

Recommended Cutting Conditions (Ground Chipbreaker: GE^{R/L}••• A(R)GE^{R/L}••• B(R))

Workpiece Material	Recommended Insert Grade (Cutting Speed: m/min)			① f for Grooving (mm/rev)			Remarks
	Cermet	PVD Coated Carbide	Carbide	② f for Traversing (mm/rev)			
				③ ap for Traversing (mm)			
				TN6020	PR1025	KW10	
Carbon Steel	☆ 50~80	★ 50~80	-	①0.01~0.03 ②0.01~0.03 ③Max. 0.05	①0.02~0.04 ②0.02~0.04 ③Max. 0.05	①0.02~0.04 ②0.02~0.04 ③Max. 0.1	Coolant
Alloy Steel	☆ 50~80	★ 50~80	-	①0.01~0.03 ②0.01~0.03 ③Max. 0.05	①0.02~0.04 ②0.02~0.04 ③Max. 0.05	①0.02~0.04 ②0.02~0.04 ③Max. 0.1	
Stainless Steel	-	★ 50~80	-	①0.01~0.03 ②0.01~0.03 ③Max. 0.05	①0.01~0.03 ②0.01~0.03 ③Max. 0.05	①0.01~0.03 ②0.01~0.03 ③Max. 0.1	
Cast Iron	-	-	★ 50~80	①0.01~0.03 ②0.01~0.03 ③Max. 0.05	①0.02~0.04 ②0.02~0.04 ③Max. 0.05	①0.02~0.04 ②0.02~0.04 ③Max. 0.1	
Non-ferrous Metals	-	-	★ 50~100	①0.01~0.03 ②0.01~0.03 ③Max. 0.1	①0.02~0.04 ②0.02~0.04 ③Max. 0.1	①0.02~0.04 ②0.02~0.04 ③Max. 0.2	
Brass	-	-	★ 50~100	①0.01~0.03 ②0.01~0.03 ③Max. 0.1	①0.02~0.04 ②0.02~0.04 ③Max. 0.1	①0.02~0.04 ②0.02~0.04 ③Max. 0.2	

* Use PVD coated grade or carbide for traversing with edge width 1mm. (GE^{R/L}100-005A / 100-005B)

★: 1st Recommendation ☆: 2nd Recommendation

Recommended Cutting Conditions (Ground Chipbreaker: GE^{R/L}••• C(R), GE^{R/L}••• D(R), GE^{R/L}••• E)

