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# BASES MAGNÉTICAS FEIN

## BROCAS CRANEANAS

### KARNASCH

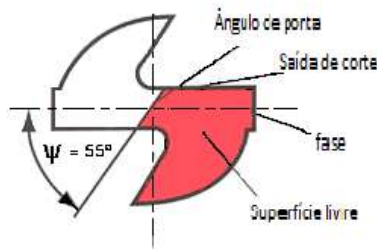
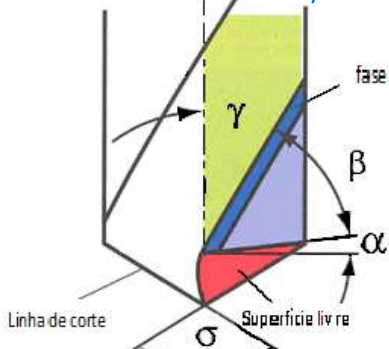


## Serviços

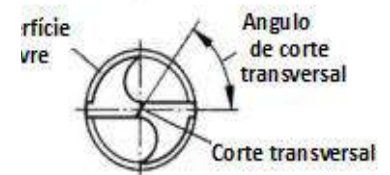
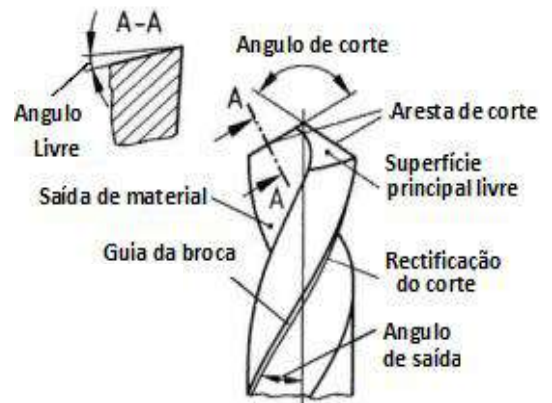
Manutenção de máquinas elétricas portáteis.

Recuperação de ferramentas de corte.

Afeamento de brocas em espiral, sem e com refrigeração interior, também brocas de coroa, discos de corte hss, fresas, etc.



α = ângulo livre      γ = ângulo de saída de material  
β = ângulo de saída      α = ângulo de ponta  
ψ = ângulo de corte



## TABELA DE PREÇOS

### BROCAS DE COROA "KARNASCH"

### COM ENCAIXE QUICK-IN

MATERIAL: LÂMINAS DE CORTE EM HSS C/ 5% Cobalto

Adequado para Bases magnéticas FEIN

**Ref.20.1146**



Ø	Referencia	preço
12	20.1146U-12	19,08
13	20.1146U-13	19,08
14	20.1146U-14	19,41
15	20.1146U-15	19,41
16	20.1146U-16	20,51
17	20.1146U-17	20,51
18	20.1146U-18	21,61
19	20.1146U-19	21,61
20	20.1146U-20	22,66
21	20.1146U-21	22,66
22	20.1146U-22	26,18
23	20.1146U-23	26,18
24	20.1146U-24	27,11
25	20.1146U-25	27,11
26	20.1146U-26	28,82
27	20.1146U-27	28,82
28	20.1146U-28	30,96
29	20.1146U-29	30,96
30	20.1146U-30	32,45
31	20.1146U-31	32,45
32	20.1146U-32	34,04
33	20.1146U-33	34,04
34	20.1146U-34	35,86
35	20.1146U-35	35,86
36	20.1146U-36	40,53
37	20.1146U-37	42,24
38	20.1146U-38	45,15

Ø	Referencia	preço
39	20.1146U-39	45,15
40	20.1146U-40	49,77
41	20.1146U-41	49,77
42	20.1146U-42	49,77
43	20.1146U-43	49,77
44	20.1146U-44	49,77
45	20.1146U-45	58,96
46	20.1146U-46	49,77
47	20.1146U-47	49,77
48	20.1146U-48	49,77
49	20.1146U-49	49,77
50	20.1146U-50	71,28
51	20.1146U-51	49,77
52	20.1146U-52	49,77
53	20.1146U-53	49,77
54	20.1146U-54	49,77
55	20.1146U-55	84,31
56	20.1146U-56	49,77
57	20.1146U-57	49,77
58	20.1146U-58	49,77
59	20.1146U-59	49,77
60	20.1146U-60	98,45



