



CUTTING TOOLS
CONSTRUCTION INDUSTRY
WATER PUMPS
TANNERY

CATALOGUE 2023/2024

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SPERAFICO TRADING

EXPORTADORA



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BROCA SERIE NORMAL

CILÍNDRICAS, COMPRIMENTO STANDARD, DIN 338, HÉLICE À DIREITA

BROCA SERIE CORTA

CILÍNDRICAS, LARGO STANDARD, DIN 338, PASO DERECHO

JOBBER DRILL

STRAIGHT SHANK, STANDARD LENGHT, DIN 338, RIGHT HAND CUT



A- 114 mm

A- 154 inch

A- 002 Tin Tipped



SIZE (mm)	
1	10
1,5	10,5
2	11
2,5	11,5
3	12
3,5	12,5
4	13
4,5	13,5
5	14
5,5	14,5
6	15
6,5	15,5
7	16
7,5	16,5
8	17
8,5	18
9	19
9,5	20

SIZE (inch)	
1/64	19/64
1/32	5/16
3/64	21/64
1/16	11/32
5/64	23/64
3/32	3/8
7/64	25/64
1/8	13/32
9/64	27/64
5/32	7/16
11/64	29/64
3/16	15/32
13/64	31/64
7/32	1/2
15/64	9/16
1/4	19/32
17/64	5/8
9/32	

A- 130

BROCA DE HASTE CÔNICA

COM CONE MORSE, DIN 345, HÉLICE À DIREITA

BROCA DE MANGO CONICO

CON CONO MORSE, DIN 345, PASO DERECHO

TAPER SHANK DRILL

MORSE TAPER SHANK, DIN 345, RIGHT HAND CUT



SIZE (mm)			
2	27	52	77
3	28	53	78
4	29	54	79
5	30	55	80
6	31	56	81
7	32	57	82
8	33	58	83
9	34	59	84
10	35	60	85
11	36	61	86
12	37	62	87
13	38	63	88
14	39	64	89
15	40	65	90
16	41	66	91
17	42	67	92
18	43	68	93
19	44	69	94
20	45	70	95
21	46	71	96
22	47	72	97
23	48	73	98
24	49	74	99
25	50	75	100
26	51	76	

SIZE (inch)			
1/8	7/16	3/4	1.3/16
9/64	29/64	49/64	1.7/32
5/32	15/32	25/32	1.1/4
11/64	31/64	51/64	1.9/32
3/16	1/2	13/16	1.5/16
13/64	33/64	53/64	1.11/32
7/32	17/32	27/32	1.3/8
15/64	35/64	55/64	1.13/32
1/4	9/16	7/8	1.7/16
17/64	37/64	57/64	1.1/2
9/32	19/32	29/32	1.9/16
19/64	39/64	59/64	1.5/8
5/16	5/8	15/16	1.11/16
21/64	41/64	61/64	1.3/4
11/32	21/32	31/32	2
23/64	43/64	63/64	2.1/2
3/8	11/16	1	2.5/8
25/64	45/64	1.1/16	2.3/4
13/32	23/32	1.1/8	2.7/8
27/64	47/64	1.5/32	3

R- 510 BROCA DE METAL DURO CDX SERIE NORMAL DIN 338

BROCA DE METAL DURO CDX SERIE CORTA DIN 338

CDX JOBBER DRILL HM DIN 338

SIZE (mm)			
3	5	7,54	10,2
3,18	5,1	7,8	10,3
3,2	5,16	7,9	10,32
3,3	5,5	7,94	10,4
3,4	5,56	8	10,5
3,5	5,6	8,33	10,72
3,57	5,7	8,5	10,8
3,7	5,95	8,7	11
3,9	6	8,73	11,11
3,97	6,35	8,8	11,2
4	6,5	9	11,5
4,1	6,6	9,13	11,51
4,2	6,75	9,2	11,91
4,3	6,8	9,3	12
4,37	6,9	9,4	12,3
4,5	7	9,5	12,7
4,6	7,14	9,52	13
4,7	7,3	9,9	14
4,76	7,4	9,92	14,25
4,9	7,5	10	



SIZE (inch)			
1/8	15/64	11/32	29/64
9/64	1/4	23/64	15/32
5/32	17/64	3/8	31/64
11/64	9/32	25/64	1/2
3/16	19/64	13/32	
13/64	5/16	27/64	
7/32	21/64	7/16	

A- 108 BROCA SERIE CURTA AFIAÇÃO EM CRUZ, DIN 338, PARA CORTE DE AÇO INOXIDÁVEL, 4XD

BROCA SERIE CORTA PUNTA AFILADA, DIN 338, PARA COTE DE ACERO INOXIDABLE, 4XD

JOBBER DRILL SPLIT POINT, DIN 338, FOR CUTTING OF STAINLESS STEEL, 4XD

SIZE (mm)			
1	3,8	6,7	9,5
1,1	3,9	6,8	9,6
1,2	4	6,9	9,7
1,3	4,1	7	9,8
1,4	4,2	7,1	9,9
1,5	4,3	7,2	10
1,6	4,4	7,3	10,2
1,7	4,5	7,4	10,5
1,8	4,6	7,5	10,8
1,9	4,7	7,6	11
2	4,8	7,7	11,5
2,1	4,9	7,8	11,8
2,2	5	7,9	12
2,3	5,1	8	12,2
2,4	5,2	8,1	12,5
2,5	5,3	8,2	12,8
2,6	5,4	8,3	12,9
2,7	5,5	8,4	13
2,8	5,6	8,5	13,5
2,9	5,7	8,6	14
3	5,9	8,7	14,5
3,1	6	8,8	15
3,2	6,1	8,9	15,25
3,3	6,2	9	15,5
3,4	6,3	9,1	16
3,5	6,4	9,2	
3,6	6,5	9,3	
3,7	6,6	9,4	



SIZE (inch)			
1/16	3/16	5/16	7/16
5/64	13/64	21/64	29/64
3/32	7/32	11/32	15/32
7/64	15/64	23/64	31/64
1/8	1/4	3/8	1/2
9/64	17/64	25/64	
5/32	9/32	13/32	
11/64	19/64	27/64	

BROCA ANULAR EM AÇO RÁPIDO HSS ENCAIXE WELDON 19mm

BROCA ANULAR HSS TOMA WELDON 19mm

HSS ANNULAR CORE CUTTERS WELDON SHANK 19mm



30mm

DIAMETER	LENGTH	CODE
mm	mm	
12	30	880001
13	30	880002
14	30	880003
15	30	880004
16	30	880005
17	30	880006
18	30	880007
19	30	880008
20	30	880009
21	30	880010
22	30	880011
23	30	880012
24	30	880013
25	30	880014
26	30	880015
27	30	880016
28	30	880017
29	30	880018
30	30	880019
31	30	880020
32	30	880021
33	30	880022
34	30	880023
35	30	880024
36	30	880025
37	30	880051
38	30	880052
39	30	880053
40	30	880054
41	30	880055
42	30	880056
43	30	880057
44	30	880058
45	30	880059
46	30	880060
47	30	880061
48	30	880062
49	30	880063
50	30	880064



50mm

DIAMETER	LENGTH	CODE
mm	mm	
12	50	880026
13	50	880027
14	50	880028
15	50	880029
16	50	880030
17	50	880031
18	50	880032
19	50	880033
20	50	880034
21	50	880035
22	50	880036
23	50	880037
24	50	880038
25	50	880039
26	50	880040
27	50	880041
28	50	880042
29	50	880043
30	50	880044
31	50	880045
32	50	880046
33	50	880047
34	50	880048
35	50	880049
36	50	880050
37	50	880065
38	50	880066
39	50	880067
40	50	880068
41	50	880069
42	50	880070
43	50	880071
44	50	880072
45	50	880073
46	50	880074
47	50	880075
48	50	880076
49	50	880077
50	50	880078

LIMAS ROTATIVAS EM METAL DURO

LIMA ROTATIVA METAL DURO

ROTARY BURR IN HARD METAL

CILÍNDRICA SEM CORTE NO TOPO

CILINDRICA SIN CORTE FRONTAL

CYLINDER WITHOUT ENDCUT



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
3	14	6	55	450001
4	14	6	55	450002
6	16	6	65	450003
8	20	6	65	450004
10	20	6	65	450005
12	25	6	65	450006
16	25	6	65	450007

CILÍNDRICA COM CORTE NO TOPO

CILINDRICA CON CORTE FRONTAL

CYLINDER WITH ENDCUT



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
3	14	6	55	450008
4	14	6	55	450009
6	16	6	65	450010
8	20	6	65	450011
10	20	6	65	450012
12	25	6	65	450013
16	25	6	65	450014

CILÍNDRICA COM TOPO ESFÉRICO

CILINDRICA CON PUNTA ESFERICA

BALL NOSED CYLINDER



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
3	14	6	55	450015
4	14	6	55	450016
6	16	6	65	450017
8	20	6	65	450018
10	20	6	65	450019
12	25	6	65	450020
16	25	6	65	450021

CÔNICA

CÓNICA

CONE



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	18	6	65	450022
8	20	6	65	450023
10	20	6	65	450024
12	25	6	65	450025
16	25	6	65	450026

CÔNICA INVERTIDA

CÓNICA INVERTIDA

INVERTED CONE



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	7	6	65	450027
8	10	6	65	450028
10	10	6	65	450029
12	13	6	65	450030
16	16	6	65	450031

CÔNICA 60°

CÓNICA 60°

60° COUNTERSINK



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	5,2	6	55	450032
8	6,9	6	55	450033
10	8,7	6	55	450034
12	10,4	6	55	450035
16	13,8	6	55	450036



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LIMAS ROTATIVAS EM METAL DURO

LIMA ROTATIVA METAL DURO

ROTARY BURR IN HARD METAL

CÔNICA 90°

CÓNICA 90°

90° COUNTERSINK



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	3	6	55	450042
8	4	6	55	450043
10	5	6	55	450044
12	6	6	55	450045
16	8	6	55	450046

ÁRVORE ARREDONDADA

ARBOL CON PUNTA ESFERICA

BALL NOSED TREE



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	18	6	65	450069
8	20	6	65	450070
10	20	6	65	450071
12	25	6	65	450072
16	25	6	65	450073

OVAL

OVALADA

OVAL



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	10	6	65	450059
8	13	6	65	450060
10	16	6	65	450061
12	20	6	65	450062
16	25	6	65	450063

LABAREDA

LLAMA

FLAME



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	18	6	65	450064
8	20	6	65	450065
10	25	6	65	450066
12	32	6	65	450067
16	36	6	65	450068

CÔNICA COM RAIO

CÓNICA CON PUNTA ESFERICA

BALL NOSED CONE



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	16	6	65	450037
8	22	6	65	450038
10	25	6	65	450039
12	28	6	80	450040
16	33	6	80	450041

ÁRVORE PONTIAGUDA

ARBOL CON PUNTA

POINTED TREE



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	18	6	65	450047
8	20	6	65	450048
10	20	6	65	450049
12	25	6	65	450050
16	25	6	65	450051

ESFÉRICA

ESFERICA

BALL



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
3	2,7	6	55	450052
4	3	6	55	450053
6	5	6	55	450054
8	7	6	65	450055
10	9	6	65	450056
12	10	6	65	450057
16	14	6	65	450058

LIMAS ROTATIVAS PARA ALUMÍNIO EM METAL DURO

LIMA ROTATIVA PARA ALUMINIO METAL DURO

ROTARY BURR IN HARD METAL FOR ALUMINUM

CILÍNDRICA PARA ALUMÍNIO

CILINDRICA PARA ALUMINIO

CYLINDER FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	16	6	61	450074
8	20	6	65	450075
10	20	6	65	450076
12	25	6	70	450077
16	25	6	70	450078

CILÍNDRICA COM CORTE FRONTAL PARA ALUMÍNIO

CILINDRICA CON CORTE FRONTAL PARA ALUMINIO

CYLINDER WITH ENDCUT FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	16	6	61	450079
8	20	6	65	450080
10	20	6	65	450081
12	25	6	70	450082
16	25	6	70	450083

CILÍNDRICA COM RAIO PARA ALUMÍNIO

CILINDRICA CON PUNTA ESFERICA PARA ALUMINIO

BALL NOSED CYLINDER FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	16	6	61	450084
8	20	6	65	450085
10	20	6	65	450086
12	25	6	70	450087
16	25	6	70	450088

ESFÉRICA PARA ALUMÍNIO

ESFERICA PARA ALUMINIO

BALL FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	5	6	50	450089
8	7	6	52	450090
10	9	6	54	450091
12	10	6	55	450092
16	14	6	59	450093

OVAL PARA ALUMÍNIO

OVALADA PARA ALUMINIO

OVAL FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	10	6	55	450094
8	13	6	58	450095
10	16	6	61	450096
12	20	6	65	450097
16	25	6	70	450098

LABAREDA PARA ALUMÍNIO

LLAMA PARA ALUMINIO

FLAME FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	18	6	63	450099
8	20	6	65	450100
10	25	6	70	450101
12	32	6	77	450102
16	36	6	81	450103

LIMAS ROTATIVAS PARA ALUMÍNIO EM METAL DURO

LIMA ROTATIVA PARA ALUMINIO METAL DURO

ROTARY BURR IN HARD METAL FOR ALUMINUM

ÁRVORE ARREDONDADA PARA ALUMÍNIO

ARBOL CON PUNTA ESFERICA PARA ALUMINIO

BALL NOSED TREE FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	18	6	63	450104
8	20	6	65	450105
10	20	6	65	450106
12	25	6	70	450107
16	25	6	70	450108

CÔNICA INVERTIDA PARA ALUMÍNIO

CÓNICA INVERTIDA PARA ALUMINIO

INVERTED CONE FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	7	6	52	450114
8	10	6	55	450115
10	10	6	55	450116
12	13	6	58	450117
16	16	6	61	450118

CÔNICA 90° PARA ALUMÍNIO

CÓNICA 90° PARA ALUMINIO

90° COUNTERSINK FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	3	6	48	450124
8	4	6	49	450125
10	5	6	50	450126
12	6	6	51	450127
16	8	6	53	450128

CÔNICA PARA ALUMÍNIO

CÓNICA PARA ALUMINIO

CONE FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	18	6	63	450134
8	20	6	65	450135
10	20	6	65	450136
12	25	6	70	450137
16	25	6	70	450138

ÁRVORE PONTIAGUDA PARA ALUMÍNIO

ARBOL CON PUNTA PARA ALUMINIO

POINTED TREE FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	18	6	63	450109
8	20	6	65	450110
10	20	6	65	450111
12	25	6	70	450112
16	25	6	70	450113

CÔNICA 60° PARA ALUMÍNIO

CÓNICA 60° PARA ALUMINIO

60° COUNTERSINK FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	5,2	6	50,2	450119
8	6,9	6	51,9	450120
10	8,7	6	53,7	450121
12	10,4	6	55,4	450122
16	13,8	6	58,8	450123

CÔNICA COM RAIOS PARA ALUMÍNIO

CÓNICA CON PUNTA ESFERICA PARA ALUMINIO

BALL NOSED CONE FOR ALUMINUM



DIAMETER	TIP LENGTH	DIAMETER ROD	TOTAL LENGTH	CODE
mm	mm	mm	mm	
6	16	6	61	450129
8	22	6	67	450130
10	25	6	70	450131
12	28	6	73	450132
16	33	6	78	450133

LIMA CHATA COM PONTA

LIMAS PLANA PUNTA

FLAT SINGLE CUT LONG ANGLE LATHE FILE

LENGTH mm	SIZE mm	WEIGHT kg	PACKING
4	12 X 2,25	0,030	12
6	17 X 2,65	0,080	12
8	19 X 4,75	0,170	12
10	24 X 4,75	0,320	12
12	29 X 4,75	0,490	6
14	32 X 4,75	0,780	6
16	32 X 4,75	0,900	6



LIMA MEIA CANA

LIMAS MEDIA CAÑA

HALF ROUND DOUBLE CUT FILE

LENGTH mm	SIZE mm	WEIGHT kg	PACKING
4	12 X 3	0,033	12
6	17 X 4	0,070	12
8	19 X 5,5	0,167	12
10	24 X 6	0,325	12
12	29 X 6	0,515	6
14	32 X 6	0,709	6
16	32 X 6	0,900	6



LIMA REDONDA

LIMAS REDONDAS

ROUND SINGLE CUT FILE

LENGTH mm	Ø	WEIGHT kg	PACKING
4	5,56	0,010	12
6	6,35	0,029	12
8	7,94	0,071	12
10	9,53	0,140	12
12	11,11	0,270	6
14	12,7	0,485	6
16	15,88	0,900	6



LIMA QUADRADA

LIMAS CUADRADAS

SQUARE DOUBLE CUT FILE

LENGTH mm	SIZE mm	WEIGHT kg	PACKING
4	5,56	0,013	12
6	6,35	0,044	12
8	7,94	0,092	12
10	9,53	0,160	12
12	11,11	0,340	6
14	12,7	0,590	6
16	15,88	0,800	6



LIMA FACA

LIMAS CUCHILLO

KNIFE DOUBLE/SINGLE CUT FILE

LENGTH mm	SIZE mm	WEIGHT kg	PACKING
4	12 X 2,3	0,022	12
6	18 X 3	0,065	12
8	20 X 4	0,150	12
10	25 X 5	0,280	12
12	29 X 5,5	0,470	6
14	32 X 6	0,810	6

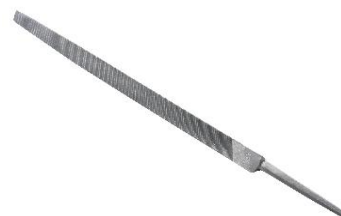


LIMA TRIANGULAR

LIMAS TRIANGULARES

TRIANGLE SINGLE CUT FILE

LENGTH mm	SIZE mm	WEIGHT kg	PACKING
4	7	0,022	12
5	7	0,050	12
6	10	0,065	12
7	10	0,100	12
8	12,5	0,150	6
10	13	0,280	6
12	14	0,470	6
14	14	0,810	6



LIMA REDONDA PARA MOTO SERRA

LIMAS PARA MOTOSIERRA

ROUND KNURL CUT CHAINSAW FILE

LENGTH inch	Ø	WEIGHT kg	PACKING
8 X 11/64	4,37	0,033	12
8 X 3/16	4,76	0,035	12
8 X 7/32	5,56	0,044	12



GROSA ESCOFINA MEIA CANA

ESCOFINA MEDIA CAÑA

ESCOFINA HALF ROUND FILE

LENGTH mm	SIZE mm	WEIGHT kg	PACKING
4	2	0,035	6
6	2	0,055	6
8	2	0,115	6
10	2	0,160	6
12	2	0,245	6



FRESA CIRCULAR CORTE 3 LADOS

- I- 1202 DIN 885 BH DIENTES RETOS
- I- 1211 DIN 885 AN DIENTES CRUZADOS E ALTERNADOS 12°/15°
- I- 1212 DIN 885 AH DIENTES CRUZADOS E ALTERNADOS 8°
- I- 1214 DIN 885 AW DIENTES CRUZADOS E ALTERNADOS 30°

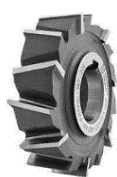
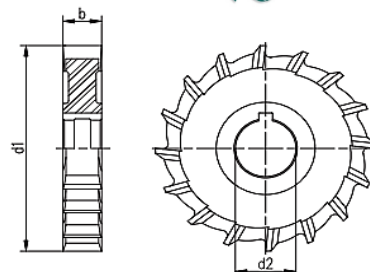


FRESA CIRCULAR CORTE 3 LADOS

- I- 1202 DIN 885 BH DIENTES RECTOS
- I- 1211 DIN 885 AN DIENTES CRUZADOS Y ALTERNADOS 12°/15°
- I- 1212 DIN 885 AH DIENTES CRUZADOS Y ALTERNADOS 8°
- I- 1214 DIN 885 AW DIENTES CRUZADOS Y ALTERNADOS 30°

