

F651SX

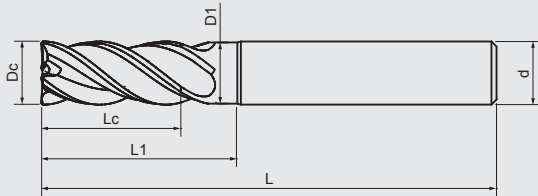
End Mills For Difficult To Cut Materials

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.

Good wear resistance and lubricating effect with Nano multilayer coating.

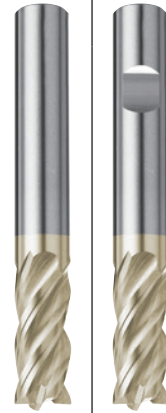


VHM
Carbide

AlTiXN+ZrN
SX



0.05-0.2
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	Lc mm	L mm	d h5	L1 mm	D1 mm	45° mm	F651SX HA	F651SX HB				
3	8	57	6	14	2.8	0.10	●	●				
4	11	57	6	16	3.8	0.10	●	●				
5	13	57	6	18	4.8	0.15	●	●				
6	13	57	6	20	5.8	0.15	●	●				
8	19	63	8	26	7.7	0.15	●	●				
10	22	72	10	31	9.7	0.20	●	●				
12	26	83	12	37	11.6	0.20	●	●				
16	32	92	16	43	15.5	0.20	●	●				
20	38	104	20	53	19.5	0.20	●	●				

Cutting Conditions

F651SX									
	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.