25	32	40							
3225P150406	32	25	170	32	32	40							
3232P150406	32	32	170	32	40	42							

MSBNR/L

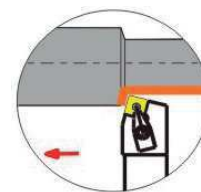
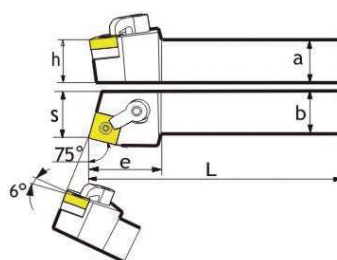
75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MSBNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	17	32	SN 00 1204 00	WS061025	MS1204	S3	MCL1814	MSP617	
2525M12	25	25	150	25	22	32		WS061030					
3225P12	32	25	170	32	22	32							
2525M15	25	25	150	25	22	38	SN 00 1506 00	WS061030	MS1504	S3	MCL2114	MSP821	
3232P15	32	32	170	32	29	38							
3232P19	32	32	170	32	27	45	SN 00 1906 00	WS081030	MS1904	S4	MCL2217	MSP1021	
4040R19	40	40	200	40	35	45							
4040S25	40	40	250	40	35	60	SN 00 2509 00	WS10135	MS2508	S4 S5	MCL3220	MSP1229	

MSRNR/L

75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MSRNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	17	32	SN 00 1204 00	WS061025	MS1204	S3	MCL1814	MSP617	
2525M12	25	25	150	25	22	32		WS061030					
3225P12	32	25	170	32	22	32							
2525M15	25	25	150	25	22	38	SN 00 1506 00	WS061030	MS1504	S3	MCL2114	MSP821	
3232P15	32	32	170	32	29	38							
3232P19	32	32	170	32	27	45	SN 00 1906 00	WS081030	MS1904	S4	MCL2217	MSP1021	
4040R19	40	40	200	40	35	45							
4040S25	40	40	250	40	35	60	SN 00 2509 00	WS10135	MS2508	S4 S5	MCL3220	MSP1229	

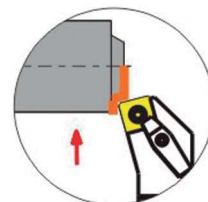
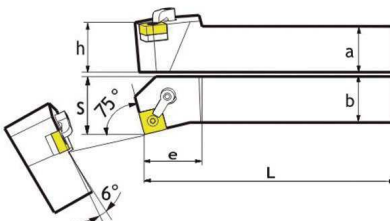
HERRAMIENTAS DE TORNEADO

AIBER
 HPTOOLS

TIPO M/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

MSKNR/L

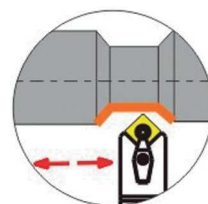
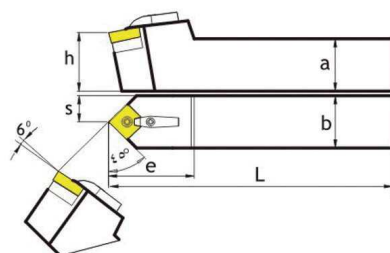
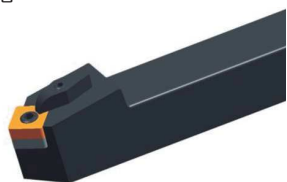
75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MSKNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	25	32	SN 00 1204 00	WS061025	MS1204	S2	MCL1814	MSP617	
2525M12	25	25	150	25	32	32		WS061030					
3225P12	32	25	170	32	32	32							
2525M15	25	25	150	25	32	38	SN 00 1506 00	WS061030	MS1504	S3	MCL2114	MSP821	
3232P15	32	32	170	32	40	38							
3232P19	32	32	170	32	40	45		WS081030					
4040R19	40	40	200	40	50	45	SN 00 1906 00	WS081030	MS1904	S4	MCL2217	MSP1021	
4040S25	40	40	250	40	50	50	SN 00 2509 00	WS101035	MS2508	S4 S5	MCL3220	MSP1229	

MSDNN

45°

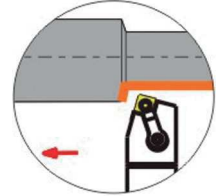
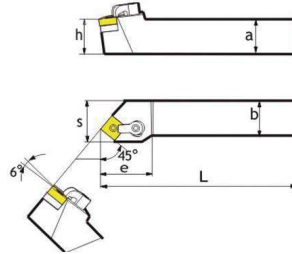


TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MSDNN	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	10	35	SN 00 1204 00	WS061025	MS1204	S2	MCL1814	MSP617	
2525M12	25	25	150	25	15,5	35		WS061030					
3225P12	32	25	170	32	12,5	35							
2525M15	25	25	150	25	12,5	42	SN 00 1506 00	WS061030	MS1504	S3	MCL2114	MSP821	
3232P15	32	32	170	32	16	42							
3232P19	32	32	170	32	16	42		WS081030					
4040R19	40	40	200	40	20	50	SN 00 1906 00	WS081030	MS1904	S4	MCL2217	MSP1021	
4040S25	40	40	250	40	20	50	SN 00 2509 00	WS101035	MS2508	S4 S5	MCL3220	MSP1229	

HERRAMIENTAS DE TORNEADO

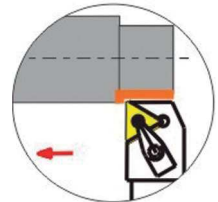
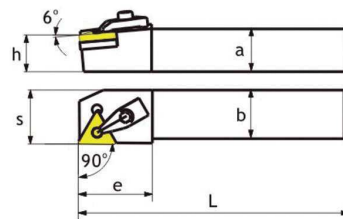
TIPO M/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

MSSNR/L



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MSSNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	25	35	SN 00 1204 00	WS061025	MS1204	S2	MCL1814	MSP617	
2525M12	25	25	150	25	32	35		WS061030					
3225P12	32	25	170	32	40	35							
3232P12	32	32	170	32	40	42							
2525M15	25	25	150	25	32	42	SN 00 1506 00	WS061030	MS1504	S3	MCL2114	MSP821	
3232P15	32	32	170	32	40	42							
3232P19	32	32	170	32	40	42	SN 00 1906 00	WS081030	MS1904	S4	MCL2217	MSP1021	
4040R19	40	40	200	40	50	42							
4040S25	40	40	250	40	50	50	SN 00 2509 00	WS101035	MS2508	S4 S5	MCL3220	MSP1229	

MTGNR/L



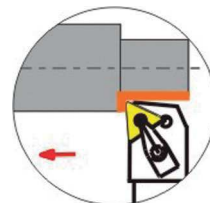
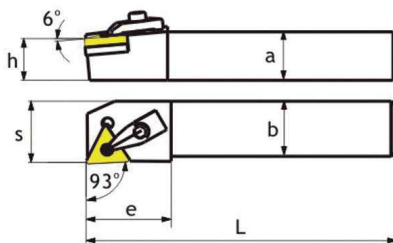
TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MTGNR/L	a	b	L	h	s	e							PRECIO
2020K16	20	20	125	20	25	33	TN □□ 1604 □□	WS061025	MT1603	S2 S3	MCL1814	MSP513	
2525M16	25	25	150	25	32	33		WS061030					
3225P16	32	25	170	32	32	33							
2525M22	25	25	150	25	32	35	TN □□ 2204 □□	WS061030	MT2204	S3	MCL2114	MSP617	
3225P22	32	25	170	32	32	35							
3232P22	32	32	170	32	40	40							

HERRAMIENTAS DE TORNEADO

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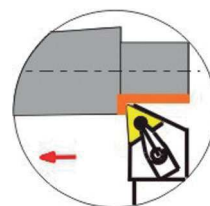
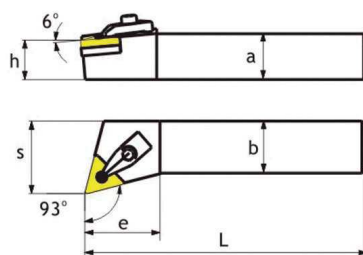
TIPO M/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

MTJNR/L



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujección	€
MTJNR/L	a	b	L	h	s	e							PRECIO
1616H16	16	16	100	16	20	30	TN 00 1604 00	WS061025	MT1603	S2 S3	MCL2114	MSP513	
2020K16	20	20	125	20	25	32		WS061030					
2525M16	25	25	150	25	32	32							
3225P16	32	25	170	32	32	32							
3232P16	32	32	170	32	32	32							
2525M22	25	25	150	25	32	36	TN 00 2204 00	WS061030	MT2204	S3	MCL3220	MSP617	
3225P22	32	25	170	32	32	36							
3232P22	32	32	170	32	32	36							

MTJNR/L(B)



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujección	€
MTJNR/L	a	b	L	h	s	e							PRECIO
1616H16B	16	16	100	16	20	30	TN 00 1604 00	WS061025	MT1603	S2 S3	MCL2114	MSP513	
2020K16B	20	20	125	20	25	32		WS061030					
2525M16B	25	25	150	25	32	32							
3225P16B	32	25	170	32	32	32							
3232P16B	32	32	170	32	32	32							
2525M22B	25	25	150	25	32	36	TN 00 2204 00	WS061030	MT2204	S3	MCL3220	MSP617	
3225P22B	32	25	170	32	32	36							
3232P22B	32	32	170	32	32	36							

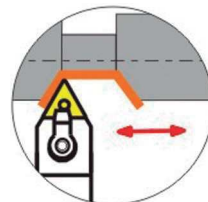
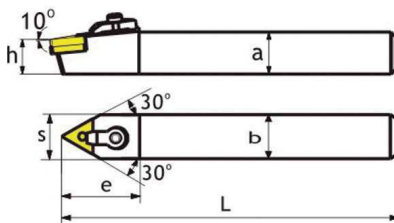
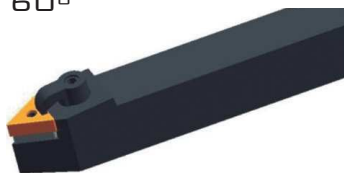
HERRAMIENTAS DE TORNEADO

AIBER
 HIGHTOOLS

TIPO M/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

MTENN

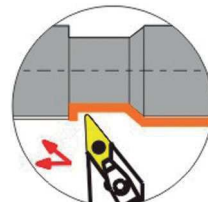
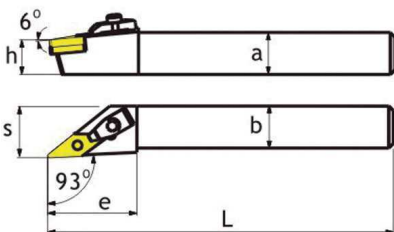
60°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MTENN	a	b	L	h	s	e							PRECIO
1616H16	16	16	100	16	16	30	TN 00 1604 00	WS061025	MT1603	S2 S3	MCL1814	MSP513	
2020K16	20	20	125	20	20	32							
2525M16	25	25	150	25	25	32		WS061030					
3232P16	32	32	170	32	32	36							

MVJNR/L

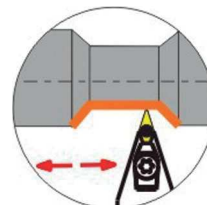
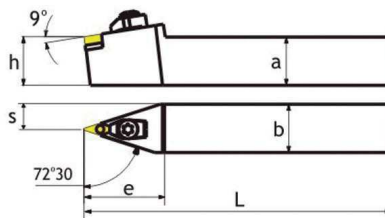
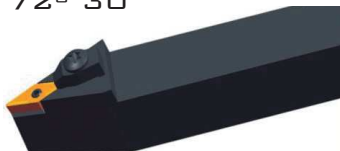
93°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MVJNR/L	a	b	L	h	s	e							PRECIO
1616H16	16	16	100	16	20	45	TN 00 1604 00	WS061025	MT1603	S2 S3	MCL2414	MSP513	
2020K16	20	20	125	20	25	45							
2525M16	25	25	150	25	32	45							
3225P16	32	25	170	32	32	45		WS061030					
3232P16	32	32	170	32	40	45							

MVVNN

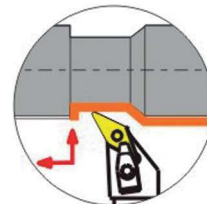
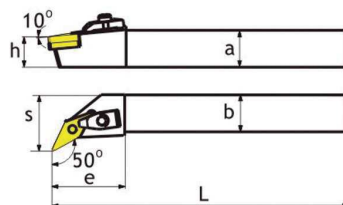
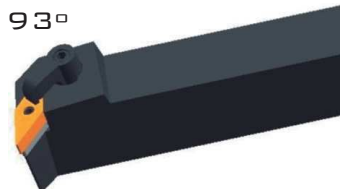
72° 30'



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MVVNN	a	b	L	h	s	e							PRECIO
2020K16	20	20	125	20	10	45	VN □□ 1604 □□	WS061025	MV1603	S2 S3	MCL2114	MSP513	
2525M16	25	25	150	25	12,5	45							
3225P16	32	25	170	32	12,5	45		WS061030					
3232P16	32	32	170	32	16	45							

MVUNR/L

93°



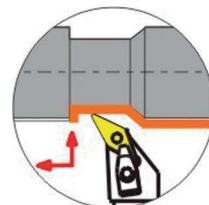
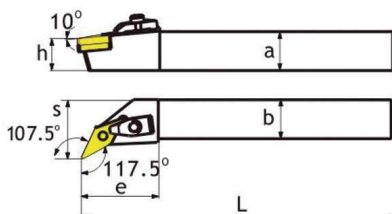
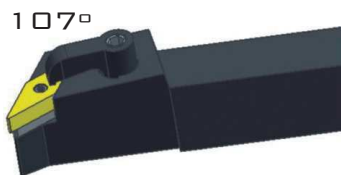
TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MVUNR/L	a	b	L	h	s	e							PRECIO
1616H16	16	16	100	16	20	45	VN □□ 1604 □□	WS061025	MV1603	S2 S3	MCL2114	MSP513	
2020K16	20	20	125	20	25	45							
2525M16	25	25	150	25	32	45							
3225P16	32	25	170	32	32	45		WS061030					
3232P16	32	32	170	32	40	45							

HERRAMIENTAS DE TORNEADO

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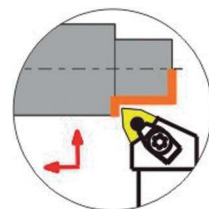
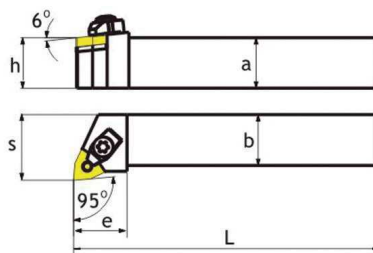
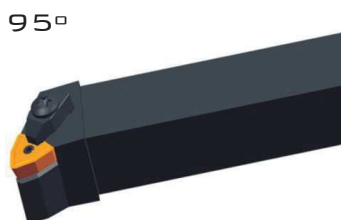
TIPO M/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

MVQNR/L



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MVQNR/L	a	b	L	h	s	e							PRECIO
1616H16	16	16	100	16	20	45	VN □□ 1604 □□	WS061025	MV1603	S2 S3	MCL2114	MSP513	
2020K16	20	20	125	20	25	45							
2525M16	25	25	150	25	32	45							
3225P16	32	25	170	32	32	45		WS061030					
3232P16	32	32	170	32	40	45							

MWLNR/L



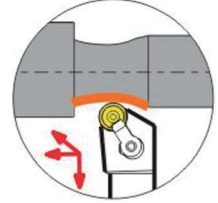
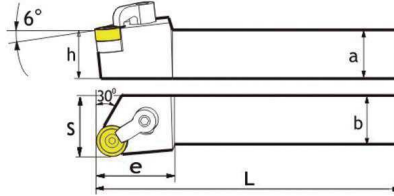
TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MWLNR/L	a	b	L	h	s	e							PRECIO
2020K06	20	20	125	20	25	30	WN □□ 0604 □□	WS061025	MW0603	S2 S3		MSP513	
2525M06	25	25	150	25	32	30		WS061030					
2020K08	20	20	125	20	25	30	WN □□ 0804 □□	WS061025	MW0804	S3	MCL1814	MSP617	
2525M08	25	25	150	25	32	35							
3225P08	32	25	170	32	32	35							
3232P08	32	32	170	32	40	35		WS061030					

HERRAMIENTAS DE TORNEADO

TIPO M/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

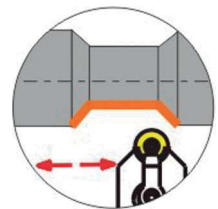
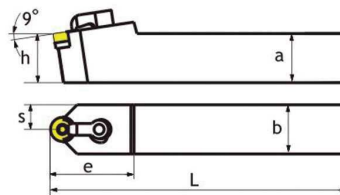
MRGNR/L

90°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MRG NR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	25	32	RN 00 1204 00	WS061025	MR1204	S3	MCL1814	MSP617	
2525M12	25	25	150	25	32	32		WS061030					
3225P12	32	25	170	32	32	32							
3232P12	32	32	170	32	40	32							

105□



MRDNN

TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
MRDNN	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	10	45	RN 00 1204 00	WS061025	MR1204	S3	MCL1814	MSP617	
2525M12	25	25	150	25	12,5	45							
3225P12	32	25	170	32	12,5	45		WS061030					
3232P12	32	32	170	32	16	45							

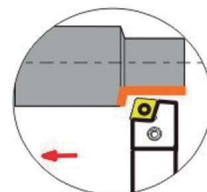
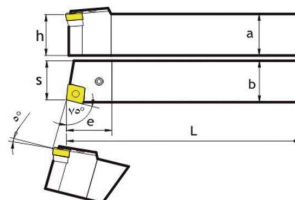
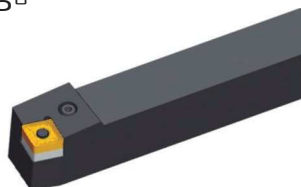
HERRAMIENTAS DE TORNEADO

alber
HIGHTOOLS

TIPO P/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

PCBNR/L

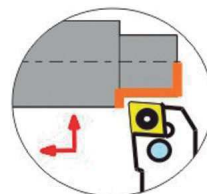
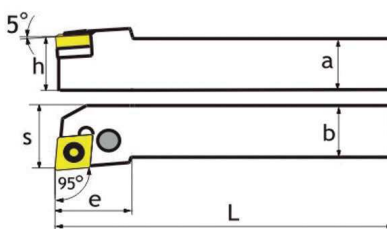
75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PCBNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	17	27	CN 00 1204 00	VHX0821	PC12318	S3	LV4	SP4	
2525M12	25	25	150	25	22	27							
3232P12	32	32	170	32	27	27							
2525M16	25	25	150	25	22	33	CN 00 1606 00	VHX0825	PC16476	S3	LV5	SP5	
3232P16	32	32	170	32	27	33							
3232P19	32	32	170	32	32	38							
4040S19	40	40	250	40	35	38	CN 00 1906 00	VHX1027	PC19476	S4	LV6	SP6	
4040S2507	40	40	250	40	35	40	CN 00 2507 00						
4040S2509	40	40	250	40	35	40	CN 00 2509 00						
								VHX1236	PC25634	S5	LV8	SP8	
								PC25476					

PCLNR/L

95°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PCLNR/L	a	b	L	h	s	e							PRECIO
1616H09	16	16	100	16	20	20	 CN 00 0903 00	 VHX0613	 PC09318	 S3	 LV3	 SP3	
2020K09	20	20	125	20	25	22							
2525M09	25	25	150	25	32	22							
2020K12	20	20	125	20	25	28	 CN 00 1204 00	 VHX0821	 PC12318	 S3	 LV4	 SP4	
2525M12	25	25	150	25	32	28							
3232P12	32	32	170	32	40	28							
2525M16	25	25	150	25	32	33	 CN 00 1606 00	 VHX0825	 PC16476	 S3	 LV5	 SP5	
3232P16	32	32	170	32	40	33							
3232P19	32	32	170	32	40	38							
4040S19	40	40	250	40	50	38	 CN 00 1906 00	 VHX1027	 PC19476	 S4	 LV6	 SP6	
4040S2507	40	40	250	40	50	50	 CN 00 2507 00						
4040S2509	40	40	250	40	50	50	 CN 00 2509 00						
								VHX1236	PC25634	 S5	 LV8	 SP8	
								PC25476					

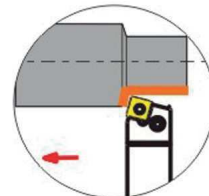
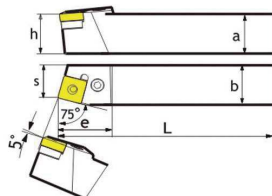
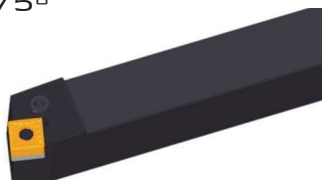
HERRAMIENTAS DE TORNEADO

alber
HIGHTOOLS

TIPO P/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

PSBNR/L

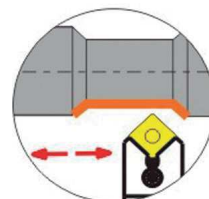
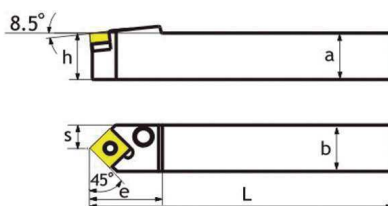
75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PSBNR/L	a	b	L	h	s	e							PRECIO
1616H09	16	16	100	16	13	21	 SN 00 0903 00	 VHX0613	 PS09318	 S2,5	 LV3	 SP3	
2020K09	20	20	125	20	17	23							
2020K12	20	20	125	20	17	28							
2525M12	25	25	150	25	22	28							
3225P12	32	25	170	32	22	28	 SN 00 1204 00	 VHX0821	 PS12318	 S3	 LV4	 SP4	
3232P12	32	32	170	32	27	28							
2525M15	25	25	150	25	22	35							
3232P15	32	32	170	32	27	35	 SN 00 1506 00	 VHX0825	 PS15476	 S3	 LV5	 SP5	
3232P19	32	32	170	32	27	40							
4040S19	40	40	250	40	35	40	 SN 00 1906 00	 VHX1027	 PS19476	 S4	 LV6	 SP6	
4040S2507	40	40	250	40	35	48							
4040S2509	40	40	250	40	35	48	 SN 00 2507 00	 VHX1236	PS25634	 S5	 LV8	 SP8	
							 SN 00 2509 00		PS25476				

PSDNN

45°



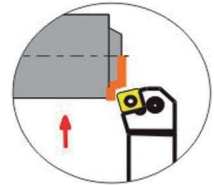
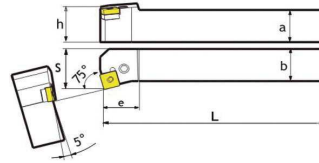
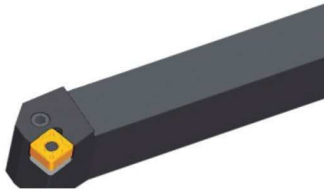
TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PSDNN	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	10	30	SN 00 1204 00	VHX0821	PS12318	S3	LV4	SP4	
2525M12	25	25	150	25	12,5	30							
3232P12	32	32	170	32	16	40							
2525M15	25	25	150	25	12,5	40	SN 00 1506 00	VHX0825	PS15476	S3	LV5	SP5	
3232P15	32	32	170	32	16	40							
3232P19	32	32	170	32	16	40							
4040S19	40	40	250	40	20	40	SN 00 1906 00	VHX1027	PS19476	S4	LV6	SP6	
4040S2507	40	40	250	40	20	50							
4040S2509	40	40	250	40	20	40	SN 00 2509 00	VHX1236	PS25634	S5	LV8	SP8	
									PS25476				

