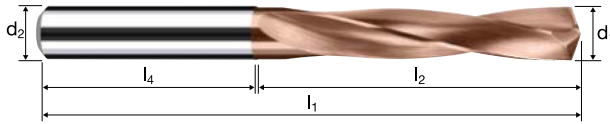
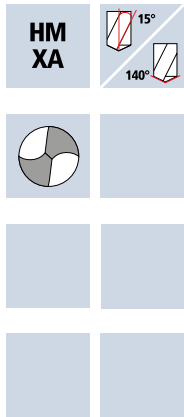


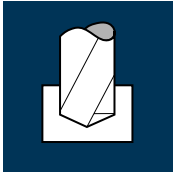
Forets hélicoïdaux Supradrill® H

3xd



Exemple: N° cde							DURO-VD	
N° d'article Code-ø							B52112	
Ø Code	d ₁ h7	d ₂ h6	l ₁	l ₂	l ₄	L _{max}		
0255	2.55	6.0	62.0	20.0	36	14.0	●	
0260	2.60	6.0	62.0	20.0	36	14.0	●	
0270	2.70	6.0	62.0	20.0	36	14.0	●	
0280	2.80	6.0	62.0	20.0	36	14.0	●	
0290	2.90	6.0	62.0	20.0	36	14.0	●	
0300	3.00	6.0	62.0	20.0	36	14.0	●	
0310	3.10	6.0	62.0	20.0	36	14.0	●	
0320	3.20	6.0	62.0	20.0	36	14.0	●	
0330	3.30	6.0	62.0	20.0	36	14.0	●	
0340	3.40	6.0	62.0	20.0	36	14.0	●	
0350	3.50	6.0	62.0	20.0	36	14.0	●	
0360	3.60	6.0	62.0	20.0	36	14.0	●	
0370	3.70	6.0	62.0	20.0	36	14.0	●	
0380	3.80	6.0	66.0	24.0	36	17.0	●	
0390	3.90	6.0	66.0	24.0	36	17.0	●	
0400	4.00	6.0	66.0	24.0	36	17.0	●	
0410	4.10	6.0	66.0	24.0	36	17.0	●	
0420	4.20	6.0	66.0	24.0	36	17.0	●	
0430	4.30	6.0	66.0	24.0	36	17.0	●	
0440	4.40	6.0	66.0	24.0	36	17.0	●	
0450	4.50	6.0	66.0	24.0	36	17.0	●	
0460	4.60	6.0	66.0	24.0	36	17.0	●	
0465	4.65	6.0	66.0	24.0	36	17.0	●	

Application



Matières

Aciers à outil trempés
42 - 48 HRC



Aciers à outil trempés
48 - 52 HRC



Aciers à outil trempés
52 - 56 HRC



Aciers à outil trempés
56 - 60 HRC



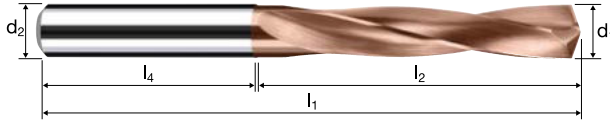
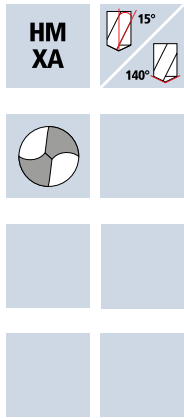
Aciers à outil trempés
> 60 HRC



