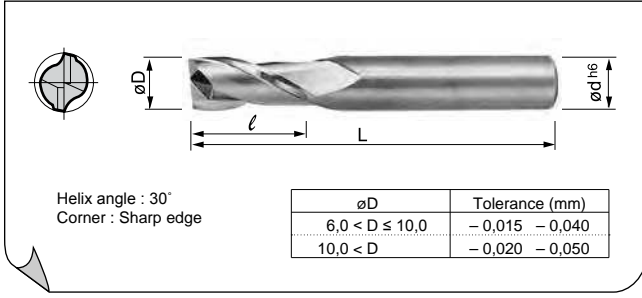


Solid Carbide Spiral Endmills SSM 2000 Type (ø8,6~ø30)

Carbide grade: A1 (Micrograin)



Endmills

(mm)

| | Cat. No. | Stock | øD | l | L | ød |
|----------|----------|-------|------|-----|----|----|
| 2 | SSM 2086 | ○ | 8,6 | 15 | 55 | 10 |
| | SSM 2087 | | 8,7 | 15 | 55 | 10 |
| | SSM 2088 | | 8,8 | 15 | 55 | 10 |
| | SSM 2089 | | 8,9 | 15 | 55 | 10 |
| | SSM 2090 | ● | 9,0 | 15 | 55 | 10 |
| | SSM 2091 | | 9,1 | 15 | 55 | 10 |
| | SSM 2092 | | 9,2 | 15 | 55 | 10 |
| | SSM 2093 | | 9,3 | 15 | 55 | 10 |
| | SSM 2094 | | 9,4 | 15 | 55 | 10 |
| | SSM 2095 | | 9,5 | 15 | 55 | 10 |
| | SSM 2096 | | 9,6 | 18 | 65 | 10 |
| | SSM 2097 | | 9,7 | 18 | 65 | 10 |
| | SSM 2098 | | 9,8 | 18 | 65 | 10 |
| | SSM 2099 | | 9,9 | 18 | 65 | 10 |
| | SSM 2100 | ● | 10,0 | 18 | 65 | 10 |
| | SSM 2105 | □ | 10,5 | 18 | 70 | 12 |
| | SSM 2110 | ● | 11,0 | 18 | 70 | 12 |
| | SSM 2115 | ● | 11,5 | 18 | 70 | 12 |
| | SSM 2120 | ● | 12,0 | 18 | 70 | 12 |
| | SSM 2125 | | 12,5 | 20 | 80 | 16 |
| SSM 2130 | ● | 13,0 | 20 | 80 | 16 | |
| SSM 2135 | | 13,5 | | 80 | 16 | |
| SSM 2140 | ● | 14,0 | 20 | 80 | 16 | |
| SSM 2145 | | 14,5 | 25 | 80 | 16 | |
| SSM 2150 | ● | 15,0 | 25 | 80 | 16 | |
| SSM 2155 | | 15,5 | 35 | 90 | 16 | |
| SSM 2160 | ● | 16,0 | 35 | 90 | 16 | |
| SSM 2165 | | 16,5 | 35 | 90 | 20 | |
| SSM 2170 | ● | 17,0 | 35 | 90 | 20 | |
| SSM 2175 | | 17,5 | 40 | 105 | 20 | |
| SSM 2180 | ● | 18,0 | 40 | 105 | 20 | |
| SSM 2185 | | 18,5 | 40 | 105 | 20 | |
| SSM 2190 | | 19,0 | 40 | 105 | 20 | |
| SSM 2195 | | 19,5 | 40 | 105 | 20 | |
| SSM 2200 | ● | 20,0 | 40 | 105 | 20 | |
| SSM 2210 | ● | 21,0 | 40 | 105 | 25 | |
| SSM 2220 | ● | 22,0 | 40 | | 25 | |
| SSM 2230 | ● | | 45 | 115 | 25 | |
| SSM 2240 | | 24,0 | 45 | 115 | 25 | |
| SSM 2250 | ● | | 50 | | 25 | |
| SSM 2300 | | | 55 | 130 | 32 | |

Recommended conditions

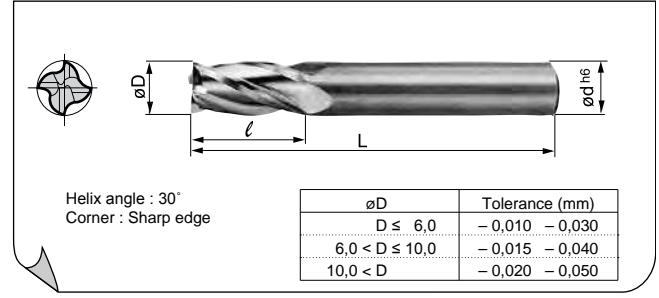
(Slotting) øD ≥ ø3 ; d_{oc} = 1,0 x øD

| øD | Material | Carbon steel, Alloy steel | | | Cast iron |
|------|----------------|---------------------------|--------------|--------------|-------------|
| | | (BelowHRC30) | (BelowHRC40) | (BelowHRC45) | |
| 9 ~ | v _c | 40-50-60 | 30-40-50 | 20-30-40 | 40-50-60 |
| 12,5 | f _t | 0,025-0,050 | 0,025-0,050 | 0,013-0,025 | 0,045-0,105 |
| 13 ~ | v _c | 40-50-60 | 30-40-50 | 20-30-40 | 40-50-60 |
| 19,5 | f _t | 0,055-0,085 | 0,055-0,085 | 0,030-0,050 | 0,110-0,170 |
| 20 ~ | v _c | 40-50-60 | 30-40-50 | 20-30-40 | 40-50-60 |
| 30 | f _t | 0,095-0,120 | 0,095-0,120 | 0,055-0,070 | 0,185-0,260 |

v_c = m/min f_t = mm/tooth

Solid Carbide Spiral Endmills SSM 4000 Type (ø1,5~ø25)

