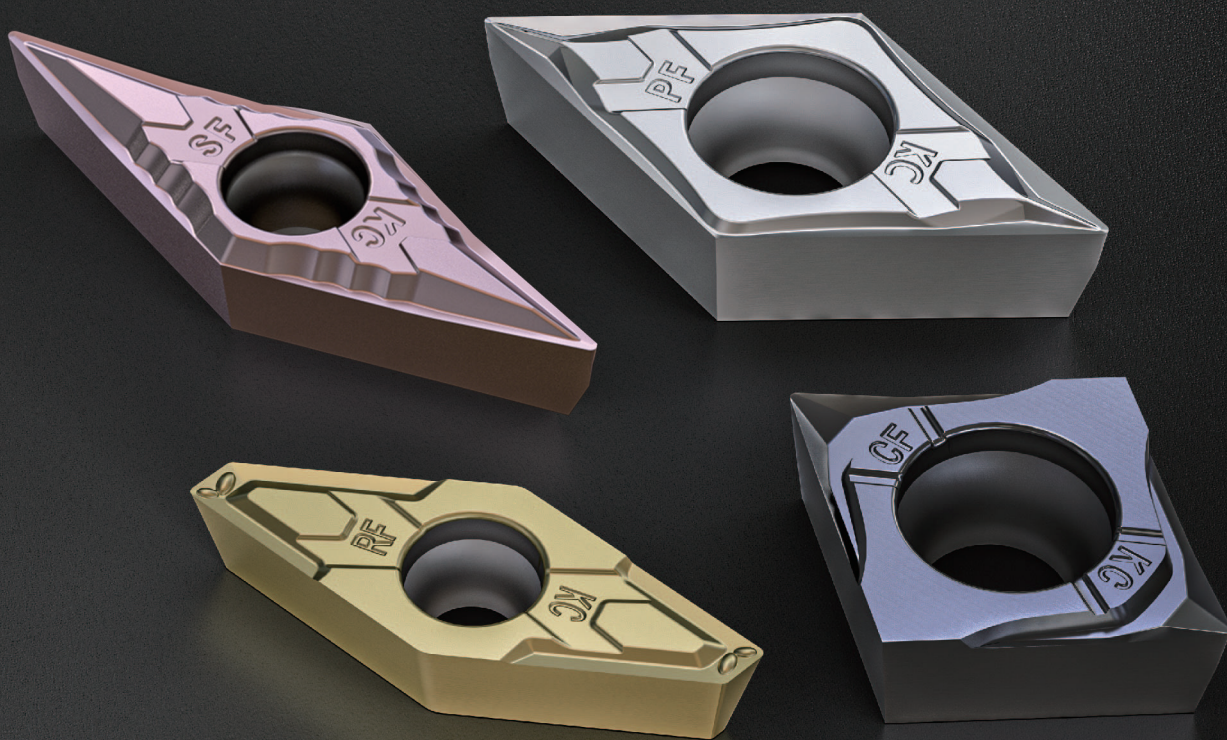


ISO INSERTS

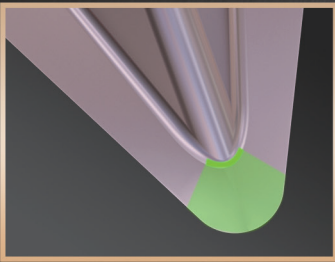
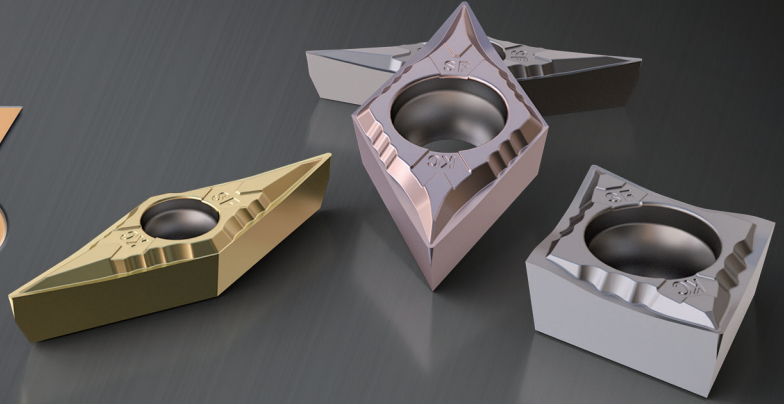
WITH PRECISION LAPPING



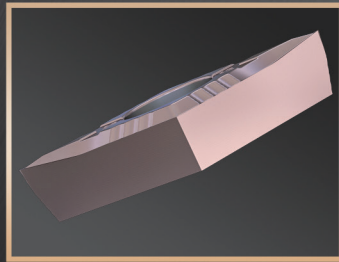
- Full Lapping Technology, High Accuracy Guarantee
- Geometries Vary from Different Machining Processes
- Innovated Coating Technology, Improve Tool Life and Stability of Machining
- Strengthened Edge and Lapped Surface to prevent welding, efficiently improve size accuracy and surface roughness of machined product