HERRAMIENTAS DE TORNEADO

TIPO P/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

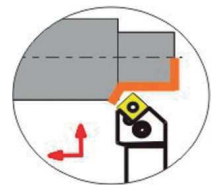
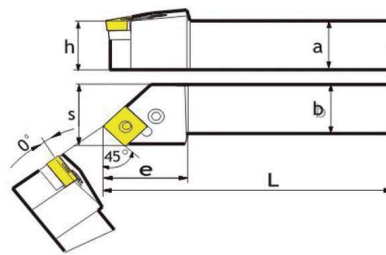
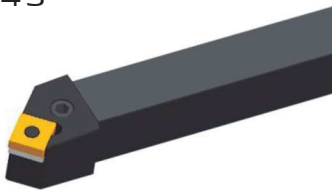
PSK NR/L

75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PSKNR/L	a	b	L	h	s	e							PRECIO
1616H09	16	16	100	16	20	17	SN 00 0903 00	VHX0613	PS09318	S2,5	LV3	SP3	
2020K09	20	20	125	20	25	20							
2020K12	20	20	125	20	25	26							
2525M12	25	25	150	25	32	26	SN 00 1204 00	VHX0821	PS12318	S3	LV4	SP4	
3232P12	32	32	170	32	40	26							
2525M15	25	25	150	25	32	32	SN 00 1506 00	VHX0825	PS15476	S3	LV5	SP5	
3232P15	32	32	170	32	40	32							
3232P19	32	32	170	32	40	36	SN 00 1906 00	VHX1027	PS19476	S4	LV6	SP6	
4040S19	40	40	250	40	50	40							
4040S2507	40	40	250	40	50	50	SN 00 2507 00	VHX1236	PS25634	S5	LV8	SP8	
4040S2509	40	40	250	40	50	50	SN 00 2509 00		PS25476				

45□



PSSNR/L

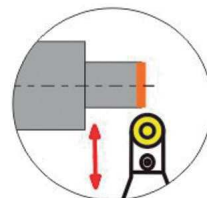
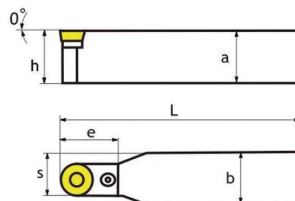
TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PSSNR/L	a	b	L	h	s	e							PRECIO
1616H09	16	16	100	16	20	25	SN 00 0903 00	VHX0613	PS09318	S2,5	LV3	SP3	
2020K12	20	20	125	20	25	30	SN 00 1204 00	VHX0821	PS12318	S3	LV4	SP4	
2525M12	25	25	150	25	32	30							
3232P12	32	32	170	32	40	40							
2525M15	25	25	150	25	32	30	SN 00 1506 00	VHX0825	PS15476	S3	LV5	SP5	
3232P15	32	32	170	32	40	40	SN 00 1906 00	VHX1027	PS19476	S4	LV6	SP6	
3232P19	32	32	170	32	40	40							
4040S19	40	40	250	40	50	50							
4040S2507	40	40	250	40	50	50	SN 00 2507 00	VHX1236	PS25634	S5	LV8	SP8	
4040S2509	40	40	250	40	50	50	SN 00 2509 00		PS25476				

HERRAMIENTAS DE TORNEADO

AIBER
 HPTOOLS

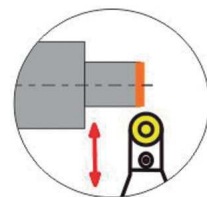
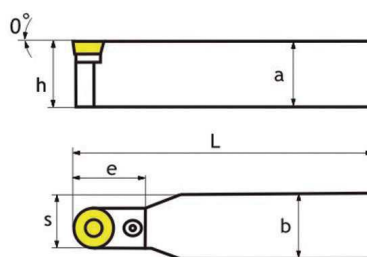
TIPO P/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

PRDCN



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PRDCN	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	16	30	RCMX 1204 00	VHX0613	PR 1204	S2,5	LCL12C	SP3	
2525M12	25	25	150	25	18,5	30							
2525M16	25	25	150	25	20,5	35	RCMX 1606 00	VHX0621	PR 1604	S2,5	LCL16C	SP4	
3232P16	32	32	170	32	24	35							
3232P20	32	32	170	32	26	40	RCMX 2006 00	VHX0825	PR 2004	S3	LCL20C	SP5	
4040T20	40	40	300	40	30	50							
3232P25	32	32	170	32	28,5	45	RCMX 2507 00	VHX1030	PR 2506	S4	LCL25C	SP6	
4040T25	40	40	300	40	32,5	50							

PRACR/L

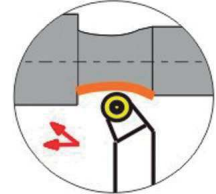
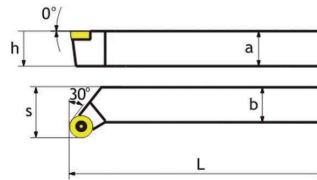


TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PRACR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	16	30	RCMX 1204 00	VHX0613	PR 1204	S2,5	LCL12C	SP3	
2525M12	25	25	150	25	18,5	30							
2525M16	25	25	150	25	20,5	35	RCMX 1606 00	VHX0621	PR 1604	S2,5	LCL16C	SP4	
3232P16	32	32	170	32	24	35							
3232P20	32	32	170	32	26	40	RCMX 2006 00	VHX0825	PR 2004	S3	LCL20C	SP5	
4040T20	40	40	300	40	30	50							
3232P25	32	32	170	32	28,5	45	RCMX 2507 00	VHX1030	PR 2506	S4	LCL25C	SP6	
4040T25	40	40	300	40	32,5	50							

HERRAMIENTAS DE TORNEADO

TIPO P/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

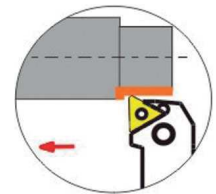
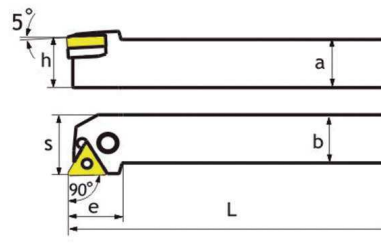
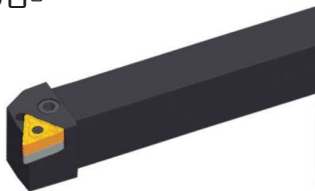
PRGCR/L



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PRGCR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	26	30	RCMX 1204 00	VHX0613	PR 1204	S2,5	LCL12C	SP3	
2525M12	25	25	150	25	32	30		VHX0621	PR 1604	S2,5	LCL16C	SP4	
2525M16	25	25	150	25	35	35	RCMX 1606 00	VHX0825	PR 2004	S3	LCL20C	SP5	
3232P16	32	32	170	32	38	35		VHX1030	PR 2506	S4	LCL25C	SP6	
3232P20	32	32	170	32	40	40	RCMX 2006 00						
4040T20	40	40	300	40	50	50							
3232P25	32	32	170	32	45	45	RCMX 2507 00						
4040T25	40	40	300	40	56	50							

PTGNR/L

90°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PTG NR/L	a	b	L	h	s	e							PRECIO
1616H11	16	16	100	16	20	18	TN 00 1103 00	VHX059B	-	S2	LV2	-	
2020K11	20	20	125	20	25	19							
2525M15	25	25	150	25	32	20							
1616H16	16	16	100	16	20	20	TN 00 1604 00	VHX0617	PT16476	S2	LV3	SP3	
2020K16	20	20	125	20	25	20							
2525M16	25	25	150	25	32	20							
3232P16	32	32	170	32	40	20	TN 00 2204 00	VHX0821	PT22476	S3	LV4	SP4	
2525M22	25	25	150	25	32	28							
3232P22	32	32	170	32	40	28							
3232P27	32	32	170	32	40	33	TN 00 2706 00	VHX0825	PT27635	S3	LV5	SP5	
4040S27	40	40	250	40	50	33							

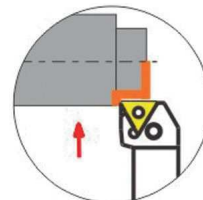
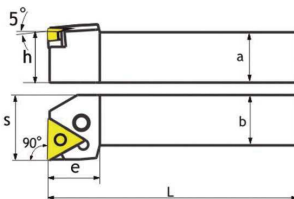
HERRAMIENTAS DE TORNEADO

alber
HIGHTOOLS

TIPO P/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

PTFNR/L

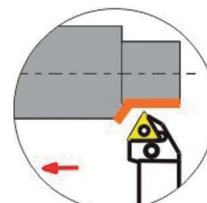
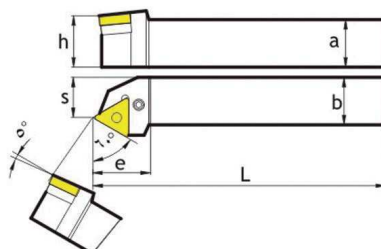
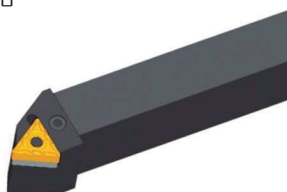
75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PTFNR/L	a	b	L	h	s	e							PRECIO
1616H16	16	16	100	16	20	20	TN 00 1506 00	VHX0617	PT16476	S2,5	LV3	SP3	
2020K16	20	20	125	20	25	20							
2525M16	25	25	150	25	32	20							
2525M22	25	25	150	25	32	25	TN 00 2204 00	VHX0821	PT22476	S3	LV4	SP4	
3232P22	32	32	170	32	40	25							
3232P27	32	32	170	32	40	34	TN 00 2706 00	VHX0821	PT27635	S3	LV5	SP5	
4040S27	40	40	250	40	50	34							

PTTNR/L

95°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Palanca	Centrador	€
PTTNR/L	a	b	L	h	s	e							PRECIO
1616H16	16	16	100	16	13	25	TN 00 1604 00	VHX0617	PT16476	S2,5	LV3	SP3	
2020K16	20	20	125	20	17	25							
2525M22	25	25	150	25	22	32	TN 00 2204 00	VHX0821	PT22476	S3	LV4	SP4	

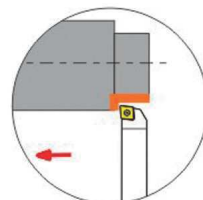
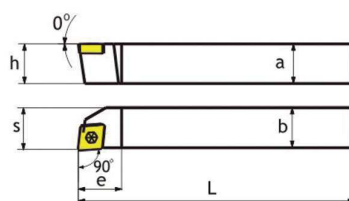
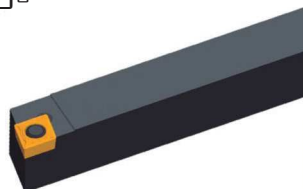
HERRAMIENTAS DE TORNEADO

AIBER
 HPTTOOLS

TIPO S/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

SCACR/L

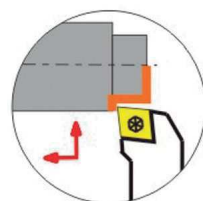
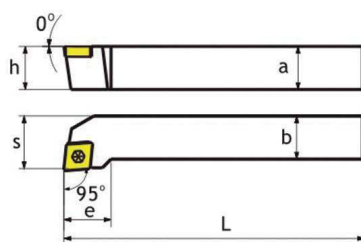
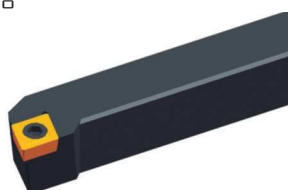
90°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SCACR/L	a	b	L	h	s	e				PRECIO
1010E06	10	10	70	10	10,5	10	CC □ T 0602 □□	L60M 2,5X5	T08	
1212F09	12	12	80	12	12,7	16	CC □ T 09T3 □□	L60M 4X8	T15	

SCLCR/L

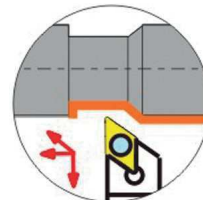
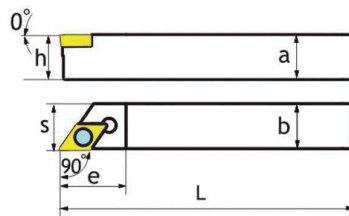
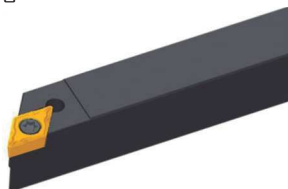
95°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SCLCR/L	a	b	L	h	s	e				PRECIO
1212F09	12	12	80	12	16	16	CC □ T 09T3 □□	L60M 4X8	T15	
1616H09	16	16	100	16	20	16				
2020K09	20	20	125	20	25	25				
2020K12	20	20	125	20	25	25	CC □ T 1204 □□	L60M 5X12	T20	
2525M12	25	25	150	25	32	26				
3225P12	32	25	170	32	32	26				
3232P12	32	32	170	32	40	26				

SDACR/L

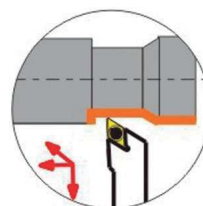
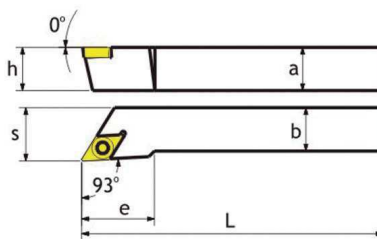
90°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SDACR/L	a	b	L	h	s	e				PRECIO
1010E07	10	10	70	10	10,5	15	DC □ T 0702 □□	L60M 2,5X5	T08	
1212F07	12	12	80	12	12,5	15	DC □ T 11T3 □□	L60M 4X8	T15	
1616H07	16	16	100	16	16,7	24				

SDJCR/L

93°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SDJCR/L	a	b	L	h	s	e				PRECIO
1010E07	10	10	70	10	12	15	DC □ T 0702 □□	L60M 2,5X5	T08	
1212F07	12	12	80	12	16	15				
1616H07	16	16	100	16	20	18				
2020K07	20	20	125	20	25	24	DC □ T 11T3 □□	L60M 4X8	T15	
1616H11	16	16	100	16	20	24				
2020K11	20	20	125	20	25	24				
2525M11	25	25	150	25	32	29				
3225P11	32	25	170	32	32	29				
3232P11	32	32	170	32	32	29				

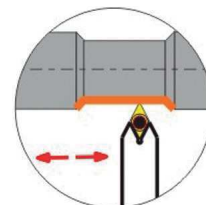
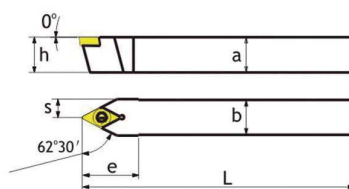
HERRAMIENTAS DE TORNEADO

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 HIGHTOOLS

TIPO S/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

SDNCN/L

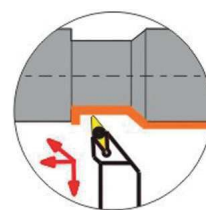
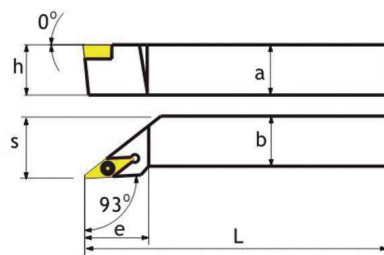
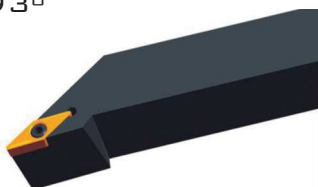
62° 30'



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SDNCN/L	a	b	L	h	s	e				PRECIO
1010E07	10	10	70	10	5	20	DC □ T 0702 □□	L60M 2,5X5	T08	
1212F07	12	12	80	12	6	20				
1212H11	12	12	100	12	6	30				
1616H11	16	16	100	16	8	30				
2020K11	20	20	125	20	10	30	DC □ T 11T3 □□	L60M 4X8	T15	
2525M11	25	25	150	25	12,5	30				

SVJCR/L

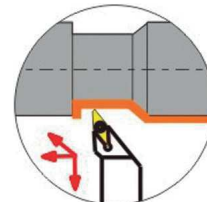
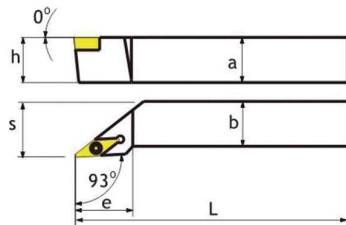
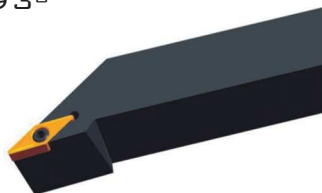
93°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SVJCR/L	a	b	L	h	s	e				PRECIO
1212F11	12	12	80	12	16	27	VC □ T 1103 □□	L60M 2,5X5	T08	
1616H11	16	16	100	16	20	27				
2020K11	20	20	125	20	25	27				
2525M11	25	25	150	25	32	27				
1616H16	16	16	100	16	20	36	VC □ T 1604 □□	L60M 4X8	T15	
2020K16	20	20	125	20	25	41				
2525M16	25	25	150	25	32	41				
3225P16	32	25	170	32	32	41				
3232P16	32	32	170	32	32	41				

SVJBR/L

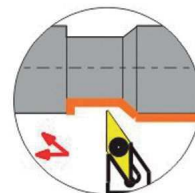
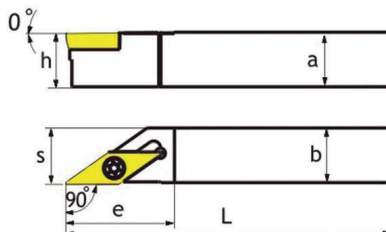
93°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SVJBR/L	a	b	L	h	s	e				PRECIO
1212F11	12	12	80	12	16	27	VB □ T 1103 □□	L60M 2,5X5	T08	
1616H11	16	16	100	16	20	27				
2020K11	20	20	125	20	25	27				
2525M11	25	25	150	25	32	27				
1616H16	16	16	100	16	20	36	VB □ T 1604 □□	L60M 4X8	T15	
2020K16	20	20	125	20	25	41				
2525M16	25	25	150	25	32	41				
3225P16	32	25	170	32	32	41				
3232P16	32	32	170	32	32	41				

SVABR/L

90°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SVABR/L	a	b	L	h	s	e				PRECIO
1616H16	16	16	100	16	16,5	32	 VB □ T 1604 □□	 L60M 4X8	 T15	
2020K16	20	20	125	20	20,5	32				
2525M16	25	25	150	25	25,5	38				

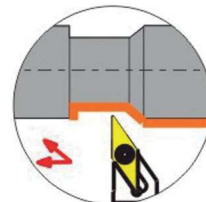
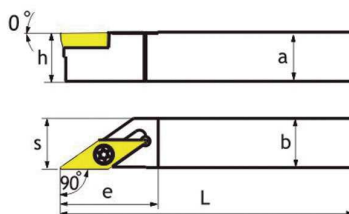
HERRAMIENTAS DE TORNEADO

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TIPO S/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

SVACR/L

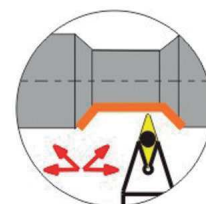
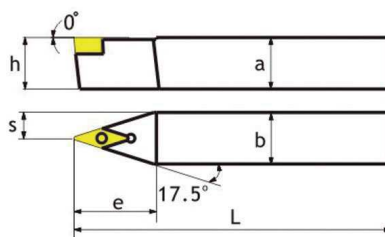
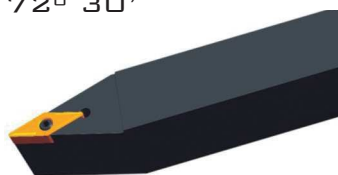
90°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SVACR/L	a	b	L	h	s	e				PRECIO
1616H16	16	16	100	16	16,5	32	VC □ T 1604 □□	L60M 4X8	T15	
2020K16	20	20	125	20	20,5	32				
2525M16	25	25	150	25	25,5	38				

SVVBN

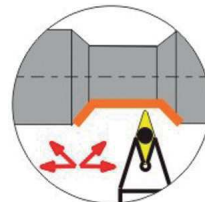
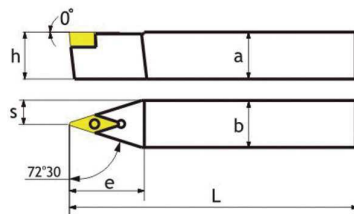
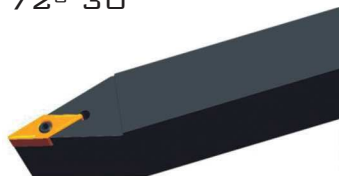
72° 30'



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SVVBN	a	b	L	h	s	e				PRECIO
1212F11	12	12	80	12	6	27	VB □ T 1103 □□	L60M 2,5X5	T08	
1616H11	16	16	100	16	8	27				
2020K11	20	20	125	20	10	30				
1616H16	16	16	100	16	8	33	VB □ T 1604 □□	L60M 4X8	T15	
2020K16	20	20	125	20	10	33				
2525M16	25	25	150	25	12,5	38				
3225P16	32	25	170	32	12,5	38				
3232P16	32	32	170	32	16	38				

SVVCN

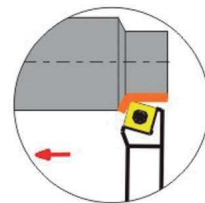
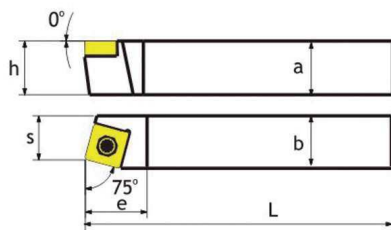
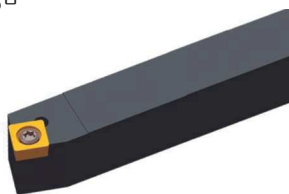
72° 30'



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SVVCN	a	b	L	h	s	e				PRECIO
1212F11	12	12	80	12	6	27	VC □ T 1103 □□	L60M 2,5X5	T08	
1616H11	16	16	100	16	8	27				
2020K11	20	20	125	20	10	30				
1616H16	16	16	100	16	8	33	VC □ T 1604 □□	L60M 4X8	T15	
2020K16	20	20	125	20	10	33				
2525M16	25	25	150	25	12,5	38				
3225P16	32	25	170	32	12,5	38				
3232P16	32	32	170	32	16	38				

SSBCR/L

75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SSBCR/L	a	b	L	h	s	e				PRECIO
1212F09	12	12	80	12	11	16	SC □ T 09T3 □□	L60M 4X8	T15	
1616H09	16	16	100	16	13	16				
2020K12	20	20	125	20	17	25				
2525M12	25	25	150	25	22	25	SC □ T 1204 □□	L60M 5X12	T20	
3232P12	32	32	170	32	27	28				

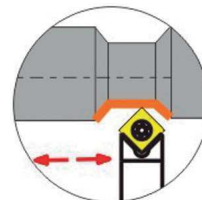
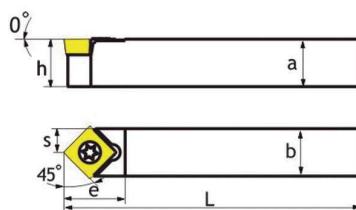
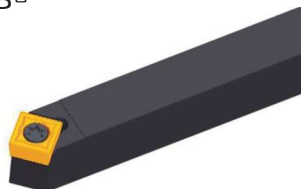
HERRAMIENTAS DE TORNEADO

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TIPO S/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

SSDCN

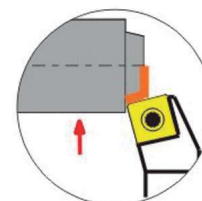
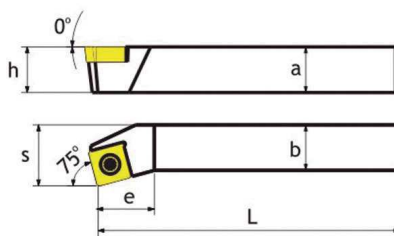
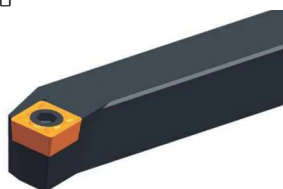
45°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SSDCN	a	b	L	h	s	e				PRECIO
1212F09	12	12	80	12	6	15,5	SC □ T 09T3 □□	L60M 4X8	T15	
1616H09	16	16	100	16	8	15,5				
2020K09	20	20	125	20	10	15,5				
2525M09	25	25	150	25	12,5	24				
2020K12	20	20	125	20	10	15,5	SC □ T 1204 □□	L60M 5X12	T20	
2525M12	25	25	150	25	12,5	24				
3225P12	32	25	170	32	16	24				

