



Helicoidal twist drill

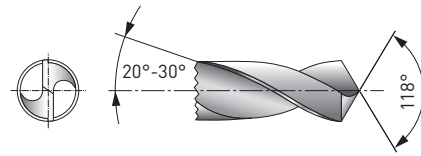
rollforged, cylindrical, short, right hand cutting, efficient, high concentricity, good chip removal

Broca helicoidal

laminada, cilíndrica, corta, corte a la derecha, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Broca helicoidal

laminado, cilíndrico, curto, corte à direita, bom desempenho, alta concentricidade, boa remoção de aparas



10
PCS

10 Pcs./pz./pz.

Art. 10010 - Art. 10080



5
PCS

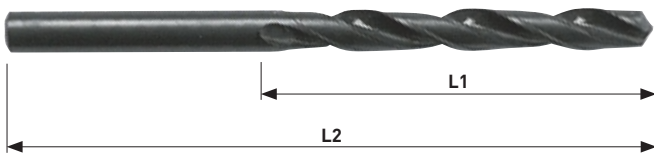
5 Pcs./pz./pz.

Art. 10085 - Art. 10130



HSS

DIN 338 N / ISO 235



Art.	Ø mm	L1 mm	L2 mm
10010	1.0	12	34
10015	1.5	18	40
10020	2.0	24	49
10025	2.5	30	57
10030	3.0	33	61
10032	3.2	36	65
10033	3.3	36	65
10035	3.5	39	70
10040	4.0	43	75
10042	4.2	43	75
10045	4.5	47	80

Art.	Ø mm	L1 mm	L2 mm
10048	4.8	53	86
10050	5.0	52	86
10055	5.5	57	93
10060	6.0	57	93
10065	6.5	63	101
10068	6.8	69	109
10070	7.0	69	109
10075	7.5	69	109
10080	8.0	75	117
10085	8.5	75	117
10090	9.0	81	125

Art.	Ø mm	L1 mm	L2 mm
10095	9.5	81	125
10100	10.0	87	133
10102	10.2	87	133
10105	10.5	87	133
10110	11.0	94	142
10115	11.5	94	142
10120	12.0	101	151
10125	12.5	101	151
10130	13.0	101	151

Twist drill set

rollforged, cylindrical, short, right hand cutting, efficient, high concentricity, good chip removal

Juego de brocas helicoidales

laminadas, cilíndricas, cortas, corte a la derecha, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Jogo de brocas helicoidal

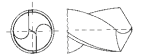
laminadas, cilíndricas, curtas, corte à direita, bom desempenho, alta concentricidade, boa remoção de aparas

Art.	Ø mm
10903	2.0-2.5-3.0-3.5-4.0-4.5-5.0 5.5-6.0-6.5-7.0-7.5-8.0

13
PCS

HSS

DIN 338 N / ISO 235



Twist drill set

rollforged, cylindrical, short, right hand cutting, efficient, high concentricity, good chip removal

Juego de brocas helicoidales

laminadas, cilíndricas, cortas, corte a la derecha, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Jogo de brocas helicoidais

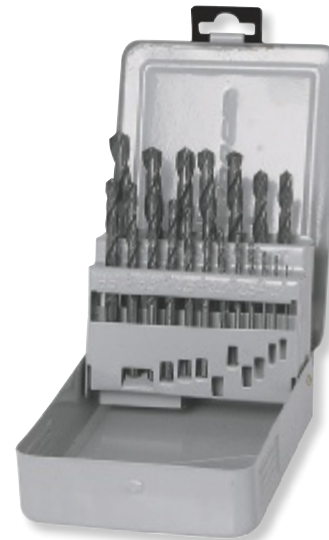
laminadas, cilíndricas, curtas, corte à direita, bom desempenho, alta concentricidade, boa remoção de aparas

Art.	Ø mm
10900	1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5-5.0-5.5 6.0-6.5-7.0-7.5-8.0-8.5-9.0-9.5-10.0

19
PCS

HSS

DIN 338 N / ISO 235



Twist drill set

rollforged, cylindrical, short, right hand cutting, efficient, high concentricity, good chip removal

Juego de brocas helicoidales

laminadas, cilíndricas, cortas, corte a la derecha, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Jogo de brocas helicoidais

laminadas, cilíndricas, curtas, corte à direita, bom desempenho, alta concentricidade, boa remoção de aparas

Art.	Ø mm
10906	1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5-5.0-5.5-6.0-6.5-7.0 7.5-8.0-8.5-9.0-9.5-10.0-10.5-11.0-11.5-12.0-12.5-13.0

25
PCS

HSS

DIN 338 N / ISO 235



Twist drill case

rollforged, cylindrical, short, right hand cutting, efficient, high concentricity, good chip removal

Estuche de brocas helicoidales

laminadas, cilíndricas, cortas, corte a la derecha, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Mala de brocas helicoidais

laminadas, cilíndricas, curtas, corte à direita, bom desempenho, alta concentricidade, boa remoção de aparas

170
PCS

HSS

DIN 338 N / ISO 235



Art.	Pcs.	Ø mm
	10	1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5
10910	10	5.0-5.5-6.0-6.5-7.0-7.5-8.0
	5	8.5-9.0-9.5-10.0

Twist drill magazin, empty

Estuche vacío para brocas

Mala vazia para brocas



Art.
10910K

Helicoidal twist drill

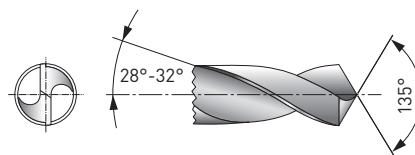
ground, cylindrical, short, right hand cutting, split point from $\varnothing 3$ mm, efficient, high concentricity, good chip removal

Broca helicoidal

rectificada, cilíndrica, corta, corte a la derecha, centrado automático a partir de $\varnothing 3$ mm, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Broca helicoidal

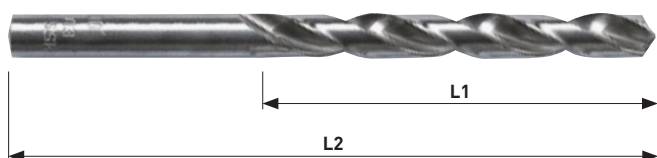
rectificada, cilíndrica, curta, corte à direita, centragem automática a partir de $\varnothing 3$ mm, bom desempenho, alta concentricidade, boa remoção de aparas



ground / rectificada / rectificada

HSS-G

DIN 338 N / ISO 235



10
PCS

10 pcs./pz./pz.

