

YU-UL17
INCH



YG UNIVERSAL LINE

INDEXABLE CUTTING TOOLS

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Note The new address above has currently been updated since Korean new postal standard was valid from 2014.
Be noticed that the physical Headquarter location is NOT changed.

YG-1 USA

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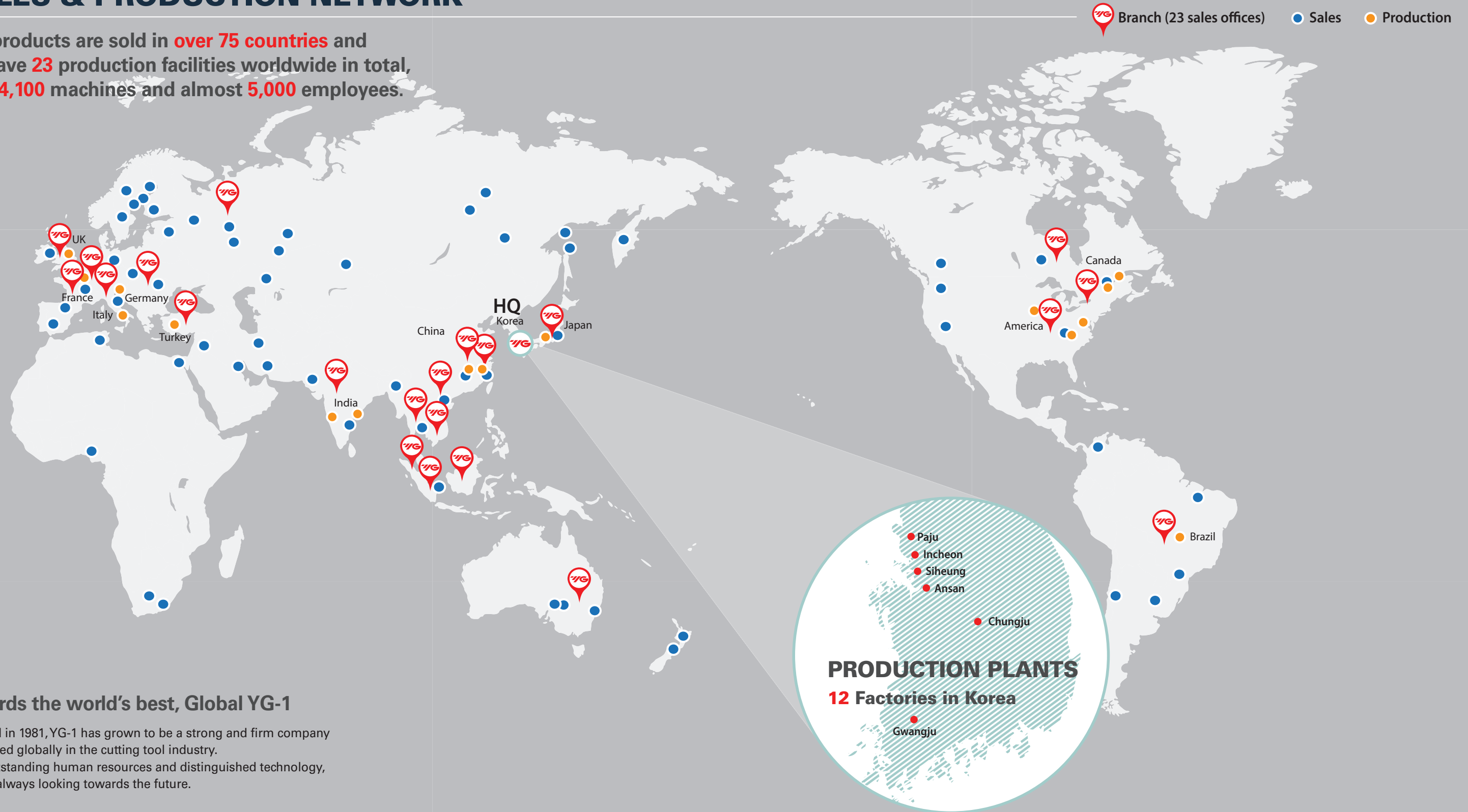


Tool specifications are subject to change without prior notice.



YG-1 SALES & PRODUCTION NETWORK

Our products are sold in **over 75 countries** and we have **23** production facilities worldwide in total, with **4,100** machines and almost **5,000** employees.



Towards the world's best, Global YG-1

Founded in 1981, YG-1 has grown to be a strong and firm company recognized globally in the cutting tool industry. With outstanding human resources and distinguished technology, YG-1 is always looking towards the future.

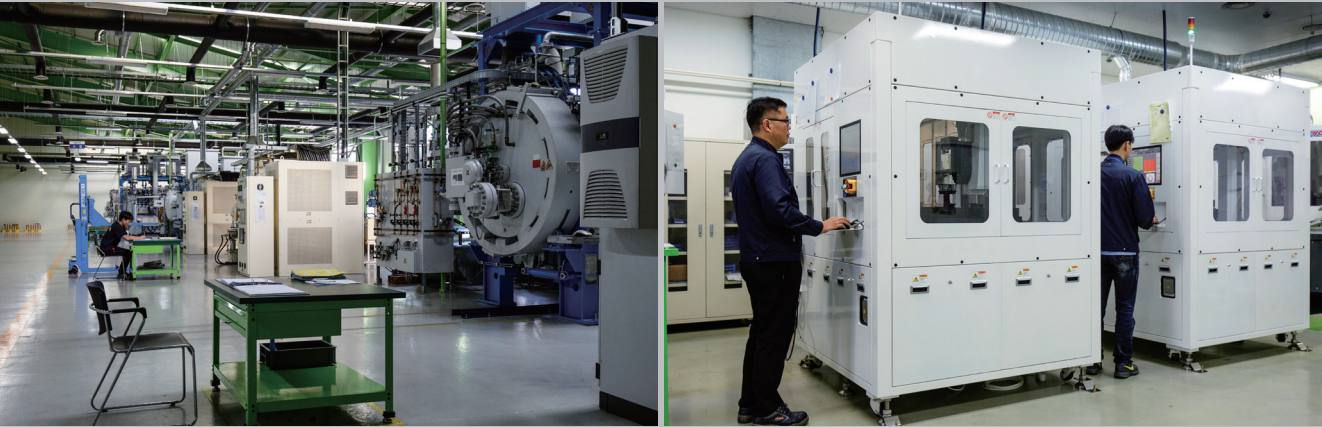
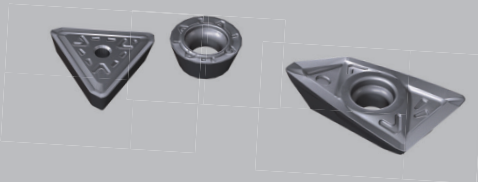
YG-1 is one of the world's 5 major companies in the End Mill manufacture and sales industry and also the largest one in the Republic of Korea. Based on its more than 30 years of know-how, YG-1 is expanding diversification of products.

YG-1 R&D CENTER

- ▶ The Chungju R&D Center is equipped with high tech facilities to produce new materials and products.
- ▶ It focuses on internalizing and upgrading YG-1's key technologies while working on R&D and production.



Developing innovative **cutting tool materials** in order to create **unique technologies of YG-1.**



INDEX



INDEXABLE CUTTING TOOLS **YG UNIVERSAL LINE**

YG-1 is proud to introduce a new line of products - Universal Line - with a unique range of tools, geometries, sub-micron carbides and multi-purpose PVD and CVD coatings designed to support the entire range of Milling, Drilling and Turning applications to machine many types of raw materials in all areas of industries.

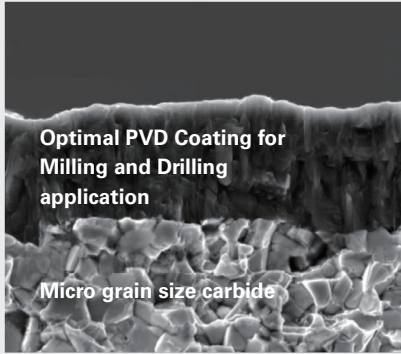
Universal Line is especially designed for customers with a wide range of workpieces and materials, with rapid turnover changes in the production line, as well as large volumes. YG-1 Universal Line combines a unique variety of geometries and carbides to offer unique solution parameters to the end-user that afford very attractive production costs.

UNIVERSAL GRADES	6
YG MILL	7
YG DRILL	55
YG TURN	59
TECHNICAL INFORMATION	99
CASE STUDY	100

Features of Grades :

YG-1 Universal grades, designs for multi-purpose application and extremely efficient in covering materials including Steels, Stainless Steels and Cast Iron.

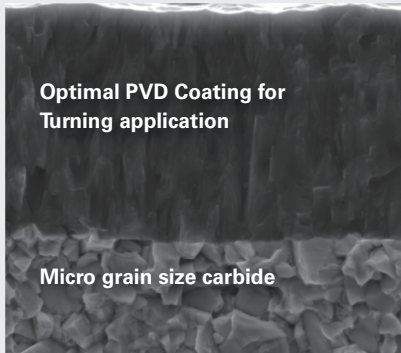
YG602



Exclusive PVD coating / Unique Substrate for MILLING and DRILLING Application

- Ultra dense PVD coating with optimal thermal resistance & added strength
- Sub-micron substrate designed for demanding application

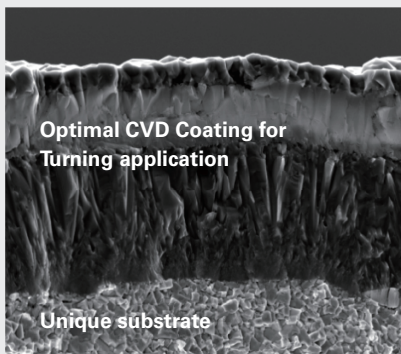
YG801



Exclusive PVD coating / Unique Substrate for TURNING Application

- Unique PVD coating and substrate designed to balance edge strength & wear resistance for continuous machining.
- Excellent cutting performance under harsh machining condition.

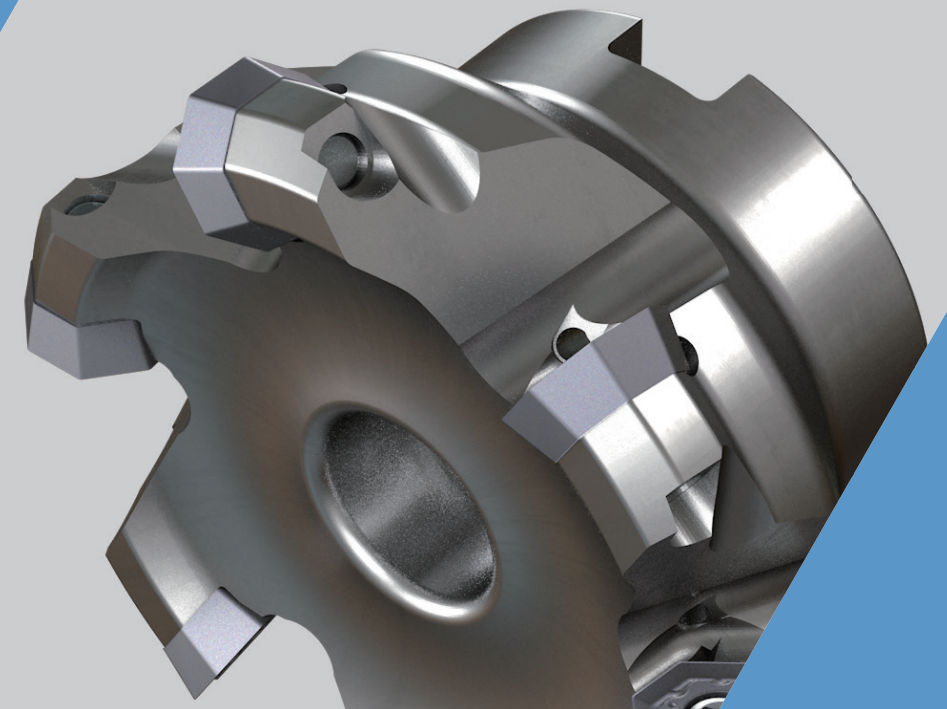
YG1001



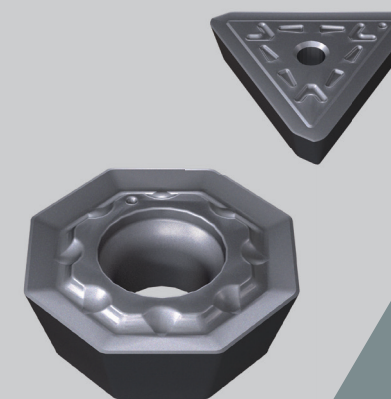
Unique Substrate / CVD coating for TURNING Application

- Thick coating optimized for Cast iron applications and harsh machining condition.
- Advanced CVD coating with optimal thermal & wear resistance for turning applications.
- Exceptional cutting performance attributed to combination of carbide substrate and coating.

