

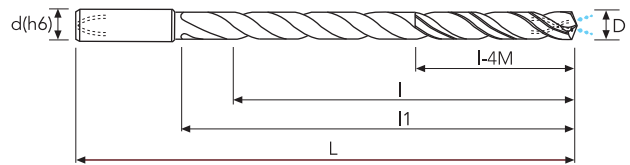
3530HL

4-margin lands, long (30xD), polished flutes, HL (through coolant)



P	M	K	N	S	H
★	★	★	☆	☆	

★ 1st choice ☆ suitable



D(h7)	D Tol.	d(h6)	l	l1	L	l-4M	drilling length	EDP No.	Stock
3.10*	0/-0.012	4	94	99	135	15.5	30 x D	3530HL0310	○
3.20	0/-0.012	4	97	102	135	16	30 x D	3530HL0320	○
3.30	0/-0.012	4	100	105	140	16.5	30 x D	3530HL0330	○
3.40	0/-0.012	4	103	108	145	17	30 x D	3530HL0340	○
3.50	0/-0.012	4	106	111	145	17.5	30 x D	3530HL0350	●
3.60	0/-0.012	4	109	114	150	18	30 x D	3530HL0360	○
3.70	0/-0.012	4	112	118	155	18.5	30 x D	3530HL0370	○
3.80	0/-0.012	4	115	121	155	19	30 x D	3530HL0380	○
3.90	0/-0.012	4	118	124	160	19.5	30 x D	3530HL0390	○
4.00	0/-0.012	4	121	127	160	20	30 x D	3530HL0400	●
4.10	0/-0.012	5	124	130	165	20.5	30 x D	3530HL0410	○
4.20	0/-0.012	5	127	133	170	21	30 x D	3530HL0420	○
4.30	0/-0.012	5	130	136	175	21.5	30 x D	3530HL0430	○
4.40	0/-0.012	5	133	140	175	22	30 x D	3530HL0440	○
4.50	0/-0.012	5	136	143	180	22.5	30 x D	3530HL0450	●
4.60	0/-0.012	5	139	146	185	23	30 x D	3530HL0460	○
4.70	0/-0.012	5	142	149	185	23.5	30 x D	3530HL0470	○
4.80	0/-0.012	5	145	152	190	24	30 x D	3530HL0480	○
4.90	0/-0.012	5	148	155	190	24.5	30 x D	3530HL0490	○
5.00	0/-0.012	5	151	159	195	25	30 x D	3530HL0500	●
5.10	0/-0.012	6	154	162	200	25.5	30 x D	3530HL0510	○
5.20	0/-0.012	6	157	165	205	26	30 x D	3530HL0520	○
5.30	0/-0.012	6	160	168	205	26.5	30 x D	3530HL0530	○
5.40	0/-0.012	6	163	171	210	27	30 x D	3530HL0540	○
5.50	0/-0.012	6	166	174	215	27.5	30 x D	3530HL0550	●
5.60	0/-0.012	6	169	177	215	28	30 x D	3530HL0560	○
5.70	0/-0.012	6	172	181	220	28.5	30 x D	3530HL0570	○
5.80	0/-0.012	6	175	184	225	29	30 x D	3530HL0580	○
5.90	0/-0.012	6	178	187	225	29.5	30 x D	3530HL0590	○
6.00	0/-0.012	6	181	190	230	30	30 x D	3530HL0600	●
6.10	0/-0.015	8	184	193	230	30.5	30 x D	3530HL0610	○
6.20	0/-0.015	8	187	196	135	31	30 x D	3530HL0620	○
6.30	0/-0.015	8	190	199	240	31.5	30 x D	3530HL0630	○
6.40	0/-0.015	8	193	203	240	32	30 x D	3530HL0640	○
6.50	0/-0.015	8	196	206	245	32.5	30 x D	3530HL0650	●
6.60	0/-0.015	8	199	209	250	33	30 x D	3530HL0660	○
6.70	0/-0.015	8	202	212	250	33.5	30 x D	3530HL0670	○
6.80	0/-0.015	8	205	215	255	34	30 x D	3530HL0680	○
6.90	0/-0.015	8	208	218	255	34.5	30 x D	3530HL0690	○

* Ø1+Ø3 = 3530 SUH MINI page 160

INFO
TYPHOON TA-HTA-4HTA
TYPHOON PU-HPU
TYPHOON SUH
TYPHOON ALH
TYPHOON HRC
TYPHOON SUH MINI
TYPHOON HL
C-SD-TA
LFTA
SUTA
HSS-HSS/CO DRILLS
G2
MDTA
HF VH/UP
MEF
ALU
MEX
UH
HSS/CO-HSSP END MILLS
CARBIDE BURRS

