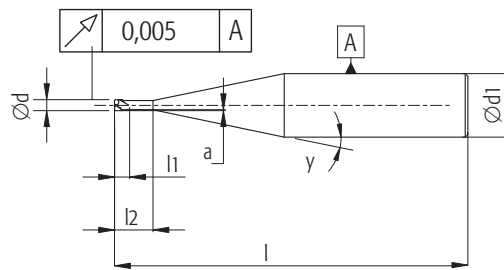




Solid Carbide End Mills

2 Flute

Centre cutting high performance
2 flute micro end mill



P1-P6

K1

M1-M3

S1-S4

H1-H4

Ød (mm)	EDP No	r (mm)	Ød1 (mm)	L (mm)	L1 (mm)	L2 (mm)	a (mm)	z	γ (°)	Effective length compared with Inclined Angle			
										0.5°	1.0°	2.0°	3.0°
0.1	FBK0505434	-	4	51	0.15	-	-	2	15	0.634	0.656	0.705	0.762
0.2	FBK0505435	-	4	51	0.25	-	-	2	15	0.737	0.763	0.820	0.887
0.3	FBK0505436	-	4	51	0.3	-	-	2	15	1.099	1.137	1.223	1.322
0.3	FBK0505437	-	4	51	0.3	1.5	0.01	2	15	1.861	1.926	2.070	2.238
0.3	FBK0505438	-	4	51	0.3	3	0.01	2	15	3.412	3.531	3.795	4.103
0.4	FBK0505439	-	4	51	0.4	-	-	2	15	1.202	1.244	1.338	1.446
0.4	FBK0505440	-	4	51	0.4	2	0.01	2	15	2.378	2.461	2.645	2.860
0.4	FBK0505441	-	4	51	0.4	4	0.01	2	15	4.445	4.600	4.945	5.346
0.5	FBK0505442	-	4	51	0.5	-	-	2	15	1.306	1.351	1.453	1.570
0.5	FBK0505443	-	4	51	0.5	3	0.015	2	15	3.431	3.551	3.817	4.126
0.5	FBK0505444	-	4	51	0.5	6	0.015	2	15	6.532	6.760	7.266	7.856
0.5	FBK0505445	-	4	51	0.5	8	0.015	2	15	8.599	8.899	9.566	10.342
0.5	FBK0505446	-	4	51	0.5	10	0.015	2	15	10.667	11.038	11.866	12.828
0.6	FBK0505447	-	4	51	0.6	-	-	2	15	2.062	2.134	2.294	2.480
0.6	FBK0505448	-	4	51	0.6	2	0.025	2	15	2.572	2.662	2.861	3.093
0.6	FBK0505449	-	4	51	0.6	4	0.025	2	15	4.639	4.801	5.161	5.580
0.6	FBK0505450	-	4	51	0.6	6	0.025	2	15	6.707	6.940	7.461	8.066
0.6	FBK0505451	-	4	51	0.6	8	0.025	2	15	8.774	9.080	9.760	10.552
0.6	FBK0505452	-	4	51	0.6	10	0.025	2	15	10.841	11.219	12.060	13.038
0.8	FBK0505453	-	4	51	0.8	-	-	2	15	2.269	2.348	2.524	2.729
0.8	FBK0505454	-	4	51	0.8	2.5	0.025	2	15	3.089	3.196	3.436	3.715
0.8	FBK0505455	-	4	51	0.8	5	0.025	2	15	5.673	5.871	6.311	6.823
0.8	FBK0505456	-	4	51	0.8	8	0.025	2	15	8.774	9.080	9.760	10.552
0.8	FBK0505457	-	4	51	0.8	10	0.025	2	15	10.841	11.219	12.060	13.038
1	FBK0505458	-	4	51	1	-	-	2	15	2.476	2.562	2.754	2.977

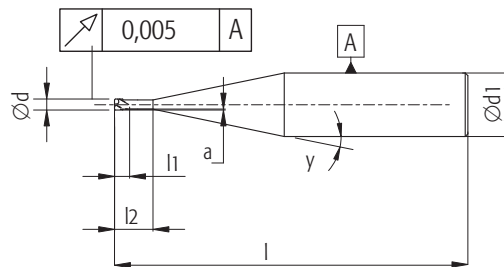
∞ Remark ∞ means no collision in projection length area



