Spiral flute drills Supradrill® U

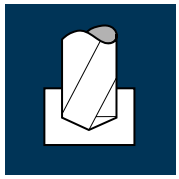
5xd

HM MG10

Rm < 850 | **Rm 850-1100** | Rm 1100-1300 | Rm 1300-1500 | GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62014** ø-Code **0250**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014	B63014
0250	2.50	6.0	66.0	28.0	36	20.8		●
0255	2.55	6.0	66.0	28.0	36	20.7		●
0260	2.60	6.0	66.0	28.0	36	20.6		●
0265	2.65	6.0	66.0	28.0	36	20.6		●
0270	2.70	6.0	66.0	28.0	36	20.6		●
0280	2.80	6.0	66.0	28.0	36	20.4		●
0285	2.85	6.0	66.0	28.0	36	20.4		●
0290	2.90	6.0	66.0	28.0	36	20.4		●
0295	2.95	6.0	66.0	28.0	36	20.3		●
0300	3.00	6.0	66.0	28.0	36	20.2		●
0310	3.10	6.0	66.0	28.0	36	20.2		●
0320	3.20	6.0	66.0	28.0	36	20.0		●
0330	3.30	6.0	66.0	28.0	36	20.0		●
0340	3.40	6.0	66.0	28.0	36	19.8		●
0350	3.50	6.0	66.0	28.0	36	19.8		●
0360	3.60	6.0	66.0	28.0	36	19.6		●
0370	3.70	6.0	66.0	28.0	36	19.6		●
0380	3.80	6.0	74.0	36.0	36	27.4		●
0390	3.90	6.0	74.0	36.0	36	27.4		●
0400	4.00	6.0	74.0	36.0	36	26.9		●
0410	4.10	6.0	74.0	36.0	36	26.9		●
0420	4.20	6.0	74.0	36.0	36	26.8		●
0430	4.30	6.0	74.0	36.0	36	26.8		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	2.50	140	0.0600	17825	1070	5.3
		2.70	140	0.0650	16505	1075	6.2
		2.90	140	0.0700	15365	1075	7.1
		3.00	140	0.0700	14855	1040	7.4
		3.30	140	0.0800	13505	1080	9.2
		3.50	140	0.0850	12730	1080	10.4
		3.80	140	0.0900	11725	1055	12.0
		4.00	140	0.0950	11140	1060	13.3
		4.20	140	0.1000	10610	1060	14.7
	Steel 500 - 850 N/mm²	2.50	110	0.0600	14005	840	4.1
		2.70	110	0.0650	12970	845	4.8
		2.90	110	0.0700	12075	845	5.6
		3.00	110	0.0700	11670	817	5.8
		3.30	110	0.0800	10610	850	7.3
		3.50	110	0.0850	10005	850	8.2
		3.80	110	0.0900	9215	830	9.4
		4.00	110	0.0950	8755	830	10.4
		4.20	110	0.1000	8335	835	11.6
	Steel 850 - 1100 N/mm²	2.50	80	0.0450	10185	460	2.3