Grade	P	M	K	S
YG602	P30-40	M20-30	K20-30	S10-20
YG801	P20-40	M20-40	K10-25	S05-25
YG1001	-	-	K10-25	-

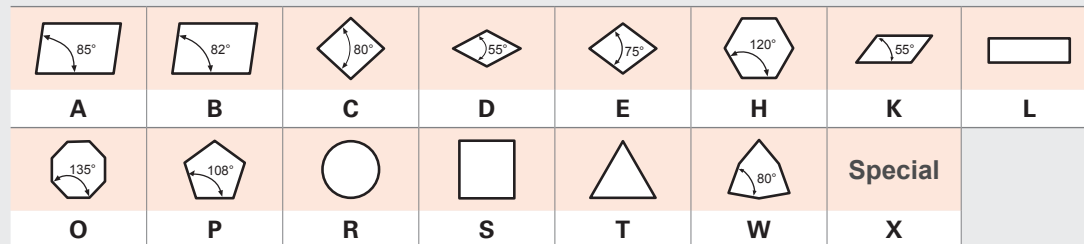


YG MILL
INDEXABLE CUTTING TOOLS
YG UNIVERSAL LINE

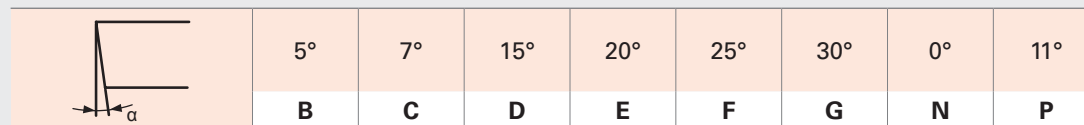




1 Insert Shape

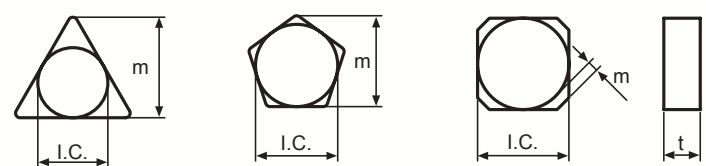


2 Clearance Angle

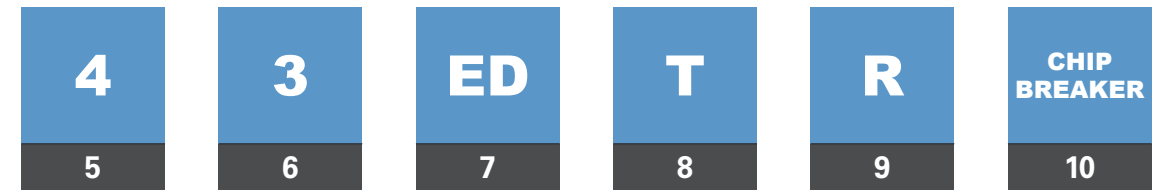
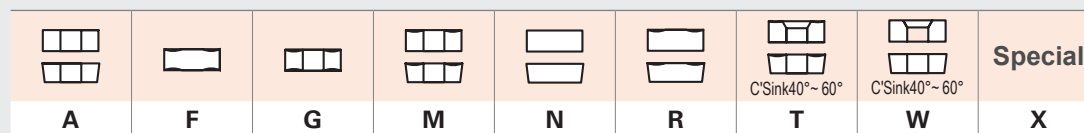


3 Tolerance

	Tolerance			I.C. Size					
	m	t	I.C.	.250	.375	.500	.625	.750	1
A	±.0002	±.0001	±.0001	●	●	●	●	●	●
C	±.0005	±.0010	±.0010	●	●	●	●	●	●
E	±.0010	±.0010	±.0010	●	●	●	●	●	●
F	±.0020	±.0010	±.0010	●	●	●	●	●	●
G	±.0010	±.0005	±.0010	●	●	●	●	●	●
H	±.0005	±.0010	±.0010	●	●	●	●	●	●
K	±.0005	±.0010	±.0020	●	●				
			±.0030			●			
			±.0040				●	●	
			±.0050						●
M	±.0030	±.0050	±.0020	●	●				
	±.0050		±.0030		●				
	±.0060		±.0040				●	●	
	±.0070		±.0050						●



4 Cross Section Shape



5 Cutting Edge Length

I.C. Size	Symbol	C	S	R	T	H	O
							
Inch		Metric					
7/32	1.8(7)	05	05	05	09		
1/4	2	06	06	06	11		
5/16	2.5	08	07	07	13		
3/8	3	09	09	09	16		
1/2	4	12	12	12	22	05	05
5/8	5	16	15	15	27	09	06
3/4	6	19	19	19	33	10	
1	8	25	25	25	44		

*() symbol for small size insert

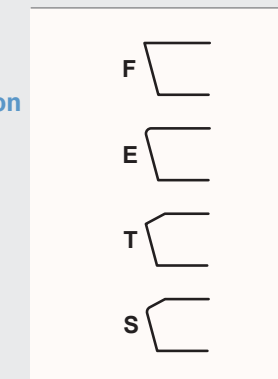
6 Thickness

Symbol(t)	Inch
1.5(3)	3/32
2	1/8
2.5	5/32
3	3/16
4	1/4
5	5/16
6	3/8

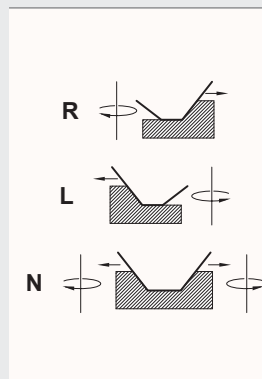
7 Lead Angle & Relief Angle of Minor Cutting Edge

Lead Angle		Relief Angle of minor cutting edge	
A	45°	B	5°
D	60°	C	7°
E	75°	D	15°
F	85°	E	20°
P	90°	F	25°
Z	Special	G	30°
		N	0°
		P	11°
		Z	Special

8 Edge Preparation



9 Cutting Direction



10 Chip Breaker

For Application

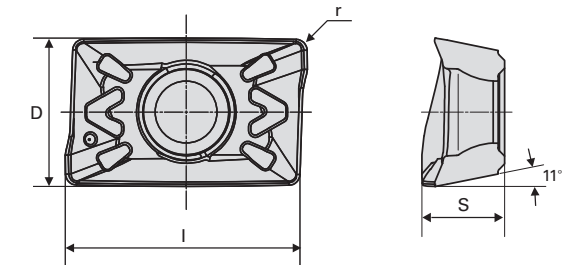
INCH

Designation	YG	S1	45	-	1.000	Z2	S	1.000	P	7	-	10
No.	①	②	③		④	⑤	⑥	⑦	⑧	⑨		⑩

No.	Meaning	Symbol	Explanation
①	Brand Name	YG	YG-1 Global
②	Insert Type	S1	S1-SEKN, S2-SEKT, S3-SEMT...
③	Cutting Degree	45	45, 90 - Cutting degree
④	Tool Diameter	1.000	Ø1.000, Ø1.250...
⑤	No. of Teeth	Z2	2, 3, 4... 12...
⑥	Tool Type (Interface)	S	Shank type
		C	Cutter type
		M	Modular type (M08, M10, M12...)
⑦	Shank Diameter	1.000	Ø1.000 - Shank diameter
	Coupling Size	1.000	Ø1.000 - Cutter coupling size
⑧	Shank Type	P	Plain (Cylindrical shank)
		F	Flat (Weldon shank)
⑨	Tool Length	7	7 Inch, 8 Inch...
⑩	Insert Size	10	08, 10, 17...

* Additional information(data) will be described in specific dimensions.

APKT 1003



Designation	Grade	Dimensions			
		L	D	S	r
APKT 100305PDTR	YG602	.417	.264	.142	.020
APKT 100308PDTR	YG602	.417	.264	.142	.031

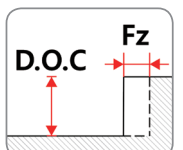


APKT 1003

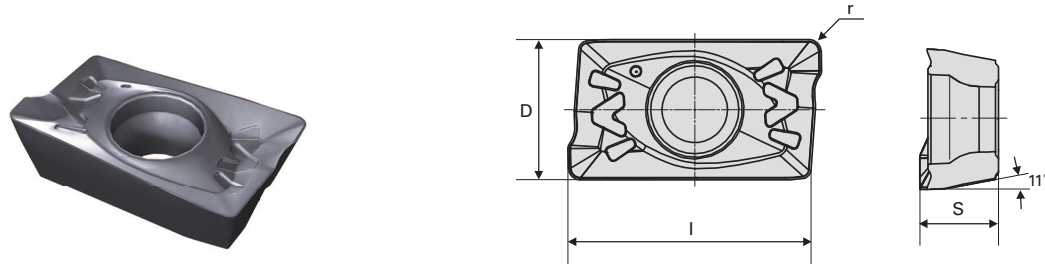
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0051	.0102	.0077	623	1083	820	.020	.354	.079
	Low Alloys	200	.0043	.0083	.0063	492	787	656	.020	.354	.079
	High Alloys	220	.0031	.0071	.0051	295	492	394	.020	.252	.059
M	Austenitic	190	.0043	.0083	.0063	623	820	722	.020	.354	.079
K	Grey Cast Iron	140	.0051	.0102	.0077	492	787	656	.020	.354	.079
S	Heat Resistant and Super Alloys	240	.0031	.0059	.0045	82	148	115	.020	.252	.059
H	Hardened Materials	45HRc	.0028	.0059	.0043	131	262	197	.020	.126	.039

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



APKT 1604



Designation	Grade	Dimensions			
		L	D	S	r
APKT 160404PDTR	YG602	.643	.370	.207	.016
APKT 160408PDTR	YG602	.643	.370	.207	.031
APKT 160412PDTR	YG602	.643	.370	.207	.047
APKT 160416PDTR	YG602	.643	.370	.207	.063

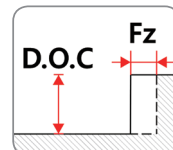


APKT 1604

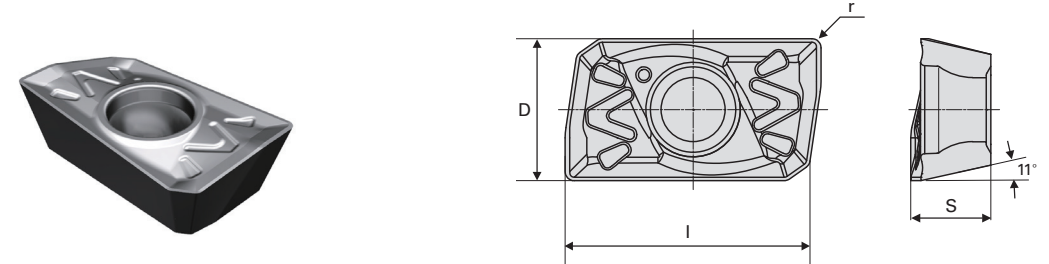
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0126	.0098	623	1083	820	.020	.591	.157
	Low Alloys	200	.0059	.0098	.0079	492	787	640	.020	.591	.157
	High Alloys	220	.0047	.0087	.0067	295	492	394	.020	.421	.157
M	Austenitic	190	.0059	.0098	.0079	623	820	722	.020	.591	.118
K	Grey Cast Iron	140	.0071	.0126	.0098	492	787	640	.020	.591	.157
S	Heat Resistant and Super Alloys	240	.0047	.0071	.0059	82	148	115	.020	.421	.118
H	Hardened Materials	45HRc	.0039	.0071	.0055	131	262	197	.020	.213	.079

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



APMT 1135



Designation	Grade	Dimensions			
		L	D	S	r
APMT 113504PDTR	YG602	.421	.244	.138	.016
APMT 113508PDTR	YG602	.421	.244	.138	.031

