Spiral flute drills

5xd

HM

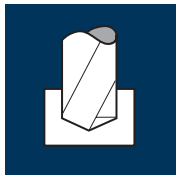
Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **BU42015** ø-Code **.0250**

ø Code	d1 m7	d2 h6	l1	l2	l4	NANO-U BU42015	NANO-U BU43015
.0250*	2.5	6	66	28	36	●	
.0280*	2.8	6	66	28	36	●	
.0290*	2.9	6	66	28	36	●	
.0300	3.0	6	66	28	36	●	
.0310	3.1	6	66	28	36	●	
.0320	3.2	6	66	28	36	●	
.0330	3.3	6	66	28	36	●	
.0340	3.4	6	66	28	36	●	
.0350	3.5	6	66	28	36	●	
.0360	3.6	6	66	28	36	●	
.0370	3.7	6	66	28	36	●	
.0380	3.8	6	74	36	36	●	
.0390	3.9	6	74	36	36	●	
.0400	4.0	6	74	36	36	●	
.0410	4.1	6	74	36	36	●	
.0420	4.2	6	74	36	36	●	
.0430	4.3	6	74	36	36	●	
.0440	4.4	6	74	36	36	●	
.0450	4.5	6	74	36	36	●	
.0460	4.6	6	74	36	36	●	
.0470	4.7	6	74	36	36	●	
.0480	4.8	6	82	44	36	●	

* without internal cooling

Application



Material	d1 [mm]	v_c [m/min]	f [mm]	L_{max} [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Steel < 500 N/mm²	2.50	170	0.065	22.3	21645	1405	7.0	1.0
	2.80	170	0.075	21.8	19325	1450	9.0	0.9
	3.00	170	0.080	21.5	18040	1445	10.0	0.9
	3.30	170	0.085	21.1	16400	1395	12.0	0.9
	3.50	170	0.090	20.8	15460	1390	13.5	0.9
	4.00	170	0.105	30.0	13530	1420	18.0	1.3
	4.20	170	0.110	29.7	12885	1415	19.5	1.3
	4.50	170	0.120	29.3	12025	1445	23.0	1.2
	4.80	170	0.125	36.8	11275	1410	25.5	1.6
Steel 500 - 850 N/mm²	2.50	130	0.065	22.3	16550	1075	5.5	1.2
	2.80	130	0.075	21.8	14780	1110	7.0	1.2
	3.00	130	0.080	21.5	13795	1105	8.0	1.2
	3.30	130	0.085	21.1	12540	1065	9.0	1.2
	3.50	130	0.090	20.8	11825	1065	10.0	1.2
	4.00	130	0.105	30.0	10345	1085	13.5	1.7
	4.20	130	0.110	29.7	9850	1085	15.0	1.6
	4.50	130	0.120	29.3	9195	1105	17.5	1.6
	4.80	130	0.125	36.8	8620	1080	19.5	2.0
Steel 850 - 1100 N/mm²	2.50	110	0.050	22.3	14005	700	3.5	1.9
	2.80	110	0.055	21.8	12505	690	4.0	1.9
	3.00	110	0.060	21.5	11670	700	5.0	1.8
	3.30	110	0.065	21.1	10610	690	6.0	1.8
	3.50	110	0.070	20.8	10005	700	6.5	1.8
	4.00	110	0.080	30.0	8755	700	9.0	2.6
	4.20	110	0.085	29.7	8335	710	10.0	2.5
	4.50	110	0.090	29.3	7780	700	11.0	2.5
	4.80	110	0.095	36.8	7295	695	12.5	3.2
Steel 1100 - 1300 N/mm²	2.50	70	0.040	22.3	8915	355	1.5	3.8
	2.80	70	0.045	21.8	7960	360	2.0	3.6
	3.00	70	0.050	21.5	7425	370	2.5	3.5
	3.30	70	0.055	21.1	6750	370	3.0	3.4
	3.50	70	0.060	20.8	6365	380	3.5	3.3
	4.00	70	0.065	30.0	5570	360	4.5	5.0
	4.20	70	0.070	29.7	5305	370	5.0	4.8
	4.50	70	0.075	29.3	4950	370	6.0	4.8
	4.80	70	0.080	36.8	4640	370	6.5	6.0