		2.70	80	0.0500	9430	470	2.7
		2.90	80	0.0500	8780	440	2.9
		3.00	80	0.0550	8490	467	3.3
		3.30	80	0.0600	7715	465	4.0
		3.50	80	0.0650	7275	475	4.6
		3.80	80	0.0700	6700	470	5.3
		4.00	80	0.0700	6365	445	5.6
		4.20	80	0.0750	6065	455	6.3
	Steel 1100 - 1300 N/mm²	2.50	55	0.0400	7005	280	1.4
		2.70	55	0.0400	6485	260	1.5
		2.90	55	0.0450	6035	270	1.8
		3.00	55	0.0450	5835	263	1.9
		3.30	55	0.0500	5305	265	2.3
		3.50	55	0.0550	5000	275	2.6
		3.80	55	0.0550	4605	255	2.9
		4.00	55	0.0600	4375	265	3.3
		4.20	55	0.0650	4170	270	3.7
	Steel 1300 - 1500 N/mm²	2.50	25	0.0250	3185	80	0.4
		2.70	25	0.0250	2945	75	0.4
		2.90	25	0.0300	2745	80	0.5
		3.00	25	0.0300	2655	80	0.6
		3.30	25	0.0350	2410	85	0.7
		3.50	25	0.0350	2275	80	0.8
		3.80	25	0.0400	2095	85	1.0
		4.00	25	0.0400	1990	80	1.0
		4.20	25	0.0400	1895	75	1.0
	Cold work tool steel (12% Cr), high alloyed [1.2379]	2.50	50	0.0300	6365	190	0.9
		2.70	50	0.0350	5895	205	1.2
		2.90	50	0.0350	5490	190	1.3
		3.00	50	0.0400	5305	212	1.5
		3.30	50	0.0400	4825	195	1.7
		3.50	50	0.0450	4545	205	2.0
		3.80	50	0.0500	4190	210	2.4
		4.00	50	0.0500	3980	200	2.5
		4.20	50	0.0550	3790	210	2.9
	Cast iron (lamellar / spheroidal)	2.50	160	0.0650	20370	1325	6.5
		2.70	160	0.0700	18865	1320	7.6
		2.90	160	0.0750	17560	1315	8.7
		3.00	160	0.0750	16975	1273	9.0
		3.30	160	0.0850	15435	1310	11.2
		3.50	160	0.0900	14550	1310	12.6
		3.80	160	0.1000	13405	1340	15.2
		4.00	160	0.1050	12730	1335	16.8
		4.20	160	0.1100	12125	1335	18.5
	Wrought aluminium alloys Si < 6% hardened	2.50	220	0.0500	28010	1400	6.9
		2.70	220	0.0550	25935	1425	8.2
		2.90	220	0.0600	24150	1450	9.6
		3.00	220	0.0600	23345	1401	9.9
		3.30	220	0.0650	21220	1380	11.8
		3.50	220	0.0700	20010	1400	13.5
		3.80	220	0.0750	18430	1380	15.7
		4.00	220	0.0800	17505	1400	17.6
		4.20	220	0.0850	16675	1415	19.6