SSKCR/L

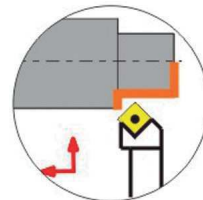
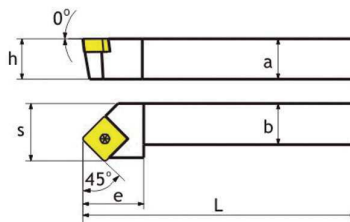
75°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SSKCR/L	a	b	L	h	s	e				PRECIO
1616H09	16	16	100	16	20	13	SC □ T 09T3 □□	L60M 4X8	T15	
2020K09	20	20	125	20	25	18				
2020K12	20	20	125	20	20	18				
2525M12	25	25	150	25	32	22	SC □ T 1204 □□	L60M 5X12	T20	
3232P12	32	32	170	32	40	27				

SSSCR/L

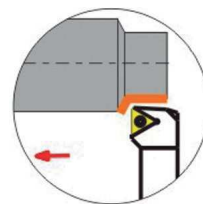
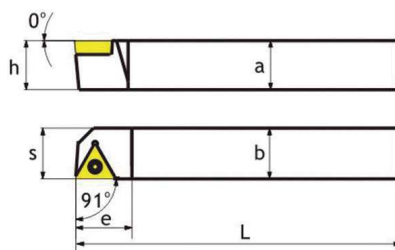
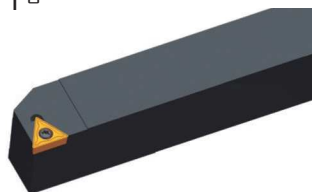
45°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SSSCR/L	a	b	L	h	s	e				PRECIO
1616H09	16	16	100	16	20	13	SC □ T 09T3 □□	L60M 4X8	T15	
2020K09	20	20	125	20	25	18				
2020K12	20	20	125	20	20	18				
2525M12	25	25	150	25	32	22	SC □ T 1204 □□	L60M 5X12	T20	
3232P12	32	32	170	32	40	27				

STACR/L

91°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
STACR/L	a	b	L	h	s	e				PRECIO
1212F11	12	12	80	12	12,5	14	TC □ T 1102 □□	L60M 2,5X5	T08	

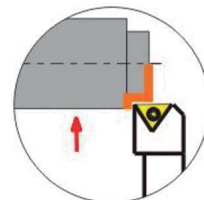
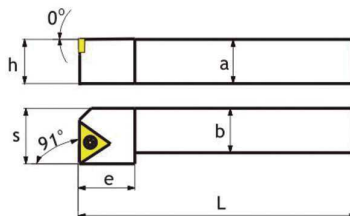
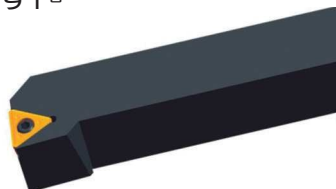
HERRAMIENTAS DE TORNEADO

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TIPO S/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

STFCR/L

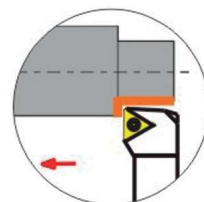
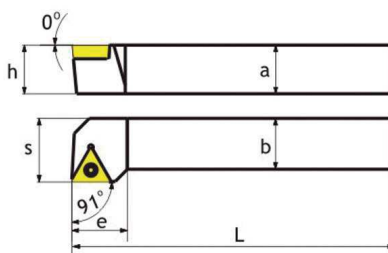
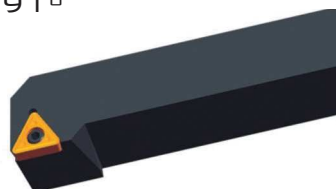
91°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
STFCR/L	a	b	L	h	s	e				PRECIO
1212F11	12	12	80	12	16	14	TC □ T 1102 □□	L60M 2,5X5	T08	
1616H11	16	16	100	16	20	14				
2020K11	20	20	125	20	25	14				
1616H16	16	16	100	16	20	19	TC □ T 16T3 □□	L60M 4X8	T15	
2020K16	20	20	125	20	25	19				
2525M16	25	25	150	25	32	19				

STGCR/L

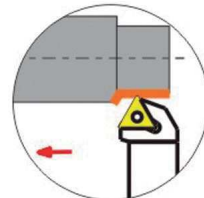
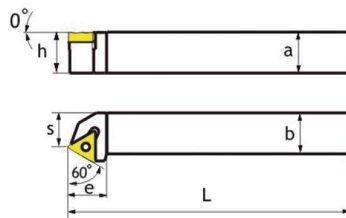
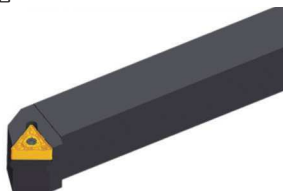
91°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
STGCR/L	a	b	L	h	s	e				PRECIO
0808D09	08	08	60	8	10	11	TC □ T 0902 □□	L60M 2,2X5	T06	
1010E09	10	10	70	10	12	11				
1212F11	12	12	80	12	16	14				
1616H11	16	16	100	16	20	16	TC □ T 1102 □□	L60M 2,5X5	T08	
2020K16	20	20	125	20	25	21				
2525M16	25	25	150	25	32	21				
							TC □ T 16T3 □□	L60M 4X8	T15	

STTCR/L

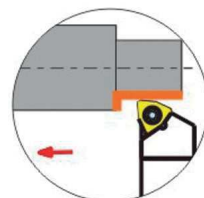
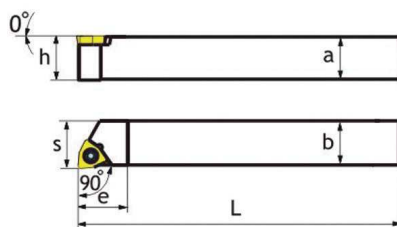
60°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
STTCR/L	a	b	L	h	s	e				PRECIO
1616H11	16	16	100	16	13	14	TC □ T 1102 □□	L60M 2,5X5	T08	
1616H16	16	16	100	16	13	19	TC □ T 16T3 □□	L60M 4X8	T15	
2020K16	20	20	125	20	17	19				

SWACR/L

90°



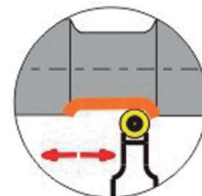
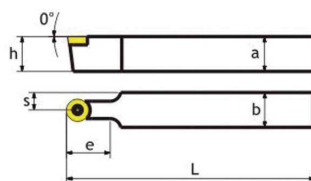
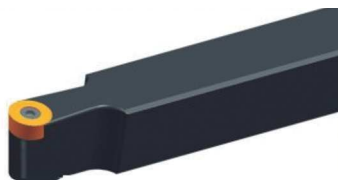
TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SWACR/L	a	b	L	h	s	e				PRECIO
1010E04	10	10	70	10	10,5	10	WC □ X 0402 □□	L60M 2,2X5	T08	
1212F04	12	12	80	12	12,5	14				
1616H06	16	16	100	16	16,5	20	WC □ X 06T3 □□	L60M 3X7	T09	
2020K08	20	20	125	20	20,5	24	WC □ X 0804 □□	L60M 4X8	T15	

HERRAMIENTAS DE TORNEADO

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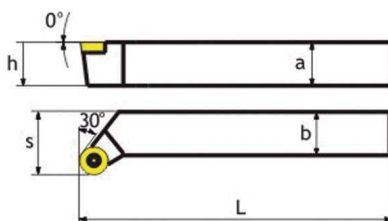
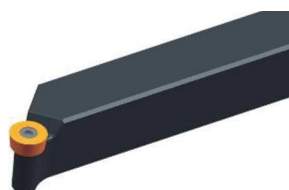
TIPO S/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

SRDCN

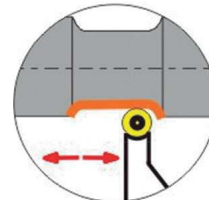
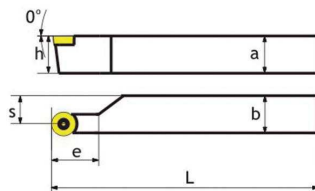


TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	Placa base	Tornillo	Llave	€
SRDCN	a	b	L	h	s	e							PRECIO
2020K06	20	20	125	20	10	35	RC 00 T 0602 00	L60M 2,5X5	T08	-	-	-	
2525M06	25	25	150	25	12,5	35	RC 00 T 0803 00	L60M 3X7	T09	-	-	-	
2020K10	20	20	125	20	10	35	RC 00 T 1003 00	L60M 3,5X10	T15	-	-	-	
2525M10	25	25	150	25	12,5	35	RC 00 T 1204 00	L60M 3,5X12	T15	-	-	-	
2020K12	20	20	125	20	10	35	RC 00 T 1604 00	L60M 4X16	T15	R16BS	SM0604	S4	
2525M12	25	25	150	25	12,5	35	RC 00 T 2006 00	L60M 5X16-8,1	T20	R20BS	SM0814	S5	
3225P12	32	25	170	32	16	40							
2525M16	25	25	150	25	12,5	35							
3232P16	32	32	170	32	16	40							
3232P20	32	32	170	32	16	40							
4040S20	40	40	250	40	20	45							

SRGCR/L



TIPO	Dimensiones (mm)					placas aplicables	Tornillo de apriete	Llave	Placa base	Tornillo	Llave	€
SRDCN	a	b	L	h	s							PRECIO
2020K10	20	20	125	20	25	RC 00 T 1003 00	L60M 3,5X10	T15	-	-	-	
2525M10	25	25	150	25	32	RC 00 T 1204 00	L60M 3,5X12	T15	-	-	-	
2020K12	20	20	125	20	27	RC 00 T 1604 00	L60M 4X16	T15	R16BS	SM0604	S4	
2525M12	25	25	150	25	32	RC 00 T 2006 00	L60M 5X16-8,1	T20	R20BS	SM0814	S5	
3225P12	32	25	170	32	32							
2525M16	25	25	150	25	32							
3232P16	32	32	170	32	40							
3232P20	32	32	170	32	40							
4040S20	40	40	250	40	50							

SRACR/L


TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	Placa base	Tornillo	Llave	€
SRACR/L	a	b	L	h	s	e							PRECIO
2020K06	20	20	125	20	13	35	RC 00 T 0602 00	L60M 2,5X5	T08	-	-	-	
2525M06	25	25	150	25	18	35							
2020K08	20	20	125	20	11	35	RC 00 T 0803 00	L60M 3X7	T09	-	-	-	
2525M08	25	25	150	25	16	35							
2020K10	20	20	125	20	9	35	RC 00 T 1003 00	L60M 3,5X10	T15	-	-	-	
2525M10	25	25	150	25	14	35							
2020K12	20	20	125	20	7	35	RC 00 T 1204 00	L60M 3,5X12	T15	-	-	-	
2525M12	25	25	150	25	12	35							
3225P12	32	25	170	32	12	40							
2525M16	25	25	150	25	10	35	RC 00 T 1604 00	L60M 4X16	T15	R16BS	SM0604	S4	
3232P16	32	32	170	32	22	40							
3232P20	32	32	170	32	20	40	RC 00 T 2006 00	L60M 5X16-8,1	T20	R20BS	SM0814	S5	
4040S20	40	40	250	40	30	45							

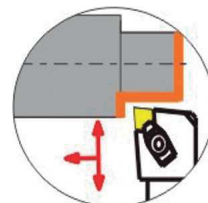
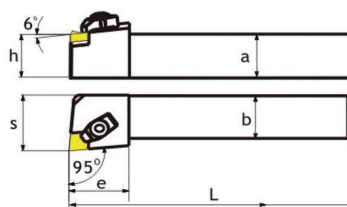
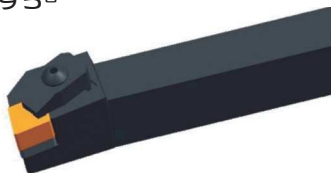
HERRAMIENTAS DE TORNEADO

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TIPO C/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

CCLNR/L

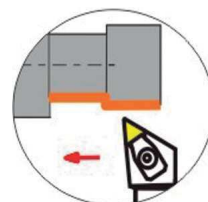
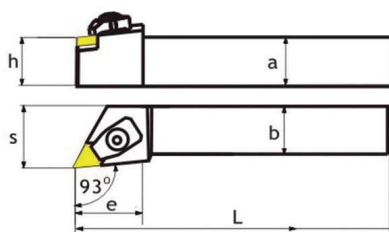
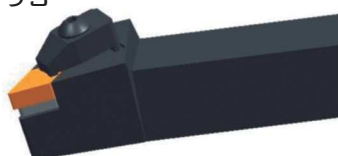
95°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
CCLNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	27	32	CN 00 1207 00	MC 1204	S4 S2	CCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	27	36	CN 00 1607 00	MC 1604	S4	CCL2816	DM 0830	DSP 0812	
3225P16	32	25	170	32	32	36							

CDJNR/L

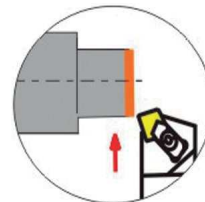
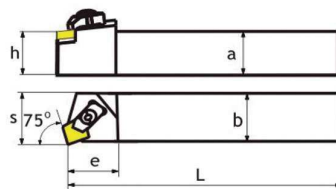
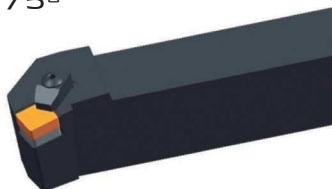
93°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
CDJNR/L	a	b	L	h	s	e							PRECIO
2525M15	25	25	150	25	32	32	DN 00 1507 00	MD 1504	S4 S3	CCL2612	DM 0625	DSP 0612	
3225P15	32	25	170	32	32	32							

CSKNR/L

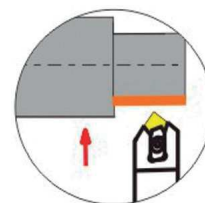
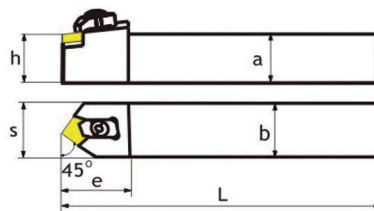
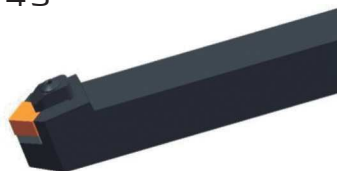
75°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
CSKNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	25	25	SN 00 1207 00	MS 1204	S4 S3	CCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	32	25							
3225P12	32	25	170	32	32	25	SN 00 1507 00	MS 1504	S4	CCL2816	DM 0830	DSP 0812	
3225P15	32	25	170	32	32	32							

CSDNN

45°

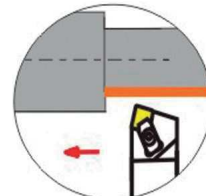
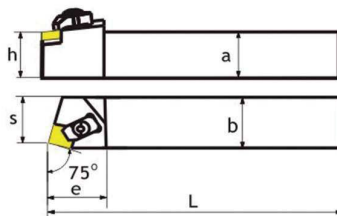
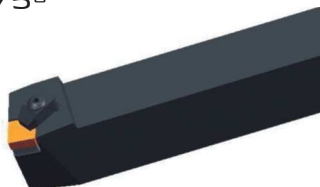


TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
CSDNN	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	25	25	SN 00 1207 00	MS 1204	S4 S3	CCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	32	25							
3225P12	32	25	170	32	32	25	SN 00 1507 00	MS 1504	S4	CCL2816	DM 0830	DSP 0812	
3225P15	32	25	170	32	32	32							

TIPO C/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

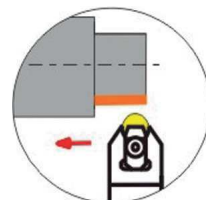
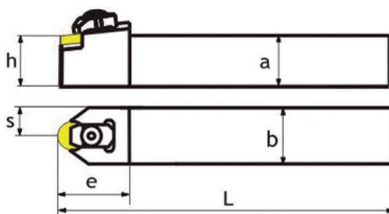
CSRNR/L

75°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
CCLNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	22	32	SN 00 1207 00	MS 1204	S4 S3	CCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	27	32							
3225P12	32	25	170	32	27	32	SN 00 1507 00	MS 1504	S4	CCL2816	DM 0830	DSP 0812	
3225P15	32	25	170	32	32	40							
4040R15	40	40	200	40	43	40							

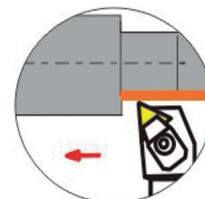
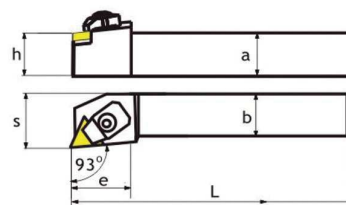
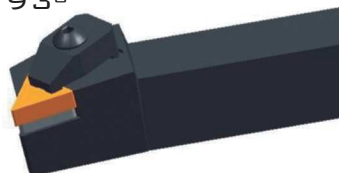
CRDNN



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
CRDNN	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	10	32	RN 00 1207 00	MR 1204	S4 S3	CCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	12,5	32							
3225P12	32	25	170	32	12,5	32							

CTJNR/L

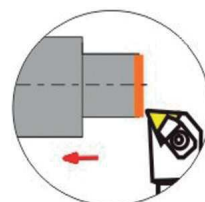
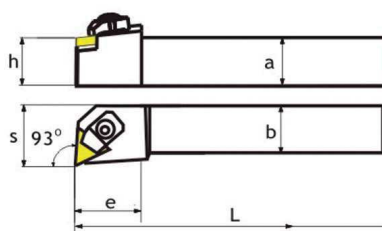
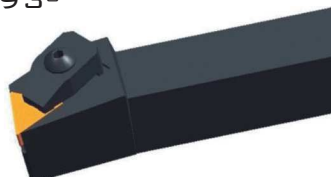
93°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
CTJNR/L	a	b	L	h	s	e							PRECIO
2020K16	20	20	125	20	25	30	TN 00 1607 00	MT 1603	S4 S3	CCL2612	DM 0625	DSP 0510	
2525M16	25	25	150	25	32	30							

CTUNR/L

93°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
CTUNR/L	a	b	L	h	s	e							PRECIO
2020K16	20	20	125	20	25	30	TN 00 1607 00	MT 1603	S4 S3	CCL2612	DM 0625	DSP 0510	
2525M16	25	25	150	25	32	30							

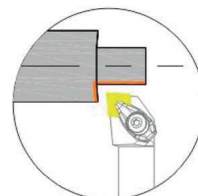
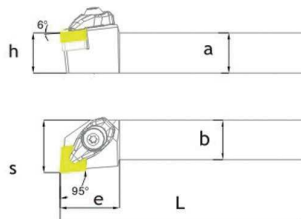
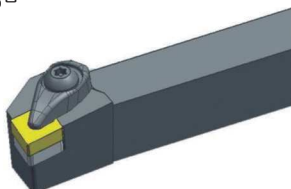
HERRAMIENTAS DE TORNEADO

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TIPO D/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

DCLNR/L

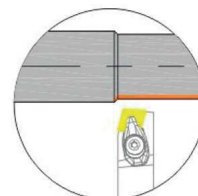
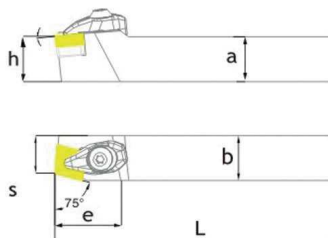
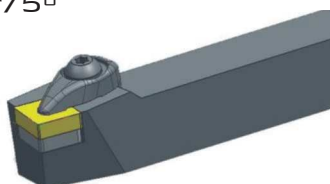
95□



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DCLNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	25	32	CN □□ 1204 □□	MC 1204	S4 S3	DCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	32	36							
3232P12	32	32	170	32	40	36							

DCBNR/L

75°



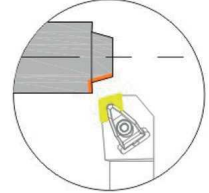
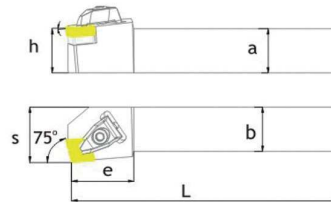
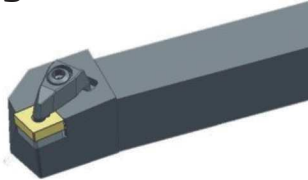
TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DCBNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	25	32	CN □□ 1204 □□	MC 1204	S4 S3	DCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	32	36							
3232P12	32	32	170	32	40	36							

HERRAMIENTAS DE TORNEADO

TIPO D/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

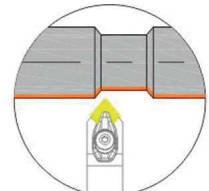
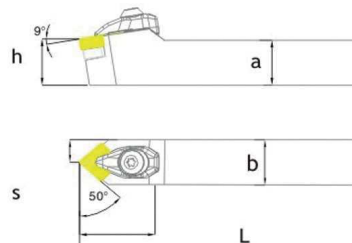
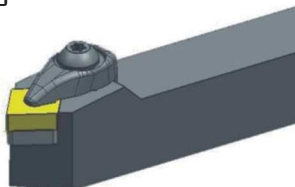
DCKNR/L

75°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DCKNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	25	32	CN 00 1204 00	MC 1204	S4 S3	DCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	32	36							
3232P12	32	32	170	32	40	36							

50°



DCMNN

TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DCMNN	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	10	32	CN  1204 	MC 1204	S4 S3	DCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	12,5	36							
3232P12	32	32	170	32	16	36							

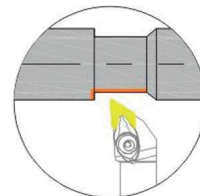
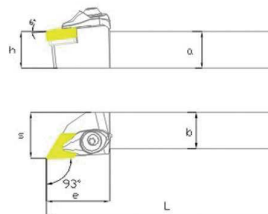
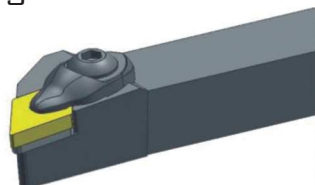
HERRAMIENTAS DE TORNEADO

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 HPTOOLS

TIPO D/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

DDJNR/L

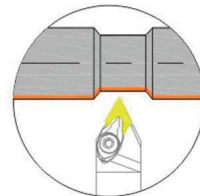
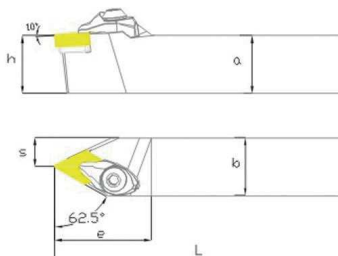
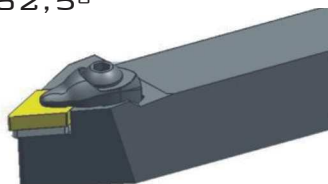
93°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DDJNR/L	a	b	L	h	s	e							PRECIO
2020K11	20	20	125	20	25	32	DN 00 1104 00	MD 1103	S3	DCL2211	DM 0520	DSP 0510	
2525M11	25	25	150	25	32	32							
2020K15	20	20	125	20	25	36	DN 00 1504 00						
2525M15	25	25	150	25	32	36	DN 00 1506 00	MD 1504	S4 S3	DCL2612	DM 0625	DSP 0612	
3232P15	32	32	170	32	40	36							

