DRILL LINE

● First choice ○ Suitable

Reference	Picture	Description	Page	Ø Range (mm)	Front angle	LxD	Diameter Tolerance	DIN	Coating
60.6003		DRILL 3XD	102	3,0 - 20,0	140°	3xD	m7	6537K	DRILLANT
60.6005		DRILL 5XD	104	3,0 - 20,0	140°	5xD	m7	6537L	DRILLANT
60.6803		DRILL 3XD INTERNAL COOLANT	106	3,0 - 20,0	140°	3xD	m7	6537K	DRILLANT
60.6805		DRILL 5XD INTERNAL COOLANT	108	3,0 - 20,0	140°	5xD	m7	6537L	DRILLANT
60.6808		DRILL 8XD INTERNAL COOLANT	110	3,0 - 20,0	140°	8xD	m7	_	DRILLANT
60.6812		DRILL 12XD INTERNAL COOLANT	112	3,0 - 20,0	135°	12xD	h7	_	DRILLANT
62.0010		SOLID CARBIDE TAP DESTROYER	114	2,5 - 17,5 M3 -M20	–	–	–	–	TiN-Up
62.6000		SPECIAL DRILL 50-68HRC	115	2,60 - 14,1 M3-M16	120°	3xD	m7	6537K	TiAlN
67.6885		SOLID CARBIDE DRILLREAMER H7	117	5,98 - 20,0	140°	5xD	H7	_	TiAlN
11.1360		HSSCo DRILL DIN 1897	118	1,0 - 14,0	118°	3xD	h8	1897	TiN U-NEWDRILL
11.2360		HSSCo DRILL DIN 338	120	1,0 - 14,0	118°	5xD	h8	338	TiN U-NEWDRILL
10.2000		HSS DRILL DIN 338	122	1,0 - 16,0	118°	5xD	h8	338	BLACK HVA
12.2105		HSS DRILL DIN 338	124	1,0 - 13,0	118°	5xD	h8	338	TiN-Up
10.5690		HSSCo NC 90° SPOTTING DRILL	126	3,0 - 20,0	90°	_	h6	_	TiAlN
10.5612		HSSCo NC 120° SPOTTING DRILL	127	3,0 - 20,0	120°	_	h6	_	TiAlN
10.5510		HSS CENTER DRILL DIN 333A	128	0,5 - 12,5	118°	_	_	333A	Bright
10.5514		HSS CENTER DRILL DIN 333A XTRA LONG	129	2,0 - 3,15	118°	_	_	333A	Bright

Internal coolant	Shank design	600N/mm² <1200N/mm²	HRC	INOX Stainless Steel	GG/G Cast Iron	TITAN Exotic alloys	NE Non Ferrous	UNI Universal application	HSC High Speed Cutting	HHC High Hard Cutting	HPC High Performance Cutting
	HA	●	55	○	●	○	○	●	●		●
	HA	●	55	○	●	○	○	●	●		●
●	HA	●	55	○	●	○	○	●	●		●
●	HA	●	55	○	●	○	○	●	●		●
●	HA	●	55	○	●	○	○	●	●		●
●	HA	●	55	○	●	○	○	●	●		●
	HA	●	60<65					●	●	●	●
	HA	○	50<68		○					●	●
●	HA	●	55	○	●			●			●
	HA	●		●	●	○	●	○	●		●
	HA	●		●	●	○	●	○			
	HA	●			●		●	○			
	HA	●			●		●	○			
	HB	●		●	●	○	●	●			●
	HB	●		●	●	○	●	●			●
	HA	●		○	●	○	●	○			
	HA	●		○	●	○	●	○			

60.6003

SOLID CARBIDE DRILL 3XD

- Broca metal duro 3xD
- Foret en Carbure Monobloc 3xD
- Punta in metallo duro 3xD
- Цельные твердосплавные сверла 3xD
- Kati karbür matkap 3XD
- 合金钻头3XD

Cod.	d1	d2	L1	L2	L3
6060030300	3,00	6	62	20	14
6060030310	3,10	6	62	20	14
6060030320	3,20	6	62	20	14
6060030330	3,30	6	62	20	14
6060030340	3,40	6	62	20	14
6060030350	3,50	6	62	20	14
6060030360	3,60	6	62	20	14
6060030370	3,70	6	62	20	14
6060030380	3,80	6	66	24	17
6060030390	3,90	6	66	24	17
6060030400	4,00	6	66	24	17
6060030410	4,10	6	66	24	17
6060030420	4,20	6	66	24	17
6060030430	4,30	6	66	24	17
6060030440	4,40	6	66	24	17
6060030450	4,50	6	66	24	17

Cod.	d1	d2	L1	L2	L3
6060030460	4,60	6	66	24	17
6060030465	4,65	6	66	24	17
6060030470	4,70	6	66	24	17
6060030480	4,80	6	66	28	20
6060030490	4,90	6	66	28	20
6060030500	5,00	6	66	28	20
6060030510	5,10	6	66	28	20
6060030520	5,20	6	66	28	20
6060030530	5,30	6	66	28	20
6060030540	5,40	6	66	28	20
6060030550	5,50	6	66	28	20
6060030555	5,55	6	66	28	20
6060030560	5,60	6	66	28	20
6060030570	5,70	6	66	28	20
6060030580	5,80	6	66	28	20
6060030590	5,90	6	66	28	20

Cod.	d1	d2	L1	L2	L3
6060030600	**6,00**	6	66	28	20
6060030610	**6,10**	8	79	34	25
6060030620	**6,20**	8	79	34	25
6060030630	**6,30**	8	79	34	25
6060030640	**6,40**	8	79	34	25
6060030650	**6,50**	8	79	34	25
6060030660	**6,60**	8	79	34	25
6060030670	**6,70**	8	79	34	25
6060030680	**6,80**	8	79	34	25
6060030690	**6,90**	8	79	34	25
6060030700	**7,00**	8	79	34	25
6060030710	**7,10**	8	79	41	31
6060030720	**7,20**	8	79	41	31
6060030730	**7,30**	8	79	41	31
6060030740	**7,40**	8	79	41	31
6060030750	**7,50**	8	79	41	31
6060030760	**7,60**	8	79	41	31
6060030770	**7,70**	8	79	41	31
6060030780	**7,80**	8	79	41	31
6060030790	**7,90**	8	79	41	31
6060030800	**8,00**	8	79	41	31
6060030810	**8,10**	10	89	47	36
6060030820	**8,20**	10	89	47	36
6060030830	**8,30**	10	89	47	36
6060030840	**8,40**	10	89	47	36
6060030850	**8,50**	10	89	47	36
6060030860	**8,60**	10	89	47	36
6060030870	**8,70**	10	89	47	36
6060030880	**8,80**	10	89	47	36
6060030890	**8,90**	10	89	47	36
6060030900	**9,00**	10	89	47	36
6060030910	**9,10**	10	89	47	36
6060030920	**9,20**	10	89	47	36
6060030930	**9,30**	10	89	47	36
6060030940	**9,40**	10	89	47	36
6060030950	**9,50**	10	89	47	36
6060030960	**9,60**	10	89	47	36
6060030970	**9,70**	10	89	47	36
6060030980	**9,80**	10	89	47	36
6060030990	**9,90**	10	89	47	36
6060031000	**10,00**	10	89	47	36
6060031010	**10,10**	12	102	55	42
6060031020	**10,20**	12	102	55	42
6060031030	**10,30**	12	102	55	42
6060031040	**10,40**	12	102	55	42
6060031050	**10,50**	12	102	55	42
6060031060	**10,60**	12	102	55	42
6060031070	**10,70**	12	102	55	42
6060031080	**10,80**	12	102	55	42
6060031090	**10,90**	12	102	55	42
6060031100	**11,00**	12	102	55	42
6060031110	**11,10**	12	102	55	42
6060031120	**11,20**	12	102	55	42
6060031130	**11,30**	12	102	55	42

Cod.	d1	d2	L1	L2	L3
6060031140	**11,40**	12	102	55	42
6060031150	**11,50**	12	102	55	42
6060031160	**11,60**	12	102	55	42
6060031170	**11,70**	12	102	55	42
6060031180	**11,80**	12	102	55	42
6060031190	**11,90**	12	102	55	42
6060031200	**12,00**	12	102	55	42
6060031210	**12,10**	14	107	60	46
6060031220	**12,20**	14	107	60	46
6060031230	**12,30**	14	107	60	46
6060031240	**12,40**	14	107	60	46
6060031250	**12,50**	14	107	60	46
6060031260	**12,60**	14	107	60	46
6060031270	**12,70**	14	107	60	46
6060031280	**12,80**	14	107	60	46
6060031290	**12,90**	14	107	60	46
6060031300	**13,00**	14	107	60	46
6060031310	**13,10**	14	107	60	46
6060031320	**13,20**	14	107	60	46
6060031330	**13,30**	14	107	60	46
6060031340	**13,40**	14	107	60	46
6060031350	**13,50**	14	107	60	46
6060031360	**13,60**	14	107	60	46
6060031370	**13,70**	14	107	60	46
6060031380	**13,80**	14	107	60	46
6060031390	**13,90**	14	107	60	46
6060031400	**14,00**	14	107	60	46
6060031410	**14,10**	16	115	65	50
6060031420	**14,20**	16	115	65	50
6060031430	**14,30**	16	115	65	50
6060031440	**14,40**	16	115	65	50
6060031450	**14,50**	16	115	65	50
6060031460	**14,60**	16	115	65	50
6060031470	**14,70**	16	115	65	50
6060031480	**14,80**	16	115	65	50
6060031490	**14,90**	16	115	65	50
6060031500	**15,00**	16	115	65	50
6060031510	**15,10**	16	115	65	50
6060031520	**15,20**	16	115	65	50
6060031530	**15,30**	16	115	65	50
6060031540	**15,40**	16	115	65	50
6060031550	**15,50**	16	115	65	50
6060031560	**15,60**	16	115	65	50
6060031570	**15,70**	16	115	65	50
6060031580	**15,80**	16	115	65	50
6060031590	**15,90**	16	115	65	50
6060031600	**16,00**	16	115	65	50
6060031650	**16,50**	18	123	73	56
6060031700	**17,00**	18	123	73	56
6060031750	**17,50**	18	123	73	56
6060031800	**18,00**	18	123	73	56
6060031850	**18,50**	20	131	79	61
6060031900	**19,00**	20	131	79	61
6060031950	**19,50**	20	131	79	61
6060032000	**20,00**	20	131	79	61