**20.1372**

15,61 €



**20.1375**

64,10 €



**20.1388**

7,41 €

## TABELA DE PREÇOS

### BROCAS DE COROA “KARNASCH” COM ENCAIXE QUICK-IN

MATERIAL: LÂMINAS DE CORTE EM TUNGSTENIO

Adequado para Bases magnéticas FEIN

**Ref.20.1147**



Ø	Referencia	preço <sup>1</sup>	Ø	Referencia	preço <sup>1</sup>
12	20.1147-12	33,05 €	39	20.1147-39	49,22 €
13	20.1147-13	33,05 €	40	20.1147-40	49,22 €
14	20.1147-14	33,99 €	41	20.1147-41	57,97 €
15	20.1147-15	33,99 €	42	20.1147-42	57,97 €
16	20.1147-16	33,99 €	43	20.1147-43	57,97 €
17	20.1147-17	33,99 €	44	20.1147-44	57,97 €
18	20.1147-18	33,99 €	45	20.1147-45	57,97 €
19	20.1147-19	33,99 €	46	20.1147-46	62,20 €
20	20.1147-20	33,99 €	47	20.1147-47	62,20 €
21	20.1147-21	33,99 €	48	20.1147-48	62,20 €
22	20.1147-22	33,99 €	49	20.1147-49	62,20 €
23	20.1147-23	33,99 €	50	20.1147-50	65,56 €
24	20.1147-24	33,99 €	51	20.1147-51	70,73 €
25	20.1147-25	33,99 €	52	20.1147-52	74,14 €
26	20.1147-26	36,96 €	53	20.1147-53	74,14 €
27	20.1147-27	37,01 €	54	20.1147-54	76,67 €
28	20.1147-28	37,01 €	55	20.1147-55	78,10 €
29	20.1147-29	37,01 €	56	20.1147-56	80,63 €
30	20.1147-30	37,01 €	57	20.1147-57	82,33 €
31	20.1147-31	43,50 €	58	20.1147-58	83,87 €
32	20.1147-32	43,50 €	59	20.1147-59	85,14 €
33	20.1147-33	43,50 €	60	20.1147-60	86,73 €
34	20.1147-34	43,50 €	61	20.1147-61	89,04 €
35	20.1147-35	43,50 €	62	20.1147-62	92,12 €
36	20.1147-36	49,17 €	63	20.1147-63	95,48 €
37	20.1147-37	49,22 €	64	20.1147-64	98,23 €
38	20.1147-38	49,22 €	65	20.1147-65	101,09 €



**20.1388**

7,41 €



Esta tabela anula e substitui as anteriores e pode ser alterada sem aviso prévio  
Marinha Grande, 1 de Março de 2020

<sup>1</sup> Acresce IVA à taxa normal



## TABELA DE PREÇOS BROCAS DE COROA “KARNASCH” COM ENCAIXE WELDON

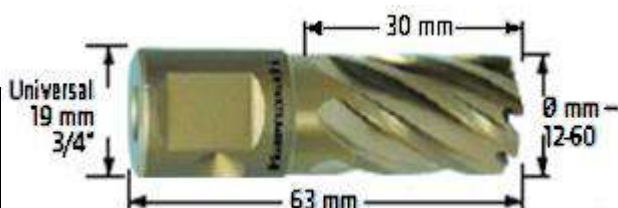
**MATERIAL: LÂMINAS DE CORTE EM HSS C/ 5% Cobalto**

Adequado para Bases magnéticas BDS, Euroboor, Rotabroach, Alfra, Ruko, ...