DDPNN

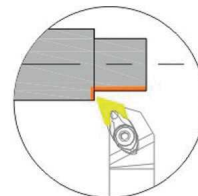
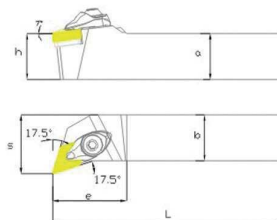
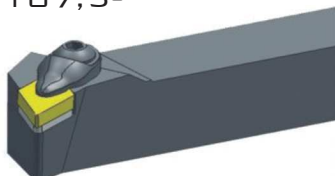
62,5°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DDPNN	a	b	L	h	s	e							PRECIO
2020K11	20	20	125	20	10	32	DN 00 1104 00	MD 1103	S3	DCL2211	DM 0520	DSP 0510	
2525M11	25	25	150	25	12,5	36							
2020K15	20	20	125	20	10	36	DN 00 1504 00						
2525M15	25	25	150	25	12,5	36	DN 00 1506 00	MD 1504	S4 S3	DCL2612	DM 0625	DSP 0612	
3232P15	32	32	170	32	16	36							

DDQNR/L

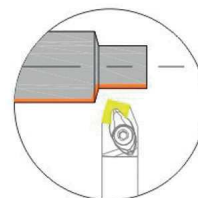
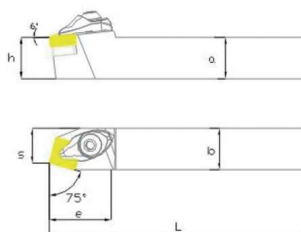
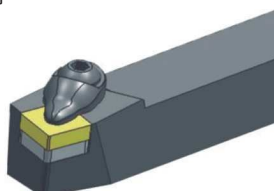
107,5°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DDJNR/L	a	b	L	h	s	e							PRECIO
2020K11	20	20	125	20	25	32	DN 00 1104 00	MD 1103	S4 S3	DCL2211	DM 0520	DSP 0510	
2525M11	25	25	150	25	32	36							
2020K15	20	20	125	20	25	36	DN 00 1504 00						
2525M15	25	25	150	25	32	36	DN 00 1506 00	MD 1504	S4 S3	DCL2612	DM 0625	DSP 0612	
3232P15	32	32	170	32	40	36							

DSBNR/L

75°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DSBNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	17	32							
2525M12	25	25	150	25	22	36	SN 00 1204 00	MS 1204	S4 S3	DCL2612	DM 0625	DSP 0612	
3225P12	32	25	170	32	27	36							

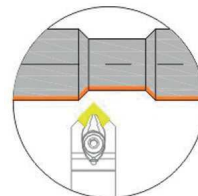
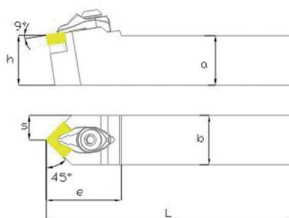
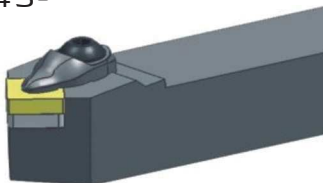
HERRAMIENTAS DE TORNEADO

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TIPO D/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

DSDNN

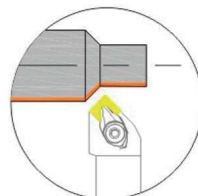
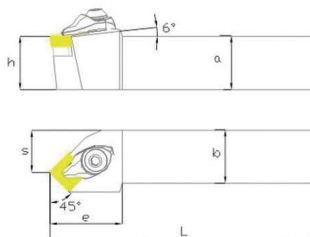
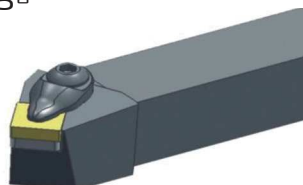
45°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DSDNN	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	10	25	SN  1204 	MS 1204	S4 S3	DCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	12,5	25							
3232P12	32	32	170	32	12,5	25							

DSSNR/L

45□



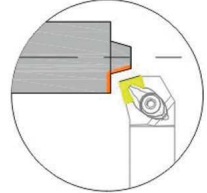
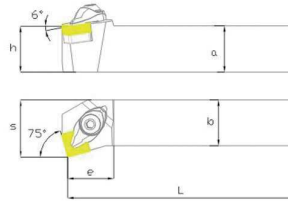
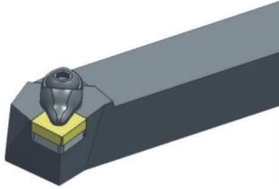
TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DSSNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	17	32	SN □□ 1204 □□	MS 1204	S4 S3	DCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	22	36							
3232P12	32	32	170	32	27	36							

HERRAMIENTAS DE TORNEADO

TIPO D/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

DSKNR/L

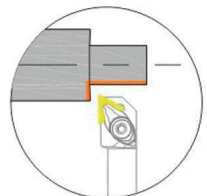
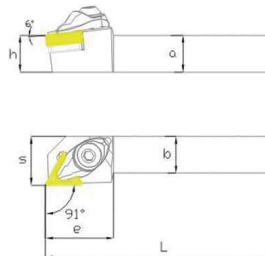
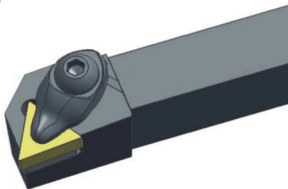
75°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DSKNR/L	a	b	L	h	s	e							PRECIO
2020K12	20	20	125	20	25	25	SN 00 1204 00	MS 1204	S4 S3	DCL2612	DM 0625	DSP 0612	
2525M12	25	25	150	25	32	25							
3232P12	32	32	170	32	32	25							

DTG NR

90°

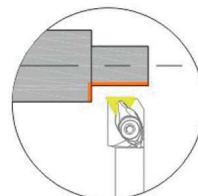
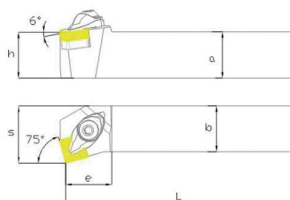
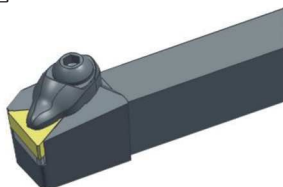


TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DTG NR	a	b	L	h	s	e							PRECIO
2020K16	20	20	125	20	25	25	TN □□ 1604 □□	MT 1603	S3	DCL2211	DM 0520	DSP 0510	
2525M16	25	25	150	25	32	25							
3225P16	32	25	170	32	32	25							
3232P16	32	32	170	32	32	32							

TIPO D/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

DTFNR

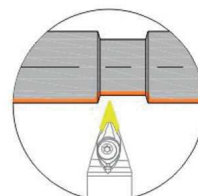
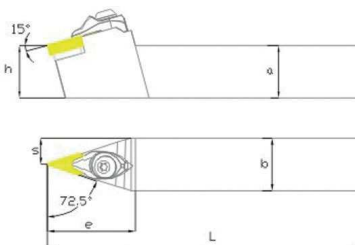
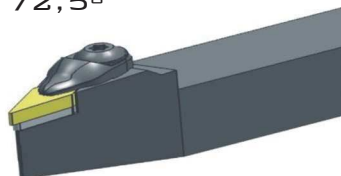
90°



TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DTFNR	a	b	L	h	s	e							PRECIO
2020K16	20	20	125	20	25	25	TN 00 1604 00	MT 1603	S3	DCL2211	DM 0520	DSP 0510	
2525M16	25	25	150	25	32	25							
3225P16	32	25	170	32	32	25							
3232P16	32	32	170	32	32	32							

DVVNN

72,5°



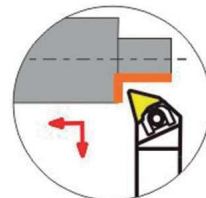
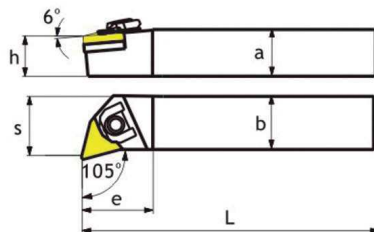
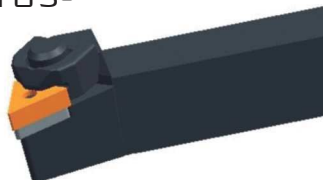
TIPO	Dimensiones (mm)						placas aplicables	Placa base	Llave	Brida	Tornillo de apriete	Tornillo	€
DVVNN	a	b	L	h	s	e							PRECIO
2020K16	20	20	125	20	25	25	VN 00 1604 00	MV 1603	S3	DCL3113	DM 0520	DSP 0510	
2525M16	25	25	150	25	32	25							
3225P16	32	25	170	32	32	25							
3232P16	32	32	170	32	32	32							

HERRAMIENTAS DE TORNEADO

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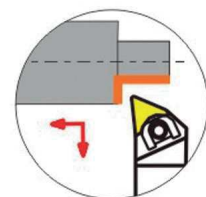
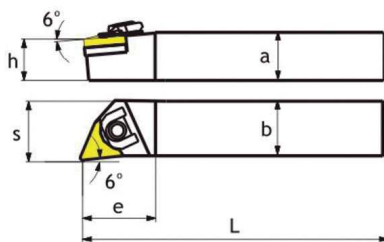
TIPO W/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

WTQNR/L



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
WTQNR/L	a	b	L	h	s	e							PRECIO
2020K16	20	20	125	20	25	33	TN 00 1604 00	WM0525	MT1603	S2,4 S4	WTL16	SZ0515	
2525M16	25	25	150	25	32	33							
3232P16	32	32	170	32	32	33	TN 00 220400	MT2204	WTL22	SZ0618			
2525M22	25	25	150	25	32	33							
3232P22	32	32	170	32	32	33							

WTJNR/L



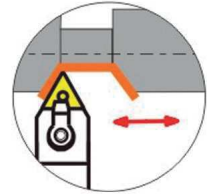
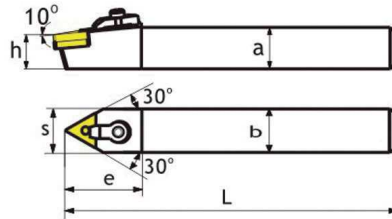
TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
WTJNR/L	a	b	L	h	s	e							PRECIO
1316H16	13	16	125	31	20	20	TN 00 1604 00	WM0525	MT1603	S2,5 S4	WTL16	SZ0515	
1616K16	16	16	125	31	16	20							
2020K16	20	20	125	31	20	25							
2525M16	25	25	150	31	25	32							
3232P16	32	32	170	31	32	40							
2525M22	25	25	150	25	32	33	TN 00 220400		MT2204		WTL22	SZ0618	
3232P22	32	32	170	32	32	33							

HERRAMIENTAS DE TORNEADO

TIPO W/ PORTAHERRAMIENTAS DE TORNEADO EXTERNO

WTENN

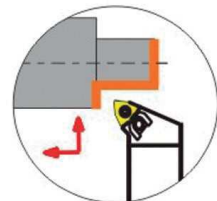
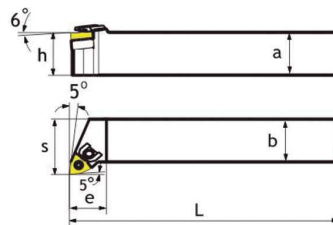
60□



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujeción	€
WTENN	a	b	L	h	s	e							PRECIO
2020K16	20	20	125	20	25	33	TN 00 1604 00	WM0525	MT1603	S2,4 S4	WTL16	SZ0515	
2525M16	25	25	150	25	32	33							
3232P16	32	32	170	32	32	33							
2525M22	25	25	150	25	32	33	TN 00 220400		MT2204		WTL22	SZ0618	
3232P22	32	32	170	32	32	33							

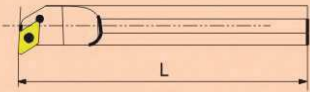
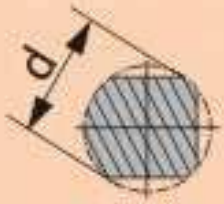
WWLNR/L

95□



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Placa base	Llave	Brida	Perno de sujección	€
WWLNR/L	a	b	L	h	s	e							PRECIO
2020K08	20	20	125	25	20	32	WN 00 0804 00	WM0525	WW0804	S3 S4	WWL08	SZ0618	
2525M08	25	25	150	32	25	33							
3232P08	32	32	170	40	32	33							

SÍMBOLO	A	E	C	S	X
TIPO DE VÁSTAGO	DE ACERO + ORIFICIO DE ACEITE	DE CARBURO + ORIFICIO DE ACEITE	DE CARBURO	DE ACERO	APLICACIÓN ESPECIAL DE INSERCIÓN

1. TIPO DE PORTAHERRAMIENTA

2. DIÁMETRO DE PORTAHERRAMIENTAS

S 25 R P C

3. LONGITUD HERRAMIENTA

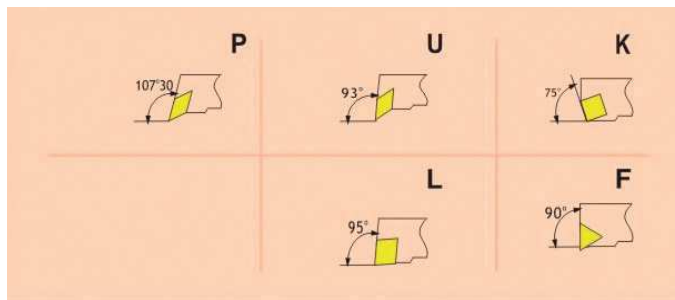
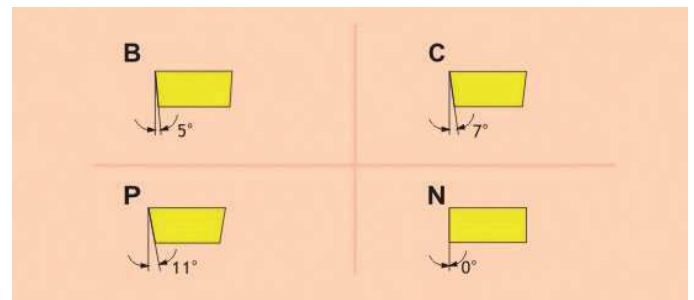
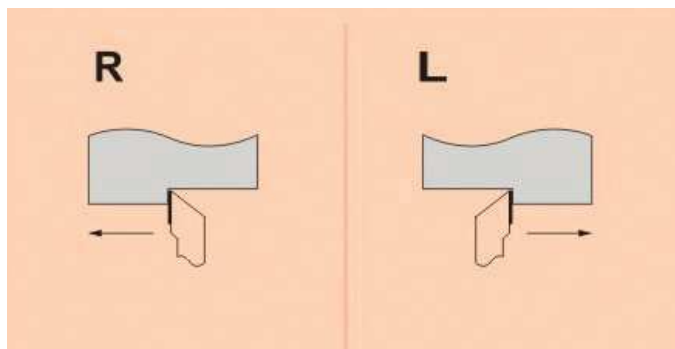
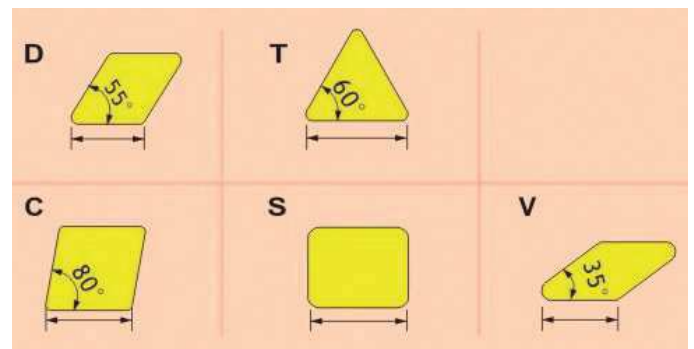
4. SISTEMA DE SUJECCIÓN

5. FORMA DE INSERCIÓN

100	125	150	160	180	200	250	300	350	400
H	K	M	N	Q	R	S	T	U	V

M	P	S
		
FIJACIÓN CON BRIDA	FIJACIÓN CON TORNILLO	FIJACIÓN CON TORNILLO

C	R	T	W
			
D	S	V	
			


6. ESTILO DE PORTAHERRAMIENTA

7. ÁNGULO DE HOLGURA DE INSERCIÓN
L
N
R
09
8. DIRECCIÓN DE CORTE

9. LONGITUD DE FILO


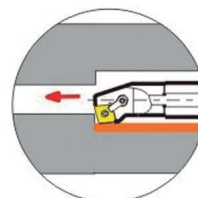
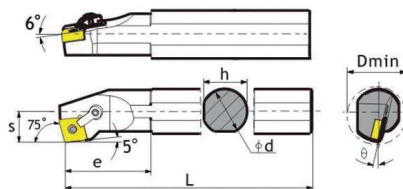
HERRAMIENTAS DE TORNEADO

AIBER
 HPTOOLS

TIPO M/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

MCKNR/L

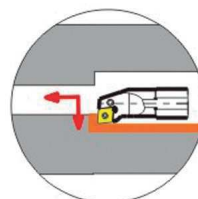
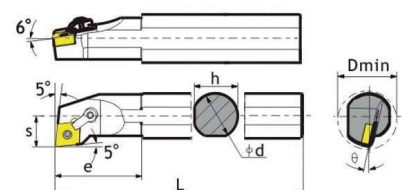
75°



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MCKNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S20Q-MCKNR/L 12	26	20	180	18	13	15°	45	CN 00 120400	X	MSP 613	MCL1810	WS 061020	S2,5 S3	
S25R-MCKNR/L 12	32	25	200	23	17	12°	45							
S32S-MCKNR/L 12	40	32	250	30	22	17°	50							
S40T-MCKNR/L 12	50	40	300	38	26	15°	55		MC 1204	MSP 617	MCL1814	WS 061025		
S50U-MCKNR/L 12	60	50	350	48	33	12°	70							

MCLNR/L

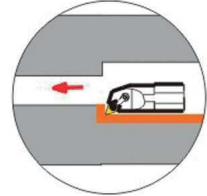
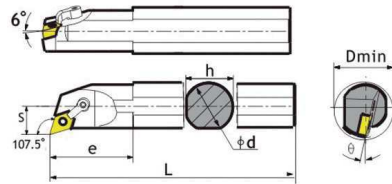
95°



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MCLNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S20Q-MCLNR/L 12	26	20	180	19	13	15°	45	CN 00 120400	X	MSP 613	MCL1810	WS 061020	S2,5 S3	
S25R-MCLNR/L 12	32	25	200	24	16,5	12°	45							
S32S-MCLNR/L 12	40	32	250	30	22,5	17°	50							
S40T-MCLNR/L 12	50	40	300	38	26	15°	55		MC 1204	MSP 617	MCL1814	WS 061025		
S50U-MCLNR/L 12	60	50	350	47	31	12°	70							

MDQNR/L

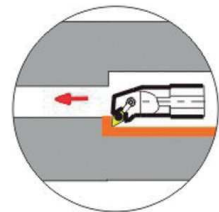
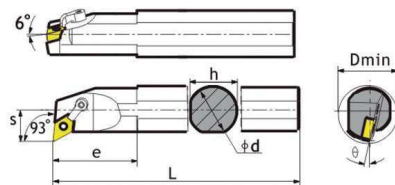
107° 30'



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MDQNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S20Q-MDQNR/L15	26	20	180	18	13	15°	31	DN 00 150400	X	MSP 613	MCL2114	WS 061020	S2,5 S3	
S25R-MDQNR/L15	32	25	200	23	17	12°	35							
S32S-MDQNR/L15	40	32	250	30	22	17°	40					WS 061025		
S40T-MDQNR/L15	50	40	300	38	27	15°	50		MD 1504	MSP 617				

MDUNR/L

75°



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MDUNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S20Q-MDUNR/L15	26	20	180	18	13	15°	31	DN 00 150400	X	MSP 613	MCL2114	WS 061020	S2,5 S3	
S25R-MDUNR/L15	32	25	200	24	17	12°	35							
S32S-MDUNR/L15	40	32	250	30	22	17°	40					WS 061025		
S40T-MDUNR/L15	50	40	300	38	27	15°	50		MD 1504	MSP 617				

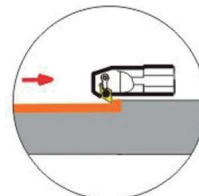
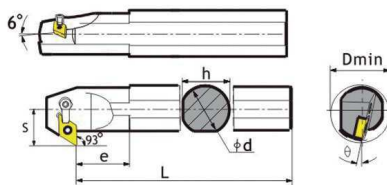
HERRAMIENTAS DE TORNEADO

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TIPO M/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

MDZNR/L

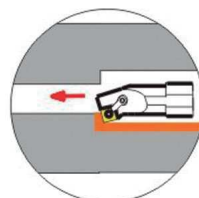
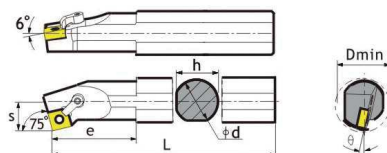
93°



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MDZNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S25R-MDZNR/L 15	32	25	200	23	17	15°	35	DN 00 150400	X	MSP 617	MCL1814	WS 061025	S3	
S32S-MDZNR/L 15	40	32	250	30	22	12°	40		MD 1504					
S40T-MDZNR/L 15	50	40	300	38	17	17°	50							

MSKNR/L

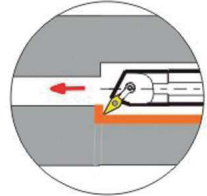
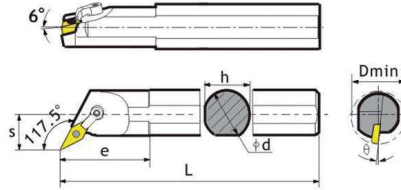
75°



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MSKNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S20Q-MSKNR/L 12	26	20	180	18	13	15°	31	SN 00 120400	X	MSP 613	MCL1810	WS 061020	S2,5 S3	
S25R-MSKNR/L 12	32	25	200	23	17	12°	35							
S32S-MSKNR/L 12	40	32	250	30	22	17°	40		MD 1204	MSP 617	MCL1814	WS 061025		
S40T-MSKNR/L 12	50	40	300	37	27	15°	50							

MVQNR/L

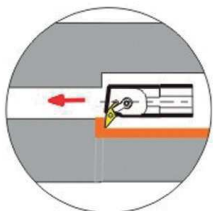
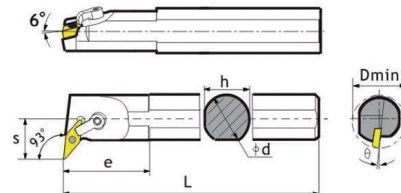
117° 30'



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MVQNR/L	Dmin	ød	L	h	s	θ°	e							PRECIO
S25R-MVQNR/L16	32	25	200	23	17	12°	35	VN 00 160400	X	MSP 510				
S32S-MVQNR/L16	42	32	250	23	22	17°	40		MV 1603	MSP 513	MCL2414	WS 061025	S2 S3	
S40T-MVQNR/L16	50	40	300	30	27	15°	50							

MVUNR/L

93°



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MVUNR/L	Dmin	ød	L	h	s	θ°	e							PRECIO
S25R-MVUNR/L16	36	25	200	23	17	12°	35	VN 00 160400	X	MSP 510				
S32S-MVUNR/L16	42	32	250	32	22	17°	40		MV 1603	MSP 513	MCL1814	WS 061025	S2 S3	
S40T-MVUNR/L16	50	40	300	40	27	15°	50							

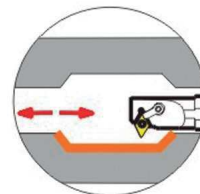
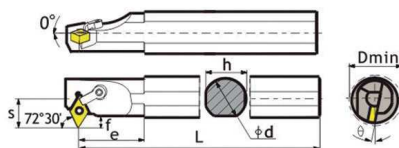
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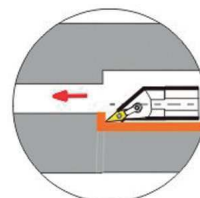
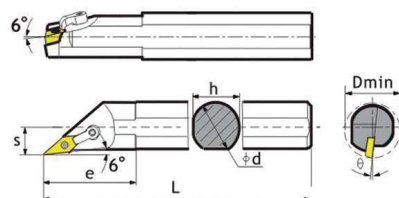
MVWNR/L

72° 30'