d_1 [mm]	v_c [m/min]	f [mm]	n [min ⁻¹]	v_f [mm/min]	Q [cm ³ /min]
2.55	35	0.0490	4370	214	1.1
2.80	35	0.0520	3980	207	1.3
3.00	35	0.0540	3715	201	1.4
3.30	35	0.0580	3375	196	1.7
3.60	35	0.0610	3095	189	1.9
4.00	35	0.0650	2785	181	2.3
4.30	35	0.0690	2590	179	2.6
4.50	35	0.0710	2475	176	2.8
4.65	35	0.0720	2395	172	2.9
2.55	30	0.0490	3745	184	0.9
2.80	30	0.0520	3410	177	1.1
3.00	30	0.0540	3185	172	1.2
3.30	30	0.0580	2895	168	1.4
3.60	30	0.0610	2655	162	1.6
4.00	30	0.0650	2385	155	1.9
4.30	30	0.0690	2220	153	2.2
4.50	30	0.0710	2120	151	2.4
4.65	30	0.0720	2055	148	2.5
2.55	30	0.0490	3745	184	0.9
2.80	30	0.0520	3410	177	1.1
3.00	30	0.0540	3185	172	1.2
3.30	30	0.0580	2895	168	1.4
3.60	30	0.0610	2655	162	1.6
4.00	30	0.0650	2385	155	1.9
4.30	30	0.0690	2220	153	2.2
4.50	30	0.0710	2120	151	2.4
4.65	30	0.0720	2055	148	2.5
2.55	25	0.0320	3120	100	0.5
2.80	25	0.0340	2840	97	0.6
3.00	25	0.0350	2655	93	0.7
3.30	25	0.0370	2410	89	0.8
3.60	25	0.0400	2210	88	0.9
4.00	25	0.0430	1990	86	1.1
4.30	25	0.0450	1850	83	1.2
4.50	25	0.0460	1770	81	1.3
4.65	25	0.0470	1710	80	1.4
2.55	20	0.0270	2495	67	0.3
2.80	20	0.0290	2275	66	0.4
3.00	20	0.0300	2120	64	0.4
3.30	20	0.0320	1930	62	0.5
3.60	20	0.0340	1770	60	0.6
4.00	20	0.0360	1590	57	0.7
4.30	20	0.0380	1480	56	0.8
4.50	20	0.0390	1415	55	0.9
4.65	20	0.0400	1370	55	0.9

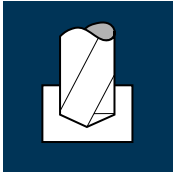
Forets hélicoïdaux Supradrill® H

3xd



Exemple: N° cde							DURO-VD	
							B52112	
							B52112	
Ø Code	d ₁ h7	d ₂ h6	l ₁	l ₂	l ₄	L _{max}		
0470	4.70	6.0	66.0	24.0	36	17.0	●	
0480	4.80	6.0	66.0	28.0	36	20.0	●	
0490	4.90	6.0	66.0	28.0	36	20.0	●	
0500	5.00	6.0	66.0	28.0	36	20.0	●	
0510	5.10	6.0	66.0	28.0	36	20.0	●	
0520	5.20	6.0	66.0	28.0	36	20.0	●	
0530	5.30	6.0	66.0	28.0	36	20.0	●	
0540	5.40	6.0	66.0	28.0	36	20.0	●	
0550	5.50	6.0	66.0	28.0	36	20.0	●	
0555	5.55	6.0	66.0	28.0	36	20.0	●	
0560	5.60	6.0	66.0	28.0	36	20.0	●	
0570	5.70	6.0	66.0	28.0	36	20.0	●	
0580	5.80	6.0	66.0	28.0	36	20.0	●	
0590	5.90	6.0	66.0	28.0	36	20.0	●	
0600	6.00	6.0	66.0	28.0	36	20.0	●	
0610	6.10	8.0	79.0	34.0	36	24.0	●	
0620	6.20	8.0	79.0	34.0	36	24.0	●	
0630	6.30	8.0	79.0	34.0	36	24.0	●	
0640	6.40	8.0	79.0	34.0	36	24.0	●	
0650	6.50	8.0	79.0	34.0	36	24.0	●	
0660	6.60	8.0	79.0	34.0	36	24.0	●	
0670	6.70	8.0	79.0	34.0	36	24.0	●	
0680	6.80	8.0	79.0	34.0	36	24.0	●	

Application



Matières

Aciers à outil trempés
42 - 48 HRC



Aciers à outil trempés
48 - 52 HRC



Aciers à outil trempés
52 - 56 HRC



Aciers à outil trempés
56 - 60 HRC



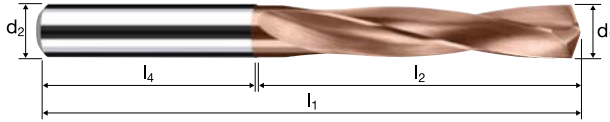
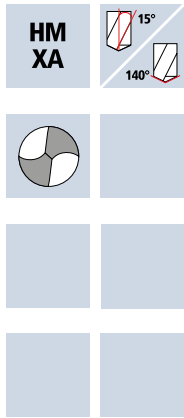
Aciers à outil trempés
> 60 HRC