SIDE AND FACE MILLING CUTTER

- I- 1202 DIN 885 BH STRAIGHT TEETH
- I- 1211 DIN 885 AN STAGGERED TEETH 12°/15°
- I- 1212 DIN 885 AH STAGGERED TEETH 8°
- I- 1214 DIN 885 AW STAGGERED TEETH 30°



d1 js 16 mm	b k 11 mm	d2 H7 mm	Z
50	4	16	14
50	5	16	14
50	6	16	14
50	8	16	14
50	10	16	14
63	4	22	16
63	5	22	16
63	6	22	16
63	8	22	16
63	10	22	16
63	12	22	16
63	14	22	16
63	16	22	16
63	18	22	16
80	5	27	18
80	6	27	18
80	8	27	18
80	10	27	18
80	12	27	18
80	14	27	18
80	16	27	18
80	18	27	18
80	20	27	18
100	6	32	20
100	8	32	20
100	10	32	20
100	12	32	20
100	14	32	20
100	16	32	20
100	18	32	20

d1 js 16 mm	b k 11 mm	d2 H7 mm	Z
100	20	32	20
100	22	32	20
100	25	32	20
125	6	32	22
125	8	32	22
125	10	32	22
125	12	32	22
125	14	32	22
125	16	32	22
125	18	32	22
125	20	32	22
125	22	32	22
125	25	32	22
125	28	32	22
150	6	32	24
150	8	32	24
150	10	32	24
150	12	32	24
150	14	32	24
150	16	32	24
150	18	32	24
150	20	32	24
150	22	32	24
150	25	32	24
150	26	32	24
150	28	32	24
160	8	40	24
160	10	40	24
160	12	40	24
160	14	40	24

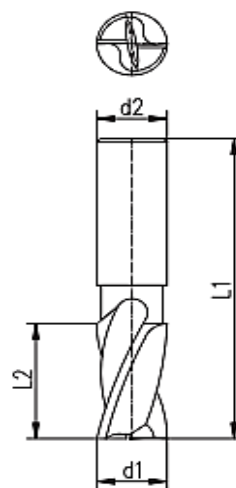
d1 js 16 mm	b k 11 mm	d2 H7 mm	Z
160	16	40	24
160	18	40	24
160	20	40	24
160	22	40	24
160	25	40	24
160	28	40	24
160	32	40	24
200	8	40	28
200	10	40	28
200	12	40	28
200	14	40	28
200	16	40	28
200	18	40	28
200	20	40	28
200	22	40	28
200	25	40	28
200	28	40	28
200	32	40	28
200	36	40	28
200	40	40	28
250	10	40	34
250	12	40	34
250	14	40	34
250	16	40	34
250	18	40	34
250	20	40	34
250	25	40	34
250	28	40	34
250	32	40	34

I- 1445 FRESA DE TOPO, HASTE CILÍNDRICA, 2 CORTES, CORTE À DIREITA, DIN 327 BN HSS
FRESA FRONTAL, VASTAGO CILINDRICO, 2 CORTES, CORTE A LA DERECHA, DIN 327 BN HSS
TWO FLUTE END MILL, RIGHT HAND CUT, DIN 327 BN HSS



d1 e8 mm	L2 mm	L1 mm	d2 h8 mm	Z
2	4	48	6	2
2,5	5	49	6	2
3	5	49	6	2
3,5	6	50	6	2
4	7	51	6	2
4,5	7	51	6	2
5	8	52	6	2
5,5	8	52	6	2
6	8	52	6	2
6,5	10	60	10	2
7	10	60	10	2
7,5	10	60	10	2
8	11	61	10	2
8,5	11	61	10	2
9	11	61	10	2
9,5	11	61	10	2
10	13	63	10	2
10,5	13	70	12	2
11	13	70	12	2
11,5	13	70	12	2
12	16	73	12	2
12,5	16	73	12	2
13	16	73	12	2
13,5	16	73	12	2
14	16	73	12	2
14,5	16	73	12	2
15	16	73	12	2
15,5	19	79	16	2
16	19	79	16	2
16,5	19	79	16	2
17	19	79	16	2
17,5	19	79	16	2
18	19	79	16	2
19	19	79	16	2
19,5	22	88	20	2
20	22	88	20	2
21	22	88	20	2
22	22	88	20	2
23	22	88	20	2
24	26	102	25	2
25	26	102	25	2
26	26	102	25	2
27	26	102	25	2
28	26	102	25	2
29	26	102	25	2
30	26	102	25	2
32	32	112	32	2
34	32	112	32	2
35	32	112	32	2
36	32	112	32	2
38	38	130	40	2
40	38	130	40	2
42	38	130	40	2
44	38	130	40	2
45	38	130	40	2
48	45	147	50	2
50	45	147	50	2

d1 e8 inch	L2 mm	L1 mm	d2 h8 inch	Z
1/8	5	51	1/4	2
5/32	8	51	1/4	2
3/16	8	51	1/4	2
7/32	8	51	1/4	2
1/4	10	60	1/4	2
9/32	11	60	3/8	2
5/16	11	60	3/8	2
3/8	11	60	3/8	2
7/16	13	70	1/2	2
1/2	16	73	1/2	2
9/16	16	73	1/2	2
5/8	19	79	5/8	2
11/16	19	79	5/8	2
3/4	22	89	3/4	2
13/16	22	89	3/4	2
7/8	22	89	3/4	2
15/16	25	102	1	2
1	25	102	1	2
1.1/8	25	102	1	2
1.3/16	25	102	1	2
1.1/4	32	111	1	2
1.3/8	32	111	1	2
1.1/2	38	130	1.1/2	2
1.5/8	38	130	1.1/2	2
1.3/4	38	130	1.1/2	2
1.7/8	45	146	1.1/2	2
2	45	146	1.1/2	2

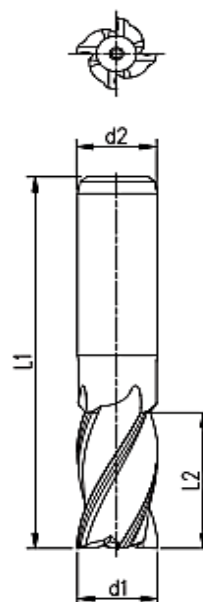


I- 1501 FRESA DE TOPO, HASTE CILÍNDRICA, CORTE À DIREITA, DIN 844 AN HSS
FRESA FRONTAL, VASTAGO CILINDRICO, CORTE A LA DERECHA, DIN 844 AN HSS
STRAIGHT SHANK END MILL, RIGHT HAND CUT, DIN 844 AN HSS



d1	L2	L1	d2 h8	Z
mm	mm	mm	mm	
2	7	51	6	4
2,5	8	52	6	4
3	8	52	6	4
3,5	10	54	6	4
4	11	55	6	4
4,5	11	55	6	4
5	13	57	6	4
5,5	13	57	6	4
6	13	57	6	4
6,5	16	66	10	4
7	16	66	10	4
7,5	16	66	10	4
8	19	69	10	4
8,5	19	69	10	4
9	19	69	10	4
9,5	19	69	10	4
10	22	72	10	4
10,5	22	79	12	4
11	22	79	12	4
11,5	22	79	12	4
12	26	83	12	4
12,5	26	83	12	4
13	26	83	12	4
13,5	26	83	12	4
14	26	83	12	4
14,5	26	83	12	4
15	26	83	12	4
15,5	32	92	16	4
16	32	92	16	4
16,5	32	92	16	4
17	32	92	16	4
17,5	32	92	16	4
18	32	92	16	4
18,5	32	92	16	4
19	32	92	16	4
19,5	38	104	20	4
20	38	104	20	4
21	38	104	20	6
22	38	104	20	6
23	38	104	20	6
24	45	121	25	6
25	45	121	25	6
26	45	121	25	6
27	45	121	25	6
28	45	121	25	6
29	45	121	25	6
30	45	121	25	6
32	53	133	32	6
34	53	133	32	6
35	53	133	32	6
36	53	133	32	6
38	63	155	40	6
40	63	155	40	6
42	63	155	40	8
44	63	155	40	8
45	63	155	40	8
48	75	177	50	8
50	75	177	50	8
56	75	177	50	8
63	90	192	50	8

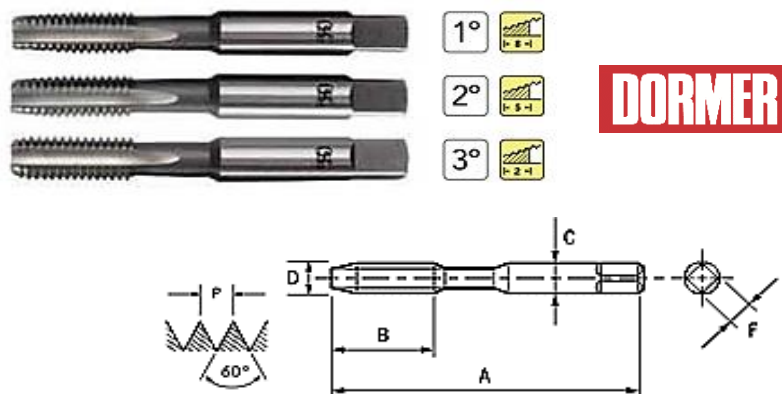
d1	L2	L1	d2 h8	Z
inch	mm	mm	inch	
1/8	8	51	1/4	4
5/32	8	51	1/4	4
3/16	8	51	1/4	4
7/32	16	67	1/4	4
1/4	16	67	1/4	4
5/16	19	70	3/8	4
3/8	19	73	3/8	4
7/16	22	79	1/2	4
1/2	27	83	1/2	4
9/16	27	83	1/2	4
5/8	32	92	5/8	4
11/16	32	92	5/8	4
3/4	32	92	3/4	4
13/16	38	105	3/4	4
7/8	38	105	3/4	6
15/16	45	121	1	6
1	45	121	1	6
1.1/8	45	121	1	6
1.3/16	45	121	1	6
1.1/4	54	133	1.1/4	6
1.3/8	54	133	1.1/4	6
1.1/2	64	156	1.1/2	6
1.5/8	64	156	1.1/2	6
1.3/4	64	156	1.1/2	8
1.7/8	76	178	2	8
2	76	178	2	8



MACHO MANUAL, EM AÇO HSS, ISO 529-M

MACHO MANUAL, EN ACERO HSS, ISO 529-M

HAND TAPS, WITH HSS, ISO 529-M



D mm	P mm	A mm	B mm	C mm	F mm	N° CHANNELS	WEIGHT kg
M 2	0,4	40	8	2,5	2	3	0,001
M 2.2	0,45	43,5	9,5	2,8	2,24	3	0,001
M 2.5	0,45	43,5	9,5	2,8	2,24	3	0,002
M 3	0,5	47	11	3,15	2,5	3	0,003
M 3.5	0,6	49	13	3,55	2,8	3	0,005
M 4	0,7	52	13	4	3,15	3	0,006
M 4.5	0,75	52	13	4,5	3,55	3	0,008
M 5	0,8	57	16	5	4	3	0,010
M 6	1	64,5	19	6,3	5	3	0,012
M 7	1	64,5	19	7,1	5,6	4	0,015
M 8	1,25	70,5	22	8	6,3	4	0,019
M 9	1,25	70,5	22	9	7,1	4	0,028
M 10	1,5	78,5	24	10	8	4	0,030
M 11	1,5	83,5	25	8	6,3	4	0,037
M 12	1,75	87,5	29	9	7,1	4	0,054
M 14	2	92,5	30	11,2	9	4	0,085
M 16	2	99,5	32	12,5	10	4	0,110
M 18	2,5	109,5	37	14	11,2	4	0,180
M 20	2,5	109,5	37	14	11,2	4	0,200
M 22	2,5	115,5	38	16	12,5	4	0,200
M 24	3	127,5	45	18	14	4	0,300
M 27	3	132,5	45	20	16	4	0,450
M 30	3,5	135,5	48	20	16	4	0,500
M 33	3,5	148,5	51	22,4	18	4	0,550
M 36	4	159,5	57	25	20	4	0,700
M 39	4	167,5	60	28	22,4	4	0,900
M 42	4,5	167	60	28	22,4	4	1,100
M 45	4,5	184	67	31,5	25	4	1,200
M 48	5	184	67	31,5	25	4	1,750
M 52	5	197	70	35,5	28	4	2,200

MACHO MANUAL, EM AÇO HSS, ISO 529-UNC

MACHO MANUAL, EN ACERO HSS, ISO 529-UNC

HAND TAPS, WITH HSS, ISO 529-UNC

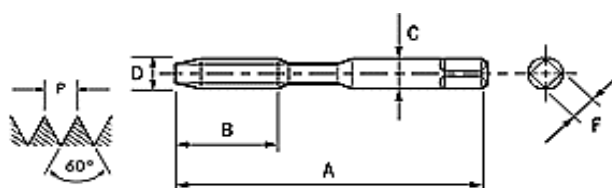


D mm / inch	N/1"	A mm	B mm	C mm	F mm	N° CHANNELS	Ø BOREHOLE	WEIGHT kg
M 2	56	43,5	9,5	2,8	2,24	3	1,8	0,002
M 3	48	43,5	9,5	2,8	2,24	3	2	0,002
M 4	40	47	11	3,15	2,5	3	2,3	0,002
M 5	40	47	11	3,15	2,5	3	2,6	0,002
M 6	32	49	13	3,55	2,8	3	2,8	0,003
M 8	32	52	13	4,5	3,55	3	3,4	0,006
M 10	24	57	16	5	4	3	3,9	0,006
M 12	24	61,5	17	5,6	4,5	3	4,5	0,008
1/4	20	64,5	19	6,3	5	3	5,2	0,011
5/16	18	70,5	22	8	6,3	4	6,7	0,013
3/8	16	78,5	24	10	8	4	8,1	0,020
7/16	14	83,5	24	8	6,3	4	9,5	0,031
1/2	13	86,5	29	9	7,1	4	10,9	0,039
9/16	12	92,5	30	11,2	9	4	12,4	0,055
5/8	11	99,5	32	12,5	10	4	13,8	0,080
3/4	10	109,5	37	14	11,2	4	16,8	0,130
7/8	9	115,5	38	16	12,5	4	19,7	0,200
1	8	127,5	45	18	14	4	22,5	0,300
1.1/8	7	135,5	48	20	16	4	25,3	0,400
1.1/4	7	148,5	51	22,4	18	4	28,5	0,550
1.3/8	6	159,5	57	25	20	4	31,1	0,650
1.1/2	6	167,5	60	28	22,4	4	34,3	0,850
1.3/4	5	184	67	31,5	25	4	39,9	1,100
2	4.1/2	197	70	35,5	28	4	45,1	1,800

MACHO MANUAL, EM AÇO HSS, ISO 529-UNF

MACHO MANUAL, EN ACERO HSS, ISO 529-UNF

HAND TAPS, WITH HSS, ISO 529-UNF

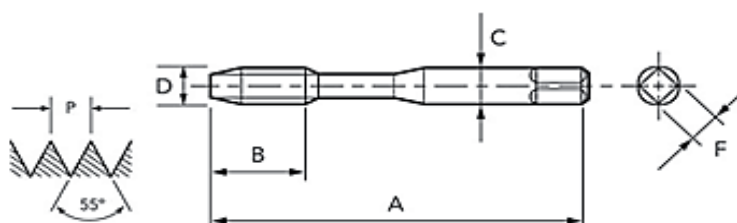
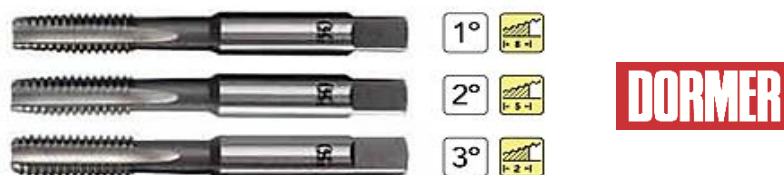


D mm / inch	N/1"	A mm	B mm	C mm	F mm	N° CHANNELS	WEIGHT kg
M 2	64	43,5	9,5	2,8	2,24	2	0,003
M 3	56	43,5	9,5	2,8	2,24	2	0,003
M 4	48	47	11	3,15	2,5	2	0,003
M 5	44	47	11	3,15	2,5	2	0,003
M 6	40	49	13	3,55	2,8	3	0,003
M 8	36	52	13	4,5	3,55	6	0,003
M 10	32	57	16	5	4	6	0,003
M 12	28	61,5	17	5,6	4,5	8	0,003
1/4	28	64,5	19	6,3	5	11	0,003
5/16	24	67,5	19	8	6,3	13	0,004
3/8	24	74,5	20	10	8	20	0,004
7/16	20	80,5	22	8	6,3	31	0,004
1/2	20	81,5	24	9	7,1	39	0,004
9/16	18	87,5	25	11,2	9	55	0,004
5/8	18	92,5	25	12	9	80	0,004
3/4	16	101,5	29	14	11,2	130	0,004
7/8	14	110,5	33	16	12,5	200	0,004
1	12	117,5	35	18	14	300	0,004
1.1/8	12	124,5	37	20	16	400	0,004
1.1/4	12	134,5	37	22,4	18	550	0,004
1.3/8	12	141,5	39	25	20	650	0,004
1.1/2	12	146,5	39	28	22,4	850	0,004

MACHO MANUAL, EM AÇO HSS, ISO 529-BSW

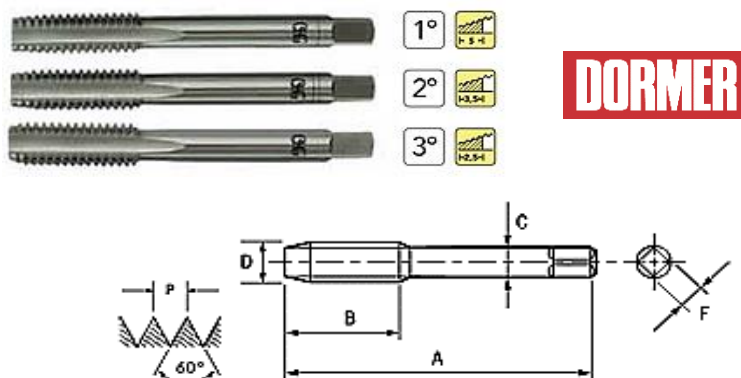
MACHO MANUAL, EN ACERO HSS, ISO 529-BSW

HAND TAPS, WITH HSS, ISO 529-BSW



D inch	N/1"	A mm	B mm	C mm	F mm	N° CHANNELS	Ø BOREHOLE	WEIGHT kg
3/32	48	44,5	9,5	2,8	2,24	3	1,8	0,002
1/8	40	47	11	3,15	2,5	3	2,4	0,002
5/32	32	52	13	4	3,15	3	3,1	0,005
3/16	24	57	16	5	4	3	3,5	0,006
7/32	24	61	17	5,6	4,5	3	4,3	0,009
1/4	20	64,5	19	6,3	5	3	4,9	0,011
5/16	18	70,5	22	8	6,3	4	6,3	0,013
3/8	16	78,5	24	10	8	4	7,7	0,020
7/16	14	83,5	25	8	6,3	4	9	0,031
1/2	12	86,5	29	9	7,1	4	10,3	0,039
9/16	12	92,5	30	11,2	9	4	11,8	0,055
5/8	11	99,5	32	12,5	10	4	13,2	0,080
3/4	10	109,5	37	14	11,2	4	16,1	0,130
7/8	9	115,5	38	16	12,5	4	19	0,200
1	8	127,5	45	18	14	4	21,7	0,300
1.1/8	7	135,5	48	20	16	4	24,4	0,400
1.1/4	7	148,5	51	22,4	18	4	27,6	0,550
1.3/8	6	159,5	57	25	20	4	30	0,650
1.1/2	6	167,5	60	28	22,4	4	33,2	0,850
1.5/8	5	167	60	28	22,4	4	35,4	1,000
1.3/4	5	184	67	31	25	4	38,6	1,100
2	4.1/2	197	70	35,5	28	4	44,3	1,800