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MVWNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S25R-MVWNR/L16	40	25	200	24	26	12°	35	VN 00 160400	X	MSP 510				
S32S-MVWNR/L16	48	32	250	30	30	17°	40		MD 1603	MSP 513	MCL1814	WS 061025	S2 S3	
S40T-MVWNR/L16	56	40	300	38	34	15°	50							

MVXNR/L

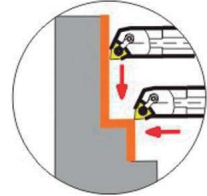
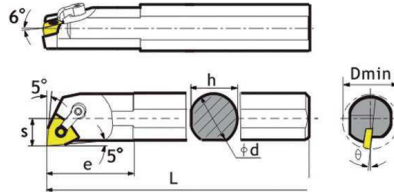


TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MVXNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S25R-MVXNR/L16	32	25	200	24	17	12°	35	VN 00 160400	X	MSP 510				
S32S-MVXNR/L16	42	32	250	30	22	17°	40		MD 1603	MSP 513	MCL2414	WS 061025	S2 S3	
S40T-MVXNR/L16	50	40	300	38	27	15°	50							

HERRAMIENTAS DE TORNEADO

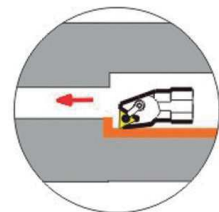
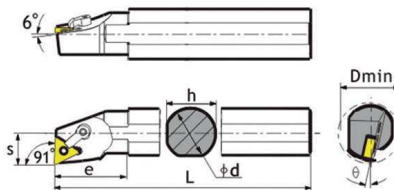
TIPO M/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

MWLNR/L



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MWLNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S20Q-MWLNR/L08	25	20	180	18	13	17°	31	WN 00 080400	X	MSP 613	MCL1810	WS 061020	S2,5 S3	
S25R-MWLNR/L08	32	25	200	23	17	15°	35							
S32S-MWLNR/L08	41	32	250	30	22	12°	40		MW 0804	MSP 617	MCL1814	WS 061025	S3	
S40T-MWLNR/L08	50	40	300	37	27	15°	50							

91 □



MTFNR/L

TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujección	Brida	Tornillo de apriete	Llave	€
MTFNRL	Dmin	ød	L	h	s	θ°	e							PRECIO
S20Q-MTFNR/L16	25	20	180	18	13	15°	31	TN 00 160400	X	MSP 510	MCL1810	WS 061020	S2 S3	
S25R-MTFNR/L16	32	25	200	23	17	12°	35							
S32S-MTFNR/L16	40	32	250	30	22	17°	40							
S40T-MTFNR/L16	50	40	300	38	27	15°	50		MT 1603	MSP 513	MCL1814	WS 061025		

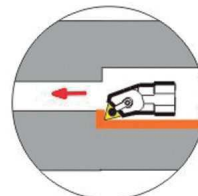
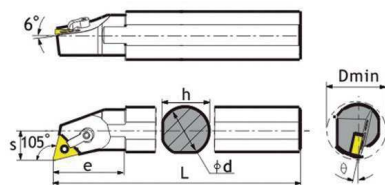
HERRAMIENTAS DE TORNEADO

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TIPO M/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

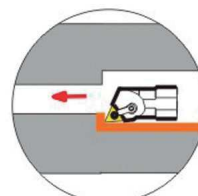
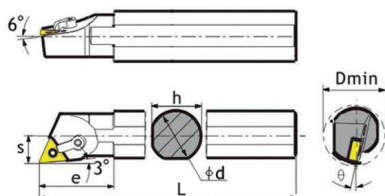
MTQNR/L

105°



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MTQNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S20Q-MTQNR/L 16	25	20	180	18	13	15°	31	TN 00 080400	X	MSP 510	MCL1810	WS 061020	S2 S3	
S25R-MTQNR/L 16	32	25	200	23	17	12°	35							
S32S-MTQNR/L 16	40	32	250	30	22	17°	40		MT 1603	MSP 513	MCL1814	WS 061025		
S40T-MTQNR/L 16	50	40	300	37	27	15°	50							

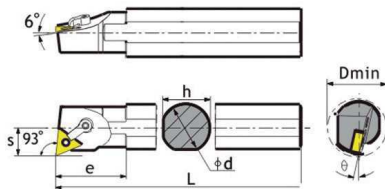
MTJNR/L



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MTJNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S25R-MTJNR/L 16	32	25	200	23	17	12°	35	VN 00 160400	X	MSP 510	MCL1814	WS 061025	S2 S3	
S32S-MTJNR/L 16	40	32	250	30	22	17°	40							
S40T-MTJNR/L 16	50	40	300	38	27	15°	50		MD1603	MSP 513				

MTUNR/L

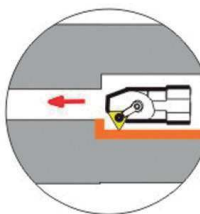
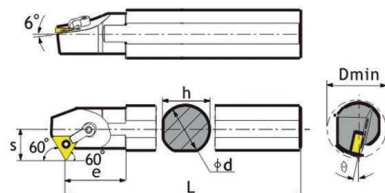
93°



TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MTUNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S20Q-MTUNR/L16	25	20	180	18	13	15°	31	TN 00 160400	X	MSP 510	MCL1810	WS 061020	S2 S3	
S25R-MTUNR/L16	32	25	200	23	17	12°	35							
S32S-MTUNR/L16	40	32	250	30	22	17°	40		MT 1603	MSP 513	MCL1814	WS 061025		
S40T-MTUNR/L16	50	40	300	37	27	15°	50							

MTWNR/L

60°

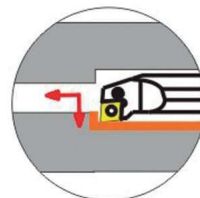
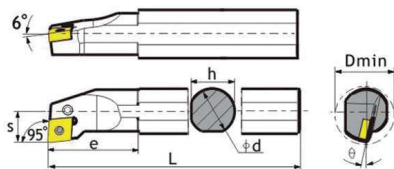


TIPO	Dimensiones (mm)							placas aplicables	Placa base	Perno de sujeción	Brida	Tornillo de apriete	Llave	€
MTWNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S20Q-MTWNR/L16	27	20	180	18	13	15°	31	TN 00 160400	X	MSP 510	MCL1810	WS 061020	S2 S3	
S25R-MTWNR/L16	32	25	200	23	17	12°	35							
S32S-MTWNR/L16	40	32	250	30	22	17°	40		MT1603	MSP 513	MCL1814	WS 061025		
S40T-MTWNR/L16	50	40	300	38	27	15°	50							

TIPO P/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

PCLNR/L

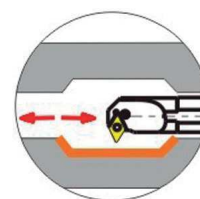
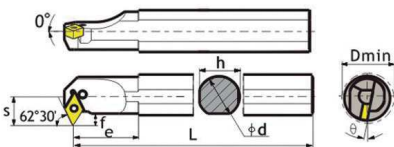
95□



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	Palanca	Placa base	Centrador	€
	PCLNR/L	Dmin	ød	L	h	s	θ°							
S16Q-PCLNR/L09	20	16	180	15	11	-12°	28	 CN 00 090300	VHX0509	S2	LV3C	-	-	
S20Q-PCLNR/L09	25	20	180	18	13	-11°	31		VHX0613	S2,5	LV4A	-	-	
S25R-PCLNR/L09	32	25	200	23	17	-10°	35		VHX0821	S3	LV4	PC 123188	SP4	
S20Q-PCLNR/L12	25	20	180	18	13	-11°	31	 CN 00 120400	VHX1027	S4	LV6	PC 19476	SP6	
S25R-PCLNR/L12	32	25	200	23	17	-12°	40							
S32S-PCLNR/L12	44	32	250	30	22	-10°	50							
S40T-PCLNR/L12	54	40	300	37	27	-10°	55							
S50U-PCLNR/L12	63	50	350	47	35	-10°	56							
S50U-PCLNR/L19	63	50	350	47	35	-10°	63							

PDSNR/L

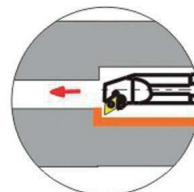
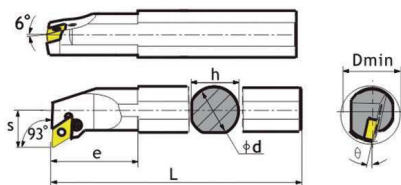
62° 30'



TIPO	Dimensiones (mm)								placas aplicables	Tornillo	Llave	Palanca	Placa base	Centrador	€
	PDSNR/L	Dmin	Ød	L	h	s	θ°	e							
S32S-PDSNR/L15	40	32	250	30	22	11°	45	8,5							PRECIO
S40T-PDSNR/L15	50	40	300	37	27	11°	43	9,4	DN 00 150600	VHX0821	S3	LV4B	PD15318	SP4	
S32S-PDSNR/L15-3	40	32	250	30	22	11°	45	8,5	DN 00 150400	VHX0821	S3	LV4	PD15318	SP4	
S40T-PDSNR/L15-3	50	40	300	37	27	11°	43	9,4							

MDUNR/L

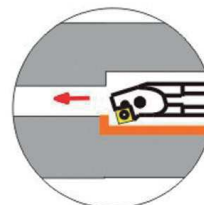
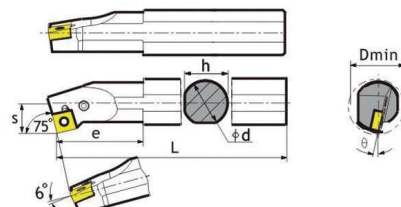
93°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	Palanca	Placa base	Centrador	€
PDUNR/L	Dmin	∅d	L	h	s	θ°	e							PRECIO
S20Q-PDUNR/L11	25	20	180	18	13	-16°	30	DN 00 110400	VHX0512	S2	LV3D	-	-	
S25R-PDUNR/L11	32	25	200	23	17	-13°	35		VHX0509	S2	LV3	PD11270	SP4	
S32S-PDUNR/L11	40	32	250	30	22	-16°	40		VHX0613	S2,5	LV4B		SP4	
S32S-PDUNR/L15	40	32	250	30	22	-16°	50		VHX0821	S3	LV4	PD15318	SP4	
S40T-PDUNR/L15	50	40	300	37	27	-11°	50	CN 00 120400						
S32S-PDUNR/L15-3	40	32	250	30	22	-16°	50							
S40T-PDUNR/L15-3	50	40	300	37	27	-11°	50							

PSKNR/L

75°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	Palanca	Placa base	Centrador	€
PSKNR/L	Dmin	∅d	L	h	s	θ°	e							PRECIO
S25R-PSKNR/L12	32	25	200	23	17	-12°	42	SN 00 120400	VHX0613	S2,5	LV4A	-	-	
S32S-PSKNR/L12	44	32	250	30	22	-10°	45		VHX0821	S2	LVA	PD12318	SP4	
S40T-PSKNR/L12	54	40	300	37	27	-10°	50							

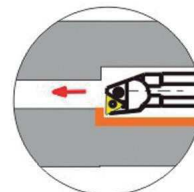
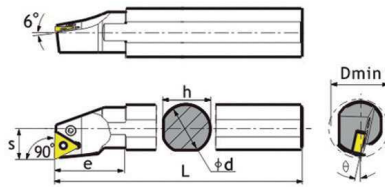
HERRAMIENTAS DE TORNEADO

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TIPO P/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

PTFNR/L

90°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	Palanca	Placa base	Centrador	€
PTFNR/L	Dmin	Ød	L	h	s	θ°	e							PRECIO
S16Q-PTFNR/L11	20	16	180	15	11	-14°	28	TN ØØ 110300	VHX0509	S2	LV2	-	-	
S20Q-PTFNR/L11	25	20	180	18	13	-12°	31							
S25R-PTFNR/L11	32	25	200	23	17	-10°	35							
S25R-PTFNR/L16	32	25	200	23	17	-12°	42	TN ØØ 160400	VHX0512	S2	LV3B	-	-	
S32S-PTFNR/L16	44	32	250	30	22	-10°	50							
S40T-PTFNR/L16	54	40	300	37	27	-10°	55							

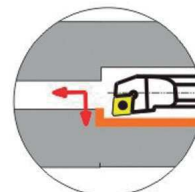
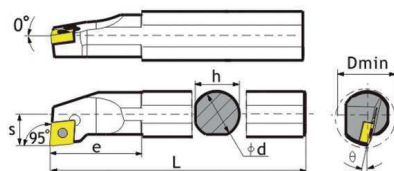
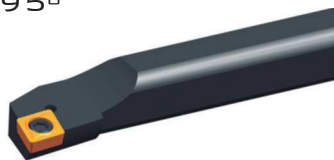
HERRAMIENTAS DE TORNEADO

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TIPO S/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

SCLCR/L

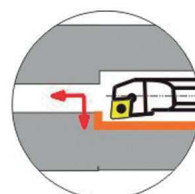
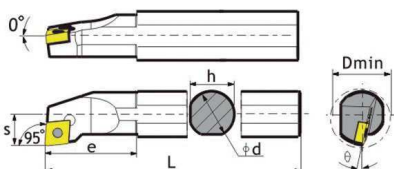
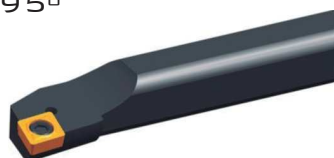
95°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
SCLCR/L	Dmin	Ød	L	h	s	θ°	e				PRECIO
S07K-SCLCR/L06	9	7	125	6	4,2	-15º	14	CC OT 060200	L60M 2,5X5	T08	
S08K-SCLCR/L06	10	8	125	7	5	-15º	14				
S10K-SCLCR/L06	12	10	125	9	6	-13º	14				
S12M-SCLCR/L06	16	12	150	11	9	-10º	25				
S12M-SCLCR/L09	16	12	150	11	9	-10º	25	CC OT 09T300	L60M 4X8	T15	
S16Q-SCLCR/L09	20	16	180	15	11	-12º	32,5				
S20Q-SCLCR/L09	25	20	180	18	13	-8º	38				
S25R-SCLCR/L09	32	25	200	23	17	-6º	45				
S25R-SCLCR/L12	32	25	250	23	17	-6º	45	CC OT 120400	L60M 5X12	T20	
S32S-SCLCR/L12	40	32	250	30	22	-10º	50				
S40T-SCLCR/L12	50	40	300	37	27	-8º	60				

SCLCR/L-H

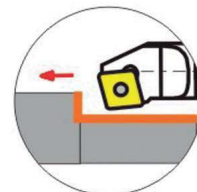
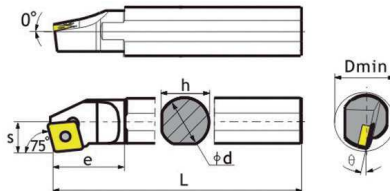
95°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
SCLCR/L-H	Dmin	ød	L	h	s	θ°	e				PRECIO
S08K-SCLCR/L06H09	9	8	125	7	5	-15°	22	CC OT 060200	L60M 2,5X5	T08	
S10K-SCLCR/L06H11	11	10	150	9	6	-13°	24				
S12M-SCLCR/L06H13	13	12	150	11	9	-10°	25				
S16Q-SCLCR/L09H17	17	16	180	15	11	-12°	30	CC OT 09T300	L60M 4X8	T15	

SCKCR/L

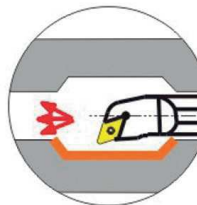
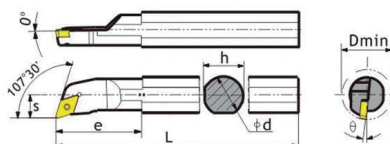
75°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
SCKCR/L	Dmin	ød	L	h	s	θ°	e				PRECIO
S08K-SCKCR/L06	10	8	125	7	5,5	-13º	25	CC DT 060200	L60M 2,5X5	T08	
S10K-SCKCR/L06	13	10	125	9	7	-12º	25				
S12M-SCKCR/L06	16	12	150	11	8,5	-10º	25				
S12M-SCKCR/L09	16	12	150	11	8,5	-12º	30	CC DT 09T300	L60M 2,5X5	T15	
S16N-SCKCR/L09	20	16	160	15	11	-10º	33				
S20Q-SCKCR/L09	24	20	180	19	13	-8º	35				
S25R-SCKCR/L09	31	26	200	24	17	-8º	40				

SDQCR/L

107° 30'



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
SDQCR/L	Dmin	Ød	L	h	s	θ°	e				PRECIO
S08K-SDQCR/L07	10	8	125	7	5	-8º	14	DC DT 070200	L60M 2,5X5	T08	
S10K-SDQCR/L07	13	10	150	9	7	-8º	20				
S12M-SDQCR/L07	16	12	150	11	9	-8º	22				
S16Q-SDQCR/L07	20	16	180	15	11	-6º	27	DC DT 11T300	L60M 4X8	T15	
S20Q-SDQCR/L11	25	20	180	18	13	-6º	32				
S25R-SDQCR/L11	32	25	200	23	17	-6º	32				

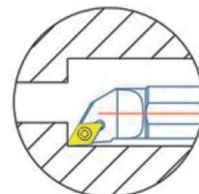
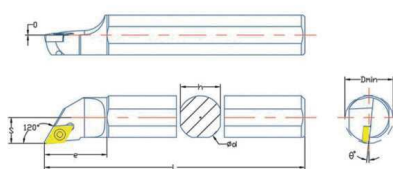
HERRAMIENTAS DE TORNEADO

AIBER
 HIGHTOOLS

TIPO S/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

SDXCR/L

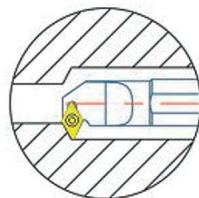
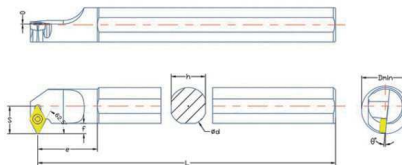
95°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€	
SDXCR/L	Dmin	ød	L	h	s	θ°	e				PRECIO	
S10K-SDXCR/L07	13	10	150	9	7	-8º	20	DC DT 070200	L60M 2,5X5	T08		
S12M-SDXCR/L07	16	12	150	11	9	-8º	22					
S16Q-SDXCR/L07	20	16	180	15	11	-6º	27					
S20Q-SDXCR/L11	25	20	180	18	13	-6º	32	DC DT 11T300	L60M 4X8	T15		
S25R-SDXCR/L11	32	25	200	23	17	-6º	32					

SDWCR/L

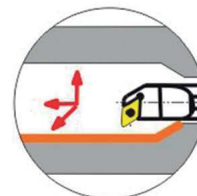
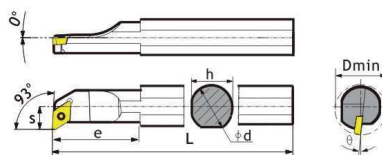
95°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
	SDWCR/L	Dmin	ød	L	h	s	θ°				
S12M-SDWCR/L07	19	12	125	11	10,5	-8º	14				PRECIO
S16Q-SDWCR/L07	23	16	180	15	12,5	-8º	20				
S20Q-SDWCR/L07	27	20	180	19	14,5	-8º	22				
S20Q-SDWCR/L11	27	20	180	19	14,5	-6º	27				
S25R-SDWCR/L11	32	25	200	24	17	-6º	32				
S32S-SDWCR/L11	40	32	250	30	20	-6º	32				

SDUCR/L

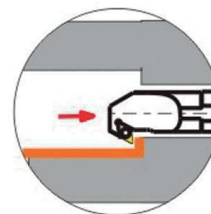
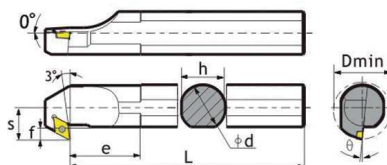
93°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
SDUCR/L	Dmin	ød	L	h	s	θ°	e				PRECIO
S08K-SDUCR/L07	13	8	125	9	7	-8°	22	 DC DT 070200	 L60M 2,5X5	 T08	
S10K-SDUCR/L07	13	10	125	9	7	-8°	22				
S12M-SDUCR/L07	16	12	150	11	9	-8°	22				
S16Q-SDUCR/L07	20	16	180	15	11	-6°	27				
S20Q-SDUCR/L11	25	20	180	18	13	-6°	40	 DC DT 11T300	 L60M 4X8	 T15	
S25R-SDUCR/L11	32	25	200	23	17	-6°	46				

SDZCR/L

93°



TIPO	Dimensiones (mm)								placas aplicables	Tornillo	Llave	€
SDZCR/L	Dmin	ød	L	h	s	θ°	e	f				PRECIO
S20Q-SDZCR/L11	27	20	180	18	15	-6°	35	6,9	 DC DT 110300	 L60M 4X8	 T15	
S25R-SDZCR/L11	33	25	200	23	17	-6°	40	6,9				
S32S-SDZCR/L11	40	32	250	30	22	-6°	45	8,4				
S40T-SDZCR/L11	50	40	300	37	27	-4°	45	9,4				

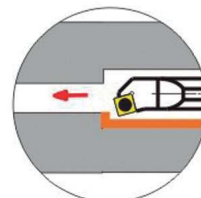
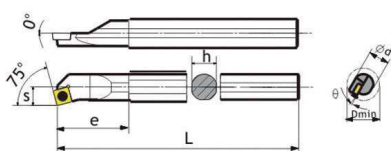
HERRAMIENTAS DE TORNEADO

AIBER
 HPTTOOLS

TIPO S/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

SSKCR/L

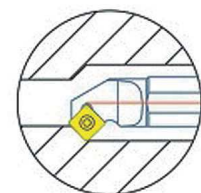
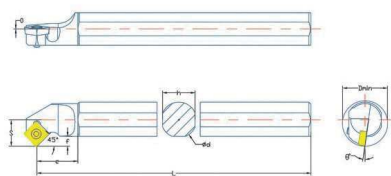
75°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
SSKCR/L	Dmin	ød	L	h	s	θ°	e				PRECIO
S08K-SSKCR/L09	16	12	150	11	9	-10º	25	SC DT 09T300	L60M 4X8	T15	
S10K-SSKCR/L09	20	16	180	15	11	-11º	30				
S12M-SSKCR/L09	25	20	180	18	13	-6º	35				
S16Q-SSKCR/L09	32	25	200	23	17	-8º	40	SC DT 120400	L60M 5X12	T20	
S20Q-SSKCR/L12	32	25	200	23	17	-8º	40				
S25R-SSKCR/L12	40	32	250	30	22	-10º	45				

SSSCR/L

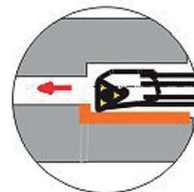
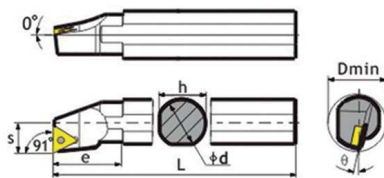
45°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
SSSCR/L	Dmin	ød	L	h	s	θ°	e				PRECIO
S08K-SSSCR/L09	16	12	150	11	9	-10º	25	SC DT 09T300	L60M 4X8	T15	
S10K-SSSCR/L09	20	16	180	15	11	-11º	30				
S12M-SSSCR/L09	25	20	180	18	13	-6º	35				
S16Q-SSSCR/L09	32	25	200	23	17	-8º	40	SC DT 120400	L60M 5X12	T20	
S20Q-SSSCR/L12	32	25	200	23	17	-8º	40				
S25R-SSSCR/L12	40	32	250	30	22	-10º	45				

STFCR/L

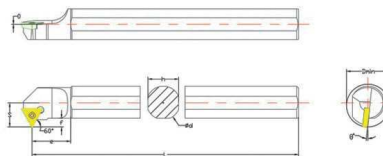
93°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
STFCR/L	Dmin	Ød	L	h	s	θ°	e				PRECIO
S08K-STFCR/L09	10	8	125	7	5	-10º	14	TC OT 09T00	L60M 2,5X5	T08	
S10K-STFCR/L09	12	10	125	9	6	-13º	25				
S12M-STFCR/L09	16	12	150	11	9	-10º	30				
S12M-STFCR/L11	16	12	150	11	11	-6º	30	TC OT 110200	L60M 2,5X5	T08	
S16Q-STFCR/L11	20	16	180	15	11	-6º	35				
S20Q-STFCR/L11	25	20	180	18	13	-3º	36				
S25R-STFCR/L16	32	25	200	23	17	-6º	49	TC OT 16T300	L60M 4X8	T15	
S32S-STFCR/L16	40	32	250	30	22	-10º	50				
S40T-STFCR/L16	50	40	300	37	27	-8º	60				