Spiral flute drills Supradrill® U

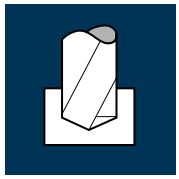
5xd

HM MG10

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **B62014** ø-Code **0440**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014	B63014
0440	4.40	6.0	74.0	36.0	36	26.6		●
0450	4.50	6.0	74.0	36.0	36	26.6		●
0460	4.60	6.0	74.0	36.0	36	26.5		●
0470	4.70	6.0	74.0	36.0	36	26.5		●
0480	4.80	6.0	82.0	44.0	36	34.4		●
0490	4.90	6.0	82.0	44.0	36	34.4		●
0500	5.00	6.0	82.0	44.0	36	34.8		●
0510	5.10	6.0	82.0	44.0	36	34.7		●
0520	5.20	6.0	82.0	44.0	36	34.6		●
0530	5.30	6.0	82.0	44.0	36	34.6		●
0540	5.40	6.0	82.0	44.0	36	34.5		●
0550	5.50	6.0	82.0	44.0	36	34.5		●
0560	5.60	6.0	82.0	44.0	36	34.4		●
0570	5.70	6.0	82.0	44.0	36	34.4		●
0580	5.80	6.0	82.0	44.0	36	34.4		●
0590	5.90	6.0	82.0	44.0	36	34.5		●
0600	6.00	6.0	82.0	44.0	36	34.5		●
0610	6.10	8.0	91.0	53.0	36	41.4		●
0620	6.20	8.0	91.0	53.0	36	41.2		●
0630	6.30	8.0	91.0	53.0	36	41.2		●
0640	6.40	8.0	91.0	53.0	36	41.1		●
0650	6.50	8.0	91.0	53.0	36	41.1		●
0660	6.60	8.0	91.0	53.0	36	41.0		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	4.50	140	0.1050	9905	1040	16.5
		4.80	140	0.1150	9285	1070	19.4
		5.00	140	0.1200	8915	1070	21.0
		5.10	140	0.1200	8740	1050	21.4
		5.50	140	0.1300	8100	1055	25.1
		5.80	140	0.1350	7685	1035	27.3
		6.00	140	0.1400	7425	1040	29.4
		6.10	140	0.1450	7305	1059	31.0
		6.50	140	0.1550	6855	1065	35.3
	Steel 500 - 850 N/mm²	4.50	110	0.1050	7780	815	13.0
		4.80	110	0.1150	7295	840	15.2
		5.00	110	0.1200	7005	840	16.5
		5.10	110	0.1200	6865	825	16.9
		5.50	110	0.1300	6365	825	19.6
		5.80	110	0.1350	6035	815	21.5
		6.00	110	0.1400	5835	815	23.0
		6.10	110	0.1450	5740	832	24.3
		6.50	110	0.1550	5385	835	27.7
	Steel 850 - 1100 N/mm²	4.50	80	0.0800	5660	455	7.2
		4.80	80	0.0850	5305	450	8.1
		5.00	80	0.0900	5095	460	9.0
		5.10	80	0.0900	4995	450	9.2
		5.50	80	0.1000	4630	465	11.0