3530HL

4-margin lands, long (30xD), polished flutes, HL (through coolant)

30XD

OSAWA
NORM

HL

MG
PV250

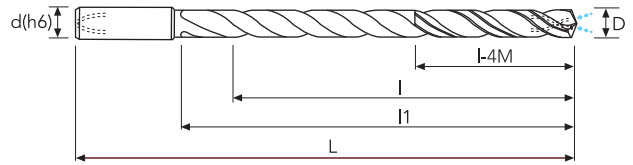
135°

30°



P	M	K	N	S	H
★	★	★	☆	☆	

★ 1st choice ☆ suitable



D(h7)	D Tol.	d(h6)	l	l1	L	l-4M	drilling length	EDP No.	Stock
7.00	0/-0.015	8	211	222	265	35	30 x D	3530HL0700	○
7.10	0/-0.015	8	214	225	265	35.5	30 x D	3530HL0710	○
7.20	0/-0.015	8	217	228	270	36	30 x D	3530HL0720	○
7.30	0/-0.015	8	220	231	270	36.5	30 x D	3530HL0730	○
7.40	0/-0.015	8	223	234	275	37	30 x D	3530HL0740	○
7.50	0/-0.015	8	226	237	280	37.5	30 x D	3530HL0750	○
7.60	0/-0.015	8	229	240	280	38	30 x D	3530HL0760	○
7.70	0/-0.015	8	232	244	285	38.5	30 x D	3530HL0770	○
7.80	0/-0.015	8	235	247	290	39	30 x D	3530HL0780	○
7.90	0/-0.015	8	238	250	290	39.5	30 x D	3530HL0790	○
8.00	0/-0.015	8	241	253	295	40	30 x D	3530HL0800	●

- INFO
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- TYPHOON HL
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- LFTA
- SUTA
- HSS-HSS/CO DRILLS
- G2
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- CARBIDE BURRS

3530HL

	Material Group ISO 513	P1 P2			P3 P4			P5			P6		
	Hardness/Rm	500-700 N/mm ²			600-1000 N/mm ²			900-1200 N/mm ²			1200-1400 N/mm ²		
	Vc (m/min)	60-70			50-60			40-50			30-40		
	D (mm)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)
3.0	6900	0,077	530	5800	0,070	400	4800	0,062	300	3700	0,054	200	
3.5	5900	0,089	530	5000	0,080	400	4100	0,071	290	3200	0,062	200	
4.0	5200	0,107	560	4400	0,097	420	3600	0,086	310	2800	0,075	210	
4.5	4600	0,125	580	3900	0,113	440	3200	0,100	320	2500	0,088	220	
5.0	4100	0,143	590	3500	0,129	450	2900	0,114	330	2200	0,100	220	
5.5	3800	0,160	610	3200	0,144	460	2600	0,128	330	2000	0,112	220	
6.0	3400	0,178	610	2900	0,160	460	2400	0,142	340	1900	0,125	240	
6.5	3200	0,196	630	2700	0,177	480	2200	0,157	350	1700	0,137	230	
7.0	3000	0,214	640	2500	0,193	480	2000	0,171	340	1600	0,150	240	
7.5	2800	0,232	650	2300	0,209	480	1900	0,186	350	1500	0,162	240	
8.0	2600	0,250	650	2200	0,225	500	1800	0,200	360	1400	0,175	250	

	Material Group ISO 513	M1 M2			M3			M4			M5		
	Hardness/Rm	< 750 N/mm ²			550-850 N/mm ²			650-950 N/mm ²			850-1200 N/mm ²		
	Vc (m/min)	35-45			30-38			24-30			18-22		
	D (mm)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)
3.0	4200	0,058	240	3600	0,052	190	2900	0,039	110	2100	0,035	70	
3.5	3600	0,067	240	3100	0,060	190	2500	0,044	110	1800	0,040	70	
4.0	3200	0,080	260	2700	0,072	190	2100	0,053	110	1600	0,048	80	
4.5	2800	0,094	260	2400	0,085	200	1900	0,062	120	1400	0,056	80	
5.0	2500	0,107	270	2200	0,096	210	1700	0,070	120	1300	0,064	80	
5.5	2300	0,120	280	2000	0,108	220	1600	0,079	130	1200	0,072	90	
6.0	2100	0,134	280	1800	0,121	220	1400	0,088	120	1100	0,080	90	
6.5	2000	0,147	290	1700	0,132	220	1300	0,097	130	1000	0,088	90	
7.0	1800	0,161	290	1500	0,145	220	1200	0,106	130	900	0,096	90	
7.5	1700	0,174	300	1400	0,157	220	1100	0,114	130	800	0,104	80	
8.0	1600	0,188	300	1400	0,169	240	1100	0,124	140	800	0,113	90	

