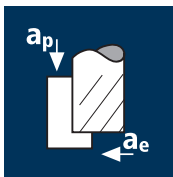


Application

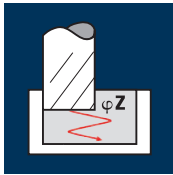


Material

Hardened tool steel
52 - 56 HRC



d1 [mm]	z	v _c [m/min]	f _s [mm]	a _p [mm]	a _e [mm]	n [min ⁻¹]	v _r [mm/min]	Q [cm ³ /min]	q _Z [°]
3.00	4	60	0.012	4.500	1.800	6365	305	2.5	5°
4.00	4	60	0.017	6.000	2.400	4775	325	4.7	5°
5.00	4	60	0.022	7.500	3.000	3820	335	7.6	5°
6.00	4	60	0.027	9.000	3.600	3185	345	11.1	5°
8.00	4	60	0.035	12.000	4.800	2385	335	19.3	5°
10.00	4	60	0.045	15.000	6.000	1910	345	30.9	5°
12.00	4	60	0.055	18.000	7.200	1590	350	45.4	5°
16.00	4	60	0.065	24.000	9.600	1195	310	71.5	5°
20.00	4	60	0.080	30.000	12.000	955	305	110.0	5°



Hardened tool steel
> 60 HRC



3.00	4	25	0.006	3.750	1.800	2655	65	0.4	3°
4.00	4	25	0.008	5.000	2.400	1990	65	0.8	4°
5.00	4	25	0.010	6.250	3.000	1590	65	1.2	5°
6.00	4	25	0.012	7.500	3.600	1325	65	1.7	5°
8.00	4	25	0.015	10.000	4.800	995	60	2.9	5°
10.00	4	25	0.020	12.500	6.000	795	65	4.8	5°
12.00	4	25	0.025	15.000	7.200	665	65	7.2	5°
16.00	4	25	0.030	20.000	9.600	495	60	11.5	5°
20.00	4	25	0.035	25.000	12.000	400	55	16.7	3°

High speed steel,
hardened
64 - 70 HRC



3.00	4	15	0.005	3.000	0.750	1590	30	0.1	3°
4.00	4	15	0.010	4.000	1.000	1195	50	0.2	4°
5.00	4	15	0.015	5.000	1.250	955	55	0.4	5°
6.00	4	15	0.009	6.000	3.600	795	30	0.6	5°
8.00	4	15	0.012	8.000	4.800	595	30	1.1	5°
10.00	4	15	0.015	10.000	6.000	475	30	1.7	5°
12.00	4	15	0.018	12.000	7.200	400	30	2.5	5°
16.00	4	15	0.023	16.000	9.600	300	25	4.2	5°
20.00	4	15	0.025	20.000	12.000	240	25	5.7	3°

Application

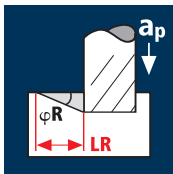


Material

Hardened tool steel
52 - 56 HRC



d1 [mm]	z	v _c [m/min]	f _s [mm]	a _p [mm]	a _e [mm]	n [min ⁻¹]	v _r [mm/min]	Q [cm ³ /min]	q _R [°]	LR [mm]
3.00	4	50	0.013	3.000	3.000	5305	275	2.5	5°	34.3
4.00	4	50	0.017	4.000	4.000	3980	270	4.3	5°	45.7
5.00	4	50	0.022	5.000	5.000	3185	280	7.0	5°	57.2
6.00	4	50	0.027	6.000	6.000	2655	285	10.3	5°	68.6
8.00	4	50	0.035	8.000	8.000	1990	280	17.8	5°	91.4
10.00	4	50	0.045	10.000	10.000	1590	285	28.6	5°	114.3
12.00	4	50	0.055	12.000	12.000	1325	290	42.0	5°	137.2
16.00	4	50	0.080	8.000	16.000	995	320	40.7	5°	91.4
20.00	4	50	0.095	10.000	20.000	795	300	60.5	5°	114.3



Hardened tool steel
> 60 HRC



3.00	4	20	0.007	3.000	3.000	2120	60	0.5	3°	57.2
4.00	4	20	0.010	4.000	4.000	1590	65	1.0	4°	57.2
5.00	4	20	0.013	5.000	5.000	1275	65	1.7	5°	57.2
6.00	4	20	0.016	6.000	6.000	1060	70	2.4	5°	68.6
8.00	4	20	0.021	8.000	8.000	795	65	4.3	5°	91.4
10.00	4	20	0.026	10.000	10.000	635	65	6.6	5°	114.3
12.00	4	20	0.032	12.000	12.000	530	70	9.8	5°	137.2
16.00	4	20	0.050	8.000	16.000	400	80	10.2	5°	91.4
20.00	4	20	0.060	10.000	20.000	320	75	15.3	3°	190.8

High speed steel,
hardened
64 - 70 HRC



3.00	4	10	0.004	1.500	3.000	1060	15	0.1	3°	28.6
4.00	4	10	0.006	2.000	4.000	795	20	0.2	4°	28.6
5.00	4	10	0.008	3.750	5.000	635	20	0.4	5°	42.9
6.00	4	10	0.009	4.500	6.000	530	20	0.5	5°	51.4
8.00	4	10	0.012	6.000	8.000	400	20	0.9	5°	68.6
10.00	4	10	0.015	7.500	10.000	320	20	1.4	5°	85.7
12.00	4	10	0.020	9.000	12.000	265	20	2.3	5°	102.9
16.00	4	10	0.030	8.000	16.000	200	25	3.1	5°	91.4
20.00	4	10	0.035	10.000	20.000	160	20	4.5	3°	190.8

Precise cutting data for other applications and materials can be found in the cutting data software **ToolExpert 2.0**

