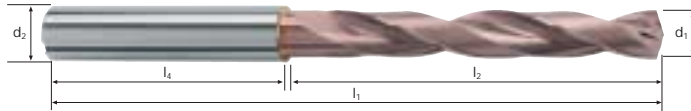
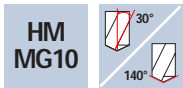


Spiralbohrer Supradrill N

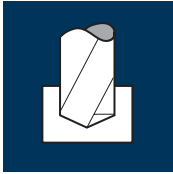
5xd



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium
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Beispiel: Bestell-Nr. B52015 .0250						U-4XD	
						B52015	
						B53015	
Ø Code	d1 m7	d2 h6	l1	l2	l4		
.0250*	2.50	6	66	28	36	●	
.0255*	2.55	6	66	28	36	●	
.0260*	2.60	6	66	28	36	●	
.0265*	2.65	6	66	28	36	●	
.0270*	2.70	6	66	28	36	●	
.0280*	2.80	6	66	28	36	●	
.0285*	2.85	6	66	28	36	●	
.0290*	2.90	6	66	28	36	●	
.0295*	2.95	6	66	28	36	●	
.0300	3.00	6	66	28	36	●	
.0305	3.05	6	66	26	36	●	
.0310	3.10	6	66	28	36	●	
.0315	3.15	6	66	28	36	●	
.0320	3.20	6	66	28	36	●	
.0330	3.30	6	66	28	36	●	
.0340	3.40	6	66	28	36	●	
.0350	3.50	6	66	28	36	●	
.0360	3.60	6	66	28	36	●	
.0370	3.70	6	66	28	36	●	
.0375	3.75	6	66	28	36	●	
.0380	3.80	6	74	36	36	●	
.0385	3.85	6	74	36	36	●	
* ohne innere Kühlmittelzuführung							

Anwendung



Werkstoff

Stahl
< 500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
2.50	160	0.065	22.3	20370	1325	6.5	1.0
2.60	160	0.070	22.1	19590	1370	7.5	1.0
2.80	160	0.075	21.8	18190	1365	8.5	1.0
2.90	160	0.075	21.6	17560	1315	8.5	1.0
3.00	160	0.080	21.5	16975	1360	9.5	0.9
3.30	160	0.085	21.1	15435	1310	11.0	1.0
3.50	160	0.090	20.8	14550	1310	12.5	1.0
3.75	160	0.100	20.4	13580	1360	15.0	0.9
3.80	160	0.100	30.3	13405	1340	15.0	1.4

Stahl
500 - 850 N/mm²

2.50	120	0.065	22.3	15280	995	5.0	1.3
2.60	120	0.070	22.1	14690	1030	5.5	1.3
2.80	120	0.075	21.8	13640	1025	6.5	1.3
2.90	120	0.075	21.6	13170	990	6.5	1.3
3.00	120	0.080	21.5	12730	1020	7.0	1.3
3.30	120	0.085	21.1	11575	985	8.5	1.3
3.50	120	0.090	20.8	10915	980	9.5	1.3
3.75	120	0.100	20.4	10185	1020	11.5	1.2
3.80	120	0.100	30.3	10050	1005	11.5	1.8

Stahl
850 - 1100 N/mm²

2.50	100	0.050	22.3	12730	635	3.0	2.1
2.60	100	0.050	22.1	12245	610	3.0	2.2
2.80	100	0.055	21.8	11370	625	4.0	2.1
2.90	100	0.060	21.6	10975	660	4.5	2.0
3.00	100	0.060	21.5	10610	635	4.5	2.0
3.30	100	0.065	21.1	9645	625	5.5	2.0
3.50	100	0.070	20.8	9095	635	6.0	2.0
3.75	100	0.075	20.4	8490	635	7.0	1.9
3.80	100	0.075	30.3	8375	630	7.0	2.9

Stahl
1100 - 1300 N/mm²

2.50	65	0.040	22.3	8275	330	1.5	4.1
2.60	65	0.045	22.1	7960	360	2.0	3.7
2.80	65	0.045	21.8	7390	335	2.0	3.9
2.90	65	0.050	21.6	7135	355	2.5	3.7
3.00	65	0.050	21.5	6895	345	2.5	3.7
3.30	65	0.055	21.1	6270	345	3.0	3.7
3.50	65	0.060	20.8	5910	355	3.5	3.5
3.75	65	0.065	20.4	5515	360	4.0	3.4
3.80	65	0.065	30.3	5445	355	4.0	5.1

Werkstoff

Stahl
1300 - 1500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
2.50	35	0.035	22.3	4455	155	1.0	8.6
2.60	35	0.035	22.1	4285	150	1.0	8.8
2.80	35	0.035	21.8	3980	140	1.0	9.3
2.90	35	0.040	21.6	3840	155	1.0	8.4
3.00	35	0.040	21.5	3715	150	1.0	8.6
3.30	35	0.045	21.1	3375	150	1.5	8.4
3.50	35	0.045	20.8	3185	145	1.5	8.6
3.75	35	0.050	20.4	2970	150	1.5	8.2
3.80	35	0.050	30.3	2930	145	1.5	12.5

Kaltarbeitsstahl
(12% Cr)
hoch legiert
[1.2379]
Nichtrostender Stahl
[Cr-Ni/1.4301]

2.50	60	0.040	22.3	7640	305	1.5	4.4
2.60	60	0.040	22.1	7345	295	1.5	4.5
2.80	60	0.045	21.8	6820	305	2.0	4.3
2.90	60	0.045	21.6	6585	295	2.0	4.4
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
3.75	60	0.060	20.4	5095	305	3.5	4.0
3.80	60	0.060	30.3	5025	300	3.5	6.1

Gusseisen
GG(G)

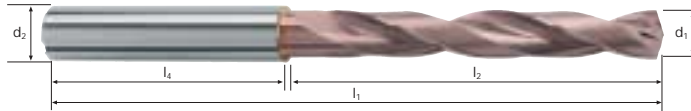
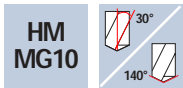
2.50	200	0.070	22.3	25465	1785	9.0	0.7
2.60	200	0.075	22.1	24485	1835	9.5	0.7
2.80	200	0.080	21.8	22735	1820	11.0	0.7
2.90	200	0.085	21.6	21950	1865	12.5	0.7
3.00	200	0.085	21.5	21220	1805	13.0	0.7
3.30	200	0.095	21.1	19290	1835	15.5	0.7
3.50	200	0.100	20.8	18190	1820	17.5	0.7
3.75	200	0.105	20.4	16975	1780	19.5	0.7
3.80	200	0.110	30.3	16755	1845	21.0	1.0

Al-Knetlegierung
Si < 6%

2.50	250	0.055	22.3	31830	1750	8.5	0.8
2.60	250	0.060	22.1	30605	1835	9.5	0.7
2.80	250	0.060	21.8	28420	1705	10.5	0.8
2.90	250	0.065	21.6	27440	1785	12.0	0.7
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
3.75	250	0.085	20.4	21220	1805	20.0	0.7
3.80	250	0.085	30.3	20940	1780	20.0	1.0