60.6005

SOLID CARBIDE DRILL 5XD

- Broca metal duro 5xD
- Foret en Carbure Monobloc 5xD
- Punta in metallo duro 5xD
- Цельные твердосплавные сверла 5xD
- Kati karbür matkap 5XD
- 合金钻头5XD

m7 tolerance | 600 1200 N/mm² | 55 HRC

INOX | GG(G) | PLASTIC | GFK CFK | ALU NE | TITAN INCONELL | Drillant | UNI

140° | 5xD

HA | p-130

Cod.	d1	d2	L1	L2	L3
6060050300	3,00	6	66	28	20
6060050310	3,10	6	66	28	20
6060050320	3,20	6	66	28	20
6060050330	3,30	6	66	28	20
6060050340	3,40	6	66	28	20
6060050350	3,50	6	66	28	20
6060050360	3,60	6	66	28	20
6060050370	3,70	6	66	28	20
6060050380	3,80	6	74	36	27
6060050390	3,90	6	74	36	27
6060050400	4,00	6	74	36	27
6060050410	4,10	6	74	36	27
6060050420	4,20	6	74	36	27
6060050430	4,30	6	74	36	27

Cod.	d1	d2	L1	L2	L3
6060050440	4,40	6	74	36	27
6060050450	4,50	6	74	36	27
6060050460	4,60	6	74	36	27
6060050465	4,65	6	74	36	27
6060050470	4,70	6	74	36	27
6060050480	4,80	6	82	44	33
6060050490	4,90	6	82	44	33
6060050500	5,00	6	82	44	33
6060050510	5,10	6	82	44	33
6060050520	5,20	6	82	44	33
6060050530	5,30	6	82	44	33
6060050540	5,40	6	82	44	33
6060050550	5,50	6	82	44	33
6060050555	5,55	6	82	44	33

Cod.	d1	d2	L1	L2	L3
6060050560	**5,60**	6	82	44	33
6060050570	**5,70**	6	82	44	33
6060050580	**5,80**	6	82	44	33
6060050590	**5,90**	6	82	44	33
6060050600	**6,00**	6	82	44	33
6060050610	**6,10**	8	91	53	40
6060050620	**6,20**	8	91	53	40
6060050630	**6,30**	8	91	53	40
6060050640	**6,40**	8	91	53	40
6060050650	**6,50**	8	91	53	40
6060050660	**6,60**	8	91	53	40
6060050670	**6,70**	8	91	53	40
6060050680	**6,80**	8	91	53	40
6060050690	**6,90**	8	91	53	40
6060050700	**7,00**	8	91	53	40
6060050710	**7,10**	8	91	53	40
6060050720	**7,20**	8	91	53	40
6060050730	**7,30**	8	91	53	40
6060050740	**7,40**	8	91	53	40
6060050750	**7,50**	8	91	53	40
6060050760	**7,60**	8	91	53	40
6060050770	**7,70**	8	91	53	40
6060050780	**7,80**	8	91	53	40
6060050790	**7,90**	8	91	53	40
6060050800	**8,00**	8	91	53	40
6060050810	**8,10**	10	103	61	47
6060050820	**8,20**	10	103	61	47
6060050830	**8,30**	10	103	61	47
6060050840	**8,40**	10	103	61	47
6060050850	**8,50**	10	103	61	47
6060050860	**8,60**	10	103	61	47
6060050870	**8,70**	10	103	61	47
6060050880	**8,80**	10	103	61	47
6060050890	**8,90**	10	103	61	47
6060050900	**9,00**	10	103	61	47
6060050910	**9,10**	10	103	61	47
6060050920	**9,20**	10	103	61	47
6060050930	**9,30**	10	103	61	47
6060050940	**9,40**	10	103	61	47
6060050950	**9,50**	10	103	61	47
6060050960	**9,60**	10	103	61	47
6060050970	**9,70**	10	103	61	47
6060050980	**9,80**	10	103	61	47
6060050990	**9,90**	10	103	61	47
6060051000	**10,00**	10	103	61	47
6060051010	**10,10**	12	118	71	55
6060051020	**10,20**	12	118	71	55
6060051030	**10,30**	12	118	71	55
6060051040	**10,40**	12	118	71	55

Cod.	d1	d2	L1	L2	L3
6060051050	**10,50**	12	118	71	55
6060051060	**10,60**	12	118	71	55
6060051070	**10,70**	12	118	71	55
6060051080	**10,80**	12	118	71	55
6060051090	**10,90**	12	118	71	55
6060051100	**11,00**	12	118	71	55
6060051110	**11,10**	12	118	71	55
6060051120	**11,20**	12	118	71	55
6060051130	**11,30**	12	118	71	55
6060051140	**11,40**	12	118	71	55
6060051150	**11,50**	12	118	71	55
6060051160	**11,60**	12	118	71	55
6060051170	**11,70**	12	118	71	55
6060051180	**11,80**	12	118	71	55
6060051190	**11,90**	12	118	71	55
6060051200	**12,00**	12	118	71	55
6060051210	**12,10**	14	124	77	60
6060051220	**12,20**	14	124	77	60
6060051240	**12,40**	14	124	77	60
6060051250	**12,50**	14	124	77	60
6060051260	**12,60**	14	124	77	60
6060051270	**12,70**	14	124	77	60
6060051300	**13,00**	14	124	77	60
6060051320	**13,20**	14	124	77	60
6060051330	**13,30**	14	124	77	60
6060051350	**13,50**	14	124	77	60
6060051370	**13,70**	14	124	77	60
6060051380	**13,80**	14	124	77	60
6060051400	**14,00**	14	124	77	60
6060051410	**14,10**	16	133	83	64
6060051420	**14,20**	16	133	83	64
6060051430	**14,30**	16	133	83	64
6060051440	**14,40**	16	133	83	64
6060051450	**14,50**	16	133	83	64
6060051470	**14,70**	16	133	83	64
6060051500	**15,00**	16	133	83	64
6060051510	**15,10**	16	133	83	64
6060051520	**15,20**	16	133	83	64
6060051550	**15,50**	16	133	83	64
6060051560	**15,60**	16	133	83	64
6060051570	**15,70**	16	133	83	64
6060051580	**15,80**	16	133	83	64
6060051600	**16,00**	16	133	83	64
6060051650	**16,50**	18	143	93	72
6060051700	**17,00**	18	143	93	72
6060051750	**17,50**	18	143	93	72
6060051800	**18,00**	18	143	93	72
6060051850	**18,50**	20	153	101	79
6060051900	**19,00**	20	153	101	79
6060051950	**19,50**	20	153	101	79
6060052000	**20,00**	20	153	101	79

60.6803

SOLID CARBIDE DRILL 3XD INTERNAL COOLANT

- Broca metal duro 3xD refrigeración interior
- Foret en Carbure Monobloc 3xD Avec Refroidissement Interieur
- Punta in metallo duro 3xD lubrificazione interna
- Цельные твердосплавные сверла 3xD с внутренним подводом сож
- Kati karbür matkap 3xD iç soğutma suyu
- 合金钻头3XD 内冷

Cod.	d1	d2	L1	L2	L3
6068030300	3,00	6	62	20	14
6068030310	3,10	6	62	20	14
6068030320	3,20	6	62	20	14
6068030330	3,30	6	62	20	14
6068030340	3,40	6	62	20	14
6068030350	3,50	6	62	20	14
6068030360	3,60	6	62	20	14
6068030370	3,70	6	62	20	14
6068030380	3,80	6	66	24	17
6068030390	3,90	6	66	24	17
6068030400	4,00	6	66	24	17
6068030410	4,10	6	66	24	17
6068030420	4,20	6	66	24	17
6068030430	4,30	6	66	24	17
6068030440	4,40	6	66	24	17
6068030450	4,50	6	66	24	17
6068030460	4,60	6	66	24	17
6068030465	4,65	6	66	24	17

Cod.	d1	d2	L1	L2	L3
6068030470	4,70	6	66	24	17
6068030480	4,80	6	66	28	20
6068030490	4,90	6	66	28	20
6068030500	5,00	6	66	28	20
6068030510	5,10	6	66	28	20
6068030520	5,20	6	66	28	20
6068030530	5,30	6	66	28	20
6068030540	5,40	6	66	28	20
6068030550	5,50	6	66	28	20
6068030555	5,55	6	66	28	20
6068030560	5,60	6	66	28	20
6068030570	5,70	6	66	28	20
6068030580	5,80	6	66	28	20
6068030590	5,90	6	66	28	20
6068030600	6,00	6	66	28	20
6068030610	6,10	8	79	34	25
6068030620	6,20	8	79	34	25
6068030630	6,30	8	79	34	25

Cod.	d1	d2	L1	L2	L3
6068030640	**6,40**	8	79	34	25
6068030650	**6,50**	8	79	34	25
6068030660	**6,60**	8	79	34	25
6068030670	**6,70**	8	79	34	25
6068030680	**6,80**	8	79	34	25
6068030690	**6,90**	8	79	34	25
6068030700	**7,00**	8	79	34	25
6068030710	**7,10**	8	79	41	31
6068030720	**7,20**	8	79	41	31
6068030730	**7,30**	8	79	41	31
6068030740	**7,40**	8	79	41	31
6068030750	**7,50**	8	79	41	31
6068030760	**7,60**	8	79	41	31
6068030770	**7,70**	8	79	41	31
6068030780	**7,80**	8	79	41	31
6068030790	**7,90**	8	79	41	31
6068030800	**8,00**	8	79	41	31
6068030810	**8,10**	10	89	47	36
6068030820	**8,20**	10	89	47	36
6068030830	**8,30**	10	89	47	36
6068030840	**8,40**	10	89	47	36
6068030850	**8,50**	10	89	47	36
6068030860	**8,60**	10	89	47	36
6068030870	**8,70**	10	89	47	36
6068030880	**8,80**	10	89	47	36
6068030890	**8,90**	10	89	47	36
6068030900	**9,00**	10	89	47	36
6068030910	**9,10**	10	89	47	36
6068030920	**9,20**	10	89	47	36
6068030930	**9,30**	10	89	47	36
6068030940	**9,40**	10	89	47	36
6068030950	**9,50**	10	89	47	36
6068030960	**9,60**	10	89	47	36
6068030970	**9,70**	10	89	47	36
6068030980	**9,80**	10	89	47	36
6068030990	**9,90**	10	89	47	36
6068031000	**10,00**	10	89	47	36
6068031010	**10,10**	12	102	55	42
6068031020	**10,20**	12	102	55	42
6068031030	**10,30**	12	102	55	42
6068031040	**10,40**	12	102	55	42
6068031050	**10,50**	12	102	55	42
6068031060	**10,60**	12	102	55	42
6068031070	**10,70**	12	102	55	42
6068031080	**10,80**	12	102	55	42
6068031090	**10,90**	12	102	55	42
6068031100	**11,00**	12	102	55	42
6068031110	**11,10**	12	102	55	42
6068031120	**11,20**	12	102	55	42
6068031130	**11,30**	12	102	55	42
6068031140	**11,40**	12	102	55	42
6068031150	**11,50**	12	102	55	42
6068031160	**11,60**	12	102	55	42
6068031170	**11,70**	12	102	55	42
6068031180	**11,80**	12	102	55	42
6068031190	**11,90**	12	102	55	42
6068031200	**12,00**	12	102	55	42
6068031210	**12,10**	14	107	60	46
6068031220	**12,20**	14	107	60	46