d_1 [mm]	v_c [m/min]	f [mm]	n [min ⁻¹]	v_f [mm/min]	Q [cm ³ /min]
4.80	35	0.0740	2320	172	3.1
5.00	35	0.0760	2230	170	3.3
5.20	35	0.0780	2140	167	3.5
5.50	35	0.0810	2025	164	3.9
5.70	35	0.0840	1955	164	4.2
6.00	35	0.0870	1855	161	4.6
6.30	35	0.0900	1770	159	5.0
6.50	35	0.0920	1715	158	5.2
6.80	35	0.0950	1640	156	5.7
4.80	30	0.0740	1990	147	2.7
5.00	30	0.0760	1910	145	2.9
5.20	30	0.0780	1835	143	3.0
5.50	30	0.0810	1735	141	3.3
5.70	30	0.0840	1675	141	3.6
6.00	30	0.0870	1590	138	3.9
6.30	30	0.0900	1515	136	4.3
6.50	30	0.0920	1470	135	4.5
6.80	30	0.0950	1405	134	4.8
4.80	30	0.0740	1990	147	2.7
5.00	30	0.0760	1910	145	2.9
5.20	30	0.0780	1835	143	3.0
5.50	30	0.0810	1735	141	3.3
5.70	30	0.0840	1675	141	3.6
6.00	30	0.0870	1590	138	3.9
6.30	30	0.0900	1515	136	4.3
6.50	30	0.0920	1470	135	4.5
6.80	30	0.0950	1405	134	4.8
4.80	25	0.0480	1660	80	1.4
5.00	25	0.0500	1590	80	1.6
5.20	25	0.0510	1530	78	1.7
5.50	25	0.0530	1445	77	1.8
5.70	25	0.0540	1395	75	1.9
6.00	25	0.0560	1325	74	2.1
6.30	25	0.0580	1265	73	2.3
6.50	25	0.0600	1225	74	2.4
6.80	25	0.0620	1170	73	2.6
4.80	20	0.0410	1325	54	1.0
5.00	20	0.0420	1275	54	1.1
5.20	20	0.0430	1225	53	1.1
5.50	20	0.0450	1155	52	1.2
5.70	20	0.0460	1115	51	1.3
6.00	20	0.0480	1060	51	1.4
6.30	20	0.0490	1010	50	1.5
6.50	20	0.0500	980	49	1.6
6.80	20	0.0520	935	49	1.8

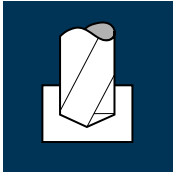
Forets hélicoïdaux Supradrill® H

3xd



Exemple: N° cde							DURO-VD	
N° d'article Code-ø							B52112	
Ø Code	d ₁ h7	d ₂ h6	l ₁	l ₂	l ₄	L _{max}		
0690	6.90	8.0	79.0	34.0	36	24.0	●	
0700	7.00	8.0	79.0	34.0	36	24.0	●	
0710	7.10	8.0	79.0	41.0	36	29.0	●	
0720	7.20	8.0	79.0	41.0	36	29.0	●	
0730	7.30	8.0	79.0	41.0	36	29.0	●	
0740	7.40	8.0	79.0	41.0	36	29.0	●	
0750	7.50	8.0	79.0	41.0	36	29.0	●	
0760	7.60	8.0	79.0	41.0	36	29.0	●	
0770	7.70	8.0	79.0	41.0	36	29.0	●	
0780	7.80	8.0	79.0	41.0	36	29.0	●	
0790	7.90	8.0	79.0	41.0	36	29.0	●	
0800	8.00	8.0	79.0	41.0	36	29.0	●	
0810	8.10	10.0	89.0	47.0	40	35.0	●	
0820	8.20	10.0	89.0	47.0	40	35.0	●	
0830	8.30	10.0	89.0	47.0	40	35.0	●	
0840	8.40	10.0	89.0	47.0	40	35.0	●	
0850	8.50	10.0	89.0	47.0	40	35.0	●	
0860	8.60	10.0	89.0	47.0	40	35.0	●	
0870	8.70	10.0	89.0	47.0	40	35.0	●	
0880	8.80	10.0	89.0	47.0	40	35.0	●	
0890	8.90	10.0	89.0	47.0	40	35.0	●	
0900	9.00	10.0	89.0	47.0	40	35.0	●	
0910	9.10	10.0	89.0	47.0	40	35.0	●	