Spiralbohrer Supradrill N

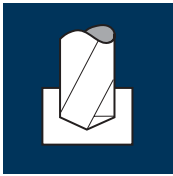
5xd



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium
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Beispiel: Bestell-Nr. B52015 .0390						U-4XD	
						B52015	
						B53015	
Ø Code	d1 m7	d2 h6	l1	l2	l4		
.0390	3.90	6	74	36	36	●	
.0400	4.00	6	74	36	36	●	
.0410	4.10	6	74	36	36	●	
.0420	4.20	6	74	36	36	●	
.0430	4.30	6	74	36	36	●	
.0440	4.40	6	74	36	36	●	
.0445	4.45	6	74	36	36	●	
.0450	4.50	6	74	36	36	●	
.0460	4.60	6	74	36	36	●	
.0470	4.70	6	74	36	36	●	
.0480	4.80	6	82	44	36	●	
.0490	4.90	6	82	44	36	●	
.0495	4.95	6	82	44	36	●	
.0500	5.00	6	82	44	36	●	
.0505	5.05	6	82	44	36	●	
.0510	5.10	6	82	44	36	●	
.0520	5.20	6	82	44	36	●	
.0525	5.25	6	82	44	36	●	
.0530	5.30	6	82	44	36	●	
.0540	5.40	6	82	44	36	●	
.0550	5.50	6	82	44	36	●	
.0560	5.60	6	82	44	36	●	
.0565	5.65	6	82	44	36	●	

Anwendung



Werkstoff

Stahl
< 500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
4.00	160	0.105	30.0	12730	1335	17.0	1.3
4.20	160	0.110	29.7	12125	1335	18.5	1.3
4.40	160	0.115	29.4	11575	1330	20.0	1.3
4.50	160	0.120	29.3	11320	1360	21.5	1.3
4.80	160	0.125	36.8	10610	1325	24.0	1.7
5.00	160	0.130	36.5	10185	1325	26.0	1.7
5.20	160	0.135	36.2	9795	1320	28.0	1.6
5.30	160	0.140	36.0	9610	1345	29.5	1.6
5.50	160	0.145	35.8	9260	1345	32.0	1.6

Stahl
500 - 850 N/mm²

4.00	120	0.105	30.0	9550	1005	12.5	1.8
4.20	120	0.110	29.7	9095	1000	14.0	1.8
4.40	120	0.115	29.4	8680	1000	15.0	1.8
4.50	120	0.120	29.3	8490	1020	16.0	1.7
4.80	120	0.125	36.8	7960	995	18.0	2.2
5.00	120	0.130	36.5	7640	995	19.5	2.2
5.20	120	0.135	36.2	7345	990	21.0	2.2
5.30	120	0.140	36.0	7205	1010	22.5	2.1
5.50	120	0.145	35.8	6945	1005	24.0	2.1

Stahl
850 - 1100 N/mm²

4.00	100	0.080	30.0	7960	635	8.0	2.8
4.20	100	0.085	29.7	7580	645	9.0	2.8
4.40	100	0.090	29.4	7235	650	10.0	2.7
4.50	100	0.090	29.3	7075	635	10.0	2.8
4.80	100	0.095	36.8	6630	630	11.5	3.5
5.00	100	0.100	36.5	6365	635	12.5	3.4
5.20	100	0.105	36.2	6120	645	13.5	3.4
5.30	100	0.105	36.0	6005	630	14.0	3.4
5.50	100	0.110	35.8	5785	635	15.0	3.4

Stahl
1100 - 1300 N/mm²

4.00	65	0.065	30.0	5175	335	4.0	5.4
4.20	65	0.070	29.7	4925	345	5.0	5.2
4.40	65	0.075	29.4	4700	355	5.5	5.0
4.50	65	0.075	29.3	4600	345	5.5	5.1
4.80	65	0.080	36.8	4310	345	6.0	6.4
5.00	65	0.085	36.5	4140	350	7.0	6.3
5.20	65	0.085	36.2	3980	340	7.0	6.4
5.30	65	0.090	36.0	3905	350	7.5	6.2
5.50	65	0.090	35.8	3760	340	8.0	6.3

Werkstoff

Stahl
1300 - 1500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
4.00	35	0.055	30.0	2785	155	2.0	11.6
4.20	35	0.055	29.7	2655	145	2.0	12.3
4.40	35	0.060	29.4	2530	150	2.5	11.8
4.50	35	0.060	29.3	2475	150	2.5	11.7
4.80	35	0.065	36.8	2320	150	2.5	14.7
5.00	35	0.065	36.5	2230	145	3.0	15.1
5.20	35	0.070	36.2	2140	150	3.0	14.5
5.30	35	0.070	36.0	2100	145	3.0	14.9
5.50	35	0.075	35.8	2025	150	3.5	14.3

Kaltarbeitsstahl
(12% Cr)
hoch legiert
[1.2379]
Nichtrostender Stahl
[Cr-Ni/1.4301]

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
4.40	60	0.070	29.4	4340	305	4.5	5.8
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
5.00	60	0.075	36.5	3820	285	5.5	7.7
5.20	60	0.080	36.2	3675	295	6.5	7.4
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

Gusseisen
GG(G)

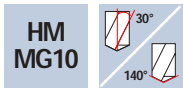
4.00	200	0.115	30.0	15915	1830	23.0	1.0
4.20	200	0.120	29.7	15160	1820	25.0	1.0
4.40	200	0.125	29.4	14470	1810	27.5	1.0
4.50	200	0.130	29.3	14145	1840	29.5	1.0
4.80	200	0.135	36.8	13265	1790	32.5	1.2
5.00	200	0.145	36.5	12730	1845	36.0	1.2
5.20	200	0.150	36.2	12245	1835	39.0	1.2
5.30	200	0.150	36.0	12010	1800	39.5	1.2
5.50	200	0.155	35.8	11575	1795	42.5	1.2

Al-Knetlegierung
Si < 6%

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
4.40	250	0.100	29.4	18085	1810	27.5	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
5.00	250	0.110	36.5	15915	1750	34.5	1.3
5.20	250	0.115	36.2	15305	1760	37.5	1.2
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

Spiralbohrer Supradrill N

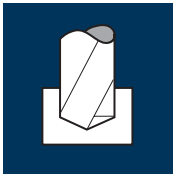
5xd



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium
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Beispiel: Bestell-Nr. B52015 .0570						U-4XD	
						B52015	
						B53015	
Ø Code	d1 m7	d2 h6	l1	l2	l4		
.0570	5.70	6	82	44	36	●	
.0575	5.75	6	82	44	36	●	
.0580	5.80	6	82	44	36	●	
.0590	5.90	6	82	44	36	●	
.0600	6.00	6	82	44	36	●	
.0610	6.10	8	91	53	36	●	
.0620	6.20	8	91	53	36	●	
.0630	6.30	8	91	53	36	●	
.0640	6.40	8	91	53	36	●	
.0650	6.50	8	91	53	36	●	
.0660	6.60	8	91	53	36	●	
.0670	6.70	8	91	53	36	●	
.0680	6.80	8	91	53	36	●	
.0690	6.90	8	91	53	36	●	
.0700	7.00	8	91	53	36	●	
.0710	7.10	8	91	53	36	●	
.0720	7.20	8	91	53	36	●	
.0725	7.25	8	91	53	36	●	
.0730	7.30	8	91	53	36	●	
.0740	7.40	8	91	53	36	●	
.0745	7.45	8	91	53	36	●	
.0750	7.50	8	91	53	36	●	
.0755	7.55	8	91	53	36	●	