MACHO MANUAL, EM AÇO HSS, DIN 351-UNC
MACHO MANUAL, EN ACERO HSS, DIN 351-UNC
HAND TAPS, WITH HSS, DIN 351-UNC

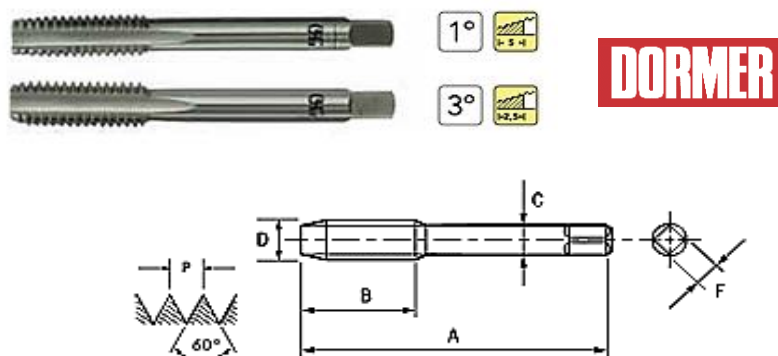


D mm / inch	N/1"	D mm	A mm	B mm	C mm	F mm	N° CHANNELS	Ø BOREHOLE	WEIGHT kg
M 2	56	2,184	36	9	2,8	2,1	3	1,8	0,001
M 3	48	2,515	36	9	2,8	2,1	3	2	0,001
M 4	40	2,845	40	11	3,5	2,7	3	2,3	0,001
M 5	40	3,175	40	11	3,5	2,7	3	2,6	0,001
M 6	32	3,505	45	13	4	3	3	2,8	0,002
M 8	32	4,166	45	13	4,5	3,4	3	3,4	0,002
M 10	24	4,826	50	16	5,5	4,3	3	3,9	0,005
M 12	24	5,486	50	17	6	4,9	3	4,5	0,007
1/4	20	6,350	56	19	6	4,9	3	5,2	0,008
5/16	18	7,938	63	22	6	4,9	4	6,7	0,010
3/8	16	9,525	70	22	7	5,5	4	8,1	0,015
7/16	14	11,113	75	24	8	6,2	4	9,5	0,023
1/2	13	12,700	80	29	9	7	4	10,9	0,032
9/16	12	14,288	80	30	11	9	4	12,4	0,044
5/8	11	15,875	90	32	12	9	4	13,8	0,052
3/4	10	19,050	105	40	14	11	4	16,8	0,080
7/8	9	22,225	110	40	18	14,5	4	19,7	0,150
1	8	25,400	110	50	20	16	4	22,5	0,220
1.1/8	7	28,575	132	56	22	18	4	25,3	0,290
1.1/4	7	31,750	132	56	25	20	4	28,5	0,360
1.3/8	6	34,925	150	63	28	22	4	31,1	0,500
1.1/2	6	38,100	150	63	32	24	4	34,3	0,620
1.3/4	5	44,450	160	70	36	29	4	39,9	0,930
2	4.1/2	50,800	190	75	40	32	4	45,1	1,400

MACHO MANUAL, EM AÇO HSS, DIN 351-UNF

MACHO MANUAL, EN ACERO HSS, DIN 351-UNF

HAND TAPS, WITH HSS, DIN 351-UNF

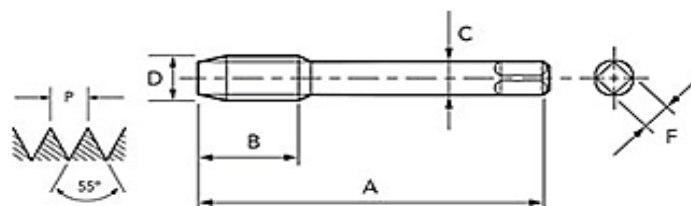


D mm / inch	N/1"	D mm	A mm	B mm	C mm	F mm	N° CHANNELS	Ø BOREHOLE	WEIGHT kg
M 2	64	2,184	36	9	2,8	2,1	3	1,8	0,001
M 3	56	2,515	36	9	2,8	2,1	3	2,1	0,001
M 4	48	2,845	40	11	3,5	2,7	3	2,4	0,001
M 5	44	3,175	40	11	3,5	2,7	3	2,7	0,001
M 6	40	3,505	45	13	4	3	3	2,9	0,002
M 8	36	4,166	45	13	4,5	3,4	3	3,5	0,002
M 10	32	4,826	50	16	5,5	4,3	3	4,1	0,004
M 12	28	5,486	50	17	6	4,9	3	4,7	0,008
1/4	28	6,350	56	19	6	4,9	3	5,5	0,008
5/16	24	7,938	63	22	6	4,9	4	7	0,011
3/8	24	9,525	70	22	7	5,5	4	8,6	0,015
7/16	20	11,113	70	22	8	6,2	4	10	0,023
1/2	20	12,700	70	22	9	7	4	11,6	0,033
9/16	18	14,288	70	22	11	9	4	13	0,045
5/8	18	15,875	70	22	12	9	4	14,6	0,055
3/4	16	19,050	80	22	14	11	4	17,6	0,090
7/8	14	22,225	80	22	18	14,5	4	20,6	0,150
1	12	25,400	80	22	20	16	4	23,5	0,220
1.1/8	12	28,575	90	22	22	18	4	26,6	0,280
1.1/4	12	31,750	90	22	25	20	4	29,9	0,380
1.3/8	12	34,925	100	25	28	22	4	32,5	0,500
1.1/2	12	38,100	110	25	32	24	6	36,2	0,640

MACHO MANUAL, EM AÇO HSS, DIN 351-BSW

MACHO MANUAL, EN ACERO HSS, DIN 351-BSW

HAND TAPS, WITH HSS, DIN 351-BSW

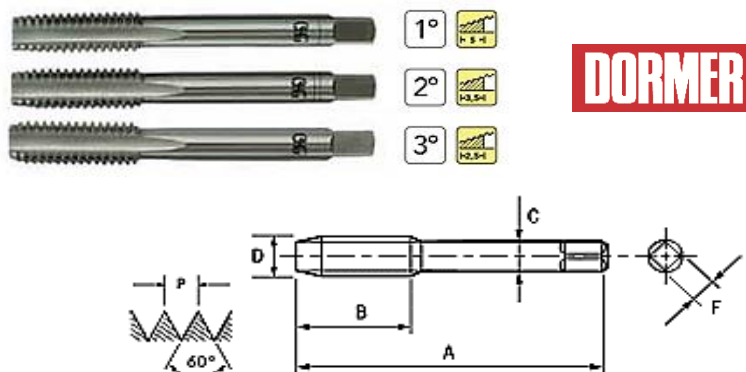


D inch	N/1"	D mm	A mm	B mm	C mm	F mm	N° CHANNELS	Ø BOREHOLE	WEIGHT kg
3/32	48	2,381	36	9	2,8	2,1	3	1,8	0,001
1/8	40	3,175	40	11	3,5	2,7	3	2,6	0,001
5/32	32	3,969	45	13	4,5	3,4	3	3,2	0,003
3/16	24	4,762	50	16	5,5	4,3	3	3,5	0,005
7/32	24	5,556	50	17	6	4,9	3	4,3	0,008
1/4	20	6,350	56	19	6	4,9	4	4,9	0,008
5/16	18	7,938	63	22	6	4,9	4	6,3	0,010
3/8	16	9,525	70	22	7	5,5	4	7,7	0,015
7/16	14	11,113	75	24	8	6,2	4	9	0,023
1/2	12	12,700	80	29	9	7	4	10,3	0,031
9/16	12	14,288	80	30	11	9	4	11,8	0,035
5/8	11	15,875	90	32	12	9	4	13,2	0,050
3/4	10	19,050	105	40	14	11	4	16,1	0,090
7/8	9	22,225	110	40	18	14,5	4	19	0,160
1	8	25,400	110	50	20	16	4	21,7	0,210
1.1/8	7	28,575	132	56	22	18	4	24,4	0,300
1.1/4	7	31,750	132	56	25	20	4	27,6	0,370
1.3/8	6	34,925	150	63	28	22	4	30	0,510
1.1/2	6	38,100	150	63	32	24	4	33,2	0,640
1.5/8	5	41,275	160	63	32	24	4	35,4	0,750
1.3/4	5	44,450	160	70	36	29	4	38,6	0,930
1.7/8	4.1/2	47,625	190	75	36	29	4	41,1	1,200
2	4.1/2	50,800	190	75	40	32	4	44,3	1,400

MACHO MANUAL, EM AÇO HSS, DIN 352-M

MACHO MANUAL, EN ACERO HSS, DIN 352-M

HAND TAPS, WITH HSS, DIN 352-M

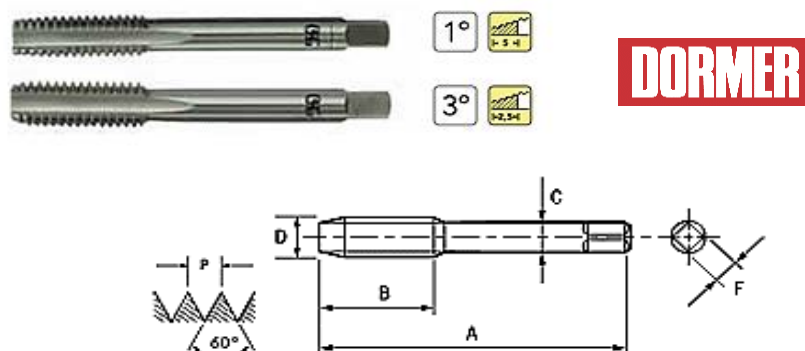


D	P	A	B	C	F	N°	Ø	WEIGHT
mm	mm	mm	mm	mm	mm	CHANNELS	BOREHOLE	kg
M 2	0,4	36	8	2,8	2,1	3	1,6	0,001
M 2.2	0,45	36	9	2,8	2,1	3	1,8	0,001
M 2.3	0,4	36	9	2,8	2,1	3	1,9	0,001
M 2.5	0,45	40	9	2,8	2,1	3	2,1	0,002
M 2.6	0,45	40	9	2,8	2,1	3	2,2	0,002
M 3	0,5	40	11	3,5	2,7	3	2,5	0,002
M 3.5	0,6	45	13	4	3	3	2,9	0,003
M 4	0,7	45	13	4,5	3,4	3	3,3	0,004
M 4.5	0,75	50	16	6	4,9	3	3,8	0,006
M 5	0,8	50	16	6	4,9	3	4,2	0,007
M 6	1	50	19	6	4,9	3	5	0,008
M 7	1	50	19	6	4,9	4	6	0,009
M 8	1,25	56	22	6	4,9	4	6,8	0,011
M 9	1,25	63	22	7	5,5	4	7,8	0,015
M 10	1,5	70	24	7	5,5	4	8,5	0,018
M 11	1,5	70	24	8	6,2	4	9,5	0,025
M 12	1,75	75	29	9	7	4	10,3	0,033
M 14	2	80	30	11	9	4	12,1	0,045
M 16	2	80	32	12	9	4	14,1	0,054
M 18	2,5	95	40	14	11	4	15,6	0,087
M 20	2,5	95	40	16	12	4	17,6	0,110
M 22	2,5	100	40	18	14,5	4	19,6	0,155
M 24	3	110	50	18	14,5	4	21,1	0,180
M 27	3	110	50	20	16	4	24,1	0,220
M 30	3,5	132	56	22	18	4	26,6	0,305
M 33	3,5	132	56	25	20	4	29,6	0,370
M 36	4	150	63	28	22	4	32,1	0,535
M 39	4	150	63	32	24	4	35,1	0,670
M 42	4,5	150	63	32	24	4	37,6	0,770
M 45	4,5	160	70	36	29	4	40,6	0,960
M 48	5	180	75	36	29	4	43,1	1,180
M 52	5	180	75	40	32	4	47,1	1,410

MACHO MANUAL, EM AÇO HSS, DIN 2181-MF

MACHO MANUAL, EN ACERO HSS, DIN 2181-MF

HAND TAPS, WITH HSS, DIN 2181-MF

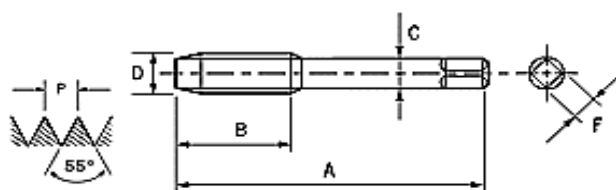
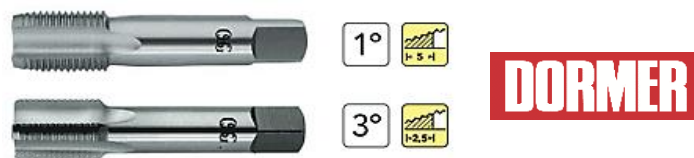


D mm	P mm	A mm	B mm	C mm	F mm	N° CHANNELS	WEIGHT kg
M 3	0,35	40	9	3,5	2,7	3	0,002
M 3.5	0,35	45	10	4	3	3	0,003
M 4	0,35	45	10	4,5	3,4	3	0,004
M 4	0,5	45	10	4,5	3,4	3	0,004
M 5	0,5	50	12	6	4,9	3	0,008
M 6	0,5	50	14	6	4,9	3	0,008
M 6	0,75	50	14	6	4,9	3	0,009
M 7	0,75	50	14	6	4,9	4	0,009
M 8	0,5	50	19	6	4,9	4	0,010
M 8	0,75	50	19	6	4,9	4	0,010
M 8	1	56	22	6	4,9	4	0,012
M 9	1	63	22	7	5,5	4	0,015
M 10	0,75	63	20	7	5,5	4	0,017
M 10	1	63	20	7	5,5	4	0,018
M 10	1,25	70	24	7	5,5	4	0,018
M 11	1	63	20	8	6,2	4	0,024
M 12	1	70	22	9	7	4	0,030
M 12	1,25	70	22	9	7	4	0,033
M 12	1,5	70	22	9	7	4	0,033
M 14	1	70	22	11	9	4	0,046
M 14	1,25	70	22	11	9	4	0,046
M 14	1,5	70	22	11	9	4	0,046
M 15	1	70	22	12	9	4	0,054
M 15	1,5	70	22	12	9	4	0,054
M 16	1	70	22	12	9	4	0,058
M 16	1,5	70	22	12	9	4	0,058
M 18	1	80	22	14	11	4	0,085
M 18	1,5	80	22	14	11	4	0,085
M 18	2	80	22	14	11	4	0,085
M 20	1	80	22	16	12	4	0,120
M 20	1,5	80	22	16	12	4	0,120
M 20	2	80	22	16	12	4	0,120
M 22	1	80	22	18	14,5	4	0,135

MACHO MANUAL, EM AÇO HSS, DIN 5157-BSP

MACHO MANUAL, EN ACERO HSS, DIN 5157-BSP

HAND TAPS, WITH HSS, DIN 5157-BSP

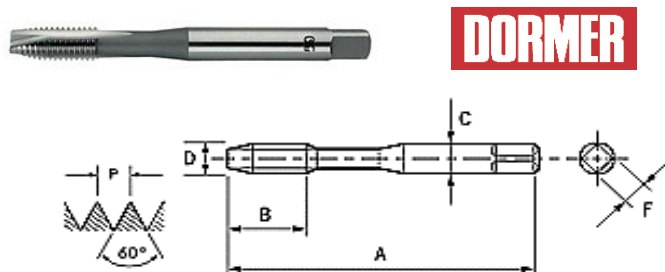


D inch	N/1"	D mm	A mm	B mm	C mm	F mm	N° CHANNELS	WEIGHT kg
1/16	28	7,723	56	16	6	4,1	4	0,018
1/8	28	9,728	63	18	7	5,5	4	0,020
1/4	19	13,157	70	20	11	9	4	0,040
3/8	19	16,662	70	20	12	9	4	0,060
1/2	14	20,955	80	22	16	12	4	0,110
5/8	14	22,911	80	22	18	14,5	4	0,160
3/4	14	26,441	90	22	20	16	4	0,230
7/8	14	30,201	90	22	22	18	4	0,290
1	11	33,249	100	25	25	20	4	0,390
1.1/8	11	37,897	125	32	28	22	4	0,470
1.1/4	11	41,910	125	32	32	24	4	0,770
1.1/2	11	47,803	140	32	36	29	4	1,150
1.3/4	11	53,746	140	32	40	32	6	1,400
2	11	59,614	160	36	45	35	6	1,500

MACHO PARA MÁQUINA, EM AÇO HSS, DIN 371-M

MACHO MAQUINA, EN ACERO HSS, DIN 371-M

MACHINE TAPS, WITH HSS, DIN 371-M

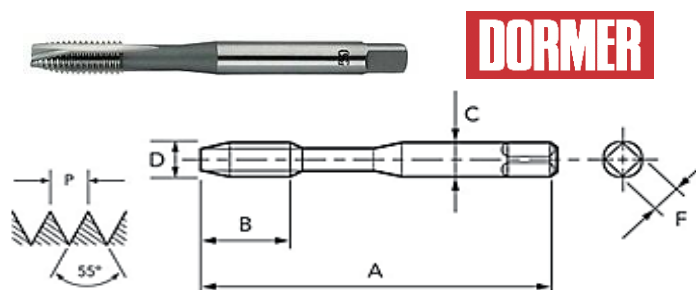


D mm	P mm	A mm	B mm	C mm	F mm	N° CHANNELS	WEIGHT kg
M 2	0,4	45	8	2,8	2,1	2	0,002
M2.2	0,45	45	9	2,8	2,1	2	0,002
M 2.3	0,4	45	9	2,8	2,1	2	0,002
M 2.5	0,45	50	9	2,8	2,1	2	0,002
M 2.6	0,45	50	9	2,8	2,1	2	0,002
M 3	0,5	56	11	3,5	2,7	3	0,003
M 3.5	0,6	56	13	4	3	3	0,003
M 4	0,7	63	13	4,5	3,4	3	0,005
M 4.5	0,75	70	16	6	4,9	3	0,009
M 5	0,8	70	16	6	4,9	3	0,010
M 6	1	80	19	6	4,9	3	0,013
M 7	1	80	19	7	5,5	3	0,019
M 8	1,25	90	22	8	6,2	3	0,028
M 9	1,25	90	22	9	7	3	0,035
M 10	1,5	100	24	10	8	3	0,050

MACHO PARA MÁQUINA, EM AÇO HSS, DIN 2182-BSW

MACHO MAQUINA, EN ACERO HSS, DIN 2182-BSW

MACHINE TAPS, WITH HSS, DIN 2182-BSW



D inch	N/1"	D mm	A mm	B mm	C mm	F mm	N° CHANNELS	WEIGHT kg
3/32	48	2,381	50	9	2,8	2,1	2	0,002
1/8	40	3,175	56	11	3,5	2,7	3	0,002
5/32	32	3,969	63	13	4,5	3,4	3	0,005
3/16	24	4,762	70	16	5,5	4,3	3	0,009
7/32	24	5,556	80	17	6	4,9	3	0,013
1/4	20	6,350	80	19	7	5,5	3	0,016
5/16	18	7,938	90	22	8	6,2	3	0,027
3/8	16	9,525	100	22	9	7	3	0,040

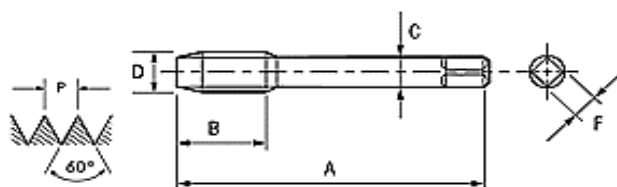
MACHO PARA MÁQUINA, EM AÇO HSS, DIN 376-M