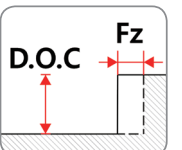


APMT 1135

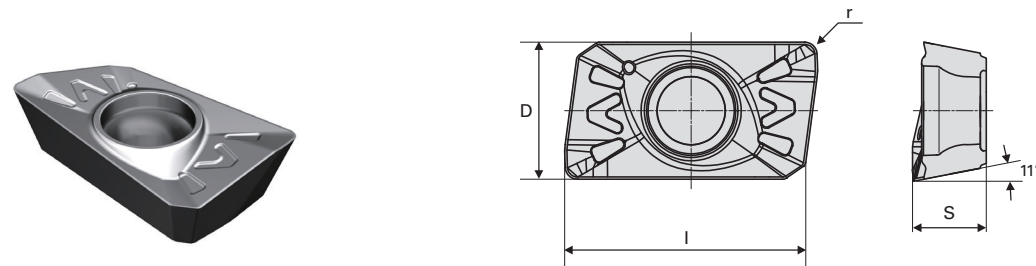
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0051	.0087	.0069	623	1083	820	.020	.394	.079
	Low Alloys	200	.0043	.0071	.0057	492	787	656	.020	.394	.079
	High Alloys	220	.0031	.0059	.0045	295	492	394	.020	.283	.059
M	Austenitic	190	.0043	.0071	.0057	623	820	722	.020	.394	.079
K	Grey Cast Iron	140	.0051	.0087	.0069	492	787	656	.020	.394	.079
S	Heat Resistant and Super Alloys	240	.0031	.0051	.0041	82	148	115	.020	.283	.059
H	Hardened Materials	45HRc	.0028	.0051	.0028	131	262	197	.020	.142	.039

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



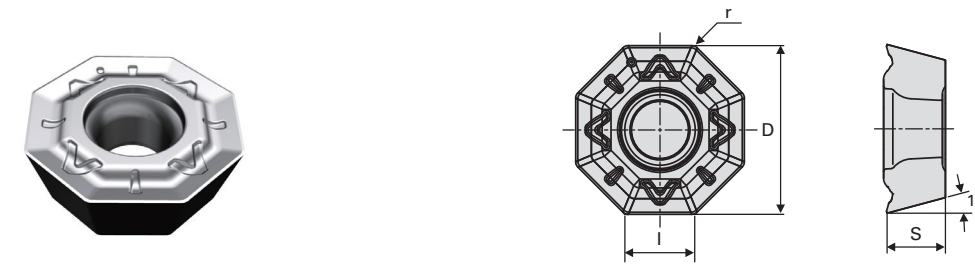
APMT 1604



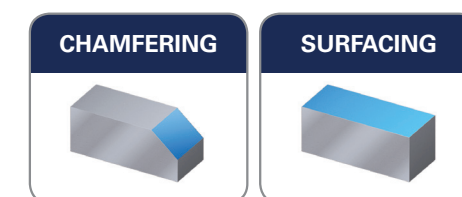
Designation	Grade	Dimensions			
		L	D	S	r
APMT 160408PDTR	YG602	.640	.363	.187	.031



ODMT 0605



Designation	Grade	Dimensions			
		L	D	S	r
ODMT 060508	YG602	.260	.626	.217	.031



APMT 1604

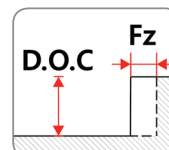
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0063	.0118	.0091	623	1083	820	.020	.591	.157
	Low Alloys	200	.0055	.0091	.0073	492	787	656	.020	.591	.157
	High Alloys	220	.0043	.0079	.0061	295	492	394	.020	.421	.157
M	Austenitic	190	.0055	.0091	.0073	623	820	722	.020	.591	.157
K	Grey Cast Iron	140	.0063	.0118	.0091	492	787	656	.020	.591	.157
S	Heat Resistant and Super Alloys	240	.0043	.0067	.0055	82	148	115	.020	.421	.118
H	Hardened Materials	45HRc	.0035	.0067	.0051	131	262	197	.020	.213	.079

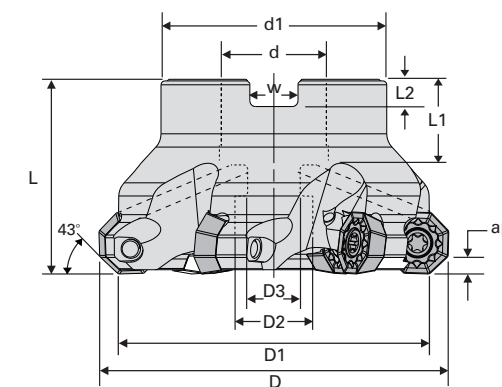
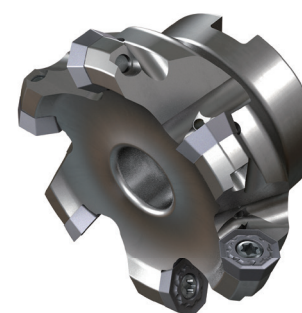
* IPT: Inch Per Tooth (inch/tooth)

* SFM: Surface Feet per Minute (ft/min.)

* D.O.C: Depth Of Cut



ODMT 0605 / Cutter



Designation	Dimensions												
	D	D1	D2	D3	d	d1	w	L	L1	L2	ap	z	Coolant
YGO143-2.500Z5C0.750-06	2.874	2.500	.709	.433	.750	2.000	.409	1.575	.787	.248	.138	5	Y
YGO143-3.000Z6C1.000-06	3.543	3.000	.787	.531	1.000	2.250	.488	1.750	.866	.276	.138	6	Y
YGO143-4.000Z7C1.250-06	4.331	4.000	1.043	.689	1.250	3.000	.567	2.000	.984	.315	.138	7	Y
YGO143-5.000Z8C1.500-06	5.315	5.000	1.280	.886	1.500	3.650	.646	2.380	1.142	.354	.138	8	Y

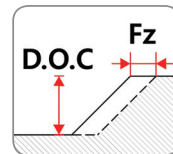
Insert	Spare parts	
	Screw	Wrench
ODMT(W) 06	TP205013	TPWFTP20

ODMT 0605

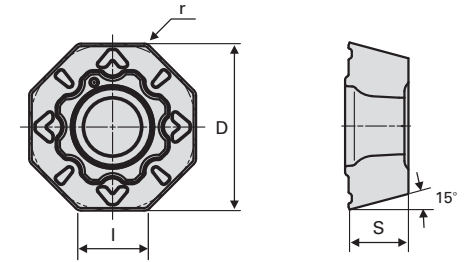
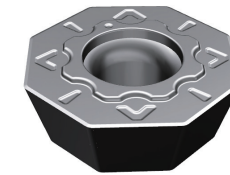
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0087	.0213	.0150	623	1083	820	.020	.157	.098
	Low Alloys	200	.0071	.0169	.0120	492	787	640	.020	.157	.098
	High Alloys	220	.0055	.0146	.0100	295	492	394	.020	.114	.075
M	Austenitic	190	.0071	.0146	.0108	623	820	722	.020	.157	.098
K	Grey Cast Iron	140	.0087	.0213	.0150	492	787	640	.020	.157	.098
S	Heat Resistant and Super Alloys	240	.0055	.0122	.0089	82	148	115	.020	.114	.075
H	Hardened Materials	45HRc	.0047	.0122	.0085	131	262	197	.016	.055	.051

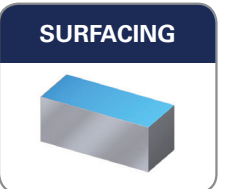
* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
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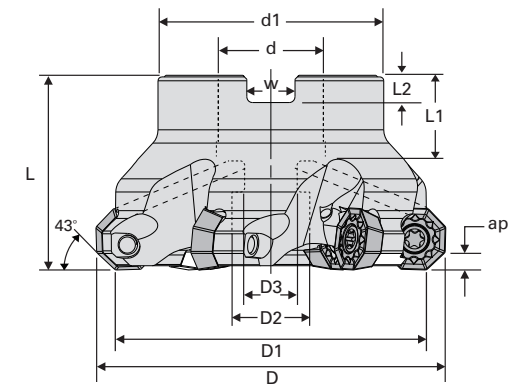
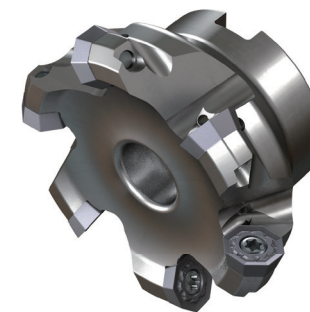
ODMW 0605



Designation	Grade	Dimensions			
		I	D	S	r
ODMW 060508	YG602	.260	.626	.217	.031



ODMW 0605 / Cutter



Designation	Dimensions												
	D	D1	D2	D3	d	d1	w	L	L1	L2	ap	z	Coolant
YGO143-2.500Z5C0.750-06	2.874	2.500	.709	.433	.750	2.000	.409	1.575	.787	.248	.138	5	Y
YGO143-3.000Z6C1.000-06	3.543	3.000	.787	.531	1.000	2.250	.488	1.750	.866	.276	.138	6	Y
YGO143-4.000Z7C1.250-06	4.331	4.000	1.043	.689	1.250	3.000	.567	2.000	.984	.315	.138	7	Y
YGO143-5.000Z8C1.500-06	5.315	5.000	1.280	.886	1.500	3.650	.646	2.380	1.142	.354	.138	8	Y

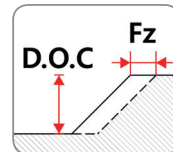
Insert	Spare parts	
	Screw	Wrench
ODMT(W) 06	TP205013	TPWFTP20

ODMW 0605

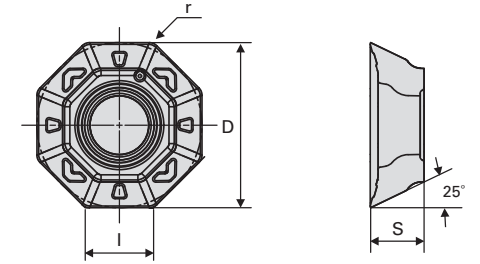
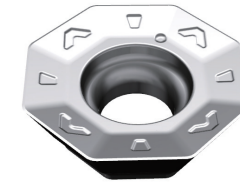
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0087	.0228	.0157	623	1083	820	.020	.157	.118
	Low Alloys	200	.0071	.0177	.0124	492	787	640	.020	.157	.118
	High Alloys	220	.0055	.0157	.0106	295	492	394	.020	.114	.091
K	Grey Cast Iron	140	.0087	.0228	.0157	492	787	640	.020	.157	.118
H	Hardened Materials	45HRc	.0047	.0126	.0087	131	262	197	.016	.055	.051

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

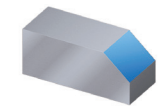


OFMT 05T3

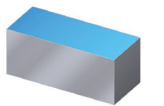


Designation	Grade	Dimensions			
		I	D	S	r
OFMT 05T308	YG602	.207	.500	.158	.031

CHAMFERING



SURFACING

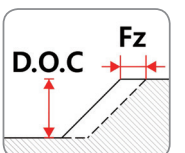


OFMT 05T3

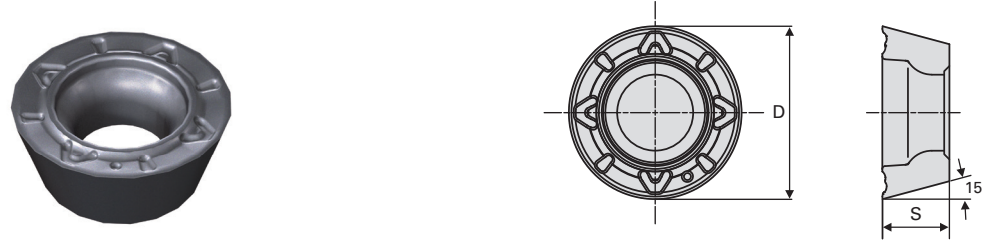
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0087	.0201	.0144	623	1083	820	.020	.138	.098
	Low Alloys	200	.0071	.0157	.0114	492	787	640	.020	.138	.098
	High Alloys	220	.0055	.0138	.0096	295	492	394	.020	.098	.075
M	Austenitic	190	.0071	.0138	.0104	623	820	722	.020	.138	.098
K	Grey Cast Iron	140	.0087	.0201	.0144	492	787	640	.020	.138	.098
S	Heat Resistant and Super Alloys	240	.0055	.0114	.0085	82	148	115	.020	.098	.075
H	Hardened Materials	45HRc	.0047	.0114	.0081	131	262	197	.016	.051	.051