Application



Matières

Aciers à outil trempés
42 - 48 HRC



Aciers à outil trempés
48 - 52 HRC



Aciers à outil trempés
52 - 56 HRC



Aciers à outil trempés
56 - 60 HRC



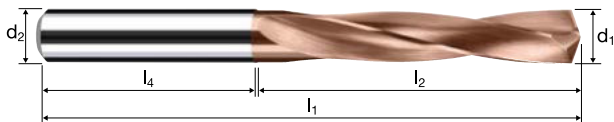
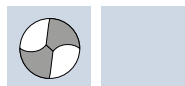
Aciers à outil trempés
> 60 HRC



d_1 [mm]	v_c [m/min]	f [mm]	n [min ⁻¹]	v_f [mm/min]	Q [cm ³ /min]
6.90	35	0.0960	1615	155	5.8
7.10	35	0.0980	1570	154	6.1
7.40	35	0.1000	1505	151	6.5
7.70	35	0.1030	1445	149	6.9
8.00	35	0.1060	1395	148	7.4
8.30	35	0.1090	1340	146	7.9
8.60	35	0.1120	1295	145	8.4
8.90	35	0.1140	1250	143	8.9
9.10	35	0.1160	1225	142	9.2
6.90	30	0.0960	1385	133	5.0
7.10	30	0.0980	1345	132	5.2
7.40	30	0.1000	1290	129	5.5
7.70	30	0.1030	1240	128	5.9
8.00	30	0.1060	1195	127	6.4
8.30	30	0.1090	1150	125	6.8
8.60	30	0.1120	1110	124	7.2
8.90	30	0.1140	1075	123	7.6
9.10	30	0.1160	1050	122	7.9
6.90	30	0.0960	1385	133	5.0
7.10	30	0.0980	1345	132	5.2
7.40	30	0.1000	1290	129	5.5
7.70	30	0.1030	1240	128	5.9
8.00	30	0.1060	1195	127	6.4
8.30	30	0.1090	1150	125	6.8
8.60	30	0.1120	1110	124	7.2
8.90	30	0.1140	1075	123	7.6
9.10	30	0.1160	1050	122	7.9
6.90	25	0.0620	1155	72	2.7
7.10	25	0.0630	1120	71	2.8
7.40	25	0.0650	1075	70	3.0
7.70	25	0.0670	1035	69	3.2
8.00	25	0.0690	995	69	3.5
8.30	25	0.0710	960	68	3.7
8.60	25	0.0730	925	68	3.9
8.90	25	0.0740	895	66	4.1
9.10	25	0.0760	875	67	4.3
6.90	20	0.0530	925	49	1.8
7.10	20	0.0540	895	48	1.9
7.40	20	0.0550	860	47	2.0
7.70	20	0.0570	825	47	2.2
8.00	20	0.0580	795	46	2.3
8.30	20	0.0600	765	46	2.5
8.60	20	0.0610	740	45	2.6
8.90	20	0.0630	715	45	2.8
9.10	20	0.0640	700	45	2.9