Anwendung



Werkstoff

Stahl
< 500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
5.80	160	0.155	35.3	8780	1360	36.0	1.6
6.00	160	0.160	35.0	8490	1360	38.5	1.5
6.20	160	0.165	43.7	8215	1355	41.0	1.9
6.50	160	0.170	43.3	7835	1330	44.0	2.0
6.80	160	0.180	42.8	7490	1350	49.0	1.9
7.00	160	0.185	42.5	7275	1345	52.0	1.9
7.20	160	0.190	42.2	7075	1345	55.0	1.9
7.40	160	0.195	41.9	6880	1340	57.5	1.9
7.50	160	0.195	41.8	6790	1325	58.5	1.9

Stahl
500 - 850 N/mm²

5.80	120	0.155	35.3	6585	1020	27.0	2.1
6.00	120	0.160	35.0	6365	1020	29.0	2.1
6.20	120	0.165	43.7	6160	1015	30.5	2.6
6.50	120	0.170	43.3	5875	1000	33.0	2.6
6.80	120	0.180	42.8	5615	1010	36.5	2.5
7.00	120	0.185	42.5	5455	1010	39.0	2.5
7.20	120	0.190	42.2	5305	1010	41.0	2.5
7.40	120	0.195	41.9	5160	1005	43.0	2.5
7.50	120	0.195	41.8	5095	995	44.0	2.5

Stahl
850 - 1100 N/mm²

5.80	100	0.115	35.3	5490	630	16.5	3.4
6.00	100	0.120	35.0	5305	635	18.0	3.3
6.20	100	0.125	43.7	5135	640	19.5	4.1
6.50	100	0.130	43.3	4895	635	21.0	4.1
6.80	100	0.135	42.8	4680	630	23.0	4.1
7.00	100	0.140	42.5	4545	635	24.5	4.0
7.20	100	0.145	42.2	4420	640	26.0	4.0
7.40	100	0.150	41.9	4300	645	27.5	3.9
7.50	100	0.150	41.8	4245	635	28.0	3.9

Stahl
1100 - 1300 N/mm²

5.80	65	0.095	35.3	3565	340	9.0	6.2
6.00	65	0.100	35.0	3450	345	10.0	6.1
6.20	65	0.105	43.7	3335	350	10.5	7.5
6.50	65	0.110	43.3	3185	350	11.5	7.4
6.80	65	0.115	42.8	3045	350	12.5	7.3
7.00	65	0.115	42.5	2955	340	13.0	7.5
7.20	65	0.120	42.2	2875	345	14.0	7.3
7.40	65	0.125	41.9	2795	350	15.0	7.2
7.50	65	0.125	41.8	2760	345	15.0	7.3

Werkstoff

Stahl
1300 - 1500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
5.80	35	0.075	35.3	1920	145	4.0	14.6
6.00	35	0.080	35.0	1855	150	4.0	14.0
6.20	35	0.085	43.7	1795	155	4.5	16.9
6.50	35	0.085	43.3	1715	145	5.0	17.9
6.80	35	0.090	42.8	1640	150	5.5	17.1
7.00	35	0.095	42.5	1590	150	6.0	17.0
7.20	35	0.095	42.2	1545	145	6.0	17.5
7.40	35	0.100	41.9	1505	150	6.5	16.8
7.50	35	0.100	41.8	1485	150	6.5	16.7

Kaltarbeitsstahl
(12% Cr)
hoch legiert
[1.2379]
Nichtrostender Stahl
[Cr-Ni/1.4301]

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
6.20	60	0.095	43.7	3080	295	9.0	8.9
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
7.20	60	0.110	42.2	2655	290	12.0	8.7
7.40	60	0.115	41.9	2580	295	12.5	8.5
7.50	60	0.115	41.8	2545	295	13.0	8.5

Gusseisen
GG(G)

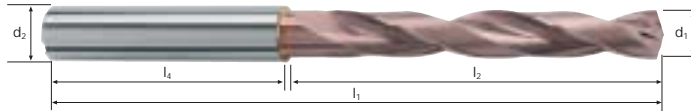
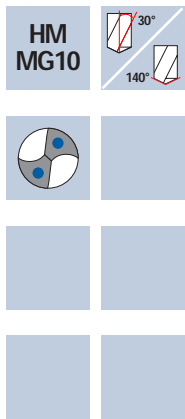
5.80	200	0.165	35.3	10975	1810	48.0	1.2
6.00	200	0.170	35.0	10610	1805	51.0	1.2
6.20	200	0.175	43.7	10270	1795	54.0	1.5
6.50	200	0.185	43.3	9795	1810	60.0	1.4
6.80	200	0.195	42.8	9360	1825	66.5	1.4
7.00	200	0.200	42.5	9095	1820	70.0	1.4
7.20	200	0.205	42.2	8840	1810	73.5	1.4
7.40	200	0.210	41.9	8605	1805	77.5	1.4
7.50	200	0.215	41.8	8490	1825	80.5	1.4

Al-Knetlegierung
Si < 6%

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
6.20	250	0.140	43.7	12835	1795	54.0	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
7.20	250	0.160	42.2	11050	1770	72.0	1.4
7.40	250	0.165	41.9	10755	1775	76.5	1.4
7.50	250	0.165	41.8	10610	1750	77.5	1.4

Spiralbohrer Supradrill N

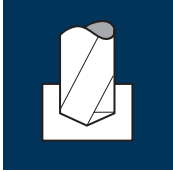
5xd



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium
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Beispiel: Bestell-Nr. B52015 .0760						U-4XD	
						B52015	
						B53015	
Ø Code	d1 m7	d2 h6	l1	l2	l4		
.0760	7.60	8	91	53	36	●	
.0765	7.65	8	91	53	36	●	
.0770	7.70	8	91	53	36	●	
.0780	7.80	8	91	53	36	●	
.0790	7.90	8	91	53	36	●	
.0800	8.00	8	91	53	36	●	
.0810	8.10	10	103	61	40	●	
.0820	8.20	10	103	61	40	●	
.0830	8.30	10	103	61	40	●	
.0840	8.40	10	103	61	40	●	
.0850	8.50	10	103	61	40	●	
.0860	8.60	10	103	61	40	●	
.0870	8.70	10	103	61	40	●	
.0875	8.75	10	103	61	40	●	
.0880	8.80	10	103	61	40	●	
.0885	8.85	10	103	61	40	●	
.0890	8.90	10	103	61	40	●	
.0900	9.00	10	103	61	40	●	
.0910	9.10	10	103	61	40	●	
.0920	9.20	10	103	61	40	●	
.0925	9.25	10	103	61	40	●	
.0930	9.30	10	103	61	40	●	
.0940	9.40	10	103	61	40	●	

Anwendung



Werkstoff

Stahl
< 500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
7.60	160	0.200	41.6	6700	1340	61.0	1.9
7.80	160	0.205	41.3	6530	1340	64.0	1.8
8.00	160	0.210	41.0	6365	1335	67.0	1.8
8.20	160	0.215	48.7	6210	1335	70.5	2.2
8.50	160	0.225	48.3	5990	1350	76.5	2.1
8.80	160	0.230	47.8	5785	1330	81.0	2.2
9.00	160	0.235	47.5	5660	1330	84.5	2.1
9.20	160	0.240	47.2	5535	1330	88.5	2.1
9.40	160	0.245	46.9	5420	1330	92.5	2.1