		5.80	80	0.1050	4390	460	12.2
		6.00	80	0.1100	4245	465	13.1
		6.10	80	0.1100	4175	459	13.4
		6.50	80	0.1150	3920	450	14.9
	Steel 1100 - 1300 N/mm²	4.50	55	0.0700	3890	270	4.3
		4.80	55	0.0700	3645	255	4.6
		5.00	55	0.0750	3500	265	5.2
		5.10	55	0.0750	3435	260	5.3
		5.50	55	0.0850	3185	270	6.4
		5.80	55	0.0850	3020	255	6.7
		6.00	55	0.0900	2920	265	7.5
		6.10	55	0.0900	2870	258	7.5
		6.50	55	0.1000	2695	270	9.0
	Steel 1300 - 1500 N/mm²	4.50	25	0.0450	1770	80	1.3
		4.80	25	0.0500	1660	85	1.5
		5.00	25	0.0500	1590	80	1.6
		5.10	25	0.0500	1560	80	1.6
		5.50	25	0.0550	1445	80	1.9
		5.80	25	0.0600	1370	80	2.1
		6.00	25	0.0600	1325	80	2.3
		6.10	25	0.0600	1305	78	2.3
		6.50	25	0.0650	1225	80	2.7
	Cold work tool steel (12% Cr), high alloyed [1.2379]	4.50	50	0.0600	3535	210	3.3
		4.80	50	0.0600	3315	200	3.6
		5.00	50	0.0650	3185	205	4.0
		5.10	50	0.0650	3120	205	4.2
		5.50	50	0.0700	2895	205	4.9
		5.80	50	0.0750	2745	205	5.4
		6.00	50	0.0750	2655	200	5.7
		6.10	50	0.0800	2610	209	6.1
		6.50	50	0.0850	2450	210	7.0
	Cast iron (lamellar / spheroidal)	4.50	160	0.1150	11320	1300	20.7
		4.80	160	0.1250	10610	1325	24.0
		5.00	160	0.1300	10185	1325	26.0
		5.10	160	0.1300	9985	1300	26.6
		5.50	160	0.1400	9260	1295	30.8
		5.80	160	0.1500	8780	1315	34.7
		6.00	160	0.1550	8490	1315	37.2
		6.10	160	0.1550	8350	1294	37.8
		6.50	160	0.1650	7835	1295	43.0
	Wrought aluminium alloys Si < 6% hardened	4.50	220	0.0900	15560	1400	22.3
		4.80	220	0.0950	14590	1385	25.1
		5.00	220	0.1000	14005	1400	27.5
		5.10	220	0.1000	13730	1375	28.1
		5.50	220	0.1100	12730	1400	33.3
		5.80	220	0.1150	12075	1390	36.7
		6.00	220	0.1200	11670	1400	39.6
		6.10	220	0.1200	11480	1378	40.3
		6.50	220	0.1300	10775	1400	46.5

Spiral flute drills Supradrill® U

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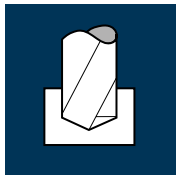
HM MG10