Material	d1 [mm]	v_c [m/min]	f [mm]	L_{max} [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Steel 1300 - 1500 N/mm²	2.50	40	0.035	22.3	5095	180	1.0	7.4
	2.80	40	0.035	21.8	4545	160	1.0	8.2
	3.00	40	0.040	21.5	4245	170	1.0	7.6
	3.30	40	0.045	21.1	3860	175	1.5	7.2
	3.50	40	0.045	20.8	3640	165	1.5	7.6
	4.00	40	0.055	30.0	3185	175	2.0	10.3
	4.20	40	0.055	29.7	3030	165	2.5	10.8
	4.50	40	0.060	29.3	2830	170	2.5	10.3
	4.80	40	0.065	36.8	2655	175	3.0	12.6
Cold work tool steel (12% Cr) high alloyed [1.2379] Stainless steel [Cr-Ni/1.4301]	2.50	60	0.040	22.3	7640	305	1.5	4.4
	2.80	60	0.045	21.8	6820	305	2.0	4.3
	3.00	60	0.045	21.5	6365	285	2.0	4.5
	3.30	60	0.050	21.1	5785	290	2.5	4.4
	3.50	60	0.055	20.8	5455	300	3.0	4.2
	4.00	60	0.060	30.0	4775	285	3.5	6.3
	4.20	60	0.065	29.7	4545	295	4.0	6.0
	4.50	60	0.070	29.3	4245	295	4.5	6.0
	4.80	60	0.075	36.8	3980	300	5.5	7.4
Cast iron (lamellar / spheroidal)	2.50	220	0.070	22.3	28010	1960	9.5	0.7
	2.80	220	0.080	21.8	25010	2000	12.5	0.7
	3.00	220	0.085	21.5	23345	1985	14.0	0.6
	3.30	220	0.095	21.1	21220	2015	17.0	0.6
	3.50	220	0.100	20.8	20010	2000	19.0	0.6
	4.00	220	0.115	30.0	17505	2015	25.5	0.9
	4.20	220	0.120	29.7	16675	2000	27.5	0.9
	4.50	220	0.130	29.3	15560	2025	32.0	0.9
	4.80	220	0.135	36.8	14590	1970	35.5	1.1
Wrought aluminium alloys Si < 6%	2.50	250	0.055	22.3	31830	1750	8.5	0.8
	2.80	250	0.060	21.8	28420	1705	10.5	0.8
	3.00	250	0.065	21.5	26525	1725	12.0	0.7
	3.30	250	0.075	21.1	24115	1810	15.5	0.7
	3.50	250	0.080	20.8	22735	1820	17.5	0.7
	4.00	250	0.090	30.0	19895	1790	22.5	1.0
	4.20	250	0.095	29.7	18945	1800	25.0	1.0
	4.50	250	0.100	29.3	17685	1770	28.0	1.0
	4.80	250	0.105	36.8	16580	1740	31.5	1.3

Spiral flute drills

5xd

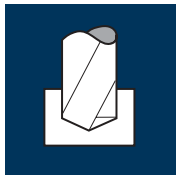
HM

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

Example: **Order-N°.** Article-N°. **BU42015** ø-Code **.0490**

ø Code	d1 m7	d2 h6	l1	l2	l4	NANO-U BU42015	NANO-U BU43015
.0490	4.9	6	82	44	36	●	
.0500	5.0	6	82	44	36	●	
.0510	5.1	6	82	44	36	●	
.0520	5.2	6	82	44	36	●	
.0530	5.3	6	82	44	36	●	
.0540	5.4	6	82	44	36	●	
.0550	5.5	6	82	44	36	●	
.0560	5.6	6	82	44	36	●	
.0570	5.7	6	82	44	36	●	
.0580	5.8	6	82	44	36	●	
.0590	5.9	6	82	44	36	●	
.0600	6.0	6	82	44	36	●	
.0610	6.1	8	91	53	36	●	
.0620	6.2	8	91	53	36	●	
.0630	6.3	8	91	53	36	●	
.0640	6.4	8	91	53	36	●	
.0650	6.5	8	91	53	36	●	
.0660	6.6	8	91	53	36	●	
.0670	6.7	8	91	53	36	●	
.0680	6.8	8	91	53	36	●	
.0690	6.9	8	91	53	36	●	
.0700	7.0	8	91	53	36	●	
.0710	7.1	8	91	53	36	●	

