

F652SX

End Mills With Corner Radius For Difficult To Cut Materials

Designed with two variable helix geometry and two unequal flutes.

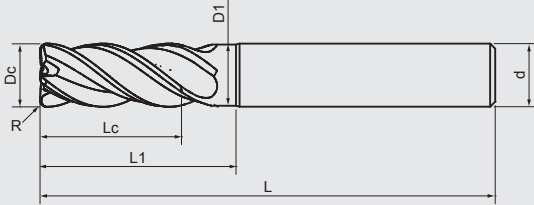
Sharp cutting edge is good for cutting toughness materials.

Designed with high removal cutting geometry.

Improved cutting edge strength with corner radius.

Applicable for profile surface machining.

Good wear resistance and lubricating effect with Nano multilayer coating.

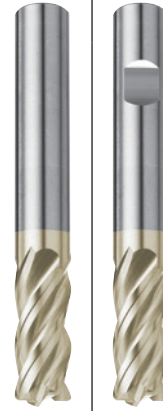


VHM
Carbide

AlTiXN+ZrN
SX



Stainless
Titanium
Nickel



Sharp cutting edge is suitable for cutting stainless steel, titanium, nickel and high temp alloys... etc.

Application for roughing and finishing cutting in different materials.

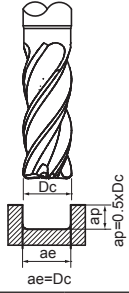
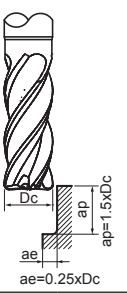
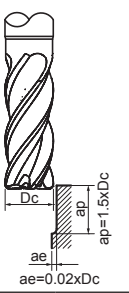
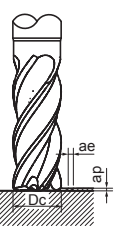
M
S

M
S

DIN 6527 Standard Length

| Dc 0 -0.02 | R ±0.01 | Lc mm | L mm | d h5 | L1 mm | D1 mm | F652SX HA | F652SX HB | | | | |
|------------------|------------|----------|---------|---------|----------|----------|--------------|--------------|--|--|--|--|
| 3 | R0.2 | 8 | 57 | 6 | 14 | 2.8 | ● | ● | | | | |
| 4 | R0.2 | 11 | 57 | 6 | 16 | 3.8 | ● | ● | | | | |
| 5 | R0.2 | 13 | 57 | 6 | 18 | 4.8 | ● | ● | | | | |
| 6 | R0.2 | 13 | 57 | 6 | 20 | 5.8 | ● | ● | | | | |
| 8 | R0.2 | 19 | 63 | 8 | 26 | 7.7 | ● | ● | | | | |
| 10 | R0.2 | 22 | 72 | 10 | 31 | 9.7 | ● | ● | | | | |
| 12 | R0.2 | 26 | 83 | 12 | 37 | 11.6 | ● | ● | | | | |
| 16 | R0.2 | 32 | 92 | 16 | 43 | 15.5 | ● | ● | | | | |
| 20 | R0.2 | 38 | 104 | 20 | 53 | 19.5 | ● | ● | | | | |
| 3 | R0.5 | 8 | 57 | 6 | 14 | 2.8 | ● | ● | | | | |
| 4 | R0.5 | 11 | 57 | 6 | 16 | 3.8 | ● | ● | | | | |
| 5 | R0.5 | 13 | 57 | 6 | 18 | 4.8 | ● | ● | | | | |
| 6 | R0.5 | 13 | 57 | 6 | 20 | 5.8 | ● | ● | | | | |
| 8 | R0.5 | 19 | 63 | 8 | 26 | 7.7 | ● | ● | | | | |
| 10 | R0.5 | 22 | 72 | 10 | 31 | 9.7 | ● | ● | | | | |
| 12 | R0.5 | 26 | 83 | 12 | 37 | 11.6 | ● | ● | | | | |
| 16 | R0.5 | 32 | 92 | 16 | 43 | 15.5 | ● | ● | | | | |
| 20 | R0.5 | 38 | 104 | 20 | 53 | 19.5 | ● | ● | | | | |
| 6 | R1 | 13 | 57 | 6 | 20 | 5.8 | ● | ● | | | | |
| 8 | R1 | 19 | 63 | 8 | 26 | 7.7 | ● | ● | | | | |
| 10 | R1 | 22 | 72 | 10 | 31 | 9.7 | ● | ● | | | | |
| 12 | R1 | 26 | 83 | 12 | 37 | 11.6 | ● | ● | | | | |
| 16 | R1 | 32 | 92 | 16 | 43 | 15.5 | ● | ● | | | | |
| 20 | R1 | 38 | 104 | 20 | 53 | 19.5 | ● | ● | | | | |
| 6 | R2 | 13 | 57 | 6 | 20 | 5.8 | ● | ● | | | | |
| 8 | R2 | 19 | 63 | 8 | 26 | 7.7 | ● | ● | | | | |
| 10 | R2 | 22 | 72 | 10 | 31 | 9.7 | ● | ● | | | | |
| 12 | R2 | 26 | 83 | 12 | 37 | 11.6 | ● | ● | | | | |
| 16 | R2 | 32 | 92 | 16 | 43 | 15.5 | ● | ● | | | | |
| 20 | R2 | 38 | 104 | 20 | 53 | 19.5 | ● | ● | | | | |
| 12 | R3 | 26 | 83 | 12 | 37 | 11.6 | ● | ● | | | | |
| 16 | R3 | 32 | 92 | 16 | 43 | 15.5 | ● | ● | | | | |
| 20 | R3 | 38 | 104 | 20 | 53 | 19.5 | ● | ● | | | | |