Workpiece Material	Recommended Insert Grade (Cutting Speed: m/min)			① f for Grooving (mm/rev)						Remarks		
	Cermet	PVD Coated Carbide	Carbide	② f for Traversing (mm/rev)								
				③ ap for Traversing (mm)								
				TN6020	PR1025	GW15	GE ^{R/L} 100-200-010C 200-100CR	GE ^{R/L} 250-350-020C 250-300-150CR	GE ^{R/L} 200-280-020D 200-100DR		GE ^{R/L} 300-400-020D 300-150DR	GE ^{R/L} 100-010E
Carbon Steel	☆ 120~180	★ 60~140	-	①0.03~0.08 ②0.03~0.08 ③Max. 0.3	①0.03~0.08 ②0.03~0.08 ③Max. 0.3	①0.04~0.09 ②0.04~0.09 ③Max. 0.3	①0.04~0.09 ②0.04~0.09 ③Max. 0.3	①0.05~0.12 ②0.05~0.1 ③Max. 0.5	①0.05~0.12 ②0.05~0.1 ③Max. 0.5	①0.05~0.12 ②0.05~0.1 ③Max. 0.5	Coolant	
Alloy Steel	☆ 100~160	★ 60~120	-	①0.03~0.07 ②0.03~0.1 ③Max. 0.3	①0.03~0.07 ②0.03~0.1 ③Max. 0.3	①0.04~0.08 ②0.04~0.08 ③Max. 0.3	①0.04~0.08 ②0.04~0.08 ③Max. 0.3	①0.05~0.1 ②0.05~0.1 ③Max. 0.5	①0.05~0.1 ②0.05~0.1 ③Max. 0.5	①0.05~0.1 ②0.05~0.1 ③Max. 0.5		
Stainless Steel	☆ 70~130	★ 60~110	-	①0.03~0.07 ②0.03~0.1 ③Max. 0.3	①0.03~0.07 ②0.03~0.1 ③Max. 0.3	①0.04~0.08 ②0.04~0.08 ③Max. 0.3	①0.04~0.08 ②0.04~0.08 ③Max. 0.3	①0.05~0.1 ②0.05~0.1 ③Max. 0.5	①0.05~0.1 ②0.05~0.1 ③Max. 0.5	①0.05~0.1 ②0.05~0.1 ③Max. 0.5		
Cast Iron	-	-	★ 60~100	①0.03~0.08 ②0.03~0.08 ③Max. 0.3	①0.03~0.08 ②0.03~0.08 ③Max. 0.3	①0.04~0.09 ②0.04~0.09 ③Max. 0.3	①0.04~0.09 ②0.04~0.09 ③Max. 0.3	①0.05~0.12 ②0.05~0.1 ③Max. 0.5	①0.05~0.12 ②0.05~0.1 ③Max. 0.5	①0.05~0.12 ②0.05~0.1 ③Max. 0.5		
Non-ferrous Metals	-	-	★ 150~300	①0.05~0.12 ②0.05~0.12 ③Max. 0.5	①0.05~0.12 ②0.05~0.12 ③Max. 0.5	①0.05~0.15 ②0.05~0.15 ③Max. 0.5	①0.05~0.15 ②0.05~0.15 ③Max. 0.5	①0.08~0.15 ②0.08~0.15 ③Max. 0.8	①0.08~0.15 ②0.08~0.15 ③Max. 0.8	①0.08~0.15 ②0.08~0.15 ③Max. 0.8		
Brass	-	-	★ 100~250	①0.05~0.12 ②0.05~0.12 ③Max. 0.5	①0.05~0.12 ②0.05~0.12 ③Max. 0.5	①0.05~0.15 ②0.05~0.15 ③Max. 0.5	①0.05~0.15 ②0.05~0.15 ③Max. 0.5	①0.08~0.15 ②0.08~0.15 ③Max. 0.8	①0.08~0.15 ②0.08~0.15 ③Max. 0.8	①0.08~0.15 ②0.08~0.15 ③Max. 0.8		

* Use PVD coated grade or carbide for traversing with edge width 1mm. (GE^{R/L}100-010C / 100-010D / 100-010E)

★: 1st Recommendation ☆: 2nd Recommendation

Recommended Cutting Conditions (Molded Chipbreaker: GER••• CM, GER••• DM, GER••• EM)

Workpiece Material	Recommended Insert Grade (Cutting Speed: m/min)			① f for Grooving (mm/rev)						Remarks
	Cermet	PVD Coated Carbide	Carbide	② f for Traversing (mm/rev)						
				③ ap for Traversing (mm)						
				TN6020	PR1025	GW15	GER 150-200-010CM	GER 250-350-020CM	GER 230-250-020DM	
Carbon Steel	-	★ 60~160	-	①0.03~0.1 ②0.03~0.1 ③Max. 1.0	①0.03~0.12 ②0.03~0.1 ③Max. 1.5	①0.04~0.12 ②0.04~0.1 ③Max. 1.5	①0.05~0.12 ②0.05~0.1 ③Max. 1.5	①0.05~0.12 ②0.05~0.1 ③Max. 1.5	①0.05~0.12 ②0.05~0.1 ③Max. 1.5	Coolant
Alloy Steel	-	★ 60~140	-	①0.03~0.1 ②0.03~0.1 ③Max. 1.0	①0.03~0.1 ②0.03~0.1 ③Max. 1.5	①0.04~0.12 ②0.04~0.1 ③Max. 1.5	①0.05~0.12 ②0.05~0.1 ③Max. 1.5	①0.05~0.12 ②0.05~0.1 ③Max. 1.5	①0.05~0.12 ②0.05~0.1 ③Max. 1.5	
Stainless Steel	-	★ 60~110	-	①0.03~0.08 ②0.03~0.1 ③Max. 1.0	①0.03~0.08 ②0.03~0.1 ③Max. 1.5	①0.04~0.08 ②0.04~0.1 ③Max. 1.5	①0.04~0.08 ②0.05~0.1 ③Max. 1.5	①0.05~0.1 ②0.05~0.1 ③Max. 1.5	①0.05~0.1 ②0.05~0.1 ③Max. 1.5	

★: 1st Recommendation ☆: 2nd Recommendation