Cod.	d1	d2	L1	L2	L3
6068031230	**12,30**	14	107	60	46
6068031240	**12,40**	14	107	60	46
6068031250	**12,50**	14	107	60	46
6068031260	**12,60**	14	107	60	46
6068031270	**12,70**	14	107	60	46
6068031280	**12,80**	14	107	60	46
6068031290	**12,90**	14	107	60	46
6068031300	**13,00**	14	107	60	46
6068031310	**13,10**	14	107	60	46
6068031320	**13,20**	14	107	60	46
6068031330	**13,30**	14	107	60	46
6068031340	**13,40**	14	107	60	46
6068031350	**13,50**	14	107	60	46
6068031360	**13,60**	14	107	60	46
6068031370	**13,70**	14	107	60	46
6068031380	**13,80**	14	107	60	46
6068031390	**13,90**	14	107	60	46
6068031400	**14,00**	14	107	60	46
6068031410	**14,10**	16	115	65	50
6068031420	**14,20**	16	115	65	50
6068031430	**14,30**	16	115	65	50
6068031440	**14,40**	16	115	65	50
6068031450	**14,50**	16	115	65	50
6068031460	**14,60**	16	115	65	50
6068031470	**14,70**	16	115	65	50
6068031480	**14,80**	16	115	65	50
6068031490	**14,90**	16	115	65	50
6068031500	**15,00**	16	115	65	50
6068031510	**15,10**	16	115	65	50
6068031520	**15,20**	16	115	65	50
6068031530	**15,30**	16	115	65	50
6068031540	**15,40**	16	115	65	50
6068031550	**15,50**	16	115	65	50
6068031560	**15,60**	16	115	65	50
6068031570	**15,70**	16	115	65	50
6068031580	**15,80**	16	115	65	50
6068031590	**15,90**	16	115	65	50
6068031600	**16,00**	16	115	65	50
6068031610	**16,10**	18	115	73	56
6068031620	**16,20**	18	115	73	56
6068031650	**16,50**	18	123	73	56
6068031690	**16,90**	18	123	73	56
6068031700	**17,00**	18	123	73	56
6068031720	**17,20**	18	123	73	56
6068031730	**17,30**	18	123	73	56
6068031740	**17,40**	18	123	73	56
6068031750	**17,50**	18	123	73	56
6068031760	**17,60**	18	123	73	56
6068031770	**17,70**	18	123	73	56
6068031790	**17,90**	18	123	73	56
6068031800	**18,00**	18	123	73	56
6068031830	**18,30**	20	123	79	61
6068031850	**18,50**	20	131	79	61
6068031890	**18,90**	20	131	79	61
6068031900	**19,00**	20	131	79	61
6068031930	**19,30**	20	131	79	61
6068031950	**19,50**	20	131	79	61
6068031990	**19,90**	20	131	79	61
6068032000	**20,00**	20	131	79	61

60.6805

SOLID CARBIDE DRILL 5XD INTERNAL COOLANT

- Broca metal duro 5xD refrigeración interior
- Foret en Carbure Monobloc 5xD Avec Refroidissement Interieur
- Punta in metallo duro 5xD lubrificazione interna
- Цельные твердосплавные сверла 5xD с внутренним подводом сож
- Kati karbür matkap 5xD iç soğutma suyu
- 合金钻头5XD 内冷

Cod.	d1	d2	L1	L2	L3
6068050300	3,00	6	66	28	20
6068050310	3,10	6	66	28	20
6068050320	3,20	6	66	28	20
6068050330	3,30	6	66	28	20
6068050340	3,40	6	66	28	20
6068050350	3,50	6	66	28	20
6068050360	3,60	6	66	28	20
6068050370	3,70	6	66	28	20
6068050380	3,80	6	74	36	27
6068050390	3,90	6	74	36	27
6068050400	4,00	6	74	36	27
6068050410	4,10	6	74	36	27
6068050420	4,20	6	74	36	27
6068050430	4,30	6	74	36	27
6068050440	4,40	6	74	36	27
6068050450	4,50	6	74	36	27
6068050460	4,60	6	74	36	27

Cod.	d1	d2	L1	L2	L3
6068050465	4,65	6	74	36	27
6068050470	4,70	6	74	36	27
6068050480	4,80	6	82	44	33
6068050490	4,90	6	82	44	33
6068050500	5,00	6	82	44	33
6068050510	5,10	6	82	44	33
6068050520	5,20	6	82	44	33
6068050530	5,30	6	82	44	33
6068050540	5,40	6	82	44	33
6068050550	5,50	6	82	44	33
6068050555	5,55	6	82	44	33
6068050560	5,60	6	82	44	33
6068050570	5,70	6	82	44	33
6068050580	5,80	6	82	44	33
6068050590	5,90	6	82	44	33
6068050600	6,00	6	82	44	33
6068050610	6,10	8	91	53	40

Cod.	d1	d2	L1	L2	L3
6068050620	**6,20**	8	91	53	40
6068050630	**6,30**	8	91	53	40
6068050640	**6,40**	8	91	53	40
6068050650	**6,50**	8	91	53	40
6068050660	**6,60**	8	91	53	40
6068050670	**6,70**	8	91	53	40
6068050680	**6,80**	8	91	53	40
6068050690	**6,90**	8	91	53	40
6068050700	**7,00**	8	91	53	40
6068050710	**7,10**	8	91	53	40
6068050720	**7,20**	8	91	53	40
6068050730	**7,30**	8	91	53	40
6068050740	**7,40**	8	91	53	40
6068050750	**7,50**	8	91	53	40
6068050760	**7,60**	8	91	53	40
6068050770	**7,70**	8	91	53	40
6068050780	**7,80**	8	91	53	40
6068050790	**7,90**	8	91	53	40
6068050800	**8,00**	8	91	53	40
6068050810	**8,10**	10	103	61	47
6068050820	**8,20**	10	103	61	47
6068050830	**8,30**	10	103	61	47
6068050840	**8,40**	10	103	61	47
6068050850	**8,50**	10	103	61	47
6068050860	**8,60**	10	103	61	47
6068050870	**8,70**	10	103	61	47
6068050880	**8,80**	10	103	61	47
6068050890	**8,90**	10	103	61	47
6068050900	**9,00**	10	103	61	47
6068050910	**9,10**	10	103	61	47
6068050920	**9,20**	10	103	61	47
6068050930	**9,30**	10	103	61	47
6068050940	**9,40**	10	103	61	47
6068050950	**9,50**	10	103	61	47
6068050960	**9,60**	10	103	61	47
6068050970	**9,70**	10	103	61	47
6068050980	**9,80**	10	103	61	47
6068050990	**9,90**	10	103	61	47
6068051000	**10,00**	10	103	61	47
6068051010	**10,10**	12	118	71	55
6068051020	**10,20**	12	118	71	55
6068051030	**10,30**	12	118	71	55
6068051040	**10,40**	12	118	71	55
6068051050	**10,50**	12	118	71	55
6068051060	**10,60**	12	118	71	55
6068051070	**10,70**	12	118	71	55
6068051080	**10,80**	12	118	71	55
6068051090	**10,90**	12	118	71	55
6068051100	**11,00**	12	118	71	55
6068051110	**11,10**	12	118	71	55
6068051120	**11,20**	12	118	71	55
6068051130	**11,30**	12	118	71	55
6068051140	**11,40**	12	118	71	55
6068051150	**11,50**	12	118	71	55
6068051160	**11,60**	12	118	71	55
6068051170	**11,70**	12	118	71	55

Cod.	d1	d2	L1	L2	L3
6068051180	**11,80**	12	118	71	55
6068051190	**11,90**	12	118	71	55
6068051200	**12,00**	12	118	71	55
6068051210	**12,10**	14	124	77	60
6068051220	**12,20**	14	124	77	60
6068051230	**12,30**	14	124	77	60
6068051240	**12,40**	14	124	77	60
6068051250	**12,50**	14	124	77	60
6068051260	**12,60**	14	124	77	60
6068051270	**12,70**	14	124	77	60
6068051280	**12,80**	14	124	77	60
6068051290	**12,90**	14	124	77	60
6068051300	**13,00**	14	124	77	60
6068051310	**13,10**	14	124	77	60
6068051320	**13,20**	14	124	77	60
6068051330	**13,30**	14	124	77	60
6068051340	**13,40**	14	124	77	60
6068051350	**13,50**	14	124	77	60
6068051360	**13,60**	14	124	77	60
6068051370	**13,70**	14	124	77	60
6068051380	**13,80**	14	124	77	60
6068051390	**13,90**	14	124	77	60
6068051400	**14,00**	14	124	77	60
6068051410	**14,10**	16	133	83	64
6068051420	**14,20**	16	133	83	64
6068051430	**14,30**	16	133	83	64
6068051440	**14,40**	16	133	83	64
6068051450	**14,50**	16	133	83	64
6068051460	**14,60**	16	133	83	64
6068051470	**14,70**	16	133	83	64
6068051480	**14,80**	16	133	83	64
6068051490	**14,90**	16	133	83	64
6068051500	**15,00**	16	133	83	64
6068051510	**15,10**	16	133	83	64
6068051520	**15,20**	16	133	83	64
6068051530	**15,30**	16	133	83	64
6068051540	**15,40**	16	133	83	64
6068051550	**15,50**	16	133	83	64
6068051560	**15,60**	16	133	83	64
6068051570	**15,70**	16	133	83	64
6068051580	**15,80**	16	133	83	64
6068051590	**15,90**	16	133	83	64
6068051600	**16,00**	16	133	83	64
6068051650	**16,50**	18	143	93	72
6068051670	**16,70**	18	143	93	72
6068051690	**16,90**	18	143	93	72
6068051700	**17,00**	18	143	93	72
6068051750	**17,50**	18	143	93	72
6068051770	**17,70**	18	143	93	72
6068051800	**18,00**	18	143	93	72
6068051850	**18,50**	20	153	101	79
6068051870	**18,70**	20	153	101	79
6068051890	**18,90**	20	153	101	79
6068051900	**19,00**	20	153	101	79
6068051930	**19,30**	20	153	101	79
6068051950	**19,50**	20	153	101	79
6068051970	**19,70**	20	153	101	79
6068052000	**20,00**	20	153	101	79