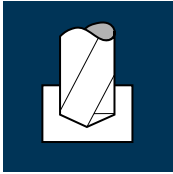
Forets hélicoïdaux Supradrill® H

3xd



Exemple: N° cde							DURO-VD	
N° d'article							B52112	
Code-ø							0920	
Ø Code	d ₁ h7	d ₂ h6	l ₁	l ₂	l ₄	L _{max}		
0920	9.20	10.0	89.0	47.0	40	35.0	●	
0930	9.30	10.0	89.0	47.0	40	35.0	●	
0940	9.40	10.0	89.0	47.0	40	35.0	●	
0950	9.50	10.0	89.0	47.0	40	35.0	●	
0960	9.60	10.0	89.0	47.0	40	35.0	●	
0970	9.70	10.0	89.0	47.0	40	35.0	●	
0980	9.80	10.0	89.0	47.0	40	35.0	●	
0990	9.90	10.0	89.0	47.0	40	35.0	●	
1000	10.00	10.0	89.0	47.0	40	35.0	●	
1010	10.10	12.0	102.0	55.0	45	40.0	●	
1020	10.20	12.0	102.0	55.0	45	40.0	●	
1030	10.30	12.0	102.0	55.0	45	40.0	●	
1040	10.40	12.0	102.0	55.0	45	40.0	●	
1050	10.50	12.0	102.0	55.0	45	40.0	●	
1060	10.60	12.0	102.0	55.0	45	40.0	●	
1070	10.70	12.0	102.0	55.0	45	40.0	●	
1080	10.80	12.0	102.0	55.0	45	40.0	●	
1090	10.90	12.0	102.0	55.0	45	40.0	●	
1100	11.00	12.0	102.0	55.0	45	40.0	●	
1110	11.10	12.0	102.0	55.0	45	40.0	●	
1120	11.20	12.0	102.0	55.0	45	40.0	●	
1130	11.30	12.0	102.0	55.0	45	40.0	●	
1140	11.40	12.0	102.0	55.0	45	40.0	●	

Application



Matières

Aciers à outil trempés
42 - 48 HRC



Aciers à outil trempés
48 - 52 HRC



Aciers à outil trempés
52 - 56 HRC



Aciers à outil trempés
56 - 60 HRC



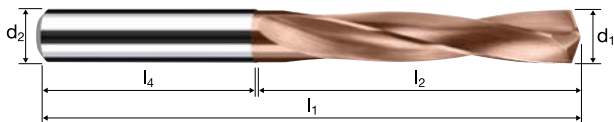
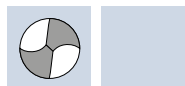
Aciers à outil trempés
> 60 HRC



d_1 [mm]	v_c [m/min]	f [mm]	n [min ⁻¹]	v_f [mm/min]	Q [cm ³ /min]
9.20	35	0.1170	1210	142	9.4
9.50	35	0.1200	1175	141	10.0
9.70	35	0.1220	1150	140	10.4
10.00	35	0.1240	1115	138	10.9
10.20	35	0.1260	1090	137	11.2
10.40	35	0.1280	1070	137	11.6
10.70	35	0.1300	1040	135	12.2
11.00	35	0.1330	1015	135	12.8
11.30	35	0.1350	985	133	13.3
9.20	30	0.1170	1040	122	8.1
9.50	30	0.1200	1005	121	8.5
9.70	30	0.1220	985	120	8.9
10.00	30	0.1240	955	118	9.3
10.20	30	0.1260	935	118	9.6
10.40	30	0.1280	920	118	10.0
10.70	30	0.1300	890	116	10.4
11.00	30	0.1330	870	116	11.0
11.30	30	0.1350	845	114	11.4
9.20	30	0.1170	1040	122	8.1
9.50	30	0.1200	1005	121	8.5
9.70	30	0.1220	985	120	8.9
10.00	30	0.1240	955	118	9.3
10.20	30	0.1260	935	118	9.6
10.40	30	0.1280	920	118	10.0
10.70	30	0.1300	890	116	10.4
11.00	30	0.1330	870	116	11.0
11.30	30	0.1350	845	114	11.4
9.20	25	0.0760	865	66	4.4
9.50	25	0.0780	840	66	4.6
9.70	25	0.0790	820	65	4.8
10.00	25	0.0810	795	64	5.1
10.20	25	0.0820	780	64	5.2
10.40	25	0.0830	765	64	5.4
10.70	25	0.0850	745	63	5.7
11.00	25	0.0860	725	62	5.9
11.30	25	0.0880	705	62	6.2
9.20	15	0.0640	520	33	2.2
9.50	15	0.0660	505	33	2.4
9.70	15	0.0670	490	33	2.4
10.00	15	0.0680	475	32	2.5
10.20	15	0.0690	470	32	2.6
10.40	15	0.0700	460	32	2.7
10.70	15	0.0720	445	32	2.9
11.00	15	0.0730	435	32	3.0
11.30	15	0.0740	425	32	3.2