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



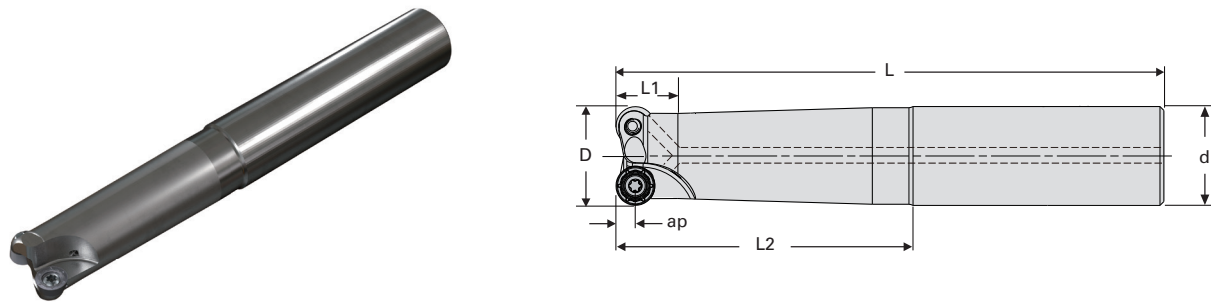
RDKT 0802



Designation	Grade	Dimensions			
		I	D	S	r
RDKT 0802M0	YG602	-	.315	.094	-

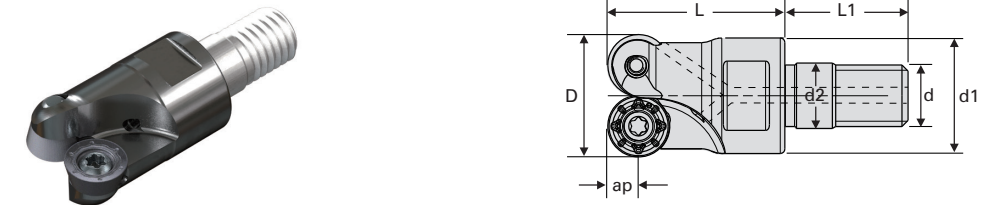


RDKT 0802 / Shank



Designation	Dimensions									Insert	Spare parts	
	D	d	L1	L2	L	z	ap	Shank	Coolant		Screw	Wrench
YGR1-0.750Z2S0.750P7-08	.750	.750	.500	3.000	7.000	2	.157	Plain	Y	RDKT(W) 08	TP082505	TPWFTP08
YGR1-1.000Z3S0.750P7-08	1.000	.750	-	1.500	7.000	3	.157	Plain	Y	RDKT(W) 08		

RDKT 0802 / Modular



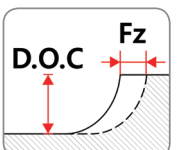
Designation	Dimensions									Insert	Spare parts	
	D	d	d1	d2	L	L1	z	ap	Coolant		Screw	Wrench
YGR1-0.750Z2M10-08	.750	M10	.709	.413	1.250	.709	2	.157	Y	RDKT(W) 08	TP082505	TPWFTP08
YGR1-1.000Z3M12-08	1.000	M12	.827	.492	1.500	.787	3	.157	Y	RDKT(W) 08		

RDKT 0802

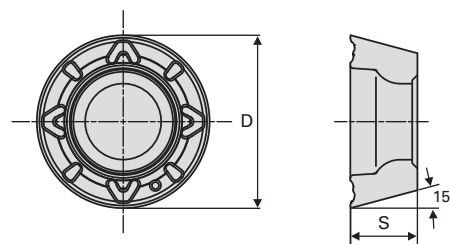
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0252	.0138	623	1083	820	.020	.098	.031
	Low Alloys	200	.0059	.0197	.0118	492	787	640	.020	.098	.031
	High Alloys	220	.0047	.0173	.0098	295	492	394	.020	.071	.024
M	Austenitic	190	.0059	.0197	.0118	623	820	722	.020	.098	.031
K	Grey Cast Iron	140	.0071	.0252	.0138	492	787	640	.020	.098	.031
S	Heat Resistant and Super Alloys	240	.0047	.0126	.0094	82	148	115	.020	.059	.024
H	Hardened Materials	45HRc	.0039	.0126	.0091	131	262	197	.012	.028	.016

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



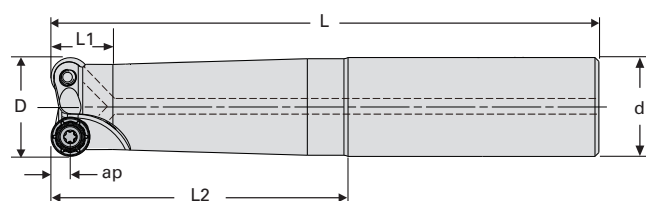
RDKT 10T3



Designation	Grade	Dimensions			
		I	D	S	r
RDKT 10T3M0	YG602	-	.394	.156	-

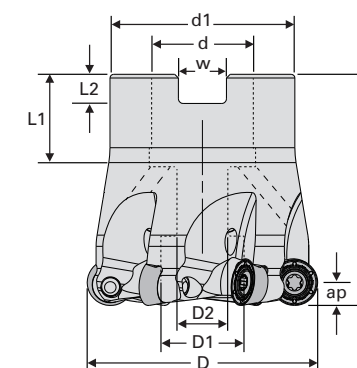


RDKT 10T3 / Shank



Designation	Dimensions									Insert	Spare parts	
	D	d	L1	L2	L	z	ap	Shank	Coolant		Screw	Wrench
YGR1-1.000Z2S1.000P7-10	1.000	1.000	.625	3.000	7.000	2	.196	Plain	Y	RDKT(W) 10	TP154808	TPWFTP15

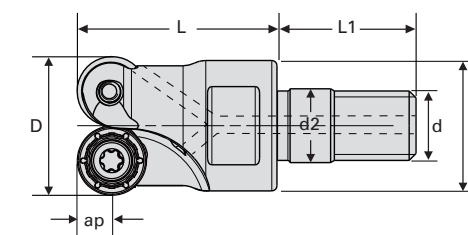
RDKT 10T3 / Cutter



Designation	Dimensions											
	D	D1	D2	d	d1	w	L	L1	L2	ap	z	Coolant
YGR1-1.500Z5C0.500-10	1.500	.551	.354	.500	1.250	.331	1.575	.709	.220	.098	5	Y
YGR1-2.000Z6C0.750-10	2.000	.709	.433	.750	1.575	.409	1.750	.787	.248	.098	6	Y

Insert	Spare parts	
	Screw	Wrench
RDKT(W) 10	TP154808	TPWFTP15

RDKT 10T3 / Modular



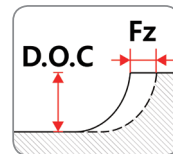
Designation	Dimensions									Insert	Spare parts	
	D	d	d1	d2	L	L1	z	ap	Coolant		Screw	Wrench
YGR1-1.000Z3M12-10	1.000	M12	.827	.492	1.500	.787	3	.196	Y	RDKT(W) 10	TP154808	TPWFTP15

RDKT 10T3

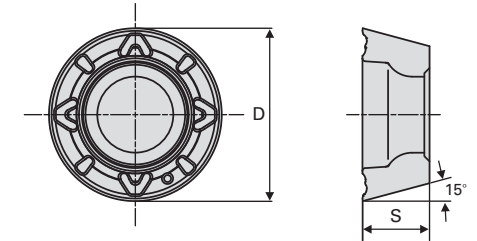
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0252	.0138	623	1083	820	.020	.098	.039
	Low Alloys	200	.0059	.0197	.0118	492	787	656	.020	.098	.039
	High Alloys	220	.0047	.0173	.0098	295	492	394	.020	.071	.031
M	Austenitic	190	.0059	.0197	.0118	623	820	722	.020	.098	.039
K	Grey Cast Iron	140	.0071	.0252	.0138	492	787	656	.020	.098	.039
S	Heat Resistant and Super Alloys	240	.0047	.0142	.0094	82	148	115	.020	.079	.020
H	Hardened Materials	45HRc	.0039	.0142	.0091	131	262	197	.012	.035	.020

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



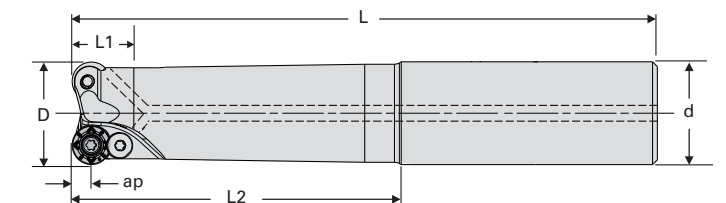
RDKT 1204



Designation	Grade	Dimensions			
		I	D	S	r
RDKT 1204M0	YG602	-	.472	.187	-

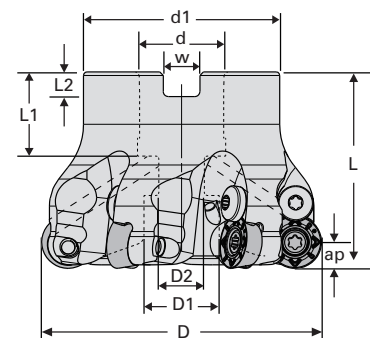
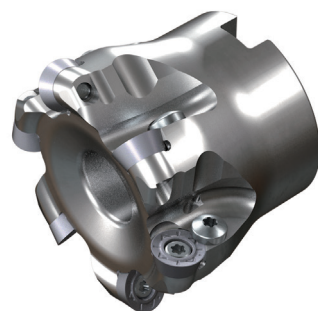


RDKT 1204 / Shank



Designation	Dimensions										Insert	Spare parts	
	D	d	L1	L2	L	z	ap	Shank	Coolant			Screw	Wrench
YGR1-1.000Z2S1.000P7-12	1.000	1.000	.700	3.000	7.000	2	.236	Plain	Y		RDKT(W) 12	TP154009 + TP153507	TPWFTP15
YGR1-1.250Z2S1.250P8-12	1.250	1.250	.700	4.000	8.000	2	.236	Plain	Y		RDKT(W) 12		
YGR1-1.250Z3S1.250P6-12	1.250	1.250	.700	2.500	6.000	3	.236	Plain	Y		RDKT(W) 12		

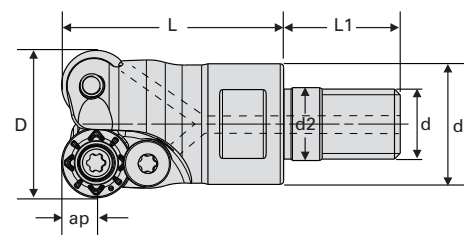
RDKT 1204 / Cutter



Designation	Dimensions										
	D	D1	D2	d	d1	w	L	L1	L2	ap	z
YGR1-1.500Z4C0.500-12	1.500	.543	.354	.500	1.250	.331	1.575	.709	.220	.157	4
YGR1-2.000Z5C0.750-12	2.000	.709	.433	.750	1.575	.409	1.750	.787	.248	.157	5
YGR1-2.500Z6C0.750-12	2.500	.709	.433	.750	1.750	.409	1.750	.787	.248	.157	6

Insert	Spare parts	
	Screw	Wrench
RDKT(W) 12	TP154009 + TP153507	TPWFTP15

RDKT 1204 / Modular



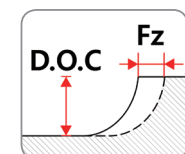
Designation	Dimensions									Insert	Spare parts	
	D	d	d1	d2	L	L1	z	ap	Coolant		Screw	Wrench
YGR1-1.000Z2M12-12	1.000	M12	.827	.492	1.500	.787	2	.236	Y	RDKT(W) 12	TP154009 + TP153507	TPWFTP15
YGR1-1.250Z3M16-12	1.250	M16	1.142	.669	1.500	.866	3	.236	Y	RDKT(W) 12	TP154009 + TP153507	TPWFTP15

RDKT 1204

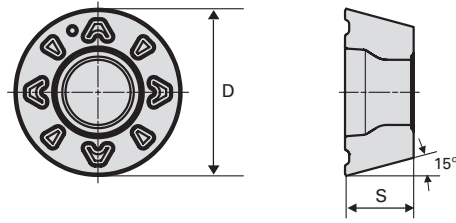
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0252	.0138	623	1083	820	.020	.098	.051
	Low Alloys	200	.0059	.0197	.0118	492	787	656	.020	.098	.051
	High Alloys	220	.0047	.0173	.0098	295	492	394	.020	.071	.039
M	Austenitic	190	.0059	.0197	.0118	623	820	722	.020	.098	.051
K	Grey Cast Iron	140	.0071	.0252	.0138	492	787	656	.020	.098	.051
S	Heat Resistant and Super Alloys	240	.0067	.0161	.0114	82	148	115	.020	.094	.039
H	Hardened Materials	45HRc	.0055	.0161	.0108	131	262	197	.012	.043	.028