60.6808

SOLID CARBIDE DRILL 8XD INTERNAL COOLANT

- Broca metal duro 8xD refrigeración interior
- Foret en Carbure Monobloc 8xD Avec Refroidissement Interieur
- Punta in metallo duro 8xD lubrificazione interna
- Цельные твердосплавные сверла 8xD с внутренним подводом сож
- Kati karbür matkap 8xD iç soğutma suyu
- 合金钻头8XD 内冷

m7 tolerance | 600 1200 N/mm² | 55 HRC | INOX | GG(G) | ALU NE | TITAN INCONELL | Drillant | UNI

140° | 8xD

HA

p-130

Cod.	d1	d2	L1	L2	L3
6068080300	**3,00**	6	70	30	22
6068080310	**3,10**	6	70	30	22
6068080320	**3,20**	6	70	30	22
6068080330	**3,30**	6	70	30	22
6068080340	**3,40**	6	75	36	26
6068080350	**3,50**	6	75	36	26
6068080360	**3,60**	6	75	36	26
6068080370	**3,70**	6	75	36	26
6068080380	**3,80**	6	75	38	28
6068080390	**3,90**	6	75	38	28
6068080400	**4,00**	6	75	38	28
6068080410	**4,10**	6	75	38	28
6068080420	**4,20**	6	75	38	28
6068080430	**4,30**	6	85	45	34
6068080440	**4,40**	6	85	45	34
6068080450	**4,50**	6	85	45	34
6068080460	**4,60**	6	85	45	34
6068080470	**4,70**	6	85	45	34
6068080480	**4,80**	6	90	50	38
6068080490	**4,90**	6	90	50	38
6068080500	**5,00**	6	90	50	38
6068080510	**5,10**	6	90	50	38
6068080520	**5,20**	6	90	50	38
6068080530	**5,30**	6	90	50	38
6068080540	**5,40**	6	97	57	44
6068080550	**5,50**	6	97	57	44
6068080560	**5,60**	6	97	57	44
6068080570	**5,70**	6	97	57	44
6068080580	**5,80**	6	97	57	44
6068080590	**5,90**	6	97	57	44
6068080600	**6,00**	6	97	57	44
6068080610	**6,10**	8	106	66	51
6068080620	**6,20**	8	106	66	51
6068080630	**6,30**	8	106	66	51
6068080640	**6,40**	8	106	66	51
6068080650	**6,50**	8	106	66	51
6068080660	**6,60**	8	106	66	51
6068080670	**6,70**	8	106	66	51
6068080680	**6,80**	8	106	66	51
6068080690	**6,90**	8	116	76	59
6068080700	**7,00**	8	116	76	59
6068080710	**7,10**	8	116	76	59
6068080720	**7,20**	8	116	76	59
6068080730	**7,30**	8	116	76	59
6068080740	**7,40**	8	116	76	59
6068080750	**7,50**	8	116	76	59
6068080760	**7,60**	8	116	76	59
6068080770	**7,70**	8	116	76	59
6068080780	**7,80**	8	116	76	59
6068080790	**7,90**	8	116	76	59
6068080800	**8,00**	8	116	76	59
6068080810	**8,10**	10	131	87	68
6068080820	**8,20**	10	131	87	68

Cod.	d1	d2	L1	L2	L3
6068080830	**8,30**	10	131	87	68
6068080840	**8,40**	10	131	87	68
6068080850	**8,50**	10	131	87	68
6068080860	**8,60**	10	131	87	68
6068080870	**8,70**	10	131	87	68
6068080880	**8,80**	10	131	87	68
6068080890	**8,90**	10	131	87	68
6068080900	**9,00**	10	131	87	68
6068080910	**9,10**	10	139	95	74
6068080920	**9,20**	10	139	95	74
6068080930	**9,30**	10	139	95	74
6068080940	**9,40**	10	139	95	74
6068080950	**9,50**	10	139	95	74
6068080960	**9,60**	10	139	95	74
6068080970	**9,70**	10	139	95	74
6068080980	**9,80**	10	139	95	74
6068080990	**9,90**	10	139	95	74
6068081000	**10,00**	10	139	95	74
6068081010	**10,10**	12	155	106	83
6068081020	**10,20**	12	155	106	83
6068081030	**10,30**	12	155	106	83
6068081040	**10,40**	12	155	106	83
6068081050	**10,50**	12	155	106	83
6068081060	**10,60**	12	155	106	83
6068081070	**10,70**	12	155	106	83
6068081080	**10,80**	12	155	106	83
6068081090	**10,90**	12	155	106	83
6068081100	**11,00**	12	155	106	83
6068081110	**11,10**	12	163	114	89
6068081120	**11,20**	12	163	114	89
6068081130	**11,30**	12	163	114	89
6068081140	**11,40**	12	163	114	89
6068081150	**11,50**	12	163	114	89
6068081160	**11,60**	12	163	114	89
6068081170	**11,70**	12	163	114	89
6068081180	**11,80**	12	163	114	89
6068081190	**11,90**	12	163	114	89
6068081200	**12,00**	12	163	114	89
6068081250	**12,50**	14	182	133	104
6068081300	**13,00**	14	182	133	104
6068081350	**13,50**	14	182	133	104
6068081400	**14,00**	14	182	133	104
6068081450	**14,50**	16	204	152	120
6068081500	**15,00**	16	204	152	120
6068081550	**15,50**	16	204	152	120
6068081600	**16,00**	16	204	152	120
6068081650	**16,50**	18	223	171	135
6068081700	**17,00**	18	223	171	135
6068081750	**17,50**	18	223	171	135
6068081800	**18,00**	18	223	171	135
6068081850	**18,50**	20	244	190	150
6068081950	**19,50**	20	244	190	150
6068082000	**20,00**	20	244	190	150

60.6812

SOLID CARBIDE DRILL 12XD INTERNAL COOLANT

- Broca metal duro 12xD refrigeración interior
- Foret en Carbure Monobloc 12xD Avec Refroidissement Interieur
- Punta in metallo duro 12xD lubrificazione interna
- Цельные твердосплавные сверла 12xD с внутренним подводом сож
- Kati karbür matkap 12xD iç soğutma suyu
- 合金钻头12XD 内冷

Cod.	d1	d2	L1	L2	L3
6068120300	**3,00**	6	90	50	38
6068120310	**3,10**	6	90	50	38
6068120320	**3,20**	6	90	50	38
6068120330	**3,30**	6	90	50	38
6068120340	**3,40**	6	90	50	38
6068120350	**3,50**	6	90	50	38
6068120360	**3,60**	6	90	50	38
6068120370	**3,70**	6	90	50	38
6068120380	**3,80**	6	102	64	49
6068120390	**3,90**	6	102	64	49
6068120400	**4,00**	6	102	64	49
6068120410	**4,10**	6	102	64	49
6068120420	**4,20**	6	102	64	49
6068120430	**4,30**	6	102	64	49
6068120440	**4,40**	6	102	64	49
6068120450	**4,50**	6	102	64	49
6068120460	**4,60**	6	102	64	49
6068120470	**4,70**	6	102	64	49
6068120480	**4,80**	6	116	78	60
6068120490	**4,90**	6	116	78	60
6068120500	**5,00**	6	116	78	60
6068120510	**5,10**	6	116	78	60
6068120520	**5,20**	6	116	78	60
6068120530	**5,30**	6	116	78	60
6068120540	**5,40**	6	116	78	60
6068120550	**5,50**	6	116	78	60
6068120560	**5,60**	6	116	78	60
6068120570	**5,70**	6	116	78	60
6068120580	**5,80**	6	116	78	60
6068120590	**5,90**	6	116	78	60
6068120600	**6,00**	6	116	78	60
6068120610	**6,10**	8	146	108	84
6068120620	**6,20**	8	146	108	84
6068120630	**6,30**	8	146	108	84
6068120640	**6,40**	8	146	108	84
6068120650	**6,50**	8	146	108	84
6068120660	**6,60**	8	146	108	84
6068120670	**6,70**	8	146	108	84
6068120680	**6,80**	8	146	108	84
6068120690	**6,90**	8	146	108	84
6068120700	**7,00**	8	146	108	84
6068120710	**7,10**	8	146	108	84
6068120720	**7,20**	8	146	108	84
6068120730	**7,30**	8	146	108	84
6068120740	**7,40**	8	146	108	84
6068120750	**7,50**	8	146	108	84
6068120760	**7,60**	8	146	108	84
6068120770	**7,70**	8	146	108	84
6068120780	**7,80**	8	146	108	84
6068120790	**7,90**	8	146	108	84

Cod.	d1	d2	L1	L2	L3
6068120800	**8,00**	8	146	108	84
6068120810	**8,10**	10	162	120	94
6068120820	**8,20**	10	162	120	94
6068120830	**8,30**	10	162	120	94
6068120840	**8,40**	10	162	120	94
6068120850	**8,50**	10	162	120	94
6068120860	**8,60**	10	162	120	94
6068120870	**8,70**	10	162	120	94
6068120880	**8,80**	10	162	120	94
6068120890	**8,90**	10	162	120	94
6068120900	**9,00**	10	162	120	94
6068120910	**9,10**	10	162	120	94
6068120920	**9,20**	10	162	120	94
6068120930	**9,30**	10	162	120	94
6068120940	**9,40**	10	162	120	94
6068120950	**9,50**	10	162	120	94
6068120960	**9,60**	10	162	120	94
6068120970	**9,70**	10	162	120	94
6068120980	**9,80**	10	162	120	94
6068120990	**9,90**	10	162	120	94
6068121000	**10,00**	10	162	120	94
6068121010	**10,10**	12	204	156	123
6068121020	**10,20**	12	204	156	123
6068121030	**10,30**	12	204	156	123
6068121050	**10,50**	12	204	156	123
6068121060	**10,60**	12	204	156	123
6068121070	**10,70**	12	204	156	123
6068121080	**10,80**	12	204	156	123
6068121090	**10,90**	12	204	156	123
6068121100	**11,00**	12	204	156	123
6068121150	**11,50**	12	204	156	123
6068121200	**12,00**	12	204	156	123
6068121230	**12,30**	14	230	182	144
6068121250	**12,50**	14	230	182	144
6068121270	**12,70**	14	230	182	144
6068121300	**13,00**	14	230	182	144
6068121350	**13,50**	14	230	182	144
6068121400	**14,00**	14	230	182	144
6068121450	**14,50**	16	260	208	164
6068121500	**15,00**	16	260	208	164
6068121550	**15,50**	16	260	208	164
6068121600	**16,00**	16	260	208	164
6068121650	**16,50**	18	285	234	185
6068121700	**17,00**	18	285	234	185
6068121750	**17,50**	18	285	234	185
6068121800	**18,00**	18	285	234	185
6068121850	**18,50**	20	310	258	204
6068121900	**19,00**	20	310	258	204
6068121950	**19,50**	20	310	258	204
6068122000	**20,00**	20	310	258	204