SF INSERT

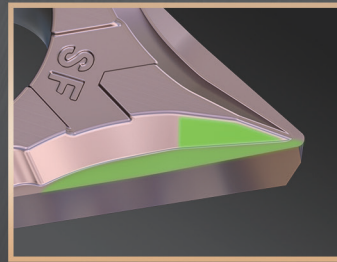
MEDIUM TO SEMI-FINISH MACHINING



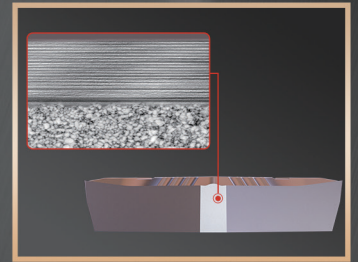
Medium to Semi-finish Machining



Precision Full Lapping Technology



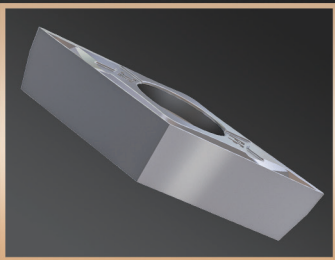
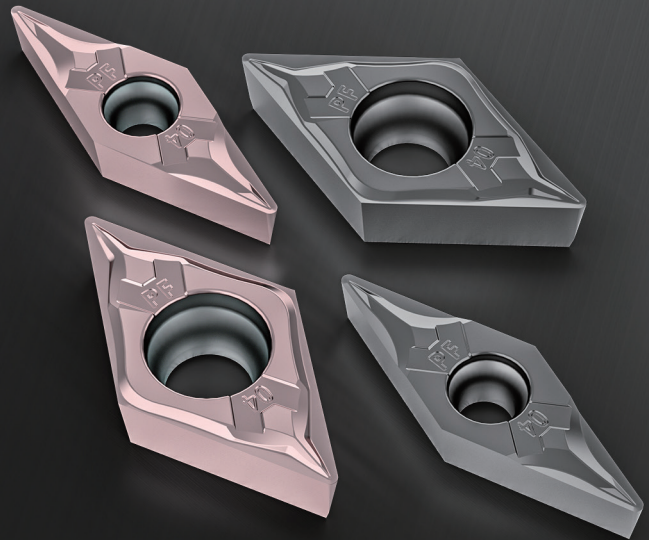
Cutting Depth 0.3-0.35MM



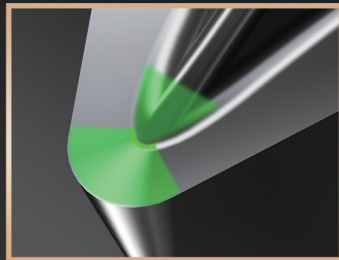
Nanometer Composite Coating

PF INSERT

3D CHIP BREAKING SLOT THAT ATTACHED IMPORTANCE TO CHIP MANAGEMENT



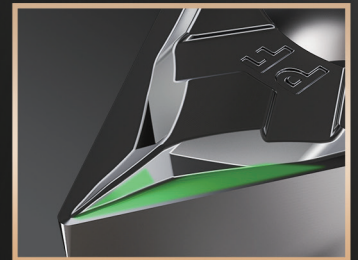
Precision Full Lapping Technology



Excellent Performance of Chip Control



Low Cutting Resistance Geometry



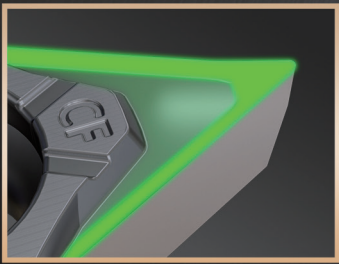
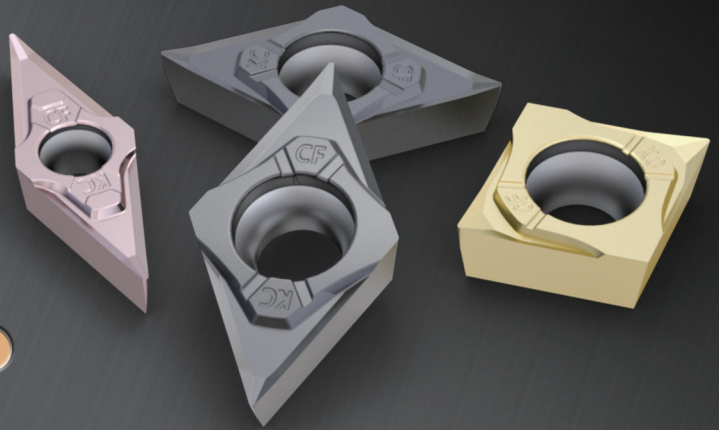
0.2-0.25mm Cutting Depth

CF INSERT

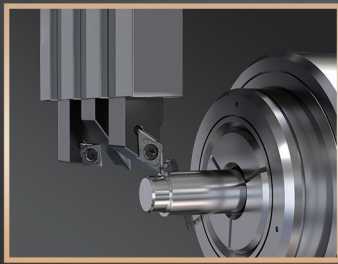
HIGH SHARPNESS

VERSATILE GEOMETRY

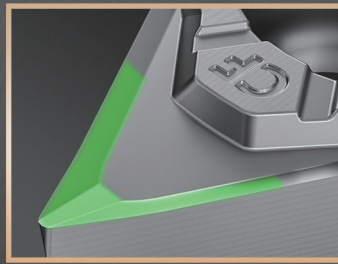
LOW CUTTING RESISTANCE



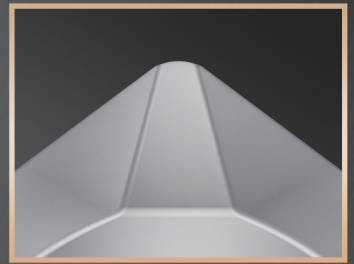
Geometry with Sink toward the Center



Big Rake Angle Design



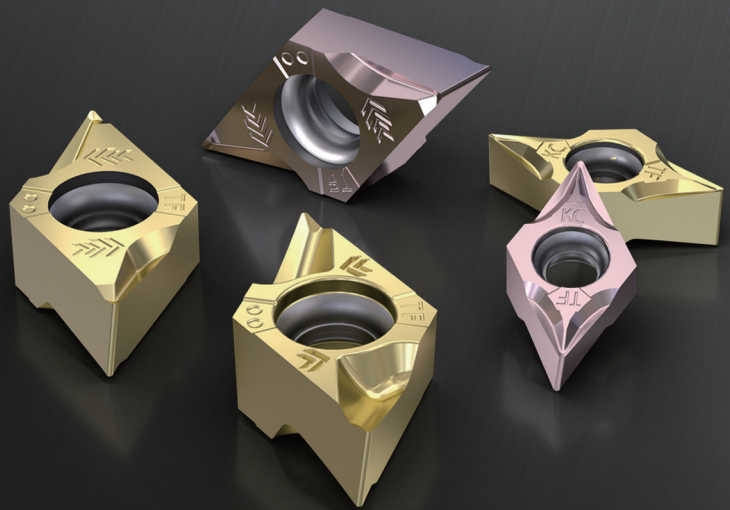
Big Cutting Depth Machining



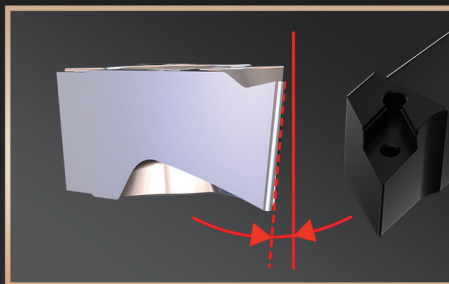
Sharp Edge

KDC

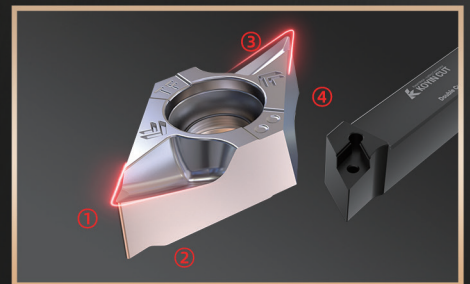
ECONOMICAL EFFICIENT DOUBLE EDGES SERIES



