Recommended Cutting Conditions

TKF12/16 Recommended Cutting Conditions

Workpiece Material	Recommended Grade (Vc m/min)			TKF12 Width W (mm)					TKF16 Width W (mm)		Remarks
	MEGACOAT	PVD Coated Carbide	Carbide	0.5	0.7	1.0	1.5	2.0	1.5	2.0	
	PR1225	**PR1025**	**KW10**	Feed Rate (mm/rev)					Feed Rate (mm/rev)		
Carbon Steel (SxxC)	★ 70 ~ 150	☆ 60 ~ 130	-	0.01 ~ 0.02	0.01 ~ 0.03	0.01 ~ 0.04 (0.01 ~ 0.05)	0.01 ~ 0.04 (0.01 ~ 0.07)	0.01 ~ 0.04 (0.01 ~ 0.07)	0.02 ~ 0.07 (0.02 ~ 0.1)	0.02 ~ 0.07 (0.02 ~ 0.1)	Coolant
Alloy Steel (SCM)	★ 70 ~ 150	☆ 60 ~ 130	-	0.01 ~ 0.02	0.01 ~ 0.03	0.01 ~ 0.04 (0.01 ~ 0.05)	0.01 ~ 0.04 (0.01 ~ 0.07)	0.01 ~ 0.04 (0.01 ~ 0.07)	0.02 ~ 0.07 (0.02 ~ 0.1)	0.02 ~ 0.07 (0.02 ~ 0.1)	
Stainless Steel (SUS304)	★ 60 ~ 120	☆ 50 ~ 100	-	0.005 ~ 0.015	0.01 ~ 0.02	0.01 ~ 0.02 (0.01 ~ 0.03)	0.01 ~ 0.02 (0.01 ~ 0.03)	0.01 ~ 0.02 (0.01 ~ 0.03)	0.01 ~ 0.04 (0.02 ~ 0.04)	0.01 ~ 0.04 (0.02 ~ 0.04)	
Cast Iron (FC/FCD)	-	-	★ 50 ~ 100	0.01 ~ 0.03	0.01 ~ 0.04	0.01 ~ 0.05	0.01 ~ 0.05	0.01 ~ 0.05	0.02 ~ 0.08	0.02 ~ 0.08	
Aluminium	-	-	★ 200 ~ 450	0.01 ~ 0.03	0.01 ~ 0.04	0.01 ~ 0.05	0.01 ~ 0.05	0.01 ~ 0.05	0.02 ~ 0.08	0.02 ~ 0.08	

※ ( ): Tough edge type (TKF..T..)
★ : 1st Recommendation
☆ : 2nd Recommendation

Workpiece Material		PCD KPD001 Grooving	PCD KPD001 Traversing	Remarks
Aluminium	Vc (m/min)	200 ~ 500		Coolant
	Feed Rate (mm/rev)	0.01 ~ 0.03	0.02 ~ 0.12	
Brass	Vc (m/min)	100 ~ 350		
	Feed Rate (mm/rev)	0.01 ~ 0.05	0.02 ~ 0.15	

Recommended Cutting Conditions (In case of using GMM-MT, GMM-TK, GMM-NB insert)

Workpiece Material	Recommended Insert Grade (Vc: m/min)					Dimension (mm)					Remarks
	Cermet	CVD Coated Carbide	PVD Coated Carbide		Carbide	1.5	2.0 / 2.5	3.0	4.0		
	-	**CR9025**	**PR915**	**PR930**	**KW10**	f (mm/rev)					
Carbon Steel	-	☆ 80~180	★ 60~150	☆ 60~130		0.01~0.04	0.02~0.15	0.03~0.20	0.08~0.30		Coolant
Alloy Steel	-	☆ 70~150	★ 60~150	☆ 60~130		0.01~0.04	0.02~0.15	0.03~0.20	0.08~0.30		
Stainless Steel	-	☆ 60~140	★ 50~140	☆ 50~120		0.01~0.03	0.02~0.10	0.03~0.15	0.08~0.25		
Cast Iron	-	-	-	-	★ 50~100	0.01~0.05	0.05~0.12	0.10~0.25	0.10~0.30		
Non-ferrous Metals	-	-	-	-	★ 200~450	0.01~0.05	0.05~0.10	0.05~0.20	0.05~0.25		

• When machining Steel and Stainless Steel by 4mm width Insert of PR930, decrease the Feed Rate by 20%.

★ : 1st Recommendation ☆ : 2nd Recommendation

Recommended Cutting Conditions (TKN, TK$^{R}/_{L}$ type Insert)

Workpiece Material	Recommended Insert Grade (Vc: m/min)					Dimension (mm)					Remarks
	Cermet	CVD Coated Carbide	PVD Coated Carbide		Carbide	1.6	2.2 / 2.4	3.1	4.1	4.8~9.6	
	TN90	**CR9025**	**PR660**	**PR930**	**KW10**	f (mm/rev)					
Carbon Steel	☆ 120~200	★ 80~180	☆ 60~130	☆ 60~130		0.02~0.08	0.04~0.18	0.05~0.25	0.08~0.30	0.15~0.40	Coolant
Alloy Steel	☆ 100~160	★ 70~150	☆ 60~130	☆ 60~130		0.02~0.08	0.04~0.18	0.05~0.25	0.08~0.30	0.15~0.40	
Stainless Steel	☆ 80~150	☆ 60~40	★ 50~120	☆ 60~140		0.02~0.06	0.04~0.12	0.05~0.18	0.08~0.25	0.10~0.30	
Cast Iron	-	-	-	-	★ 50~100	0.02~0.08	0.05~0.12	0.10~0.25	0.10~0.30	0.15~0.35	
Non-ferrous Metals	-	-	-	-	★ 100~450	0.02~0.10	0.05~0.10	0.05~0.20	0.05~0.25	0.10~0.25	

★ : 1st Recommendation ☆ : 2nd Recommendation

Recommended Cutting Conditions (In case of using GMM-TMR type Insert)

Workpiece Material	Vc (m/min)	f (mm/rev)	Remarks
Carbon Steel	60~200	0.08~0.18	Coolant
Alloy Steel	60~150		
Stainless Steel	50~140		