62.0010

SOLID CARBIDE TAP DESTROYER

- Destructor de machos en metal duro
- Outil special pour detruire tarauds cassé dans le trou
- Distruttore di maschi in metallo duro
- Цельные твердосплавные инструменты для удаления метчиков
- Kati karbür tap destroyer
- 清除丝锥用合金钻头

65 HRC | TiN Up | UNI | HELION NORM

CUTTING CONDITIONS

Vc (m/min)
12,00

	F (mm/r)
M3	0,0400
M4	0,0400
M5	0,0600
M6	0,0600
M8	0,0800
M10	0,1000
M12	0,1100
M14	0,1200
M16	0,1400
M18	0,1500
M20	0,1700

Cod.	M	d1	d2	L1	L2
6200100250	M3	2,50	6	50	15
6200100330	M4	3,30	6	50	15
6200100420	M5	4,20	6	50	15
6200100500	M6	5,00	6	50	15
6200100680	M8	6,80	8	60	20
6200100850	M10	8,50	10	70	25
6200101020	M12	10,20	12	75	30
6200101200	M14	12,00	12	75	30
6200101400	M16	14,00	14	100	40
6200101550	M18	15,50	16	100	40
6200101750	M20	17,50	18	100	50

HOW TO REMOVE THE BROKEN TAP OF THE WORKPIECE

1. Instruction — *Instrucción*
2. Flatten the surface with a solid carbide mill — *Aplanar la superficie con una fresa de metal duro*
3. Apply the drill with pressure lubricant — *Aplicar la broca con lubricante a presión*
4. Clean the tread of the chips with a steel tip and pressurized air — *Limpiar la rosca de los restos de virutas con una punta de acero y aire a presión*
5. Repair the threaded hole with a new tap — *Repasar la rosca con un macho nuevo*

SOLID CARBIDE SPECIAL DRILL 50-68 HRC TIALN

62.6000

- Broca metal duro especial 50-68 HRC TiAlN
- Foret spécial en Carbure Monobloc 50-68 HRC TiAlN
- Punta in metallo duro speciale 50-68 HRC TiAlN
- Цельные твердосплавные сверла для 50-68 HRC TiAlN
- Kati karbür özel matkap 50-68 HRC TIALN
- 合金钻头 50-68HRC

DRILL LINE

m7 tolerance | 55 HRC | 65 HRC | GG(G) | TiAlN | 120° | 3xD | HA | HHC

CUTTING CONDITIONS

Hardness (HRC)	Vc	F (mm/rpm)
50-57	15	0,05
58-68	10	0,04

Cod.	M	d1	d2	L1	L2	L3
6260000260	M3	2,60	6	62	20	14
6260000300	-	3,00	6	62	20	14
6260000340	M4	3,40	6	62	20	14
6260000400	-	4,00	6	66	24	17
6260000430	M5	4,30	6	66	24	17
6260000500	-	5,00	6	66	28	20
6260000510	M6	5,10	6	66	28	20
6260000560	-	5,60	6	66	28	20
6260000600	-	6,00	6	66	28	20
6260000690	M8	6,90	8	79	34	26

Cod.	M	d1	d2	L1	L2	L3
6260000710	-	7,10	8	79	41	30
6260000800	-	8,00	8	79	41	30
6260000860	M10	8,60	10	89	47	30
6260000910	-	9,10	10	89	47	36
6260001000	-	10,00	10	89	47	36
6260001040	M12	10,40	12	102	55	42
6260001060	-	10,60	12	102	55	42
6260001110	-	11,10	12	102	55	42
6260001200	-	12,00	12	102	55	42
6260001410	M16	14,10	16	115	65	50

Usar la broca 62.6000 para los taladros previos al roscado, según los diámetros aconsejados para cada rosca
Use drill bit 62.6000 for the holes prior to threading, according to the recommended diameters for each thread

DRILLING
TO FUTURE

SOLID CARBIDE DRILLREAMER H7

67.6885

- Broca escariadora metal duro H7
- Foret special alesoir en carbure H7
- Punta alesatore in metallo duro H7
- Цельные твердосплавные сверла-развертки H7
- Kati karbür matkap H7
- 合金钻铰一体刀 H7

H7 tolerance | 600 1200 N/mm² | 55 HRC | INOX | GG(G) | TiAlN | UNI

140° | 5xD

HA

HELION NORM

p-130

Application example fixing pins DIN 6325 for d1 = 8
Can use only drill 67.6885 D: 8,00 H7

Cod.	d1	d2	L1	L2
6768850598	**5,98**	6	81	44
6768850599	**5,99**	6	81	44
6768850600	**6,00**	6	81	44
6768850601	**6,01**	6	81	44
6768850602	**6,02**	6	91	44
6768850798	**7,98**	8	91	53
6768850799	**7,99**	8	91	53
6768850800	**8,00**	8	91	53
6768850801	**8,01**	8	91	53
6768850802	**8,02**	8	91	53
6768850998	**9,98**	10	103	61
6768850999	**9,99**	10	103	61

Application example ejector pin DIN 1530 for d1 = 8
Can use only drill 67.6885 D: 7,98

Cod.	d1	d2	L1	L2
6768851000	**10,00**	10	103	61
6768851001	**10,01**	10	103	61
6768851002	**10,02**	10	103	61
6768851198	**11,98**	12	118	71
6768851199	**11,99**	12	118	71
6768851200	**12,00**	12	118	71
6768851201	**12,01**	12	118	71
6768851202	**12,02**	12	118	71
6768851400	**14,00**	14	124	77
6768851600	**16,00**	16	133	83
6768851800	**18,00**	18	143	93
6768852000	**20,00**	20	153	101

11.1360

HSSCo DRILL DIN 1897 TiN U-NEWDRILL

- Broca DIN 1897 HSSCo TiN U-NEWDRILL
- Foret DIN 1897 HSSCo TiN U-NEWDRILL
- Punta DIN 1897 HSSCo TiN U-NEWDRILL
- Сверла короткой серии HSSCo DIN 1897 TiN U-Newdrill
- Hss co matkap din 1897 teneke u-yeni matkap
- 高速钢钻钻 DIN1897 TiN

* Minimium order quantity due to package size / Cantidad de pedido mínimo.

Cod.	d1	d2	L1	L2	MOQ*
1113600100	**1,00**	1,00	26	6	5
1113600110	**1,10**	1,10	28	7	5
1113600120	**1,20**	1,20	30	8	5
1113600130	**1,30**	1,30	30	8	5
1113600140	**1,40**	1,40	32	9	5
1113600150	**1,50**	1,50	32	9	5
1113600160	**1,60**	1,60	34	10	5
1113600170	**1,70**	1,70	34	10	5
1113600180	**1,80**	1,80	36	11	5
1113600190	**1,90**	1,90	36	11	5
1113600200	**2,00**	2,00	38	12	5
1113600210	**2,10**	2,10	38	12	5
1113600220	**2,20**	2,20	40	13	5
1113600230	**2,30**	2,30	40	13	5
1113600240	**2,40**	2,40	43	14	5
1113600250	**2,50**	2,50	43	14	5
1113600260	**2,60**	2,60	43	14	5
1113600270	**2,70**	2,70	46	16	5
1113600280	**2,80**	2,80	46	16	5
1113600290	**2,90**	2,90	46	16	5
1113600300	**3,00**	3,00	46	16	5
1113600310	**3,10**	3,10	49	18	5
1113600320	**3,20**	3,20	49	18	5
1113600330	**3,30**	3,30	49	18	5
1113600340	**3,40**	3,40	52	20	5
1113600350	**3,50**	3,50	52	20	5
1113600360	**3,60**	3,60	52	20	5
1113600370	**3,70**	3,70	52	20	5
1113600380	**3,80**	3,80	55	22	5
1113600390	**3,90**	3,90	55	22	5
1113600400	**4,00**	4,00	55	22	5
1113600410	**4,10**	4,10	55	22	5
1113600420	**4,20**	4,20	55	22	5
1113600430	**4,30**	4,30	58	24	5
1113600440	**4,40**	4,40	58	24	5
1113600450	**4,50**	4,50	58	24	5
1113600460	**4,60**	4,60	58	24	5
1113600470	**4,70**	4,70	58	24	5
1113600480	**4,80**	4,80	62	26	5
1113600490	**4,90**	4,90	62	26	5
1113600500	**5,00**	5,00	62	26	5
1113600510	**5,10**	5,10	62	26	5
1113600520	**5,20**	5,20	62	26	5
1113600530	**5,30**	5,30	62	26	5
1113600540	**5,40**	5,40	66	28	5
1113600550	**5,50**	5,50	66	28	5
1113600560	**5,60**	5,60	66	28	5
1113600570	**5,70**	5,70	66	28	5
1113600580	**5,80**	5,80	66	28	5
1113600590	**5,90**	5,90	66	28	5
1113600600	**6,00**	6,00	66	28	5
1113600610	**6,10**	6,10	70	31	5
1113600620	**6,20**	6,20	70	31	5