Art. 11010 - Art. 11080



5
PCS

5 pcs./pz./pz.

Art. 11081 - Art. 11130



Art.	\varnothing mm	L1 mm	L2 mm
11010	1.0	12	34
11011	1.1	14	36
11012	1.2	16	38
11013	1.3	16	38
11014	1.4	18	40
11015	1.5	18	40
11016	1.6	20	43
11017	1.7	20	43
11018	1.8	22	46
11019	1.9	22	46
11020	2.0	24	49
11021	2.1	24	49
11022	2.2	27	53
11023	2.3	27	53
11024	2.4	30	57
11025	2.5	30	57
11026	2.6	30	57
11027	2.7	33	61
11028	2.8	33	61
11029	2.9	33	61
11030	3.0	33	61
11031	3.1	36	65
11032	3.2	33	65
11033	3.3	33	65
11034	3.4	39	70
11035	3.5	39	70
11036	3.6	39	70
11037	3.7	39	70
11038	3.8	43	75
11039	3.9	43	75
11040	4.0	43	75
11041	4.1	43	75
11042	4.2	43	75

Art.	\varnothing mm	L1 mm	L2 mm
11043	4.3	47	80
11044	4.4	47	80
11045	4.5	47	80
11046	4.6	47	80
11047	4.7	47	80
11048	4.8	52	86
11049	4.9	52	86
11050	5.0	52	86
11051	5.1	52	86
11052	5.2	52	86
11053	5.3	52	86
11054	5.4	57	93
11055	5.5	57	93
11056	5.6	57	93
11057	5.7	57	93
11058	5.8	57	93
11059	5.9	57	93
11060	6.0	57	93
11061	6.1	63	101
11062	6.2	63	101
11063	6.3	63	101
11064	6.4	63	101
11065	6.5	63	101
11066	6.6	63	101
11067	6.7	63	101
11068	6.8	69	109
11069	6.9	69	109
11070	7.0	69	109
11071	7.1	69	109
11072	7.2	69	109
11073	7.3	69	109
11074	7.4	69	109
11075	7.5	69	109

Art.	\varnothing mm	L1 mm	L2 mm
11076	7.6	75	117
11077	7.7	75	117
11078	7.8	75	117
11079	7.9	75	117
11080	8.0	75	117
11081	8.1	75	117
11082	8.2	75	117
11083	8.3	75	117
11084	8.4	75	117
11085	8.5	75	117
11086	8.6	81	125
11087	8.7	81	125
11088	8.8	81	125
11089	8.9	81	125
11090	9.0	81	125
11091	9.1	81	125
11092	9.2	81	125
11093	9.3	81	125
11094	9.4	81	125
11095	9.5	81	125
11096	9.6	81	125
11097	9.7	87	133
11098	9.8	87	133
11099	9.9	87	133
11100	10.0	87	133
11102	10.2	87	133
11105	10.5	87	133
11110	11.0	94	142
11115	11.5	94	142
11120	12.0	101	151
11125	12.5	101	151
11130	13.0	101	151

Helicoidal twist drill set

ground, cylindrical, short, right hand cutting, split point from Ø 3 mm, efficient, high concentricity, good chip removal

Juego de brocas helicoidales

rectificadas, cilíndricas, cortas, corte a la derecha, centrado automático a partir de Ø 3 mm, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Jogo de brocas helicoidais

rectificadas, cilíndricas, curtas, corte à direita, centragem automática a partir de Ø 3 mm, bom desempenho, alta concentricidade, boa remoção de aparas

Art.	Ø mm
11904	1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5-5.0-5.5 6.0-6.5-7.0-7.5-8.0-8.5-9.0-9.5-10.0

Helicoidal twist drill set

ground, cylindrical, short, right hand cutting, split point from Ø 3 mm, efficient, high concentricity, good chip removal

Juego de brocas helicoidales

rectificadas, cilíndricas, cortas, corte a la derecha, centrado automático a partir de Ø 3 mm, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Jogo de brocas helicoidais

rectificadas, cilíndricas, curtas, corte à direita, centragem automática a partir de Ø 3 mm, bom desempenho, alta concentricidade, boa remoção de aparas

Art.	Ø mm
11905	1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5-5.0-5.5-6.0-6.5-7.0 7.5-8.0-8.5-9.0-9.5-10.0-10.5-11.0-11.5-12.0-12.5-13.0

Helicoidal twist drill case

ground, cylindrical, short, right hand cutting, split point from Ø 3 mm, efficient, high concentricity, good chip removal

Estuche de brocas helicoidales

rectificadas, cilíndricas, cortas, corte a la derecha, centrado automático a partir de Ø 3 mm, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Mala de brocas helicoidais

rectificadas, cilíndricas, curtas, corte à direita, centragem automática a partir de Ø 3 mm, bom desempenho, alta concentricidade, boa remoção de aparas

Art.	Pcs.	Ø mm
11910	10	1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5
	10	5.0-5.5-6.0-6.5-7.0-7.5-8.0
	5	8.5-9.0-9.5-10.0