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



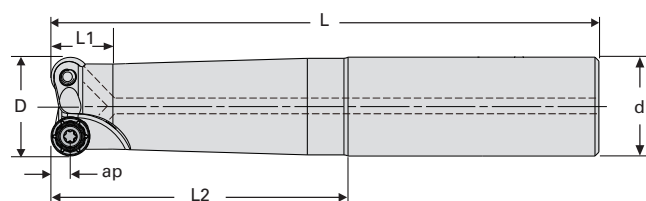
RDKW 0802



Designation	Grade	Dimensions			
		I	D	S	r
RDKW 0802M0	YG602	-	.315	.094	-

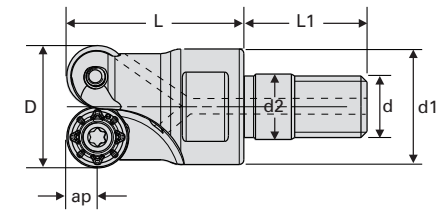


RDKW 0802 / Shank



Designation	Dimensions									Insert	Spare parts	
	D	d	L1	L2	L	z	ap	Shank	Coolant		Screw	Wrench
YGR1-0.750Z2S0.750P7-08	.750	.750	.500	3.000	7.000	2	.157	Plain	Y	RDKT(W) 08	TP082505	TPWFTP08
YGR1-1.000Z3S0.750P7-08	1.000	.750	-	1.500	7.000	3	.157	Plain	Y	RDKT(W) 08		

RDKW 0802 / Modular



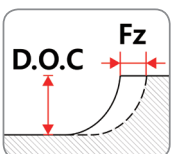
Designation	Dimensions									Insert	Spare parts	
	D	d	d1	d2	L	L1	z	ap	Coolant		Screw	Wrench
YGR1-0.750Z2M10-08	.750	M10	.709	.413	1.250	.709	2	.157	Y	RDKT(W) 08	TP082505	TPWFTP08
YGR1-1.000Z3M12-08	1.000	M12	.827	.492	1.500	.787	3	.157	Y	RDKT(W) 08		

RDKW 0802

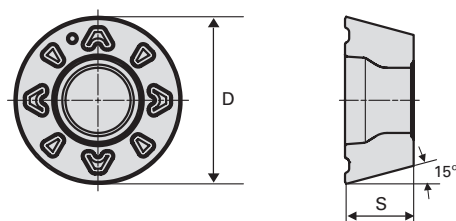
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0252	.0161	623	1083	853	.020	.098	.031
	Low Alloys	200	.0059	.0197	.0128	492	787	640	.020	.098	.031
	High Alloys	220	.0047	.0173	.0110	295	492	394	.020	.071	.024
K	Grey Cast Iron	140	.0071	.0252	.0138	492	787	640	.020	.098	.031
H	Hardened Materials	45HRc	.0039	.0126	.0091	131	262	197	.012	.028	.016

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



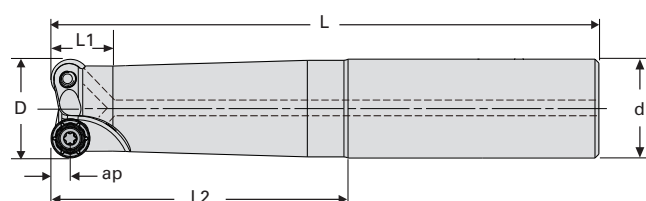
RDKW 10T3



Designation	Grade	Dimensions			
		I	D	S	r
RDKW 10T3M0	YG602	-	.394	.156	-

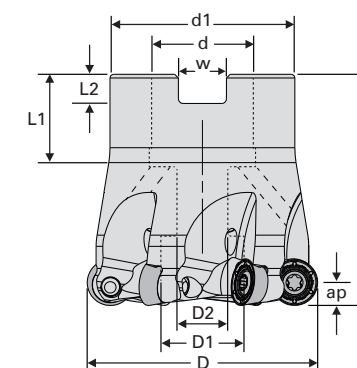


RDKW 10T3 / Shank



Designation	Dimensions									Insert	Spare parts	
	D	d	L1	L2	L	z	ap	Shank	Coolant		Screw	Wrench
YGR1-1.000Z2S1.000P7-10	1.000	1.000	.625	3.000	7.000	2	.196	Plain	Y	RDKT(W) 10	TP154808	TPWFTP15

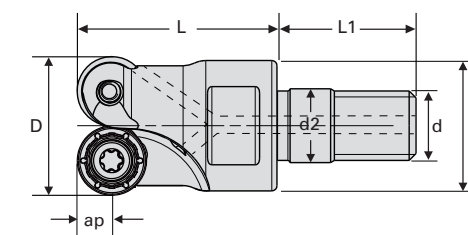
RDKW 10T3 / Cutter



Designation	Dimensions											
	D	D1	D2	d	d1	w	L	L1	L2	ap	z	Coolant
YGR1-1.500Z5C0.500-10	1.500	.551	.354	.500	1.250	.331	1.575	.709	.220	.098	5	Y
YGR1-2.000Z6C0.750-10	2.000	.709	.433	.750	1.575	.409	1.750	.787	.248	.098	6	Y

Insert	Spare parts	
	Screw	Wrench
RDKT(W) 10	TP154808	TPWFTP15

RDKW 10T3 / Modular



Designation	Dimensions									Insert	Spare parts	
	D	d	d1	d2	L	L1	z	ap	Coolant		Screw	Wrench
YGR1-1.000Z3M12-10	1.000	M12	.827	.492	1.500	.787	3	.196	Y	RDKT(W) 10	TP154808	TPWFTP15

RDKW 10T3

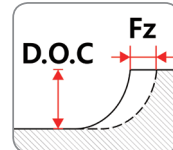
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0252	.0138	623	1083	820	.020	.098	.039
	Low Alloys	200	.0059	.0197	.0118	492	787	656	.020	.098	.039
	High Alloys	220	.0047	.0173	.0098	295	492	394	.020	.071	.031
K	Grey Cast Iron	140	.0071	.0252	.0138	492	787	656	.020	.098	.039
H	Hardened Materials	45HRc	.0039	.0142	.0091	131	262	197	.012	.035	.020

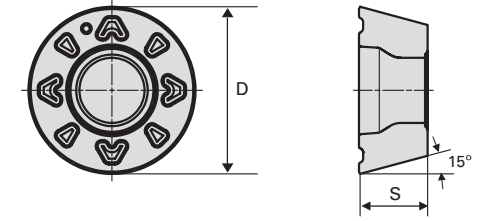
* IPT: Inch Per Tooth (inch/tooth)

* SFM: Surface Feet per Minute (ft/min.)

* D.O.C: Depth Of Cut



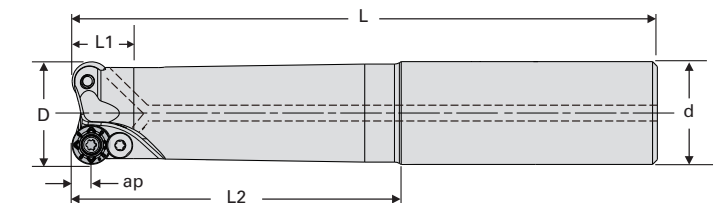
RDKW 1204



Designation	Grade	Dimensions			
		I	D	S	r
RDKW 1204M0	YG602	-	.472	.187	-

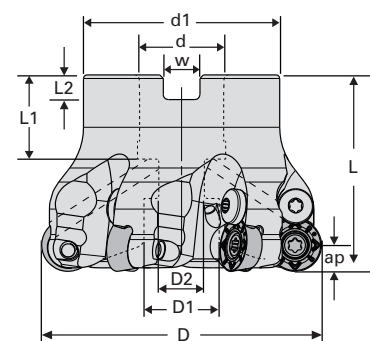
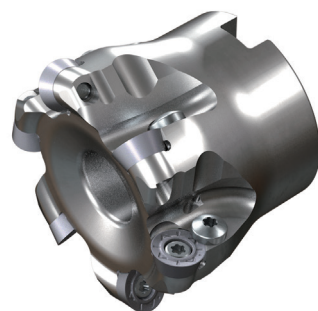


RDKW 1204 / Shank



Designation	Dimensions										Insert	Spare parts	
	D	d	L1	L2	L	z	ap	Shank	Coolant			Screw	Wrench
YGR1-1.000Z2S1.000P7-12	1.000	1.000	.700	3.000	7.000	2	.236	Plain	Y		RDKT(W) 12	TP154009 + TP153507	TPWFTP15
YGR1-1.250Z2S1.250P8-12	1.250	1.250	.700	4.000	8.000	2	.236	Plain	Y		RDKT(W) 12		
YGR1-1.250Z3S1.250P6-12	1.250	1.250	.700	2.500	6.000	3	.236	Plain	Y		RDKT(W) 12		

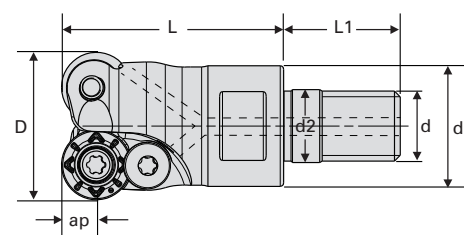
RDKW 1204 / Cutter



Designation	Dimensions										
	D	D1	D2	d	d1	w	L	L1	L2	ap	z
YGR1-1.500Z4C0.500-12	1.500	.543	.354	.500	1.250	.331	1.575	.709	.220	.157	4
YGR1-2.000Z5C0.750-12	2.000	.709	.433	.750	1.575	.409	1.750	.787	.248	.157	5
YGR1-2.500Z6C0.750-12	2.500	.709	.433	.750	1.750	.409	1.750	.787	.248	.157	6

Insert	Spare parts	
	Screw	Wrench
RDKT(W) 12	TP154009 + TP153507	TPWFTP15

RDKW 1204 / Modular



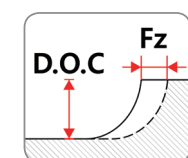
Designation	Dimensions									Insert	Spare parts	
	D	d	d1	d2	L	L1	z	ap	Coolant		Screw	Wrench
YGR1-1.000Z2M12-12	1.000	M12	.827	.492	1.500	.787	2	.236	Y	RDKT(W) 12	TP154009 + TP153507	TPWFTP15
YGR1-1.250Z3M16-12	1.250	M16	1.142	.669	1.500	.866	3	.236	Y	RDKT(W) 12	TP154009 + TP153507	TPWFTP15

RDKW 1204

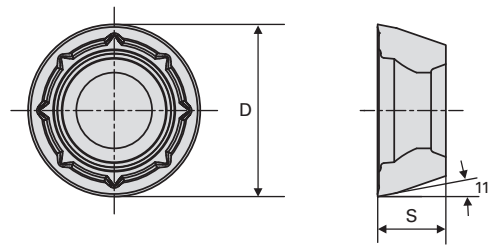
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0252	.0138	623	1083	820	.020	.098	.051
	Low Alloys	200	.0059	.0197	.0118	492	787	656	.020	.098	.051
	High Alloys	220	.0047	.0173	.0098	295	492	394	.020	.071	.039
K	Grey Cast Iron	140	.0071	.0252	.0138	492	787	656	.020	.098	.051
H	Hardened Materials	45HRc	.0055	.0161	.0108	131	262	197	.012	.043	.028

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



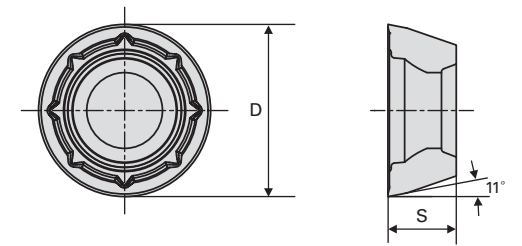
RPMT 08T2



Designation	Grade	Dimensions			
		I	D	S	r
RPMT 08T2M0	YG602	-	.315	.109	-



RPMT 10T3



Designation	Grade	Dimensions			
		I	D	S	r
RPMT 10T3M0	YG602	-	.394	.156	-

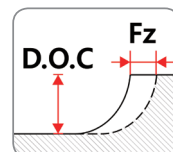


RPMT 08T2

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0252	.0161	623	1083	820	.020	.098	.031
	Low Alloys	200	.0059	.0197	.0128	492	787	640	.020	.098	.031
	High Alloys	220	.0047	.0173	.0110	295	492	394	.020	.071	.024
M	Austenitic	190	.0059	.0197	.0128	623	820	722	.020	.098	.031
K	Grey Cast Iron	140	.0071	.0252	.0161	492	787	640	.020	.098	.031
S	Heat Resistant and Super Alloys	240	.0047	.0126	.0087	82	148	115	.020	.059	.024
H	Hardened Materials	45HRc	.0039	.0126	.0083	131	262	197	.012	.028	.016