STWCR/L

60°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
STWCR/L	Dmin	Ød	L	h	s	θ°	e				PRECIO
S10K-STWCR/L11	14	10	125	9	8	-10º	14	TC OT 09T00	L60M 2,5X5	T08	
S12M-STWCR/L11	16	12	150	11	9	-13º	25				
S16Q-STWCR/L11	20	16	180	15	11	-10º	30				
S20Q-STWCR/L11	25	20	180	19	13	-6º	30	TC OT 110200	L60M 2,5X5	T08	
S25R-STWCR/L11	32	25	200	24	17	-6º	35				
S20Q-STWCR/L16	25	20	180	19	14,5	-3º	36				
S25R-STWCR/L16	32	25	200	24	17	-6º	49	TC OT 16T300	L60M 4X8	T15	
S32S-STWCR/L16	39	32	250	30	22	-10º	50				
S40T-STWCR/L16	50	40	300	38	27	-8º	60				

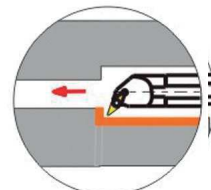
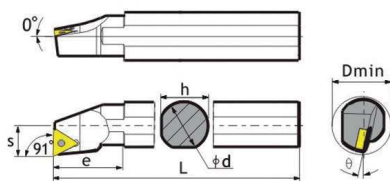
HERRAMIENTAS DE TORNEADO

AIBER
 HIGHTOOLS

TIPO S/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

STFPR/L

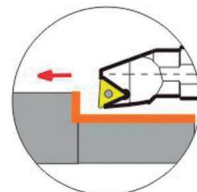
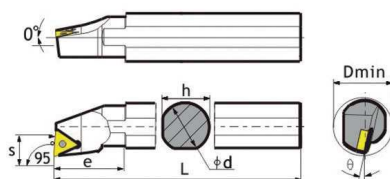
91°



TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
STFPR/L	Dmin	Ød	L	h	s	θ°	e				PRECIO
S20Q-STFPR/L11H09	9	8	125	7	5	-10º	14	TP OT 090200	L60M 2,5X5	T08	
S10K-STFPR/L11H11	11	10	125	9	6	-13º	25	TP OT 110200			
S12M-STFPR/L11H13	13	12	150	11	9	-10º	30	TP OT 110300			
S16Q-STFPR/L11H17	17	16	180	15	11	-6º	35				

STUCR/L

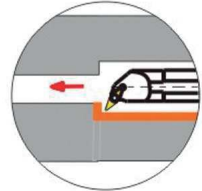
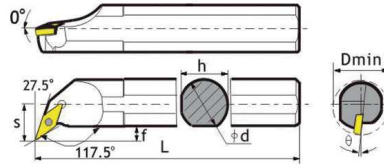
95°

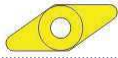


TIPO	Dimensiones (mm)							placas aplicables	Tornillo	Llave	€
STUCR/L	Dmin	Ød	L	h	s	θ°	e				PRECIO
S08K-STUCR/L09	11	08	125	7	5,5	15°	23	TC OT 09T00	L60M 2,5X5	T08	
S08K-STUCR/L09-A16	11	16	125	7	5,5	15°	24				
S10K-STUCR/L09	13	10	125	9	7	13°	24				
S10K-STUCR/L09-A16	13	16	125	9	7	13°	30				
S10K-STUCR/L11	13	10	125	9	7	12°	24	TC OT 110200	L60M 2,5X5	T08	
S10K-STUCR/L11-A16	16	16	125	9	7	12°	30				
S12M-STUCR/L11	16	12	150	11	8,5	10°	27				
S12M-STUCR/L11-A16	16	16	150	11	8,5	10°	30				
S16Q-STUCR/L07	20	16	160	15	11	8°	30	TC OT 16T300	L60M 4X8	T15	
S20Q-STUCR/L11	25	20	180	19	13	6°	35				
S25R-STUCR/L11	31	25	200	24	17	4°	40				
S20Q-STUCR/L16	25	20	180	19	13	8°	40				
S25R-STUCR/L16	31	25	200	24	17	6°	40				
S32S-STUCR/L16	39	32	250	30	22	4°	45				
S40T-STUCR/L16	50	40	300	38	27	2°	55				
S50U-STUCR/L16	60	50	350	48	31	0°	60				

SVQCR/L

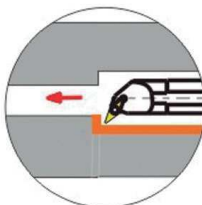
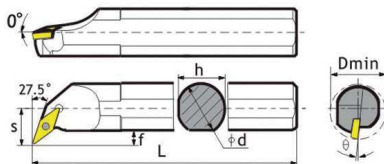
117,5°



TIPO	Dimensiones (mm)								placas aplicables	Tornillo	Llave	€
SVQCR/L	Dmin	Ød	L	h	s	θ°	e	f				PRECIO
S20Q-SVQCR/L16	27	20	180	18	14	-8°	22	6,9	 TC QT 160400	 L60M 4X8	 T15	
S25S-SVQCR/L16	32	25	200	23	17	-8°	22	6,9				
S32S-SVQCR/L16	40	32	250	30	23	-8°	22	8,4				
S40T-SVQCR/L16	50	40	300	37	27	-8°	27	9,4				

SVQBR/L

117,5°



TIPO	Dimensiones (mm)								placas aplicables	Tornillo	Llave	€
SVQBR/L	Dmin	Ød	L	h	s	θ°	e	f				PRECIO
S20Q-SVQBR/L16	27	20	180	18	14	-8°	35	6,9	 VB QT 160400	 L60M 4X8	 T15	
S25R-SVQBR/L16	33	25	200	23	17	-8°	49	6,9				
S32S-SVQBR/L16	40	32	250	30	23	-8°	56	8,4				
S40T-SVQBR/L16	50	40	300	37	27	-8°	64	9,4				

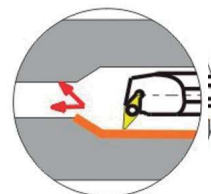
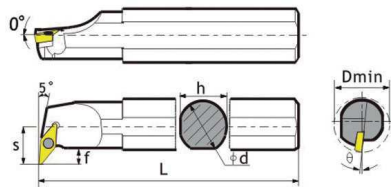
HERRAMIENTAS DE TORNEADO

AIBER
 HIRATOOLS

TIPO S/ PORTAHERRAMIENTAS DE TORNEADO INTERNO

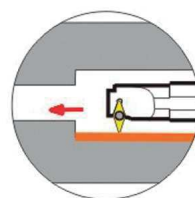
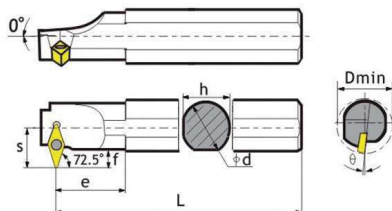
SVUCR/L

95°

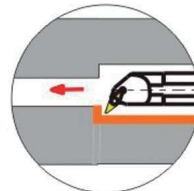
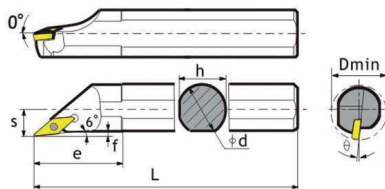


TIPO	Dimensiones (mm)								placas aplicables	Tornillo	Llave	€
SVUCR/L	Dmin	Ød	L	h	s	θ°	e	f				PRECIO
S16Q-SVUCR/L11	22	16	180	15	12,5	-8°	32,5	6,9	VC DT 110300	L60M 2,5X5	T08	
S20Q-SVUCR/L16	31	20	180	18	15	-8°	38	6,9				
S25R-SVUCR/L16	35	25	180	23	17	-8°	45	8,4	VC DT 160400	L60M 4X8	T15	
S32S-SVUCR/L16	42	32	250	30	22	-8°	49	8,4				
S40T-SVUCR/L16	51	40	300	37	27	-8°	56,5	9,4				

SVWCR/L



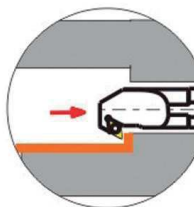
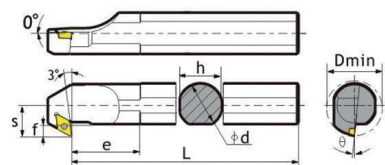
TIPO	Dimensiones (mm)								placas aplicables	Tornillo	Llave	€
SVWCR/L	Dmin	Ød	L	h	s	θ°	e	f				PRECIO
S16Q-SVWCR/L11	30	25	180	15	11	-8°	32,5	6,9	VC DT 110300	L60M 2,5X5	T08	
S20Q-SVWCR/L16	25	28	180	18	15	-8°	38	6,9				
S25R-SVWCR/L16	32	34	180	23	17	-8°	45	8,4	VC DT 160400	L60M 4X8	T15	
S32S-SVWCR/L16	40	42	250	30	22	-8°	49	8,4				
S40T-SVWCR/L16	50	50	300	37	27	-8°	56,5	9,4				

SVXCR/L


TIPO	Dimensiones (mm)								placas aplicables	Tornillo	Llave	€
SVXCR/L	Dmin	Ød	L	h	s	θ°	e	f				PRECIO
S16Q-SVXCR/L11	20	16	180	15	11	-8°	32,5	6,9	VC DT 110300	L60M 2,5X5	T08	
S20Q-SVXCR/L16	25	20	180	18	15	-8°	38	6,9				
S25R-SVXCR/L16	32	25	180	23	17	-8°	45	8,4	VC DT 160400	L60M 4X8	T15	
S32S-SVXCR/L16	40	32	250	30	22	-8°	49	8,4				
S40T-SVXCR/L16	50	40	300	37	27	-8°	56,5	9,4				

SVZBR/L

93°



TIPO	Dimensiones (mm)								placas aplicables	Tornillo	Llave	€
SVZCR/L	Dmin	Ød	L	h	s	θ°	e	f				PRECIO
S16Q-SVZCR/L11	22	16	180	15	11	-8°	32,5	6,9	VC DT 110300	L60M 2,5X5	T08	
S20Q-SVZCR/L16	28	20	180	18	15	-8°	38	6,9				
S25R-SVZCR/L16	34	25	180	23	17	-8°	45	8,4	VC DT 160400	L60M 4X8	T15	
S32S-SVZCR/L16	42	32	250	30	22	-8°	49	8,4				
S40T-SVZCR/L16	50	40	300	37	27	-8°	56,5	9,4				

R

DERECHA

L

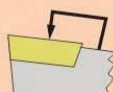
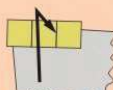
IZQUIERDA

CÓDIGO	LONG.
H	100
K	125
M	150
P	170
Q	180
R	200
S	250

3. DIRECCIÓN DE CORTE
4. TOLERANCIA DE ALTURA
5. ANCHO DE CAÑA
6. LONGITUD HERRAMIENTA

S W R 25 25 M 16

1. SISTEMA DE FIJACIÓN
2. TIPO DE TORNILLO
7. DIMENSIONES DE INSERCIÓN

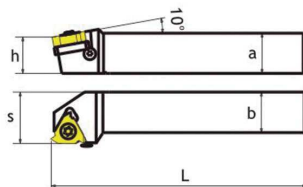
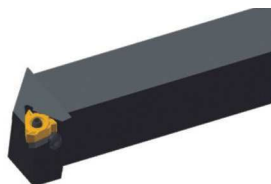
C  FIJACIÓN CON BRIDA	S  FIJACIÓN CON TORNILLO
---	--

N	INTERNO
W	EXTERNO

CÓDIGO	LONGITUD DE FILO	DIÁMETRO CÍRCULO INSCRITO
11	11	6.305
16	16	9.525
22	22	12.70
27	27	15.89

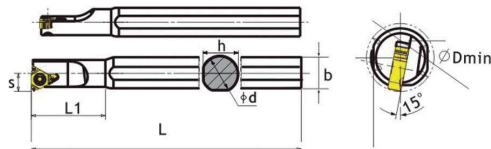
PORTAHERRAMIENTAS DE ROSCADO EXTERNO

SWR/L



TIPO	Dimensiones (mm)					placas aplicables	Tornillo	Placa base	Tornillo de apriete	Llave	€
SWR/L	a	h	b	L	s						PRECIO
1010H11H	10	10	10	100	16	R/LT 11.01W-00GM	L60M 2,5X6	-	-	T08	
1212H11H	12	12	12	100	16						
1616H16H	16	16	16	100	20						
2020K16H	20	20	20	125	25	R/LT 16.01W-00GM	L60M 3,5X12	TT16-00	SS04008	T08 S2,5	
2525M16H	25	25	25	150	32						
3225P16H	32	32	25	170	32						
3232P16H	32	32	32	170	40	R/LT 22.01W-00GM	L60M 5X16	TT22-00	SS04008	T20 S2,5	
2525M22H	25	25	25	150	32						
3225P22H	32	32	25	170	32						
3232P22H	32	32	32	170	40						
4040S22H	40	40	40	250	50						

TIPO	Dimensiones (mm)					placas aplicables	Tornillo	Placa base	Tornillo de apriete	Llave	€
SWR/L	a	h	b	L	s						PRECIO
1010H11	10	10	10	100	16	11ER/L	L60M 2,5X6	-	-	T08	
1212H11	12	12	12	100	16						
1616H16	16	16	16	100	20						
2020K16	20	20	20	125	25	16ER/L	L60M 3,5X12	TT16-00	SS04008	T08 S2,5	
2525M16	25	25	25	150	32						
3225P16	32	32	25	170	32						
3232P16	32	32	32	170	40						
2525M22	25	25	25	150	32	22ER/L	L60M 4X16	TT22-00	SS04008	T20 S2,5	
3225P22	32	32	25	170	32						
3232P22	32	32	32	170	40						
4040S22	40	40	40	250	50						
3232P22	32	32	32	170	40	27ER/L	L60M 6X16	TT27-00			
4040S22	40	40	40	250	50						



TIPO	Dimensiones (mm)						placas aplicables	Tornillo	Placa base	Tornillo de apriete	Llave	€
SWR/L	d	L	Dmin	s	h	L1						PRECIO
0010K11H	10	125	12	6	9,5	32	LT 11.01N-00GM RT 11.01N-00GM	L60M 2,5X5	-	-	T08	
0012K11H	12	125	16	6	11,5	32						
0013M16H	13	150	16	10	15,5	32						
0016M16H	16	150	20	12	15,5	40					T15	
0020Q16H	20	180	25	14	19,5	40	LT 16.01N-00GM RT 16.01N-00GM	L60M 3,5X8				
0025R16H	25	200	30	16	24	45			TT16			
0032S16H	32	250	38	20	30	55				SS04008	T15 S2,5	
0025R22H	25	200	30	18	24	45	LT 22.01N-00GM RT 22.01N-00GM	L60M 5X16	TT22	SS04008	T20 S2,5	
0032S22H	32	250	38	22	30	55						
0040T22H	40	300	46	26	38	60						

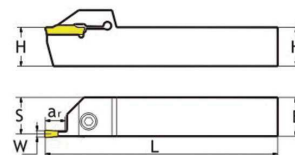
TIPO	Dimensiones (mm)						placas aplicables	Tornillo	Placa base	Tornillo de apriete	Llave	€
SWR/L	d	L	Dmin	s	h	L1						PRECIO
0010K11	10	125	12	6	9,5	32	11IR/L	L60M 2,5X5	-	-	T08	
0012K11	12	125	16	6	11,5	32						
0013M16	13	150	16	10	15,5	32						
0016M16	16	150	20	12	15,5	40					T15	
0020Q16	20	180	25	14	19,5	40	16IR/L	L60M 3,5X8		SS04008		
0025R16	25	200	30	16	24	45			TT16			
0032S16	32	250	38	20	30	55					T15 S2,5	
0025R22	25	200	30	18	24	45						
0032S22	32	250	38	22	30	55	22IR/L	L60M 4X16	TT22	SS04008	T20 S2,5	
0040T22	40	300	46	26	38	60						
0032S27	32	250	40	24	30	55	27IR/L	L60M 6X16	TT27	SS04008	T20 S2,5	
0040T27	40	300	50	30	38	60						

HERRAMIENTAS DE TORNEADO

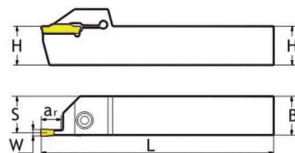
AIBER
HIGHTOOLS

PORTAHERRAMIENTAS DE TRONZADO Y RANURADO EXTERNO

QE□□R/L



TIPO	Dimensiones (mm)						placas aplicables	Tornillo	Llave	€
QEED	HxB	L	S	W	a ₂ max				PRECIO	
1616R/L10	16X16	125	15	2,5	10	Z*ED*****	M 5X20	S4		
1616R/L17	16X16	125	15	2,5	17	Z*ED*****				
2020R/L10	20X20	125	19	2,5	10	Z*ED*****				
2020R/L17	20X20	125	19	2,5	17	Z*ED*****				
2525R/L10	25X25	150	24	2,5	10	Z*ED*****	M 6X20	S5		
2525R/L17	25X25	150	24	2,5	17	Z*ED*****				
QEFD										
1616R/L10	16X16	125	14,8	3	10	Z*FD*****	M 5X20	S4		
1616R/L17	16X16	125	14,8	3	17	Z*FD*****				
2020R/L10	20X20	125	18,8	3	10	Z*FD*****				
2020R/L17	20X20	125	18,8	3	17	Z*FD*****				
2525R/L10	25X25	150	23,8	3	10	Z*FD*****	M 6X20	S5		
2525R/L17	25X25	150	23,8	3	17	Z*FD*****				
QEGD										
2020R/L10	20X20	125	18,5	4	13	Z*GD*****	M 6X20	S5		
2020R/L22	20X20	125	18,5	4	22	Z*GD*****				
2525R/L13	25X25	150	23,5	4	13	Z*GD*****				
2525R/L22	25X25	150	23,5	4	22	Z*GD*****				
3232R/L13	32X32	170	30,5	4	13	Z*GD*****				
3232R/L22	32X32	170	30,5	4	22	Z*GD*****				
QEHD										
2525R/L13	25X25	150	23	5	13	Z*HD*****	M 6X20	S5		
2525R/L22	25X25	150	23	5	22	Z*HD*****				
QEHS										
2525N 30	25X25	150	12,5	5	30	Z*HS*****	M 6X20	S5		
QEHD										
3232R/L13	32X32	170	30	5	13	Z*HD*****	M 6X20	S5		
3232R/L22	32X32	170	30	5	22	Z*HD*****				
QEHS										
3232N 30	32X32	170	16	5	30	Z*HS*****	M 6X20	S5		
QEKD										
2525R/L13	25X25	150	22,6	6	13	Z*KD*****	M 6X20	S5		
2525R/L22	25X25	150	22,6	6	22	Z*KD*****				
QEKS										
2525N 30	25X25	150	12,5	6	30	Z*KS*****	M 6X20	S5		
QEKD										
3232R/L13	32X32	170	29,6	6	13	Z*KD*****	M 6X20	S5		
3232R/L22	32X32	170	29,6	6	22	Z*KD*****				
QEKS										
3232N 30	32X32	170	16	6	30	Z*KS*****	M 6X20	S5		



TIPO	Dimensiones (mm)						placas aplicables	Tornillo	Llave	€
MGEHR/L	H	L	S	W	a _r max					PRECIO
1616-2	16	100	15	2	14,5		MGMN200-M	M 5X17	S4	
2020-2	20	125	19	2	14,5		MGMN200-M	M 6X20	S5	
2525-2	25	150	24	2	14,5		MGMN200-M	M 6X20	S5	
1616-2,5	16	100	15	2,5	16,5		MGMN250-M	M 5X17	S4	
2020-2,5	20	125	19	2,5	16,5		MGMN250-M	M 6X20	S5	
2525-2,5	25	150	24	2,5	16,5		MGMN250-M	M 6X20	S5	
1616-3	16	100	14,8	3	18		MGMN300-M	M 5X17	S4	
2020-3	20	125	18,8	3	18		MGMN300-M			
2020-3-T10	20	125	18,8	3	10		MGMN300-M			
2525-3	25	150	23,8	3	18		MGMN300-M			
2525-3-T10	25	150	23,8	3	10		MGMN300-M			
3232-3	32	170	30,5	3	18		MGMN300-M			
3232-3-T10	32	170	30,5	3	10		MGMN300-M			
2020-4	20	125	18,5	4	18		MGMN400-M			
2020-4-T10	20	125	18,5	4	10		MGMN400-M			
2525-4	25	150	23,5	4	18		MGMN400-M			
2525-4-T10	25	150	23,5	4	10		MGMN400-M			
3232-4	32	170	30,5	4	18		MGMN400-M			
3232-4-T10	32	170	30,5	4	10		MGMN400-M	M 6X20	S5	
2020-5	20	150	18	5	23		MGMN500-M			
2020-5-T15	20	150	18	5	15		MGMN500-M			
2525-5	25	150	23	5	23		MGMN500-M			
2525-5-T15	25	150	23	5	15		MGMN500-M			
3232-5	32	170	30	5	23		MGMN500-M			
3232-5-T15	32	170	30	5	15		MGMN500-M			
2020-6	20	125	17	6	23		MGMN600-M			
2020-6-T10	20	125	17	6	10		MGMN600-M			
2525-6	25	150	22,6	6	23		MGMN600-M			
2525-6-T15	25	150	22,6	6	15		MGMN600-M			
3232-6	32	170	29,6	6	23		MGMN600-M			
3232-6-T15	32	170	29,6	6	15		MGMN600-M			

* Se adaptan a la herramienta

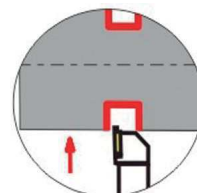
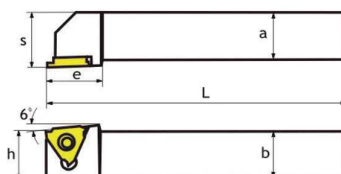
HERRAMIENTAS DE TORNEADO

alber
HIGHTOOLS

PORTAHERRAMIENTAS DE TRONZADO Y RANURADO EXTERNO

SGTR/L

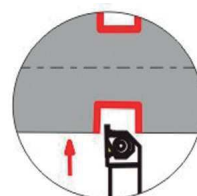
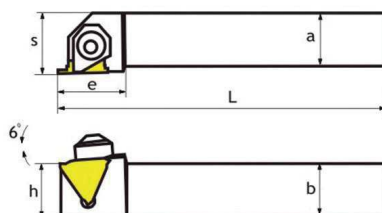
5°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Llave	€
SGTR/L	H	b	L ₁	L ₂	H ₁	f				PRECIO
1212H16C	12	12	100	20	12	16	GLR/L30000	M 3,5X8	T15	
1616H16C	15	16	100	20	16	20				
2020K16C	20	20	125	20	20	25				
2525M16C	25	25	150	20	25	32				
2020K22C	20	20	125	30	20	25	GLR/L4000	M 4X10	T15	
2525M22C	25	25	150	30	25	32				

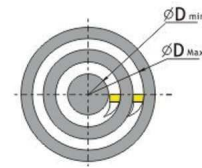
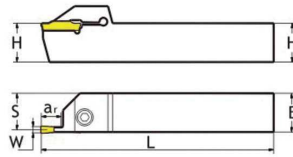
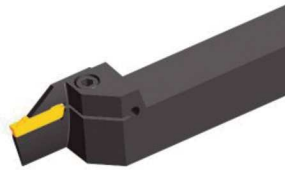
KGBR/L