19
PCS

HSS-G

DIN 338 N / ISO 235



ground / rectificadas / rectificadas

25
PCS

HSS-G

DIN 338 N / ISO 235



ground / rectificadas / rectificadas

170
PCS

HSS-G

DIN 338 N / ISO 235



ground / rectificadas / rectificadas

Helicoidal twist drill

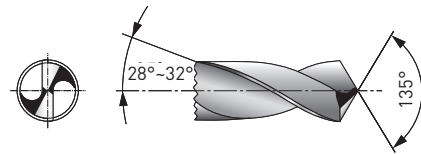
cobalt-alloyed, ground, cylindrical, short, right hand cutting, split point from \varnothing 3 mm, efficient, high concentricity, good chip removal

Broca helicoidal

aleación de cobalto, rectificada, cilíndrica, corta, corte a la derecha, centrado automático a partir de \varnothing 3 mm, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Broca helicoidal

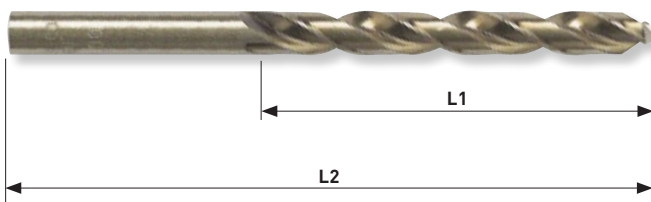
liga de cobalto, rectificada, cilíndrica, curta, corte à direita, centragem automática a partir de \varnothing 3 mm, bom desempenho, alta concentricidade, boa remoção de aparas



ground / rectificadas / rectificadas

HSS-E Co 5

DIN 338 N / ISO 235



10
PCS

10 Pcs./pz./pz.

Art. 13010 - Art. 13080



5
PCS

5 Pcs./pz./pz.

Art. 13085 - Art. 13130



Art.	\varnothing mm	L1 mm	L2 mm
13010	1.0	12	34
13015	1.5	18	40
13020	2.0	24	49
13025	2.5	30	57
13030	3.0	33	61
13032	3.2	36	65
13033	3.3	36	65
13035	3.5	39	70
13040	4.0	43	75
13042	4.2	43	75
13045	4.5	47	80

Art.	\varnothing mm	L1 mm	L2 mm
13048	4.8	53	86
13050	5.0	52	86
13055	5.5	57	93
13060	6.0	57	93
13065	6.5	63	101
13068	6.8	69	109
13070	7.0	69	109
13075	7.5	69	109
13080	8.0	75	117
13085	8.5	75	117
13090	9.0	81	125

Art.	\varnothing mm	L1 mm	L2 mm
13095	9.5	81	125
13100	10.0	87	133
13102	10.2	87	133
13105	10.5	87	133
13110	11.0	94	142
13115	11.5	94	142
13120	12.0	101	151
13125	12.5	101	151
13130	13.0	101	151

Helicoidal twist drill set

cobalt-alloyed, ground, cylindrical, short, right hand cutting, split point from Ø 3 mm, efficient, high concentricity, good chip removal

Juego de brocas helicoidales

aleación de cobalto, rectificadas, cilíndricas, cortas, corte a la derecha, centrado automático a partir de Ø 3 mm, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Jogo de brocas helicoidais

ligadas de cobalto, rectificadas, cilíndricas, curtas, corte à direita, centragem automática a partir de Ø 3 mm, bom desempenho, alta concentricidade, boa remoção de aparas

Art.	Ø mm
13904	1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5-5.0-5.5 6.0-6.5-7.0-7.5-8.0-8.5-9.0-9.5-10.0

Helicoidal twist drill set

cobalt-alloyed, ground, cylindrical, short, right hand cutting, split point from Ø 3 mm, efficient, high concentricity, good chip removal

Juego de brocas helicoidales

aleación de cobalto, rectificadas, cilíndricas, cortas, corte a la derecha, centrado automático a partir de Ø 3 mm, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Jogo de brocas helicoidais

ligadas de cobalto, rectificadas, cilíndricas, curtas, corte à direita, centragem automática a partir de Ø 3 mm, bom desempenho, alta concentricidade, boa remoção de aparas

Art.	Ø mm
13905	1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5-5.0-5.5-6.0-6.5-7.0 7.5-8.0-8.5-9.0-9.5-10.0-10.5-11.0-11.5-12.0-12.5-13.0

Helicoidal twist drill case

cobalt-alloyed, ground, cylindrical, short, right hand cutting, split point from Ø 3 mm, efficient, high concentricity, good chip removal

Estuche de brocas helicoidales

aleación de cobalto, rectificadas, cilíndricas, cortas, corte a la derecha, centrado automático a partir de Ø 3 mm, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

Mala de brocas helicoidais

ligadas de cobalto, rectificadas, cilíndricas, curtas, corte à direita, centragem automática a partir de Ø 3 mm, bom desempenho, alta concentricidade, boa remoção de aparas

Art.	Pcs.	Ø mm
13910	10	1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5
	10	5.0-5.5-6.0-6.5-7.0-7.5-8.0
	5	8.5-9.0-9.5-10.0

19
PCS

HSS-E Co 5

DIN 338 N / ISO 235



ground / rectificadas / rectificadas

25
PCS

HSS-E Co 5

DIN 338 N / ISO 235



ground / rectificadas / rectificadas

170
PCS

HSS-E Co 5

DIN 338 N / ISO 235



ground / rectificadas / rectificadas

Helicoidal twist drill for core holes

ground, cylindrical, short, right hand cutting, split point from $\varnothing 3$ mm, efficient, high concentricity, good chip removal