**Ref: 20.1260N**

Ø	Referencia	preço
12	20.1260N-12	16,33
13	20.1260N-13	16,33
14	20.1260N-14	16,77
15	20.1260N-15	16,77
16	20.1260N-16	17,76
17	20.1260N-17	18,09
18	20.1260N-18	18,92
19	20.1260N-19	18,92
20	20.1260N-20	20,35
21	20.1260N-21	20,35
22	20.1260N-22	24,14
23	20.1260N-23	24,14
24	20.1260N-24	25,02
25	20.1260N-25	25,02
26	20.1260N-26	26,56
27	20.1260N-27	26,56
28	20.1260N-28	29,48
29	20.1260N-29	29,48
30	20.1260N-30	30,91
31	20.1260N-31	30,91
32	20.1260N-32	32,34
33	20.1260N-33	32,34
34	20.1260N-34	34,10
35	20.1260N-35	34,10
36	20.1260N-36	38,66
37	20.1260N-37	40,15
38	20.1260N-38	43,12

Ø	Referencia	preço
39	20.1260N-39	43,12
40	20.1260N-40	47,30
41	20.1260N-41	47,30
42	20.1260N-42	51,04
43	20.1260N-43	51,04
44	20.1260N-44	56,04
45	20.1260N-45	56,04
46	20.1260N-46	60,22
47	20.1260N-47	60,22
48	20.1260N-48	63,58
49	20.1260N-49	63,58
50	20.1260N-50	67,92
51	20.1260N-51	67,92
52	20.1260N-52	73,70
53	20.1260N-53	76,01
54	20.1260N-54	78,37
55	20.1260N-55	80,24
56	20.1260N-56	83,21
57	20.1260N-57	86,13
58	20.1260N-58	88,27
59	20.1260N-59	91,02
60	20.1260N-60	93,83



**20.1261**

5,67 €

Alongador 50mm

**20.1387**



# TABELA DE PREÇOS

## BROCAS DE COROA “KARNASCH” COM ENCAIXE WELDON

MATERIAL: LÂMINAS DE CORTE EM Metal Duro

Adequado para Bases magnéticas BDS, Euroboor, Rotabroach, Alfra, Ruko, ...

**Ref.20.1315**

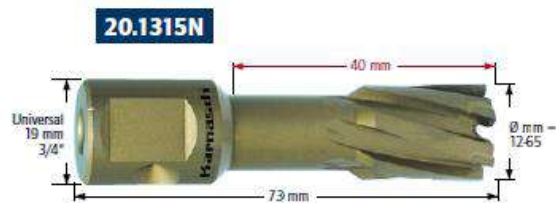
Ø	Referencia	preço
12	20.1315N-12	30,36 €
13	20.1315N-13	30,36 €
14	20.1315N-14	31,35 €
15	20.1315N-15	31,35 €
16	20.1315N-16	31,35 €
17	20.1315N-17	31,35 €
18	20.1315N-18	31,35 €
19	20.1315N-19	31,35 €
20	20.1315N-20	31,35 €
21	20.1315N-21	32,23 €
22	20.1315N-22	32,23 €
23	20.1315N-23	32,23 €
24	20.1315N-24	32,23 €
25	20.1315N-25	32,23 €
26	20.1315N-26	33,99 €
27	20.1315N-27	34,04 €
28	20.1315N-28	34,04 €
29	20.1315N-29	34,04 €
30	20.1315N-30	34,04 €
31	20.1315N-31	40,20 €
32	20.1315N-32	40,20 €
33	20.1315N-33	40,20 €
34	20.1315N-34	40,20 €
35	20.1315N-35	40,20 €
36	20.1315N-36	45,98 €
37	20.1315N-37	46,00 €
38	20.1315N-38	46,00 €

