

Cutting data recommendation for FixReam 700

Feed and cutting speed

FXR700 | FXR702 | FXR703 | FXR705

Cutting material: CU111 | Lead: LA1G | LB1G

MMG*		Workpiece material	Strength/ Hardness [N/mm ²] [HRC]	Cutting speed v_c [m/min]		Feed f_z [mm/rev] with tool diameter	
				Internal cooling		z 6	
						9.900 - 32.200	
P	P1	P1.1	Structural, machining, case hardened and tempering steels, unalloyed	< 700	120	0.150	
		P1.2	Structural, machining, case hardened and tempering steels, unalloyed	< 1,200	120	0.150	
	P2	P2.1	Nitriding, hardening and tempering steels, alloyed	< 900	110	0.150	
		P2.2	Nitriding, hardening and tempering steels, alloyed	< 1,400	110	0.120	
	P3	P3.1	Tool, bearing, spring and high-speed steels**	< 800	110	0.150	
		P3.2	Tool, bearing, spring and high-speed steels**	< 1,000	120	0.150	
P3.3		Tool, bearing, spring and high-speed steels**	< 1,500	120			
K	K1	K1.1	Cast iron with lamellar graphite (grey cast iron), GJL	< 300	120	0.200	
		K2.1	Cast iron with spheroidal graphite, GJS	< 500	120	0.180	
	K2	K2.2	Cast iron with spheroidal graphite, GJS	≤ 800			
		K2.3	Cast iron with spheroidal graphite, GJS	> 800			

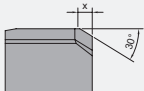
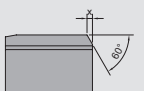
Tolerances for the G variant/fixed variant FXRXX

Cutting material	Diameter range
Uncoated	
CU111	-0.003

G variant

The G variant indicates the tool diameter of the reamer with our manufacturing tolerances. The manufacturing tolerances depend on the cutting material (see permissible smallest tolerances for the G variant).

Lead geometry and rake angles

Geometry	Lead geometry			Geometry
	Name	Ø area	Lead length x	
	LA	9.900 - 11,700 mm	0.80 mm	30°
		11.701 - 32,200 mm	1.00 mm	
	LB	9.900 - 32,000 mm	0.25 mm	60°

Chip shape / rake angle

Rake angle	
Name	Angle
1G	6°

* MAPAL Machining Groups

** If the alloy parts Cr, Mo, Ni, V, W in total > 8%, then select the next highest MAPAL machining group. The specified cutting data are guide values.

The optimum data for the respective machining task should be determined during the test or machining.