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **B62014** ø-Code **0670**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014	B63014
0670	6.70	8.0	91.0	53.0	36	41.0		●
0680	6.80	8.0	91.0	53.0	36	40.9		●
0690	6.90	8.0	91.0	53.0	36	40.9		●
0700	7.00	8.0	91.0	53.0	36	40.7		●
0710	7.10	8.0	91.0	53.0	36	40.7		●
0720	7.20	8.0	91.0	53.0	36	40.6		●
0730	7.30	8.0	91.0	53.0	36	40.6		●
0740	7.40	8.0	91.0	53.0	36	40.5		●
0750	7.50	8.0	91.0	53.0	36	40.5		●
0760	7.60	8.0	91.0	53.0	36	40.4		●
0770	7.70	8.0	91.0	53.0	36	40.4		●
0780	7.80	8.0	91.0	53.0	36	40.4		●
0790	7.90	8.0	91.0	53.0	36	40.4		●
0800	8.00	8.0	91.0	53.0	36	40.4		●
0810	8.10	10.0	103.0	61.0	40	46.3		●
0820	8.20	10.0	103.0	61.0	40	46.2		●
0830	8.30	10.0	103.0	61.0	40	46.2		●
0840	8.40	10.0	103.0	61.0	40	46.1		●
0850	8.50	10.0	103.0	61.0	40	46.1		●
0860	8.60	10.0	103.0	61.0	40	46.0		●
0870	8.70	10.0	103.0	61.0	40	46.0		●
0880	8.80	10.0	103.0	61.0	40	45.9		●
0890	8.90	10.0	103.0	61.0	40	45.8		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	6.80	140	0.1600	6555	1050	38.1
		6.90	140	0.1650	6460	1065	39.8
		7.00	140	0.1650	6365	1050	40.4
		7.50	140	0.1800	5940	1069	47.2
		7.80	140	0.1850	5715	1057	50.5
		8.00	140	0.1900	5570	1058	53.2
		8.20	140	0.1950	5435	1060	56.0
		8.50	140	0.2000	5245	1049	59.5
		8.60	140	0.2050	5180	1062	61.7
	Steel 500 - 850 N/mm²	6.80	110	0.1600	5150	825	30.0
		6.90	110	0.1650	5075	835	31.2
		7.00	110	0.1650	5000	825	31.7
		7.50	110	0.1800	4670	841	37.1
		7.80	110	0.1850	4490	831	39.7
		8.00	110	0.1900	4375	831	41.8
		8.20	110	0.1950	4270	833	44.0
		8.50	110	0.2000	4120	824	46.8
		8.60	110	0.2050	4070	834	48.5
	Steel 850 - 1100 N/mm²	6.80	80	0.1200	3745	450	16.3
		6.90	80	0.1250	3690	460	17.2
		7.00	80	0.1250	3640	455	17.5
		7.50	80	0.1350	3395	458	20.2
		7.80	80	0.1400	3265	457	21.8
		8.00	80	0.1450	3185	462	23.2
		8.20	80	0.1500	3105	466	24.6
		8.50	80	0.1550	2995	464	26.3
		8.60	80	0.1550	2960	459	26.7
	Steel 1100 - 1300 N/mm²	6.80	55	0.1000	2575	260	9.4
		6.90	55	0.1050	2535	265	9.9
		7.00	55	0.1050	2500	263	10.1
		7.50	55	0.1150	2335	269	11.9
		7.80	55	0.1150	2245	258	12.3
		8.00	55	0.1200	2190	263	13.2
		8.20	55	0.1250	2135	267	14.1
		8.50	55	0.1300	2060	268	15.2
		8.60	55	0.1300	2035	265	15.4
	Steel 1300 - 1500 N/mm²	6.80	25	0.0700	1170	80	2.9
		6.90	25	0.0700	1155	80	3.0
		7.00	25	0.0700	1135	80	3.1
		7.50	25	0.0750	1060	80	3.5
		7.80	25	0.0800	1020	82	3.9
		8.00	25	0.0800	995	80	4.0
		8.20	25	0.0800	970	78	4.1
		8.50	25	0.0850	935	80	4.5
		8.60	25	0.0850	925	79	4.6
	Cold work tool steel (12% Cr), high alloyed [1.2379]	6.80	50	0.0850	2340	200	7.3
		6.90	50	0.0900	2305	205	7.7
		7.00	50	0.0900	2275	205	7.9
		7.50	50	0.0950	2120	201	8.9
		7.80	50	0.1000	2040	204	9.7
		8.00	50	0.1050	1990	209	10.5
		8.20	50	0.1050	1940	204	10.8
		8.50	50	0.1100	1870	206	11.7
		8.60	50	0.1100	1850	204	11.8
	Cast iron (lamellar / spheroidal)	6.80	160	0.1750	7490	1310	47.6
		6.90	160	0.1750	7380	1290	48.2
		7.00	160	0.1800	7275	1310	50.4
		7.50	160	0.1950	6790	1324	58.5
		7.80	160	0.2000	6530	1306	62.4
		8.00	160	0.2050	6365	1305	65.6
		8.20	160	0.2100	6210	1304	68.9
		8.50	160	0.2200	5990	1318	74.8
		8.60	160	0.2200	5920	1302	75.7
	Wrought aluminium alloys Si < 6% hardened	6.80	220	0.1350	10300	1390	50.5
		6.90	220	0.1400	10150	1420	53.1
		7.00	220	0.1400	10005	1401	53.9
		7.50	220	0.1500	9335	1400	61.9
		7.80	220	0.1550	8980	1392	66.5
		8.00	220	0.1600	8755	1401	70.4
		8.20	220	0.1650	8540	1409	74.4
		8.50	220	0.1700	8240	1401	79.5
		8.60	220	0.1700	8145	1385	80.4