Closed Clamping Design



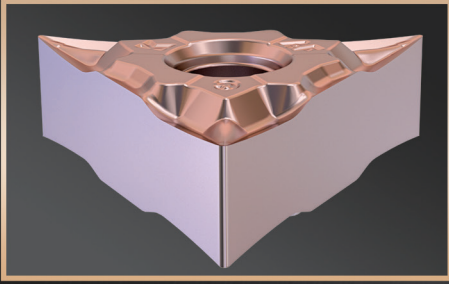
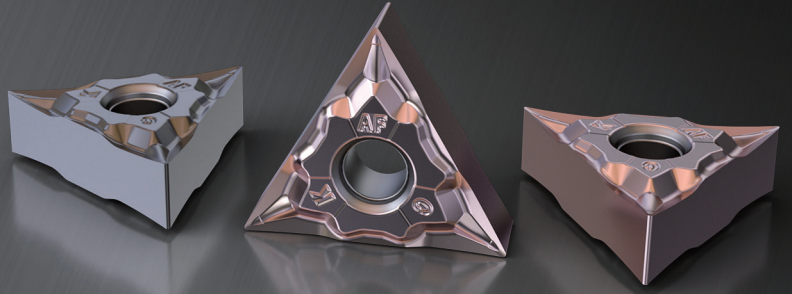
Negative Insert with Clearance Angle



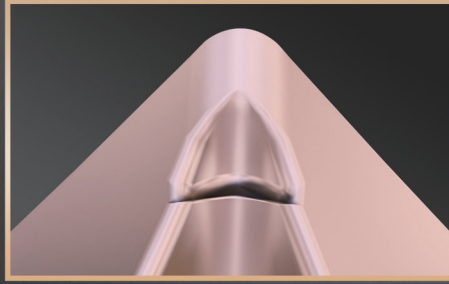
Low Cutting Resistance Geometry

AF INSERT

ALL-PURPOSE INSERT SERIES



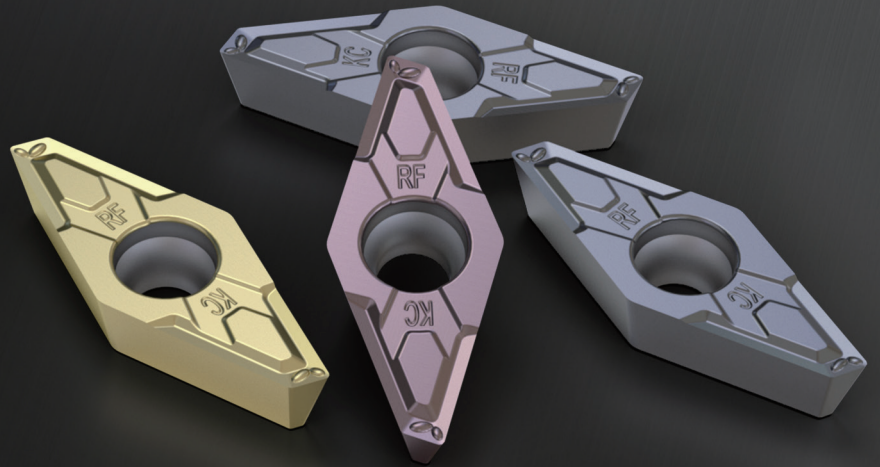
Precision Full Lapping Technology



Sharp Big Rake Angle Design



Excellent Chip Breaking and Chip Evacuation



RF INSERT

ROUGHING TO FINISHING



Roughing to finishing

Excellent chip removal performance and low cutting resistance advantage



Precision grinding and polishing blade

Even with large cutting depths, excellent precision machined surfaces can be obtained



Cutting depth 0.1-4.5mm

Can correspond to a larger processing range



nanocomposite coating

Effectively suppress tool tip heating and achieve long service life machining

Symbols	Shape	Tip Angle	Figure
H	Regular Hexagon	120°	
O	Regular Octagon	135°	
P	Regular Pentagon	108°	
S	Square	90°	
T	Regular Triangle	60°	
C	Rhombus	80°	
D		55°	
E		75°	
F		50°	
M		86°	
V		35°	
W		Hexagon	
L	Rectangle	90°	
A	Parallelogram	85°	
B		82°	
K		55°	
R		Round	

① Shape

Symbols	Clearance Angle
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	Other

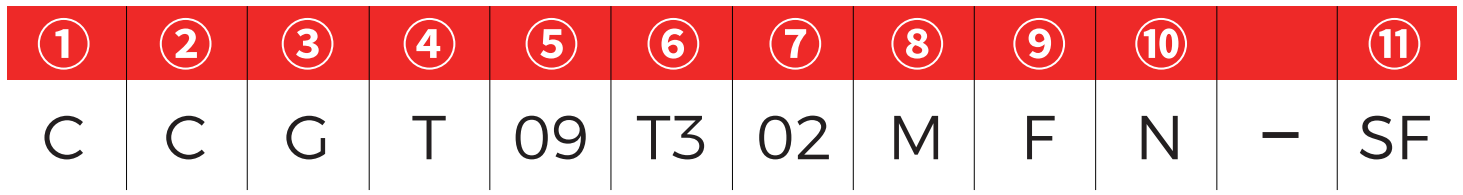
② Clearance Angle

Symbols	Tolerance(mm)			
	Thickness(s)	Nose Height (m)	Inside Diameter	
A	±0.025	±0.005	±0.025	
F		±0.013	±0.013	
C		±0.013	±0.025	
H		±0.013	±0.013	
E	±0.13	±0.025	±0.025	
G		±0.025	±0.025	
J	±0.025	±0.005	±0.005~±0.13	
K		±0.013	±0.013	
L		±0.025	±0.005~±0.13	
M	±0.13	±0.08~±0.18	±0.005~±0.13	
N	±0.025	±0.08~±0.18		
U	±0.13	±0.13~±0.38		±0.08~±0.25
U	±0.13	±0.13~±0.38		±0.08~±0.25

