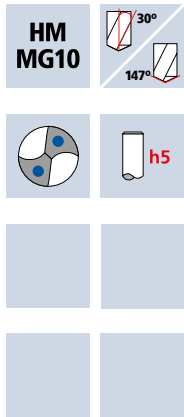


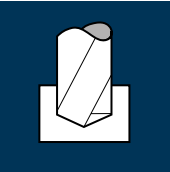











# Micro drills Microdrill NX

8xd



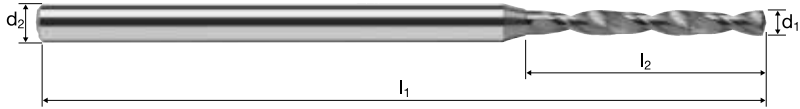
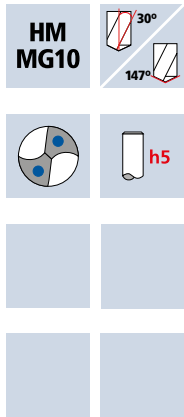
Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless	GG(G) Aluminium
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Example: Order-N°.							DURO-SD	
Article-N°.    ø-Code							B57020	
Ø Code	d <sub>1</sub> m7	d <sub>2</sub> h5	l <sub>1</sub>	l <sub>2</sub>	L <sub>max</sub>			
0080	0.80	3.0	46.0	7.6	6.4		●	
0085	0.85	3.0	46.0	8.1	6.8		●	
0090	0.90	3.0	46.0	8.5	7.2		●	
0095	0.95	3.0	46.0	9.0	7.6		●	
0100	1.00	3.0	48.0	9.5	8.0		●	
0105	1.05	3.0	48.0	10.0	8.4		●	
0110	1.10	3.0	48.0	10.4	8.8		●	
0115	1.15	3.0	48.0	10.9	9.2		●	
0120	1.20	3.0	48.0	11.4	9.6		●	
0125	1.25	3.0	48.0	11.9	10.0		●	
0130	1.30	3.0	48.0	12.3	10.4		●	
0135	1.35	3.0	48.0	12.8	10.8		●	
0140	1.40	3.0	50.0	13.3	11.2		●	
0145	1.45	3.0	50.0	13.8	11.6		●	
0150	1.50	3.0	50.0	14.2	12.0		●	
0155	1.55	3.0	50.0	14.7	12.4		●	
0160	1.60	3.0	50.0	15.2	12.8		●	
0165	1.65	3.0	50.0	15.7	13.2		●	
0170	1.70	3.0	52.0	16.1	13.6		●	
0175	1.75	3.0	52.0	16.6	14.0		●	
0180	1.80	3.0	52.0	17.1	14.4		●	
0185	1.85	3.0	52.0	17.6	14.8		●	