MACHO MAQUINA, EN ACERO HSS, DIN 376-M

MACHINE TAPS, WITH HSS, DIN 376-M



DORMER

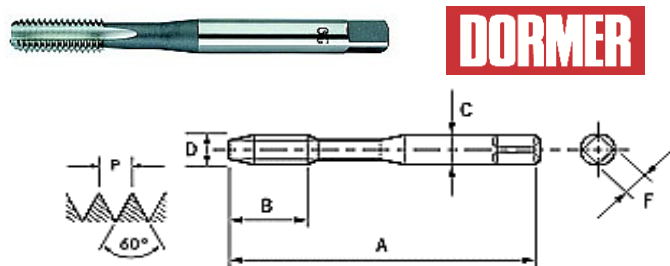


D	P	A	B	C	F	N°	WEIGHT
mm	mm	mm	mm	mm	mm	CHANNELS	kg
M 3	0,5	56	11	2,2	-	3	0,002
M 3.5	0,6	56	13	2,5	2,1	3	0,002
M 4	0,7	63	13	2,8	2,1	3	0,003
M 4.5	0,75	70	16	3,5	2,7	3	0,004
M 5	0,8	70	16	3,5	2,7	3	0,005
M 6	1	80	19	4,5	3,4	3	0,009
M 7	1	80	19	5,5	4,3	3	0,015
M 8	1,25	90	22	6	4,9	3	0,019
M 9	1,25	90	22	7	5,5	3	0,028
M 10	1,5	100	24	7	5,5	3	0,031
M 11	1,5	100	24	8	6,2	3	0,040
M 12	1,75	110	29	9	7	3	0,053
M 14	2	110	30	11	9	3	0,070
M 16	2	110	32	12	9	3	0,090
M 18	2,5	125	34	14	11	3	0,135
M 20	2,5	140	34	16	12	3	0,200
M 22	2,5	140	34	18	14,5	3	0,260
M 24	3	160	38	18	14,5	3	0,300
M 27	3	160	38	20	16	4	0,370
M 30	3,5	180	45	22	18	4	0,510
M 33	3,5	180	50	25	20	4	0,640
M 36	4	200	56	28	22	4	0,890
M 39	4	200	60	32	24	4	1,100
M 42	4,5	200	60	32	24	4	1,280
M 45	4,5	220	65	36	29	4	1,580
M 48	5	250	70	36	29	4	1,910
M 52	5	250	70	40	32	4	2,300

MACHO PARA MÁQUINA, EM AÇO HSS, DIN 2182-UNC

MACHO MAQUINA, EN ACERO HSS, DIN 2182-UNC

MACHINE TAPS, WITH HSS, DIN 2182-UNC

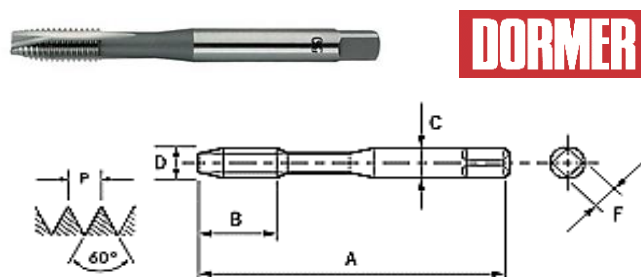


D mm / inch	N/1"	D mm	A mm	B mm	C mm	F mm	N° CHANNELS	WEIGHT kg
M 2	56	2,184	50	9	2,8	2,1	2	0,001
M 3	48	2,515	50	9	2,8	2,1	2	0,001
M 4	40	2,845	56	11	3,5	2,7	2	0,002
M 5	40	3,175	56	11	3,5	2,7	3	0,002
M 6	32	3,505	56	13	4	3	3	0,004
M 8	32	4,166	63	13	4,5	3,4	3	0,004
M 10	24	4,826	70	16	5,5	4,3	3	0,009
M 12	24	5,486	80	17	6	4,9	3	0,013
1/4	20	6,350	80	19	7	5,5	3	0,017
5/16	18	7,938	90	22	8	6,2	3	0,028
3/8	16	9,525	100	22	9	7	3	0,040

MACHO PARA MÁQUINA, EM AÇO HSS, DIN 2182-UNF

MACHO MAQUINA, EN ACERO HSS, DIN 2182-UNF

MACHINE TAPS, WITH HSS, DIN 2182-UNF

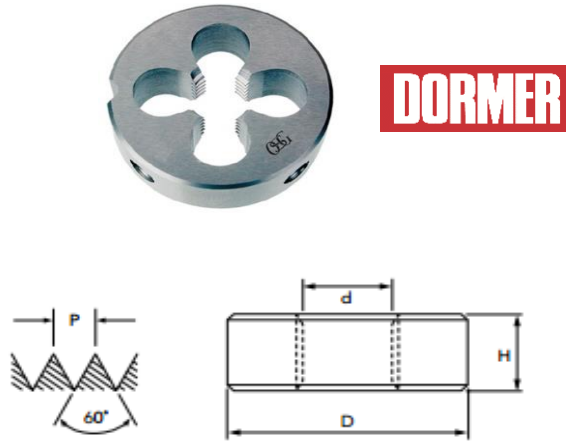


D mm / inch	N/1"	D mm	A mm	B mm	C mm	F mm	N° CHANNELS	WEIGHT kg
M 2	64	2,184	50	9	2,8	2,1	2	0,001
M 3	56	2,515	50	9	2,8	2,1	2	0,001
M 4	48	2,845	56	11	3,5	2,7	2	0,002
M 5	44	3,175	56	11	3,5	2,7	3	0,002
M 6	40	3,505	56	13	4	3	3	0,004
M 8	36	4,166	63	13	4,5	3,4	3	0,005
M 10	32	4,826	70	16	5,5	4,3	3	0,009
M 12	28	5,486	80	17	6	4,9	3	0,010
1/4	28	6,350	80	19	7	5,5	3	0,017
5/16	24	7,938	90	22	8	6,2	3	0,028
3/8	24	9,525	100	22	9	7	3	0,040

COSSINETES HSS

DADOS TERRAJAS HSS

HSS ROUND DIES



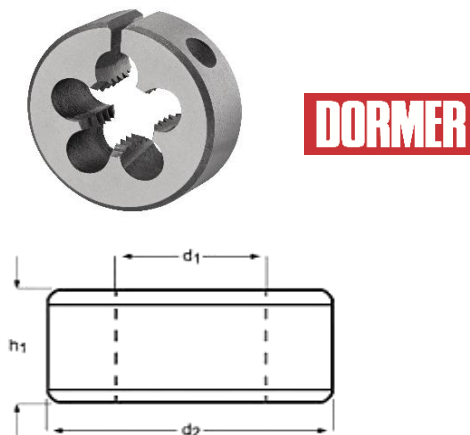
TYPES: M, MF, UNC, UNF, BSW, BSP, NPT.

d mm	P mm	D x H mm	N° OF HOLES	WEIGHT kg
M 3	0,35	20 x 5	4	0,008
M 3.5	0,35	20 x 5	4	0,008
M 4	0,35	20 x 5	4	0,008
M 4	0,5	20 x 5	4	0,008
M 5	0,5	20 x 5	4	0,007
M 6	0,5	20 x 5	4	0,007
M 6	0,75	20 x 7	4	0,007
M 7	0,75	25 x 9	4	0,022
M 8	0,5	25 x 9	4	0,021
M 8	0,75	25 x 9	4	0,021
M 8	1	25 x 9	4	0,021
M 9	1	25 x 9	4	0,020
M 10	0,75	30 x 11	4	0,035
M 10	1	30 x 11	4	0,037
M 10	1,25	30 x 11	4	0,037
M 11	1	30 x 11	4	0,035
M 12	1	38 x 10	4	0,056
M 12	1,25	38 x 10	4	0,055
M 12	1,5	38 x 10	4	0,060
M 14	1	38 x 10	4	0,057
M 14	1,25	38 x 10	4	0,057
M 14	1,5	38 x 10	4	0,057
M 15	1	38 x 10	4	0,057
M 15	1,5	38 x 10	4	0,057
M 16	1	45 x 14	5	0,110
M 16	1,5	45 x 14	5	0,130
M 18	1	45 x 14	5	0,100
M 18	1,5	45 x 14	5	0,110
M 18	2	45 x 14	5	0,105
M 20	1	45 x 14	6	0,100
M 20	1,5	45 x 14	6	0,100
M 20	2	45 x 14	6	0,090
M 22	1,5	55 x 16	6	0,165

COSSINETES AJUSTÁVEIS HSS BS 1127:1950

TERRAJA TIPO ABIERTO HSS BS 1127:1950

HSS ADJUSTABLE DIES BS 1127:1950



TYPES: M, MF, UNC, UNF, G.

M	P	d2	h1
	mm	inch	inch
2	0,4	13/16	1/4
2,5	0,45	13/16	1/4
3	0,5	13/16	1/4
3,5	0,6	13/16	1/4
4	0,7	13/16	1/4
5	0,8	13/16	1/4
5	0,8	1	3/8
6	1	13/16	1/4
6	1	1	3/8
6	1	1.5/16	7/16
7	1	13/16	1/4
7	1	1	3/8
8	1,25	1	3/8
8	1,25	1.5/16	7/16
9	1,25	1	3/8
9	1,25	1.5/16	7/16
10	1,5	1	3/8
10	1,5	1.5/16	7/16
10	1,5	1.1/2	1/2
11	1,5	1.5/16	7/16
12	1,75	1.5/16	7/16
12	1,75	1.1/2	1/2
14	2	1.5/16	7/16
14	2	1.1/2	1/2
16	2	1.1/2	1/2
16	2	2	5/8
18	2,5	1.1/2	1/2
18	2,5	2	5/8
20	2,5	1.1/2	1/2
20	2,5	2	5/8
22	2,5	2	5/8
24	3	2	5/8
27	3	3	7/8
30	3,5	3	7/8
36	4	3	7/8

ALARGADOR MANUAL, HASTE CILÍNDRICA, CORTE À DIREITA HSS

I- 5101 DIN 206A DENTE RETO

I- 5102 DIN 206B DENTE HELICOIDAL

ESCARIADOR RIMA MANUAL, VASTAGO CILINDRICO, CORTE A LA DERECHA HSS

I- 5101 DIN 206A DIENTE RECTO

I- 5102 DIN 206B DIENTE HELICOIDAL

HAND REAMER, STRAIGHT SHANK AND SQUARE, RIGHT HAND CUT HSS

I- 5101 DIN 206A STRAIGHT TOOTH

I- 5102 DIN 206B HELICAL TOOTH

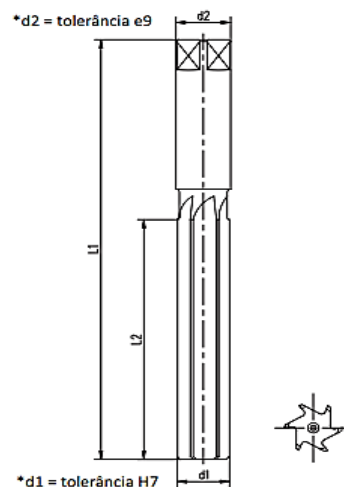


DORMER

INDAÇO

*d1 = d2 mm	L2 mm	L1 mm	Z
2	25	50	4
2,5	29	58	4
3	31	62	4
3,5	35	71	4
4	38	76	4
4,5	41	81	4
5	44	87	4
5,5	47	93	6
6	47	93	6
6,5	50	100	6
7	54	107	6
7,5	54	107	6
8	58	115	6
8,5	58	115	6
9	62	124	6
9,5	62	124	6
10	66	133	6
10,5	66	133	6
11	71	142	6
11,5	71	142	6
12	76	152	6
12,5	76	152	6
13	76	152	6
13,5	81	163	6
14	81	163	6
14,5	81	163	6
15	81	163	6
15,5	87	175	8
16	87	175	8
16,5	87	175	8
17	87	175	8
17,5	93	188	8
18	93	188	8
18,5	93	188	8
19	93	188	8
19,5	100	201	8
20	100	201	8
21	100	201	10
22	107	215	10
24	115	231	10
25	115	231	10
26	115	231	10
28	124	247	10
30	124	247	10
32	133	265	10
34	142	284	12
35	142	284	12
36	142	284	12
38	152	305	12
40	152	305	12
42	152	305	14
44	163	326	14
45	163	326	14
46	163	326	14
48	174	347	14
50	174	347	14

*d1 = d2 inch	L2 mm	L1 mm	Z
1/8	32	64	4
5/32	38	76	4
3/16	45	89	4
7/32	48	92	6
1/4	51	102	6
9/32	54	108	6
5/16	57	114	6
11/32	60	121	6
3/8	67	133	6
13/32	67	133	6
7/16	73	140	6
15/32	76	152	6
1/2	76	152	6
17/32	83	165	6
9/16	83	165	6
5/8	89	178	8
11/16	95	190	8
3/4	102	203	8
13/16	102	203	8
7/8	108	216	10
15/16	114	235	10
1	114	235	10
1.1/8	124	248	10
1.1/4	133	267	10
1.3/8	146	286	10
1.1/2	152	305	12
1.5/8	165	337	12
1.3/4	171	343	14
1.7/8	178	356	14
2	178	356	14





SPERAFICO TRADING
EXPORTADORA

ALARGADOR PARA MÁQUINA, HASTE CILÍNDRICA, CORTE À DIREITA HSS

- I- 5201 DIN 212C DENTE RETO
I- 5202 DIN 212D DENTE HELICOIDAL

ESCARIADOR PARA MAQUINA, VASTAGO CILINDRICO, CORTE A LA DERECHA HSS

- I- 5201 DIN 212C DIENTE RECTO
I- 5202 DIN 212D DIENTE HELICOIDAL

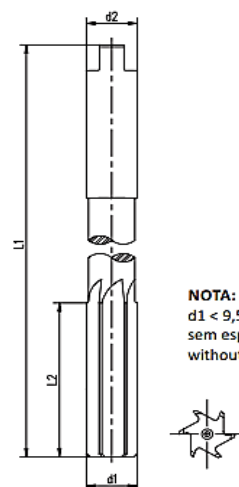
STRAIGHT SHANK CHUCKING REAMER, RIGHT HAND CUT HSS

- I- 5201 DIN 212C STRAIGHT TOOTH
I- 5202 DIN 212D HELICAL TOOTH



d1 H7 mm	L2 mm	L1 mm	d2 h9 mm	Z
3	15	61	3	4
3,5	18	70	3,5	4
4	19	75	4	4
4,5	21	80	4,5	4
5	23	86	5	4
5,5	26	93	5,6	6
6	26	93	5,6	6
6,5	28	101	6,3	6
7	31	109	7,1	6
7,5	31	109	7,1	6
8	33	117	8	6
8,5	33	117	8	6
9	36	125	9	6
9,5	36	125	9	6
10	38	133	10	6
11	41	142	10	8
12	44	151	10	8
13	44	151	10	8
14	47	160	12,5	8
15	50	162	12,5	8
16	52	170	12,5	8
17	54	175	14	8
18	56	182	14	8
19	58	189	16	8
20	60	195	16	8
21	60	195	18	10
22	60	225	18	10
23	60	230	18	10
24	60	240	20	10
25	60	245	20	10
26	60	250	20	10
28	65	270	22	10
30	65	270	22	10

d1 H7 inch	L2 mm	L1 mm	d2 h9 mm	Z
1/8	17	70	0.1378	4
5/32	19	76	0.1510	4
3/16	22	86	0.1805	4
7/32	25	92	0.2075	6
1/4	29	102	0.2405	6
9/32	32	108	0.2485	6
5/16	33	117	0.2792	6
11/32	33	117	0.2792	6
3/8	38	133	0.3105	6
7/16	41	140	0.3730	8
1/2	45	152	0.4355	8
9/16	48	159	0.4355	8
5/8	51	171	0.5620	8
11/16	57	181	0.5620	8
3/4	59	190	0.6245	8
13/16	60	190	0.6245	8
7/8	64	203	0.7495	10
15/16	64	203	0.7495	10
1	70	254	0.8745	10



NOTA:
d1 < 9,5 - DIN 1809
sem espiga de arraste
without tongue end

ALARGADOR PARA MÁQUINA, HASTE CONE MORSE, CORTE À DIREITA HSS

I- 5210 DIN 208A DENTE RETO

I- 5211 DIN 208B DENTE HELICOIDAL

ESCARIADOR PARA MAQUINA, CON CONO MORSE, CORTE A LA DERECHA HSS

I- 5210 DIN 208A DIENTE RECTO

I- 5211 DIN 208B DIENTE HELICOIDAL

MORSE TAPER SHANK CHUCKING REAMER, RIGHT HAND CUT HSS

I- 5210 DIN 208A STRAIGHT TOOTH

I- 5211 DIN 208B HELICAL TOOTH

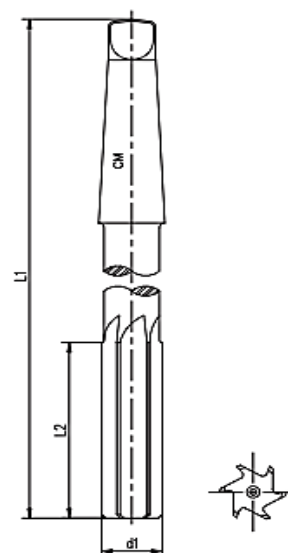


DORMER

INDAÇO

d1 H7 mm	L2 / L1 mm	CM	Z
4	19 / 129	1	4
4,5	19 / 129	1	4
5	23 / 133	1	4
5,5	26 / 138	1	6
6	26 / 138	1	6
6,5	28 / 144	1	6
7	31 / 150	1	6
7,5	31 / 150	1	6
8	33 / 156	1	6
8,5	33 / 156	1	6
9	36 / 162	1	6
9,5	36 / 162	1	6
10	38 / 168	1	6
11	41 / 175	1	8
12	44 / 182	1	8
13	44 / 182	1	8
14	47 / 189	1	8
15	50 / 204	2	8
16	52 / 210	2	8
17	54 / 214	2	8
18	56 / 219	2	8
19	58 / 223	2	8
20	60 / 228	2	8
21	62 / 232	2	10
22	64 / 237	2	10
23	66 / 241	2	10
24	68 / 268	3	10
25	68 / 268	3	10
26	70 / 273	3	10
27	71 / 277	3	10
28	71 / 277	3	10
29	73 / 281	3	10
30	73 / 281	3	10
31	75 / 285	3	10
32	77 / 317	4	10
33	77 / 317	4	10
34	78 / 321	4	12
35	78 / 321	4	12
36	79 / 325	4	12
37	79 / 325	4	12
38	81 / 329	4	12
40	81 / 329	4	12
42	82 / 333	4	12
44	83 / 336	4	12
45	83 / 336	4	14
46	84 / 340	4	14
47	84 / 340	4	14
48	86 / 344	4	14
50	86 / 344	4	14

d1 H7 inch	L2 mm	L1 mm	CM	Z
1/4	25	140	1	6
5/16	33	152	1	6
3/8	33	159	1	6
7/16	41	178	1	8
1/2	45	179	1	8
9/16	48	190	1	8
5/8	52	210	2	8
11/16	52	216	2	8
3/4	57	222	2	8
13/16	60	229	2	10
7/8	64	235	2	10
15/16	70	267	3	10
1	70	267	3	10



