

3RFRS, 4RFRS

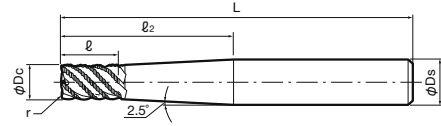
Number of Flutes: 3, 4

Rough Copying (Radius / Short)



Recommended Material

★ 1st Recommendation



Lineup

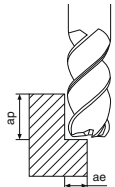
(Unit:mm)

Description	Std.	Outside Dia. ØDc	Outside Dia. tolerance	Edge Length ℓ	Shank Dia. ØDs	Total length L	Spec of Corners r	Under Neck Length ℓ2	Number of Flutes Z
3RFRS040-040-06-R075	●	4	-0.030 -0.105	4	6	75	R 0.75	27.5	3
3RFRS050-050-06-R075	●	5	-0.030 -0.105	5	6	75	R 0.75	17	3
4RFRS060-060-10-R075	●	6	-0.030 -0.105	6	10	100	R 0.75	52.5	4
4RFRS080-080-10-R075	●	8	-0.040 -0.130	8	10	100	R 0.75	31.5	4
4RFRS100-100-12-R075	●	10	-0.040 -0.130	10	12	125	R 0.75	33.5	4
4RFRS120-120-16-R100	●	12	-0.050 -0.160	12	16	125	R 1.0	58.5	4

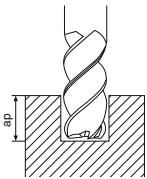
- For rough copying. It is available for roughing and semi finishing, but especially suitable for rough copying of mold. Shank diameter is larger than the cutting diameter and it is highly rigid. Due to the strong cutting edge with large flat surface, it is suitable for hardened materials and titanium alloy. It can provide the good surface roughness of 2.5 to 4.9Ra (μm).

Recommended Cutting Conditions

Shouldering



Shouldering



Grooving

Workpiece Materials		Depth of Cut (ap×ae) (mm)	Outside Dia. (mm)	Ø4	Ø5	Ø6	Ø8	Ø10	Ø12
Steel	< 30HRC	0.8Dc×0.5Dc	Spindle Revolution (min ⁻¹)	14,300	11,500	9,600	7,200	5,700	4,800
			Feed Rate (mm/min)	860	860	1,150	1,150	1,150	1,150
	30~40HRC	0.8Dc×0.4Dc	Spindle Revolution (min ⁻¹)	9,600	7,600	6,400	4,800	3,800	3,200
			Feed Rate (mm/min)	430	460	640	610	610	570
	40~50HRC	0.8Dc×0.4Dc	Spindle Revolution (min ⁻¹)	6,400	5,100	4,200	3,200	2,500	2,100
			Feed Rate (mm/min)	190	230	320	320	320	340
	50~60HRC	0.8Dc×0.25Dc	Spindle Revolution (min ⁻¹)	4,800	3,800	3,200	2,400	1,900	1,600
			Feed Rate (mm/min)	100	100	130	140	150	160
	60~70HRC	0.8Dc×0.2Dc	Spindle Revolution (min ⁻¹)	3,200	2,500	2,100	1,600	1,300	1,100
			Feed Rate (mm/min)	60	60	70	70	80	90

Please refer to page L46 about Slotting.