Carbide grade: A1 (Micrograin)



Endmills

(mm)

| | Cat. No. | Stock | øD | l | L | ød |
|----------|----------|-------|------|-----|----|----|
| 4 | SSM 4015 | ● | 1,5 | 5 | 40 | 4 |
| | SSM 4020 | ● | 2,0 | 6 | 40 | 4 |
| | SSM 4025 | ● | 2,5 | 8 | 40 | 4 |
| | SSM 4030 | ● | 3,0 | 8 | 45 | 6 |
| | SSM 4035 | ● | 3,5 | 8 | 45 | 6 |
| | SSM 4040 | ● | 4,0 | 10 | 45 | 6 |
| | SSM 4045 | ● | 4,5 | 10 | 45 | 6 |
| | SSM 4050 | ● | 5,0 | 12 | 50 | 6 |
| | SSM 4055 | ● | 5,5 | 12 | 50 | 6 |
| | SSM 4060 | ● | 6,0 | 12 | 50 | 6 |
| | SSM 4065 | ● | 6,5 | 12 | 50 | 8 |
| | SSM 4070 | ● | 7,0 | 15 | 55 | 8 |
| | SSM 4075 | ● | 7,5 | 15 | 55 | 8 |
| | SSM 4080 | ● | 8,0 | 15 | 55 | 8 |
| | SSM 4085 | ● | 8,5 | 15 | 55 | 10 |
| | SSM 4090 | ● | 9,0 | 15 | 55 | 10 |
| | SSM 4095 | ● | 9,5 | 15 | 55 | 10 |
| | SSM 4100 | ● | 10,0 | 18 | 65 | 10 |
| | SSM 4105 | | 10,5 | 18 | 65 | 12 |
| | SSM 4110 | ● | 11,0 | 18 | 70 | 12 |
| SSM 4120 | ● | 12,0 | 18 | 70 | 12 | |
| SSM 4130 | | 13,0 | 20 | 80 | 16 | |
| SSM 4140 | ● | 14,0 | 20 | 80 | 16 | |
| SSM 4150 | ● | 15,0 | 25 | 80 | 16 | |
| SSM 4160 | ● | 16,0 | 35 | 90 | 16 | |
| SSM 4170 | □ | 17,0 | 35 | 90 | 20 | |
| SSM 4180 | ● | 18,0 | 40 | 105 | 20 | |
| SSM 4190 | | 19,0 | 40 | 105 | 20 | |
| SSM 4200 | ● | 20,0 | 40 | 105 | 20 | |
| SSM 4210 | | 21,0 | 40 | 105 | 25 | |
| SSM 4220 | | 22,0 | 40 | 105 | 25 | |
| SSM 4230 | | 23,0 | 45 | 115 | 25 | |
| SSM 4240 | | 24,0 | 45 | 115 | 25 | |
| SSM 4250 | ● | 25,0 | 50 | 120 | 25 | |

Recommended conditions

(Shoulder processing) d_{oc} = 1,5 x øD
w_{oc} = 0,1 x øD

| øD | Material | Carbon steel, Alloy steel | | | Cast iron |
|------|----------------|---------------------------|--------------|--------------|-------------|
| | | (BelowHRC30) | (BelowHRC40) | (BelowHRC45) | |
| 1 ~ | v _c | 40-50-60 | 30-40-50 | 20-30-40 | 40-50-60 |
| 2,9 | f _t | 0,004-0,017 | 0,004-0,017 | 0,002-0,008 | 0,008-0,020 |
| 3 ~ | v _c | 40-50-60 | 30-40-50 | 20-30-40 | 40-50-60 |
| 5,9 | f _t | 0,018-0,036 | 0,018-0,036 | 0,009-0,018 | 0,027-0,060 |
| 6 ~ | v _c | 40-50-60 | 30-40-50 | 20-30-40 | 40-50-60 |
| 12,9 | f _t | 0,038-0,070 | 0,038-0,070 | 0,019-0,035 | 0,065-0,157 |
| 13 ~ | v _c | 40-50-60 | 30-40-50 | 20-30-40 | 40-50-60 |
| 19,9 | f _t | 0,075-0,125 | 0,075-0,125 | 0,040-0,075 | 0,160-0,250 |
| 20 ~ | v _c | 40-50-60 | 30-40-50 | 20-30-40 | 40-50-60 |
| | f _t | 0,135-0,170 | 0,135-0,170 | 0,085-0,110 | 0,257-0,390 |

v_c = m/min f_t = mm/tooth

Uncoated Endmills