Broca helicoidal trepanadora

rectificada, cilíndrica, corta, corte a la derecha, centrado automático a partir de $\varnothing 3$ mm, de buen rendimiento, de alta concentricidad, buena evacuación de las virutas

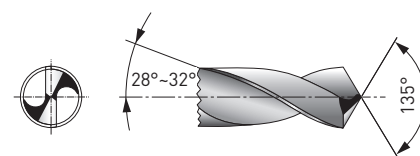
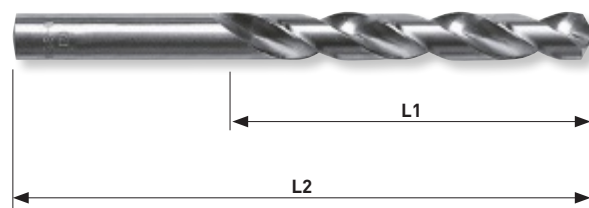
Broca helicoidal

rectificada, cilíndrica, curta, corte à direita, centragem automática a partir de $\varnothing 3$ mm, bom desempenho, alta concentricidade, boa remoção de aparas

Art.	\varnothing mm	L1 mm	L2 mm	PCS.
15016	1.6 (M2)	20	43	3
15020.5	2.05 (M2.5)	24	49	3
15025	2.5 (M3)	30	57	3
15033	3.3 (M4)	36	65	3
15042	4.2 (M5)	43	75	2
15050	5.0 (M6)	52	86	2
15068	6.8 (M8)	69	109	1
15085	8.5 (M10)	75	117	1
15102	10.2 (M12)	87	133	1

HSS-G

DIN 338 N / ISO 235



ground / rectificadas / rectificadas

Hand tap set

directly ground from the rod, set of 3 pieces with taper tap, second tap and plug tap, high cutting performance

Juego de machos manuales

rectificados de una pieza, juego de 3 piezas con desbaste, intermedio y acabado, alto rendimiento de corte

Jogo de machos

rectificados, jogo de 3 peças com desbaste, intermédio e acabamento, alto desempenho de corte

Art.	\varnothing mm	mm	L mm	PCS.
21030	M3 (2.5)	0.5	44	3
21040	M4 (3.3)	0.7	47	3
21050	M5 (4.2)	0.8	53	3
21060	M6 (5.0)	1	55	3
21080	M8 (6.8)	1.25	56	3
21100	M10 (8.5)	1.5	69	3
21120	M12 (10.2)	1.75	75	3

HSS-G

DIN 352 / ISO 2857



A Taper tap
Desbaste
Iniciar

B Second tap
Intermedio
Intermédio

C Plug tap
Acabado
Acabamento

Short machine and hand tap



directly ground from the rod, high cutting performance

Macho manual y a máquina

corto, rectificado de una pieza, alto rendimiento de corte

Macho manual e máquina

curto, rectificado, alto desempenho de corte

Art.	 Ø mm	 mm	L mm	PCS.
22020	M2 (1.6)	0.4	38	1
22025	M2.5 (2.05)	0.45	43	1
22030	M3 (2.5)	0.5	44	1
22040	M4 (3.3)	0.7	47	1
22050	M5 (4.2)	0.8	53	1
22060	M6 (5.0)	1	55	1
22080	M8 (6.8)	1.25	56	1
22100	M10 (8.5)	1.5	69	1
22120	M12 (10.2)	1.75	75	1

Short machine and hand tap



directly ground from the rod, high cutting performance

Macho manual y a máquina

corto, rectificado de una pieza, alto rendimiento de corte

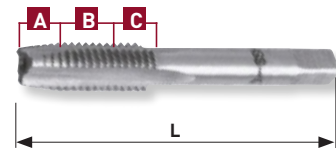
Macho manual e máquina

curto, rectificado, alto desempenho de corte

Art.	 Ø mm	 mm	L1 mm	L2 mm	PCS.
4900-51T05	M5 (5.2)	0.8	21	61	1
4900-51T06	M6 (6.3)	1	24	69	1
4900-51T08	M8 (8.4)	1.25	28	78	1
4900-51T10	M10 (10.5)	1.5	33	89	1
4900-51T12	M12 (12.5)	1.75	32	88	1
4900-51T14	M14 (14.5)	2	40	100	1

HSS-G

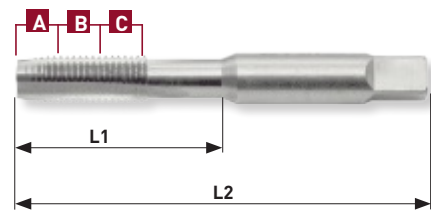
DIN 352 / ISO 2857



- A** Taper tap
Desbaste
Iniciar
- B** Second tap
Intermedio
Intermédio
- C** Plug tap
Acabado
Acabamento

HSS

DIN 371



- A** Taper tap
Desbaste
Iniciar
- B** Second tap
Intermedio
Intermédio
- C** Plug tap
Acabado
Acabamento

Long machine tap



directly ground from the rod, high cutting performance

Macho a máquina

largo, rectificado de una pieza, alto rendimiento de corte

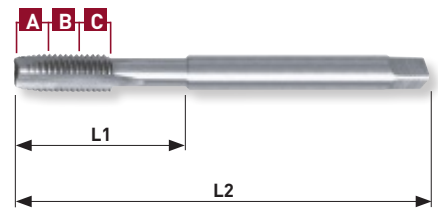
Macho de máquina

longo, rectificado, alto desempenho de corte

Art.	 \emptyset mm	 mm	L1 mm	L2 mm	PCS.
25030	M3 (2.5)	0.5	21	61	1
25040	M4 (3.3)	0.7	24	69	1
25050	M5 (4.2)	0.8	28	78	1
25060	M6 (5.0)	1	33	89	1
25080	M8 (6.8)	1.25	32	88	1
25100	M10 (8.5)	1.5	40	100	1
25120	M12 (10.2)	1.75	80	110	1