Ø	Referencia	preço
39	20.1315N-39	46,00 €
40	20.1315N-40	46,00 €
41	20.1315N-41	55,55 €
42	20.1315N-42	55,55 €
43	20.1315N-43	55,55 €
44	20.1315N-44	55,55 €
45	20.1315N-45	55,55 €
46	20.1315N-46	59,56 €
47	20.1315N-47	59,56 €
48	20.1315N-48	59,56 €
49	20.1315N-49	59,56 €
50	20.1315N-50	63,08 €
51	20.1315N-51	68,42 €
52	20.1315N-52	70,07 €
53	20.1315N-53	72,16 €
54	20.1315N-54	74,52 €
55	20.1315N-55	76,17 €
56	20.1315N-56	78,87 €
57	20.1315N-57	80,74 €
58	20.1315N-58	82,22 €
59	20.1315N-59	83,71 €
60	20.1315N-60	85,14 €
61	20.1315N-61	87,72 €
62	20.1315N-62	90,80 €
63	20.1315N-63	94,16 €
64	20.1315N-64	97,29 €
65	20.1315N-65	100,43 €



Ø 12-17 mm **20.1149** 5,32 €

Ø 18-65 mm **20.1151** 5,46 €



21,76 €

**20.1515**

**20.1283**



52,91 €

WELDON /  
UNIVERSAL  
19 mm  
3/4"



Ø 12-60 mm

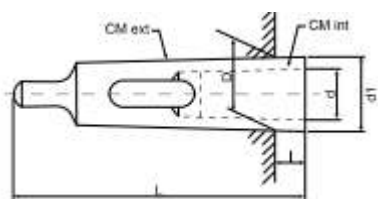
Esta tabela anula e substitui as anteriores e pode ser alterada sem aviso prévio  
Marinha Grande, 1 de março de 2020

<sup>1</sup> Acresce IVA à taxa normal

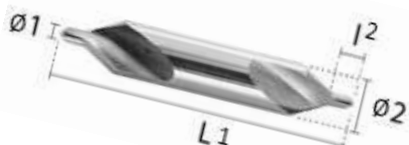
Art.	d1 Ø	D3 Ø	L1	D2 Ø	Z	AF	Preço
K.201740050	6,3	1,5	45	5	3	M3	7.40€
K.201740090	8,3	2	50	6	3	M4	7.80€
K.201740120	10,4	2,5	50	6	3	M5	8.63€
K.201740140	12,4	2,8	56	8	3	M6	9.62€
K.201740160	15	3,2	60	10	3	M8	12.26€
K.201740190	20,50	3,5	63	10	3	M10	13.97€
K.201740210	25	3,8	67	10	3	M12	17.60€
K.201740230	28	4	71	12	3	M14	21.39€
K.201740530	31	4,2	71	12	3	M16	24.14€
K.201740260	40	10	80	15	3		34.32€



Art.	d1 Ø	D3 Ø	L1	MK	Z	Preço
K.201790050	40	10	140	3	3	60.60€
K.201790060	50	14	150	3	3	80.60€
K.201740080	80	22	190	4	3	239.00€

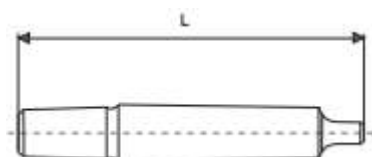


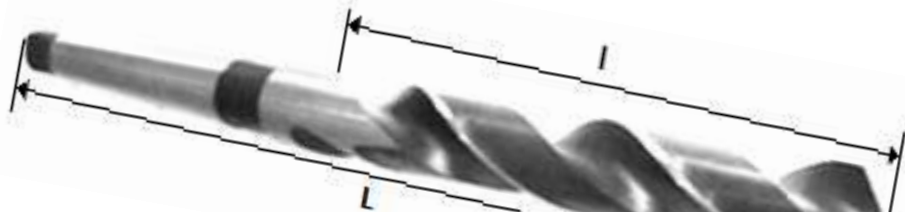
	L	D	d	D1	preço
Mfm.CR.MK3.2	112	23.82	17.78	24.70	
Mfm.CR.MK4.2	124	31.26	17.78	31.60	
Mfm.CR.MK4.3	140	31.26	23.82	32.40	
Mfm.CR.MK5.2	156	44.39	17.78	44.70	
Mfm.CR.MK5.3	156	44.39	23.82	44.70	
Mfm.CR.MK5.4	171	44.39	31.26	45.50	