Application	Material	$d_1$ [mm]	$v_c$ [m/min]	$f$ [mm]	$n$ [min <sup>-1</sup> ]	$v_f$ [mm/min]	$Q$ [mm <sup>2</sup> /min]		
	Steel < 500 N/mm <sup>2</sup> 	0.80	140	0.0140	55705	780	392.0		
		0.90	140	0.0160	49515	792	504.0		
		1.00	140	0.0180	44565	802	630.0		
		1.10	140	0.0190	40510	770	731.5		
		1.25	140	0.0230	35650	820	1006.5		
		1.40	140	0.0260	31830	828	1274.0		
		1.50	140	0.0280	29710	832	1470.0		
		1.65	140	0.0320	27010	864	1848.0		
		1.80	140	0.0350	24755	866	2204.5		
		Steel 500 - 850 N/mm <sup>2</sup> 	Steel 500 - 850 N/mm <sup>2</sup> 	0.80	100	0.0140	39790	557	280.0
				0.90	100	0.0160	35370	566	360.0
				1.00	100	0.0180	31830	573	450.0
				1.10	100	0.0190	28935	550	522.5
1.25	100			0.0230	25465	586	719.0		
1.40	100			0.0260	22735	591	910.0		
1.50	100			0.0280	21220	594	1050.0		
1.65	100			0.0320	19290	617	1320.0		
1.80	100			0.0350	17685	619	1575.0		
Steel 850 - 1100 N/mm <sup>2</sup> 	Steel 850 - 1100 N/mm <sup>2</sup> 			0.80	80	0.0140	31830	446	224.0
				0.90	80	0.0160	28295	453	288.0
				1.00	80	0.0180	25465	458	360.0
				1.10	80	0.0190	23150	440	418.0
		1.25	80	0.0230	20370	469	575.0		
		1.40	80	0.0260	18190	473	728.0		
		1.50	80	0.0280	16975	475	840.0		
		1.65	80	0.0320	15435	494	1056.0		
		1.80	80	0.0350	14145	495	1260.0		
		Stainless steel [Cr-Ni-Mo-.../1.4571] 	Stainless steel [Cr-Ni-Mo-.../1.4571] 	0.80	60	0.0120	23875	287	144.0
				0.90	60	0.0130	21220	276	175.5
				1.00	60	0.0140	19100	267	210.0
				1.10	60	0.0160	17360	278	264.0
1.25	60			0.0180	15280	275	337.5		
1.40	60			0.0210	13640	286	441.0		
1.50	60			0.0230	12730	293	517.5		
1.65	60			0.0260	11575	301	643.5		
1.80	60			0.0290	10610	308	783.0		
Cast iron (lamellar / spheroidal) 	Cast iron (lamellar / spheroidal) 			0.80	150	0.0160	59685	955	480.0
				0.90	150	0.0190	53050	1008	641.5
				1.00	150	0.0210	47745	1003	787.5
				1.10	150	0.0230	43405	998	948.5
		1.25	150	0.0260	38195	993	1218.5		
		1.40	150	0.0300	34105	1023	1575.0		
		1.50	150	0.0320	31830	1019	1800.0		
		1.65	150	0.0360	28935	1042	2227.5		
		1.80	150	0.0400	26525	1061	2700.0		
		Wrought aluminium alloys Si < 6% hardened 	Wrought aluminium alloys Si < 6% hardened 	0.80	200	0.0160	60000	960	482.5
				0.90	200	0.0190	60000	1140	725.5
				1.00	200	0.0210	60000	1260	989.5
				1.10	200	0.0230	57875	1331	1265.0
1.25	200			0.0260	50930	1324	1625.0		
1.40	200			0.0300	45475	1364	2100.0		
1.50	200			0.0320	42440	1358	2400.0		
1.65	200			0.0360	38585	1389	2970.5		
1.80	200			0.0400	35370	1415	3600.5		

# Micro drills Microdrill NX

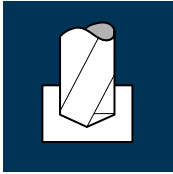
8xd



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium
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Example: Order-N° <b>B57020 0190</b>							DURO-SD	
							<b>B57020</b>	
∅ Code	d <sub>1</sub> m7	d <sub>2</sub> h5	l <sub>1</sub>	l <sub>2</sub>	L <sub>max</sub>			
0190	1.90	3.0	52.0	18.0	15.2			●
0195	1.95	3.0	52.0	18.5	15.6			●
0200	2.00	3.0	56.0	19.0	16.0			●
0205	2.05	3.0	56.0	19.5	16.4			●
0210	2.10	3.0	56.0	20.0	16.9			●
0215	2.15	3.0	56.0	20.4	17.2			●
0220	2.20	3.0	56.0	20.9	17.6			●
0225	2.25	3.0	56.0	21.4	18.0			●
0230	2.30	3.0	56.0	21.9	18.5			●
0235	2.35	3.0	56.0	22.3	18.8			●
0240	2.40	3.0	56.0	22.8	19.2			●
0245	2.45	3.0	56.0	23.3	19.6			●
0250	2.50	3.0	56.0	23.8	20.1			●
0255	2.55	3.0	60.0	24.2	20.4			●
0260	2.60	3.0	60.0	24.7	20.8			●
0265	2.65	3.0	60.0	25.2	21.2			●
0270	2.70	3.0	60.0	25.7	21.7			●
0275	2.75	3.0	60.0	26.1	22.0			●
0280	2.80	3.0	60.0	26.6	22.4			●
0285	2.85	3.0	60.0	27.1	22.8			●
0290	2.90	3.0	60.0	27.6	23.3			●
0295	2.95	3.0	60.0	28.0	23.6			●