③ Tolerance

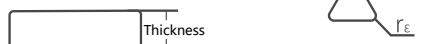
Symbols	Hole	Hole Shape	Chip-Breaking Groove	Shape
N	Without	---	Without	
R			Single Side	
F			Double Side	
A	With	Cylinder Hole	Without	
M			Single Side	
G			Double Side	
W			Without	
T			Single Side	
Q			Double Side	
U	With	Partial Cylinder Hole One Side 40°-60° Counterbore	Without	
B			Double Side	
H			Without	
J			Single Side	
C	With	Partial Cylinder Hole One Side 70°-90° Counterbore	Without	
X			Double Side	
X	---	---	---	

④ Symbols of Chip Geometry and Hole



⑤ Double Side														Inside Diameter (mm)		
Symbols	Length	Symbols	Length	Symbols	Length	Symbols	Length	Symbols	Length	Symbols	Length	Symbols	Length	Symbols	Length	
	03	3.97	03	4.0			06	6.9	04	4.8					3.97	
	04	4.76	04	4.8			08	8.2	05	5.8	08	8.3			4.76	
*05	5	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
	05	5.56	05	5.6	03	3.8	09	9.6	06	6.8					5.56	
*06	6	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
	06	6.35	06	6.5	04	4.3	11	11	07	7.8	11	11.2			6.35	
	07	7.94	08	8.1	05	5.4	13	13.8	09	9.7					7.94	
*08	8	-	-	-	-	-	-	-	-	-	-	-	-	-	8	
09	9.525	09	9.525	09	9.7	06	6.5	16	16.5	11	11.6	16	16.6	16	19.7	9.525
*10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
*12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
12	12.7	12	12.7	12	12.9	08	8.7	22	22	15	15.5	22	22.1			12.7
15	15.88	15	15.88	16	16.1	10	10.9	27	27.5	19	19.4					15.875
*16	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
19	19.05	19	19.05	19	19.3	13	13	33	33	23	23.3					19.05
*20	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
	22	22.23	22	22.6			38	38.5	27	27.1					22.225	
*25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25
25	25.4	25	25.4	25	25.8			44	44	31	31					25.4
31	31.75	31	31.75	32	32.2			55	55	38	38.8					31.75
*32	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32

Symbols	Thickness	Symbols	Nose Radius r(mm)
X1	1.39	005	0.05
01	1.59	01	0.1
T1	1.98(1.79)	02	0.2
02	2.38	04	0.4
T2	2.78	08	0.8
03	3.18	12	1.2
T3	3.97	16	1.6
04	4.76	20	2
05	5.56	24	2.4
06	6.35	28	2.8
07	7.94	32	3.2
09	9.52		



⑥ Thickness ⑦ Thickness

Symbols	Illustration	Symbols	Edge Condition	Shape
M	Negative Tolerance For Nose Radius R(RE)	F	Sharp Edge	
⑧ Tolerance of Nose Radius(R)		P	Strengthened Edge	
		E	Circular Edge	
		T	Negative Chamfered	
		S	Composite Passivated Edge	

⑨ Symbols of Main Cutting Edge Shape

Symbols	Direction	Examples		
R	Right	L	R	N
L	Left			
N	Without			

⑩ Symbols of Insert Direction

Symbols	Illustration
TF(TFX)	Roughing to Finishing
RF	Roughing to Finishing
AF	Medium to Semi-finish Machining
SF	Medium to Semi-finish Machining
PF	Medium to Semi-finish Machining
CF	Medium to Semi-finish Machining
MF	fine machining

⑪ Symbols of Geometries

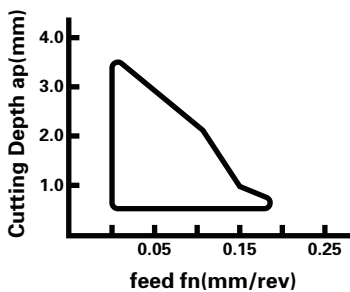
ISO Insert

- ◆ : Recommended
- ◇ : Suitable
- ◇ : Applicable

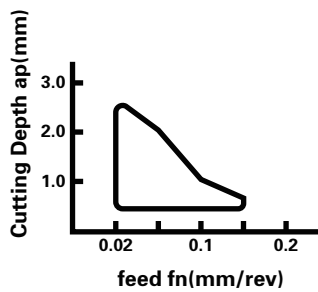
P	Soft steel	◆	◇	◇		◆	◆		◆	◆	
	Carbide	◆	◇	◇		◆	◆		◆	◆	
M	Austenitic	◆	◆	◆	◆	◆					
	Martensitic	◇	◆	◆	◆	◆					
K	Grey Cast Iron			◇							
	Ductile Cast Iron			◇							
N	Nonferrous							◆			◆
S	Heat Resisting Alloy		◆	◇	◆	◆					
	Titanium Alloy		◆	◇	◆	◆					
H	Hardened Materials			◇							

Shape	Type	PVD Coated Cemented Carbide							Coated Cermet	Cermet	Cemented carbide		
		KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCC30T	KCC10	KCN10		
	CCGT	09T3005MFN-SF											
		09T3005MPN-SF											
		09T301MFN-SF											
		09T301MPN-SF											
		09T302MFN-SF											
		09T302MPN-SF											
		09T304MFN-SF											
		09T304MPN-SF											
	CCGT	09T3005MFN-PF	●	●	●	●	●	●					
		09T3005MPN-PF	●	●	●	●	●	●					
		09T301MFN-PF	●	●	●	●	●	●					
		09T301MPN-PF	●	●	●	●	●	●					
		09T302MFN-PF	●	●	●	●	●	●					
		09T302MPN-PF	●	●	●	●	●	●					
		09T304MFN-PF											
		09T304MPN-PF											
	CCGT	09T3005MFN-CF											
		09T3005MPN-CF											
		09T301MFN-CF											
		09T301MPN-CF											
		09T302MFN-CF											
		09T302MPN-CF											
		09T304MFN-CF											
		09T304MPN-CF											

