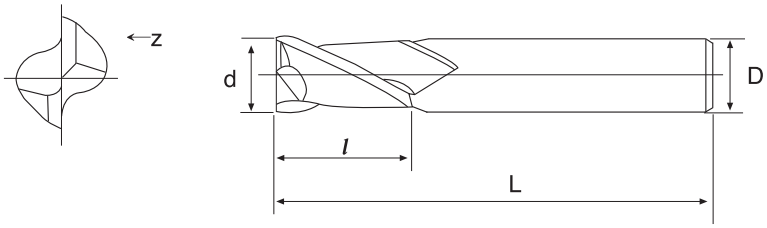
## Square End Mill - 2 flutes

### Super Ultra Fine Micro Grain Carbide

WC = 91 Co = 9 HRA = 93.2 Rupture = 4000N/mm² Grain Size = 0.2μm

**Application** Iron, Carbon steel, Cast Iron, Alloy Steel, Tool Steel, Heat treatment Steel, Welding Steel

**Main Character** Super Ultra Fine Micro Grain Carbide that has high toughness, coating ALTIN (TiAlN) and wear-resisting, non-general titanium aluminium is specialized in milling on M/C high hardness at a high speed and can carry on rough machining get to detailed process directly for heat treatment mould to reduce change times, improve machine flexible rate and shorten producing time.




| MODE | Diameter d | Flute Length l | Full Length L | Shank Diameter D | Flute No. Z | Packing Quantity | Price |
|---|---|---|---|---|---|---|---|
| SFUET0102-HSC | 1.0 | 2.5 | 50 | 4.0 | 2 Z | 6 | |
| SFUET0152-HSC | 1.5 | 3.0 | 50 | 4.0 | 2 Z | 6 | |
| SFUET0202-HSC | 2.0 | 5.0 | 50 | 4.0 | 2 Z | 6 | |
| SFUET0252-HSC | 2.5 | 6.0 | 50 | 4.0 | 2 Z | 6 | |
| SFUET0302-HSC | 3.0 | 7.5 | 50 | 4.0 | 2 Z | 6 | |
| SFUET0352-HSC | 3.5 | 8.0 | 50 | 4.0 | 2 Z | 6 | |
| SFUET0402-HSC | 4.0 | 9.0 | 50 | 4.0 | 2 Z | 6 | |
| SFUET0452-HSC | 4.5 | 10.0 | 50 | 6.0 | 2 Z | 6 | |
| SFUET0502-HSC | 5.0 | 11.0 | 50 | 6.0 | 2 Z | 6 | |
| SFUET0552-HSC | 5.5 | 12.0 | 50 | 6.0 | 2 Z | 6 | |
| SFUET0602-HSC | 6.0 | 13.0 | 60 | 6.0 | 2 Z | 4 | |
| SFUET0652-HSC | 6.5 | 14.0 | 60 | 8.0 | 2 Z | 4 | |
| SFUET0702-HSC | 7.0 | 14.0 | 60 | 8.0 | 2 Z | 4 | |
| SFUET0752-HSC | 7.5 | 16.0 | 60 | 8.0 | 2 Z | 4 | |
| SFUET0802-HSC | 8.0 | 16.0 | 60 | 8.0 | 2 Z | 4 | |
| SFUET0852-HSC | 8.5 | 18.0 | 75 | 10.0 | 2 Z | 2 | |
| SFUET0902-HSC | 9.0 | 18.0 | 75 | 10.0 | 2 Z | 2 | |
| SFUET0952-HSC | 9.5 | 22.0 | 75 | 10.0 | 2 Z | 2 | |
| SFUET1002-HSC | 10.0 | 22.0 | 75 | 10.0 | 2 Z | 2 | |
| SFUET1052-HSC | 10.5 | 24.0 | 75 | 12.0 | 2 Z | 2 | |
| SFUET1102-HSC | 11.0 | 24.0 | 75 | 12.0 | 2 Z | 2 | |
| SFUET1152-HSC | 11.5 | 24.0 | 75 | 12.0 | 2 Z | 2 | |
| SFUET1202-HSC | 12.0 | 26.0 | 75 | 12.0 | 2 Z | 2 | |
| SFUET1402-HSC | 14.0 | 30.0 | 75 | 16.0 | 2 Z | 1 | |
| SFUET1502-HSC | 15.0 | 30.0 | 75 | 16.0 | 2 Z | 1 | |
| SFUET1602-HSC | 16.0 | 33.0 | 75 | 16.0 | 2 Z | 1 | |
| SFUET2002-HSC | 20.0 | 45.0 | 100 | 20.0 | 2 Z | 1 | |

Unit：mm

**Attention : In order to get better cutting surface and lengthen the life-time of the end mill, please use high accuracy, high rigidity and dynamic equilibrium of holder.**

1. Before using the end mill, please examine the end mill to lean towards and put, when the precision of the leaning towards of end mill exceeds 0.01mm, please cut after correcting.
2. It is better that end mill stretches out shorter from chuck, when the end mill stretches out longer, please adjust the rotational speed, feeding speed or cutting amount.
3. Unusual vibrations or sound happen when cutting, please adjust and lower the rotational speed of the main shaft one by one, feeding speed and cutting amount until improving the situation, or change the high-quality end mill.
4. It is the best way to cool steel material by spraying or air in order to make TiAlN efficiently; we commend to adopt non-water cutting liquid to cool the stainless steel, titanium alloy or heat-resisting alloy liquid.
5. Cutting will be influenced by work piece, machine and software; the above-mentioned data are only for reference, please improve feeding speed by 30%~50% up after cutting situation steadily.

## SFUET 2 Flutes Recommended Milling conditions

| Working material hardness | Below HRC30° | | HRC30°~HRC35° | | HRC35°~HRC40° | | HRC40°~HRC45° | | HRC45°~HRC65° | |
|---|---|---|---|---|---|---|---|---|---|---|
| Shank Diameter | Rotational speed | Feeding speed | Rotational speed | Feeding speed | Rotational speed | Feeding speed | Rotational speed | Feeding speed | Rotational speed | Feeding speed |
| | RPM | mm/min. | RPM | mm/min. | RPM | mm/min. | RPM | mm/min. | RPM | mm/min. |
| ∮ 1.0 | 12800 | 480 | 11840 | 400 | 11120 | 360 | 10400 | 320 | 8400 | 304 |
| ∮ 2.0 | 11840 | 560 | 11120 | 520 | 10240 | 480 | 8920 | 464 | 7200 | 400 |
| ∮ 3.0 | 9600 | 880 | 8800 | 800 | 7840 | 720 | 7200 | 640 | 6240 | 400 |
| ∮ 4.0 | 9200 | 1280 | 7840 | 1080 | 7200 | 760 | 6800 | 600 | 5600 | 544 |
| ∮ 5.0 | 8000 | 1600 | 7600 | 1360 | 7120 | 1040 | 6240 | 640 | 4400 | 480 |
| ∮ 6.0 | 8000 | 1600 | 7200 | 1320 | 6560 | 960 | 6080 | 760 | 4000 | 440 |
| ∮ 8.0 | 5200 | 1760 | 4800 | 1440 | 3600 | 1200 | 3200 | 960 | 2000 | 520 |
| ∮ 10.0 | 3040 | 1520 | 2400 | 1200 | 2000 | 880 | 1600 | 720 | 1280 | 400 |
| ∮ 12.0 | 2560 | 1440 | 2160 | 1200 | 2000 | 960 | 1600 | 800 | 960 | 360 |