Stahl
500 - 850 N/mm²

7.60	120	0.200	41.6	5025	1005	45.5	2.5
7.80	120	0.205	41.3	4895	1005	48.0	2.5
8.00	120	0.210	41.0	4775	1005	50.5	2.4
8.20	120	0.215	48.7	4660	1000	53.0	2.9
8.50	120	0.225	48.3	4495	1010	57.5	2.9
8.80	120	0.230	47.8	4340	1000	61.0	2.9
9.00	120	0.235	47.5	4245	1000	63.5	2.9
9.20	120	0.240	47.2	4150	995	66.0	2.8
9.40	120	0.245	46.9	4065	995	69.0	2.8

Stahl
850 - 1100 N/mm²

7.60	100	0.150	41.6	4190	630	28.5	4.0
7.80	100	0.155	41.3	4080	630	30.0	3.9
8.00	100	0.160	41.0	3980	635	32.0	3.9
8.20	100	0.165	48.7	3880	640	34.0	4.6
8.50	100	0.170	48.3	3745	635	36.0	4.6
8.80	100	0.175	47.8	3615	635	38.5	4.5
9.00	100	0.180	47.5	3535	635	40.5	4.5
9.20	100	0.185	47.2	3460	640	42.5	4.4
9.40	100	0.190	46.9	3385	645	45.0	4.4

Stahl
1100 - 1300 N/mm²

7.60	65	0.125	41.6	2720	340	15.5	7.3
7.80	65	0.130	41.3	2655	345	16.5	7.2
8.00	65	0.135	41.0	2585	350	17.5	7.0
8.20	65	0.135	48.7	2525	340	18.0	8.6
8.50	65	0.140	48.3	2435	340	19.5	8.5
8.80	65	0.145	47.8	2350	340	20.5	8.4
9.00	65	0.150	47.5	2300	345	22.0	8.3
9.20	65	0.155	47.2	2250	350	23.5	8.1
9.40	65	0.155	46.9	2200	340	23.5	8.3

Werkstoff

Stahl
1300 - 1500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
7.60	35	0.100	41.6	1465	145	6.5	17.2
7.80	35	0.105	41.3	1430	150	7.0	16.5
8.00	35	0.105	41.0	1395	145	7.5	17.0
8.20	35	0.110	48.7	1360	150	8.0	19.5
8.50	35	0.115	48.3	1310	150	8.5	19.3
8.80	35	0.115	47.8	1265	145	9.0	19.8
9.00	35	0.120	47.5	1240	150	9.5	19.0
9.20	35	0.125	47.2	1210	150	10.0	18.9
9.40	35	0.125	46.9	1185	150	10.5	18.8

Kaltarbeitsstahl
(12% Cr)
hoch legiert
[1.2379]
Nichtrostender Stahl
[Cr-Ni/1.4301]

7.60	60	0.115	41.6	2515	290	13.0	8.6
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
8.20	60	0.125	48.7	2330	290	15.5	10.1
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
9.20	60	0.140	47.2	2075	290	19.5	9.8
9.40	60	0.145	46.9	2030	295	20.5	9.5

Gusseisen
GG(G)

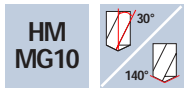
7.60	200	0.215	41.6	8375	1800	81.5	1.4
7.80	200	0.225	41.3	8160	1835	87.5	1.4
8.00	200	0.230	41.0	7960	1830	92.0	1.3
8.20	200	0.235	48.7	7765	1825	96.5	1.6
8.50	200	0.245	48.3	7490	1835	104.0	1.6
8.80	200	0.250	47.8	7235	1810	110.0	1.6
9.00	200	0.255	47.5	7075	1805	115.0	1.6
9.20	200	0.265	47.2	6920	1835	122.0	1.5
9.40	200	0.270	46.9	6775	1830	127.0	1.5

Al-Knetlegierung
Si < 6%

7.60	250	0.170	41.6	10470	1780	80.5	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
8.20	250	0.180	48.7	9705	1745	92.0	1.7
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
9.20	250	0.205	47.2	8650	1775	118.0	1.6
9.40	250	0.210	46.9	8465	1780	123.5	1.6

Spiralbohrer Supradrill N

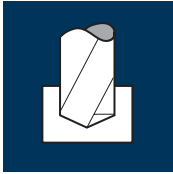
5xd



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium
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Beispiel: Bestell-Nr. B52015 .0950							U-4XD	
							B52015	
							B53015	
Ø Code	d1 m7	d2 h6	l1	l2	l4			
.0950	9.50	10	103	61	40	●		
.0955	9.55	10	103	61	40	●		
.0960	9.60	10	103	61	40	●		
.0965	9.65	10	103	61	40	●		
.0970	9.70	10	103	61	40	●		
.0980	9.80	10	103	61	40	●		
.0990	9.90	10	103	61	40	●		
.1000	10.00	10	103	61	40	●		
.1010	10.10	12	118	71	45	●		
.1020	10.20	12	118	71	45	●		
.1030	10.30	12	118	71	45	●		
.1040	10.40	12	118	71	45	●		
.1050	10.50	12	118	71	45	●		
.1060	10.60	12	118	71	45	●		
.1070	10.70	12	118	71	45	●		
.1080	10.80	12	118	71	45	●		
.1090	10.90	12	118	71	45	●		
.1100	11.00	12	118	71	45	●		
.1110	11.10	12	118	71	45	●		
.1120	11.20	12	118	71	45	●		
.1130	11.30	12	118	71	45	●		
.1140	11.40	12	118	71	45	●		
.1150	11.50	12	118	71	45	●		

Anwendung



Werkstoff

Stahl
< 500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
9.50	160	0.250	46.8	5360	1340	95.0	2.1
9.60	160	0.255	46.6	5305	1355	98.0	2.1
9.80	160	0.260	46.3	5195	1350	102.0	2.1
10.00	160	0.265	46.0	5095	1350	106.0	2.0
10.20	160	0.270	55.7	4995	1350	110.5	2.5
10.50	160	0.275	55.3	4850	1335	115.5	2.5
10.80	160	0.285	54.8	4715	1345	123.0	2.4
11.00	160	0.290	54.5	4630	1345	128.0	2.4
11.50	160	0.305	53.8	4430	1350	140.0	2.4

Stahl
500 - 850 N/mm²

9.50	120	0.250	46.8	4020	1005	71.0	2.8
9.60	120	0.255	46.6	3980	1015	73.5	2.8
9.80	120	0.260	46.3	3900	1015	76.5	2.7
10.00	120	0.265	46.0	3820	1010	79.5	2.7
10.20	120	0.270	55.7	3745	1010	82.5	3.3
10.50	120	0.275	55.3	3640	1000	86.5	3.3
10.80	120	0.285	54.8	3535	1005	92.0	3.3
11.00	120	0.290	54.5	3470	1005	95.5	3.3
11.50	120	0.305	53.8	3320	1015	105.5	3.2

Stahl
850 - 1100 N/mm²

9.50	100	0.190	46.8	3350	635	45.0	4.4
9.60	100	0.190	46.6	3315	630	45.5	4.4
9.80	100	0.195	46.3	3250	635	48.0	4.4
10.00	100	0.200	46.0	3185	635	50.0	4.3
10.20	100	0.205	55.7	3120	640	52.5	5.2
10.50	100	0.210	55.3	3030	635	55.0	5.2
10.80	100	0.215	54.8	2945	635	58.0	5.2
11.00	100	0.220	54.5	2895	635	60.5	5.1
11.50	100	0.230	53.8	2770	635	66.0	5.1