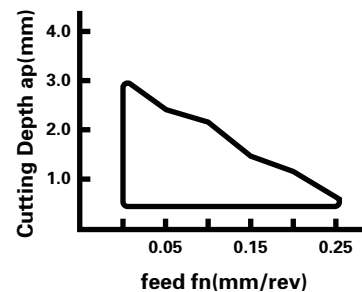
● Standard Stock



SF application of chipbreaker



PF application of chipbreaker





CF application of chipbreaker

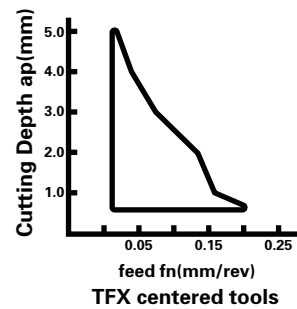
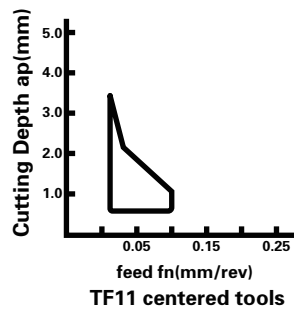
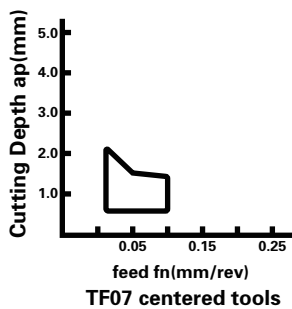
ISO Insert

- ◆ : Recommended
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- ◇ : Applicable

P	Soft steel	◆	◇	◆		◆	◆		◆	◆	
	Carbide	◆	◇	◆		◆	◆		◆	◆	
M	Austenitic	◆	◆	◆	◆	◆					
	Martensitic	◇	◆	◆	◆	◆					
K	Grey Cast Iron			◇							
	Ductile Cast Iron			◇							
N	Nonferrous							◆			◆
S	Heat Resisting Alloy		◆	◆	◆	◆					
	Titanium Alloy		◆	◆	◆	◆					
H	Hardened Materials			◆							

Shape Right Handed Tool	Type	PVD Coated Cemented Carbide							Coated Cermets	Cermet	Cemented carbide
		KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCC30T	KCC10	KCN10
			DXGU								
	0703005MFR-TF										
	0703005MPR-TF										
	070301MFR-TF	●	●	●	●	●	●				
	070301MPR-TF	●	●	●	●	●	●				
	070302MFR-TF	●	●	●	●	●	●				
	070302MPR-TF	●	●	●	●	●	●				
	070304MFR-TF	●	●	●	●	●	●				
	070304MPR-TF	●	●	●	●	●	●				
	DXGU										
	1104005MFR-TF										
	1104005MPR-TF										
	110401MFR-TF	●	●	●	●	●	●				
	110401MPR-TF	●	●	●	●	●	●				
	110402MFR-TF	●	●	●	●	●	●				
	110402MPR-TF	●	●	●	●	●	●				
	110404MFR-TF										
	110404MPR-TF										
	DXGU										
	1104005MFR-TFX										
	1104005MPR-TFX										
	110401MFR-TFX	●	●	●	●	●	●				
	110401MPR-TFX	●	●	●	●	●	●				
	110402MFR-TFX	●	●	●	●	●	●				
	110402MPR-TFX	●	●	●	●	●	●				
	110404MFR-TFX										
	110404MPR-TFX										

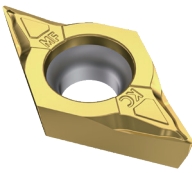
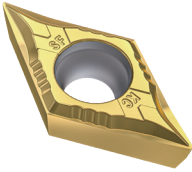
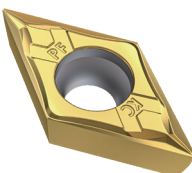
● Standard Stock



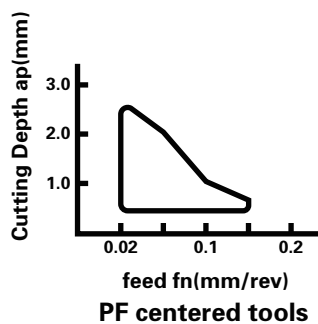
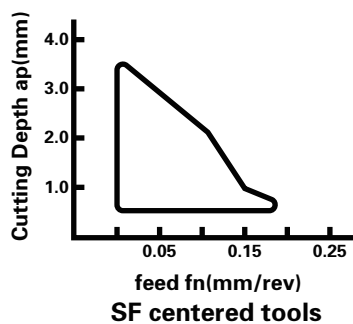
ISO Insert

- ◆ : Recommended
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P	Soft steel	◆	◇	◆		◆	◆		◆	◆	
	Carbide	◆	◇	◆		◆	◆		◆	◆	
M	Austenitic	◆	◆	◆	◆	◆					
	Martensitic	◇	◆	◆	◆	◆					
K	Grey Cast Iron			◇							
	Ductile Cast Iron			◇							
N	Nonferrous							◆			◆
S	Heat Resisting Alloy		◆	◆	◆	◆					
	Titanium Alloy		◆	◆	◆	◆					
H	Hardened Materials			◆							