HSS-G

DIN 371



- A** Taper tap
Desbaste
Iniciar
- B** Second tap
Intermedio
Intermédio
- C** Plug tap
Acabado
Acabamento

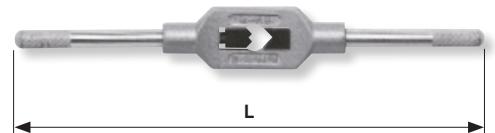
Adjustable tap wrench

Giramacho ajustable

Porta-machos ajustável

DIN 1814

Art.	No.	\emptyset	L mm
24015	1-1/2	M2 - M12	175



Adjustable tap wrench

Giramacho ajustable

Porta-machos ajustável

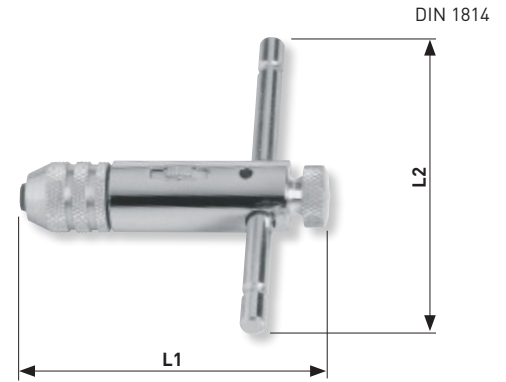
DIN 1814

Art.	No.	\emptyset	L mm
4900-51A412	2	M4 - M12	280
4900-51A620	3	M6 - M20	375



Tap holder with ratchet
Giramacho con carraca
Porta-machos com roquete

Art.	No.	Ø	L1 mm	L2 mm
24110	1	M3 - M10	100	86



Die
round, high cutting performance

Terraja
redonda, alto rendimiento de corte

Caçoneto
redondo, alto desempenho de corte

Art.	Ø	mm	D mm
26030	M3	0.5	25
26040	M4	0.7	25
26050	M5	0.8	25
26060	M6	1	25
26080	M8	1.25	25
26100	M10	1.5	25
26120	M12	1.75	25

HSS-G

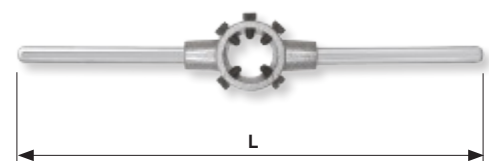
DIN / ISO 261



Die stock
Portaterras
Porta-caçonetos

Art.	No.	Ø	L mm
24010	3	M3 - M12	215

DIN 225



Die with holder

high cutting performance

Terraja con portaterraja

alto rendimiento de corte

Caçoneto com suporte

alto desempenho de corte

Art.	Ø	mm	D mm
23020	M2	0.4	179
23025	M2.5	0.45	179
23030	M3	0.5	179
23040	M4	0.7	179
23050	M5	0.8	179
23060	M6	1	221
23080	M8	1.25	221
23100	M10	1.5	221
23120	M12	1.75	221

HSS-G

ERGOKRAFT



Pitch gear

Galga para rosca

Conta fios

Art.	mm
24200	0.25-0.30-0.35-0.40-0.45-0.50-0.60-0.70 0.75-0.80-0.90-1.00-1.25-1.50-1.75-2.00 2.50-3.00-3.50-4.00-4.50-5.00-5.50-6.00

24
PCS



Pitch gear

Galga para rosca

Conta fios

Art.	mm
4900-51A1240	0.25-0.30-0.35-0.40-0.45-0.50-0.60-0.70 0.75-0.80-0.90-1.00-1.25-1.50-1.75-2.00

16
PCS



Drill, machine and hand tap + die set
ground

Juego de brocas, machos manuales, a máquina y terrajas
rectificadas

Jogo de brocas, machos manual, máquina e caçonetos
rectificados



24
PCS





HSS-G



↕ 270 x 150 x 55 mm

Art.	Ø
3240MOD	M3 - M12

	Art. 26030	M3		Art. 11025	2.5 mm
	Art. 26040	M4		Art. 11033	3.3 mm
	Art. 26050	M5		Art. 11042	4.2 mm
	Art. 26060	M6		Art. 11050	5.0 mm
	Art. 26080	M8		Art. 11068	6.8 mm
	Art. 26100	M10		Art. 11085	8.5 mm
	Art. 26120	M12		Art. 11102	10.2 mm

	Art. 24010	No. 3 M3-M12		Art. 22030	M3
	Art. 24015	No. 1-1/2 M2-M12		Art. 22040	M4
				Art. 22050	M5
				Art. 22060	M6
				Art. 22080	M8
				Art. 22100	M10
				Art. 22120	M12

Drill, and tap + die case
ground

Estuche de brocas, machos manuales y terrajas
rectificadas

Estojo de brocas, machos e caçonetos
rectificados



56
PCS

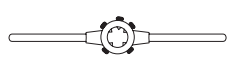



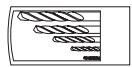

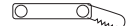
HSS-G



↕ 410 x 275 x 70 mm

Art.	Ø
3245MOD	M3 - M12

	Art. 26030	M3		Art. 11033	3.3 mm
	Art. 26040	M4		Art. 11042	4.2 mm
	Art. 26050	M5		Art. 11068	6.8 mm
	Art. 26060	M6		Art. 11102	10.2 mm
	Art. 26080	M8			
	Art. 26100	M10			
	Art. 26120	M12			