5°



TIPO	Dimensiones (mm)						placas aplicables	Tornillo de apriete	Brida	Llave	€
KGBR/L	a	b	L	h	s	e					PRECIO
2020K22-15	20	20	100	20	25	24	GB43R/050~300	DM 0625	CGBR/L	S4	
2525M22-15	25	25	150	25	30	25					
2020K22-25	20	20	125	20	25	25,5	GB43R/250~330	DM 0625	CGBR/L	S4	
2525M22-25	25	25	250	25	30	25,5					
2020K22-35	20	20	125	20	25	25,5	GB43R/350~480	DM 0625	CGBR/L	S4	
2525M22-35	25	25	150	25	30	25,5					

Q□DR/L

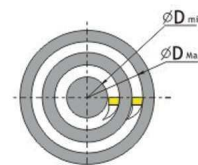
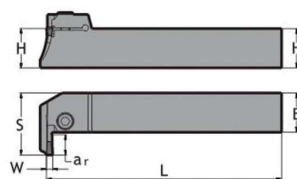
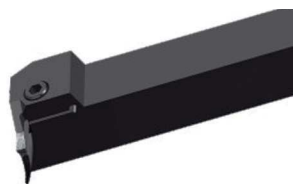


TIPO	Dimensiones (mm)					placas aplicables	Tornillo	Llave	€
QFFD	HxB	L	s	w	ØD)max-min(				PRECIO
2525R/L10-48H	25X25	150	26	3	48-66	ZTFD0303-MG	M 6X20	S5	
2525R/L17-48H	25X25	150	26	3	48-66	ZTFD0303-MG			
2525R/L10-60H	25X25	150	26	3	60-80	ZTFD0303-MG			
2525R/L17-60H	25X25	150	26	3	60-80	ZTFD0303-MG			
2525R/L10-74H	25X25	150	26	3	74-110	ZTFD0303-MG			
2525R/L17-74H	25X25	150	26	3	74-110	ZTFD0303-MG			
2525R/L10-100H	25X25	150	26	3	100-150	ZTFD0303-MG			
2525R/L17-100H	25X25	150	26	3	100-150	ZTFD0303-MG			
QFGD									
2525R/L13-52H	25X25	150	26	4	52-72	ZTGD0404-MG	M 6X20	S5	
2525R/L22-52H	25X25	150	26	4	52-72	ZTGD0404-MG			
2525R/L13-64H	25X25	150	26	4	64-100	ZTGD0404-MG			
2525R/L22-64H	25X25	150	26	4	64-100	ZTGD0404-MG			
2525R/L13-90H	25X25	150	26	4	90-140	ZTGD0404-MG			
2525R/L22-90H	25X25	150	26	4	90-140	ZTGD0404-MG			
2525R/L13-130H	25X25	150	26	4	130-230	ZTGD0404-MG			
2525R/L22-130H	25X25	150	26	4	130-230	ZTGD0404-MG			
QFHD									
2525R/L13-58H	25X25	150	26	5	58-96	ZTHD0504-MG	M 6X20	S5	
2525R/L22-58H	25X25	150	26	5	58-96	ZTHD0504-MG			
2525R/L13-86H	25X25	150	26	5	86-140	ZTHD0504-MG			
2525R/L22-86H	25X25	150	26	5	86-140	ZTHD0504-MG			
2525R/L13-130H	25X25	150	26	5	130-200	ZTHD0504-MG			
2525R/L22-130H	25X25	150	26	5	130-200	ZTHD0504-MG			
2525R/L13-185H	25X25	150	26	5	185-400	ZTHD0504-MG			
2525R/L22-185H	25X25	150	26	5	185-400	ZTHD0504-MG			
2525R/L30-185H	25X25	150	26	5	185-400	ZTHD0504-MG			
QFKD									
2525R/L13-60H	25X25	150	26	6	60-100	ZTKD0608-MG	M 6X20	S5	
2525R/L22-60H	25X25	150	26	6	60-100	ZTKD0608-MG			
2525R/L13-88H	25X25	150	26	6	88-180	ZTKD0608-MG			
2525R/L22-88H	25X25	150	26	6	88-180	ZTKD0608-MG			
2525R/L13-160H	25X25	150	26	6	160-400	ZTKD0608-MG			
2525R/L22-160H	25X25	150	26	6	160-400	ZTKD0608-MG			
2525R/L30-160H	25X25	150	26	6	160-400	ZTKD0608-MG			
2525R/L30-160H	25X25	150	26	6	160-400	ZTKD0608-MG			

HERRAMIENTAS DE TORNEADO

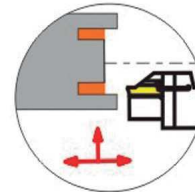
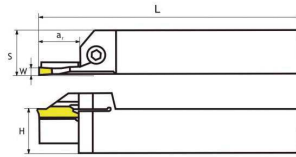
AIBER
 HIRATOOLS

PORTAHERRAMIENTAS DE TRONZADO Y RANURADO SUPERFICIE

QF□R/L


TIPO	Dimensiones (mm)						placas aplicables	Tornillo	Llave	€
QFFD	HxB	L	s	w	ØD)max-min (	a _r				PRECIO
2525R/L10-48L	25X25	150	36,5	3	48-66	10	ZTFD0303-MG	M 6X20	S5	
2525R/L17-48L	25X25	150	43,5	3	48-66	17	ZTFD0303-MG			
2525R/L10-60L	25X25	150	36,5	3	60-80	10	ZTFD0303-MG			
2525R/L17-60L	25X25	150	43,5	3	60-80	17	ZTFD0303-MG			
2525R/L10-74L	25X25	150	36,5	3	74-110	10	ZTFD0303-MG			
2525R/L17-74L	25X25	150	43,5	3	74-110	17	ZTFD0303-MG			
2525R/L10-100L	25X25	150	36,5	3	100-150	10	ZTFD0303-MG			
2525R/L17-100L	25X25	150	43,5	3	100-150	17	ZTFD0303-MG			
QFGD										
2525R/L13-52L	25X25	150	39,5	4	52-72	13	ZTGD0404-MG	M 6X20	S5	
2525R/L22-52L	25X25	150	48,5	4	52-72	22	ZTGD0404-MG			
2525R/L13-64L	25X25	150	39,5	4	64-100	13	ZTGD0404-MG			
2525R/L22-64L	25X25	150	48,5	4	64-100	22	ZTGD0404-MG			
2525R/L13-90L	25X25	150	39,5	4	90-140	13	ZTGD0404-MG			
2525R/L22-90L	25X25	150	48,5	4	90-140	22	ZTGD0404-MG			
2525R/L13-130L	25X25	150	39,5	4	130-230	13	ZTGD0404-MG			
2525R/L22-130L	25X25	150	48,5	4	130-230	22	ZTGD0404-MG			
QFHD										
2525R/L13-58L	25X25	150	39,5	5	58-96	13	ZTHD0504-MG	M 6X20	S5	
2525R/L22-58L	25X25	150	48,5	5	58-96	22	ZTHD0504-MG			
2525R/L13-86L	25X25	150	39,5	5	86-140	13	ZTHD0504-MG			
2525R/L22-86L	25X25	150	48,5	5	86-140	22	ZTHD0504-MG			
2525R/L13-130L	25X25	150	39,5	5	130-200	13	ZTHD0504-MG			
2525R/L22-130L	25X25	150	48,5	5	130-200	22	ZTHD0504-MG			
2525R/L13-185L	25X25	150	39,5	5	185-400	13	ZTHD0504-MG			
2525R/L22-185L	25X25	150	48,5	5	185-400	22	ZTHD0504-MG			
2525R/L30-185L	25X25	150	56,5	5	185-400	30	ZTHD0504-MG			
QFKD										
2525R/L13-60L	25X25	150	39,5	6	60-100	13	ZTKD0608-MG	M 6X20	S5	
2525R/L22-60L	25X25	150	48,5	6	60-100	22	ZTKD0608-MG			
2525R/L13-88L	25X25	150	39,5	6	88-180	13	ZTKD0608-MG			
2525R/L22-88L	25X25	150	48,5	6	88-180	22	ZTKD0608-MG			
2525R/L13-160L	25X25	150	39,5	6	160-400	13	ZTKD0608-MG			
2525R/L22-160L	25X25	150	48,5	6	160-400	22	ZTKD0608-MG			
2525R/L30-160L	25X25	150	56,5	6	160-400	30	ZTKD0608-MG			

QF□D-RR



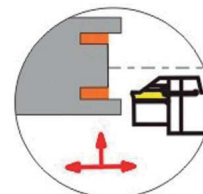
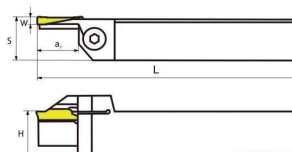
TIPO	Dimensiones (mm)						placas aplicables	Tornillo	Llave	€
QFFD	HxB	L	s	w	ØD)max-min(	a _r				PRECIO
2525RR10-48H	25X25	150	26	3	48-66	10	ZTFD0303-MG	M 6X20	S5	
2525RR17-48H	25X25	150	26	3	48-66	17	ZTFD0303-MG			
2525RR10-60H	25X25	150	26	3	60-80	10	ZTFD0303-MG			
2525RR17-60H	25X25	150	26	3	60-80	17	ZTFD0303-MG			
2525RR10-74H	25X25	150	26	3	74-110	10	ZTFD0303-MG			
2525RR17-74H	25X25	150	26	3	74-110	17	ZTFD0303-MG			
2525RR10-100H	25X25	150	26	3	100-150	10	ZTFD0303-MG			
2525RR17-100H	25X25	150	26	3	100-150	17	ZTFD0303-MG			
QFGD										
2525RR13-52H	25X25	150	26	4	52-72	13	ZTGD0404-MG	M 6X20	S5	
2525RR22-52H	25X25	150	26	4	52-72	22	ZTGD0404-MG			
2525RR13-64H	25X25	150	26	4	64-100	13	ZTGD0404-MG			
2525RR22-64H	25X25	150	26	4	64-100	22	ZTGD0404-MG			
2525RR13-90H	25X25	150	26	4	90-140	13	ZTGD0404-MG			
2525RR22-90H	25X25	150	26	4	90-140	22	ZTGD0404-MG			
2525RR13-130H	25X25	150	26	4	130-230	13	ZTGD0404-MG			
2525RR22-130H	25X25	150	26	4	130-230	22	ZTGD0404-MG			
QFHD										
2525RR13-58H	25X25	150	26	5	58-96	13	ZTHD0504-MG	M 6X20	S5	
2525RR22-58H	25X25	150	26	5	58-96	22	ZTHD0504-MG			
2525RR13-86H	25X25	150	26	5	86-140	13	ZTHD0504-MG			
2525RR22-86H	25X25	150	26	5	86-140	22	ZTHD0504-MG			
2525RR13-130H	25X25	150	26	5	130-200	13	ZTHD0504-MG			
2525RR22-130H	25X25	150	26	5	130-200	22	ZTHD0504-MG			
2525RR13-185H	25X25	150	26	5	185-400	13	ZTHD0504-MG			
2525RR22-185H	25X25	150	26	5	185-400	22	ZTHD0504-MG			
2525RR30-185H	25X25	150	26	5	185-400	30	ZTHD0504-MG			
QFKD										
2525RR13-60H	25X25	150	26	6	60-100	13	ZTKD0608-MG	M 6X20	S5	
2525RR22-60H	25X25	150	26	6	60-100	22	ZTKD0608-MG			
2525R/L13-88H	25X25	150	26	6	88-180	13	ZTKD0608-MG			
2525RR22-88H	25X25	150	26	6	88-180	22	ZTKD0608-MG			
2525RR13-160H	25X25	150	26	6	160-400	13	ZTKD0608-MG			
2525RR22-160H	25X25	150	26	6	160-400	22	ZTKD0608-MG			
2525RR30-160H	25X25	150	26	6	160-400	30	ZTKD0608-MG			

HERRAMIENTAS DE TORNEADO

AIBER
HIGHTOOLS

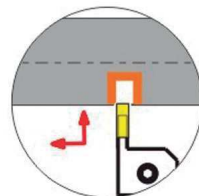
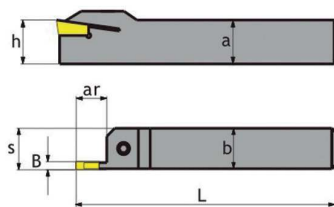
PORTAHERRAMIENTAS DE TRONZADO Y RANURADO EXTERNO

QFD-LL



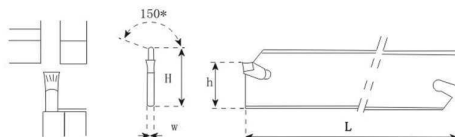
TIPO	Dimensiones (mm)						placas aplicables	Tornillo	Llave	€
QFFD	HxB	L	s	w	ØD)max-min (	a _r				PRECIO
2525LL10-48H	25X25	150	26	3	48-66	10	ZTFD0303-MG	M 6X20	S5	
2525LL17-48H	25X25	150	26	3	48-66	17	ZTFD0303-MG			
2525LL10-60H	25X25	150	26	3	60-80	10	ZTFD0303-MG			
2525LL17-60H	25X25	150	26	3	60-80	17	ZTFD0303-MG			
2525LL10-74H	25X25	150	26	3	74-110	10	ZTFD0303-MG			
2525LL17-74H	25X25	150	26	3	74-110	17	ZTFD0303-MG			
2525LL10-100H	25X25	150	26	3	100-150	10	ZTFD0303-MG			
2525LL17-100H	25X25	150	26	3	100-150	17	ZTFD0303-MG			
QFGD										
2525LL13-52H	25X25	150	26	4	52-72	13	ZTGD0404-MG	M 6X20	S5	
2525LL22-52H	25X25	150	26	4	52-72	22	ZTGD0404-MG			
2525LL13-64H	25X25	150	26	4	64-100	13	ZTGD0404-MG			
2525LL22-64H	25X25	150	26	4	64-100	22	ZTGD0404-MG			
2525LL13-90H	25X25	150	26	4	90-140	13	ZTGD0404-MG			
2525LL22-90H	25X25	150	26	4	90-140	22	ZTGD0404-MG			
2525LL13-130H	25X25	150	26	4	130-230	13	ZTGD0404-MG			
2525LL22-130H	25X25	150	26	4	130-230	22	ZTGD0404-MG			
QFHD										
2525LL13-58H	25X25	150	26	5	58-96	13	ZTHD0504-MG	M 6X20	S5	
2525LL22-58H	25X25	150	26	5	58-96	22	ZTHD0504-MG			
2525LL13-86H	25X25	150	26	5	86-140	13	ZTHD0504-MG			
2525LL22-86H	25X25	150	26	5	86-140	22	ZTHD0504-MG			
2525LL13-130H	25X25	150	26	5	130-200	13	ZTHD0504-MG			
2525LL22-130H	25X25	150	26	5	130-200	22	ZTHD0504-MG			
2525LL13-185H	25X25	150	26	5	185-400	13	ZTHD0504-MG			
2525LL22-185H	25X25	150	26	5	185-400	22	ZTHD0504-MG			
2525LL30-185H	25X25	150	26	5	185-400	30	ZTHD0504-MG			
QFKD										
2525LL13-60H	25X25	150	26	6	60-100	13	ZTKD0608-MG	M 6X20	S5	
2525LL22-60H	25X25	150	26	6	60-100	22	ZTKD0608-MG			
2525LL13-88H	25X25	150	26	6	88-180	13	ZTKD0608-MG			
2525LL22-88H	25X25	150	26	6	88-180	22	ZTKD0608-MG			
2525LL13-160H	25X25	150	26	6	160-400	13	ZTKD0608-MG			
2525LL22-160H	25X25	150	26	6	160-400	22	ZTKD0608-MG			
2525LL30-160H	25X25	150	26	6	160-400	30	ZTKD0608-MG			

ZQ



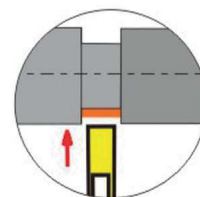
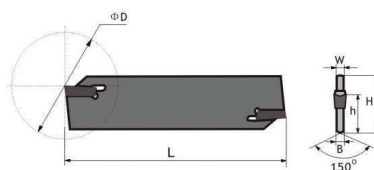
TIPO	Dimensiones (mm)						placas aplicables	Tornillo	Llave	€
ZQ	h	b	L	S	B	a _{2,max}				PRECIO
1616R03	16	16	100	16,4	3	16	ZQMX3N11-IE	M 5X17	S4	
1616R04	16	16	100	16,4	4	18	ZQMX4N11-IE			
2020R03	20	20	125	20,4	3	20	ZQMX3N11-IE	M 6X20	S5	
2020R04	25	25	125	20,4	4	20	ZQMX4N11-IE			
2525R03	25	25	150	25,4	3	20	ZQMX3N11-IE			
2525R04	25	25	150	25,4	4	20	ZQMX4N11-IE			
2525R05	25	25	150	25,4	5	25	ZQMX5N11-IE			
2525R06	25	25	150	25,7	6	32	ZQMX6N11-IE			
3225R03	32	25	170	25,4	3	25	ZQMX3N11-IE	M 6X22	S5	
3225R04	32	25	170	25,4	4	25	ZQMX4N11-IE			
3225R05	32	25	170	25,4	5	25	ZQMX5N11-IE			
3225R06	32	25	170	25,7	6	35	ZQMX6N11-IE			
1616L03	16	16	100	16,4	3	16	ZQMX3N11-IE	M 5X17	S4	
1616L04	16	16	100	16,4	4	16	ZQMX4N11-IE			
2020L03	20	20	125	20,4	3	20	ZQMX3N11-IE	M 6X20	S5	
2020L04	20	20	125	20,4	4	20	ZQMX4N11-IE			
2525L03	25	25	150	25,4	3	20	ZQMX3N11-IE			
2525L04	25	25	150	25,4	4	20	ZQMX4N11-IE			
2525L05	25	25	150	25,4	5	25	ZQMX5N11-IE			
2525L06	25	25	150	25,7	6	32	ZQMX6N11-IE			
3225L03	32	25	170	25,4	3	25	ZQMX3N11-IE	M 6X22	S5	
3225L04	32	25	170	25,4	4	25	ZQMX4N11-IE			
3225L05	32	25	170	25,4	5	25	ZQMX5N11-IE			
3225L06	32	25	170	25,7	6	32	ZQMX6N11-IE			

SPB-S

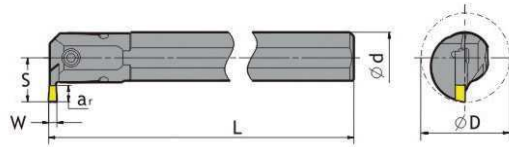


TIPO	Dimensiones (mm)				placas aplicables	€
SPB	H	W	L	h		PRECIO
326-S	26	2,4	110	21	ZQMX3N11-1E	
426-S	26	3,2	110	21	ZQMX4N11-1E	
526-S	26	4,0	110	21	ZQMX5N11-1E	
626-S	26	5,2	110	21	ZQMX6N11-1E	
332-S	32	2,4	150	25	ZQMX3N11-1E	
432-S	32	3,2	150	25	ZQMX4N11-1E	
532-S	32	4,0	150	25	ZQMX5N11-1E	
632-S	32	5,2	150	25	ZQMX6N11-1E	

QE□S



TIPO	Dimensiones (mm)						placas aplicables	€
QE□S	L	H	H	B	W	ØD max		PRECIO
QEES26N	110	26	19	2	2,5	60	ZPES0202-MG	
QEFS26N	110	26	19	2,4	3	60	ZPES0302-MG	
QEGS26N	110	26	19	3,2	4	70	ZPES0402-MG	
QEHS26N	110	26	19	4	5	70	ZPES0502-MG	
QEKs26N	110	26	19	5	6	70	ZPES0602-MG	
QEES32N	150	32	24,6	2	2,5	100	ZPES0202-MG	
QEFS32N	150	32	24,6	2,4	3	100	ZPES0302-MG	
QEGS32N	150	32	24,6	3,2	4	120	ZPES0402-MG	
QEHS32N	150	32	24,6	4	5	120	ZPES0502-MG	
QEKs32N	150	32	24,6	5	6	120	ZPES0602-MG	

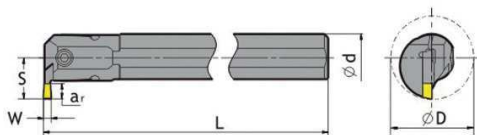
Q□DR/L


TIPO	Dimensiones (mm)						placas aplicables	Tornillo	Llave	€
QEDR/L	Ød	L	s	w	a _r	ØD _{max}				PRECIO
C20Q_05-27	20	180	15,2	2,5	5	27	ZTED*****	M 4X14	S3	
C25R_07-33	25	200	20,3	2,5	7	33	ZRED*****	M 5X17	S4	
C32S_09-42	32	250	25,3	2,5	9	42				
QFDR/L										
C20Q_05-27	20	180	15,2	3	5	27	ZTFD*****	M 4X14	S3	
C25R_07-33	25	200	20,3	3	7	33	ZRFD*****	M 5X17	S4	
C32S_09-42	32	250	25,3	3	9	42				
QGDR/L										
C25R_08-35	25	200	21,5	4	8	35	ZTGD*****	M 5X17	S4	
C32S_11-44	32	250	27,5	4	11	45	ZRGD*****	M 6X20	S5	
C40T_13-54	40	300	33,5	4	13	54				
QHDR/L										
C25R_08-35	25	200	21,5	5	8	35	ZTHD*****	M 5X17	S4	
C32S_11-44	32	250	27,5	5	11	45	ZRHD*****	M 6X20	S5	
C40T_13-54	40	300	33,5	5	13	54				
QHDR/L										
C25R_08-35	25	200	21,5	6	8	35	ZTHD*****	M 5X17	S4	
C32S_11-44	32	250	27,5	6	11	45	ZRHD*****	M 6X20	S5	
C40T_13-54	40	300	33,5	6	13	54				
C50T_13-64	50	300	38,1	6	14	64				

HERRAMIENTAS DE TORNEADO

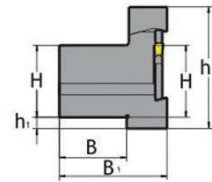
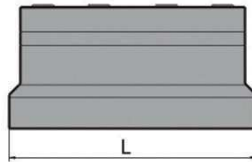
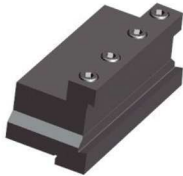
PORTAHERRAMIENTAS DE TRONZADO Y RANURADO INTERNO

MGIVR/L



TIPO	Dimensiones (mm)					placas aplicables	Tornillo	Llave	€
MGIVR/L	Ød	L	S	W	a _{r,max}				PRECIO
2016-1,5	16	180	11,3	1,5	3	MGMN150-M	M 4x14	S3	
2520-1,5	20	180	13,1	1,5	4	MGMN150-M	M 5x17	S4	
2925-1,5	25	200	16,2	1,5	4	MGMN150-M	M 6X20	S5	
2016,2	16	125	12,4	2	3	MGMN200-M	M 4x14	S3	
2520-2	20	125	14	2	5	MGMN200-M	M 5x17	S4	
2925-2	25	200	17,2	2	5	MGMN200-M	M 6X20	S5	
2016-2,5	16	125	12,5	2,5	6	MGMN250-M	M 4x14	S3	
2520-2,5	20	180	15,1	2,5	6	MGMN250-M	M 5x17	S4	
2925-2,5	25	200	18,2	2,5	6	MGMN250-M	M 6X20	S5	
2520-2	20	180	15,6	3	6	MGMN300-M	M 5x17	S4	
3125-3	25	200	18,9	3	6	MGMN300-M	M 6x20	S5	
3732-3	32	250	21,5	3	6	MGMN300-M	M 5x17	S4	
2520-4	20	180	15,6	4	6	MGMN400-M	M 6X20	S5	
3125-4	25	200	18,9	4	6	MGMN400-M			
3732-4	32	250	21,5	4	6	MGMN400-M			
3125-5	25	200	19,1	5	8	MGMN500-M			
3732-5	32	250	21,5	5	8	MGMN500-M			
3125-6	25	200	14,9	6	8	MGMN600-M			
3732-6	32	250	21,5	6	8	MGMN600-M			
3732-8	32	250	23,2	8	10	MGMN800-M			
3540-8	40	300	27,2	8	10	MGMN800-M			
3135-6A	25	200	19,4	6	8	MGMN600-M			
3732-6A	32	250	21,5	6	8	MGMN600-M			
3732-8A	32	250	23,4	8	10	MGMN800-M			
4540-8A	40	300	27,2	8	10	MGMN800-M			