ALARGADOR PARA PINOS CONICIDADE 1:50

- I- 5501 DIN 9A DENTE RETO
I- 5502 DIN 9B DENTE HELICOIDAL

ESCARIADOR PARA PASSADORES CONOCIDAD 1:50

- I- 5501 DIN 9A DIENTE RECTO
I- 5502 DIN 9B DIENTE HELICOIDAL

STRAIGHT SHANK TAPER PIN REAMER TAPER 1:50

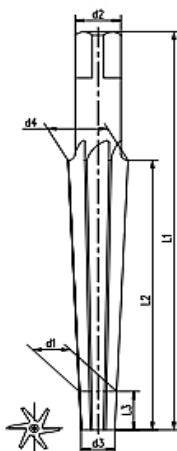
- I- 5501 DIN 9A STRAIGHT TOOTH
I- 5502 DIN 9B HECICAL TOOTH



DORMER

INDAÇO

Ø DIAMETER d1 mm	Ø SMALLER d3 mm	Ø BIGGEST d4 mm	CUT LENGTH L2 mm	OVERALL LENGTH L1 mm	Ø STEM d2 mm	LENGTH L3 mm	Z
3	2,9	4,06	58	80	4	5	4
3,5	3,4	4,56	58	80	4	5	4
4	3,9	5,26	68	93	5	5	4
5	4,9	6,36	73	100	6,3	5	4
6	5,9	8	105	135	8	5	6
7	6,9	9,8	145	180	8	5	6
8	7,9	10,8	145	180	10	5	6
9	8,9	11,8	145	180	10	5	6
10	9,9	13,4	175	215	12,5	5	6
12	11,8	16	210	255	14	10	6
13	12,8	17	210	255	14	10	6
14	13,8	18	210	255	14	10	6
15	14,8	19,4	230	280	18	10	6
16	15,8	20,4	230	280	18	10	8
18	17,8	22,8	250	310	20	10	8
20	19,8	24,8	250	310	22,4	10	8
25	24,7	30,7	300	370	28	15	8
30	29,7	36,1	320	400	31,5	15	8
40	39,7	46,5	340	430	40	15	10
50	49,7	56,9	360	460	50	15	10



ALARGADORES DE EXPANSÃO, MODELO L HSS

ESCARIADORES EXTENSIBLES, MODELO L HSS

HSS ADJUSTABLE BLADE HANDREAMERS, L TYPE

A- 100 SEM GUIA / SIN GUIA (REFORZADO) / WITHOUT GUIDE

A- 100-1 COM GUIA / CON GUIA / WITH GUIDE



REFERENCE	RANGE		WEIGHT
	mm	inch	
8A	6,0 - 6,8	15/64 - 17/64	0,010
7A	6,8 - 7,6	17/64 - 19/64	0,010
6A	7,6 - 8,5	19/64 - 21/64	0,010
5A	8,5 - 9,5	21/64 - 3/8	0,010
4A	9,5 - 10,3	3/8 - 13/32	0,015
3A	10,3 - 11,1	13/32 - 7/16	0,030
2A	11,1 - 11,9	7/16 - 15/32	0,050
A	11,9 - 13,5	15/32 - 17/32	0,060
B	13,5 - 15,1	17/32 - 19/32	0,090
C	15,1 - 16,7	19/32 - 21/32	0,120
D	16,7 - 18,3	21/32 - 23/32	0,150
E	18,3 - 19,8	23/32 - 25/32	0,180
F	19,8 - 21,6	25/32 - 27/32	0,250
G	21,6 - 24,0	27/32 - 15/16	0,320
H	24,0 - 27,0	15/16 - 1.1/16	0,420
I	27,0 - 30,2	1.1/16 - 1.3/16	0,600
J	30,2 - 34,3	1.3/16 - 1.11/32	0,830
K	34,3 - 39,0	1.11/32 - 1.17/32	1,170
L	39,0 - 46,0	1.17/32 - 1.13/16	1,900
M	46,0 - 56,0	1.13/16 - 2.13/64	2,600
N	56,0 - 67,0	2.13/64 - 2.41/64	4,070
O	67,0 - 78,0	2.41/64 - 3.5/64	6,020
P	78,0 - 89,0	3.5/64 - 3.1/2	8,700
Q	89,0 - 100,0	3.1/2 - 3.15/16	11,400
R	100,0 - 111,0	3.15/16 - 4.3/8"	14,000

L- 301

DESANDADOR AJUSTÁVEL

CORPO DE AÇO FORJADO, CASTANHAS DE AÇO TEMPERADO, DOIS CABOS DE MANUSEIO

PORTAMACHOS AJUSTABLES

CUERPO DE ACERO FORJADO, MORDAZAS DE ACERO TEMPLADO, AGARRAR CON DOS HILOS

ADJUSTABLE TAP & REAMER WRENCHES

FORGED STEEL BODY, HARDENED STEEL JAWS, GRASP WITH TWO THREADS

REFERENCE	FOR TAPS inch	LENGTH mm	WEIGHT kg
0	1/16 - 5/16	150	0,040
1	1/16 - 1/2	240	0,180
2	7/32 - 5/8	330	0,420
3	1/2 - 3/4	415	0,820
4	9/16 - 1	500	1,060
5	1.1/8 - 1.5/8	750	2,380
6	1.3/4 - 2	850	4,250



L- 320

DESANDADOR PARA COSSINETES

PORTA COJINETES (TERRAJAS)

ROUND DIE HOLDERS/HANDLES

REFERENCE	CAPACITY mm / inch	LENGTH mm	WEIGHT kg
PC 16	16 X 7	195	0,095
PC 20	20 X 7	210	0,110
PC 25	25 X 9,5	250	0,200
PC 1	1 X 3/8	250	0,200
PC 30	30 X 11	260	0,240
PC 38	38 X 12	315	0,375
PC 1.1/2	1.1/2 X 1/2	315	0,380
PC 45	45 X 15	385	0,680
PC 2	2 X 5/8	410	0,755
PC 55	55 X 15	405	0,800
PC 65	65 X 19	520	1,220



O- 401

VIRA MACHO TIPO 'T'

PORTA MACHOS CON DOS MORDAZAS TEMPLADAS

'T' TYPE TAPWRENCH WITH TWO TEMPERED JAWS

SIZE	FOR TAPS inch	LENGTH mm	WEIGHT kg
1	1/16 - 1/4	75	0,140
2	1/4 - 1/2	80	0,230
3	1/4 - 1/2	150	0,350
4	1/4 - 1/2	250	0,540



BITS QUADRADO RETIFICADO

V- 156 AÇO RÁPIDO HSS

V- 157 AÇO HSCo-10% COBALTO

BURILES CUADRADOS RECTIFICADOS

V- 156 ACERO SUPER RAPIDO HSS

V- 157 ACERO HSCo-10% COBALTO

SQUARE SECTION TOOL BITS

V- 156 HIGH SPEED STEEL HSS

V- 157 HSCo-10% COBALT STEEL



SIZE inch	WEIGHT kg
3/16 X 2.1/2	0,012
3/16 X 3	0,015
3/16 X 4	0,020
3/16 X 5	0,025
3/16 X 6	0,030
1/4 X 2.1/2	0,021
1/4 X 3	0,026
1/4 X 4	0,034
1/4 X 5	0,043
1/4 X 6	0,051
1/4 X 8	0,068
5/16 X 2.1/2	0,033
5/16 X 3	0,039
5/16 X 4	0,054
5/16 X 5	0,067
5/16 X 6	0,079
5/16 X 8	0,105
5/16 X 10	0,131
3/8 X 3	0,056
3/8 X 3.1/2	0,065
3/8 X 4	0,075
3/8 X 5	0,094
3/8 X 6	0,112
3/8 X 8	0,149
3/8 X 10	0,185
3/8 X 12	0,221
7/16 X 3.1/2	0,090
7/16 X 4	0,102
7/16 X 6	0,152
7/16 X 8	0,203
7/16 X 10	0,253

SIZE inch	WEIGHT kg
1/2 X 4	0,135
1/2 X 5	0,168
1/2 X 6	0,200
1/2 X 8	0,329
1/2 X 10	0,394
1/2 X 12	0,394
9/16 X 4.1/2	0,191
9/16 X 6	0,254
9/16 X 8	0,335
5/8 X 4.1/2	0,237
5/8 X 5	0,263
5/8 X 6	0,313
5/8 X 8	0,415
5/8 X 10	0,516
3/4 X 5	0,377
3/4 X 6	0,450
3/4 X 8	0,595
3/4 X 10	0,740
3/4 X 12	0,885
7/8 X 5	0,513
7/8 X 6	0,612
7/8 X 8	0,811
7/8 X 10	1,007
7/8 X 12	1,205
1 X 6	0,801
1 X 8	1,058
1 X 10	1,316
1 X 12	1,574
1.1/4 X 6	1,251
1.1/4 X 8	1,653
1.1/4 X 10	2,056

BITS REDONDO PARA PANTÓGRAFO

V- 158 AÇO RÁPIDO HSS

V- 159 AÇO HSCo-10% COBALTO

CUCHILLAS PANTOGRAFO, RECTIFICADAS

V- 158 ACERO SUPER RAPIDO HSS

V- 159 ACERO HSCo-10% COBALTO

ROUND SECTION TOOL BITS

V- 158 HIGH SPEED STEEL HSS

V- 159 HSCo-10% COBALT STEEL



SIZE mm	WEIGHT kg
2 X 100	0,001
2 X 150	0,002
3 X 100	0,003
3 X 150	0,004
3 X 200	0,004
4 X 100	0,004
4 X 150	0,010
4 X 200	0,010
5 X 100	0,015
5 X 150	0,015
5 X 200	0,015
6 X 100	0,020
6 X 150	0,030
6 X 200	0,035
7 X 100	0,030
7 X 150	0,036
7 X 200	0,037
8 X 100	0,040
8 X 150	0,042
8 X 200	0,045
9 X 100	0,050
9 X 150	0,052
9 X 200	0,055
10 X 100	0,063
10 X 150	0,094

SIZE mm	WEIGHT kg
10 X 200	0,099
11 X 100	0,120
11 X 150	0,150
11 X 200	0,170
12 X 100	0,090
12 X 150	0,135
12 X 200	0,140
14 X 100	0,123
14 X 150	0,130
14 X 200	0,150
16 X 100	0,155
16 X 150	0,200
16 X 200	0,250
18 X 100	0,210
18 X 150	0,250
18 X 200	0,280
20 X 100	0,245
20 X 150	0,300
20 X 200	0,370
30 X 100	0,400
30 X 150	0,450
30 X 200	0,480
40 X 100	0,500
40 X 150	0,550
40 X 200	0,600

SIZE inch	WEIGHT kg
1/8 X 3	0,005
1/8 X 4	0,005
1/8 X 6	0,005
5/32 X 3	0,062
5/32 X 4	0,062
5/32 X 6	0,062
3/16 X 3	0,007
3/16 X 4	0,009
3/16 X 6	0,009
1/4 X 4	0,025
1/4 X 6	0,027
1/4 X 8	0,029
5/16 X 4	0,040
5/16 X 6	0,045
5/16 X 8	0,050
3/8 X 4	0,055
3/8 X 6	0,080
3/8 X 8	0,080
7/16 X 4	0,080
7/16 X 6	0,080
7/16 X 8	0,080
1/2 X 4	0,105
1/2 X 6	0,160
1/2 X 8	0,210

SIZE inch	WEIGHT kg
5/8 X 4	0,150
5/8 X 6	0,180
5/8 X 8	0,200
3/4 X 4	0,220
3/4 X 6	0,260
3/4 X 8	0,300
7/8 X 4	0,300
7/8 X 6	0,330
7/8 X 8	0,350
1 X 4	0,400
1 X 6	0,420
1 X 8	0,450
1.1/8 X 4	0,500
1.1/8 X 6	0,510
1.1/8 X 8	0,520
1.3/16 X 4	0,580
1.3/16 X 6	0,600
1.3/16 X 8	0,620
1.1/4 X 4	0,700
1.1/4 X 6	0,750
1.1/4 X 8	0,800
1.1/2 X 4	0,900
1.1/2 X 6	0,950
1.1/2 X 8	1,050

BEDAME TRAPEZOIDAL

V- 158-1 AÇO RÁPIDO HSS

V- 159-1 AÇO HSCo-10% COBALTO

CUCHILLA BIZELADA PARA TRONZAR

V- 158-1 ACERO SUPER RAPIDO HSS

V- 159-1 ACERO HSCo-10% COBALTO

PARTING OFF BLADES

V- 158-1 HIGH SPEED STEEL HSS

V- 159-1 HSCo-10% COBALT STEEL



SIZE inch	WEIGHT kg
1/2 X 3/32 X 4.1/2	0,024
1/2 X 3/32 X 6	0,031
1/2 X 1/8 X 4.1/2	0,038
1/2 X 1/8 X 6	0,045
1/2 X 3/16 X 6	0,069
5/8 X 3/32 X 5	0,034
5/8 X 3/32 X 6	0,039
5/8 X 1/8 X 5	0,047
5/8 X 1/8 X 6	0,055
5/8 X 5/32 X 5	0,061
5/8 X 5/32 X 6	0,071
5/8 X 3/16 X 5	0,075
5/8 X 3/16 X 6	0,086
3/4 X 3/32 X 5	0,041
3/4 X 3/32 X 6	0,047
3/4 X 1/8 X 5	0,057
3/4 X 1/8 X 6	0,065
3/4 X 5/32 X 5	0,073
3/4 X 5/32 X 6	0,084
3/4 X 3/16 X 5	0,089
3/4 X 3/16 X 6	0,103
7/8 X 1/8 X 6	0,075
7/8 X 5/32 X 6	0,098
7/8 X 3/16 X 6	0,121
1 X 1/8 X 6	0,081
1 X 5/32 X 6	0,112
1 X 3/16 X 6	0,137
1.1/4 X 1/4 X 6	0,221
1.1/4 X 1/4 X 8	0,291

VC- 179 PORTA BITS PARA TORNOS E PLAINAS
PORTA BURILES PARA TORNOS Y CEPILLOS
TURNING AND PLANING TOOL HOLDERS

VS RETO / VS RECTO / VS STRAIGHT
 VR DIREITO / VR DERECHO / VR RIGHT HAND
 VL ESQUERDO / VL IZQUIERDO / VL LEFT HAND

SIZE inch	WIDTH/HEIGHT mm	WEIGHT kg
3/16	15,8 X 25	0,290
1/4	15,8 X 25	0,290
5/16	15,8 X 26	0,410
3/8	15,8 X 32	0,533
7/16	25,4 X 37	0,910
1/2	25,4 X 37	0,920
5/8	25,4 X 39	1,250
3/4	31 X 44	2,900
7/8	39 X 50	5,250
1	39 X 50	5,250



VC- 279 PORTA BEDAME PARA TORNOS
PORTA CUCHILLAS PARA TORNOS
PARTING TOOL HOLDERS

VS RETO / VS RECTO / VS STRAIGHT
 VR DIREITO / VR DERECHO / VR RIGHT HAND
 VL ESQUERDO / VL IZQUIERDO / VL LEFT HAND

SIZE inch	WIDTH/HEIGHT mm	WEIGHT kg
1/2	9,5 X 23,5	0,310
5/8	12,7 X 26	0,310
3/4	12,7 X 31	0,350
7/8	12,7 X 37	0,550
1	12,7 X 37	0,550



VC- 379 PORTA RECARILHAS SIMPLES
HERRAMIENTAS DE MOLETEAR, CON DOS RODAJAS
KNURLING TOOL HOLDER WITH TWO KNURLING WHEELS

SIZE	WHEEL inch	WIDTH/HEIGHT mm	LENGTH mm
11	5/8	15,8 X 15,8	130
12	3/4	15,8 X 15,8	130



VC- 479 PORTA RECARILHAS TRIPLO
HERRAMIENTAS DE MOLETEAR, MANGO CON CABEZAL GIRATORIO Y SEIS RODAJAS
KNURLING TOOL HOLDER, REVOLVING HEAD WITH SIX KNURLS FITTED

SIZE	WHEEL inch	WIDTH/HEIGHT mm	LENGTH mm
31	5/8	15,8 X 26	145
32	3/4	15,8 X 26	145



VC- 579 PORTA RECARILHAS DUPLO
HERRAMIENTAS DE MOLETEAR, PARA SUJECIÓN EN TORNO CILINDRICO
KNURLING TOOL HOLDER, FOR USE WITH BENCH LATHE

SIZE	WHEEL inch	WIDTH/HEIGHT mm	LENGTH mm
21	5/8	20 X 24	155
22	3/4	20 X 24	155



RECARILHAS DE REPOSIÇÃO

VC- 679 AÇO CARBONO
VC- 779 AÇO RÁPIDO

RODAJAS O MOLETAS DE REPUESTO

VC- 679 ACERO CARBONO
VC- 779 ACERO RAPIDO

SPARE KNURLING WHEELS

VC- 679 CARBON STEEL
VC- 779 HIGH SPEED STEEL



SHAPE	REFERENCE	OUTSIDE inch	THICKNESS inch	BORE inch	THREAD PITCH
HRS HRR HRL	161	5/8	5/16	7/32	0,8
HRS HRR HRL	162	5/8	5/16	7/32	1,2
HRS HRR HRL	163	5/8	5/16	7/32	1,5
HRS HRR HRL	221	3/4	5/16	1/4	0,8
HRS HRR HRL	222	3/4	5/16	1/4	1,2
HRS HRR HRL	223	3/4	5/16	1/4	1,5

PONTA DIAMANTADA PARA RETIFICAR PEDRAS
DIAMANTE INDUSTRIAL PARA RECTIFICAR MUELAS
SINGLE POINT DIAMOND DRSSER GRINDING WHEEL



HIGH QUALITY DIAMONDS
 CAN BE AVAILABLE IN ANY SHANK SIZE ON REQUEST
 CARAT SIZE AVAILABLE: 0,25 - 0,5 - 0,75 - 1,0 - 1,25 - 1,5 - 2,0 - 3,0 - 5,0

ALSO AVAILABLE MULTI POINT DIAMOND DRESSERS

CODE MT1	CARAT SIZE
DI0.25	0,25
DI0.5	0,5
DI 0.75	0,75
DI1.0	1,0
DI1.25	1,25
DI1.5	1,5
DI2.0	2,0
DI3.0	3,0
DI5.0	5,0

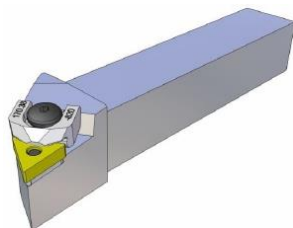


SPERAFICO TRADING
EXPORTADORA

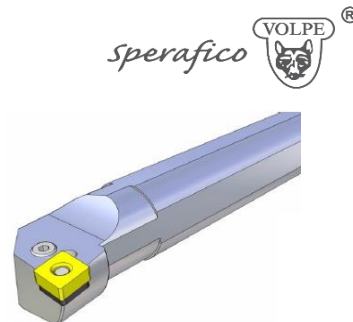
SV- 150 FERRAMENTAS PARA TORNEAMENTO
HERRAMIENTA DE TORNEADO
INDEXABLE TURNING TOOLS

INSERT NOT INCLUDED

EXTERNAL
10 X 10
12 X 12
16 X 16
20 X 20
25 X 25
32 X 25
32 X 32
40 X 40
50 X 50



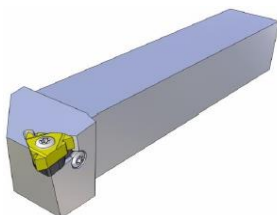
INTERNAL
Ø 6
Ø 8
Ø 10
Ø 12
Ø 16
Ø 20
Ø 25
Ø 32
Ø 40
Ø 50
Ø 63



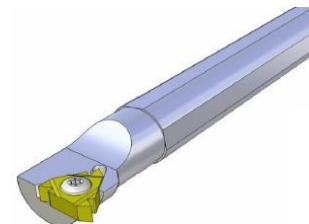
SV- 155 FERRAMENTAS PARA ROSQUEAMENTO
HERRAMIENTA DE ROSCADO
INDEXABLE THREADING