Application



Material	d1 [mm]	v_c [m/min]	f [mm]	L_{max} [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Steel < 500 N/mm²	5.00	170	0.130	36.5	10825	1405	27.5	1.6
	5.30	170	0.140	36.0	10210	1430	31.5	1.5
	5.50	170	0.145	35.8	9840	1425	34.0	1.5
	5.80	170	0.155	35.3	9330	1445	38.0	1.5
	6.00	170	0.160	35.0	9020	1445	41.0	1.5
	6.30	170	0.165	43.5	8590	1415	44.0	1.8
	6.50	170	0.170	43.3	8325	1415	47.0	1.8
	6.80	170	0.180	42.8	7960	1435	52.0	1.8
	7.00	170	0.185	42.5	7730	1430	55.0	1.8
Steel 500 - 850 N/mm²	5.00	130	0.130	36.5	8275	1075	21.0	2.0
	5.30	130	0.140	36.0	7810	1095	24.0	2.0
	5.50	130	0.145	35.8	7525	1090	26.0	2.0
	5.80	130	0.155	35.3	7135	1105	29.0	1.9
	6.00	130	0.160	35.0	6895	1105	31.0	1.9
	6.30	130	0.165	43.5	6570	1085	34.0	2.4
	6.50	130	0.170	43.3	6365	1080	36.0	2.4
	6.80	130	0.180	42.8	6085	1095	40.0	2.3
	7.00	130	0.185	42.5	5910	1095	42.0	2.3
Steel 850 - 1100 N/mm²	5.00	110	0.100	36.5	7005	700	13.5	3.1
	5.30	110	0.105	36.0	6605	695	15.5	3.1
	5.50	110	0.110	35.8	6365	700	16.5	3.1
	5.80	110	0.115	35.3	6035	695	18.5	3.0
	6.00	110	0.120	35.0	5835	700	20.0	3.0
	6.30	110	0.125	43.5	5560	695	21.5	3.8
	6.50	110	0.130	43.3	5385	700	23.0	3.7
	6.80	110	0.135	42.8	5150	695	25.0	3.7
	7.00	110	0.140	42.5	5000	700	27.0	3.6
Steel 1100 - 1300 N/mm²	5.00	70	0.085	36.5	4455	380	7.5	5.8
	5.30	70	0.090	36.0	4205	380	8.5	5.7
	5.50	70	0.090	35.8	4050	365	8.5	5.9
	5.80	70	0.095	35.3	3840	365	9.5	5.8
	6.00	70	0.100	35.0	3715	370	10.5	5.7
	6.30	70	0.105	43.5	3535	370	11.5	7.1
	6.50	70	0.110	43.3	3430	375	12.5	6.9
	6.80	70	0.115	42.8	3275	375	13.5	6.8
	7.00	70	0.115	42.5	3185	365	14.0	7.0

Material	d1 [mm]	v_c [m/min]	f [mm]	L_{max} [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Steel 1300 - 1500 N/mm²	5.00	40	0.065	36.5	2545	165	3.0	13.3
	5.30	40	0.070	36.0	2400	170	4.0	12.7
	5.50	40	0.075	35.8	2315	175	4.0	12.3
	5.80	40	0.075	35.3	2195	165	4.5	12.8
	6.00	40	0.080	35.0	2120	170	5.0	12.4
	6.30	40	0.085	43.5	2020	170	5.5	15.4
	6.50	40	0.085	43.3	1960	165	5.5	15.7
	6.80	40	0.090	42.8	1870	170	6.0	15.1
	7.00	40	0.095	42.5	1820	175	6.5	14.6
Cold work tool steel (12% Cr) high alloyed [1.2379] Stainless steel [Cr-Ni/1.4301]	5.00	60	0.075	36.5	3820	285	5.5	7.7
	5.30	60	0.080	36.0	3605	290	6.5	7.4
	5.50	60	0.085	35.8	3470	295	7.0	7.3
	5.80	60	0.090	35.3	3295	295	8.0	7.2
	6.00	60	0.090	35.0	3185	285	8.0	7.4
	6.30	60	0.095	43.5	3030	290	9.0	9.0
	6.50	60	0.100	43.3	2940	295	10.0	8.8
	6.80	60	0.105	42.8	2810	295	10.5	8.7
	7.00	60	0.110	42.5	2730	300	11.5	8.5
Cast iron (lamellar / spheroidal)	5.00	220	0.145	36.5	14005	2030	40.0	1.1
	5.30	220	0.150	36.0	13215	1980	43.5	1.1
	5.50	220	0.155	35.8	12730	1975	47.0	1.1
	5.80	220	0.165	35.3	12075	1990	52.5	1.1
	6.00	220	0.170	35.0	11670	1985	56.0	1.1
	6.30	220	0.180	43.5	11115	2000	62.5	1.3
	6.50	220	0.185	43.3	10775	1995	66.0	1.3
	6.80	220	0.195	42.8	10300	2010	73.0	1.3
	7.00	220	0.200	42.5	10005	2000	77.0	1.3
Wrought aluminium alloys Si < 6%	5.00	250	0.110	36.5	15915	1750	34.5	1.3
	5.30	250	0.120	36.0	15015	1800	39.5	1.2
	5.50	250	0.120	35.8	14470	1735	41.0	1.2
	5.80	250	0.130	35.3	13720	1785	47.0	1.2
	6.00	250	0.135	35.0	13265	1790	50.5	1.2
	6.30	250	0.140	43.5	12630	1770	55.0	1.5
	6.50	250	0.145	43.3	12245	1775	59.0	1.5
	6.80	250	0.150	42.8	11705	1755	63.5	1.5
	7.00	250	0.155	42.5	11370	1760	67.5	1.4