Ø1	Ø2	L2	L1	Artigo	Preço
1,25	4	1,9	33,5	608.050.09	4,99€
2	5	2,9	42	608.200.09	5,38€
2,5	6,3	3,6	47	608.250.09	5,97€
3,15	8	4,4	52	608.315.09	6,58€
4	10	5,6	59	608.400.09	8,57€
5	12,50	6,9	66	608.500.09	14,36€
6,30	16	8,6	74	608.630.09	20,50€

	Cone Morse	Inserção	L	Preço
Mfm.KM2.B10	MK2	B10	105	
Mfm.KM2.B12	MK2	B12	105	
Mfm.KM2.B16	MK2	B16	112	
Mfm.KM2.B18	MK2	B18	119	
Mfm.KM3.B12	MK3	B12	127	
Mfm.KM3.B16	MK3	B16	134	
Mfm.KM3.B18	MK3	B18	140	
Mfm.KM4.B16	MK4	B16	157	





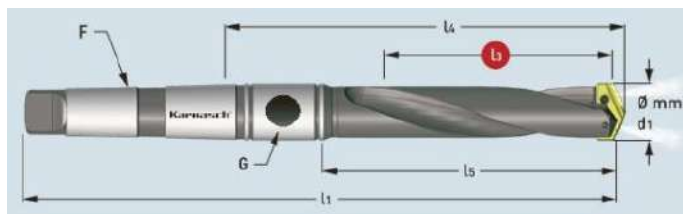
DIAMETRO mm	Haste	Comp. Total	Comp. espiral	Preço
Ø2				
Ø3				
Ø4,25				
Ø5	Ø5	86	52	1,03€
Ø6	Ø6	93	57	1,39€
Ø7	Ø7	109	69	2,05€
Ø8	Ø8	117	75	2,41€
Ø9	Ø9	125	81	3,31€
Ø10	Ø10	133	87	3,79€
Ø11	Ø11	142	94	5,19€
Ø12	Ø12	151	101	6,10€
Ø13	Ø13	151	101	7,51€
Ø14	Ø14	160	108	10,30€
Ø15	Ø15	169	114	13,43€
Ø16	Ø16	178	120	16,20€
Ø17	Ø17	184	125	20,92€
Ø18	Ø18	191	130	23,30€
Ø19	Ø19	198	135	26,00€
Ø20	Ø20	205	140	31,17€
Ø	Δ	L	I	€
Ø5	MK1	133	52	14,24€
Ø6	MK1	138	57	14,24€
Ø7	MK1	150	69	16,21€
Ø8	MK1	156	75	17,43€
Ø9	MK1	162	81	15,73€
Ø10	MK1	168	87	15,54€
Ø11	MK1	175	94	16,58€
Ø12	MK1	182	101	17,48€
Ø13	MK1	182	101	19,45€
Ø14	MK1	189	108	21,38€
Ø15	MK2	212	114	23,16€
Ø16	MK2	218	120	23,96€
Ø17	MK2	223	125	27,11€
Ø18	MK2	228	130	30,00€
Ø19	MK2	233	135	33,02€
Ø20	MK2	238	140	35,93€