Spiral flute drills Supradrill® U

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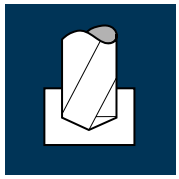
HM MG10

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500						GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62014** ø-Code **0900**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014	B63014
0900	9.00	10.0	103.0	61.0	40	45.7		●
0910	9.10	10.0	103.0	61.0	40	45.7		●
0920	9.20	10.0	103.0	61.0	40	45.6		●
0930	9.30	10.0	103.0	61.0	40	45.6		●
0940	9.40	10.0	103.0	61.0	40	45.5		●
0950	9.50	10.0	103.0	61.0	40	45.5		●
0960	9.60	10.0	103.0	61.0	40	45.4		●
0970	9.70	10.0	103.0	61.0	40	45.4		●
0980	9.80	10.0	103.0	61.0	40	45.3		●
0990	9.90	10.0	103.0	61.0	40	45.4		●
1000	10.00	10.0	103.0	61.0	40	45.4		●
1010	10.10	12.0	118.0	71.0	45	53.3		●
1020	10.20	12.0	118.0	71.0	45	53.2		●
1030	10.30	12.0	118.0	71.0	45	53.2		●
1040	10.40	12.0	118.0	71.0	45	53.1		●
1050	10.50	12.0	118.0	71.0	45	53.1		●
1060	10.60	12.0	118.0	71.0	45	53.0		●
1070	10.70	12.0	118.0	71.0	45	52.9		●
1080	10.80	12.0	118.0	71.0	45	52.8		●
1090	10.90	12.0	118.0	71.0	45	52.8		●
1100	11.00	12.0	118.0	71.0	45	52.7		●
1110	11.10	12.0	118.0	71.0	45	52.7		●
1120	11.20	12.0	118.0	71.0	45	52.6		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	9.00	140	0.2150	4950	1064	67.7
		9.50	140	0.2250	4690	1055	74.8
		9.80	140	0.2300	4545	1045	78.9
		10.00	140	0.2350	4455	1047	82.2
		10.20	140	0.2400	4370	1049	85.7
		10.40	140	0.2450	4285	1050	89.2
		10.50	140	0.2500	4245	1061	91.9
		10.80	140	0.2550	4125	1052	96.4
		11.00	140	0.2600	4050	1053	100.1
	Steel 500 - 850 N/mm²	9.00	110	0.2150	3890	836	53.2
		9.50	110	0.2250	3685	829	58.8
		9.80	110	0.2300	3575	822	62.0
		10.00	110	0.2350	3500	823	64.6
		10.20	110	0.2400	3435	824	67.4
		10.40	110	0.2450	3365	824	70.0
		10.50	110	0.2500	3335	834	72.2
		10.80	110	0.2550	3240	826	75.7
		11.00	110	0.2600	3185	828	78.7
	Steel 850 - 1100 N/mm²	9.00	80	0.1600	2830	453	28.8
		9.50	80	0.1700	2680	456	32.3
		9.80	80	0.1750	2600	455	34.3
		10.00	80	0.1800	2545	458	36.0
		10.20	80	0.1850	2495	462	37.7
		10.40	80	0.1850	2450	453	38.5
		10.50	80	0.1900	2425	461	39.9
		10.80	80	0.1950	2360	460	42.2
		11.00	80	0.2000	2315	463	44.0
	Steel 1100 - 1300 N/mm²	9.00	55	0.1350	1945	263	16.7
		9.50	55	0.1450	1845	268	19.0
		9.80	55	0.1450	1785	259	19.5
		10.00	55	0.1500	1750	263	20.6
		10.20	55	0.1550	1715	266	21.7
		10.40	55	0.1550	1685	261	22.2
		10.50	55	0.1600	1665	266	23.1
		10.80	55	0.1600	1620	259	23.7
		11.00	55	0.1650	1590	262	24.9
	Steel 1300 - 1500 N/mm²	9.00	25	0.0900	885	80	5.1
		9.50	25	0.0950	840	80	5.7
		9.80	25	0.1000	810	81	6.1
		10.00	25	0.1000	795	80	6.2
		10.20	25	0.1000	780	78	6.4
		10.40	25	0.1050	765	80	6.8
		10.50	25	0.1050	760	80	6.9
		10.80	25	0.1100	735	81	7.4
		11.00	25	0.1100	725	80	7.6
	Cold work tool steel (12% Cr), high alloyed [1.2379]	9.00	50	0.1150	1770	204	13.0
		9.50	50	0.1200	1675	201	14.2
		9.80	50	0.1250	1625	203	15.3
		10.00	50	0.1300	1590	207	16.2
		10.20	50	0.1300	1560	203	16.6
		10.40	50	0.1350	1530	207	17.6
		10.50	50	0.1350	1515	205	17.7
		10.80	50	0.1400	1475	207	18.9
		11.00	50	0.1400	1445	202	19.2
	Cast iron (lamellar / spheroidal)	9.00	160	0.2300	5660	1302	82.8
		9.50	160	0.2450	5360	1313	93.1
		9.80	160	0.2500	5195	1299	98.0
		10.00	160	0.2550	5095	1299	102.0
		10.20	160	0.2600	4995	1299	106.1
		10.40	160	0.2650	4895	1297	110.2
		10.50	160	0.2700	4850	1310	113.4
		10.80	160	0.2800	4715	1320	120.9
		11.00	160	0.2850	4630	1320	125.4
	Wrought aluminium alloys Si < 6% hardened	9.00	220	0.1800	7780	1400	89.1
		9.50	220	0.1900	7370	1400	99.3
		9.80	220	0.1950	7145	1393	105.1
		10.00	220	0.2000	7005	1401	110.0
		10.20	220	0.2050	6865	1407	115.0
		10.40	220	0.2100	6735	1414	120.2
		10.50	220	0.2100	6670	1401	121.3
		10.80	220	0.2150	6485	1394	127.7
		11.00	220	0.2200	6365	1400	133.1