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

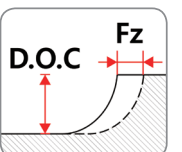


RPMT 10T3

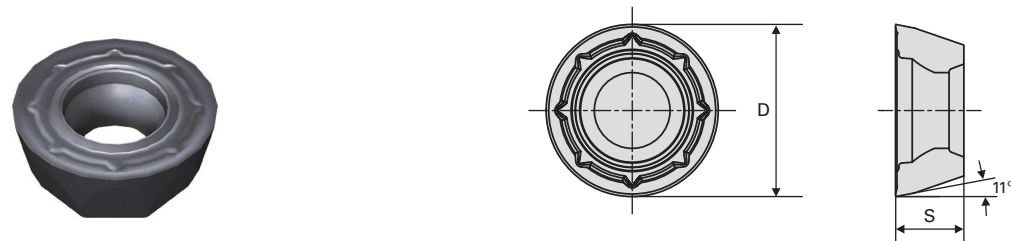
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0252	.0138	623	1083	820	.020	.098	.039
	Low Alloys	200	.0059	.0197	.0118	492	787	656	.020	.098	.039
	High Alloys	220	.0047	.0173	.0098	295	492	394	.020	.071	.031
M	Austenitic	190	.0059	.0197	.0118	623	820	722	.020	.098	.039
K	Grey Cast Iron	140	.0071	.0252	.0138	492	787	656	.020	.098	.039
S	Heat Resistant and Super Alloys	240	.0047	.0142	.0094	82	148	115	.020	.079	.031
H	Hardened Materials	45HRc	.0039	.0142	.0091	131	262	197	.012	.035	.020

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



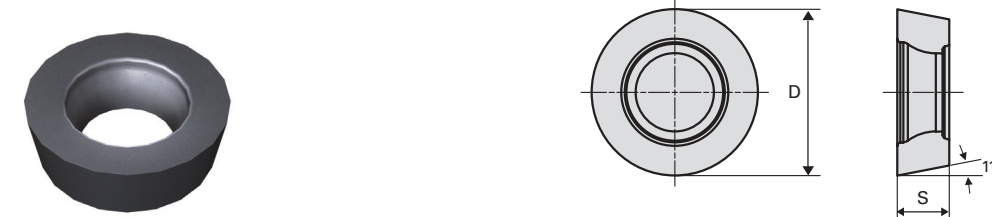
RPMT 1204



Designation	Grade	Dimensions			
		I	D	S	r
RPMT 1204M0	YG602	-	.472	.187	-



RPMW 1204



Designation	Grade	Dimensions			
		I	D	S	r
RPMW 1204M0	YG602	-	.472	.185	-

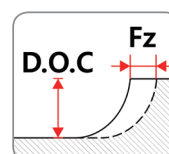


RPMT 1204

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0252	.0138	623	1083	820	.020	.098	.051
	Low Alloys	200	.0059	.0197	.0118	492	787	640	.020	.098	.051
	High Alloys	220	.0047	.0173	.0098	295	492	394	.020	.071	.039
M	Austenitic	190	.0059	.0197	.0118	623	820	722	.020	.098	.051
K	Grey Cast Iron	140	.0071	.0252	.0138	492	787	640	.020	.098	.051
S	Heat Resistant and Super Alloys	240	.0051	.0118	.0114	82	164	123	.020	.094	.059
H	Hardened Materials	45HRc	.0197	.0087	.0108	164	328	246	.020	.075	.071

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

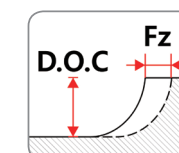


RPMW 1204

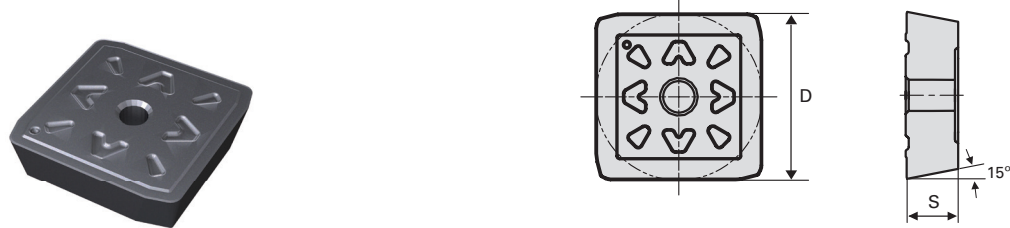
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0252	.0138	623	1083	820	.020	.098	.051
	Low Alloys	200	.0059	.0197	.0118	492	787	656	.020	.098	.051
	High Alloys	220	.0047	.0173	.0098	295	492	394	.020	.071	.039
K	Grey Cast Iron	140	.0059	.0197	.0118	623	820	722	.020	.098	.051
H	Hardened Materials	45HRc	.0071	.0252	.0138	492	787	656	.020	.098	.051

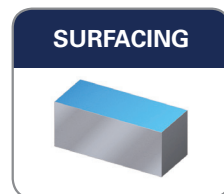
* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



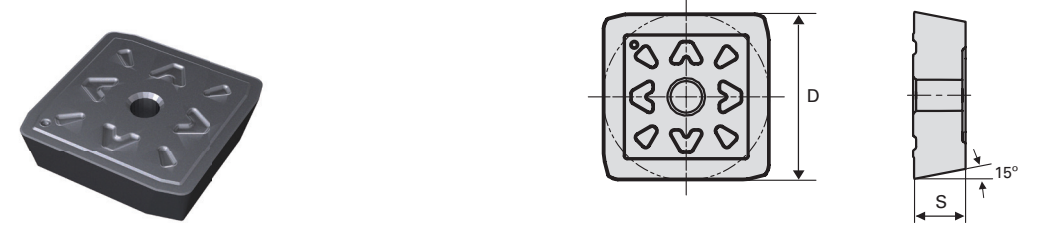
SDKN 42



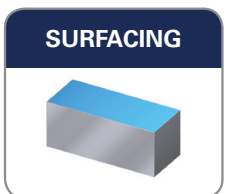
Designation	Grade	Dimensions			
		I	D	S	r
SDKN 42AETN	YG602	-	.500	.125	-



SDKN 53



Designation	Grade	Dimensions			
		I	D	S	r
SDKN 53AETN	YG602	-	.625	.187	-

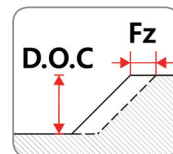


SDKN 42

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0181	.0126	623	1083	820	.020	.276	.118
	Low Alloys	200	.0059	.0142	.0100	492	787	640	.020	.276	.118
	High Alloys	220	.0047	.0126	.0087	295	492	394	.020	.197	.091
K	Grey Cast Iron	140	.0071	.0181	.0126	492	787	640	.020	.276	.118
H	Hardened Materials	45HRc	.0039	.0094	.0067	131	262	197	.020	.098	.059

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

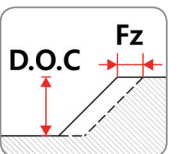


SDKN 53

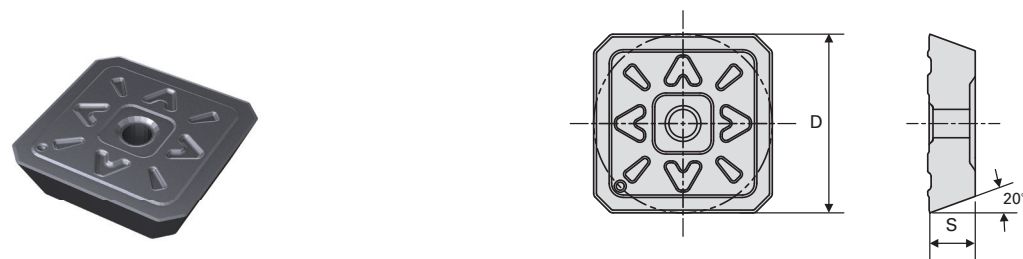
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0169	.0120	623	1083	820	.020	.354	.157
	Low Alloys	200	.0059	.0134	.0096	492	787	640	.020	.354	.157
	High Alloys	220	.0047	.0118	.0083	295	492	394	.020	.256	.118
K	Grey Cast Iron	140	.0071	.0169	.0120	492	787	640	.020	.354	.157
H	Hardened Materials	45HRc	.0039	.0094	.0067	131	262	197	.020	.126	.079

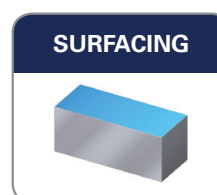
* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



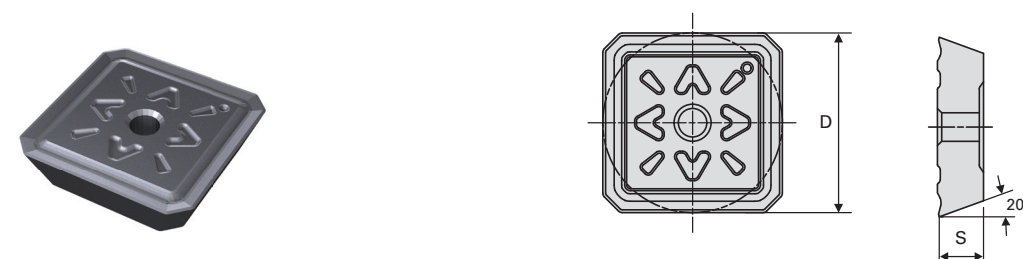
SEKN 42



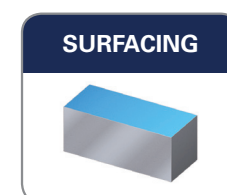
Designation	Grade	Dimensions			
		I	D	S	r
SEKN 42AFTN	YG602	-	.500	.123	-



SEKR 42



Designation	Grade	Dimensions			
		I	D	S	r
SEKR 42AFTN	YG602	-	.500	.123	-

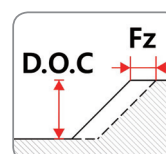


SEKN 42

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0181	.0126	623	1083	820	.020	.276	.118
	Low Alloys	200	.0059	.0142	.0100	492	787	640	.020	.276	.118
	High Alloys	220	.0047	.0126	.0087	295	492	394	.020	.197	.091
M	Austenitic	190	.0059	.0126	.0093	623	820	722	.020	.276	.118
K	Grey Cast Iron	140	.0071	.0181	.0126	492	787	640	.020	.276	.118
S	Heat Resistant and Super Alloys	240	.0039	.0102	.0071	82	148	115	.020	.197	.091
H	Hardened Materials	45HRc	.0039	.0102	.0071	131	262	197	.020	.098	.039

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

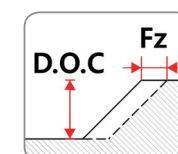


SEKR 42

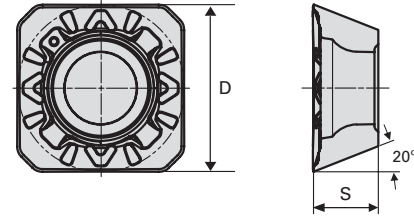
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0181	.0126	623	1083	820	.020	.276	.118
	Low Alloys	200	.0059	.0142	.0100	492	787	640	.020	.276	.118
	High Alloys	220	.0047	.0126	.0087	295	492	394	.020	.197	.091
M	Austenitic	190	.0059	.0126	.0093	623	820	722	.020	.276	.118
K	Grey Cast Iron	140	.0071	.0181	.0126	492	787	640	.020	.276	.118
S	Heat Resistant and Super Alloys	240	.0047	.0102	.0075	82	148	115	.020	.197	.091
H	Hardened Materials	45HRc	.0039	.0102	.0071	131	262	197	.020	.098	.059

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

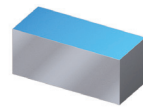


SEKT 1204

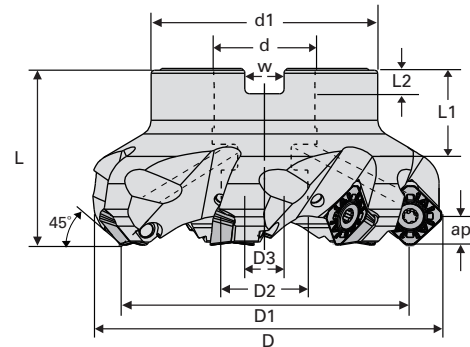
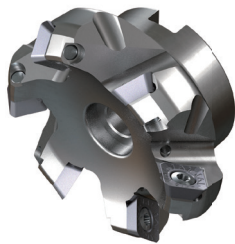


Designation	Grade	Dimensions			
		I	D	S	r
SEKT 1204AFTN	YG602	-	.501	.194	-

SURFACING



SEKT 1204 / Cutter



Designation	Dimensions												
	D	D1	D2	D3	d	d1	w	L	L1	L2	ap	z	Coolant
YGS145-1.500Z4C0.500-12	2.110	1.500	.551	.354	.500	1.250	.331	1.575	.709	.220	.236	4	Y
YGS145-2.000Z5C0.750-12	2.496	2.000	.709	.433	.750	1.750	.409	1.575	.787	.248	.236	5	Y
YGS145-2.500Z4C0.750-12	3.000	2.500	.709	.433	.750	2.000	.409	1.575	.787	.248	.236	4	Y
YGS145-2.500Z6C0.750-12	3.000	2.500	.709	.433	.750	2.000	.409	1.575	.787	.248	.236	6	Y
YGS145-3.000Z4C1.000-12	3.677	3.000	.787	.531	1.000	2.250	.488	1.750	.866	.276	.236	4	Y
YGS145-3.000Z7C1.000-12	3.677	3.000	.787	.531	1.000	2.250	.488	1.750	.866	.276	.236	7	Y
YGS145-4.000Z8C1.250-12	4.469	4.000	1.043	.689	1.250	3.000	.567	2.000	.984	.315	.236	8	Y
YGS145-5.000Z10C1.500-12	5.453	5.000	1.280	.886	1.500	3.650	.646	2.380	1.142	.354	.236	10	Y
YGS145-6.000Z12C2.000-12	6.835	6.000	-	-	2.000	4.700	.646	2.380	1.181	.354	.236	12	Y