DIAMETRO mm	Haste	Comp. Total	Comp. espiral	Preço
Ø	Δ	L	I	€
Ø21	MK2	243	145	38,84€
Ø22	MK2	248	150	42,87€
Ø23	MK2	253	155	46,91€
Ø24	MK3	281	160	51,76€
Ø25	MK3	281	160	56,44€
Ø26	MK3	286	165	61,41€
Ø27	MK3	291	170	68,27€
Ø28	MK3	291	170	71,20€
Ø29	MK3	296	175	76,34€
Ø30	MK3	296	175	83,94€
Ø31	MK3	301	180	93,42€
Ø32	MK4	334	185	98,93€
Ø33	MK4	334	185	112,98€
Ø34	MK4	339	190	122,87€
Ø35	MK4	339	190	134,28€
Ø36	MK4	344	195	144,04€
Ø37	MK4	344	195	151,85€
Ø38	MK4	349	200	159,75€
Ø39	MK4	349	200	170,35€
Ø40	MK4	349	200	179,88€
Ø41	MK4	354	205	189,13€
Ø42	MK4	354	205	200,68€
Ø43	MK4	359	210	210,49€
Ø44	MK4	359	210	220,36€
Ø45	MK4	359	210	228,85€
Ø46	MK4	364	215	239,80€
Ø47	MK4	364	215	249,60€
Ø48	MK4	369	220	257,97€
Ø49	MK4	369	220	267,88€
Ø50	MK4	369	220	270,20€
Ø51	MK5	412	225	351,16€
Ø52	MK5	412	225	372,75€

CUNHA 2/1 13.30€  
 CUNHA 3/2 16.08€  
 CUNHA 4/3 21.32€

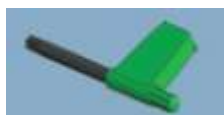






Preço	Ref.	Ø min.	Ø max.	Pastilha	Ø	Preço
170.20€	22 103001207 0180	18.00mm	21.00mm	22 2010 0180	18mm	35,20€
	MK3			22 2010 0190	19mm	35,20€
				22 2010 0200	20mm	35,20€
				22 2010 0210	21mm	35,20€
170.20€	22 103001207 0220	22.00mm	24.00mm	22 2010 0220	22mm	35,20€
	MK3			22 2010 0230	23mm	35,20€
				22 2010 0240	24mm	35,20€
220.40€	22 103001365 0250	25.00mm	29.00mm	22 2010 0250	25mm	41,20€
	MK4			22 2010 0260	26mm	41,20€
				22 2010 0270	27mm	41,20€
				22 2010 0280	28mm	41,20€
				22 2010 0290	29mm	41,20€
220.40€	221030013650300	30mm	35mm	22 2010 0300	30mm	41,20€
	MK4			22 2010 0310	31mm	41,20€
				22 2010 0320	32mm	41,20€
				22 2010 0330	33mm	41,20€
				22 2010 0340	34mm	41,20€
				22 2010 0350	35mm	41,20€
310.85€	221030016510360	36mm	41mm	22 2010 0360	36mm	41,20€
	MK4					

Chave 12.00€



Parafuso 3,60€



MK2 / WELDON19mm 46.00€



MK3 / WELDON19mm 48.00€



MK4 / WELDON19mm 56.00€



Sistema de furação em bases magnéticas



• <b>20 1830 002</b> € 8.90		2,5 mm		Ø 2,5 mm Ø 3/32"	<b>20 1840 002</b> € 9.20	M 3
• <b>20 1830 004</b> € 8.90		3 mm		Ø 3,4 mm Ø 9/64"	<b>20 1840 004</b> € 9.20	M 4
• <b>20 1830 010</b> € 8.90		4 mm		Ø 4,3 mm Ø 11/64"	<b>20 1840 006</b> € 9.20	M 5
				Ø 4 mm Ø 5/32"	<b>20 1840 010</b> € 9.20	-
• <b>20 1830 020</b> € 8.90		5 mm		Ø 5 mm Ø 13/64"	<b>20 1840 020</b> € 9.20	M 6
• <b>20 1830 030</b> € 8.90		6 mm		Ø 6 mm Ø 15/64"	<b>20 1840 030</b> € 10.75	-
				Ø 6,8 mm Ø 17/64"	<b>20 1840 035</b> € 11.80	M 8
• <b>20 1830 040</b> € 8.90		7 mm		Ø 7 mm Ø 9/32"	<b>20 1840 040</b> € 12.20	-
• <b>20 1830 050</b> € 8.90		8 mm		Ø 8 mm Ø 5/16"	<b>20 1840 050</b> € 14.40	-
				Ø 8,5 mm Ø 21/64"	<b>20 1840 055</b> € 15.90	M 10
• <b>20 1830 060</b> € 8.90		9 mm		Ø 9 mm Ø 23/64"	<b>20 1840 060</b> € 16.20	-
• <b>20 1830 070</b> € 8.90		10 mm		Ø 10 mm Ø 25/64"	<b>20 1840 070</b> € 17.60	-
				Ø 10,3 mm Ø 13/32"	<b>20 1840 075</b> € 19.50	M 12
• <b>20 1830 080</b> € 8.90		11 mm		Ø 11 mm Ø 7/16"	<b>20 1840 080</b> € 19.50	-
• <b>20 1830 090</b> € 8.90		12 mm		Ø 12 mm Ø 15/32"	<b>20 1840 090</b> € 21.30	M 14