Spiral flute drills Supradrill® U

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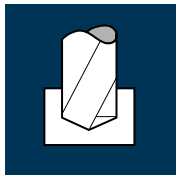
HM MG10

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500						GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62014** ø-Code **1130**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014	B63014
1130	11.30	12.0	118.0	71.0	45	52.6		●
1140	11.40	12.0	118.0	71.0	45	52.5		●
1150	11.50	12.0	118.0	71.0	45	52.4		●
1160	11.60	12.0	118.0	71.0	45	52.4		●
1170	11.70	12.0	118.0	71.0	45	52.4		●
1180	11.80	12.0	118.0	71.0	45	52.3		●
1190	11.90	12.0	118.0	71.0	45	52.4		●
1200	12.00	12.0	118.0	71.0	45	52.3		●
1250	12.50	14.0	124.0	77.0	45	56.1		●
1280	12.80	14.0	124.0	77.0	45	55.8		●
1300	13.00	14.0	124.0	77.0	45	55.7		●
1350	13.50	14.0	124.0	77.0	45	55.4		●
1380	13.80	14.0	124.0	77.0	45	55.3		●
1400	14.00	14.0	124.0	77.0	45	55.3		●
1450	14.50	16.0	133.0	83.0	48	59.1		●
1480	14.80	16.0	133.0	83.0	48	58.8		●
1500	15.00	16.0	133.0	83.0	48	58.7		●
1550	15.50	16.0	133.0	83.0	48	58.4		●
1580	15.80	16.0	133.0	83.0	48	58.3		●
1600	16.00	16.0	133.0	83.0	48	58.3		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	11.50	140	0.2700	3875	1046	108.7
		11.70	140	0.2750	3810	1048	112.7
		12.00	140	0.2850	3715	1059	119.7
		12.50	140	0.2950	3565	1052	129.1
		13.00	140	0.3100	3430	1063	141.1
		14.00	140	0.3300	3185	1051	161.8
		15.00	140	0.3550	2970	1054	186.3
		15.50	140	0.3650	2875	1049	198.0
		16.00	140	0.3800	2785	1058	212.8
	Steel 500 - 850 N/mm²	11.50	110	0.2700	3045	822	85.4
		11.70	110	0.2750	2995	824	88.5
		12.00	110	0.2850	2920	832	94.1
		12.50	110	0.2950	2800	826	101.4
		13.00	110	0.3100	2695	836	110.9
		14.00	110	0.3300	2500	825	127.0
		15.00	110	0.3550	2335	829	146.5
		15.50	110	0.3650	2260	825	155.7
		16.00	110	0.3800	2190	832	167.3
	Steel 850 - 1100 N/mm²	11.50	80	0.2050	2215	454	47.2
		11.70	80	0.2100	2175	457	49.1
		12.00	80	0.2150	2120	456	51.5
		12.50	80	0.2250	2035	458	56.2
		13.00	80	0.2350	1960	461	61.1
		14.00	80	0.2500	1820	455	70.0
		15.00	80	0.2700	1700	459	81.1
		15.50	80	0.2800	1645	461	86.9
		16.00	80	0.2900	1590	461	92.7
	Steel 1100 - 1300 N/mm²	11.50	55	0.1750	1520	266	27.6
		11.70	55	0.1750	1495	262	28.1
		12.00	55	0.1800	1460	263	29.7
		12.50	55	0.1900	1400	266	32.6
		13.00	55	0.1950	1345	262	34.8
		14.00	55	0.2100	1250	263	40.4
		15.00	55	0.2250	1165	262	46.3
		15.50	55	0.2350	1130	266	50.1
		16.00	55	0.2400	1095	263	52.8
	Steel 1300 - 1500 N/mm²	11.50	25	0.1150	690	79	8.2
		11.70	25	0.1150	680	78	8.4
		12.00	25	0.1200	665	80	9.0
		12.50	25	0.1250	635	79	9.7
		13.00	25	0.1300	610	79	10.5
		14.00	25	0.1400	570	80	12.3
		15.00	25	0.1500	530	80	14.0
		15.50	25	0.1550	515	80	15.1
		16.00	25	0.1600	495	79	15.9
	Cold work tool steel (12% Cr), high alloyed [1.2379]	11.50	50	0.1500	1385	208	21.6
		11.70	50	0.1500	1360	204	21.9
		12.00	50	0.1550	1325	205	23.2
		12.50	50	0.1600	1275	204	25.0
		13.00	50	0.1650	1225	202	26.8
		14.00	50	0.1800	1135	204	31.4
		15.00	50	0.1950	1060	207	36.5
		15.50	50	0.2000	1025	205	38.7
		16.00	50	0.2050	995	204	41.0
	Cast iron (lamellar / spheroidal)	11.50	160	0.2950	4430	1307	135.7
		11.70	160	0.3000	4355	1307	140.5
		12.00	160	0.3100	4245	1316	148.8
		12.50	160	0.3200	4075	1304	160.0
		13.00	160	0.3350	3920	1313	174.3
		14.00	160	0.3600	3640	1310	201.7
		15.00	160	0.3850	3395	1307	231.0
		15.50	160	0.4000	3285	1314	247.9
		16.00	160	0.4100	3185	1306	262.6
	Wrought aluminium alloys Si < 6% hardened	11.50	220	0.2300	6090	1401	145.5
		11.70	220	0.2350	5985	1407	151.2
		12.00	220	0.2400	5835	1400	158.4
		12.50	220	0.2500	5600	1400	171.8
		13.00	220	0.2600	5385	1400	185.8
		14.00	220	0.2800	5000	1400	215.5
		15.00	220	0.3000	4670	1401	247.6
		15.50	220	0.3100	4520	1401	264.4
		16.00	220	0.3200	4375	1400	281.5