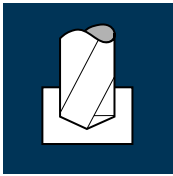
Forets hélicoïdaux Supradrill® H

3xd



Exemple: N° cde							DURO-VD	
N° d'article							B52112	
Code-ø							1150	
Ø Code	d ₁ h7	d ₂ h6	l ₁	l ₂	l ₄	L _{max}		
1150	11.50	12.0	102.0	55.0	45	40.0	●	
1160	11.60	12.0	102.0	55.0	45	40.0	●	
1170	11.70	12.0	102.0	55.0	45	40.0	●	
1180	11.80	12.0	102.0	55.0	45	40.0	●	
1190	11.90	12.0	102.0	55.0	45	40.0	●	
1200	12.00	12.0	102.0	55.0	45	40.0	●	
1220	12.20	14.0	107.0	60.0	45	43.0	●	
1250	12.50	14.0	107.0	60.0	45	43.0	●	
1280	12.80	14.0	107.0	60.0	45	43.0	●	
1300	13.00	14.0	107.0	60.0	45	43.0	●	
1350	13.50	14.0	107.0	60.0	45	43.0	●	
1380	13.80	14.0	107.0	60.0	45	43.0	●	
1400	14.00	14.0	107.0	60.0	45	43.0	●	
1420	14.20	16.0	115.0	65.0	48	45.0	●	
1450	14.50	16.0	115.0	65.0	48	45.0	●	
1480	14.80	16.0	115.0	65.0	48	45.0	●	
1500	15.00	16.0	115.0	65.0	48	45.0	●	
1520	15.20	16.0	115.0	65.0	48	45.0	●	
1550	15.50	16.0	115.0	65.0	48	45.0	●	
1580	15.80	16.0	115.0	65.0	48	45.0	●	
1600	16.00	16.0	115.0	65.0	48	45.0	●	
1650	16.50	18.0	123.0	73.0	48	51.0	●	
1680	16.80	18.0	123.0	73.0	48	51.0	●	

Application



Matières

Aciers à outil trempés
42 - 48 HRC



Aciers à outil trempés
48 - 52 HRC



Aciers à outil trempés
52 - 56 HRC



Aciers à outil trempés
56 - 60 HRC



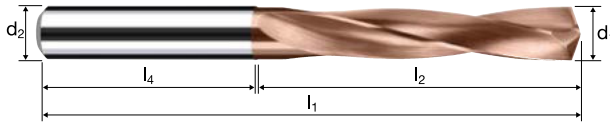
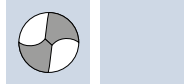
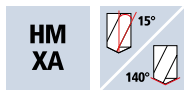
Aciers à outil trempés
> 60 HRC



d_1 [mm]	v_c [m/min]	f [mm]	n [min ⁻¹]	v_f [mm/min]	Q [cm ³ /min]
11.50	35	0.1370	970	133	13.8
11.80	35	0.1390	945	131	14.4
12.00	35	0.1410	930	131	14.8
12.50	35	0.1440	890	128	15.7
13.00	35	0.1480	855	127	16.8
14.00	35	0.1550	795	123	19.0
14.80	35	0.1610	755	122	20.9
15.50	35	0.1650	720	119	22.4
16.50	35	0.1720	675	116	24.8
11.50	30	0.1370	830	114	11.8
11.80	30	0.1390	810	113	12.3
12.00	30	0.1410	795	112	12.7
12.50	30	0.1440	765	110	13.5
13.00	30	0.1480	735	109	14.4
14.00	30	0.1550	680	105	16.2
14.80	30	0.1610	645	104	17.9
15.50	30	0.1650	615	102	19.2
16.50	30	0.1720	580	100	21.3
11.50	30	0.1370	830	114	11.8
11.80	30	0.1390	810	113	12.3
12.00	30	0.1410	795	112	12.7
12.50	30	0.1440	765	110	13.5
13.00	30	0.1480	735	109	14.4
14.00	30	0.1550	680	105	16.2
14.80	30	0.1610	645	104	17.9
15.50	30	0.1650	615	102	19.2
16.50	30	0.1720	580	100	21.3
11.50	25	0.0890	690	61	6.4
11.80	25	0.0900	675	61	6.6
12.00	25	0.0910	665	61	6.8
12.50	25	0.0940	635	60	7.3
13.00	25	0.0960	610	59	7.8
14.00	25	0.1010	570	58	8.9
14.80	25	0.1050	540	57	9.8
15.50	25	0.1080	515	56	10.5
16.50	25	0.1120	480	54	11.5
11.50	10	0.0750	275	21	2.1
11.80	10	0.0760	270	21	2.2
12.00	10	0.0770	265	20	2.3
12.50	10	0.0790	255	20	2.5
13.00	10	0.0820	245	20	2.7
14.00	10	0.0850	225	19	2.9
14.80	10	0.0880	215	19	3.3
15.50	10	0.0910	205	19	3.5
16.50	10	0.0940	195	18	3.9