# ACESSÓRIOS PARA ABRIR ROSCA

em bases magnéticas (têm de ter rotação PARA DIREITA E ESQUERDA

**FEIN**



Porta pinças de troca rápida  
289,00€



pinças de troca rápida sem embraiagem

M6, Ø6,0 □ 4,9mm

M8, Ø8,0 □ 6,2mm

M10, Ø10 □ 8,0mm

M12, Ø9 □ 7,0mm

M14, Ø11 □ 9,0mm

Furos a passar

81,00€ / unidade



pinças de troca rápida embraiagem

M6, Ø6,0 □ 4,9mm

M8, Ø8,0 □ 6,2mm

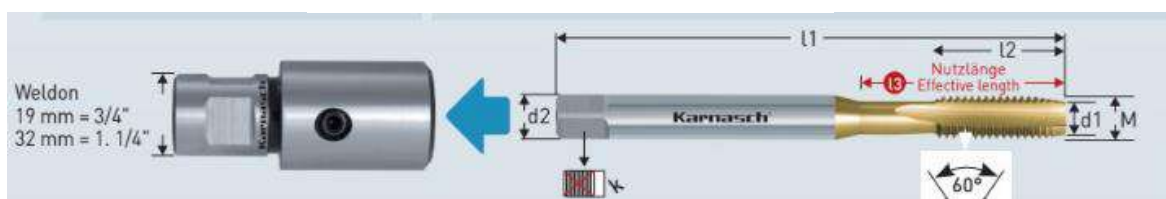
M10, Ø10 □ 8,0mm

M12, Ø9 □ 7,0mm

M14, Ø11 □ 9,0mm

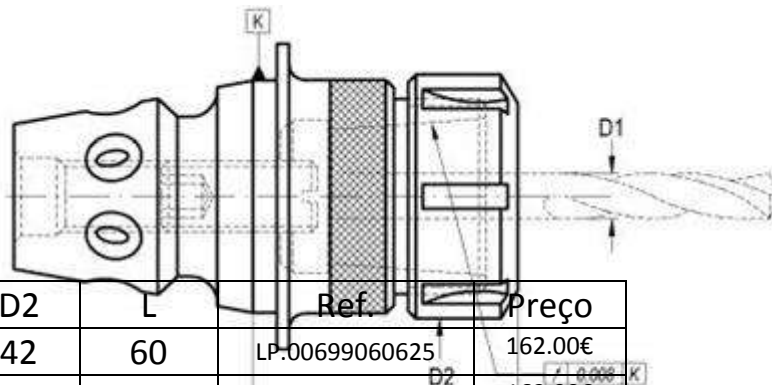
Furos a passar

249,00€ /unidade



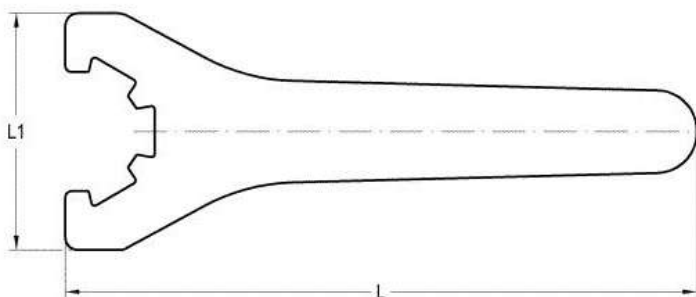
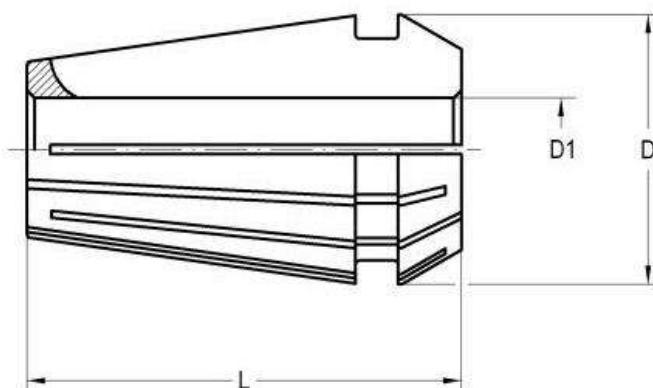
Weldon	Adapter · Adapter	Gewindebohrer · Taps	M
19 mm 3/4"	 • 20 1800 002 € 13.50	 • 20 1820 002 € 10.90	M 3 DIN 371
19 mm 3/4"	 • 20 1800 004 € 13.50	 • 20 1820 004 € 10.90	M 4 DIN 371
19 mm 3/4"	 • 20 1800 010 € 13.86	 • 20 1820 006 € 12.50	M 5 DIN 371
		 • 20 1820 010 € 12.50	M 6 DIN 371
19 mm 3/4"	 • 20 1800 020 € 13.86	 • 20 1820 020 € 16.20	M 8 DIN 371