Cod.	d1	d2	L1	L2	MOQ*
1113600630	**6,30**	6,30	70	31	5
1113600640	**6,40**	6,40	70	31	5
1113600650	**6,50**	6,50	70	31	5
1113600660	**6,60**	6,60	70	31	5
1113600670	**6,70**	6,70	70	31	5
1113600680	**6,80**	6,80	74	34	5
1113600690	**6,90**	6,90	74	34	5
1113600700	**7,00**	7,00	74	34	5
1113600710	**7,10**	7,10	74	34	5
1113600720	**7,20**	7,20	74	34	5
1113600730	**7,30**	7,30	74	34	5
1113600740	**7,40**	7,40	74	34	5
1113600750	**7,50**	7,50	74	34	5
1113600760	**7,60**	7,60	79	37	5
1113600770	**7,70**	7,70	79	37	5
1113600780	**7,80**	7,80	79	37	5
1113600790	**7,90**	7,90	79	37	5
1113600800	**8,00**	8,00	79	37	2
1113600810	**8,10**	8,10	79	37	2
1113600820	**8,20**	8,20	79	37	2
1113600830	**8,30**	8,30	79	37	2
1113600840	**8,40**	8,40	79	37	2
1113600850	**8,50**	8,50	79	37	2
1113600860	**8,60**	8,60	84	40	2
1113600870	**8,70**	8,70	84	40	2
1113600880	**8,80**	8,80	84	40	2
1113600890	**8,90**	8,90	84	40	2
1113600900	**9,00**	9,00	84	40	2
1113600910	**9,10**	9,10	84	40	2
1113600920	**9,20**	9,20	84	40	2
1113600930	**9,30**	9,30	84	40	2
1113600940	**9,40**	9,40	84	40	2
1113600950	**9,50**	9,50	84	40	2
1113600960	**9,60**	9,60	89	43	2
1113600970	**9,70**	9,70	89	43	2
1113600980	**9,80**	9,80	89	43	2
1113600990	**9,90**	9,90	89	43	2
1113601000	**10,00**	10,00	89	43	2
1113601010	**10,10**	10,10	89	43	2
1113601020	**10,20**	10,20	89	43	2
1113601030	**10,30**	10,30	89	43	2
1113601040	**10,40**	10,40	89	43	2
1113601050	**10,50**	10,50	89	43	2
1113601100	**11,00**	11,00	95	47	1
1113601150	**11,50**	11,50	95	47	1
1113601200	**12,00**	12,00	102	51	1
1113601230	**12,30**	12,30	102	51	1
1113601250	**12,50**	12,50	102	51	1
1113601270	**12,70**	12,70	102	51	1
1113601300	**13,00**	13,00	102	51	1
1113601310	**13,10**	13,10	102	51	1
1113601350	**13,50**	13,50	107	54	1
1113601400	**14,00**	14,00	107	54	1

11.2360

HSSCO DRILL DIN 338 TiN U-NEWDRILL

- Broca DIN 338 HSSCo TiN U-NEWDRILL
- Foret DIN 338 HSSCo TiN U-NEWDRILL
- Punta DIN 338 HSSCo TiN U-NEWDRILL
- Сверла средней серии HSSCo DIN 338 TiN U-NEWDRILL
- HSS CO matkap DIN 338 kalay u-newdrill
- 高速钢钻钻 DIN338 TiN

h8 tolerance | 600 1200 N/mm² | INOX | GG(G) | ALU NE | TiN U-new

118° | 5xD

HA

p-131

* Minimium order quantity due to package size / Cantidad de pedido mínimo.

Cod.	d1	d2	L1	L2	MOQ*
1123600100	**1,00**	1,00	34	12	5
1123600110	**1,10**	1,10	36	14	5
1123600120	**1,20**	1,20	38	16	5
1123600130	**1,30**	1,30	38	16	5
1123600140	**1,40**	1,40	40	18	5
1123600150	**1,50**	1,50	40	18	5
1123600160	**1,60**	1,60	43	20	5
1123600170	**1,70**	1,70	43	20	5
1123600180	**1,80**	1,80	46	22	5
1123600190	**1,90**	1,90	46	22	5
1123600200	**2,00**	2,00	49	24	5
1123600210	**2,10**	2,10	49	24	5
1123600220	**2,20**	2,20	53	27	5
1123600230	**2,30**	2,30	53	27	5
1123600240	**2,40**	2,40	57	30	5
1123600250	**2,50**	2,50	57	30	5
1123600260	**2,60**	2,60	57	30	5
1123600270	**2,70**	2,70	61	33	5
1123600280	**2,80**	2,80	61	33	5
1123600290	**2,90**	2,90	61	33	5
1123600300	**3,00**	3,00	61	33	5
1123600310	**3,10**	3,10	65	36	5
1123600320	**3,20**	3,20	65	36	5
1123600330	**3,30**	3,30	65	36	5
1123600340	**3,40**	3,40	70	39	5
1123600350	**3,50**	3,50	70	39	5
1123600360	**3,60**	3,60	70	39	5
1123600370	**3,70**	3,70	70	39	5
1123600380	**3,80**	3,80	75	43	5
1123600390	**3,90**	3,90	75	43	5
1123600400	**4,00**	4,00	75	43	5
1123600410	**4,10**	4,10	75	43	5
1123600420	**4,20**	4,20	75	43	5
1123600430	**4,30**	4,30	80	47	5
1123600440	**4,40**	4,40	80	47	5
1123600450	**4,50**	4,50	80	47	5
1123600460	**4,60**	4,60	80	47	5
1123600470	**4,70**	4,70	80	47	5
1123600480	**4,80**	4,80	86	52	5
1123600490	**4,90**	4,90	86	52	5
1123600500	**5,00**	5,00	86	52	5
1123600510	**5,10**	5,10	86	52	2
1123600520	**5,20**	5,20	86	52	2
1123600530	**5,30**	5,30	86	52	2
1123600540	**5,40**	5,40	93	57	2
1123600550	**5,50**	5,50	93	57	2
1123600560	**5,60**	5,60	93	57	2
1123600570	**5,70**	5,70	93	57	2
1123600580	**5,80**	5,80	93	57	2
1123600590	**5,90**	5,90	93	57	2
1123600600	**6,00**	6,00	93	57	2
1123600610	**6,10**	6,10	101	63	2
1123600620	**6,20**	6,20	101	63	2

Cod.	d1	d2	L1	L2	MOQ*
1123600630	**6,30**	6,30	101	63	2
1123600640	**6,40**	6,40	101	63	2
1123600650	**6,50**	6,50	101	63	2
1123600660	**6,60**	6,60	101	63	2
1123600670	**6,70**	6,70	101	63	2
1123600680	**6,80**	6,80	109	69	2
1123600690	**6,90**	6,90	109	69	2
1123600700	**7,00**	7,00	109	69	2
1123600710	**7,10**	7,10	109	69	2
1123600720	**7,20**	7,20	109	69	2
1123600730	**7,30**	7,30	109	69	2
1123600740	**7,40**	7,40	109	69	2
1123600750	**7,50**	7,50	109	69	2
1123600760	**7,60**	7,60	117	75	2
1123600770	**7,70**	7,70	117	75	2
1123600780	**7,80**	7,80	117	75	2
1123600790	**7,90**	7,90	117	75	2
1123600800	**8,00**	8,00	117	75	2
1123600810	**8,10**	8,10	117	75	2
1123600820	**8,20**	8,20	117	75	2
1123600830	**8,30**	8,30	117	75	2
1123600840	**8,40**	8,40	117	75	2
1123600850	**8,50**	8,50	117	75	2
1123600860	**8,60**	8,60	125	81	2
1123600870	**8,70**	8,70	125	81	2
1123600880	**8,80**	8,80	125	81	2
1123600900	**9,00**	9,00	125	81	2
1123600910	**9,10**	9,10	125	81	2
1123600920	**9,20**	9,20	125	81	2
1123600930	**9,30**	9,30	125	81	2
1123600940	**9,40**	9,40	125	81	2
1123600950	**9,50**	9,50	125	81	2
1123600960	**9,60**	9,60	133	87	2
1123600970	**9,70**	9,70	133	87	2
1123600980	**9,80**	9,80	133	87	2
1123600990	**9,90**	9,90	133	87	2
1123601000	**10,00**	10,00	133	87	2
1123601010	**10,10**	10,10	133	87	2
1123601020	**10,20**	10,20	133	87	2
1123601030	**10,30**	10,30	133	87	2
1123601040	**10,40**	10,40	133	87	2
1123601050	**10,50**	10,50	133	87	2
1123601100	**11,00**	11,00	142	94	1
1123601150	**11,50**	11,50	142	94	1
1123601200	**12,00**	12,00	151	101	1
1123601230	**12,30**	12,30	151	101	1
1123601250	**12,50**	12,50	151	101	1
1123601270	**12,70**	12,70	151	101	1
1123601300	**13,00**	13,00	151	101	1
1123601310	**13,10**	13,10	151	101	1
1123601350	**13,50**	13,50	160	108	1
1123601400	**14,00**	14,00	160	108	1

10.2000

HSS DRILL DIN 338 BLACK HVA

- Broca DIN 338 HSS BLACK HVA
- Foret DIN 338 HSS BLACK HVA
- Punta DIN 338 HSS NERA HVA
- Сверла средней серии HSS DIN 338 BLACK HVA
- Hss matkap din 338 siyah hva
- 高速钢钻 DIN338 黑色HVA涂层

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* Minimum order quantity due to package size / Cantidad de pedido mínimo.

Cod.	d1	d2	L1	L2	MOQ*
1020000100	**1,00**	1,00	34	12	10
1020000110	**1,10**	1,10	36	14	10
1020000130	**1,30**	1,30	38	16	10
1020000140	**1,40**	1,40	40	18	10
1020000150	**1,50**	1,50	40	18	10
1020000160	**1,60**	1,60	43	20	10
1020000170	**1,70**	1,70	43	20	10
1020000180	**1,80**	1,80	46	22	10
1020000190	**1,90**	1,90	46	22	10
1020000200	**2,00**	2,00	49	24	10
1020000220	**2,20**	2,20	53	27	10
1020000230	**2,30**	2,30	53	27	10
1020000240	**2,40**	2,40	57	30	10
1020000250	**2,50**	2,50	57	30	10
1020000260	**2,60**	2,60	57	30	10
1020000270	**2,70**	2,70	61	33	10
1020000280	**2,80**	2,80	61	33	10

Cod.	d1	d2	L1	L2	MOQ*
1020000290	**2,90**	2,90	61	33	10
1020000300	**3,00**	3,00	61	33	10
1020000310	**3,10**	3,10	65	36	10
1020000325	**3,25**	3,25	65	36	10
1020000330	**3,30**	3,30	65	36	10
1020000340	**3,40**	3,40	70	39	10
1020000350	**3,50**	3,50	70	39	10
1020000360	**3,60**	3,60	70	39	10
1020000370	**3,70**	3,70	70	39	10
1020000380	**3,80**	3,80	75	43	10
1020000390	**3,90**	3,90	75	43	10
1020000400	**4,00**	4,00	75	43	10
1020000410	**4,10**	4,10	75	43	10
1020000420	**4,20**	4,20	75	43	10
1020000430	**4,30**	4,30	80	47	10
1020000440	**4,40**	4,40	80	47	10
1020000450	**4,50**	4,50	80	47	10