	Art. 24010	No. 3 M3-M12		Art. 21030	M3
	Art. 24015	No. 1-1/2 M2-M12		Art. 21040	M4
	Art. 24110	No. 1 M3-M10		Art. 21050	M5
				Art. 21060	M6
				Art. 21080	M8
				Art. 21100	M10
				Art. 21120	M12
				Art. 11904	1-10 / 0.5 mm
				Art. 24200	0.25-6.0 mm

Drill, and tap + die case


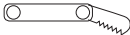


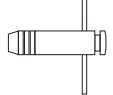


ground

Estuche de brocas, machos manuales y terrajas

rectificadas

Estojo de brocas, machos e caçonetos

rectificados

Art.	Ø
4900-59K	M3 - M12
	Art. 26030 M3
Ø 25 mm	Art. 26040 M4
	Art. 26050 M5
	Art. 26060 M6
	Art. 26080 M8
	Art. 26100 M10
	Art. 26120 M12
	Art. 24200 0.25-6.0 mm / 60°
	Art. 24010 M3-M12
	Art. 24015 M2-M12
	Art. 24110 M3-M10
	Art. 3240S  0.5 mm

42
PCS

HSS-G

COMPLETO



402 x 173 x 48 mm

Art. 11033	3.3 mm
Art. 11042	4.2 mm
Art. 11068	6.8 mm
Art. 11102	10.2 mm
Art. 25030	M3
Art. 25040	M4
Art. 25050	M5
Art. 25060	M6
Art. 25080	M8
Art. 25100	M10
Art. 25120	M12

Art. 11904 1-10 / 0.5 mm

Drill, machine and hand tap + die set


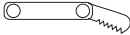

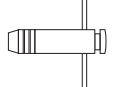
ground, with dies with holder

Juego de brocas, machos manuales y a máquina y terrajas

rectificadas, con terrajas con portaterraja

Jogo de brocas, machos manual, máquina e caçonetos,

rectificados, com caçonetos com suporte

Art.	Ø
4900-34K	M3 - M12
	Art. 23030 M3
	Art. 23040 M4
	Art. 23050 M5
	Art. 23060 M6
	Art. 23080 M8
	Art. 23100 M10
	Art. 23120 M12
	Art. 24200 0.25-6.0 mm
	Art. 24015 No. 1-1/2 M2-M12
	Art. 24110 No. 1 M3-M10

40
PCS

HSS-G

COMPLETO



421 x 200 x 68 mm

Art. 11033	3.3 mm
Art. 11042	4.2 mm
Art. 11068	6.8 mm
Art. 11102	10.2 mm
Art. 25030	M3
Art. 25040	M4
Art. 25050	M5
Art. 25060	M6
Art. 25080	M8
Art. 25100	M10
Art. 25120	M12

Art. 11904 1-10 / 0.5 mm

Thread inserts

Helicoides

Roscas falsas

Art.	Ø	Pcs.
28050	M5 x 0.8	12
28060	M6 x 1.0	12
28080	M8 x 1.25	12
28100	M10 x 1.25	12
28120	M12 x 1.75	6
28140	M14 x 1.25	6



Tang puncher

Centrador

Punção

Art.	Ø
4900-51P05	M5
4900-51P06	M6
4900-51P08	M8
4900-51P10	M10
4900-51P12	M12
4900-51P14	M14



Coil installation shank

Insertos helicoil

Ferramenta de instalação

Art.	Ø
4900-51S05	M5
4900-51S06	M6
4900-51S08	M8
4900-51S10	M10
4900-51S12	M12
4900-51S14	M14



Telescope magnetic pick up
Dedo magnético telescópico
Pesca peças telescópico magnético

Art.
4900-51M



Rachtet driver for thread inserts
Maneral de instalación de helicoides
Roquete de instalação de roscas falsas

Art.
4900-51R



Threaded coil-insert repair kit
with coils
Caja de herramientas para reparar roscas
con helicoides
Kit de ferramentas para reparação de roscas
com roscas

Art.
4900-51K

77
PCS

COMPLETO



M4-M12, M6-M20
3/18"-1/2", 1/4"-3/4"



M5x0.8, M6x1.0,
M8x1.25, M10x1.5,
M12x1.75, M14x1.25



M5x0.8, M6x1.0,
M8x1.25, M10x1.5,
M12x1.75, M14x1.25



HSS-G

M5x0.8, M6x1.0,
M8x1.25, M10x1.5,
M12x1.75, M14x1.25



215-640 mm



0.5-1.75 mm



1/4"



16 M5-0.8
12 M6-1.0
10 M8-1.25
6 M10-1.5
5 M12-1.75
4 M14-1.25

Step drill with spiral flute

with ground spiral groove and edge breaker, very high cutting performance

Broca escalonada

con ranura rectificada helicoidal y espigador, muy alto rendimiento de corte

Fresa cónica escalonada

rectificada, com ranhura em espiral e espigão, alto rendimento de corte

Art.	min-max Ø mm	t1 mm	t2 mm	D1 mm	L1 mm	L2 mm
18010	4-5-6-7-8-9-10-11-12	7	4.5	6	20	65
18020	4-6-8-10 12-14-16-18-20	8	5.5	8	20	75
18030	4-6-8-10-12-14-16 18-20-22-24-26-28-30	8	5	10	22	100