Spiral flute drills

5xd

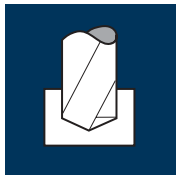
HM

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

Example: **Order-N°.** Article-N°. **BU42015** ø-Code **.0720**

ø Code	d1 m7	d2 h6	l1	l2	l4	NANO-U BU42015	NANO-U BU43015
.0720	7.2	8	91	53	36	●	
.0730	7.3	8	91	53	36	●	
.0740	7.4	8	91	53	36	●	
.0750	7.5	8	91	53	36	●	
.0760	7.6	8	91	53	36	●	
.0770	7.7	8	91	53	36	●	
.0780	7.8	8	91	53	36	●	
.0790	7.9	8	91	53	36	●	
.0800	8.0	8	91	53	36	●	
.0810	8.1	10	103	61	40	●	
.0820	8.2	10	103	61	40	●	
.0830	8.3	10	103	61	40	●	
.0840	8.4	10	103	61	40	●	
.0850	8.5	10	103	61	40	●	
.0860	8.6	10	103	61	40	●	
.0870	8.7	10	103	61	40	●	
.0880	8.8	10	103	61	40	●	
.0890	8.9	10	103	61	40	●	
.0900	9.0	10	103	61	40	●	
.0910	9.1	10	103	61	40	●	
.0920	9.2	10	103	61	40	●	
.0930	9.3	10	103	61	40	●	
.0940	9.4	10	103	61	40	●	

Application



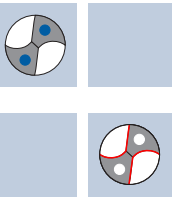
Material	d1 [mm]	v_c [m/min]	f [mm]	L_{max} [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Steel < 500 N/mm²	7.20	170	0.190	42.2	7515	1430	58.0	1.8
	7.50	170	0.195	41.8	7215	1405	62.0	1.8
	7.80	170	0.205	41.3	6940	1425	68.0	1.7
	8.00	170	0.210	41.0	6765	1420	71.5	1.7
	8.30	170	0.220	48.6	6520	1435	77.5	2.0
	8.50	170	0.225	48.3	6365	1430	81.0	2.0
	8.80	170	0.230	47.8	6150	1415	86.0	2.0
	9.00	170	0.235	47.5	6015	1415	90.0	2.0
	9.40	170	0.245	46.9	5755	1410	98.0	2.0
Steel 500 - 850 N/mm²	7.20	130	0.190	42.2	5745	1090	44.5	2.3
	7.50	130	0.195	41.8	5515	1075	47.5	2.3
	7.80	130	0.205	41.3	5305	1090	52.0	2.3
	8.00	130	0.210	41.0	5175	1085	54.5	2.3
	8.30	130	0.220	48.6	4985	1095	59.0	2.7
	8.50	130	0.225	48.3	4870	1095	62.0	2.6
	8.80	130	0.230	47.8	4700	1080	65.5	2.7
	9.00	130	0.235	47.5	4600	1080	68.5	2.6
	9.40	130	0.245	46.9	4400	1080	75.0	2.6
Steel 850 - 1100 N/mm²	7.20	110	0.145	42.2	4865	705	28.5	3.6
	7.50	110	0.150	41.8	4670	700	31.0	3.6
	7.80	110	0.155	41.3	4490	695	33.0	3.6
	8.00	110	0.160	41.0	4375	700	35.0	3.5
	8.30	110	0.165	48.6	4220	695	37.5	4.2
	8.50	110	0.170	48.3	4120	700	39.5	4.1
	8.80	110	0.175	47.8	3980	695	42.5	4.1
	9.00	110	0.180	47.5	3890	700	44.5	4.1
	9.40	110	0.190	46.9	3725	710	49.5	4.0
Steel 1100 - 1300 N/mm²	7.20	70	0.120	42.2	3095	370	15.0	6.8
	7.50	70	0.125	41.8	2970	370	16.5	6.8
	7.80	70	0.130	41.3	2855	370	17.5	6.7
	8.00	70	0.135	41.0	2785	375	19.0	6.6
	8.30	70	0.140	48.6	2685	375	20.5	7.8
	8.50	70	0.140	48.3	2620	365	20.5	7.9
	8.80	70	0.145	47.8	2530	365	22.0	7.9
	9.00	70	0.150	47.5	2475	370	23.5	7.7
	9.40	70	0.155	46.9	2370	365	25.5	7.7