Cod.	d1	d2	L1	L2	MOQ*
1020000460	**4,60**	4,60	80	47	10
1020000470	**4,70**	4,70	80	47	10
1020000480	**4,80**	4,80	86	52	10
1020000490	**4,90**	4,90	86	52	10
1020000500	**5,00**	5,00	86	52	10
1020000510	**5,10**	5,10	86	52	10
1020000520	**5,20**	5,20	86	52	10
1020000530	**5,30**	5,30	86	52	10
1020000540	**5,40**	5,40	93	57	10
1020000550	**5,50**	5,50	93	57	10
1020000560	**5,60**	5,60	93	57	10
1020000570	**5,70**	5,70	93	57	10
1020000580	**5,80**	5,80	93	57	10
1020000590	**5,90**	5,90	93	57	10
1020000600	**6,00**	6,00	93	57	10
1020000610	**6,10**	6,10	101	63	10
1020000620	**6,20**	6,20	101	63	10
1020000630	**6,30**	6,30	101	63	10
1020000640	**6,40**	6,40	101	63	10
1020000650	**6,50**	6,50	101	63	10
1020000660	**6,60**	6,60	101	63	10
1020000670	**6,70**	6,70	101	63	10
1020000680	**6,80**	6,80	109	69	10
1020000690	**6,90**	6,90	109	69	10
1020000700	**7,00**	7,00	109	69	10
1020000710	**7,10**	7,10	109	69	10
1020000720	**7,20**	7,20	109	69	10
1020000730	**7,30**	7,30	109	69	10
1020000740	**7,40**	7,40	109	69	10
1020000750	**7,50**	7,50	109	69	10
1020000760	**7,60**	7,60	117	75	5
1020000770	**7,70**	7,70	117	75	5
1020000780	**7,80**	7,80	117	75	5
1020000790	**7,90**	7,90	117	75	5

Cod.	d1	d2	L1	L2	MOQ*
1020000800	**8,00**	8,00	117	75	5
1020000810	**8,10**	8,10	117	75	5
1020000820	**8,20**	8,20	117	75	5
1020000830	**8,30**	8,30	117	75	5
1020000840	**8,40**	8,40	117	75	5
1020000850	**8,50**	8,50	117	75	5
1020000860	**8,60**	8,60	125	81	5
1020000870	**8,70**	8,70	125	81	5
1020000880	**8,80**	8,80	125	81	5
1020000890	**8,90**	8,90	125	81	5
1020000900	**9,00**	9,00	125	81	5
1020000910	**9,10**	9,10	125	81	5
1020000920	**9,20**	9,20	125	81	5
1020000930	**9,30**	9,30	125	81	5
1020000940	**9,40**	9,40	125	81	5
1020000950	**9,50**	9,50	125	81	5
1020000960	**9,60**	9,60	133	87	5
1020000970	**9,70**	9,70	133	87	5
1020000980	**9,80**	9,80	133	87	5
1020000990	**9,90**	9,90	133	87	5
1020001000	**10,00**	10,00	133	87	5
1020001010	**10,10**	10,10	133	87	5
1020001050	**10,50**	10,50	133	87	5
1020001100	**11,00**	11,00	142	94	1
1020001150	**11,50**	11,50	142	94	1
1020001200	**12,00**	12,00	151	101	1
1020001250	**12,50**	12,50	151	101	1
1020001300	**13,00**	13,00	151	101	1
1020001350	**13,50**	13,50	160	108	1
1020001400	**14,00**	14,00	160	108	1
1020001450	**14,50**	14,50	169	114	1
1020001500	**15,00**	15,00	169	114	1
1020001550	**15,50**	15,50	178	120	1
1020001600	**16,00**	16,00	178	120	1

12.2105

HSS DRILL DIN 338 TiN- Up

- Broca DIN 338 HSS TiN-Up
- Foret DIN 338 HSS TiN-Up
- Punta DIN 338 HSS TiN- Up
- Сверла средней серии HSS DIN 338 TiN-Up
- Hss matkap din 338 tutma
- 高速钢钻 DIN338 TiN-Up涂层

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* Minimium order quantity due to package size / Cantidad de pedido mínimo.

Cod.	d1	d2	L1	L2	MOQ*
1221050100	**1,00**	1,00	34	12	10
1221050110	**1,10**	1,10	36	14	10
1221050120	**1,20**	1,20	38	16	10
1221050130	**1,30**	1,30	38	16	10
1221050140	**1,40**	1,40	40	18	10
1221050150	**1,50**	1,50	40	18	10
1221050160	**1,60**	1,60	43	20	10
1221050170	**1,70**	1,70	43	20	10
1221050180	**1,80**	1,80	46	22	10
1221050190	**1,90**	1,90	46	22	10
1221050200	**2,00**	2,00	49	24	10
1221050210	**2,10**	2,10	49	24	10
1221050220	**2,20**	2,20	53	27	10
1221050230	**2,30**	2,30	53	27	10
1221050240	**2,40**	2,40	57	30	10
1221050250	**2,50**	2,50	57	30	10
1221050260	**2,60**	2,60	57	30	10
1221050270	**2,70**	2,70	61	33	10
1221050280	**2,80**	2,80	61	33	10
1221050290	**2,90**	2,90	61	33	10
1221050300	**3,00**	3,00	61	33	10
1221050310	**3,10**	3,10	65	36	10
1221050330	**3,30**	3,30	65	36	10
1221050340	**3,40**	3,40	70	39	10
1221050350	**3,50**	3,50	70	39	10
1221050360	**3,60**	3,60	70	39	10
1221050370	**3,70**	3,70	70	39	10
1221050380	**3,80**	3,80	75	43	10
1221050390	**3,90**	3,90	75	43	10
1221050400	**4,00**	4,00	75	43	10
1221050410	**4,10**	4,10	75	43	10
1221050420	**4,20**	4,20	75	43	10
1221050430	**4,30**	4,30	80	47	10
1221050440	**4,40**	4,40	80	47	10
1221050450	**4,50**	4,50	80	47	10
1221050460	**4,60**	4,60	80	47	10
1221050470	**4,70**	4,70	80	47	10
1221050480	**4,80**	4,80	86	52	10
1221050490	**4,90**	4,90	86	52	10
1221050500	**5,00**	5,00	86	52	10
1221050510	**5,10**	5,10	86	52	10
1221050520	**5,20**	5,20	86	52	10
1221050530	**5,30**	5,30	86	52	10
1221050540	**5,40**	5,40	93	57	10
1221050550	**5,50**	5,50	93	57	10
1221050560	**5,60**	5,60	93	57	10
1221050570	**5,70**	5,70	93	57	10
1221050580	**5,80**	5,80	93	57	10
1221050590	**5,90**	5,90	93	57	10
1221050600	**6,00**	6,00	93	57	10
1221050610	**6,10**	6,10	101	63	10
1221050620	**6,20**	6,20	101	63	10

Cod.	d1	d2	L1	L2	MOQ*
1221050630	**6,30**	6,30	101	63	10
1221050640	**6,40**	6,40	101	63	10
1221050650	**6,50**	6,50	101	63	10
1221050660	**6,60**	6,60	101	63	10
1221050670	**6,70**	6,70	101	63	10
1221050680	**6,80**	6,80	109	69	10
1221050690	**6,90**	6,90	109	69	10
1221050700	**7,00**	7,00	109	69	10
1221050710	**7,10**	7,10	109	69	10
1221050720	**7,20**	7,20	109	69	10
1221050730	**7,30**	7,30	109	69	10
1221050740	**7,40**	7,40	109	69	10
1221050750	**7,50**	7,50	109	69	10
1221050760	**7,60**	7,60	117	75	10
1221050770	**7,70**	7,70	117	75	10
1221050780	**7,80**	7,80	117	75	10
1221050790	**7,90**	7,90	117	75	10
1221050800	**8,00**	8,00	117	75	5
1221050810	**8,10**	8,10	117	75	5
1221050820	**8,20**	8,20	117	75	5
1221050830	**8,30**	8,30	117	75	5
1221050840	**8,40**	8,40	117	75	5
1221050850	**8,50**	8,50	117	75	5
1221050860	**8,60**	8,60	125	81	5
1221050870	**8,70**	8,70	125	81	5
1221050880	**8,80**	8,80	125	81	5
1221050890	**8,90**	8,90	125	81	5
1221050900	**9,00**	9,00	125	81	5
1221050910	**9,10**	9,10	125	81	5
1221050920	**9,20**	9,20	125	81	5
1221050930	**9,30**	9,30	125	81	5
1221050940	**9,40**	9,40	125	81	5
1221050950	**9,50**	9,50	125	81	5
1221050960	**9,60**	9,60	133	87	5
1221050970	**9,70**	9,70	133	87	5
1221050980	**9,80**	9,80	133	87	5
1221050990	**9,90**	9,90	133	87	5
1221051000	**10,00**	10,00	133	87	5
1221051010	**10,10**	10,10	133	87	5
1221051020	**10,20**	10,20	133	87	5
1221051050	**10,50**	10,50	133	87	5
1221051080	**10,80**	10,80	142	94	1
1221051100	**11,00**	11,00	142	94	1
1221051120	**11,20**	11,20	142	94	1
1221051150	**11,50**	11,50	142	94	1
1221051180	**11,80**	11,80	142	94	1
1221051200	**12,00**	12,00	151	101	1
1221051220	**12,20**	12,20	151	101	1
1221051250	**12,50**	12,50	151	101	1
1221051280	**12,80**	12,80	151	101	1
1221051300	**13,00**	13,00	151	101	1

10.5690

HSSCo NC 90º SPOTTING DRILL TIALN

- Broca puntear 90º Máquina NC TiAlN
- Foret pour centrage 90º Machine NC TiAlN
- Punta da centro a 90° per macchina CNC HSSCo TiAlN
- Центровочные сверла NC 90° HSSCo TiAlN
- HSSCO cnc 90° noktalama matkap TiAlN
- 高速钢钻钻 NC 90度刃 TIALN涂层

h6 tolerance | 600 1200 N/mm² | INOX | GG(G) | ALU NE | TITAN INCONELL | TiAlN | 90° | HB

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* Minimium order quantity due to package size / Cantidad de pedido mínimo.