Step drill set with spiral flute

with ground spiral groove and edge breaker, very high cutting performance

Juego de brocas escalonadas

con ranura rectificada helicoidal y espigador, muy alto rendimiento de corte

Jogo de fresas cónicas escalonadas

rectificadas, com ranhura em espiral e espigão, alto rendimento de corte

Art. 18010 4-12 mm
Art. 18020 4-20 mm
Art. 18030 4-30 mm

Art.	min-max Ø mm
18000	4 - 12 / 4 - 20 / 4 - 30

Tube and sheet drill


with ground groove, conique form at 20°, very high cutting performance

Broca cónica

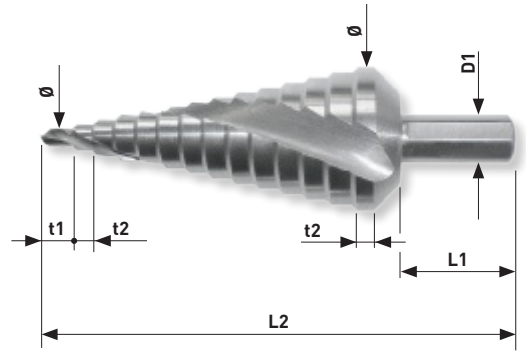
con ranura rectificada, forma cónica de 20°, muy alto rendimiento de corte

Fresa cónica

rectificada com ranhura, forma cônica à 20°, alto desempenho de corte

Art.	min-max Ø mm		D1 mm	L1 mm	L2 mm
18110	3 - 14	10°	6	20	58
18120	5 - 20	10°	8	20	71
18130	16 - 30.5	12°	9	22	77

HSS-E Co 5%

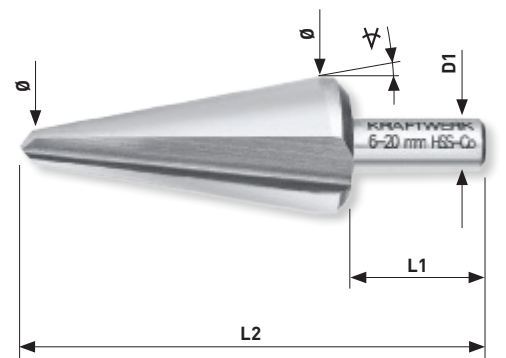


3
PCS

HSS-E Co 5%



HSS-E Co 5%



Tube and sheet drill set

with ground groove, conique form at 20°, very high cutting performance

Juego de brocas cónicas

con ranura rectificada, forma cónica de 20°, muy alto rendimiento de corte

Jogo de fresas cónicas

rectificadas com ranhura, forma cônica à 20°, desempenho alto de corte

Art. 18110 3-14 mm
Art. 18120 5-20 mm
Art. 18130 16-30.5 mm

Art.	min-max Ø mm
18100	3 - 14 / 5 - 20 / 16 - 30.5

Countersink

90°, 3 ground flutes

Avellanador

90°, de tres filos rectificados

Fresa de escarear

90°, 3 lâminas rectificadas

Art.	Ø mm	D1 mm	D2 mm	L mm
18210	6.3	1.5	5	45
18220	8.3	2	6	50
18230	10.4	2.5	6	50
18240	12.4	2.8	8	56
18250	16.5	3.2	10	60
18260	20.5	3.5	10	63

Countersink set

90°, 3 ground flutes

Juego de avellanadores

90°, de tres filos rectificados

Jogo de fresas de escarear

90°, 3 lâminas rectificadas

Art. 18210 6.3 mm
Art. 18220 8.3 mm
Art. 18230 10.4 mm
Art. 18240 12.4 mm
Art. 18250 16.5 mm
Art. 18260 20.5 mm

Art.	Ø mm
18200	6.3 - 8.3 - 10.4 - 12.4 - 16.5 - 20.5

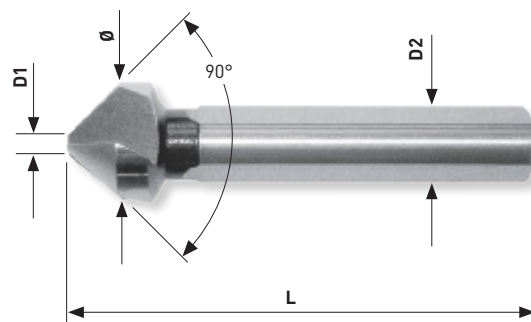
3
PCS

HSS-E Co 5%



HSS-E Co 5%

DIN 335 C



6
PCS

HSS-E Co 5%

DIN 335 C



Flat countersink

Avellanador para asientos de tornillos

Fresa direita

Art.	∅ mm	D1 mm	D2 mm	L mm
18310	3.4 (M3)	6	5	71
18320	4.5 (M4)	8	5	71
18330	5.5 (M5)	10	8	80
18340	6.6 (M6)	11	8	80
18350	9 (M8)	15	12.5	100
18360	11 (M10)	18	12.5	100

Flat countersink set

Juego de avellanadores para asientos de tornillos

Jogo de fresas direitas

Art. 18310 3.4 mm / M3
Art. 18320 4.5 mm / M4
Art. 18330 5.5 mm / M5
Art. 18340 6.6 mm / M6
Art. 18350 9.0 mm / M8
Art. 18360 11.0 mm / M10

Art.	∅ mm
18300	3.4-4.5-5.5-6.6-9.0-11.0

Hole saw

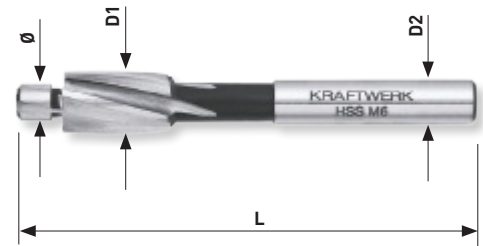
Corona perforada

Broca craniana

Art.	∅ mm		L mm
19190	19	Art. 19001	50
19200	20	Art. 19001	48
19220	22	Art. 19001	48
19250	25	Art. 19001	48
19290	29	Art. 19001	48
19320	32	Art. 19002	50
19350	35	Art. 19002	48
19380	38	Art. 19002	44
19440	44	Art. 19002	43
19510	51	Art. 19002	43
19570	57	Art. 19002	43
19650	65	Art. 19002	43
19680	68	Art. 19002	43
19760	76	Art. 19002	43