Solid Carbide End Mills

4 Flute

Centre cutting high performance 4 flute micro end mill



P1-P6

K1

M1-M3

S1-S4

H1-H4

Ød (mm)	EDP No	r (mm)	Ød1 (mm)	L (mm)	L1 (mm)	L2 (mm)	a (mm)	z	γ (°)	Effective length compared with Inclined Angle			
										0.5°	1.0°	2.0°	3.0°
0.2	FBK0505509	-	4	51	0.25	2	0.01	4	15	2.378	2.461	2.645	2.860
0.2	FBK0505510	-	4	51	0.25	4	0.01	4	15	4.445	4.600	4.945	5.346
0.4	FBK0505511	-	4	51	0.40	2	0.01	4	15	2.378	2.461	2.645	2.860
0.4	FBK0505512	-	4	51	0.40	4	0.01	4	15	4.445	4.600	4.945	5.346
0.4	FBK0505513	-	4	51	0.40	6	0.01	4	15	6.513	6.740	7.245	7.833
0.4	FBK0505514	-	4	51	0.40	8	0.01	4	15	8.580	8.879	9.545	10.319
0.4	FBK0505515	-	4	51	0.40	10	0.01	4	15	10.647	11.018	11.844	12.805
0.5	FBK0505516	-	4	51	0.50	2	0.02	4	15	2.397	2.481	2.667	2.883
0.5	FBK0505517	-	4	51	0.50	4	0.02	4	15	4.465	4.620	4.967	5.369
0.5	FBK0505518	-	4	51	0.50	6	0.02	4	15	6.532	6.760	7.266	7.856
0.5	FBK0505519	-	4	51	0.50	8	0.02	4	15	8.599	8.899	9.566	10.342
0.5	FBK0505520	-	4	51	0.50	10	0.02	4	15	10.667	11.038	11.866	12.828
1	FBK0505521	-	4	51	1.00	2	0.03	4	15	2.572	2.662	2.861	3.093
1	FBK0505522	-	4	51	1.00	4	0.03	4	15	4.639	4.801	5.161	5.580
1	FBK0505523	-	4	51	1.00	6	0.03	4	15	6.707	6.940	7.461	8.066
1	FBK0505524	-	4	51	1.00	8	0.03	4	15	8.774	9.080	9.760	10.552
1	FBK0505525	-	4	51	1.00	10	0.03	4	15	10.841	11.219	12.060	13.038
1.5	FBK0505526	-	4	51	1.50	-	-	4	15	3.781	3.913	4.206	4.548
1.5	FBK0505527	-	4	51	1.50	4	0.03	4	15	4.912	5.083	5.464	5.907

Tensile strength: N/mm² | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	N5	N6	N7	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	Ny, Pt, Ru, Re, Fg	C, Gr, CFRP, Comp	NMC	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

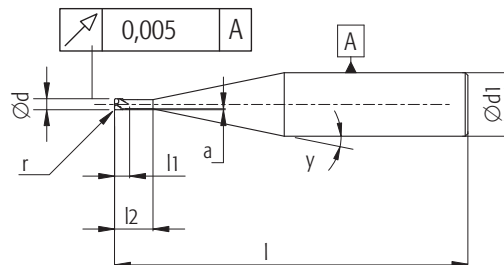
∞ Remark ∞ means no collision in projection length area



Solid Carbide End Mills

2 Flute

Centre cutting high performance 2 flute micro end mill with corner radius



P1-P6

K1

M1-M3

S1-S4

H1-H4

Ød (mm)	EDP No	r (mm)	Ød1 (mm)	L (mm)	L1 (mm)	L2 (mm)	a (mm)	z	γ (°)	Effective length compared with Inclined Angle			
										0.5°	1.0°	2.0°	3.0°
0.1	FBK0505835	0.03	4	51	0.2	-	-	2	7	0.560	0.604	0.718	0.889
0.1	FBK0505293	0.03	4	51	0.15	-	-	2	15	0.633	0.654	0.701	0.755
0.2	FBK0505294	0.03	4	51	0.25	-	-	2	15	0.736	0.761	0.816	0.879
0.3	FBK0505295	0.05	4	51	0.3	-	-	2	15	1.097	1.134	1.215	1.310
0.3	FBK0505296	0.05	4	51	0.3	1.5	0.01	2	15	1.860	1.923	2.063	2.226
0.3	FBK0505297	0.05	4	51	0.3	3	0.01	2	15	3.410	3.527	3.788	4.091
0.4	FBK0505298	0.05	4	51	0.4	-	-	2	15	1.201	1.241	1.330	1.434
0.4	FBK0505299	0.05	4	51	0.4	2	0.01	2	15	2.376	2.457	2.638	2.848
0.4	FBK0505300	0.05	4	51	0.4	4	0.01	2	15	4.444	4.597	4.938	5.334
0.5	FBK0505301	0.05	4	51	0.5	-	-	2	15	1.304	1.348	1.445	1.558
0.5	FBK0505302	0.05	4	51	0.5	1	0.015	2	15	1.362	1.408	1.509	1.628
0.5	FBK0505303	0.05	4	51	0.5	3	0.015	2	15	3.429	3.547	3.809	4.114
0.5	FBK0505304	0.05	4	51	0.5	6	0.015	2	15	6.530	6.756	7.259	7.844
0.5	FBK0505305	0.05	4	51	0.5	8	0.015	2	15	8.598	8.896	9.558	10.330
0.5	FBK0505306	0.05	4	51	0.5	10	0.015	2	15	10.665	11.035	11.858	12.816
0.6	FBK0505307	0.05	4	51	0.6	-	-	2	15	2.060	2.130	2.286	2.468
0.6	FBK0505308	0.05	4	51	0.6	2	0.025	2	15	2.570	2.658	2.854	3.081
0.6	FBK0505309	0.05	4	51	0.6	4	0.025	2	15	4.638	4.798	5.153	5.567
0.6	FBK0505310	0.05	4	51	0.6	6	0.025	2	15	6.705	6.937	7.453	8.054
0.6	FBK0505311	0.05	4	51	0.6	8	0.025	2	15	8.772	9.076	9.753	10.540
0.6	FBK0505312	0.05	4	51	0.6	10	0.025	2	15	10.840	11.216	12.052	13.026
0.8	FBK0505313	0.05	4	51	0.8	-	-	2	15	2.267	2.344	2.516	2.716
0.8	FBK0505314	0.05	4	51	0.8	2.5	0.025	2	15	3.087	3.193	3.429	3.703