INSERT NOT INCLUDED

EXTERNAL
12 X 12
16 X 16
20 X 20
25 X 25
32 X 25
32 X 32
40 X 40



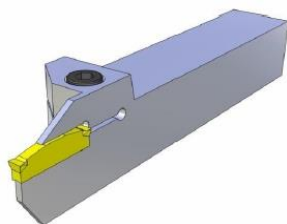
INTERNAL
Ø 10
Ø 12
Ø 16
Ø 20
Ø 25
Ø 32
Ø 40
Ø 50
Ø 63



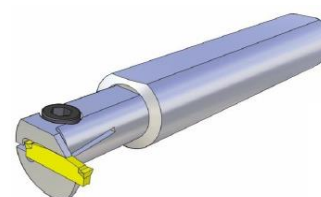
SV- 165 BEDAMES
HERRAMIENTA DE TRONZAR
GROOVE TOOL

INSERT NOT INCLUDED

EXTERNAL
10 X 10
12 X 12
16 X 16
20 X 20
25 X 25
32 X 25
32 X 32
32 X 32



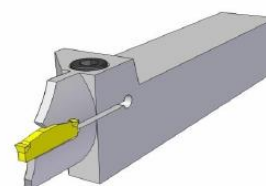
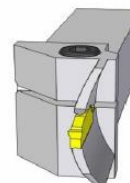
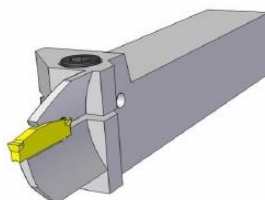
INTERNAL
Ø 12
Ø 16
Ø 20
Ø 25
Ø 32
Ø 40
Ø 50



SV- 170 BEDAME PARA RANHURAMENTO FRONTAL
RAÑURAS FRONTALES
FACE GROOVE/TURN INDEXABLE HOLDERS

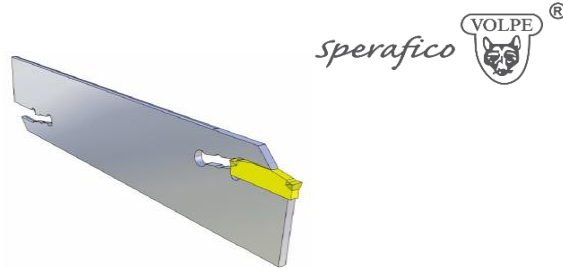
INSERT NOT INCLUDED

20 X 20
25 X 25
32 X 32
40 X 40



SV- 175 LÂMINA DE CORTE INDEXÁVEL NEUTRA DE EXTREMIDADE DUPLA
CUCHILLA DE CORTE INDEXAVEL NEUTRA DE DOBLE PUNTA
DOUBLE-ENDED NEUTRAL INDEXABLE CUTTING BLADE

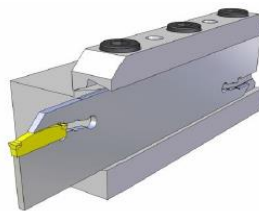
INSERT NOT INCLUDED



ISO	INSERTO SANDVIK
151.2-21-20	N151.2-200-5E
151.2-21-25	N151.2-250-5E
151.2-25-25	N151.2-250-5E
151.2-21-30	N151.2-300-5E
151.2-25-30	N151.2-300-5E
151.2-21-40	N151.2-400-5E
151.2-25-40	N151.2-400-5E
151.2-25-50	N151.2-500-5E
151.2-25-60	N151.2-600-5E

SV- 176 BLOCO PARA LÂMINAS DE CORTE INDEXÁVEL
BLOCO PARA CUCHILLA DE CORTE INDEXABLE
BLOCK FOR INDEXABLE CUTTING BLADE

INSERT NOT INCLUDED

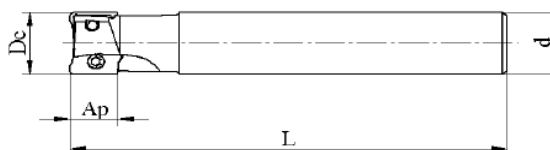


CUTTING EDGE HEIGHT ON BLADES	BLOCK HEIGHT BASE	BLOCK CODE
21mm	20 X 20mm	151.2.2020-21M
21mm	25 X 20mm	151.2.2520-21
25mm	20 X 20mm	151.2.2020-25
25mm	25 X 20mm	151.2.2520-25
25mm	32 X 32mm	151.2.3232-25
45mm	40 X 40mm	151.2.4040-45

FRESADO FILO LARGO

INDEXABLE END MILLS

INSERT NOT INCLUDED



sperafico 

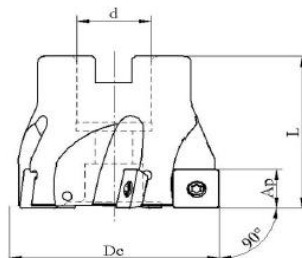
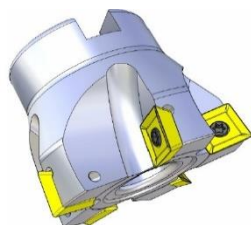
CODE	DC mm	D mm	L (SHORT/LONG) mm	NUMBER OF CUTS	AP mm
BT999-10-2	10	10	100 / 140	2	6
BT999-10-2-H16	10	16	110 / 160	2	6
BT999-12-2	12	12	100 / 140	2	6
BT999-12-2-H16	12	16	110 / 160	2	6
BT999-14-2	14	14	110 / 160	2	6
BT999-16-2	16	16	110 / 160	2	6
BT999-16-3	16	16	110 / 160	3	6
BT999-18-2	18	16	110 / 160	2	6
BT999-18-3	18	16	110 / 160	3	6
BT999-20-3	20	20	110 / 180	3	6
BT999-20-4	20	20	110 / 180	4	6
BT999-10-1	10	10	100 / 140	1	9 UNTIL 11
BT999-10-1-H16	10	16	110 / 160	1	9 UNTIL 11
BT999-12-1	12	12	100 / 140	1	9 UNTIL 11
BT999-12-1-H16	12	16	110 / 160	1	9 UNTIL 11
BT999-14-1	14	14	110 / 160	1	9 UNTIL 11
BT999-16-2	16	16	110 / 160	2	9 UNTIL 11
BT999-18-2	18	16	110 / 160	2	9 UNTIL 11
BT999-20-2	20	20	110 / 180	2	9 UNTIL 11
BT999-20-3	20	20	110 / 180	3	9 UNTIL 11
BT999-22-2	22	20	110 / 180	2	9 UNTIL 11
BT999-22-3	22	20	110 / 180	3	9 UNTIL 11
BT999-25-2	25	25	120 / 200	2	9 UNTIL 11
BT999-25-3	25	25	120 / 200	3	9 UNTIL 11
BT999-25-4	25	25	120 / 200	4	9 UNTIL 11
BT999-28-2	28	25	130 / 220	2	9 UNTIL 11
BT999-28-3	28	25	130 / 220	3	9 UNTIL 11
BT999-30-2	30	25	130 / 220	2	9 UNTIL 11
BT999-30-3	30	25	130 / 220	3	9 UNTIL 11
BT999-32-2	32	32	130 / 220	2	9 UNTIL 11
BT999-32-3	32	32	130 / 220	3	9 UNTIL 11
BT999-32-4	32	32	130 / 220	4	9 UNTIL 11
BT999-40-2	40	32	170 / 250	2	9 UNTIL 11
BT999-40-3	40	32	170 / 250	3	9 UNTIL 11
BT999-40-4	40	32	170 / 250	4	9 UNTIL 11
BT999-16-1	16	16	110 / 160	1	12 UNTIL 13
BT999-18-1	18	16	110 / 160	1	12 UNTIL 13
BT999-20-2	20	20	110 / 180	2	12 UNTIL 13
BT999-22-2	22	20	110 / 180	2	12 UNTIL 13
BT999-25-2	25	25	120 / 200	2	12 UNTIL 13
BT999-25-3	25	25	120 / 200	3	12 UNTIL 13
BT999-28-2	28	25	130 / 220	2	12 UNTIL 13
BT999-28-3	28	25	130 / 220	3	12 UNTIL 13
BT999-30-2	30	25	130 / 220	2	12 UNTIL 13
BT999-30-3	30	25	130 / 220	3	12 UNTIL 13
BT999-32-2	32	32	130 / 220	2	12 UNTIL 13
BT999-32-3	32	32	130 / 220	3	12 UNTIL 13
BT999-40-3	40	32	170 / 250	3	12 UNTIL 13
BT999-40-4	40	32	170 / 250	4	12 UNTIL 13
BT999-16-1	16	16	110 / 160	1	15 UNTIL 18
BT999-18-1	18	16	110 / 160	1	15 UNTIL 18
BT999-20-1	20	20	110 / 180	1	15 UNTIL 18
BT999-25-2	25	25	120 / 200	2	15 UNTIL 18
BT999-28-2	28	25	130 / 220	2	15 UNTIL 18
BT999-30-2	30	25	130 / 220	2	15 UNTIL 18
BT999-30-3	30	25	130 / 220	3	15 UNTIL 18
BT999-32-3	32	32	130 / 220	2	15 UNTIL 18
BT999-32-3	32	32	130 / 220	3	15 UNTIL 18
BT999-40-3	40	32	170 / 250	3	15 UNTIL 18

SV- 185 CABEÇOTES DE FACEAMENTO E FRESAMENTO DE CANTOS A 90º - DIÂMETROS DE 40 A 200mm

FRESADO FILO LARGO

INDEXABLE END MILLS

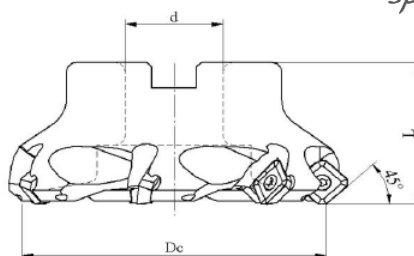
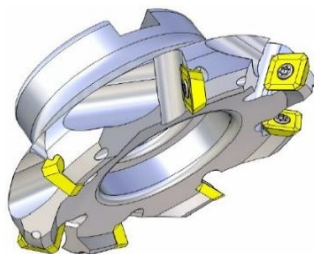
INSERT NOT INCLUDED



CODE	DC mm	D mm	L mm	NUMBER OF CUTS	AP mm
BT990-40-3	40	16	42	3	9 UNTIL 10
BT990-40-4	40	16	42	4	9 UNTIL 10
BT990-50-3	50	22	50	3	9 UNTIL 10
BT990-50-4	50	22	50	4	9 UNTIL 10
BT990-50-5	50	22	50	5	9 UNTIL 10
BT990-63-4	63	22	50	4	9 UNTIL 10
BT990-63-5	63	22	50	5	9 UNTIL 10
BT990-63-6	63	22	50	6	9 UNTIL 10
BT990-80-6	80	27	50	6	9 UNTIL 10
BT990-80-8	80	27	50	8	9 UNTIL 10
BT990-100-6	100	32	50	6	9 UNTIL 10
BT990-100-7	100	32	50	7	9 UNTIL 10
BT990-100-8	100	32	50	8	9 UNTIL 10
BT990-100-9	100	32	50	9	9 UNTIL 10
BT990-125-8	125	40	60	8	9 UNTIL 10
BT990-125-7	125	40	60	7	9 UNTIL 10
BT990-125-10	125	40	60	10	9 UNTIL 10
BT990-160-8	160	40	60	8	9 UNTIL 10
BT990-160-10	160	40	60	10	9 UNTIL 10
BT990-160-12	160	40	60	12	9 UNTIL 10
BT990-40-3	40	16	42	3	11 UNTIL 16
BT990-50-3	50	22	50	3	11 UNTIL 16
BT990-50-4	50	22	50	4	11 UNTIL 16
BT990-63-3	63	22	50	3	11 UNTIL 16
BT990-63-4	63	22	50	4	11 UNTIL 16
BT990-63-5	63	22	50	5	11 UNTIL 16
BT990-80-4	80	27	50	4	11 UNTIL 16
BT990-80-5	80	27	50	5	11 UNTIL 16
BT990-80-6	80	27	50	6	11 UNTIL 16
BT990-100-5	100	32	50	5	11 UNTIL 16
BT990-100-6	100	32	50	6	11 UNTIL 16
BT990-100-7	100	32	50	7	11 UNTIL 16
BT990-125-6	125	40	60	6	11 UNTIL 16
BT990-125-7	125	40	60	7	11 UNTIL 16
BT990-125-8	125	40	60	8	11 UNTIL 16
BT990-160-8	160	40	60	8	11 UNTIL 16
BT990-160-12	160	40	60	12	11 UNTIL 16
BT990-200-10	200	60	60	10	11 UNTIL 16
BT990-200-14	200	60	60	14	11 UNTIL 16

SV- 190 CABEÇOTES DE FACEAMENTO A 45º - DIÂMETROS DE 50 A 250mm
FRESADO PLANEADO
INDEXABLE FACE MILLS

INSERT NOT INCLUDED



Sperafico 

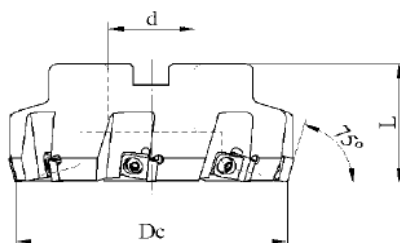
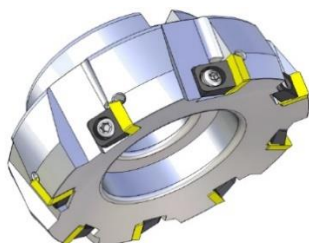
CODE	DC mm	D mm	L mm	NUMBER OF CUTS	AP mm
BT555-50-4-09	50	22	50	4	9
BT555-50-5-09	50	22	50	5	9
BT555-63-5-09	63	22	50	5	9
BT555-63-6-09	63	22	50	6	9
BT555-80-5-09	80	27	50	5	9
BT555-80-7-09	80	27	50	7	9
BT555-100-6-09	100	32	50	6	9
BT555-100-8-09	100	32	50	8	9
BT555-50-3-12	50	22	50	3	12
BT555-50-4-12	50	22	50	4	12
BT555-63-4-12	63	22	50	4	12
BT555-63-5-12	63	22	50	5	12
BT555-80-4-12	80	27	50	4	12
BT555-80-6-12	80	27	50	6	12
BT555-100-5-12	100	32	50	5	12
BT555-100-7-12	100	32	50	7	12
BT555-125-6-12	125	40	60	6	12
BT555-125-8-12	125	40	60	8	12
BT555-160-7-12	160	40	60	7	12
BT555-160-10-12	160	40	60	10	12
BT555-200-8-12	200	60	60	8	12
BT555-200-12-12	200	60	60	12	12
BT555-250-10-12	250	60	60	10	12
BT555-250-14-12	250	60	60	14	12

SV- 195 CABEÇOTES DE FACEAMENTO A 75º - DIÂMETROS DE 50 A 250mm

FRESADO PLANEADO

INDEXABLE FACE MILLS

INSERT NOT INCLUDED



CODE	DC mm	D mm	L mm	NUMBER OF CUTS	AP mm
BT127-50-4-SPKN1203	50	22	50	4	SPKN1203
BT127-63-5-SPKN1203	63	22	50	5	SPKN1203
BT127-80-6-SPKN1203	80	27	50	6	SPKN1203
BT127-100-6-SPKN1203	100	32	50	6	SPKN1203
BT127-125-8-SPKN1203	125	40	60	8	SPKN1203
BT127-160-10-SPKN1203	160	40	60	10	SPKN1203
BT127-200-12-SPKN1203	200	60	60	12	SPKN1203
BT127-250-16-SPKN1203	250	60	60	16	SPKN1203
BT127-63-4-SPKN1504	63	22	50	4	SPKN1504
BT127-80-6-SPKN1504	80	27	50	6	SPKN1504
BT127-100-6-SPKN1504	100	32	50	6	SPKN1504
BT127-125-8-SPKN1504	125	40	60	8	SPKN1504
BT127-160-10-SPKN1504	160	40	60	10	SPKN1504
BT127-200-12-SPKN1504	200	60	60	12	SPKN1504
BT127-250-16-SPKN1504	250	60	60	16	SPKN1504

V- 800

HASTES PARA MADRIL, TEMPERADA E RETIFICADA

ESPIGAS DE SUJENCION PARA MANDRILES, TEMPLADAS Y RECTIFIC

DRILL CHUCK ARBORS



TIPO JACOBS (ASA)

MT1 - J1
MT1 - J2
MT1 - J3
MT1 - J6
MT2 - J1
MT2 - J2
MT2 - J3
MT2 - J6
MT2 - J33
MT3 - J2
MT3 - J3
MT3 - J5
MT3 - J6
MT3 - J33
MT4 - J3
MT4 - J5
MT4 - J6
MT5 - J5

TIPO EUROPEU (DIN 238)

MT0 - B10
MT0 - B12
MT1 - B10
MT1 - B12
MT1 - B16
MT1 - B18
MT2 - B10
MT2 - B12
MT2 - B16
MT2 - B18
MT2 - B22
MT3 - B12
MT3 - B16
MT3 - B18
MT3 - B22
MT3 - B24
MT4 - B16
MT4 - B18
MT4 - B22
MT4 - B24
MT5 - B16
MT5 - B18
MT5 - B22
MT5 - B24

V- 810

BUCHA DE REDUÇÃO DIN 2185

BUJES DE REDUCION DIN 2185

MORSE TAPER DRILL SLEEVE DIN 2185



CONE MORSE EXT X INT

MT1 - MT0
MT2 - MT1
MT3 - MT1
MT3 - MT2
MT4 - MT1
MT4 - MT2
MT4 - MT3
MT5 - MT1
MT5 - MT2
MT5 - MT3
MT5 - MT4
MT6 - MT2
MT6 - MT3
MT6 - MT4
MT6 - MT5

LARGO TOT (mm)

80
92
99
112
124
124
140
156
156
156
171
218
218
218
218

VR- 111 MANDRIL DE TRÊS CASTANHAS, MODELO 'JACOBS', COM CHAVE
MANDRILES DE TRES MORDAZAS, MODELO 'JACOBS' SIN ESPIGA, CON LLAVE
KEY-TYPE DRILL CHUCK 'JACOBS' PATTERN

TYPE	CAPACITY	CODE		
10L 3/8 X 24	1 - 10	520371	-	1261226
13L 1/2 X 20F	1,5 - 13	525947	-	1261227
13L 3/8 X 24F	1,5 - 13	534438	-	1261228
16L B18	3 - 16	520102	-	1154665
16L B16	3 - 16	528039	-	1154664
16L 1/2 X 20	3 - 16	530718	-	1154662
16L 5/8 X 16	3 - 16	534827	-	1154663
4P B10	0,5 - 4	525418	72806	1154700
6M B10	0,5 - 6,5	526102	245586	1154702
6P B12	0,5 - 6,5	525421	245548	1154703
6P 3/8 X 24	0,5 - 6,5	525423	-	1154705
8M B10	0,5 - 8	526103	245485	1154706
8P 3/8 X 24	0,5 - 8	525427	72628	1154709
8P 1/2 X 20	0,5 - 8	525428	72631	1154710
8P B12	0,5 - 8	525425	245549	1154707
10M B12	1 - 10	525447	218555	1154711
10P B16	1 - 10	525430	72687	1154712
10P 1/2 X 20	1 - 10	525432	64524	1154714
13P B16	1 - 13	525434	72815	1154715
13P 5/8 X 16	1 - 13	525437	72820	1154718
16P B16	1 - 16	525439	227152	1154719
16P B18	1 - 16	525440	72825	1154720
16P 5/8 X 16	1 - 16	526101	72829	1154727
20P B22	5 - 20	525443	72831	1154723
26P B24	5 - 26	525445	72834	1154725
6P J1	0,5 - 6,5	525422	72810	1154704
8P J1	0,5 - 8	525426	72656	1154708
10P J2	1 - 10	525431	72693	1154713
13P J6	1 - 13	525435	72818	1154716
13P J33	1 - 13	525436	72819	1154717
16P J3	1 - 16	525441	72827	1154721
16P J6	1 - 16	525442	72828	1154722
20P J3	5 - 20	525444	72833	1154724