Material	d1 [mm]	v_c [m/min]	f [mm]	L_{max} [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Steel 1300 - 1500 N/mm²	7.20	40	0.095	42.2	1770	170	7.0	14.9
	7.50	40	0.100	41.8	1700	170	7.5	14.8
	7.80	40	0.105	41.3	1630	170	8.0	14.6
	8.00	40	0.105	41.0	1590	165	8.5	14.9
	8.30	40	0.110	48.6	1535	170	9.0	17.2
	8.50	40	0.115	48.3	1500	175	10.0	16.6
	8.80	40	0.115	47.8	1445	165	10.0	17.4
	9.00	40	0.120	47.5	1415	170	11.0	16.8
	9.40	40	0.125	46.9	1355	170	12.0	16.6
Cold work tool steel (12% Cr) high alloyed [1.2379] Stainless steel [Cr-Ni/1.4301]	7.20	60	0.110	42.2	2655	290	12.0	8.7
	7.50	60	0.115	41.8	2545	295	13.0	8.5
	7.80	60	0.120	41.3	2450	295	14.0	8.4
	8.00	60	0.125	41.0	2385	300	15.0	8.2
	8.30	60	0.130	48.6	2300	300	16.0	9.7
	8.50	60	0.130	48.3	2245	290	16.5	10.0
	8.80	60	0.135	47.8	2170	295	18.0	9.7
	9.00	60	0.140	47.5	2120	295	19.0	9.7
	9.40	60	0.145	46.9	2030	295	20.5	9.5
Cast iron (lamellar / spheroidal)	7.20	220	0.205	42.2	9725	1995	81.0	1.3
	7.50	220	0.215	41.8	9335	2005	88.5	1.3
	7.80	220	0.225	41.3	8980	2020	96.5	1.2
	8.00	220	0.230	41.0	8755	2015	101.5	1.2
	8.30	220	0.235	48.6	8435	1980	107.0	1.5
	8.50	220	0.245	48.3	8240	2020	114.5	1.4
	8.80	220	0.250	47.8	7960	1990	121.0	1.4
	9.00	220	0.255	47.5	7780	1985	126.5	1.4
	9.40	220	0.270	46.9	7450	2010	139.5	1.4
Wrought aluminium alloys Si < 6%	7.20	250	0.160	42.2	11050	1770	72.0	1.4
	7.50	250	0.165	41.8	10610	1750	77.5	1.4
	7.80	250	0.175	41.3	10200	1785	85.5	1.4
	8.00	250	0.180	41.0	9945	1790	90.0	1.4
	8.30	250	0.185	48.6	9590	1775	96.0	1.6
	8.50	250	0.190	48.3	9360	1780	101.0	1.6
	8.80	250	0.195	47.8	9045	1765	107.5	1.6
	9.00	250	0.200	47.5	8840	1770	112.5	1.6
	9.40	250	0.210	46.9	8465	1780	123.5	1.6

Spiral flute drills

5xd

HM

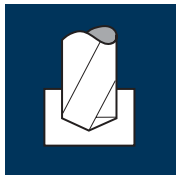


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **BU42015** ø-Code **.0950**