Cod.	d1	d2	L1	L2	MOQ*
1056900300	**3**	3	46	12	2
1056900400	**4**	4	55	12	2
1056900500	**5**	5	62	14	2
1056900600	**6**	6	66	16	2
1056900800	**8**	8	79	21	2
1056901000	**10**	10	89	25	2
1056901200	**12**	12	102	30	1
1056901600	**16**	16	115	37,5	1
1056902000	**20**	20	131	45	1

HSSCo NC 120º SPOTTING DRILL TIALN

10.5612

- Broca puntear 120º Máquina NC TiAlN
- Foret pour centrage 120º Machine NC TiAlN
- Punta da centro a 120° per macchina CNC HSSCo TiAlN
- Центровочные сверла NC 120° HSSCo TiAlN
- HSSCO cnc 120° noktalama matkap tialn
- 高速钢钻钻 NC 120度刃 TIALN涂层

DRILL LINE

h6 tolerance | 600 1200 N/mm² | INOX | GG(G) | ALU NE | TITAN INCONELL | TiAlN

120º

HB

p-131

* Minimium order quantity due to package size / Cantidad de pedido mínimo.

Cod.	d1	d2	L1	L2	MOQ*
1056120300	**3**	3	46	12	2
1056120400	**4**	4	55	12	2
1056120500	**5**	5	62	14	2
1056120600	**6**	6	66	16	2
1056120800	**8**	8	79	21	2
1056121000	**10**	10	89	25	2
1056121200	**12**	12	102	30	1
1056121600	**16**	16	115	37,5	1
1056122000	**20**	20	131	45	1

10.5510

HSS CENTER DRILL DIN 333A

Broca para centrar DIN 333A
Foret pour centrage DIN 333A
Punta da centro DIN 333A
Центровочные сверла HSS DIN 333
HSS merkezi matkap din 333a
高速钢定心钻 DIN333A

600 1200 N/mm²
INOX
GG(G)
ALU NE
TITAN INCONELL
BRIGHT
118°
HA
p-131

* Minimium order quantity due to package size / Cantidad de pedido mínimo.
* * One tip up to (ø) 0,80 mm / Una punta hasta (ø) 0,80 mm.

Cod.	d1	d2	L1	L2	MOQ*
* * 1055100050	**0,50**	3,15	25,0	7,0	5
* * 1055100080	**0,80**	3,15	25,0	7,0	5
1055100100	**1,00**	3,15	31,5	7,0	5
1055100125	**1,25**	3,15	31,5	7,0	5
1055100160	**1,60**	4,00	35,5	8,5	5
1055100200	**2,00**	5,00	40,0	10,5	5
1055100250	**2,50**	6,30	45,0	14,0	5

Cod.	d1	d2	L1	L2	MOQ*
1055100315	**3,15**	8,00	50,0	16,0	5
1055100400	**4,00**	10,00	56,0	19,0	5
1055100500	**5,00**	12,50	63,0	23,0	1
1055100630	**6,30**	16,00	71,0	26,0	1
1055100800	**8,00**	20,00	80,0	32,0	1
1055101000	**10,00**	25,00	100,0	40,0	1
1055101250	**12,50**	31,50	125,0	50,0	1

HSS CENTER DRILL DIN 333A XTRA LONG

10.5514

- Broca para centrar DIN 333A extra larga
- Foret pour centrage DIN 333A longue
- Punta da centro extra lunga DIN 333A
- Центровочные сверла HSS DIN 333, длинная серия
- HSS merkezi matkap din 333a xtra uzun
- 高速钢定心钻 DIN333A 加长

600 1200 N/mm²
INOX
GG(G)
ALU NE
TITAN INCONELL
BRIGHT
118°
HA

p-131

DRILL LINE

* Minimium order quantity due to package size / Cantidad de pedido mínimo.

Cod.	d1	d2	L1	L2	MOQ*
1055140200	**2,00**	6	120	10,50	1
1055142500	**2,50**	8	120	14,00	1
1055143150	**3,15**	10	120	16,00	1

CUTTING CONDITIONS SOLID CARBIDE

Material		Internal coolant		Feed Option
		No	Yes	
		Vc m/min	Vc m/min	
Steel	General steels <500 N/mm² (<150 HB)	100-130	145	68
	General steels <700 N/mm² (<205 HB)	90-120	130	68
	General steels <850 N/mm² (<25 HRC)	80-110	120	66
	General steels <1000 N/mm² (<32 HRC)	70-100	110	65
	General steels <1200 N/mm² (<44 HRC)	50-80	100	65
	Tempering steel <850 N/mm² (<25 HRC)	100-130	145	66
	Tempering steel <1000 N/mm² (<32 HRC)	90-120	130	65
	Tempering steel <1200 N/mm² (<44 HRC)	80-110	120	65
	Tempering steel >1200 N/mm² (>44 HRC)	70-100	110	63
	Tempered steels 45-55 HRC	40-60	60	63
	Tempered steels 55-60 HRC	20-30	25	62
Cast Iron	Cast iron <180HB	140-160	210	69
	Malleable cast iron GTW - GTS	120-140	160	69
	Nodular cast iron GG - GGG	100-120	140	69
Non ferrous	Aluminium and AL-alloyed <6 % S	200-260	310	69
	Aluminium and AL-alloyed 6%-12% S	200-260	310	69
	Aluminium alloyed over >12% S	180-220	260	69
	Copper, long chips	105	125	67
	Brass, bronze, short chips	270	220	67
	Brass, bronze, long chips	180	325	68
INOX	INOX Stainless steel <700 N/mm² (<205 HB)	55	60	65
	INOX Stainless steel >700 N/mm² (>205 HB)	45	55	65
Exotic materials	Titanium, Ti-, Ni-, Co- alloy (Inconel, Stellite...)	25	35	64
	Ti 1 / Ti Al6V4	35	40	63

60.6003
60.6005
60.6803
60.6805
60.6808
60.6812
67.6885

Feed rates

d1	Feed Option								
	61	62	63	64	65	66	67	68	69
3	0,032	0,040	0,050	0,060	0,080	0,100	0,120	0,160	0,160
4	0,040	0,050	0,065	0,080	0,100	0,122	0,160	0,200	0,200
5	0,040	0,050	0,065	0,080	0,100	0,122	0,160	0,200	0,250
6	0,050	0,065	0,085	0,100	0,130	0,170	0,240	0,270	0,300
8	0,060	0,080	0,100	0,135	0,170	0,200	0,290	0,330	0,330
10	0,080	0,100	0,125	0,160	0,200	0,240	0,330	0,400	0,400
12	0,080	0,100	0,125	0,160	0,200	0,240	0,330	0,400	0,500
16	0,100	0,130	0,160	0,220	0,250	0,330	0,400	0,500	0,600
20	0,125	0,150	0,200	0,260	0,320	0,400	0,500	0,600	0,700

Drilling deep
Vc correction factor

1XD	3XD	5XD	8XD
Vc x1.2	x1	x0.8	x0.7

Conditions of work guidelines. may vary on each concrete case.
Condiciones de trabajo orientativas. pueden variar en función de cada caso concreto.

CUTTING CONDITIONS HSS

		U-NEWDRILL 11.1360 11.2360		BLACK HVA 10.2000	TiN-Up 12.2105		CENTER DRILL 10.5510 10.5514	SPOT DRILL 10.5690 10.5612	
		Vc m/min	Feed Option	Vc m/min	Vc m/min	Feed Option	Vc m/min	Vc m/min	Feed Option
Steel	General steels <500 N/mm² (<150 HB)	50	**16**	30	35	**16**	18	30	**13**
	General steels <700 N/mm² (<205 HB)	45	**16**	30	35	**16**	18	27	**13**
	General steels <850 N/mm² (<25 HRC)	40	**16**	23	27	**15**	14	24	**13**
	General steels <1000 N/mm² (<32 HRC)	27	**16**	20	0,24	**14**	12	16	**12**
	General steels <1200 N/mm² (<44 HRC)	22	**15**	19	0,22	**13**	11	12	**12**
	Tempering steel <850 N/mm² (<25 HRC)	40	**14**	23	27	**15**	14	24	**13**
	Tempering steel <1000 N/mm² (<32 HRC)	27	**13**	20	24	**14**	12	16	**12**
	Tempering steel <1200 N/mm² (<44 HRC)	22	**13**	19	22	**13**	11	12	**12**
Cast Iron	Cast iron <180HB	45	**16**	31	36	**16**	18	27	**14**
	Malleable cast iron GTW - GTS	30	**16**	20	24	**16**	12	18	**13**
	Nodular cast iron GG - GGG	40	**16**	31	36	**16**	18	24	**14**
Non ferrous	Aluminium and AL-alloyed <6 % S	80	**17**	77	90	**17**	45	48	**15**
	Aluminium and AL-alloyed 6%-12% S	70	**17**	68	80	**17**	40	42	**15**
	Aluminium alloyed over >12% S	70	**17**	60	70	**17**	35	42	**15**
	Copper, long chips	80	**15**	60	70	**15**	35	48	**13**
	Brass, bronze, short chips	70	**14**	28	33	**14**	18	42	**15**
	Brass, bronze, long chips	50	**14**	15	18	**14**	10	30	**15**
INOX	INOX Stainless steel <700 N/mm² (<205 HB)	20	**14**					12	**12**
	INOX Stainless steel >700 N/mm² (>205 HB)	16	**14**					8	**12**

Feed rates

d1	Feed Option								
	11	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**
0,50	0,004	0,006	0,008	0,010	0,010	0,012	0,014	0,016	0,020
1,00	0,006	0,008	0,012	0,015	0,016	0,017	0,020	0,024	0,025
2,00	0,020	0,025	0,030	0,035	0,045	0,057	0,070	0,100	0,100
2,50	0,025	0,032	0,040	0,050	0,070	0,080	0,100	0,120	0,120
3,00	0,032	0,040	0,050	0,060	0,080	0,100	0,120	0,160	0,160
4,00	0,040	0,050	0,065	0,080	0,100	0,122	0,160	0,200	0,200
5,00	0,040	0,050	0,065	0,080	0,100	0,122	0,160	0,200	0,200
6,00	0,050	0,065	0,085	0,100	0,130	0,170	0,240	0,270	0,270
8,00	0,060	0,080	0,100	0,135	0,170	0,200	0,290	0,330	0,330
10,00	0,080	0,100	0,125	0,160	0,200	0,240	0,330	0,400	0,400
12,00	0,080	0,100	0,125	0,160	0,200	0,240	0,330	0,400	0,400
16,00	0,100	0,130	0,160	0,220	0,250	0,330	0,400	0,500	0,500
20,00	0,125	0,150	0,200	0,260	0,320	0,400	0,500	0,650	0,650

Conditions of work guidelines. may vary on each concrete case.
Condiciones de trabajo orientativas. pueden variar en función de cada caso concreto.