Stahl
1100 - 1300 N/mm²

9.50	65	0.160	46.8	2180	350	25.0	8.0
9.60	65	0.160	46.6	2155	345	25.0	8.1
9.80	65	0.165	46.3	2110	350	26.5	7.9
10.00	65	0.165	46.0	2070	340	26.5	8.1
10.20	65	0.170	55.7	2030	345	28.0	9.7
10.50	65	0.175	55.3	1970	345	30.0	9.6
10.80	65	0.180	54.8	1915	345	31.5	9.5
11.00	65	0.185	54.5	1880	350	33.5	9.3
11.50	65	0.190	53.8	1800	340	35.5	9.5

Werkstoff

Stahl
1300 - 1500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
9.50	35	0.125	46.8	1175	145	10.5	19.4
9.60	35	0.130	46.6	1160	150	11.0	18.6
9.80	35	0.130	46.3	1135	150	11.5	18.5
10.00	35	0.135	46.0	1115	150	12.0	18.4
10.20	35	0.135	55.7	1090	145	12.0	23.0
10.50	35	0.140	55.3	1060	150	13.0	22.1
10.80	35	0.145	54.8	1030	150	13.5	21.9
11.00	35	0.145	54.5	1015	145	14.0	22.6
11.50	35	0.155	53.8	970	150	15.5	21.5

Kaltarbeitsstahl
(12% Cr)
hoch legiert
[1.2379]
Nichtrostender Stahl
[Cr-Ni/1.4301]

9.50	60	0.145	46.8	2010	290	20.5	9.7
9.60	60	0.150	46.6	1990	300	21.5	9.3
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
11.50	60	0.175	53.8	1660	290	30.0	11.1

Gusseisen
GG(G)

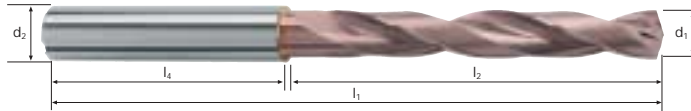
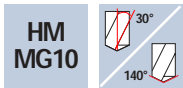
9.50	200	0.270	46.8	6700	1810	128.5	1.6
9.60	200	0.275	46.6	6630	1825	132.0	1.5
9.80	200	0.280	46.3	6495	1820	137.5	1.5
10.00	200	0.285	46.0	6365	1815	142.5	1.5
10.20	200	0.290	55.7	6240	1810	148.0	1.8
10.50	200	0.300	55.3	6065	1820	157.5	1.8
10.80	200	0.310	54.8	5895	1825	167.0	1.8
11.00	200	0.315	54.5	5785	1820	173.0	1.8
11.50	200	0.330	53.8	5535	1825	189.5	1.8

Al-Knetlegierung
Si < 6%

9.50	250	0.210	46.8	8375	1760	125.0	1.6
9.60	250	0.215	46.6	8290	1780	129.0	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
11.50	250	0.255	53.8	6920	1765	183.5	1.8

Spiralbohrer Supradrill N

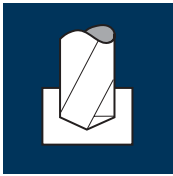
5xd



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium
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Beispiel: Bestell-Nr. B52015 .1160							U-4XD	
							B52015	
							B53015	
Ø Code	d1 m7	d2 h6	l1	l2	l4			
.1160	11.60	12	118	71	45	●		
.1170	11.70	12	118	71	45	●		
.1180	11.80	12	118	71	45	●		
.1190	11.90	12	118	71	45	●		
.1200	12.00	12	118	71	45	●		
.1210	12.10	14	124	77	45	●		
.1220	12.20	14	124	77	45	●		
.1230	12.30	14	124	77	45	●		
.1240	12.40	14	124	77	45	●		
.1250	12.50	14	124	77	45	●		
.1260	12.60	14	124	77	45	●		
.1270	12.70	14	124	77	45	●		
.1280	12.80	14	124	77	45	●		
.1290	12.90	14	124	77	45	●		
.1300	13.00	14	124	77	45	●		
.1310	13.10	14	124	77	45	●		
.1320	13.20	14	124	77	45	●		
.1330	13.30	14	124	77	45	●		
.1340	13.40	14	124	77	45	●		
.1350	13.50	14	124	77	45	●		
.1360	13.60	14	124	77	45	●		
.1370	13.70	14	124	77	45	●		
.1380	13.80	14	124	77	45	●		

Anwendung



Werkstoff

Stahl
< 500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
11.80	160	0.310	53.3	4315	1340	146.5	2.4
12.00	160	0.315	53.0	4245	1335	151.0	2.4
12.20	160	0.320	58.7	4175	1335	156.0	2.6
12.50	160	0.330	58.3	4075	1345	165.0	2.6
12.80	160	0.335	57.8	3980	1335	172.0	2.6
13.00	160	0.340	57.5	3920	1335	177.0	2.6
13.20	160	0.345	57.2	3860	1330	182.0	2.6
13.50	160	0.355	56.8	3775	1340	192.0	2.5
13.80	160	0.365	56.3	3690	1345	201.0	2.5

Stahl
500 - 850 N/mm²

11.80	120	0.310	53.3	3235	1005	110.0	3.2
12.00	120	0.315	53.0	3185	1005	113.5	3.2
12.20	120	0.320	58.7	3130	1000	117.0	3.5
12.50	120	0.330	58.3	3055	1010	124.0	3.5
12.80	120	0.335	57.8	2985	1000	128.5	3.5
13.00	120	0.340	57.5	2940	1000	132.5	3.5
13.20	120	0.345	57.2	2895	1000	137.0	3.4
13.50	120	0.355	56.8	2830	1005	144.0	3.4
13.80	120	0.365	56.3	2770	1010	151.0	3.3

Stahl
850 - 1100 N/mm²

11.80	100	0.235	53.3	2700	635	69.5	5.0
12.00	100	0.240	53.0	2655	635	72.0	5.0
12.20	100	0.245	58.7	2610	640	75.0	5.5
12.50	100	0.250	58.3	2545	635	78.0	5.5
12.80	100	0.255	57.8	2485	635	81.5	5.5
13.00	100	0.260	57.5	2450	635	84.5	5.4
13.20	100	0.265	57.2	2410	640	87.5	5.4
13.50	100	0.270	56.8	2360	635	91.0	5.4
13.80	100	0.275	56.3	2305	635	95.0	5.3

Stahl
1100 - 1300 N/mm²

11.80	65	0.195	53.3	1755	340	37.0	9.4
12.00	65	0.200	53.0	1725	345	39.0	9.2
12.20	65	0.205	58.7	1695	345	40.5	10.2
12.50	65	0.210	58.3	1655	350	43.0	10.0
12.80	65	0.215	57.8	1615	345	44.5	10.1
13.00	65	0.215	57.5	1590	340	45.0	10.1
13.20	65	0.220	57.2	1565	345	47.0	9.9
13.50	65	0.225	56.8	1535	345	49.5	9.9
13.80	65	0.230	56.3	1500	345	51.5	9.8

Werkstoff

Stahl
1300 - 1500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
11.80	35	0.155	53.3	945	145	16.0	22.1
12.00	35	0.160	53.0	930	150	17.0	21.2
12.20	35	0.165	58.7	915	150	17.5	23.5
12.50	35	0.165	58.3	890	145	18.0	24.1
12.80	35	0.170	57.8	870	150	19.5	23.1
13.00	35	0.175	57.5	855	150	20.0	23.0
13.20	35	0.175	57.2	845	150	20.5	22.9
13.50	35	0.180	56.8	825	150	21.5	22.7
13.80	35	0.185	56.3	805	150	22.5	22.5