Shape	Type	PVD Coated Cemented Carbide							Coated Cermet	Cermet	Cemented carbide	
		KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCC30T	KCC10	KCN10	
	DCGT	11T301MFN-MF										
		11T301MPN-MF										
		11T302MFN-MF										
		11T302MPN-MF										
	DCGT	11T3005MFN-SF										
		11T3005MPN-SF										
		11T301MFN-SF	●	●	●	●	●	●				
		11T301MPN-SF	●	●	●	●	●	●				
		11T302MFN-SF	●	●	●	●	●	●				
		11T302MPN-SF	●	●	●	●	●	●				
		11T304MFN-SF										
		11T304MPN-SF										
	DCGT	11T3005MFN-PF	●	●	●	●	●	●				
		11T3005MPN-PF	●	●	●	●	●	●				
		11T301MFN-PF	●	●	●	●	●	●				
		11T301MPN-PF	●	●	●	●	●	●				
		11T301MN-PF								●		
		11T302MFN-PF	●	●	●	●	●	●				
		11T302MPN-PF	●	●	●	●	●	●				
		11T302MN-PF								●		
		11T304MFN-PF	●	●	●	●	●	●				
		11T304MPN-PF	●	●	●	●	●	●				

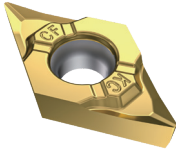

● Standard Stock



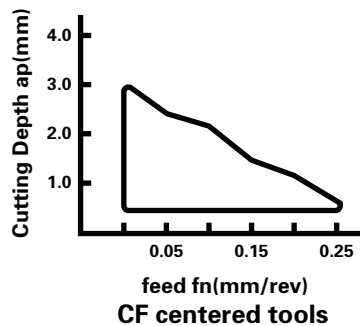
ISO Insert

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- ◇ : Applicable

P	Soft steel	◆	◇	◆		◆	◆		◆	◆	
	Carbide	◆	◇	◆		◆	◆		◆	◆	
M	Austenitic	◆	◆	◆	◆	◆					
	Martensitic	◇	◆	◆	◆	◆					
K	Grey Cast Iron			◇							
	Ductile Cast Iron			◇							
N	Nonferrous							◆			◆
S	Heat Resisting Alloy		◆	◆	◆	◆					
	Titanium Alloy		◆	◆	◆	◆					
H	Hardened Materials			◆							

Shape	Type	PVD Coated Cemented Carbide							Coated Cermet	Cermet	Cemented carbide
		KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCC30T	KCC10	KCN10
	070205MFN-CF	●	●	●	●	●	●				
	070205MPN-CF	●	●	●	●	●	●				
	070201MFN-CF	●	●	●	●	●	●				
	070201MPN-CF	●	●	●	●	●	●				
	070202MFN-CF	●	●	●	●	●	●				
	070202MPN-CF	●	●	●	●	●	●				
	070204MFN-CF	●	●	●	●	●	●				
	070204MPN-CF	●	●	●	●	●	●				
	11T3005MFN-CF	●	●	●	●	●	●				
	11T3005MPN-CF	●	●	●	●	●	●				
	11T301MFN-CF	●	●	●	●	●	●				
	11T301MPN-CF	●	●	●	●	●	●				
	11T301MN-CF							●			
	11T302MFN-CF	●	●	●	●	●	●				
	11T302MPN-CF	●	●	●	●	●	●				
	11T302MN-CF							●			
	11T304MFN-CF	●	●	●	●	●	●				
	11T304MPN-CF	●	●	●	●	●	●				

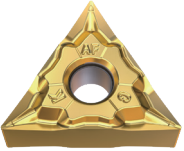
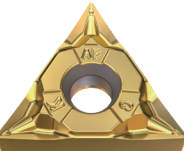
● Standard Stock



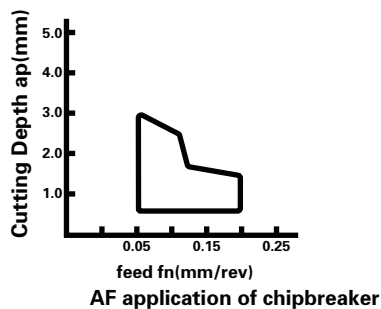
ISO Insert

- ◆ : Recommended
- ◇ : Suitable
- ◇ : Applicable

P	Soft steel	◆	◇	◆		◆	◆		◆	◆	
	Carbide	◆	◇	◆		◆	◆		◆	◆	
M	Austenitic	◆	◆	◆	◆	◆					
	Martensitic	◇	◆	◆	◆	◆					
K	Grey Cast Iron			◇							
	Ductile Cast Iron			◇							
N	Nonferrous							◆			◆
S	Heat Resisting Alloy		◆	◆	◆	◆					
	Titanium Alloy		◆	◆	◆	◆					
H	Hardened Materials			◆							

Shape	Type	PVD Coated Cemented Carbide							Coated Cermet	Cermet	Cemented carbide
		KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCC30T	KCC10	KCN10
	TNGG	1604005MFN-AF									
		1604005MPN-AF									
		160401MFN-AF	●	●	●	●	●	●			
		160401MPN-AF	●	●	●	●	●	●			
		160402MFN-AF	●	●	●	●	●	●			
		160402MPN-AF	●	●	●	●	●	●			
		160404MFN-AF	●	●	●	●	●	●			
		160404MPN-AF	●	●	●	●	●	●			
	TNGU	1604005MFN-AF									
		1604005MPN-AF									
		160401MFN-AF									
		160401MPN-AF									
		160402MFN-AF									
		160402MPN-AF									
		160404MFN-AF									
		160404MPN-AF									

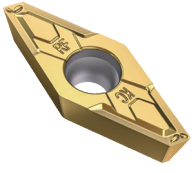
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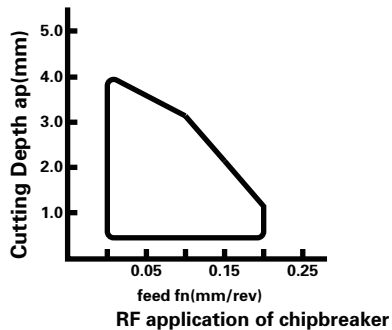
ISO Insert

- ◆ : Recommended
- ◊ : Suitable
- ◇ : Applicable

P	Soft steel	◆	◇	◆		◆	◆		◆	◆	
	Carbide	◆	◇	◆		◆	◆		◆	◆	
M	Austenitic	◆	◆	◆	◆	◆					
	Martensitic	◇	◆	◆	◆	◆					
K	Grey Cast Iron			◇							
	Ductile Cast Iron			◇							
N	Nonferrous							◆			◆
S	Heat Resisting Alloy		◆	◆	◆	◆					
	Titanium Alloy		◆	◆	◆	◆					
H	Hardened Materials			◆							