Cutting Conditions

| F652SX |  |  |  |  | cutting speed Vc (m/min) | feed per tooth fz (mm) | cutting speed Vc (m/min) | feed per tooth fz (mm) | cutting speed Vc (m/min) | feed per tooth fz (mm) | cutting speed Vc (m/min) | feed per tooth fz (mm) |
|---------------------------------------|---|---|--|---|-----------------------------|---------------------------|-----------------------------|---------------------------|-----------------------------|---------------------------|-----------------------------|---------------------------|
| | Stainless Steel Materials | | | | | | | | | | | |
| M | GR8-1 Ferritic \ Martensitic | 80 | 0.003xDc | 90 | 0.004xDc | 110 | 0.003xDc | 130 | 0.003xDc | | | |
| | GR8-2 Austenitic | 70 | 0.003xDc | 80 | 0.003xDc | 90 | 0.003xDc | 100 | 0.003xDc | | | |
| | GR8-3 Austenitic-ferritic | 40 | 0.002xDc | 50 | 0.003xDc | 60 | 0.002xDc | 70 | 0.002xDc | | | |
| | GR8-4 Austenitic-ferritic Heat-resistant | 30 | 0.002xDc | 40 | 0.003xDc | 40 | 0.002xDc | 50 | 0.002xDc | | | |
| Cast Iron Materials | | | | | | | | | | | | |
| | GRI5 Titanium | 35 | 0.002xDc | 40 | 0.002xDc | 40 | 0.002xDc | 45 | 0.002xDc | | | |
| Nickel Materials | | | | | | | | | | | | |
| S | GRI6-1 Nickel | 30 | 0.002xDc | 35 | 0.002xDc | 35 | 0.002xDc | 40 | 0.002xDc | | | |
| | GRI6-2 cobalt-base alloys | 30 | 0.002xDc | 35 | 0.002xDc | 35 | 0.002xDc | 40 | 0.002xDc | | | |
| | GRI6-3 Iron-based alloy | 30 | 0.002xDc | 35 | 0.002xDc | 35 | 0.002xDc | 40 | 0.002xDc | | | |
| Heat-resistant Steel Materials | | | | | | | | | | | | |
| | GRI7 Heat-resistant Steel | 30 | 0.002xDc | 35 | 0.002xDc | 35 | 0.002xDc | 40 | 0.002xDc | | | |

All cutting data serve for orientation only and should be adapted individually to the technical conditions on location

1. Please work with good rigidity / high precision facilities and collet chuck.
2. Please choose proper cutting fluid.
3. The cutting data is reference value only. Please adjust it according to your real working conditions.
4. If RPM is lower the reference value, the Feed rate (fz) and RPM should be reduced by the same proportion.
5. If vibration occurs during cutting, please reduce cutting parameter.