Kaltarbeitsstahl
(12% Cr)
hoch legiert
[1.2379]
Nichtrostender Stahl
[Cr-Ni/1.4301]

11.80	60	0.180	53.3	1620	290	31.5	11.0
12.00	60	0.185	53.0	1590	295	33.5	10.8
12.20	60	0.190	58.7	1565	295	34.5	11.9
12.50	60	0.190	58.3	1530	290	35.5	12.1
12.80	60	0.195	57.8	1490	290	37.5	12.0
13.00	60	0.200	57.5	1470	295	39.0	11.7
13.20	60	0.205	57.2	1445	295	40.5	11.6
13.50	60	0.210	56.8	1415	295	42.0	11.6
13.80	60	0.210	56.3	1385	290	43.5	11.6

Gusseisen
GG(G)

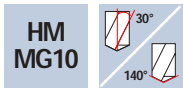
11.80	200	0.335	53.3	5395	1805	197.5	1.8
12.00	200	0.345	53.0	5305	1830	207.0	1.7
12.20	200	0.350	58.7	5220	1825	213.5	1.9
12.50	200	0.355	58.3	5095	1810	222.0	1.9
12.80	200	0.365	57.8	4975	1815	233.5	1.9
13.00	200	0.370	57.5	4895	1810	240.0	1.9
13.20	200	0.375	57.2	4825	1810	247.5	1.9
13.50	200	0.385	56.8	4715	1815	260.0	1.9
13.80	200	0.395	56.3	4615	1825	273.0	1.9

Al-Knetlegierung
Si < 6%

11.80	250	0.260	53.3	6745	1755	192.0	1.8
12.00	250	0.265	53.0	6630	1755	198.5	1.8
12.20	250	0.270	58.7	6525	1760	205.5	2.0
12.50	250	0.280	58.3	6365	1780	218.5	2.0
12.80	250	0.285	57.8	6215	1770	228.0	2.0
13.00	250	0.290	57.5	6120	1775	235.5	1.9
13.20	250	0.295	57.2	6030	1780	243.5	1.9
13.50	250	0.300	56.8	5895	1770	253.5	1.9
13.80	250	0.305	56.3	5765	1760	263.0	1.9

Spiralbohrer Supradrill N

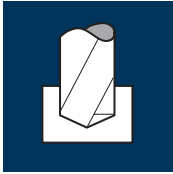
5xd



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium
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Beispiel: Bestell-Nr. B52015 .1390							U-4XD	
							B52015	
							B53015	
Ø Code	d1 m7	d2 h6	l1	l2	l4			
.1390	13.90	14	124	77	45	●		
.1400	14.00	14	124	77	45	●		
.1410	14.10	16	133	83	48	●		
.1420	14.20	16	133	83	48	●		
.1430	14.30	16	133	83	48	●		
.1440	14.40	16	133	83	48	●		
.1450	14.50	16	133	83	48	●		
.1460	14.60	16	133	83	48	●		
.1470	14.70	16	133	83	48	●		
.1480	14.80	16	133	83	48	●		
.1490	14.90	16	133	83	48	●		
.1500	15.00	16	133	83	48	●		
.1510	15.10	16	133	83	48	●		
.1520	15.20	16	133	83	48	●		
.1530	15.30	16	133	83	48	●		
.1540	15.40	16	133	83	48	●		
.1550	15.50	16	133	83	48	●		
.1560	15.60	16	133	83	48	●		
.1570	15.70	16	133	83	48	●		
.1580	15.80	16	133	83	48	●		
.1590	15.90	16	133	83	48	●		
.1600	16.00	16	133	83	48	●		

Anwendung



Werkstoff

Stahl
< 500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
14.00	160	0.370	56.0	3640	1345	207.0	2.5
14.20	160	0.375	61.7	3585	1345	213.0	2.8
14.50	160	0.380	61.3	3510	1335	220.5	2.8
14.80	160	0.390	60.8	3440	1340	230.5	2.7
15.00	160	0.395	60.5	3395	1340	237.0	2.7
15.20	160	0.400	60.2	3350	1340	243.0	2.7
15.50	160	0.410	59.8	3285	1345	254.0	2.7
15.80	160	0.415	59.3	3225	1340	262.5	2.7
16.00	160	0.420	59.0	3185	1340	269.5	2.6

Stahl
500 - 850 N/mm²

14.00	120	0.370	56.0	2730	1010	155.5	3.3
14.20	120	0.375	61.7	2690	1010	160.0	3.7
14.50	120	0.380	61.3	2635	1000	165.0	3.7
14.80	120	0.390	60.8	2580	1005	173.0	3.6
15.00	120	0.395	60.5	2545	1005	177.5	3.6
15.20	120	0.400	60.2	2515	1005	182.5	3.6
15.50	120	0.410	59.8	2465	1010	190.5	3.6
15.80	120	0.415	59.3	2420	1005	197.0	3.5
16.00	120	0.420	59.0	2385	1000	201.0	3.5

Stahl
850 - 1100 N/mm²

14.00	100	0.280	56.0	2275	635	98.0	5.3
14.20	100	0.285	61.7	2240	640	101.5	5.8
14.50	100	0.290	61.3	2195	635	105.0	5.8
14.80	100	0.295	60.8	2150	635	109.0	5.7
15.00	100	0.300	60.5	2120	635	112.0	5.7
15.20	100	0.305	60.2	2095	640	116.0	5.6
15.50	100	0.310	59.8	2055	635	120.0	5.7
15.80	100	0.315	59.3	2015	635	124.5	5.6
16.00	100	0.320	59.0	1990	635	127.5	5.6

Stahl
1100 - 1300 N/mm²

14.00	65	0.235	56.0	1480	350	54.0	9.6
14.20	65	0.235	61.7	1455	340	54.0	10.9
14.50	65	0.240	61.3	1425	340	56.0	10.8
14.80	65	0.245	60.8	1400	345	59.5	10.6
15.00	65	0.250	60.5	1380	345	61.0	10.5
15.20	65	0.255	60.2	1360	345	62.5	10.5
15.50	65	0.260	59.8	1335	345	65.0	10.4
15.80	65	0.265	59.3	1310	345	67.5	10.3
16.00	65	0.265	59.0	1295	345	69.5	10.3

Werkstoff

Stahl
1300 - 1500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
14.00	35	0.185	56.0	795	145	22.5	23.2
14.20	35	0.190	61.7	785	150	24.0	24.7
14.50	35	0.195	61.3	770	150	25.0	24.5
14.80	35	0.195	60.8	755	145	25.0	25.2
15.00	35	0.200	60.5	745	150	26.5	24.2
15.20	35	0.205	60.2	735	150	27.0	24.1
15.50	35	0.205	59.8	720	150	28.5	23.9
15.80	35	0.210	59.3	705	150	29.5	23.7
16.00	35	0.215	59.0	695	150	30.0	23.6

Kaltarbeitsstahl
(12% Cr)
hoch legiert
[1.2379]
Nichtrostender Stahl
[Cr-Ni/1.4301]

14.00	60	0.215	56.0	1365	295	45.5	11.4
14.20	60	0.220	61.7	1345	295	46.5	12.5
14.50	60	0.225	61.3	1315	295	48.5	12.5
14.80	60	0.230	60.8	1290	295	50.5	12.4
15.00	60	0.230	60.5	1275	295	52.0	12.3
15.20	60	0.235	60.2	1255	295	53.5	12.2
15.50	60	0.240	59.8	1230	295	55.5	12.2
15.80	60	0.245	59.3	1210	295	58.0	12.1
16.00	60	0.245	59.0	1195	295	59.5	12.0