Shape Right Handed Tool	Type	PVD Coated Cemented Carbide							Coated Cermets	Cermet	Cemented carbide
		KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCC30T	KCC10	KCN10
 VBGT	1103008MFR-RF										
	1103008MPR-RF										
	110301MFR-RF										
	110301MPR-RF										
	110302MFR-RF										
	110302MPR-RF										
VCGT	1103008MFR-RF										
	1103008MPR-RF										
	110301MFR-RF	●	●	●	●	●	●				
	110301MPR-RF	●	●	●	●	●	●				
	110302MFR-RF	●	●	●	●	●	●				
	110302MPR-RF	●	●	●	●	●	●				
VPGT	1103008MFR-RF										
	1103008MPR-RF										
	110301MFR-RF	●	●	●	●	●	●				
	110301MPR-RF	●	●	●	●	●	●				
	110302MFR-RF	●	●	●	●	●	●				
	110302MPR-RF	●	●	●	●	●	●				

● Standard Stock

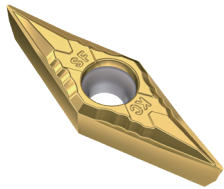


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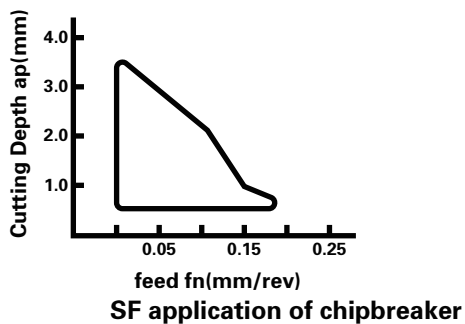
- ◆ : Recommended
- ◊ : Suitable
- ◇ : Applicable

P	Soft steel	◆	◇	◆		◆	◆		◆	◆	
	Carbide	◆	◇	◆		◆	◆		◆	◆	
M	Austenitic	◆	◆	◆	◆	◆					
	Martensitic	◇	◆	◆	◆	◆					
K	Grey Cast Iron			◇							
	Ductile Cast Iron			◇							
N	Nonferrous							◆			◆
S	Heat Resisting Alloy		◆	◆	◆	◆					
	Titanium Alloy		◆	◆	◆	◆					
H	Hardened Materials			◆							

Shape	Type	PVD Coated Cemented Carbide						Coated Cermet	Cermet	Cemented carbide	
		KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCC30T	KCC10	KCN10
VBGT	1103005MFN-SF										
	1103005MPN-SF										
	110301MFN-SF	●	●	●	●	●	●				
	110301MPN-SF	●	●	●	●	●	●				
	110302MFN-SF	●	●	●	●	●	●				
	110302MPN-SF	●	●	●	●	●	●				
	110304MFN-SF	●	●	●	●	●	●				
	110304MPN-SF	●	●	●	●	●	●				
VCGT	1103005MFN-SF										
	1103005MPN-SF										
	110301MFN-SF	●	●	●	●	●	●				
	110301MPN-SF	●	●	●	●	●	●				
	110302MFN-SF	●	●	●	●	●	●				
	110302MPN-SF	●	●	●	●	●	●				
	110304MFN-SF	●	●	●	●	●	●				
	110304MPN-SF	●	●	●	●	●	●				
VPGT	1103005MFN-SF										
	1103005MPN-SF										
	110301MFN-SF	●	●	●	●	●	●				
	110301MPN-SF	●	●	●	●	●	●				
	110302MFN-SF	●	●	●	●	●	●				
	110302MPN-SF	●	●	●	●	●	●				
	110304MFN-SF										
	110304MPN-SF										



● Standard Stock



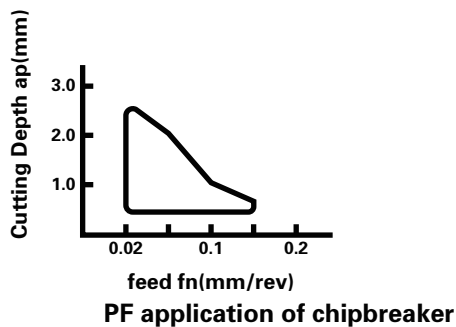
ISO Insert

- ◆ : Recommended
- ◊ : Suitable
- ◇ : Applicable

P	Soft steel	◆	◇	◆		◆	◆		◆	◆	
	Carbide	◆	◇	◆		◆	◆		◆	◆	
M	Austenitic	◆	◆	◆	◆	◆					
	Martensitic	◇	◆	◆	◆	◆					
K	Grey Cast Iron			◇							
	Ductile Cast Iron			◇							
N	Nonferrous							◆			◆
S	Heat Resisting Alloy		◆	◆	◆	◆					
	Titanium Alloy		◆	◆	◆	◆					
H	Hardened Materials			◆							

Shape	Type	PVD Coated Cemented Carbide							Coated Cermet	Cermet	Cemented carbide
		KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCC30T	KCC10	KCN10
VBGT	1103005MFN-PF										
	1103005MPN-PF										
	110301MFN-PF	●	●	●	●	●	●				
	110301MPN-PF	●	●	●	●	●	●				
	110301MN-PF							●			
	110302MFN-PF	●	●	●	●	●	●				
	110302MPN-PF	●	●	●	●	●	●				
	110302MN-PF							●			
	110304MFN-PF	●	●	●	●	●	●				
110304MPN-PF	●	●	●	●	●	●					
VCGT	1103005MFN-PF										
	1103005MPN-PF										
	110301MFN-PF	●	●	●	●	●	●				
	110301MPN-PF	●	●	●	●	●	●				
	110301MN-PF							●			
	110302MFN-PF	●	●	●	●	●	●				
	110302MPN-PF	●	●	●	●	●	●				
	110302MN-PF							●			
	110304MFN-PF	●	●	●	●	●	●				
110304MPN-PF	●	●	●	●	●	●					
VPGT	1103005MFN-PF										
	1103005MPN-PF										
	110301MFN-PF	●	●	●	●	●	●				
	110301MPN-PF	●	●	●	●	●	●				
	110302MFN-PF	●	●	●	●	●	●				
	110302MPN-PF	●	●	●	●	●	●				
	110304MFN-PF	●	●	●	●	●	●				
	110304MPN-PF	●	●	●	●	●	●				