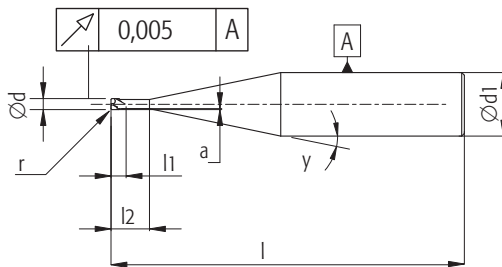
∞ Remark ∞ means no collision in projection length area



Solid Carbide End Mills

4 Flute

Centre cutting high performance 4 flute micro end mill with corner radius



P1-P6

K1

M1-M3

S1-S4

H1-H4

Ød (mm)	EDP No	r (mm)	Ød1 (mm)	L (mm)	L1 (mm)	L2 (mm)	a (mm)	z	γ (°)	Effective length compared with Inclined Angle			
										0.5°	1.0°	2.0°	3.0°
0.2	FBK0505373	0.03	4	51	0.25	2	0.01	4	15	2.377	2.459	2.641	2.853
0.2	FBK0505374	0.03	4	51	0.25	4	0.01	4	15	4.444	4.598	4.941	5.339
0.4	FBK0505375	0.05	4	51	0.4	2	0.01	4	15	2.376	2.457	2.638	2.848
0.4	FBK0505376	0.05	4	51	0.4	4	0.01	4	15	4.444	4.597	4.938	5.334
0.4	FBK0505377	0.05	4	51	0.4	6	0.01	4	15	6.511	6.736	7.237	7.820
0.4	FBK0505378	0.05	4	51	0.4	8	0.01	4	15	8.578	8.876	9.537	10.307
0.4	FBK0505379	0.05	4	51	0.4	10	0.01	4	15	10.646	11.015	11.837	12.793
0.5	FBK0505380	0.05	4	51	0.5	2	0.015	4	15	2.396	2.477	2.659	2.871
0.5	FBK0505381	0.05	4	51	0.5	4	0.015	4	15	4.463	4.617	4.959	5.357
0.5	FBK0505382	0.05	4	51	0.5	6	0.015	4	15	6.530	6.756	7.259	7.844
0.5	FBK0505383	0.05	4	51	0.5	8	0.015	4	15	8.598	8.896	9.558	10.330
0.5	FBK0505384	0.05	4	51	0.5	10	0.015	4	15	10.665	11.035	11.858	12.816
1.0	FBK0505385	0.10	4	51	1	2	0.025	4	15	2.569	2.655	2.846	3.069
1.0	FBK0505386	0.10	4	51	1	4	0.025	4	15	4.636	4.794	5.146	5.555
1.0	FBK0505387	0.10	4	51	1	6	0.025	4	15	6.703	6.933	7.446	8.042
1.0	FBK0505388	0.10	4	51	1	8	0.025	4	15	8.771	9.073	9.745	10.528
1.0	FBK0505389	0.10	4	51	1	10	0.025	4	15	10.838	11.212	12.045	13.014
1.5	FBK0505390	0.15	4	51	1.5	-	-	4	15	3.776	3.903	4.184	4.511
1.5	FBK0505391	0.15	4	51	1.5	4	0.025	4	15	4.906	5.072	5.441	5.870
1.5	FBK0505392	0.15	4	51	1.5	6	0.025	4	15	6.974	7.212	7.741	8.357
1.5	FBK0505393	0.15	4	51	1.5	8	0.025	4	15	9.041	9.351	10.041	10.843
1.5	FBK0505394	0.15	4	51	1.5	10	0.025	4	15	11.108	11.490	12.340	13.329
2.0	FBK0505395	0.20	4	51	2	-	-	4	15	4.292	4.434	4.751	5.121
2.0	FBK0505396	0.20	4	51	2	4	0.05	4	15	5.001	5.169	5.541	5.974
2.0	FBK0505397	0.20	4	51	2	6	0.05	4	15	7.069	7.308	7.841	8.461