* Se adaptan a la herramienta

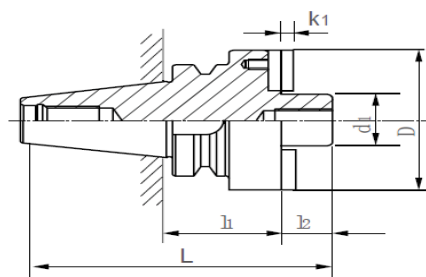


TIPO	Dimensiones (mm)						placas aplicables	Tornillo	Llave	€
PSH	L	H	h ₂	h ₁	B	B ₁				PRECIO
2026	86	20	46,6	10	19	38	PHS26	M 6X20	S5	
2526	86	25	46,6	5	23	42	PHS26			
3226	86	30	51,6	3	30	48	PHS26			
2032	110	20	50	13	19	38	PHS32			
2532	110	25	50	8	23	42	PHS32			
3232	110	32	50	5	30	48	PHS32			

TÉCNICAS DE SUJECCIÓN

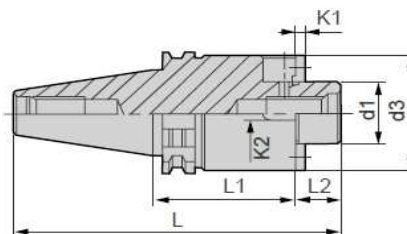
CONOS PORTAFRESAS

**JIS B 6339
(MAS-BT)**



Tamaño porta	d1 (mm)	D (mm)	L1 (mm)	L2 (mm)	PRECIO (€)
BT 40 corto 45 mm	16	48	45	19	30
	22	48	45	19	30
	27	58	45	21	33
BT 40 largo 100 mm	16	48	100	19	34,5
	22	48	100	19	36
	27	58	100	21	38,9
BT 50 corto 45 mm	16	48	45	19	63,5
	22	48	45	19	65
	27	58	45	21	65
BT 50 largo 100 mm	16	48	100	19	69,5
	22	48	100	19	69,5
	27	58	100	21	69,9

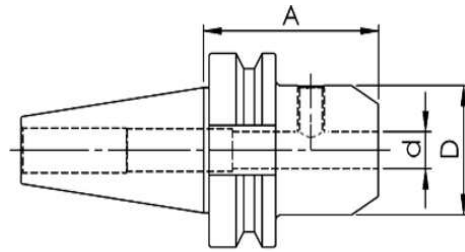
DIN 69871



Tamaño porta	d1 (mm)	d3 (mm)	L1 (mm)	L2 (mm)	PRECIO (€)
ISO 40 corto 45 mm	16	48	45	19	33
	22	48	45	19	33
	27	58	45	21	35
ISO 40 largo 100 mm	16	48	100	19	35,7
	22	48	100	19	36,5
	27	58	100	21	38,9
ISO 50 corto 45 mm	16	48	45	19	65,9
	22	48	45	19	67,8
	27	58	45	21	68,2
ISO 50 largo 100 mm	16	48	100	19	74,2
	22	48	100	19	74,9
	27	58	100	21	75,1

PORTA WELDON

**JIS B 6339
(MAS-BT)**



REFERENCIA	d (mm)	D (mm)	A (mm)	PRECIO (€)
BT40-SLA6-50	6	25	50	30,8
BT40-SLA8-50	8	28	50	30,8
BT40-SLA10-63	10	35	63	30,8
BT40-SLA12-63	12	42	63	30,8
BT40-SLA16-63	16	48	63	30,8
BT40-SLA20-70	20	52	70	30,3
BT40-SLA25-100	25	65	100	30,4
BT40-SLA32-100	32	72	100	31,2
BT40-SLA40-100	40	90	100	32,5

DIN 69871

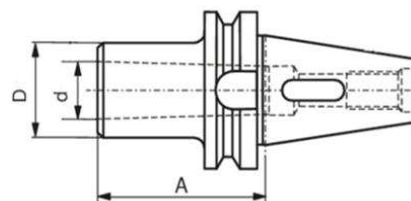


REFERENCIA	d (mm)	D (mm)	A (mm)	PRECIO (€)
ISO 40-SLA6-50	6	25	50	31,7
ISO 40-SLA8-50	8	28	50	31,7
ISO 40-SLA10-63	10	35	63	31,7
IS 40-SLA12-63	12	42	63	31,7
ISO 40-SLA16-63	16	48	63	31,7
ISO 40-SLA20-70	20	52	70	31,2
ISO 40-SLA25-100	25	65	100	31,3
ISO 40-SLA32-100	32	72	100	32,1
ISO 40-SLA40-100	40	90	100	33,4

Tambien disponemos de conos Weldon norma DIN2080

CONO REDUCTOR PARA HTA CON MANGO MORSE

**JIS B 6339
(MAS-BT)**



REFERENCIA	CONO MORSE	D (mm)	A (mm)	PRECIO (€)
BT40-MT1-45	1	25	45	27,5
BT40-MT2-50	2	32	50	27,5
BT40-MT3-75	3	4	75	27,5
BT40-MT4-90	4	48	90	27,5

DIN 69871

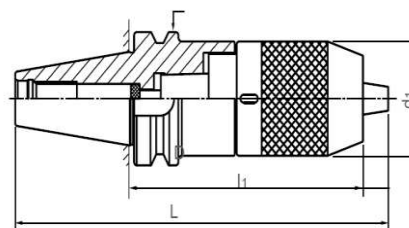


REFERENCIA	CONO MORSE	D (mm)	A (mm)	PRECIO (€)
ISO40-MT1-45	1	25	45	30,9
ISO40-MT2-50	2	32	50	30,9
ISO40-MT3-75	3	4	75	30,9
ISO40-MT4-90	4	48	90	30,9

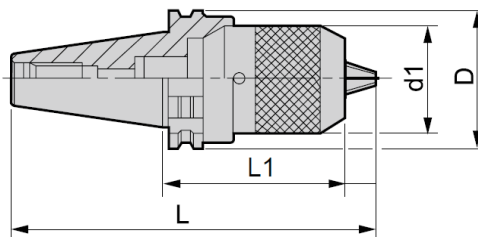
También disponemos de conos Reductores norma DIN2080

PORTABROCAS

**JIS B 6339
(MAS-BT)**



REFERENCIA	d1 (mm)	l1 (mm)	Ø sujeción (mm)	PRECIO (€)
BT40-APU16-105	55,5	105	0-16	80,5
BT50-APU16-105	55,5	115	3-16	120,9

DIN 69871

REFERENCIA	d1 (mm)	L1 (mm)	Ø sujeción (mm)	PRECIO (€)
ISO40-APU16-105	55,5	105	3-16	85,2
ISO50-APU13-110	48	110	1-13	108
ISO50-APU16-115	55,5	115	3-16	112

DIN 2080

REFERENCIA	d1 (mm)	L1 (mm)	Ø sujeción (mm)	PRECIO (€)
NT40-APU16-105	55,5	105	3-16	85,2
NT50-APU16-115	55,5	115	3-16	112

PORTABROCAS CON ESPIGA MORSE

REFERENCIA	CONO MORSE	L total (mm)	Ø sujeción (mm)	PRECIO (€)
MT2-APU13	2	150	1-13	58,9
MT2-APU16	2	160	3-16	59,7
MT3-APU16	3	185	3-16	61,9
MT4-APU16	4	210	3-16	62,5

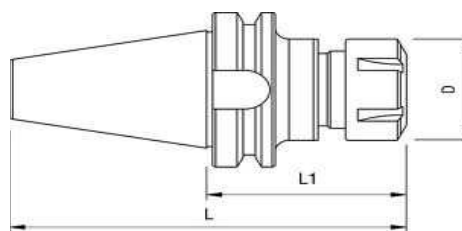
ACCESORIOS

LLAVE DE APRIETE PORTABROCAS	3 €
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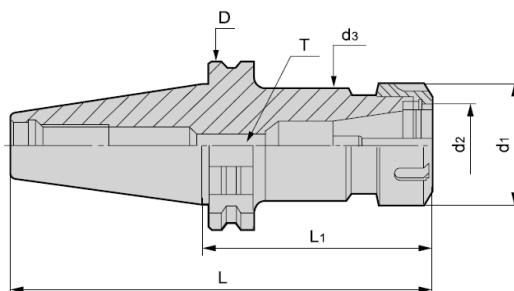
PORTAPINZAS DE SUJECCIÓN ER

**JIS B 6339
(MAS-BT)**



REFERENCIA	D (mm)	L1 (mm)	Modelo Pinzas	Intervalo de sujeción	PRECIO (€)
BT40-ER25	42	70	ER 25	2-16	31,5
BT40-ER32	50	70	ER 32	3-20	30,1
BT40-ER40	63	70	ER 40	4-25	33,9
BT50-ER32	50	70	ER 32	3-20	68,9
BT50-ER40	63	70	ER 40	4-25	70,3

DIN 69871



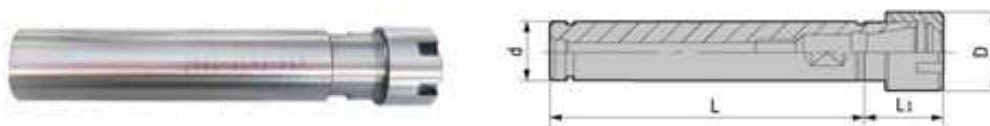
REFERENCIA	d1 (mm)	L1 (mm)	Modelo Pinzas	Intervalo de sujeción	PRECIO (€)
ISO40-ER25	42	70	ER 25	2-16	34,5
ISO40-ER32	50	70	ER 32	3-20	36
ISO40-ER40	63	70	ER 40	4-25	38
ISO50-ER32	50	70	ER 32	3-20	69,6
ISO50-ER40	63	70	ER 40	4-25	71,3

DIN 2080



REFERENCIA	d1 (mm)	L1 (mm)	Modelo Pinzas	Intervalo de sujeción	PRECIO (€)
NT40-ER25	42	70	ER 25	2-16	33,5
NT40-ER32	50	70	ER 32	3-20	34,9
NT40-ER40	63	70	ER 40	4-25	35,4
NT50-ER32	50	70	ER 32	3-20	68,5
NT50-ER40	63	70	ER 40	4-25	69,9

PORTAPINZAS CON MANGO CILINDRICO

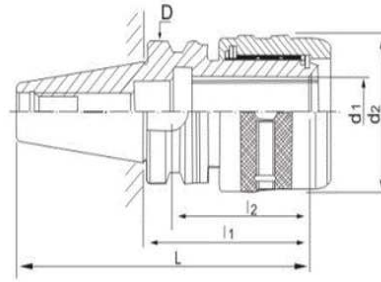


REFERENCIA	d (Ø mango) (mm)	Intervalo de sujeción	D (Ø tuerca) (mm)	L (mm)	PRECIO (€)
C08-ER8M-100	8	1 - 5	12	100	34,2
C10-ER8M-100	10	1 - 5	12	100	31,3
C10-ER8M-150	10	1 - 5	12	150	37,0
C10-ER11M-100	10	1 - 7	16	100	31,3
C12-ER8M-50	12	1 - 5	12	50	31,3
C12-ER8M-100	12	1 - 5	12	100	31,3
C12-ER11M-100	12	1 - 7	16	100	31,3
C16-ER11M-50	16	1 - 7	16	50	31,3
C16-ER11M-100	16	1 - 7	16	100	31,3
C16-ER11M-150	16	1 - 7	16	150	37,0
C16-ER16M-50	16	1 - 10	22	50	31,3
C16-ER16M-100	16	1 - 10	22	100	31,3
C20-ER16M-50	20	1 - 10	22	50	31,3
C20-ER16M-100	20	1 - 10	22	100	31,3
C20-ER16M-150	20	1 - 10	22	150	37,0
C20-ER16M-200	20	1 - 10	22	200	39,9
C20-ER20M-50	20	1 - 13	28	50	31,3
C20-ER20M-100	20	1 - 13	28	100	31,3
C20-ER20M-150	20	1 - 13	28	150	37,0



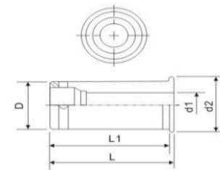
REFERENCIA	d (Ø mango) (mm)	Intervalo de sujeción	D (Ø tuerca) (mm)	L (mm)	PRECIO (€)
C20-ER25-50	20	1 - 16	42	50	34,2
C20-ER25-100	20	1 - 16	42	100	37,0
C25-ER20-100	25	1 - 13	34	100	39,9
C25-ER20-150	25	1 - 13	34	150	42,7
C25-ER25-100	25	1 - 16	42	100	37,0
C25-ER25-150	25	1 - 16	42	150	37,0
C25-ER32-100	25	2 - 20	50	100	37,0
C32-ER25-100	32	1 - 16	42	100	39,9
C32-ER32-100	32	2 - 20	50	100	37,0
C32-ER32-150	32	2 - 20	50	150	45,6
C32-ER40-100	32	3 - 25	63	100	48,4
C40-ER32-100	40	2 - 20	50	100	54,1
C40-ER40-100	40	3 - 25	63	100	56,6

PORTAPINZAS DE GRAN APRIETE



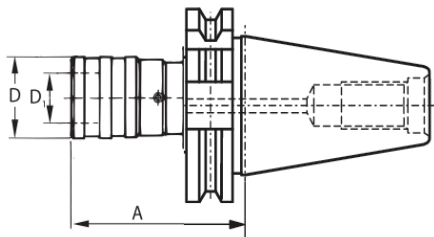
REFERENCIA	D(mm)	L ₁ (mm)	Pinzas	Intervalo de sujeción	PRECIO (€)
BT40-C20-105	63	105	C 20	6-16	105
BT40-C32-105	63	105	C 32	3-26	105
BT50-C32-105	100	105	C 32	3-26	165
BT50-C32-165	100	165	C 32	3-26	172
DIN 69871					
ISO40-C20-105	63	105	C 20	6-16	105
ISO40-C32-105	63	105	C 32	3-26	105
ISO50-C32-105	100	105	C 32	3-26	165
ISO50-C32-165	100	165	C 32	3-26	172

PINZAS DE SUJECCION C



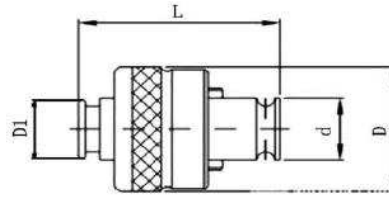
TIPO	Ø sujeción (mm)	PRECIO (€)
C20	6-8-10-12-15-16	13,5
C32	3-4-5-6-8-10-12-14-15-16-18-19 20-24-25-26	16

PORTAMACHOS DE CAMBIO RÁPIDO CON COMPENSACIÓN DE LONGITUD



	D1 (mm)	D (mm)	Rango de Roscas	PRECIO (€)
JIS B 6339 (MAS-BT) BT40- M3-12	19	38	M3-M12	129,8
DIN 69871 ISO40- M3-12	19	38	M3-M12	124,9

PORTA CAMBIO RÁPIDO CON ACOPLAMIENTO A FRICCIÓN DE SEGURIDAD



	D1 (mm)	d (mm)	D (mm)	PRECIO (€)
M3-M12	3,15	19	38	29,5
	4			
	5			
	6,3			
	8			
	9			

PINZAS DE SUJECCION ER



Ø sujeción (mm)	ER 16	ER 20	ER 25	ER 32	ER 40
1	5 €	5 €	-	-	-
2	5 €	5 €	5 €	-	-
3	5 €	5 €	5 €	7 €	-
4	5 €	5 €	5 €	7 €	9 €
5	5 €	5 €	5 €	7 €	9 €
6	5 €	5 €	5 €	7 €	9 €
8	5 €	5 €	5 €	7 €	9 €
10	5 €	5 €	5 €	7 €	9 €
12		5 €	5 €	7 €	9 €
14			5 €	7 €	9 €
16			5 €	7 €	9 €
18			-	7 €	9 €
20			-	7 €	9 €
22			-	-	9 €
24			-	-	9 €
25			-	-	9 €

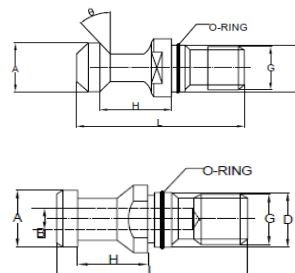
También disponemos de pinzas estanca y pinzas para sujeción de machos.

JUEGOS DE PINZAS - Sujeción ER

ER11 de 13 piezas 1-7 mm	Juego pinzas ER 16 de 10 unidades	Juego pinzas ER 20 de 12 unidades	Juego pinzas ER 25 de 15 unidades	Juego pinzas ER 32 de 18 unidades	Juego pinzas ER 40 de 22 unidades
79,90 €	1-10 mm	2-13 mm	2-16 mm	3-20 mm	4-25 mm
ER8 de 9 piezas 1-5 mm					
89,90 €	62,00 €	75,00 €	91,00 €	126,00 €	156,00 €

TIRANTES

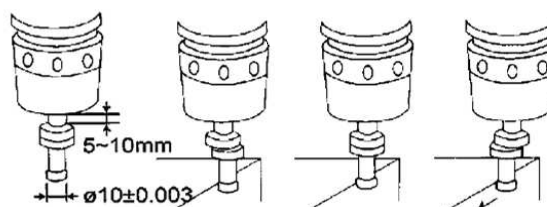
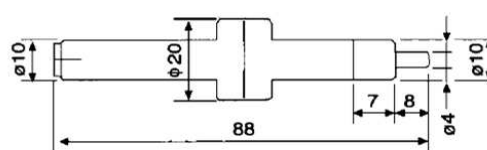
JIS B6339		
BT 40	Con y sin refrigeración	4 €
BT 50	Con y sin refrigeración	6,5 €
DIN69871		
ISO 40	Con y sin refrigeración	4 €
ISO 50	Con y sin refrigeración	6,5 €



PALPADORES DE CANTOS

Palpador de cantos no magentico

La cabeza palpadora está unida al mango por un muelle y permite una posición de alineación de 0,01 m/m.



Ø palpador (mm)	Ø del mando (mm)	L total (mm)	PRECIO (€)
10/4	10	20	15

JUEGO DE BASES PARALELAS

JUEGO DE 7 PARES

- Tolerancia paralelas: 0,005 mm
- Dureza: HRC55-62



7 pares	100 €
Contenido del juego: en altura (mm)	15; 20; 25; 30; 35; 40; 45
Longitud x Espesor (mm)	200x8

DISPONEMOS DE MAS VARIEDAD DE MEDIDAS, CONSULTAR A TIENDA

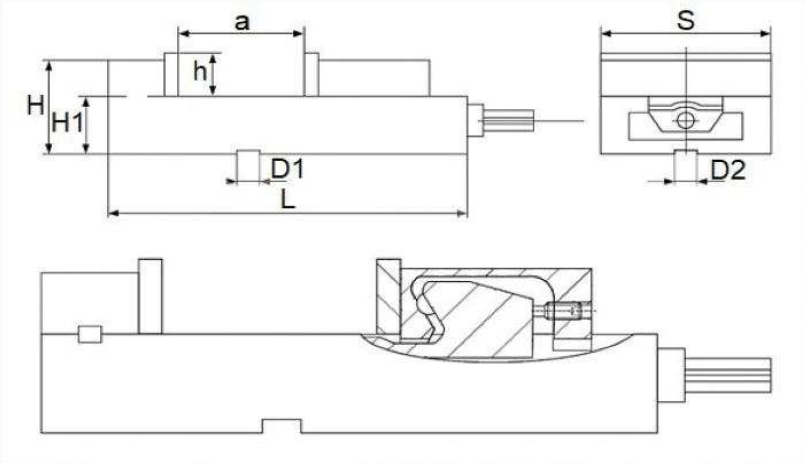
MORDAZA DE PRECISION MECANICA

- * Alta calidad de hierro fundido dúctil
- * Ancho de mandíbula 80-200mm
- * La precisión (paralelismo y perpendicularidad) es 0.025/100mm
- * Ampliamente utilizado en centro de mecanizado y otras máquina de precisión
- * Diferentes posiciones - lados rectificados



APERTURA Max. (a Max.)	ALTURA MORDAZA (h)	LARGO (L)	ANCHURA (S)	ALTURA (H)	FUERZA MAXIMA
170 mm	45 mm	385 mm	150 mm	117 mm	2500 Kg

PRECIO
280,30 €



a	h	H	H ₁	L	S	D	D ₁	Clamping force	Weight
160 [mm]	45 [mm]	115 [mm]	75 [mm]	370 [mm]	150 [mm]	18 [mm]	18 [mm]	2500 [kg]	26 [kg]

TÉCNICAS DE MEDICIÓN

PIE DE REY DIGITAL

DIN
862



• Ejecución:

EL resultado de medición se visualiza por medio de un indicador LCD (altura de 8mm).

Puesta a cero en cualquier posición.

Encendido / apagado manual y apagado

Ventana de visualización de vidrio de cuarzo

Capacidad especial de resistencia a los arañazos.

Capacidad de medición (mm)	Límite de error (mm)	Lectura complutable (mm)	PRECIO (€)
0-150mm	0,03	0,01	23,5

PIE DE REY DIGITAL, ÍNDICE DE PROTECCIÓN IP67

IP 67

Capacidad de medición (mm)	Límite de error (mm)	Lectura complutable (mm)	PRECIO (€)
0-150mm	0,03	0,01	99,5
0-200mm	0,03	0,01	122

RELOJ COMPARADOR

DIN
878



Escala de medición (mm)	0-10
Valor de división de la escala (mm)	0,01
Diametro reloj	60
PRECIO (€)	13

PUPITAS

	CODIGO	605-4713	605-4913
Escala de medición (mm)		0-0,8	0-0,8
Valor de división de la escala (mm)		0,01	0,01
Diametro reloj		32	39
PRECIO		32	34,9



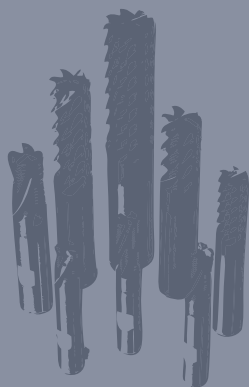
MICROMETROS ANALOGICOS EXTERIORES

DIN
863



Escala de medición (mm)	Lectura complutable (mm)	Ø de la galga (mm)	PRECIO (€)
0-25	0,01	6,5	16,3
25-50			17,8
50-75			21,7
75-100			24,5

Juego de micrometros exteriores 0-100	71,5 €
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CUTTING TOOLS



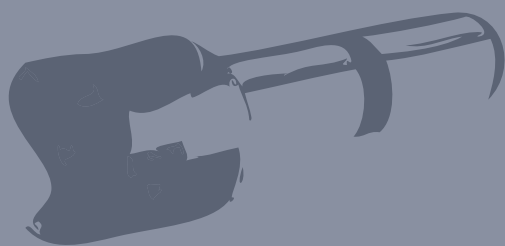
WELDING TOOLS



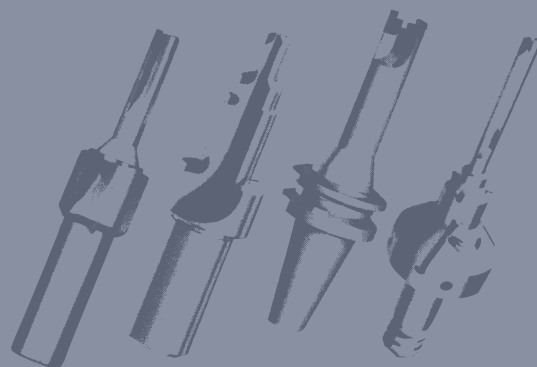
INDEXABLE
END MILL



MACHINE TOOLS
ACCESSORIES



NON-STANDARD
TOOLS



DIAMOND TOOLS

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(NAVARRA)

ESPAÑA