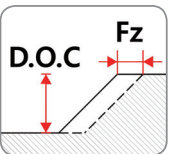
Insert	Spare parts	
	Screw	Wrench
SEKT 1204	TP204510	TPWFTP20

SEKT 1204

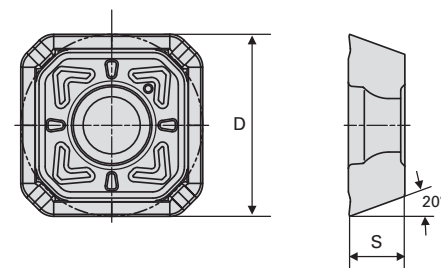
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0181	.0118	623	1083	820	.020	.276	.118
	Low Alloys	200	.0059	.0142	.0098	492	787	656	.020	.276	.118
	High Alloys	220	.0047	.0126	.0087	295	492	394	.020	.197	.079
M	Austenitic	190	.0059	.0126	.0098	623	820	722	.020	.276	.118
K	Grey Cast Iron	140	.0071	.0181	.0118	492	787	656	.020	.276	.118
S	Heat Resistant and Super Alloys	240	.0047	.0102	.0075	82	148	115	.020	.197	.091
H	Hardened Materials	45HRc	.0039	.0102	.0071	131	262	197	.020	.098	.059

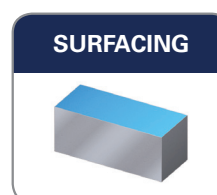
* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



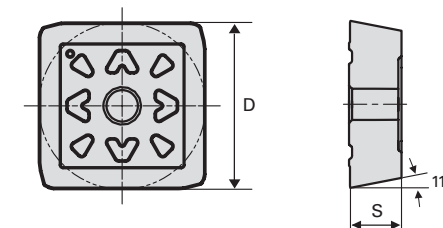
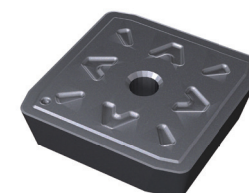
SEKT 12T3



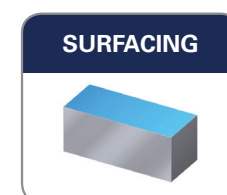
Designation	Grade	Dimensions			
		I	D	S	r
SEKT 12T3AGTN	YG602	-	.528	.157	-



SPKN 42



Designation	Grade	Dimensions			
		I	D	S	r
SPKN 42EDTR	YG602	-	.500	.125	-

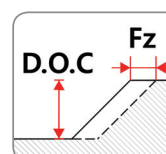


SEKT 12T3

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0181	.0118	623	1083	820	.020	.276	.118
	Low Alloys	200	.0059	.0142	.0098	492	787	656	.020	.276	.118
	High Alloys	220	.0047	.0126	.0087	295	492	394	.020	.197	.079
M	Austenitic	190	.0059	.0126	.0098	623	820	722	.020	.276	.118
K	Grey Cast Iron	140	.0071	.0181	.0118	492	787	656	.020	.276	.118
S	Heat Resistant and Super Alloys	240	.0047	.0102	.0075	82	148	115	.020	.197	.091
H	Hardened Materials	45HRc	.0039	.0102	.0071	131	262	197	.020	.098	.059

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

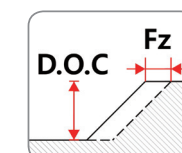


SPKN 42

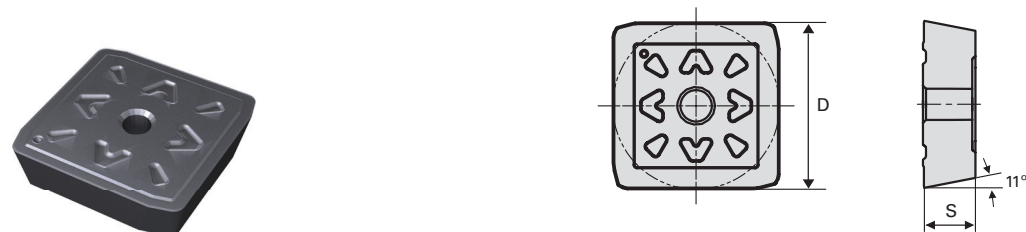
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0169	.0118	623	1083	1083	.020	.276	.118
	Low Alloys	200	.0059	.0134	.0096	492	787	787	.020	.276	.118
	High Alloys	220	.0047	.0118	.0079	295	492	492	.020	.197	.098
K	Grey Cast Iron	140	.0071	.0169	.0118	492	787	787	.020	.276	.118
H	Hardened Materials	45HRc	.0039	.0094	.0067	131	262	262	.020	.098	.059

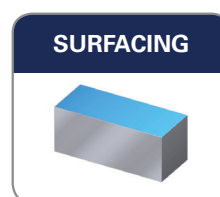
* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



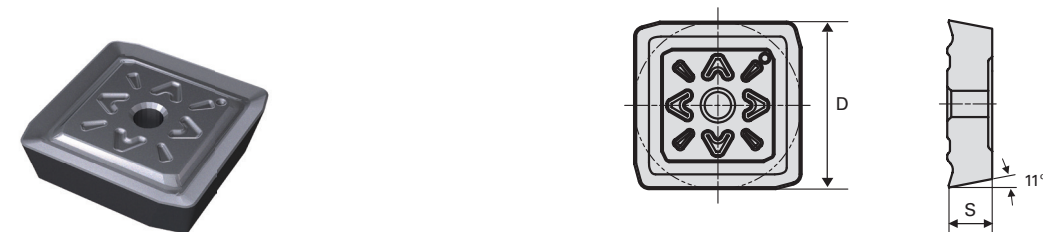
SPKN 53



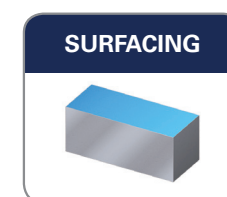
Designation	Grade	Dimensions			
		I	D	S	r
SPKN 53EDTR	YG602	-	.625	.187	-



SPKR 42



Designation	Grade	Dimensions			
		I	D	S	r
SPKR 42EDTR	YG602	-	.500	.125	-

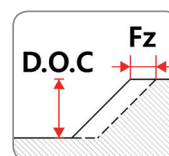


SPKN 53

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0169	.0120	623	1083	853	.020	.354	.157
	Low Alloys	200	.0059	.0134	.0096	492	787	640	.020	.354	.157
	High Alloys	220	.0047	.0118	.0083	295	492	394	.020	.256	.118
K	Grey Cast Iron	140	.0071	.0169	.0120	492	787	640	.020	.354	.157
H	Hardened Materials	45HRc	.0039	.0094	.0067	131	262	197	.020	.126	.079

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

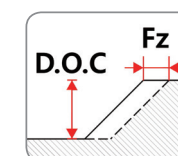


SPKR 42

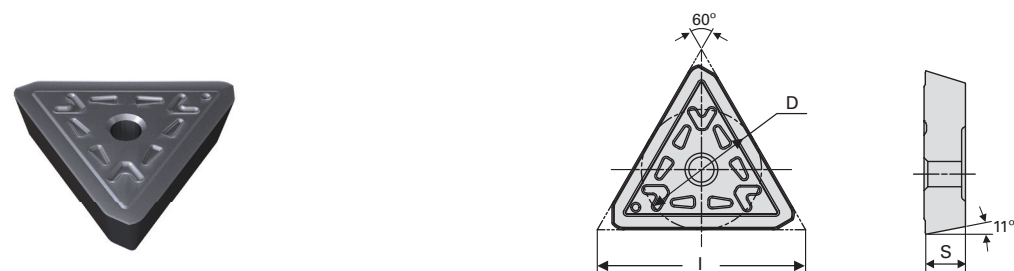
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0071	.0150	.0098	623	1083	820	.020	.276	.015
	Low Alloys	200	.0059	.0118	.0079	492	787	656	.020	.276	.012
	High Alloys	220	.0047	.0102	.0067	295	492	394	.020	.197	.010
M	Austenitic	190	.0059	.0102	.0079	623	820	722	.020	.276	.010
K	Grey Cast Iron	140	.0071	.0150	.0118	492	787	656	.020	.276	.015
S	Heat Resistant and Super Alloys	240	.0047	.0087	.0067	82	148	115	.020	.197	.009
H	Hardened Materials	45HRc	.0039	.0087	.0063	131	262	197	.020	.098	.009

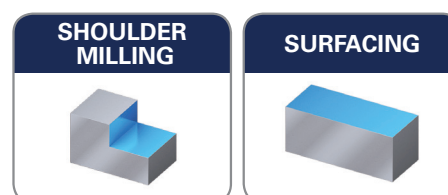
* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



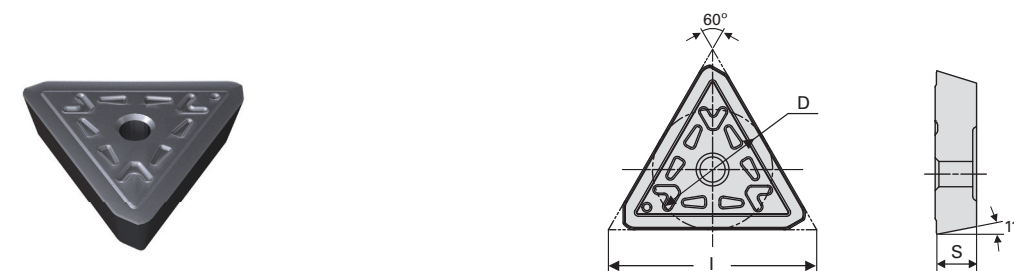
TPKN 32



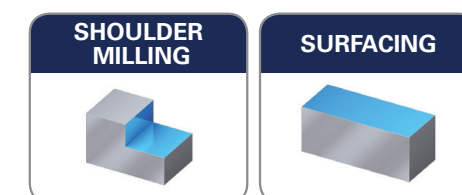
Designation	Grade	Dimensions			
		I	D	S	r
TPKN 32PDTR	YG602	.650	.375	.124	-



TPKN 43



Designation	Grade	Dimensions			
		I	D	S	r
TPKN 43PDTR	YG602	.866	.500	.187	-

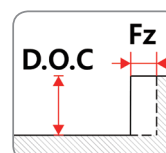


TPKN 32

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0055	.0106	.0081	623	1083	853	.020	.472	.118
	Low Alloys	200	.0047	.0083	.0065	492	787	640	.020	.472	.118
	High Alloys	220	.0039	.0075	.0057	295	492	394	.020	.339	.098
K	Grey Cast Iron	140	.0055	.0106	.0081	492	787	640	.020	.472	.118
H	Hardened Materials	45HRc	.0031	.0059	.0045	131	262	197	.020	.169	.059

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

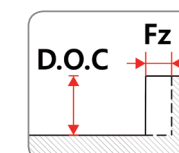


TPKN 43

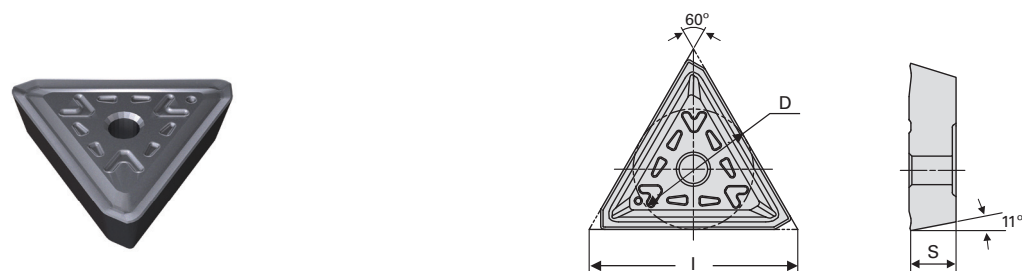
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0063	.0106	.0085	623	1083	853	.020	.709	.157
	Low Alloys	200	.0055	.0083	.0069	492	787	640	.020	.709	.157
	High Alloys	220	.0043	.0075	.0059	295	492	394	.020	.508	.118
K	Grey Cast Iron	140	.0063	.0106	.0085	492	787	640	.020	.709	.157
H	Hardened Materials	45HRc	.0035	.0059	.0047	131	262	197	.020	.252	.079