● Standard Stock

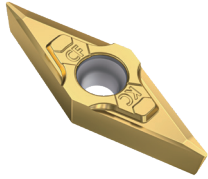


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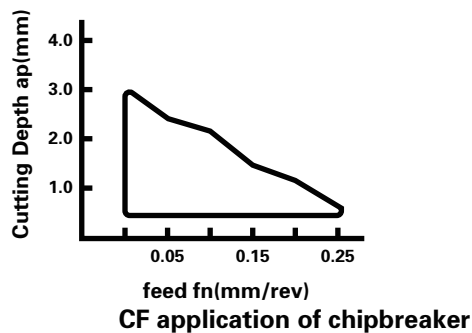
- ◆ : Recommended
- ◇ : Suitable
- ◇ : Applicable

P	Soft steel	◆	◇	◆		◆	◆		◆	◆	
	Carbide	◆	◇	◆		◆	◆		◆	◆	
M	Austenitic	◆	◆	◆	◆	◆					
	Martensitic	◇	◆	◆	◆	◆					
K	Grey Cast Iron			◇							
	Ductile Cast Iron			◇							
N	Nonferrous							◆			◆
S	Heat Resisting Alloy		◆	◆	◆	◆					
	Titanium Alloy		◆	◆	◆	◆					
H	Hardened Materials			◆							

Shape	Type	PVD Coated Cemented Carbide						Coated Cermet	Cermet	Cemented carbide	
		KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCC30T	KCC10	KCN10
VBGT	1103005MFN-CF										
	1103005MPN-CF										
	110301MFN-CF										
	110301MPN-CF										
	110302MFN-CF										
	110302MPN-CF										
	110304MFN-CF										
	110304MPN-CF										
VCGT	1103005MFN-CF										
	1103005MPN-CF										
	110301MFN-CF	●	●	●	●	●	●				
	110301MPN-CF	●	●	●	●	●	●				
	110302MFN-CF	●	●	●	●	●	●				
	110302MPN-CF	●	●	●	●	●	●				
	110304MFN-CF	●	●	●	●	●	●				
	110304MPN-CF	●	●	●	●	●	●				
VPGT	1103005MFN-CF										
	1103005MPN-CF										
	110301MFN-CF	●	●	●	●	●	●				
	110301MPN-CF	●	●	●	●	●	●				
	110302MFN-CF	●	●	●	●	●	●				
	110302MPN-CF	●	●	●	●	●	●				
	110304MFN-CF										
	110304MPN-CF										



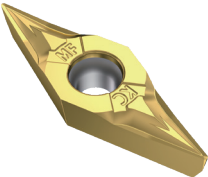
● Standard Stock



ISO Insert

- ◆ : Recommended
- ◇ : Suitable
- ◇ : Applicable

P	Soft steel	◆	◇	◆		◆	◆		◆	◆	
	Carbide	◆	◇	◆		◆	◆		◆	◆	
M	Austenitic	◆	◆	◆	◆	◆					
	Martensitic	◇	◆	◆	◆	◆					
K	Grey Cast Iron			◇							
	Ductile Cast Iron			◇							
N	Nonferrous							◆			◆
S	Heat Resisting Alloy		◆	◆	◆	◆					
	Titanium Alloy		◆	◆	◆	◆					
H	Hardened Materials			◆							

Shape	Type	PVD Coated Cemented Carbide							Coated Cermet	Cermet	Cemented carbide
		KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCC30T	KCC10	KCN10
	VBGT	110301MFN-MF									
		110301MPN-MF									
		110302MFN-MF									
		110302MPN-MF									
VCGT	110301MFN-MF										
	110301MPN-MF										
	110302MFN-MF										
	110302MPN-MF										
VPGT	110301MFN-MF										
	110301MPN-MF										
	110302MFN-MF										
	110302MPN-MF										

● Standard Stock

Insert Grades

Grades	Symbols of Grades	Machinable Materials
P-Type First Choice	KPM30N	Soft iron, Low Carbon Steel, Carbide Steel, Stainless Steel, Copper
	KCP10P	Soft iron, Low Carbon Steel
	KCC30T	Soft iron, Low Carbon Steel
	KCC10	Soft iron, Low Carbon Steel
M-Type First Choice	KXM15S	Austenitic, Martensitic, Titanium Alloy, Heat Resisting Alloy, Carbide
M-Type First Choice	KMS15C	Martensitic, Carbide, Titanium Alloy, Heat Resisting Alloy
Versatile	KHS10M	Soft iron, Low Carbon Steel, Carbide Steel, Stainless Steel, Titanium Alloy, Heat Resisting Alloy, Hardened Materials, Cast Iron
S-Type First Choice	KMS20	Titanium Alloy, Heat Resisting Alloy, Austenitic, Martensitic
N-Type First Choice	KCN10D(DLC Coated)	Copper, Aluminum, Magnesium, Zinc
	KCN10(without Coating)	Copper, Aluminum, Magnesium, Zinc

Recommend Application Parameter

	Material	VC (m/min)								
		Symbols of Grades								
		KPM30N	KCP10P	KCC30T (Coated Cermet)	KCC10 (Coated Cermet)	KXM15S	KMS15C	KHS10M	KMS20	KCN10D (DLC Coated)
P Steel	Soft steel		60-180	240-340	180-300		60-180	60-100		
	carbon steel		60-180	240-340	180-300		60-180	60-100		
	carbide steel	60-180				60-180	60-180	60-100		
M Stainless steel	Austenitic	60-150				60-180	60-150	60-130	60-130	
	Martensitic	60-120				60-180	60-150	60-130	60-130	
K Cast Iron	Grey Cast Iron							80-200		
	Ductile Cast Iron							80-200		
S Heat Resisting Alloy	Titanium Alloy					30-70	30-60	20-40	30-90	
	Heat Resisting Alloy					30-70	30-60	20-40	30-90	
H High-hardness steel	High-hardness steel							30-80		
N nonferrous metal	Copper								240-450	150-300
	Aluminum								240-450	150-300
	Magnesium								240-450	150-300