ø Code	d1 m7	d2 h6	l1	l2	l4	NANO-U BU42015	NANO-U BU43015
.0950	9.5	10	103	61	40	●	
.0960	9.6	10	103	61	40	●	
.0970	9.7	10	103	61	40	●	
.0980	9.8	10	103	61	40	●	
.0990	9.9	10	103	61	40	●	
.1000	10.0	10	103	61	40	●	
.1010	10.1	12	118	71	45	●	
.1020	10.2	12	118	71	45	●	
.1030	10.3	12	118	71	45	●	
.1040	10.4	12	118	71	45	●	
.1050	10.5	12	118	71	45	●	
.1060	10.6	12	118	71	45	●	
.1070	10.7	12	118	71	45	●	
.1080	10.8	12	118	71	45	●	
.1090	10.9	12	118	71	45	●	
.1100	11.0	12	118	71	45	●	
.1110	11.1	12	118	71	45	●	
.1120	11.2	12	118	71	45	●	
.1130	11.3	12	118	71	45	●	
.1140	11.4	12	118	71	45	●	
.1150	11.5	12	118	71	45	●	
.1160	11.6	12	118	71	45	●	
.1170	11.7	12	118	71	45	●	

Application

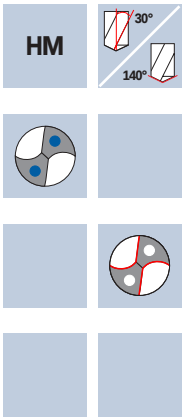


Material	d1 [mm]	v_c [m/min]	f [mm]	L_{max} [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Steel < 500 N/mm²	9.50	170	0.250	46.8	5695	1425	101.0	2.0
	9.80	170	0.260	46.3	5520	1435	108.0	1.9
	10.00	170	0.265	46.0	5410	1435	112.5	1.9
	10.20	170	0.270	55.7	5305	1430	117.0	2.3
	10.50	170	0.275	55.3	5155	1420	123.0	2.3
	10.80	170	0.285	54.8	5010	1430	131.0	2.3
	11.00	170	0.290	54.5	4920	1425	135.5	2.3
	11.30	170	0.295	54.0	4790	1415	142.0	2.3
	11.50	170	0.305	53.8	4705	1435	149.0	2.2
Steel 500 - 850 N/mm²	9.50	130	0.250	46.8	4355	1090	77.5	2.6
	9.80	130	0.260	46.3	4220	1095	82.5	2.5
	10.00	130	0.265	46.0	4140	1095	86.0	2.5
	10.20	130	0.270	55.7	4055	1095	89.5	3.1
	10.50	130	0.275	55.3	3940	1085	94.0	3.1
	10.80	130	0.285	54.8	3830	1090	100.0	3.0
	11.00	130	0.290	54.5	3760	1090	103.5	3.0
	11.30	130	0.295	54.0	3660	1080	108.5	3.0
	11.50	130	0.305	53.8	3600	1100	114.5	2.9
Steel 850 - 1100 N/mm²	9.50	110	0.190	46.8	3685	700	49.5	4.0
	9.80	110	0.195	46.3	3575	695	52.5	4.0
	10.00	110	0.200	46.0	3500	700	55.0	3.9
	10.20	110	0.205	55.7	3435	705	57.5	4.7
	10.50	110	0.210	55.3	3335	700	60.5	4.7
	10.80	110	0.215	54.8	3240	695	63.5	4.7
	11.00	110	0.220	54.5	3185	700	66.5	4.7
	11.30	110	0.225	54.0	3100	700	70.0	4.6
	11.50	110	0.230	53.8	3045	700	72.5	4.6
Steel 1100 - 1300 N/mm²	9.50	70	0.160	46.8	2345	375	26.5	7.5
	9.80	70	0.165	46.3	2275	375	28.5	7.4
	10.00	70	0.165	46.0	2230	370	29.0	7.5
	10.20	70	0.170	55.7	2185	370	30.0	9.0
	10.50	70	0.175	55.3	2120	370	32.0	9.0
	10.80	70	0.180	54.8	2065	370	34.0	8.9
	11.00	70	0.185	54.5	2025	375	35.5	8.7
	11.30	70	0.190	54.0	1970	375	37.5	8.6
	11.50	70	0.190	53.8	1940	370	38.5	8.7