VR- 136 MANDRIL DE APERTO RÁPIDO

PORTA BROCA AGARRE RAPIDO SUPRA, DE CIERRE AUTOMATICO, EJECUCIÓN ESTÁNDAR KEYLESS DRILL CHUCKS

TYPE 136 SUPRA

HEAVY INDUSTRIAL VERSION FOR STATIONARY

TYPE	CAPACITY	CODE	
4 B10	0 - 4	19985	871019
6 B10	0 - 6,5	19993	871022
6 B12	0 - 6,5	20008	871023
6 3/8 X 24	0 - 6,5	20147	871025
8 B10	0 - 8	23325	871031
8 B12	0 - 8	20012	871032
8 3/8 X 24	0 - 8	20151	871034
8 1/2 X 20	0 - 8	20155	871035
10 B16	0,5 - 10	305183	1083948
10 B12	0 - 10	20020	871040
10 B16	0 - 10	20035	871041
10 3/8 X 24	0 - 10	20159	871044
10 1/2 X 20	0 - 10	20163	871045
13 B16	1 - 13	20039	871051
13 1/2 X 20	1 - 13	20167	871055
13 5/8 X 16	1 - 13	20171	871056
16 B16	3 - 16	20050	871064
16 B18	3 - 16	20061	871065
16 5/8 X 16	3 - 16	20175	871067
4 J0	0 - 4	20081	871020
6 J1	0 - 6,5	20089	871024
8 J1	0 - 8	20093	871033
10 J2	0 - 10	20097	871042
10 J33	0 - 10	20101	871043
13 J2	1 - 13	20105	871052
13 J6	1 - 13	20113	871054
16 J6	3 - 16	20121	871066



TYPE 136 SUPRA

HAND-OPERATED PERCUSSION DRILLING MACHINES

TYPE	CAPACITY	CODE	
8S B10	0 - 8	215056	871026
8S B12	0 - 8	215057	871027
8S 3/8 X 24	0 - 8	215059	871029
8S 1/2 X 20	0 - 8	215060	871030
10S B12	0,5 - 10	24032	871036
10S 3/8 X 24	0,5 - 10	23929	871038
10S 1/2 X 20	0,5 - 10	24117	871039
13S B12	1 - 13	78472	871046
13S B16	1 - 13	44270	871047
13S 3/8 X 24	1 - 13	96455	871049
13S 1/2 X 20	1 - 13	44274	871050
16S B16	3 - 16	215062	871057
16S B18	3 - 16	215063	871058
16S 1/2 X 20	3 - 16	215067	871062
16S 5/8 X 16	3 - 16	95426	871063
8S J1	0 - 8	215058	871028
10S J1	0,5 - 10	206918	871037
13S J2	1 - 13	215061	871048
16S J2	3 - 16	215064	871059
16S J33	3 - 16	215065	871060
16S J6	3 - 16	215066	871061



SIZE				
20 X 0,2 X 5mm 80Z	32 X 0,8 X 8mm 64Z	50 X 2,5 X 13mm 64Z	100 X 1,0 X 22mm 128Z	160 X 3,5 X 32mm 128Z
20 X 0,25 X 5mm 64Z	32 X 1,0 X 8mm 64Z	50 X 3,0 X 13mm 48Z	100 X 1,2 X 22mm 128Z	160 X 4,0 X 32mm 100Z
20 X 0,3 X 5mm 64Z	32 X 1,2 X 8mm 48Z	50 X 3,5 X 13mm 48Z	100 X 1,5 X 22mm 100Z	160 X 5,0 X 32mm 100Z
20 X 0,4 X 5mm 64Z	32 X 1,5 X 8mm 48Z	50 X 4,0 X 13mm 48Z	100 X 1,6 X 22mm 100Z	160 X 6,0 X 32mm 100Z
20 X 0,5 X 5mm 48Z	32 X 1,6 X 8mm 48Z	50 X 5,0 X 13mm 48Z	100 X 2,0 X 22mm 100Z	200 X 1,0 X 32mm 200Z
20 X 0,6 X 5mm 48Z	32 X 2,0 X 8mm 48Z	50 X 6,0 X 13mm 40Z	100 X 2,5 X 22mm 100Z	200 X 1,2 X 32mm 200Z
20 X 0,8 X 5mm 48Z	32 X 2,5 X 8mm 40Z	63 X 0,25 X 16mm 160Z	100 X 3,0 X 22mm 80Z	200 X 1,5 X 32mm 200Z
20 X 1,0 X 5mm 40Z	32 X 3,0 X 8mm 40Z	63 X 0,3 X 16mm 128Z	100 X 3,5 X 22mm 80Z	200 X 1,6 X 32mm 160Z
20 X 1,2 X 5mm 40Z	32 X 3,5 X 8mm 40Z	63 X 0,4 X 16mm 128Z	100 X 4,0 X 22mm 80Z	200 X 2,0 X 32mm 160Z
20 X 1,5 X 5mm 40Z	32 X 4,0 X 8mm 40Z	63 X 0,5 X 16mm 128Z	100 X 5,0 X 22mm 80Z	200 X 2,5 X 32mm 160Z
20 X 1,6 X 5mm 40Z	32 X 5,0 X 8mm 32Z	63 X 0,6 X 16mm 100Z	100 X 6,0 X 22mm 64Z	200 X 3,0 X 32mm 128Z
20 X 2,0 X 5mm 32Z	32 X 6,0 X 8mm 32Z	63 X 0,8 X 16mm 100Z	125 X 0,6 X 22mm 160Z	200 X 3,5 X 32mm 128Z
20 X 2,5 X 5mm 32Z	40 X 0,2 X 10mm 128Z	63 X 1,0 X 16mm 100Z	125 X 0,8 X 22mm 160Z	200 X 4,0 X 32mm 128Z
20 X 3,0 X 5mm 32Z	40 X 0,25 X 10mm 100Z	63 X 1,2 X 16mm 80Z	125 X 1,0 X 22mm 160Z	200 X 5,0 X 32mm 128Z
20 X 3,5 X 5mm 24Z	40 X 0,3 X 10mm 100Z	63 X 1,5 X 16mm 80Z	125 X 1,2 X 22mm 128Z	200 X 6,0 X 32mm 100Z
20 X 4,0 X 5mm 24Z	40 X 0,4 X 10mm 100Z	63 X 1,6 X 16mm 80Z	125 X 1,5 X 22mm 128Z	250 X 1,5 X 32mm 200Z
20 X 5,0 X 5mm 24Z	40 X 0,5 X 10mm 80Z	63 X 2,0 X 16mm 80Z	125 X 1,6 X 22mm 128Z	250 X 1,6 X 32mm 200Z
20 X 6,0 X 5mm 24Z	40 X 0,6 X 10mm 80Z	63 X 2,5 X 16mm 64Z	125 X 2,0 X 22mm 128Z	250 X 2,0 X 32mm 200Z
25 X 0,2 X 8mm 80Z	40 X 0,8 X 10mm 80Z	63 X 3,0 X 16mm 64Z	125 X 2,5 X 22mm 100Z	250 X 2,5 X 32mm 160Z
25 X 0,25 X 8mm 80Z	40 X 1,0 X 10mm 64Z	63 X 3,5 X 16mm 64Z	125 X 3,0 X 22mm 100Z	250 X 3,0 X 32mm 160Z
25 X 0,3 X 8mm 80Z	40 X 1,2 X 10mm 64Z	63 X 4,0 X 16mm 64Z	125 X 3,5 X 22mm 100Z	250 X 3,5 X 32mm 160Z
25 X 0,4 X 8mm 64Z	40 X 1,5 X 10mm 64Z	63 X 5,0 X 16mm 48Z	125 X 4,0 X 22mm 100Z	250 X 4,0 X 32mm 160Z
25 X 0,5 X 8mm 64Z	40 X 1,6 X 10mm 64Z	63 X 6,0 X 16mm 48Z	125 X 5,0 X 22mm 80Z	250 X 5,0 X 32mm 128Z
25 X 0,6 X 8mm 64Z	40 X 2,0 X 10mm 48Z	80 X 0,3 X 22mm 160Z	125 X 6,0 X 22mm 80Z	250 X 6,0 X 32mm 128Z
25 X 0,8 X 8mm 48Z	40 X 2,5 X 10mm 48Z	80 X 0,4 X 22mm 160Z	150 X 1,0 X 32mm 160Z	315 X 2,0 X 40mm 200Z
25 X 1,0 X 8mm 48Z	40 X 3,0 X 10mm 48Z	80 X 0,5 X 22mm 128Z	150 X 1,2 X 32mm 160Z	315 X 2,5 X 40mm 200Z
25 X 1,2 X 8mm 48Z	40 X 3,5 X 10mm 48Z	80 X 0,6 X 22mm 128Z	150 X 1,5 X 32mm 160Z	315 X 3,0 X 40mm 200Z
25 X 1,5 X 8mm 40Z	40 X 4,0 X 10mm 40Z	80 X 0,8 X 22mm 128Z	150 X 1,6 X 32mm 160Z	315 X 3,5 X 40mm 200Z
25 X 1,6 X 8mm 40Z	40 X 5,0 X 10mm 40Z	80 X 1,0 X 22mm 100Z	150 X 2,0 X 32mm 128Z	315 X 4,0 X 40mm 160Z
25 X 2,0 X 8mm 40Z	40 X 6,0 X 10mm 40Z	80 X 1,2 X 22mm 100Z	150 X 2,5 X 32mm 128Z	315 X 5,0 X 40mm 160Z
25 X 2,5 X 8mm 40Z	50 X 0,2 X 13mm 128Z	80 X 1,5 X 22mm 100Z	150 X 3,0 X 32mm 128Z	315 X 6,0 X 40mm 160Z
25 X 3,0 X 8mm 32Z	50 X 0,25 X 13mm 128Z	80 X 1,6 X 22mm 100Z	150 X 3,5 X 32mm 128Z	
25 X 3,5 X 8mm 32Z	50 X 0,3 X 13mm 128Z	80 X 2,0 X 22mm 80Z	150 X 4,0 X 32mm 100Z	
25 X 4,0 X 8mm 32Z	50 X 0,4 X 13mm 100Z	80 X 2,5 X 22mm 80Z	150 X 5,0 X 32mm 80Z	
25 X 5,0 X 8mm 32Z	50 X 0,5 X 13mm 100Z	80 X 3,0 X 22mm 80Z	150 X 6,0 X 32mm 80Z	
25 X 6,0 X 8mm 24Z	50 X 0,6 X 13mm 100Z	80 X 3,5 X 22mm 64Z	160 X 1,0 X 32mm 160Z	
32 X 0,2 X 8mm 100Z	50 X 0,8 X 13mm 80Z	80 X 4,0 X 22mm 64Z	160 X 1,2 X 32mm 160Z	
32 X 0,25 X 8mm 100Z	50 X 1,0 X 13mm 80Z	80 X 5,0 X 22mm 64Z	160 X 1,5 X 32mm 160Z	
32 X 0,3 X 8mm 80Z	50 X 1,2 X 13mm 80Z	80 X 6,0 X 22mm 64Z	160 X 1,6 X 32mm 160Z	
32 X 0,4 X 8mm 80Z	50 X 1,5 X 13mm 64Z	100 X 0,5 X 22mm 160Z	160 X 2,0 X 32mm 128Z	
32 X 0,5 X 8mm 80Z	50 X 1,6 X 13mm 64Z	100 X 0,6 X 22mm 160Z	160 X 2,5 X 32mm 128Z	
32 X 0,6 X 8mm 64Z	50 X 2,0 X 13mm 64Z	100 X 0,8 X 22mm 128Z	160 X 3,0 X 32mm 128Z	

SERRA CIRCULAR PARA CORTE LONGITUDINAL DE MADEIRA MOLE E VERDE
SIERRA CIRCULAR PARA CORTE LONGITUDINAL DE MADERA BLANDA Y VERDE
CIRCULAR RIPS AW BLADE FOR SOFT AND GREEN WOOD

DIAMETER	200	250	300	350	400	450	500
KERF	3,2	3,2	4,2	4,6	5,1	5,1	5,5
Z	14	16	16	18	20	24	24

SERRA CIRCULAR PARA CORTE LONGITUDINAL DE MADEIRA SEMI-DURA
SIERRA CIRCULAR PARA CORTE LONGITUDINAL DE MADERA SEMIDURA
CIRCULAR RIPS AW BLADE FOR HARD WOOD

DIAMETER	200	250	300	350	400	450	500
KERF	3,2	3,8	4,6	4,6	5,1	5,1	5,5
Z	16	18	20	24	28	32	36

SERRA CIRCULAR PARA CORTE LONGITUDINAL DE MADEIRA VERDE
SIERRA CIRCULAR PLURIEMPLEO PARA CORTE LONGITUDINAL DE MADERA VERDE
MULTIPURPOSE CIRCULAR RIPS AW BLADE FOR GREEN WOOD

DIAMETER	200	250	300	350	400	450	500
KERF	3,2	3,2	3,8	4,2	4,6	4,6	5,1
Z	16	18	24	24	24	24	24

SERRA CIRCULAR MULTI-USO PARA CORTE LONGITUDINAL DE MADEIRA SECA
SIERRA CIRCULAR PLURIEMPLEO PARA CORTE LONGITUDINAL DE MADERA SECA
MULTIPURPOSE CIRCULAR RIPS AW BLADE FOR DRY WOOD

DIAMETER	200	250	300	350	400	450	500
KERF	3,2	3,2	3,8	4,2	4,6	4,6	5
Z	18	24	30	30	32	32	32

SERRA CIRCULAR MULTI-USO PARA CORTE LONGITUDINAL DE MADEIRA SECA COM BOM ACABAMENTO
SIERRA CIRCULAR PLURIEMPLEO PARA CORTE LONGITUDINAL DE MADERA SECA CON BUEN ACABADO
MULTIPURPOSE CIRCULAR RIPS AW BLADE FOR DRY WOOD WITH GOOD FINISH

DIAMETER	200	250	300	350	400	450	500
KERF	3,2	3,2	3,8	4,2	4,6	4,6	5,1
Z	24	32	36	36	36	36	36

SERRA CIRCULAR MULTI-USO PARA CORTE LONGITUDINAL DE MADEIRA SECA COM EXCELENTE ACABAMENTO
SIERRA CIRCULAR PLURIEMPLEO PARA CORTE LONGITUDINAL DE MADERA SECA CON ÓPTIMO ACABADO
MULTIPURPOSE CIRCULAR RIPS AW BLADE FOR DRY WOOD WITH EXCELLENT FINISH

DIAMETER	200	250	300	350	400	450	500
KERF	3,2	3,2	3,8	4,2	4,6	4,6	5,1
Z	32	36	40	40	40	40	40

SERRA CIRCULAR PARA DESTOPO DE MADEIRA VERDE
SIERRA CIRCULAR PARA DESPUNTE DE MADERA VERDE
CROSS CUTTING CIRCULAR SAWBLADE FOR GREEN WOOD

DIAMETER	200	250	300	350	400	450	500
KERF	3,2	3,2	3,8	4,2	4,6	4,6	5,1
Z	36	40	48	48	48	48	48

SERRA CIRCULAR PARA DESTOPO DE MADEIRA SECA COM BOM ACABAMENTO
SIERRA CIRCULAR PARA DESPUNTE DE MADERA SECA CON BUEN ACABADO
CROSS CUTTING CIRCULAR SAWBLADE FOR DRY WOOD WITH GOOD FINISH

DIAMETER	200	250	300	350	400	450	500
KERF	3,2	3,2	3,8	4	4,4	4,4	5
Z	48	60	72	72	72	72	72

SERRA CIRCULAR PARA DESTOPO DE MADEIRA SECA COM ANTI-RUÍDO COM EXCELENTE ACABAMENTO
SIERRA CIRCULAR SILENCIOSA PARA DESPUNTE DE MADERA SECA CON ÓPTIMO ACABADO
CROSS CUTTING CIRCULAR SAWBLADE FOR DRY WOOD WITH GOOD FINISH

DIAMETER	200	250	300	350	400	450	500
KERF	3,2	3,2	3,5	3,5	4,2	4,2	4,8
Z	60	72	80	90	96	100	108



EIXO PARA SERRA CIRCULAR

EJES PARA SIERRAS CIRCULARES, CON POLEA

CIRCULAR SAW SPINDLES WITH BELT PULLEY



Nº	EIXO inch	CHANEL	BELT	SAW	CV	RPM	WEIGHT kg
00	3/8	1	A	150	0,5	4.500	1,800
0	1/2	1	A	200	1	4.500	2,700
1	5/8	2	A	300	1,5	4.000	4,700
2	3/4	2	A	400	2	3.000	8,000
3	1	2	A	500	3	2.000	10,300
4	1.1/4	3	A	700	4	2.000	15,800

INFORMAÇÕES TÉCNICAS: FERRO CINZENTO NOBRE FC 200

INFORMACIONES TECNICAS: HIERRO GRIS NOBLE FC 200

TECHNICAL NOTES: NOBLE GRAY IRON FC 200

POLICORTE

MULTICORTE CORTE RAPIDO PARA METALES FERROSOS

MULTICORTE FAST CUTTING FOR FERROUS METALS



MODEL	KERF	BELT "V"	WEIGHT kg
PCSM 12"	DEGREE	A-33	27,200
PCFM 12"	STRAIGHT	A-33	22,400

INFORMAÇÕES TÉCNICAS: ACOMPANHA 2 CORREIAS A33, CHAVE ELÉTRICA E 2 POLIAS Ø 70

INFORMACIONES TECNICAS: ACOMPAÑA 2 CORREAS, LLAVE ELÉCTRICA Y 2 POLEAS Ø 70

TECHNICAL NOTES: WITH 2 BELTS, ELETRIC KEY AND 2 PULLEY Ø 70

INDICATED ELETRIC MOTOR: HIGH SPEED, 2CV (SINGLE-PHASE) AND 3CV (THREE-PHASE), 3400RPM.