19 mm 3/4"	 • 20 1800 030 € 13.86	 • 20 1820 030 € 20.58	M 10 DIN 376
19 mm 3/4"	 • 20 1800 040 € 14.60	 • 20 1820 040 € 24.80	M 12 DIN 376
19 mm 3/4"	 • 20 1800 050 € 14.60	 • 20 1820 050 € 31.60	M 14 DIN 376

## ACESSORIOS

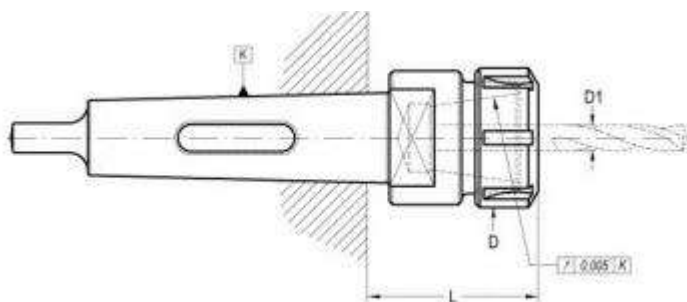


k	Pinças	D1(max)	D2	L	Ref.	Preço
40	(ER25)	16	42	60	LP.00699060625	162.00€
51,5	(ER25)	16	42	63	LP.00699060635	162.00€
51,5	(ER32)	20	50	67	LP.00699060636	172,00€
51,5	(ER40)	26	63	100	LP.00699060637	172.00€
68,7	(ER25)	16	42	63	LP.00699060645	184.00€

	D	L	Ref.	Preço
(ER25)	26	34	LP.0021105--00	27.00€
(ER32)	33	40	LP.0021106--00	30.00€
(ER40)	41	46	LP.0021107--00	38.00€



	L	L1	Ref.	Preço
(ER25)	210	65	LP.00499040305	12.00€
(ER32)	250	75	LP.00499040306	15.00€
(ER40)	290	90	LP.00499040307	17.00€



k	Pinças	D1 (max)	L	D	Ref.	Preço
M2	(ER25)	16	55	42	LP.00402060305	
M3	(ER32)	20	62	50	LP.00402060406	
M3	(ER40)	26	68	63	LP.00402060407	
M4	(ER32)	20	64	50	LP.00402060506	



# PUNÇÕES E MATRIZES POSSIBILIDADE DE FAZER O TRABALHO MAIS RÁPIDO