Material	d1 [mm]	v_c [m/min]	f [mm]	L_{max} [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Steel 1300 - 1500 N/mm²	9.50	40	0.125	46.8	1340	170	12.0	16.5
	9.80	40	0.130	46.3	1300	170	13.0	16.3
	10.00	40	0.135	46.0	1275	170	13.5	16.2
	10.20	40	0.135	55.7	1250	170	14.0	19.7
	10.50	40	0.140	55.3	1215	170	14.5	19.5
	10.80	40	0.145	54.8	1180	170	15.5	19.3
	11.00	40	0.145	54.5	1155	165	15.5	19.8
	11.30	40	0.150	54.0	1125	170	17.0	19.1
	11.50	40	0.155	53.8	1105	170	17.5	19.0
Cold work tool steel (12% Cr) high alloyed [1.2379] Stainless steel [Cr-Ni/1.4301]	9.50	60	0.145	46.8	2010	290	20.5	9.7
	9.80	60	0.150	46.3	1950	295	22.5	9.4
	10.00	60	0.155	46.0	1910	295	23.0	9.4
	10.20	60	0.155	55.7	1870	290	23.5	11.5
	10.50	60	0.160	55.3	1820	290	25.0	11.4
	10.80	60	0.165	54.8	1770	290	26.5	11.3
	11.00	60	0.170	54.5	1735	295	28.0	11.1
	11.30	60	0.175	54.0	1690	295	29.5	11.0
	11.50	60	0.175	53.8	1660	290	30.0	11.1
Cast iron (lamellar / spheroidal)	9.50	220	0.270	46.8	7370	1990	141.0	1.4
	9.80	220	0.280	46.3	7145	2000	151.0	1.4
	10.00	220	0.285	46.0	7005	1995	156.5	1.4
	10.20	220	0.290	55.7	6865	1990	162.5	1.7
	10.50	220	0.300	55.3	6670	2000	173.0	1.7
	10.80	220	0.310	54.8	6485	2010	184.0	1.6
	11.00	220	0.315	54.5	6365	2005	190.5	1.6
	11.30	220	0.325	54.0	6195	2015	202.0	1.6
	11.50	220	0.330	53.8	6090	2010	209.0	1.6
Wrought aluminium alloys Si < 6%	9.50	250	0.210	46.8	8375	1760	125.0	1.6
	9.80	250	0.220	46.3	8120	1785	134.5	1.6
	10.00	250	0.220	46.0	7960	1750	137.5	1.6
	10.20	250	0.225	55.7	7800	1755	143.5	1.9
	10.50	250	0.235	55.3	7580	1780	154.0	1.9
	10.80	250	0.240	54.8	7370	1770	162.0	1.9
	11.00	250	0.245	54.5	7235	1775	168.5	1.8
	11.30	250	0.250	54.0	7040	1760	176.5	1.8
	11.50	250	0.255	53.8	6920	1765	183.5	1.8

Spiral flute drills

5xd

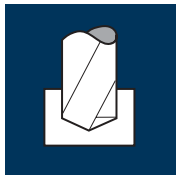


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **BU42015** ø-Code **.1180**

ø Code	d_1 m7	d_2 h6	l_1	l_2	l_4	NANO-U BU42015	NANO-U BU43015
.1180	11.8	12	118	71	45	●	
.1190	11.9	12	118	71	45	●	
.1200	12.0	12	118	71	45	●	
.1250	12.5	14	124	77	45	●	
.1280	12.8	14	124	77	45	●	
.1300	13.0	14	124	77	45	●	
.1310	13.1	14	124	77	45	●	
.1350	13.5	14	124	77	45	●	
.1380	13.8	14	124	77	45	●	
.1400	14.0	14	124	77	45	●	
.1450	14.5	16	133	83	48	●	
.1480	14.8	16	133	83	48	●	
.1500	15.0	16	133	83	48	●	
.1510	15.1	16	133	83	48	●	
.1550	15.5	16	133	83	48	●	
.1580	15.8	16	133	83	48	●	
.1600	16.0	16	133	83	48	●	