Gusseisen
GG(G)

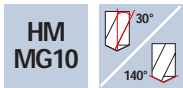
14.00	200	0.400	56.0	4545	1820	280.0	1.8
14.20	200	0.405	61.7	4485	1815	287.5	2.0
14.50	200	0.415	61.3	4390	1820	300.5	2.0
14.80	200	0.425	60.8	4300	1830	315.0	2.0
15.00	200	0.430	60.5	4245	1825	322.5	2.0
15.20	200	0.435	60.2	4190	1825	331.0	2.0
15.50	200	0.445	59.8	4105	1825	344.5	2.0
15.80	200	0.450	59.3	4030	1815	356.0	2.0
16.00	200	0.455	59.0	3980	1810	364.0	2.0

Al-Knetlegierung
Si < 6%

14.00	250	0.310	56.0	5685	1760	271.0	1.9
14.20	250	0.315	61.7	5605	1765	279.5	2.1
14.50	250	0.320	61.3	5490	1755	290.0	2.1
14.80	250	0.330	60.8	5375	1775	305.5	2.1
15.00	250	0.335	60.5	5305	1775	313.5	2.0
15.20	250	0.340	60.2	5235	1780	323.0	2.0
15.50	250	0.345	59.8	5135	1770	334.0	2.0
15.80	250	0.350	59.3	5035	1760	345.0	2.0
16.00	250	0.355	59.0	4975	1765	355.0	2.0

Spiralbohrer Supradrill N

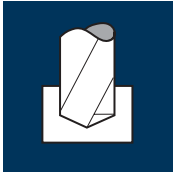
5xd



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium
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Beispiel: Bestell-Nr. B52015 .1610							U-4XD	
							B52015	
							B53015	
Ø Code	d1 m7	d2 h6	l1	l2	l4			
.1610	16.10	18	143	93	48	●		
.1620	16.20	18	143	93	48	●		
.1630	16.30	18	143	93	48	●		
.1640	16.40	18	143	93	48	●		
.1650	16.50	18	143	93	48	●		
.1660	16.60	18	143	93	48	●		
.1670	16.70	18	143	93	48	●		
.1680	16.80	18	143	93	48	●		
.1690	16.90	18	143	93	48	●		
.1700	17.00	18	143	93	48	●		
.1710	17.10	18	143	93	48	●		
.1720	17.20	18	143	93	48	●		
.1730	17.30	18	143	93	48	●		
.1740	17.40	18	143	93	48	●		
.1750	17.50	18	143	93	48	●		
.1760	17.60	18	143	93	48	●		
.1770	17.70	18	143	93	48	●		
.1780	17.80	18	143	93	48	●		
.1790	17.90	18	143	93	48	●		
.1800	18.00	18	143	93	48	●		

Anwendung



Werkstoff

Stahl
< 500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
16.20	160	0.425	68.7	3145	1335	275.0	3.1
16.50	160	0.435	68.3	3085	1340	286.5	3.1
16.60	160	0.435	68.1	3070	1335	289.0	3.1
16.80	160	0.440	67.8	3030	1335	296.0	3.0
17.00	160	0.445	67.5	2995	1335	303.0	3.0
17.20	160	0.455	67.2	2960	1345	312.5	3.0
17.50	160	0.460	66.8	2910	1340	322.5	3.0
17.80	160	0.470	66.3	2860	1345	334.5	3.0
18.00	160	0.475	66.0	2830	1345	342.5	2.9

Stahl
500 - 850 N/mm²

16.20	120	0.425	68.7	2360	1005	207.0	4.1
16.50	120	0.435	68.3	2315	1005	215.0	4.1
16.60	120	0.435	68.1	2300	1000	216.5	4.1
16.80	120	0.440	67.8	2275	1000	221.5	4.1
17.00	120	0.445	67.5	2245	1000	227.0	4.1
17.20	120	0.455	67.2	2220	1010	234.5	4.0
17.50	120	0.460	66.8	2185	1005	241.5	4.0
17.80	120	0.470	66.3	2145	1010	251.5	3.9
18.00	120	0.475	66.0	2120	1005	255.5	3.9

Stahl
850 - 1100 N/mm²

16.20	100	0.325	68.7	1965	640	132.0	6.4
16.50	100	0.330	68.3	1930	635	136.0	6.5
16.60	100	0.330	68.1	1920	635	137.5	6.4
16.80	100	0.335	67.8	1895	635	141.0	6.4
17.00	100	0.340	67.5	1870	635	144.0	6.4
17.20	100	0.345	67.2	1850	640	148.5	6.3
17.50	100	0.350	66.8	1820	635	152.5	6.3
17.80	100	0.355	66.3	1790	635	158.0	6.3
18.00	100	0.360	66.0	1770	635	161.5	6.2

Stahl
1100 - 1300 N/mm²

16.20	65	0.270	68.7	1275	345	71.0	11.9
16.50	65	0.275	68.3	1255	345	74.0	11.9
16.60	65	0.275	68.1	1245	340	73.5	12.0
16.80	65	0.280	67.8	1230	345	76.5	11.8
17.00	65	0.285	67.5	1215	345	78.5	11.7
17.20	65	0.285	67.2	1205	345	80.0	11.7
17.50	65	0.290	66.8	1180	340	82.0	11.8
17.80	65	0.295	66.3	1160	340	84.5	11.7
18.00	65	0.300	66.0	1150	345	88.0	11.5

Werkstoff

Stahl
1300 - 1500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
16.20	35	0.215	68.7	690	150	31.0	27.5
16.50	35	0.220	68.3	675	150	32.0	27.3
16.60	35	0.220	68.1	670	145	31.5	28.2
16.80	35	0.225	67.8	665	150	33.5	27.1
17.00	35	0.225	67.5	655	145	33.0	27.9
17.20	35	0.230	67.2	650	150	35.0	26.9
17.50	35	0.235	66.8	635	150	36.0	26.7
17.80	35	0.235	66.3	625	145	36.0	27.4
18.00	35	0.240	66.0	620	150	38.0	26.4

Kaltarbeitsstahl
(12% Cr)
hoch legiert
[1.2379]
Nichtrostender Stahl
[Cr-Ni/1.4301]

16.20	60	0.250	68.7	1180	295	61.0	14.0
16.50	60	0.255	68.3	1155	295	63.0	13.9
16.60	60	0.255	68.1	1150	295	64.0	13.9
16.80	60	0.260	67.8	1135	295	65.5	13.8
17.00	60	0.260	67.5	1125	295	67.0	13.7
17.20	60	0.265	67.2	1110	295	68.5	13.7
17.50	60	0.270	66.8	1090	295	71.0	13.6
17.80	60	0.275	66.3	1075	295	73.5	13.5
18.00	60	0.275	66.0	1060	290	74.0	13.7

Gusseisen
GG(G)

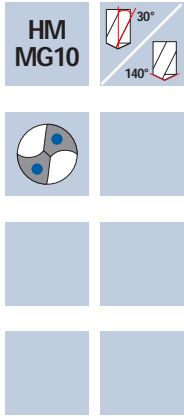
16.20	200	0.465	68.7	3930	1825	376.0	2.3
16.50	200	0.470	68.3	3860	1815	388.0	2.3
16.60	200	0.475	68.1	3835	1820	394.0	2.2
16.80	200	0.480	67.8	3790	1820	403.5	2.2
17.00	200	0.485	67.5	3745	1815	412.0	2.2
17.20	200	0.490	67.2	3700	1815	421.5	2.2
17.50	200	0.500	66.8	3640	1820	438.0	2.2
17.80	200	0.510	66.3	3575	1825	454.0	2.2
18.00	200	0.515	66.0	3535	1820	463.0	2.2