Forets hélicoïdaux Supradrill® H

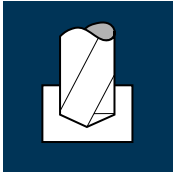
3xd



				HRC 48-56	HRC 56-60	HRC > 60			
--	--	--	--	--------------	--------------	-------------	--	--	--

Exemple: N° cde							DURO-VD	
N° d'article Code-ø							B52112	
Ø Code	d ₁ h7	d ₂ h6	l ₁	l ₂	l ₄	L _{max}		
1700	17.00	18.0	123.0	73.0	48	51.0	●	
1750	17.50	18.0	123.0	73.0	48	51.0	●	
1780	17.80	18.0	123.0	73.0	48	51.0	●	
1800	18.00	18.0	123.0	73.0	48	51.0	●	
1850	18.50	20.0	131.0	79.0	50	55.0	●	
1880	18.80	20.0	131.0	79.0	50	55.0	●	
1900	19.00	20.0	131.0	79.0	50	55.0	●	
1950	19.50	20.0	131.0	79.0	50	55.0	●	
1980	19.80	20.0	131.0	79.0	50	55.0	●	
2000	20.00	20.0	131.0	79.0	50	55.0	●	

Application



Matières

Aciers à outil trempés
42 - 48 HRC



Aciers à outil trempés
48 - 52 HRC



Aciers à outil trempés
52 - 56 HRC



Aciers à outil trempés
56 - 60 HRC



Aciers à outil trempés
> 60 HRC



d_1 [mm]	v_c [m/min]	f [mm]	n [min ⁻¹]	v_f [mm/min]	Q [cm ³ /min]
17.00	35	0.1750	655	115	26.0
17.50	35	0.1770	635	112	27.0
17.80	35	0.1790	625	112	27.8
18.00	35	0.1800	620	112	28.4
18.50	35	0.1830	600	110	29.5
18.80	35	0.1840	595	110	30.4
19.00	35	0.1850	585	108	30.7
19.50	35	0.1880	570	107	32.0
20.00	35	0.1900	555	106	33.1
17.00	30	0.1750	560	98	22.2
17.50	30	0.1770	545	97	23.2
17.80	30	0.1790	535	96	23.8
18.00	30	0.1800	530	95	24.3
18.50	30	0.1830	515	94	25.3
18.80	30	0.1840	510	94	26.0
19.00	30	0.1850	505	93	26.5
19.50	30	0.1880	490	92	27.5
20.00	30	0.1900	475	90	28.4
17.00	30	0.1750	560	98	22.2
17.50	30	0.1770	545	97	23.2
17.80	30	0.1790	535	96	23.8
18.00	30	0.1800	530	95	24.3
18.50	30	0.1830	515	94	25.3
18.80	30	0.1840	510	94	26.0
19.00	30	0.1850	505	93	26.5
19.50	30	0.1880	490	92	27.5
20.00	30	0.1900	475	90	28.4
17.00	25	0.1130	470	53	12.1
17.50	25	0.1150	455	52	12.6
17.80	25	0.1160	445	52	12.8
18.00	25	0.1170	440	52	13.1
18.50	25	0.1190	430	51	13.8
18.80	25	0.1200	425	51	14.2
19.00	25	0.1210	420	51	14.4
19.50	25	0.1220	410	50	14.9
20.00	25	0.1240	400	50	15.6
17.00	10	0.0960	185	18	4.0
17.50	10	0.0980	180	18	4.2
17.80	10	0.0990	180	18	4.4
18.00	10	0.0990	175	17	4.4
18.50	10	0.1010	170	17	4.6
18.80	10	0.1010	170	17	4.8
19.00	10	0.1020	170	17	4.9
19.50	10	0.1030	165	17	5.1
20.00	10	0.1050	160	17	5.3