RECOMMENDED CUTTING CONDITIONS

VOX400 (Standard pitch)

Work Material		Tensile Strength	Insert Grade	Cutting Speed (m/min)	ϕ50－ϕ250		
					Radial Depth of Cut ae (mm)	Depth of Cut ap (mm)	Feed per Tooth fz (mm/tooth)
K	Gray Cast Iron	≤200MPa	**MC5020**	300(250－350)	≤D_1	≤10	0.4(0.3－0.5)
			VP15TF	250(200－300)	≤D_1	≤10	0.4(0.3－0.5)
		≤350MPa	**MC5020**	220(150－300)	≤D_1	≤10	0.3(0.2－0.4)
			VP15TF	200(150－300)	≤D_1	≤10	0.3(0.2－0.4)
	Ductile Cast Iron	≤450MPa	**MC5020**	200(150－250)	≤D_1	≤10	0.3(0.2－0.4)
			VP15TF	170(150－200)	≤D_1	≤10	0.3(0.2－0.4)
		≤800MPa	**MC5020**	170(150－200)	≤D_1	≤10	0.2(0.1－0.3)
			VP15TF	150(100－200)	≤D_1	≤10	0.2(0.1－0.3)

VOX400 (Fine pitch)

Work Material		Tensile Strength	Insert Grade	Cutting Speed (m/min)	ϕ50,ϕ63			ϕ80		
					Radial Depth of Cut ae (mm)	Depth of Cut ap (mm)	Feed per Tooth fz (mm/tooth)	Radial Depth of Cut ae (mm)	Depth of Cut ap (mm)	Feed per Tooth fz (mm/tooth)
K	Gray Cast Iron	≤200MPa	**MC5020**	300(250－350)	≤D_1	≤10	0.4(0.3－0.5)	≤D_1	≤10	0.4(0.3－0.5)
			VP15TF	250(200－300)	≤D_1	≤10	0.4(0.3－0.5)	≤D_1	≤10	0.4(0.3－0.5)
		≤350MPa	**MC5020**	220(150－300)	≤D_1	≤10	0.3(0.2－0.4)	≤D_1	≤10	0.3(0.2－0.4)
			VP15TF	200(150－300)	≤D_1	≤10	0.3(0.2－0.4)	≤D_1	≤10	0.3(0.2－0.4)
	Ductile Cast Iron	≤450MPa	**MC5020**	200(150－250)	≤0.8D_1	≤10	0.3(0.2－0.4)	≤0.6D_1	≤10	0.3(0.2－0.4)
			VP15TF	170(150－200)	≤0.8D_1	≤10	0.3(0.2－0.4)	≤0.6D_1	≤10	0.3(0.2－0.4)
		≤800MPa	**MC5020**	170(150－200)	≤0.8D_1	≤10	0.2(0.1－0.3)	≤0.6D_1	≤10	0.2(0.1－0.3)
			VP15TF	150(100－200)	≤0.8D_1	≤10	0.2(0.1－0.3)	≤0.6D_1	≤10	0.2(0.1－0.3)

Work Material		Tensile Strength	Insert Grade	Cutting Speed (m/min)	ϕ100			ϕ125		
					Radial depth of cut ae (mm)	Depth of Cut ap (mm)	Feed per Tooth fz (mm/tooth)	Radial Depth of Cut ae (mm)	Depth of Cut ap (mm)	Feed per Tooth fz (mm/tooth)
K	Gray Cast Iron	≤200MPa	**MC5020**	300(250－350)	≤D_1	≤10	0.4(0.3－0.5)	≤D_1	≤10	0.4(0.3－0.5)
			VP15TF	250(200－300)	≤D_1	≤10	0.4(0.3－0.5)	≤D_1	≤10	0.4(0.3－0.5)
		≤350MPa	**MC5020**	220(150－300)	≤D_1	≤10	0.3(0.2－0.4)	≤D_1	≤10	0.3(0.2－0.4)
			VP15TF	200(150－300)	≤D_1	≤10	0.3(0.2－0.4)	≤D_1	≤10	0.3(0.2－0.4)
	Ductile Cast Iron	≤450MPa	**MC5020**	200(150－250)	≤0.5D_1	≤10	0.3(0.2－0.4)	≤0.4D_1	≤10	0.3(0.2－0.4)
			VP15TF	170(150－200)	≤0.5D_1	≤10	0.3(0.2－0.4)	≤0.4D_1	≤10	0.3(0.2－0.4)
		≤800MPa	**MC5020**	170(150－200)	≤0.5D_1	≤10	0.2(0.1－0.3)	≤0.4D_1	≤10	0.2(0.1－0.3)
			VP15TF	150(100－200)	≤0.5D_1	≤10	0.2(0.1－0.3)	≤0.4D_1	≤10	0.2(0.1－0.3)

Work Material		Tensile Strength	Insert Grade	Cutting Speed (m/min)	ϕ160			ϕ200－ϕ250		
					Radial Depth of Cut ae (mm)	Depth of Cut ap (mm)	Feed per Tooth fz (mm/tooth)	Radial Depth of Cut ae (mm)	Depth of Cut ap (mm)	Feed per Tooth fz (mm/tooth)
K	Gray Cast Iron	≤200MPa	**MC5020**	300(250－350)	≤D_1	≤10	0.4(0.3－0.5)	≤D_1	≤10	0.4(0.3－0.5)
			VP15TF	250(200－300)	≤D_1	≤10	0.4(0.3－0.5)	≤D_1	≤10	0.4(0.3－0.5)
		≤350MPa	**MC5020**	220(150－300)	≤D_1	≤10	0.3(0.2－0.4)	≤D_1	≤10	0.3(0.2－0.4)
			VP15TF	200(150－300)	≤D_1	≤10	0.3(0.2－0.4)	≤D_1	≤10	0.3(0.2－0.4)
	Ductile Cast Iron	≤450MPa	**MC5020**	200(150－250)	≤0.3D_1	≤10	0.3(0.2－0.4)	≤0.2D_1	≤10	0.3(0.2－0.4)
			VP15TF	170(150－200)	≤0.3D_1	≤10	0.3(0.2－0.4)	≤0.2D_1	≤10	0.3(0.2－0.4)
		≤800MPa	**MC5020**	170(150－200)	≤0.3D_1	≤10	0.2(0.1－0.3)	≤0.2D_1	≤10	0.2(0.1－0.3)
			VP15TF	150(100－200)	≤0.3D_1	≤10	0.2(0.1－0.3)	≤0.2D_1	≤10	0.2(0.1－0.3)

(Note 1) D_1 is cutter diameter.
(Note 2) When using wiper insert, please reduce the feed per tooth to half the normal rate.