GRAMPO C

PRENSAS TIPO C, CUERPO DE HIERRO FUNDIDO, TORNILLO DE ACERO CINCADO

C-CLAMPS MALLEABLE IRON FRAME SAE 1020 STEEL SCREW, FINISH RED PAINTED FRAME

Nº	OPENING mm	REACH mm	WEIGHT kg
2	52	35	0,420
3	77	40	0,560
4	103	47	0,750
6	149	57	1,140
8	202	68	1,850
10	250	80	2,600



INFORMAÇÕES TÉCNICAS: FERRO FUNDIDO NODULAR FE 42012
IFORMACIONES TECNICAS: HIERRO FUNDIDO NODULAR FE 42012
TECHNICAL NOTES: NODULAR CAST IRON FE 42012

SARGENTO BARRA 'T'

SARGENTOS PARA CARPINTEIROS, BARRA DE ACERO CINCADO

BAR CLAMPS WITH ZINC PLATED BAR

Nº	OPENING mm	ROD LENGTH mm	WEIGHT kg
800	800	930	4,420
1000	1000	1130	4,920
1200	1200	1330	5,420
1500	1500	1630	6,120
1800	1800	1930	7,320
2000	2000	2130	7,920
2500	2500	2630	9,320
3000	3000	3130	10,620



INFORMAÇÕES TÉCNICAS: FERRO FUNDIDO NODULAR FE 42012
IFORMACIONES TECNICAS: HIERRO FUNDIDO NODULAR FE 42012
TECHNICAL NOTES: NODULAR CAST IRON FE 42012

GRAMPO MARCENEIRO

PRENSAS RAPIDAS PARA CARPINTEROS

QUICK ACTION ADJUSTABLE CLAMPS

Nº	OPENING mm	LENGTH mm	WEIGHT kg
100 X 140	100	220	1,44
200 X 140	200	320	1,64
250 X 140	250	370	1,74
300 X 140	300	420	1,84
350 X 140	350	470	1,94
400 X 140	400	520	2,04
450 X 140	450	570	2,09
500 X 150	500	620	3,18
600 X 150	600	720	3,38
700 X 150	700	820	3,78
800 X 150	800	920	3,88
1000 X 150	1000	1120	4,28



INFORMAÇÕES TÉCNICAS: FERRO FUNDIDO NODULAR FE 42012
IFORMACIONES TECNICAS: HIERRO FUNDIDO NODULAR FE 42012
TECHNICAL NOTES: NODULAR CAST IRON FE 42012

TORNO DE BANCADA INDUSTRIAL
PRENSA FIJA INDUSTRIAL
INDUSTRY BENCH VISE

N°	OPENING mm	MORDANT LENGTH mm	WEIGHT kg
2	52	52	1,500
3	77	77	2,200
4	102	102	3,100
5	127	127	6,600
6	153	153	8,700
8	204	204	11,300
10	275	254	26,500

INFORMAÇÕES TÉCNICAS: FERRO FUNDIDO NODULAR FE 50007
INFORMACIONES TECNICAS: HIERRO FUNDIDO NODULAR FE 50007
TECHNICAL NOTES: NODULAR CAST IRON FE 50007



TORNO DE BANCADA PROFISSIONAL
PRENSA FIJA PROFESIONAL
PROFESSIONAL BENCH VISE

N°	OPENING mm	MORDANT LENGTH mm	WEIGHT kg
3	65	77	1,490
4	90	102	2,235
5	110	127	3,300
6	130	153	7,000
8	160	204	9,200
10	220	254	12,800

INFORMAÇÕES TÉCNICAS: FERRO FUNDIDO NODULAR FE 50007
INFORMACIONES TECNICAS: HIERRO FUNDIDO NODULAR FE 50007
TECHNICAL NOTES: NODULAR CAST IRON FE 50007



MORSA PARA MÁQUINA
MORSA PARA MAQUINA
BENCH VISE

N°	OPENING mm	MORDANT LENGTH mm	WEIGHT kg
0	62	-	0,851
1	86	86	5,200

INFORMAÇÕES TÉCNICAS: FERRO FUNDIDO CINZENTO NOBRE FC 200
INFORMACIONES TECNICAS: HIERRO FUNDIDO GRIS NOBLE FC 200
TECHNICAL NOTES: NOBLE GRAY CAST IRON FC 200



TESOURA CORTA CHAPA

CIZALLAS PARA CORTE DE CHAPA

HAND LEVER SHEARING MACHINES FOR CUTTING SHEETS

Nº	LEVER LENGTH	BLADE	CUTTING CAPACITY	WEIGHT
	mm	mm	mm	kg
3	320	180	3	6,800
4	420	245	4	10,600
5	420	245	5	16,100



INFORMAÇÕES TÉCNICAS: FERRO FUNDIDO NODULAR FE 50007

INFORMACIONES TECNICAS: HIERRO FUNDIDO NODULAR FE 50007

TECHNICAL NOTES: NODULAR CAST IRON FE 50007

MÁQUINA CORTA VERGALHÃO

CIZALLA PARA CORTE DE HIERRO DE CONSTRUCCION

STEEL ROD CUTTING MACHINES FOR REINFORCED CONCRETE WORK

Nº	SIZE	SAE	CA	SAE	CA	LEVER	WEIGHT
	mm	1020	25	1045	50/60	LENGTH	kg
0	12,7	13	10	10	8	495	5,900
1	16	16	13	13	10	755	10,200
2	19	19	16	16	13	1195	17,300
3	22	22	19	19	16	1195	23,500
4	25,4	25,4	22	22	19	1195	32,600



INFORMAÇÕES TÉCNICAS: FERRO FUNDIDO NODULAR FE 50007

INFORMACIONES TECNICAS: HIERRO FUNDIDO NODULAR FE 50007

TECHNICAL NOTES: NODULAR CAST IRON FE 50007

SUPORTE PARA FURADEIRA

SOPORTE PARA FURADERA

DRILL SUPPORT

COURSE	REACH	HEIGHT	LENGTH	BASE	HEIGHT	WEIGHT
		mm	mm	WIDTH	mm	kg
30	85	495	180	145	27	4,000



INFORMAÇÕES TÉCNICAS: FERRO CINZENTO FC 200

INFORMACIONES TECNICAS: HIERRO GRIS FC 200

TECHNICAL NOTES: GRAY IRON FC 200

BIGORNAS

YUNQUES

ANVILS



Nº	LENGTH mm	WIDTH mm	HEIGHT mm	WEIGHT kg
5	230	80	92	4,800
10	296	100	104	8,400
25	470	112	160	22,800
30	512	121	175	29,500
40	593	132	210	38,600
50	620	140	210	40,800
60	635	156	213	52,400
80	663	150	218	59,700

INFORMAÇÕES TÉCNICAS: FERRO NODULAR FE 70002

INFORMACIONES TECNICAS: HIERRO NODULAR FE 70002

TECHNICAL NOTES: NODULAR IRON FE 70002

MARRETAS

MAZOS

SLEDGE HAMMERS



Nº	CABLE LENGTH mm	WEIGHT WITHOUT CABLE kg	WEIGHT WITH CABLE kg
1	355	0,900	1,000
2	410	1,800	2,000
3	410	2,800	2,900
4	1000	3,200	3,700
5	1000	4,200	4,700
6	1000	5,100	5,600
8	1000	6,500	7,300
10	1000	8,600	9,300

INFORMAÇÕES TÉCNICAS: FERRO FUNDIDO NODULAR FE 70002

INFORMACIONES TECNICAS: HIERRO FUNDIDO NODULAR FE 70002

TECHNICAL NOTES: NODULAR CAST IRON FE 70002

V- 109 MACACO HIDRÁULICO
GATO HIDRÁULICO
HYDRAULIC JACK



CAPACITY	TOTAL LENGTH	SPEAR LENGTH	MAXIMUM HEIGHT	MINIMUM HEIGHT	WIDTH	WEIGHT
tons	cm	cm	cm	cm	cm	kg
2	135	53	60	15	24	51

V- 564 GERADOR DE ACETILENO
GENERADOR DE ACETILENO
ACETYLENE GENERATOR



MODEL	CAPACITY	PRESSURE WORK	WEIGHT
	kg	kg/cm ²	kg
GAP3KG	3	1,5	28
GAP5KG	5	1,5	37

* ACCESSORY KIT SOLD SEPARATELY, PLEASE CONTACT US FOR MORE INFORMATION.

V- 565 DOBRADOR DE TUBO MANUAL
DOBLADORA DE TUBO MANUAL
MANUAL PIPE BENDING MACHINE



TECHNICAL NOTES
CURVED TUBES: 3/8" ; 1/2" ; 5/8" ; 3/4" ; 7/8" ; 1" ; 1.1/4"
FOLDING WALL: SUPPORTS PIPES WITH MAXIMUM WALL 1,2mm
TOTAL WEIGHT: 44kg

V- 148 PORTA ELETRODO
PORTA ELECTRODOS
ELECTRODE HOLDERS

ALUMINUM BODY

AMPERAGE	CABLE SESSION mm2	ELECTRODE mm	LENGTH mm	WEIGHT kg	PACKING
150	10 - 16	1,6 - 2,4	195	0,160	10



BRONZE BODY

AMPERAGE	CABLE SESSION mm2	ELECTRODE mm	LENGTH mm	WEIGHT kg	PACKING
275*	16 - 35	2,5 - 4	195	0,260	10
275	16 - 35	2,5 - 4	195	0,280	10
300	25 - 50	2,5 - 4	232	0,410	10
400	35 - 70	2,5 - 4	235	0,430	10
500	50 - 95	3,2 - 5	220	0,510	10
600	70 - 95	4 - 6,3	265	0,650	10
800	95 - 120	4 - 6,3	265	0,730	10
UP TO 500	35 - 70	ASK	236	0,410	10



* BLACK

V- 149 GRAMPO TERRA - GARRA NEGATIVA
GRAMPAS PARA POLOS
POLE CLAMPS

ALUMINUM BODY

AMPERAGE	CABLE SESSION mm2	OPENING mm	LENGTH mm	WEIGHT kg	PACKING
150	10	15	115	0,088	10
300	10 - 35	20	148	0,140	10



BRONZE BODY

AMPERAGE	CABLE SESSION mm2	OPENING mm	LENGTH mm	WEIGHT kg	PACKING
300/400	35 - 50	20	145	0,360	10
500/600	50 - 70	25	169	0,460	10



V- 150 MARTELO DE SOLDA COM MOLA
MARTILLOS PARA SOLDADORES
WELDER'S HAMMERS

LENGTH mm	WEIGHT kg	PACKING
260	0,315	10

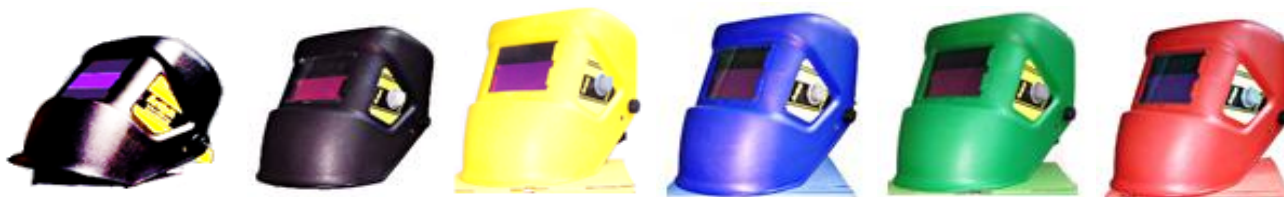


V- 151 MÁSCARA DE SOLDA
MASCARA DE SOLDADURA
SOLDER MASK



DESCRIPTION	LIGHT FILTER	DIAMETER CARNEIRA mm	HEIGHT mm	WIDTH mm	DEPTH mm	THICKNESS mm	PACKING	WEIGHT kg
MASK WH 7000 BLACK WITH YELLOW CHAMOIS (FIXED DISPLAY) POLYAMIDE	TON. 10	ADJUSTABLE 155 - 180	310	220	177	3,5	10	0,372
MASK WH 7002 BLACK WITH YELLOW CHAMOIS (POSITION DISPLAY) WITH RATCHET POLIAMIDA	TON. 12	ADJUSTABLE RATCHET WITH 160 TO 190	310	220	177	3,5	10	0,480
MASK WH 7003 BLACK WITH YELLOW CHAMOIS (POSITION DISPLAY) WITH RATCHET CELERON	TON. 12	ADJUSTABLE RATCHET WITH 160 TO 190	300	225	177	2,5	10	0.565

V- 152 MÁSCARA DE SOLDA COM AUTO-ESCRECIMENTO
MASCARA DE SOLDADURA CON AUTO-APAGÓN
SOLDER MASK WITH AUTO-BLACKOUT



DESCRIPTION	LIGHT FILTER	DIAMETER CARNEIRA mm	HEIGHT mm	WIDTH mm	DEPTH mm	THICKNESS mm	PACKING	WEIGHT kg
MASK WH 2400 AUTO DARKENING WITH RATCHET POLIAMIDA DIN 3 - 11 92x31mm	LENS 2400 AUTO DARKENING	ADJUSTABLE RATCHET WITH 160 TO 190	320	220	160	2	1	0,515
MASK WH 2401 AUTO DARKENING ADJUSTABLE WITH TURNSTILE POLIAMIDA DIN 4/9 - 13 98x45mm	LENS 2401 AUTO DARKENING	ADJUSTABLE RATCHET WITH 160 TO 190	320	220	160	2	1	0,540
MASK WH 2402 AUTO DARKENING ADJUSTABLE WITH RATCHET YELLOW DIN 4/7 - 14 100x50mm *FOLLOW A SHELL ADDITIONAL IN COLOR BLACK	LENS 2402 AUTO DARKENING	ADJUSTABLE RATCHET WITH 160 TO 190	330	220	155	2,1	1	0,505
MASK WH 2402 AUTO DARKENING ADJUSTABLE WITH RATCHET BLUE DIN 4/7 - 14 100x50mm *FOLLOW A SHELL ADDITIONAL IN COLOR BLACK	LENS 2402 AUTO DARKENING	ADJUSTABLE RATCHET WITH 160 TO 190	330	220	155	2,1	1	0,490
MASK WH 2402 AUTO DARKENING ADJUSTABLE WITH RATCHET GREEN DIN 4/7 - 14 100x50mm *FOLLOW A SHELL ADDITIONAL IN COLOR BLACK	LENS 2402 AUTO DARKENING	ADJUSTABLE RATCHET WITH 160 TO 190	330	220	155	2,1	1	0,500
MASK WH 2402 AUTO DARKENING ADJUSTABLE WITH RATCHET RED DIN 4/7 - 14 100x50mm *FOLLOW A SHELL ADDITIONAL IN COLOR BLACK	LENS 2402 AUTO DARKENING	ADJUSTABLE RATCHET WITH 160 TO 190	330	220	155	2,1	1	0,495

V- 153 ELETRODO DE SOLDA, MARCA 'ESSEN'
ELECTRODO DE SOLDADURA, MARCA 'ESSEN'
WELDING ELECTRODE, 'ESSEN' BRAND



ELECTRODES FOR ALL TYPES OF SURFACES

ELECTRODE FOR INOX

ELECTRODE FOR COPPER

ELECTRODE FOR ALUMINUM

ELECTRODE FOR BRASS

TUNGSTEN ELECTRODE

SPECIAL ELECTRODES*

*WE MANUFACTURE THE WHOLE RANGE OF SPECIAL
ELECTRODES IN DIAMETERS OF 2,00mm - 6,00mm

STANDARD	PRODUCTS	REFERENCE
AWS E 6010		HM 31
AWS E 6013		HM 28
AWS E 7018		HM 35

DIAMETERS

mm

2,5

3,25

4

V- 421 PONTAS MONTADAS
DIÂMETRO DA HASTE 6 OU 6,35 X 38mm DE COMPRIMENTO

PUNTAS MONTADAS CON ESIPIGA
DIÁMETRO DEL TALLO 6 O 6,35 X 38mm DE LARGO

VITRIFIED MOUNTED POINTS
SHANK DIAMETER 6 OR 6,35 X 38mm LONG

GROUP A



GROUP B



GROUP C



MODEL	D	H	STANDARD SHAFT	MODEL	D	H	STANDARD SHAFT	MODEL	D	H	STANDARD SHAFT	MODEL	D	H	STANDARD SHAFT
C-144	3	6	3,17	C-183	13	6	3,17	C-205	20	25	6,35	C-230	32	32	6,35
C-145	3	10	3,17	C-184	13	10	3,17	C-206	20	32	6,35	C-231	32	38	6,35
C-146	3	13	3,17	C-185	13	13	3,17	C-207	20	38	6,35	C-232	32	50	6,35
C-160	6	6	3,17	C-186	13	20	3,17	C-208	20	50	6,35	C-233	32	65	9,52
C-161	6	8	3,17	C-187	13	25	3,17	C-209	20	65	6,35	C-234	32	75	9,52
C-162	6	10	3,17	C-188	13	38	6,35	C-215	25	3	3,17	C-235	38	6	6,35
C-163	6	13	3,17	C-189	13	50	6,35	C-216	25	6	3,17	C-236	38	13	6,35
C-164	6	20	3,17	C-191	16	3	3,17	C-217	25	10	6,35	C-237	38	25	6,35
C-167	8	6	3,17	C-192	16	6	3,17	C-218	25	13	6,35	C-238	38	38	6,35
C-168	8	8	3,17	C-193	16	10	3,17	C-219	25	20	6,35	C-239	38	50	9,52
C-169	8	10	3,17	C-194	16	13	3,17	C-220	25	25	6,35	C-240	38	65	9,52
C-170	8	13	3,17	C-195	16	20	3,17	C-221	25	38	6,35	C-241	38	75	9,52
C-171	8	20	3,17	C-196	16	25	6,35	C-222	25	50	6,35	C-242	50	25	6,35
C-174	10	6	3,17	C-197	16	50	6,35	C-223	25	65	6,35	C-243	50	38	9,52
C-175	10	10	3,17	C-198	16	65	6,35	C-224	25	75	9,52	C-244	50	50	9,52
C-176	10	13	3,17	C-200	20	3	3,17	C-225	32	6	6,35	C-245	50	65	9,52
C-177	10	20	3,17	C-201	20	6	3,17	C-226	32	10	6,35	C-246	50	75	9,52
C-178	10	25	3,17	C-202	20	10	3,17	C-227	32	13	6,35				
C-179	10	32	3,17	C-203	20	13	3,17	C-228	32	20	6,35				
C-182	13	3	3,17	C-204	20	20	3,17	C-229	32	25	6,35				

MOUNTED POINTS C-157, C-165, C-172, C-181, C-190, C-210 (ONLY ON REQUEST).

BOMBAS DE ÁGUA SV
 VOLTAGEM 127/220V - 50/60HZ

BOMBAS DE AGUA SV
 TENSIÓN 127/220V - 50/60HZ

SV WATER PUMPS
 VOLTAGE 127/220V - 50/60HZ



SV- 600

ELEVATION	FLOW	POWER	AVERAGE FLOW
METER	LITER/HOUR	WATTS	LITER/HOUR
3	1350	240	1350 to 400
10	1150	240	1350 to 400
30	700	240	1350 to 400
50	400	240	1350 to 400

MAXIMUM TOTAL ELEVATION 55 meter
 DIAMETER 145mm
 HEIGHT 260mm
 OUTLET 3/4"
 SUITABLE PUMP FOR WELL 6"



SV- 650

ELEVATION	FLOW	POWER	AVERAGE FLOW
METER	LITER/HOUR	WATTS	LITER/HOUR
3	1500	320	1500 to 400
10	1250	320	1500 to 400
30	800	320	1500 to 400
60	400	320	1500 to 400

MAXIMUM TOTAL ELEVATION 65 meter
 DIAMETER 180mm
 HEIGHT 290mm
 OUTLET 3/4"
 SUITABLE PUMP FOR WELL 8"



SV- 830

ELEVATION	FLOW	POWER	AVERAGE FLOW
METER	LITER/HOUR	WATTS	LITER/HOUR
3	1850	370	1850 to 550
10	1650	370	1850 to 550
30	1050	370	1850 to 550
65	550	370	1850 to 550

MAXIMUM TOTAL ELEVATION 65 meter
 DIAMETER 180mm
 HEIGHT 290mm
 OUTLET 3/4"
 SUITABLE PUMP FOR WELL 8"



SV- 930

ELEVATION	FLOW	POWER	AVERAGE FLOW
METER	LITER/HOUR	WATTS	LITER/HOUR
3	2150	420	2150 to 650
10	1850	420	2150 to 650
30	1250	420	2150 to 650
65	650	420	2150 to 650

MAXIMUM TOTAL ELEVATION 65 meter
 DIAMETER 180mm
 HEIGHT 290mm
 OUTLET 1"
 SUITABLE PUMP FOR WELL 8"



V- 782

GRAMPOS PARA TOGGLING

INJETADAS EM ALUMÍNIO COM MOLA E REBITE EM AÇO INOX

PINZAS PARA TOGGLING

INYECTADAS EN ALUMINIO COM RESORTE Y REMACHE EN ACERO INOXIDABLE

TOGGLING TWEZEERS

ALUMINIUM INJECTED WITH SPRING & PIN IN STAINLESS STEEL



26mm



MODEL - GPM

26mm



MODEL - GPMF

28,5mm



MODEL - GPMFG

21mm



MODEL - GPMFM



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