HSS-E Co 5%

DIN 373



6
PCS

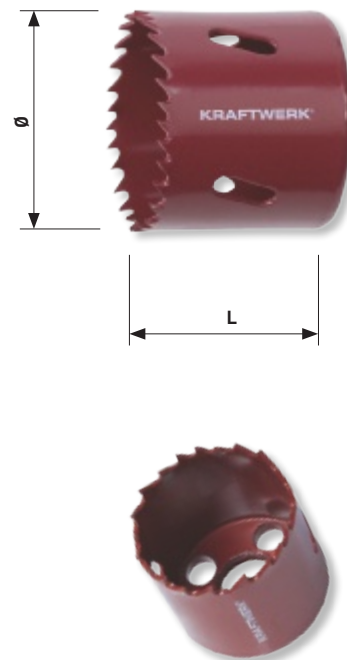
HSS-E Co 5%

DIN 335 C



HSS-E Co 8% Bi-Metall

DIN 335 C

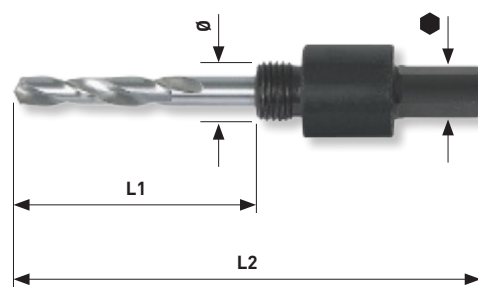


Hole saw arbor with pilot drill

Husillo con broca guía

Suporte para brocas com broca guia

Art.	∅	inch	L1 mm	L2 mm	∅ mm
19001	M14	3/8"	50	95	14 - 30

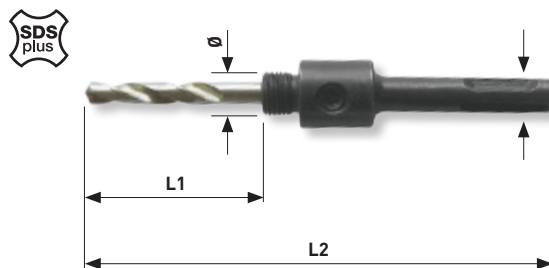


Hole saw arbor SDS-plus with pilot drill

Husillo SDS-plus con broca guía

Suporte SDS-plus para brocas com broca guia

Art.	∅	SDS-plus	L1 mm	L2 mm	∅ mm
19005	M14	SDS-Plus	46	126	14 - 30

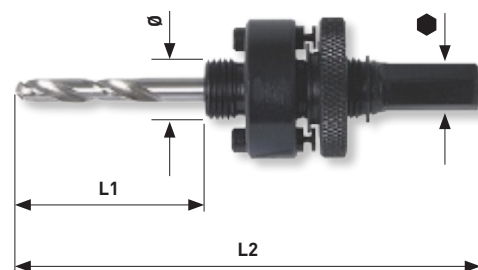


Hole saw arbor with pilot drill

Husillo con broca guía

Suporte para brocas com broca guia

Art.	∅	inch	L1 mm	L2 mm	∅ mm
19002	M14	7/16"	50	118	32 - 76

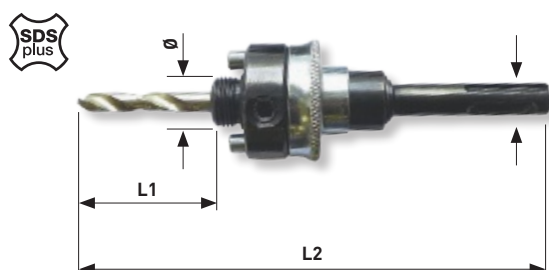


Hole saw arbor SDS-plus with pilot drill

Husillo SDS-plus con broca guía

Suporte SDS-plus para brocas com broca guia

Art.	∅	SDS-plus	L1 mm	L2 mm	∅ mm
19006	M14	SDS-Plus	46	146	32 - 76



Pilot drill

Broca guía

Broca guia

Art.	∅ inch / mm	L mm
19004	1/4" / 6,35 mm	75

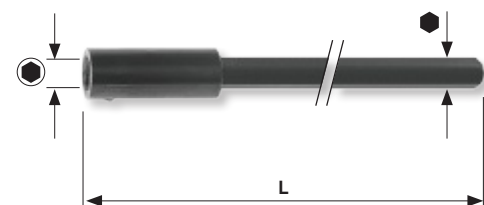


Extension bar for hole saws

Alargadera para coronas perforadas

Extensão para brocas cranianas

Art.	inch	mm	L mm
19003	3/8"	3/8"	300



Hole saw case
Estuche de coronas perforadas
Mala de brocas cranianas

HSS
bimetal
M42+8%Co

COMPLETO



HSS-E Co 8% Bi-Metall M42

Art.		
4900-39K		✓
4900-39KS		

16
PCS

15
PCS



Art. 4900-39K

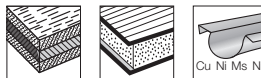
	Art. 19001	Art. 19005	14-30 mm / 3/8"
	Art. 19002	Art. 19006	32-76 mm / 7/16"
	Art. 19003		300 mm / 3/8"



Art. 4900-39B



Art. 19190	19 mm
Art. 19200	20 mm
Art. 19220	22 mm
Art. 19250	25 mm
Art. 19290	29 mm
Art. 19320	32 mm
Art. 19350	35 mm
Art. 19380	38 mm
Art. 19440	44 mm
Art. 19510	51 mm
Art. 19570	57 mm
Art. 19680	68 mm
Art. 19760	76 mm



↕ 402 × 173 × 48 mm