## Application



## Material

Steel  
< 500 N/mm<sup>2</sup>



Steel  
500 - 850 N/mm<sup>2</sup>



Steel  
850 - 1100 N/mm<sup>2</sup>



Stainless steel  
[Cr-Ni-Mo-.../1.4571]



Cast iron  
(lamellar / spheroidal)



Wrought aluminium alloys  
Si < 6%  
hardened



$d_1$ [mm]	$v_c$ [m/min]	$f$ [mm]	$n$ [min <sup>-1</sup> ]	$v_f$ [mm/min]	$Q$ [cm <sup>3</sup> /min]
2.00	140	0.0390	22280	869	2.7
2.10	140	0.0410	21220	870	3.0
2.20	140	0.0430	20255	871	3.3
2.35	140	0.0470	18965	891	3.9
2.50	140	0.0510	17825	909	4.5
2.60	140	0.0530	17140	908	4.8
2.75	140	0.0580	16205	940	5.6
2.85	140	0.0600	15635	938	6.0
2.95	140	0.0640	15105	967	6.6
2.00	100	0.0390	15915	621	2.0
2.10	100	0.0410	15160	622	2.2
2.20	100	0.0430	14470	622	2.4
2.35	100	0.0470	13545	637	2.8
2.50	100	0.0510	12730	649	3.2
2.60	100	0.0530	12245	649	3.4
2.75	100	0.0580	11575	671	4.0
2.85	100	0.0600	11170	670	4.3
2.95	100	0.0640	10790	691	4.7
2.00	80	0.0390	12730	497	1.6
2.10	80	0.0410	12125	497	1.7
2.20	80	0.0430	11575	498	1.9
2.35	80	0.0470	10835	509	2.2
2.50	80	0.0510	10185	519	2.5
2.60	80	0.0530	9795	519	2.8
2.75	80	0.0580	9260	537	3.2
2.85	80	0.0600	8935	536	3.4
2.95	80	0.0640	8630	552	3.8
2.00	60	0.0360	9550	344	1.1
2.10	60	0.0380	9095	346	1.2
2.20	60	0.0400	8680	347	1.3
2.35	60	0.0440	8125	358	1.6
2.50	60	0.0470	7640	359	1.8
2.60	60	0.0500	7345	367	2.0
2.75	60	0.0540	6945	375	2.2
2.85	60	0.0570	6700	382	2.4
2.95	60	0.0590	6475	382	2.6
2.00	150	0.0460	23875	1098	3.5
2.10	150	0.0480	22735	1091	3.8
2.20	150	0.0500	21705	1085	4.1
2.35	150	0.0550	20320	1118	4.8
2.50	150	0.0590	19100	1127	5.5
2.60	150	0.0630	18365	1157	6.1
2.75	150	0.0670	17360	1163	6.9
2.85	150	0.0690	16755	1156	7.4
2.95	150	0.0720	16185	1165	8.0
2.00	200	0.0460	31830	1464	4.6
2.10	200	0.0480	30315	1455	5.0
2.20	200	0.0500	28935	1447	5.5
2.35	200	0.0550	27090	1490	6.5
2.50	200	0.0590	25465	1502	7.4
2.60	200	0.0630	24485	1543	8.2
2.75	200	0.0670	23150	1551	9.2
2.85	200	0.0690	22340	1542	9.8
2.95	200	0.0720	21580	1554	10.6