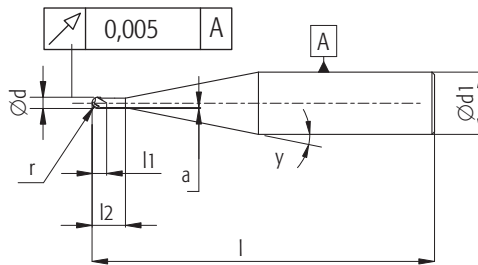
∞ Remark ∞ means no collision in projection length area



Solid Carbide End Mills

2 Flute

Centre cutting high performance 2 flute micro ball nose



P1-P6

K1

M1-M3

S1-S4

H1-H4

Ød (mm)	EDP No	r (mm)	Ød1 (mm)	L (mm)	L1 (mm)	L2 (mm)	a (mm)	z	γ (°)	Effective length compared with Inclined Angle			
										0.5°	1.0°	2.0°	3.0°
0.1	FBK0505207	0.05	4	51	0.2	-	-	2	15	0.684	0.706	0.755	0.812
0.1	FBK0505208	0.05	4	60	0.2	-	-	2	10	0.602	0.633	0.705	0.797
0.2	FBK0505209	0.1	4	51	0.3	-	-	2	15	0.786	0.810	0.863	0.925
0.3	FBK0505210	0.15	4	51	0.4	-	-	2	15	1.197	1.234	1.315	1.410
0.3	FBK0505211	0.15	4	51	0.4	1.5	0.01	2	15	1.856	1.916	2.048	2.202
0.3	FBK0505212	0.15	4	51	0.4	3	0.01	2	15	3.407	3.520	3.773	4.067
0.4	FBK0505213	0.2	4	51	0.5	-	-	2	15	1.299	1.337	1.423	1.522
0.4	FBK0505214	0.2	4	51	0.5	2	0.01	2	15	2.371	2.447	2.615	2.811
0.4	FBK0505215	0.2	4	51	0.5	4	0.01	2	15	4.439	4.586	4.915	5.298
0.5	FBK0505216	0.25	4	51	0.7	-	-	2	15	1.504	1.548	1.645	1.758
0.5	FBK0505217	0.25	4	51	0.7	3	0.015	2	15	3.423	3.533	3.779	4.066
0.5	FBK0505218	0.25	4	51	0.7	6	0.015	2	15	6.524	6.742	7.229	7.795
0.5	FBK0505219	0.25	4	51	0.7	8	0.015	2	15	8.591	8.882	9.529	10.281
0.5	FBK0505220	0.25	4	51	0.7	10	0.015	2	15	10.658	11.021	11.828	12.768
0.6	FBK0505221	0.3	4	51	0.8	-	-	2	15	2.259	2.327	2.479	2.656
0.6	FBK0505222	0.3	4	51	0.8	2	0.025	2	15	2.562	2.641	2.816	3.020
0.6	FBK0505223	0.3	4	51	0.8	4	0.025	2	15	4.629	4.780	5.116	5.507
0.6	FBK0505224	0.3	4	51	0.8	6	0.025	2	15	6.697	6.919	7.416	7.993
0.6	FBK0505225	0.3	4	51	0.8	8	0.025	2	15	8.764	9.059	9.715	10.479
0.6	FBK0505226	0.3	4	51	0.8	10	0.025	2	15	10.831	11.198	12.015	12.965
0.8	FBK0505227	0.4	4	51	1	-	-	2	15	2.462	2.534	2.694	2.880
0.8	FBK0505228	0.4	4	51	1	2.5	0.025	2	15	3.075	3.169	3.376	3.618
0.8	FBK0505229	0.4	4	51	1	5	0.025	2	15	5.660	5.843	6.251	6.725
0.8	FBK0505230	0.4	4	51	1	8	0.025	2	15	8.761	9.052	9.700	10.455
0.8	FBK0505231	0.4	4	51	1	10	0.025	2	15	10.828	11.191	12.000	12.941

∞ Remark ∞ means no collision in projection length area