Al-Knetlegierung
Si < 6%

16.20	250	0.360	68.7	4910	1770	365.0	2.3
16.50	250	0.365	68.3	4825	1760	376.5	2.3
16.60	250	0.370	68.1	4795	1775	384.0	2.3
16.80	250	0.375	67.8	4735	1775	393.5	2.3
17.00	250	0.380	67.5	4680	1780	404.0	2.3
17.20	250	0.380	67.2	4625	1760	409.0	2.3
17.50	250	0.390	66.8	4545	1775	427.0	2.3
17.80	250	0.395	66.3	4470	1765	439.0	2.3
18.00	250	0.400	66.0	4420	1770	450.5	2.2

Spiralbohrer Supradrill N

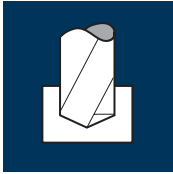
5xd



Rm < 850	Rm 850-1100	Rm 1100-1300				Inox Stainless	GG(G) Aluminium
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						U-4XD	
Beispiel: Bestell-Nr.							B52015
Artikel-Nr. α-Code							B53015
Ø Code	d1 m7	d2 h6	l1	l2	l4		
.1850	18.50	20	153	101	50	●	
.1870	18.70	20	153	101	50	●	
.1900	19.00	20	153	101	50	●	
.1910	19.10	20	153	101	50	●	
.1920	19.20	20	153	101	50	●	
.1930	19.30	20	153	101	50	●	
.1950	19.50	20	153	101	50	●	
.1970	19.70	20	153	101	50	●	
.1980	19.80	20	153	101	50	●	
.2000	20.00	20	153	101	50	●	

Anwendung



Werkstoff

Stahl
< 500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
18.50	160	0.485	73.3	2755	1335	359.0	3.3
18.70	160	0.490	73.0	2725	1335	366.5	3.3
19.00	160	0.500	72.5	2680	1340	380.0	3.2
19.20	160	0.505	72.2	2655	1340	388.0	3.2
19.30	160	0.510	72.0	2640	1345	393.5	3.2
19.50	160	0.515	71.8	2610	1345	401.5	3.2
19.70	160	0.520	71.5	2585	1345	410.0	3.2
19.80	160	0.520	71.3	2570	1335	411.0	3.2
20.00	160	0.525	71.0	2545	1335	419.5	3.2

Stahl
500 - 850 N/mm²

18.50	120	0.485	73.3	2065	1000	269.0	4.4
18.70	120	0.490	73.0	2045	1000	274.5	4.4
19.00	120	0.500	72.5	2010	1005	285.0	4.3
19.20	120	0.505	72.2	1990	1005	291.0	4.3
19.30	120	0.510	72.0	1980	1010	295.5	4.3
19.50	120	0.515	71.8	1960	1010	301.5	4.3
19.70	120	0.520	71.5	1940	1010	308.0	4.2
19.80	120	0.520	71.3	1930	1005	309.5	4.3
20.00	120	0.525	71.0	1910	1005	315.5	4.2

Stahl
850 - 1100 N/mm²

18.50	100	0.370	73.3	1720	635	170.5	6.9
18.70	100	0.375	73.0	1700	640	176.0	6.8
19.00	100	0.380	72.5	1675	635	180.0	6.9
19.20	100	0.385	72.2	1660	640	185.5	6.8
19.30	100	0.385	72.0	1650	635	186.0	6.8
19.50	100	0.390	71.8	1630	635	189.5	6.8
19.70	100	0.395	71.5	1615	640	195.0	6.7
19.80	100	0.395	71.3	1610	635	195.5	6.7
20.00	100	0.400	71.0	1590	635	199.5	6.7

Stahl
1100 - 1300 N/mm²

18.50	65	0.310	73.3	1120	345	92.5	12.7
18.70	65	0.310	73.0	1105	345	95.0	12.7
19.00	65	0.315	72.5	1090	345	98.0	12.6
19.20	65	0.320	72.2	1080	345	100.0	12.6
19.30	65	0.320	72.0	1070	340	99.5	12.7
19.50	65	0.325	71.8	1060	345	103.0	12.5
19.70	65	0.330	71.5	1050	345	105.0	12.4
19.80	65	0.330	71.3	1045	345	106.0	12.4
20.00	65	0.335	71.0	1035	345	108.5	12.3

Werkstoff

Stahl
1300 - 1500 N/mm²

d1 [mm]	v _c [m/min]	f [mm]	L _{max} [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]	T [sek]
18.50	35	0.245	73.3	600	145	39.0	30.3
18.70	35	0.250	73.0	595	150	41.0	29.2
19.00	35	0.255	72.5	585	150	42.5	29.0
19.20	35	0.255	72.2	580	150	43.5	28.9
19.30	35	0.255	72.0	575	145	42.5	29.8
19.50	35	0.260	71.8	570	150	45.0	28.7
19.70	35	0.265	71.5	565	150	45.5	28.6
19.80	35	0.265	71.3	565	150	46.0	28.5
20.00	35	0.265	71.0	555	145	45.5	29.4

Kaltarbeitsstahl
(12% Cr)
hoch legiert
[1.2379]
Nichtrostender Stahl
[Cr-Ni/1.4301]

18.50	60	0.285	73.3	1030	295	79.5	14.9
18.70	60	0.290	73.0	1020	295	81.0	14.8
19.00	60	0.290	72.5	1005	290	82.0	15.0
19.20	60	0.295	72.2	995	295	85.5	14.7
19.30	60	0.295	72.0	990	290	85.0	14.9
19.50	60	0.300	71.8	980	295	88.0	14.6
19.70	60	0.305	71.5	970	295	90.0	14.5
19.80	60	0.305	71.3	965	295	91.0	14.5
20.00	60	0.310	71.0	955	295	92.5	14.4

Gusseisen
GG(G)

18.50	200	0.530	73.3	3440	1825	490.5	2.4
18.70	200	0.535	73.0	3405	1820	500.0	2.4
19.00	200	0.545	72.5	3350	1825	517.5	2.4
19.20	200	0.550	72.2	3315	1825	528.5	2.4
19.30	200	0.550	72.0	3300	1815	531.0	2.4
19.50	200	0.555	71.8	3265	1810	540.5	2.4
19.70	200	0.565	71.5	3230	1825	556.5	2.4
19.80	200	0.565	71.3	3215	1815	559.0	2.4
20.00	200	0.570	71.0	3185	1815	570.0	2.3

Al-Knetlegierung
Si < 6%

18.50	250	0.410	73.3	4300	1765	474.5	2.5
18.70	250	0.415	73.0	4255	1765	484.5	2.5
19.00	250	0.420	72.5	4190	1760	499.0	2.5
19.20	250	0.425	72.2	4145	1760	509.5	2.5
19.30	250	0.430	72.0	4125	1775	519.5	2.4
19.50	250	0.435	71.8	4080	1775	530.0	2.4
19.70	250	0.440	71.5	4040	1780	542.5	2.4
19.80	250	0.440	71.3	4020	1770	545.0	2.4
20.00	250	0.445	71.0	3980	1770	556.0	2.4