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- CARBIDE BURRS

3530HL

	Material Group ISO 513	K1			K2			K3			K4		
	Hardness/Rm	150-250 HB			150-350 HB			120-260 HB			250-500 HB		
	Vc (m/min)	55-65			45-55			35-45			27-33		
	D (mm)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)
	3.0	6400	0,077	490	5300	0,069	370	4200	0,059	250	3200	0,054	170
	3.5	5500	0,089	490	4500	0,080	360	3600	0,068	250	2700	0,062	170
	4.0	4800	0,107	510	4000	0,096	390	3200	0,083	260	2400	0,075	180
	4.5	4200	0,125	530	3500	0,113	390	2800	0,097	270	2100	0,088	180
	5.0	3800	0,143	540	3200	0,129	410	2500	0,110	280	1900	0,100	190
	5.5	3500	0,160	560	2900	0,144	420	2300	0,123	280	1700	0,112	190
	6.0	3200	0,178	570	2700	0,160	430	2100	0,138	290	1600	0,125	200
	6.5	2900	0,196	570	2400	0,176	420	2000	0,151	300	1500	0,137	210
	7.0	2700	0,214	580	2300	0,193	440	1800	0,165	300	1400	0,150	210
	7.5	2500	0,232	580	2100	0,209	440	1700	0,178	300	1300	0,162	210
	8.0	2400	0,250	600	2000	0,225	450	1600	0,193	310	1200	0,175	210

	Material Group ISO 513	N1			N2			N3 N4					
	Hardness/Rm												
	Vc (m/min)	65-75			55-65			55-65					
	D (mm)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)			
	3.0	7400	0,096	710	6400	0,087	560	6400	0,077	490			
	3.5	6400	0,111	710	5500	0,100	550	5500	0,089	490			
	4.0	5600	0,134	750	4800	0,120	580	4800	0,107	510			
	4.5	5000	0,156	780	4200	0,141	590	4200	0,125	530			
	5.0	4500	0,179	810	3800	0,161	610	3800	0,143	540			
	5.5	4100	0,200	820	3500	0,180	630	3500	0,160	560			
	6.0	3700	0,223	830	3200	0,200	640	3200	0,178	570			
	6.5	3400	0,245	830	2900	0,221	640	2900	0,196	570			
	7.0	3200	0,268	860	2700	0,241	650	2700	0,214	580			
	7.5	3000	0,290	870	2500	0,261	650	2500	0,232	580			
	8.0	2800	0,313	880	2400	0,281	670	2400	0,250	600			

3530HL

	Material Group ISO 513	S1 S2			S3			S4			S5		
	Hardness/Rm	< 35 HRC			35-45 HRC								
	Vc (m/min)	16-20			11-15			22-28			18-22		
	D (mm)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)	n (rpm)	fn (mm/rev)	Vf (mm/min)
3.0	1900	0,038	70	1400	0,038	50	2700	0,051	140	2100	0,051	110	
3.5	1600	0,044	70	1200	0,044	50	2300	0,059	140	1800	0,059	110	
4.0	1400	0,052	70	1000	0,052	50	2000	0,071	140	1600	0,071	110	
4.5	1300	0,061	80	900	0,061	50	1800	0,083	150	1400	0,083	120	
5.0	1100	0,070	80	800	0,070	60	1600	0,095	150	1300	0,095	120	
5.5	1000	0,078	80	800	0,078	60	1400	0,106	150	1200	0,106	130	
6.0	1000	0,087	90	700	0,087	60	1300	0,118	150	1100	0,118	130	
6.5	900	0,096	90	600	0,096	60	1200	0,130	160	1000	0,130	130	
7.0	800	0,105	80	600	0,105	60	1100	0,142	160	900	0,142	130	
7.5	800	0,114	90	600	0,114	70	1100	0,154	170	800	0,154	120	
8.0	700	0,123	90	500	0,123	60	1000	0,166	170	800	0,166	130	

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