Application



Material	d1 [mm]	v_c [m/min]	f [mm]	L_{max} [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Steel < 500 N/mm²	12.00	170	0.315	53.0	4510	1420	160.5	2.2
	12.50	170	0.330	58.3	4330	1430	175.5	2.4
	13.00	170	0.340	57.5	4165	1415	188.0	2.4
	13.50	170	0.355	56.8	4010	1425	204.0	2.4
	14.00	170	0.370	56.0	3865	1430	220.0	2.3
	14.50	170	0.380	61.3	3730	1415	233.5	2.6
	15.00	170	0.395	60.5	3610	1425	252.0	2.5
	15.50	170	0.410	59.8	3490	1430	270.0	2.5
	16.00	170	0.420	59.0	3380	1420	285.5	2.5
Steel 500 - 850 N/mm²	12.00	130	0.315	53.0	3450	1085	122.5	2.9
	12.50	130	0.330	58.3	3310	1090	134.0	3.2
	13.00	130	0.340	57.5	3185	1085	144.0	3.2
	13.50	130	0.355	56.8	3065	1090	156.0	3.1
	14.00	130	0.370	56.0	2955	1095	168.5	3.1
	14.50	130	0.380	61.3	2855	1085	179.0	3.4
	15.00	130	0.395	60.5	2760	1090	192.5	3.3
	15.50	130	0.410	59.8	2670	1095	206.5	3.3
	16.00	130	0.420	59.0	2585	1085	218.0	3.3
Steel 850 - 1100 N/mm²	12.00	110	0.240	53.0	2920	700	79.0	4.5
	12.50	110	0.250	58.3	2800	700	86.0	5.0
	13.00	110	0.260	57.5	2695	700	93.0	4.9
	13.50	110	0.270	56.8	2595	700	100.0	4.9
	14.00	110	0.280	56.0	2500	700	108.0	4.8
	14.50	110	0.290	61.3	2415	700	115.5	5.3
	15.00	110	0.300	60.5	2335	700	123.5	5.2
	15.50	110	0.310	59.8	2260	700	132.0	5.1
	16.00	110	0.320	59.0	2190	700	140.5	5.1
Steel 1100 - 1300 N/mm²	12.00	70	0.200	53.0	1855	370	42.0	8.6
	12.50	70	0.210	58.3	1785	375	46.0	9.3
	13.00	70	0.215	57.5	1715	370	49.0	9.3
	13.50	70	0.225	56.8	1650	370	53.0	9.2
	14.00	70	0.235	56.0	1590	375	57.5	9.0
	14.50	70	0.240	61.3	1535	370	61.0	9.9
	15.00	70	0.250	60.5	1485	370	65.5	9.8
	15.50	70	0.260	59.8	1440	375	71.0	9.6
	16.00	70	0.265	59.0	1395	370	74.5	9.6

Material	d1 [mm]	v_c [m/min]	f [mm]	L_{max} [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Steel 1300 - 1500 N/mm²	12.00	40	0.160	53.0	1060	170	19.0	18.7
	12.50	40	0.165	58.3	1020	170	21.0	20.6
	13.00	40	0.175	57.5	980	170	22.5	20.3
	13.50	40	0.180	56.8	945	170	24.5	20.0
	14.00	40	0.185	56.0	910	170	26.0	19.8
	14.50	40	0.195	61.3	880	170	28.0	21.6
	15.00	40	0.200	60.5	850	170	30.0	21.4
	15.50	40	0.205	59.8	820	170	32.0	21.1
	16.00	40	0.215	59.0	795	170	34.0	20.8
Cold work tool steel (12% Cr) high alloyed [1.2379] Stainless steel [Cr-Ni/1.4301]	12.00	60	0.185	53.0	1590	295	33.5	10.8
	12.50	60	0.190	58.3	1530	290	35.5	12.1
	13.00	60	0.200	57.5	1470	295	39.0	11.7
	13.50	60	0.210	56.8	1415	295	42.0	11.6
	14.00	60	0.215	56.0	1365	295	45.5	11.4
	14.50	60	0.225	61.3	1315	295	48.5	12.5
	15.00	60	0.230	60.5	1275	295	52.0	12.3
	15.50	60	0.240	59.8	1230	295	55.5	12.2
	16.00	60	0.245	59.0	1195	295	59.5	12.0
Cast iron (lamellar / spheroidal)	12.00	220	0.345	53.0	5835	2015	228.0	1.6
	12.50	220	0.355	58.3	5600	1990	244.0	1.8
	13.00	220	0.370	57.5	5385	1990	264.0	1.7
	13.50	220	0.385	56.8	5185	1995	285.5	1.7
	14.00	220	0.400	56.0	5000	2000	308.0	1.7
	14.50	220	0.415	61.3	4830	2005	331.0	1.8
	15.00	220	0.430	60.5	4670	2010	355.0	1.8
	15.50	220	0.445	59.8	4520	2010	379.5	1.8
	16.00	220	0.455	59.0	4375	1990	400.0	1.8
Wrought aluminium alloys Si < 6%	12.00	250	0.265	53.0	6630	1755	198.5	1.8
	12.50	250	0.280	58.3	6365	1780	218.5	2.0
	13.00	250	0.290	57.5	6120	1775	235.5	1.9
	13.50	250	0.300	56.8	5895	1770	253.5	1.9
	14.00	250	0.310	56.0	5685	1760	271.0	1.9
	14.50	250	0.320	61.3	5490	1755	290.0	2.1
	15.00	250	0.335	60.5	5305	1775	313.5	2.0
	15.50	250	0.345	59.8	5135	1770	334.0	2.0
	16.00	250	0.355	59.0	4975	1765	355.0	2.0