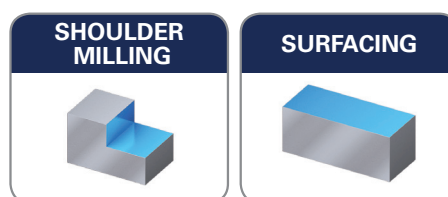
* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut



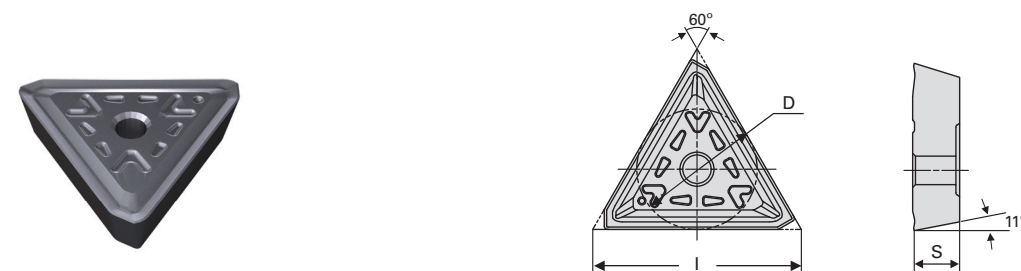
TPKR 32



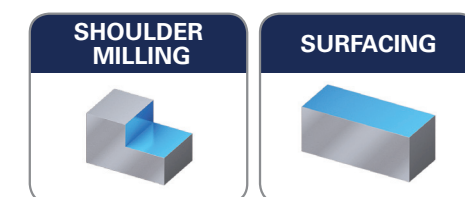
Designation	Grade	Dimensions			
		L	D	S	r
TPKR 32PDTR	YG602	.650	.375	.124	-



TPKR 43



Designation	Grade	Dimensions			
		L	D	S	r
TPKR 43PDTR	YG602	.866	.500	.187	-

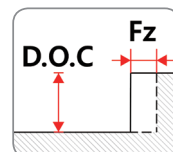


TPKR 32

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0063	.0087	.0075	623	1083	853	.020	.472	.118
	Low Alloys	200	.0055	.0071	.0063	492	787	640	.020	.472	.118
	High Alloys	220	.0043	.0059	.0051	295	492	394	.020	.339	.098
M	Austenitic	190	.0055	.0059	.0057	623	820	722	.020	.472	.118
K	Grey Cast Iron	140	.0063	.0087	.0075	492	787	640	.020	.472	.118
S	Heat Resistant and Super Alloys	240	.0043	.0051	.0047	82	148	115	.020	.339	.091
H	Hardened Materials	45HRc	.0035	.0051	.0043	131	262	197	.020	.134	.059

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

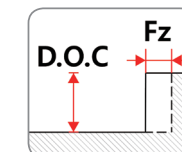


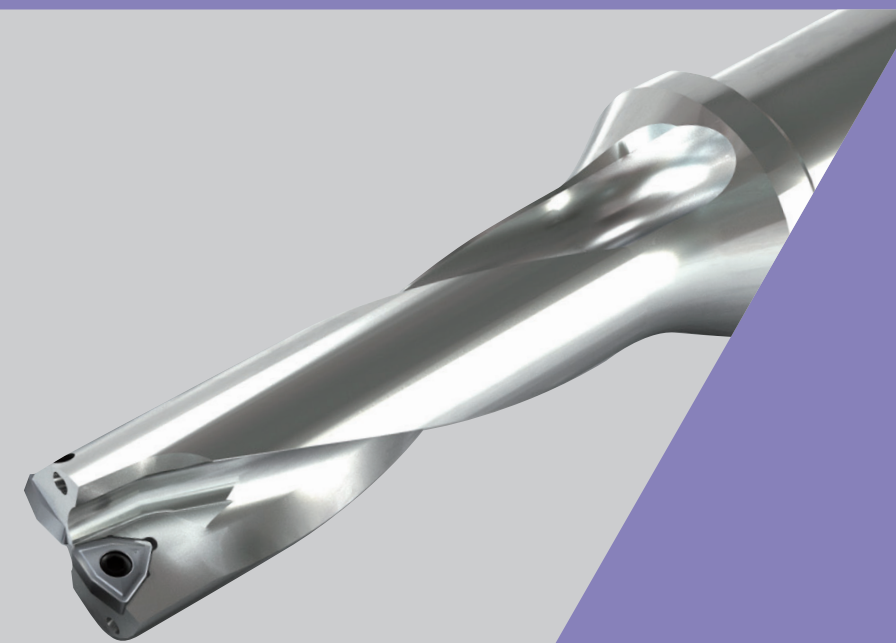
TPKR 43

Recommended Cutting Condition

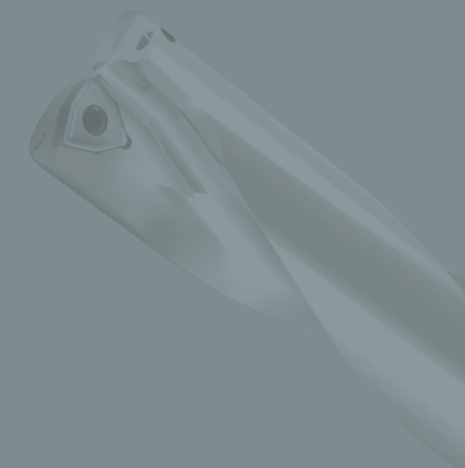
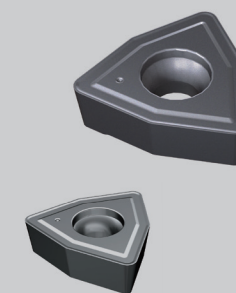
Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPT)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0063	.0087	.0075	623	1083	853	.020	.709	.157
	Low Alloys	200	.0055	.0071	.0063	492	787	640	.020	.709	.157
	High Alloys	220	.0043	.0059	.0051	295	492	394	.020	.508	.118
M	Austenitic	190	.0055	.0059	.0057	623	820	722	.020	.709	.157
K	Grey Cast Iron	140	.0063	.0087	.0075	492	787	640	.020	.709	.157
S	Heat Resistant and Super Alloys	240	.0043	.0051	.0047	82	148	115	.020	.508	.118
H	Hardened Materials	45HRc	.0035	.0051	.0043	131	262	197	.020	.252	.079

* IPT: Inch Per Tooth (inch/tooth)
 * SFM: Surface Feet per Minute (ft/min.)
 * D.O.C: Depth Of Cut

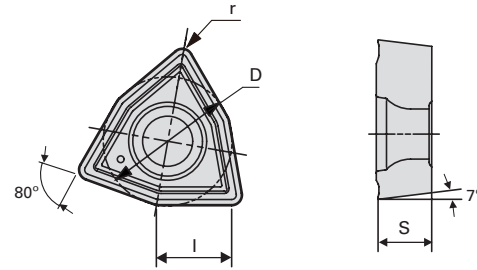




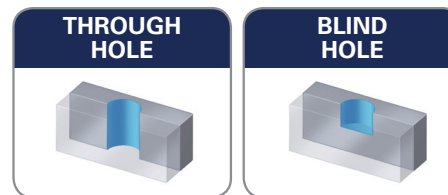
YG DRILL
INDEXABLE CUTTING TOOLS
YG UNIVERSAL LINE



WCMX



Designation	Grade	Dimensions			
		L	D	S	r
WCMX 040208	YG602	.131	.250	.095	.031
WCMX 050308	YG602	.133	.313	.125	.031
WCMX 06T308	YG602	.176	.375	.156	.031
WCMX 080412	YG602	.286	.500	.187	.047



WCMX 0402

Recommended Cutting Condition

Material			Cutting Conditions					
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)		
			Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0020	.0040	.0030	591	886	738
	Low Alloys	200	.0020	.0040	.0030	394	755	574
	High Alloys	220	.0028	.0040	.0034	230	558	394
M	Austenitic	190	.0020	.0040	.0030	558	755	656
K	Grey Cast Iron	140	.0040	.0044	.0042	492	755	623

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

WCMX 0503

Recommended Cutting Condition

Material			Cutting Conditions					
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)		
			Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0024	.0044	.0034	591	886	738
	Low Alloys	200	.0024	.0044	.0034	394	755	574
	High Alloys	220	.0036	.0044	.0040	230	558	394
M	Austenitic	190	.0024	.0044	.0034	558	755	656
K	Grey Cast Iron	140	.0052	.0048	.0050	492	755	623

* IPR: Feed Rate (inch/rev.)

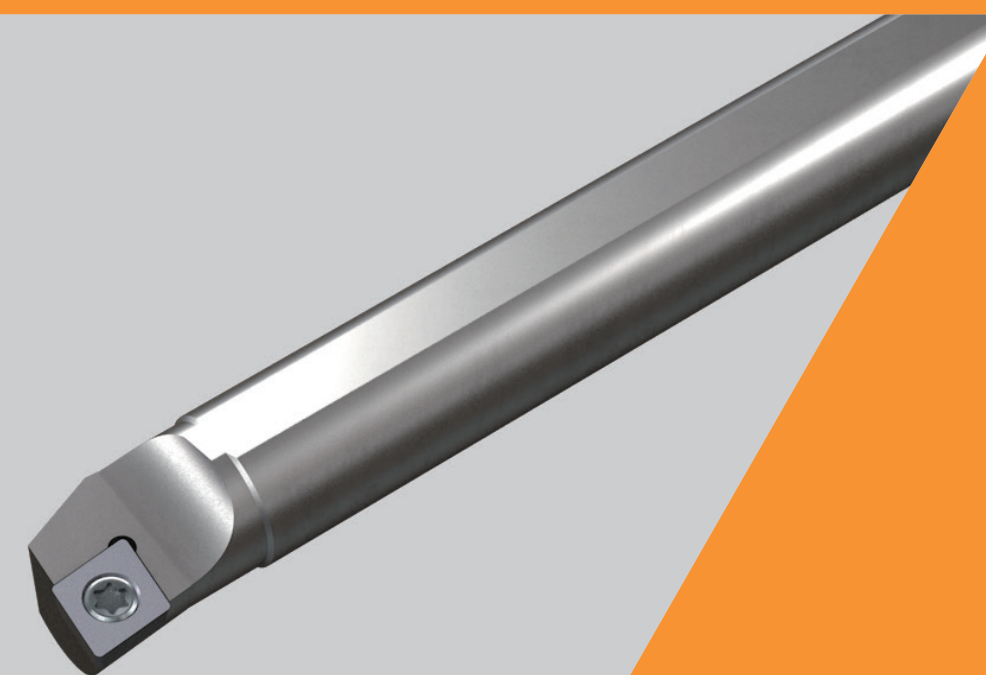
* SFM: Surface Feet per Minute (ft/min.)

WCMX 06T3

Recommended Cutting Condition

Material			Cutting Conditions					
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)		
			Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0024	.0048	.0028	591	886	755
	Low Alloys	200	.0024	.0048	.0024	394	755	591
	High Alloys	220	.0032	.0048	.0040	230	558	394
M	Austenitic	190	.0024	.0048	.0036	558	755	656
K	Grey Cast Iron	140	.0048	.0052	.0050	492	755	623

* IPR: Feed Rate (inch/rev.)
 * SFM: Surface Feet per Minute (ft/min.)



WCMX 0804

Recommended Cutting Condition

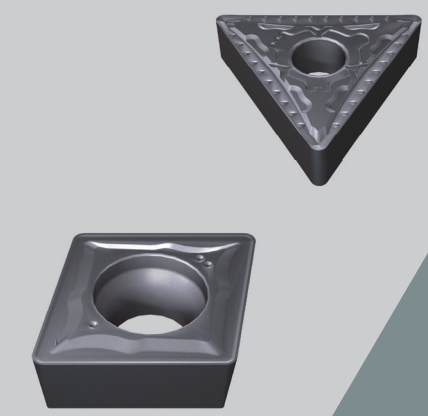
Material			Cutting Conditions					
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)		
			Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0024	.0064	.0044	591	886	738
	Low Alloys	200	.0024	.0064	.0044	394	755	574
	High Alloys	220	.0036	.0064	.0050	230	558	394
M	Austenitic	190	.0024	.0060	.0042	558	755	656
K	Grey Cast Iron	140	.0040	.0071	.0056	492	755	623

* IPR: Feed Rate (inch/rev.)
 * SFM: Surface Feet per Minute (ft/min.)

YGTURN

INDEXABLE CUTTING TOOLS

YG UNIVERSAL LINE





1 Insert Shape

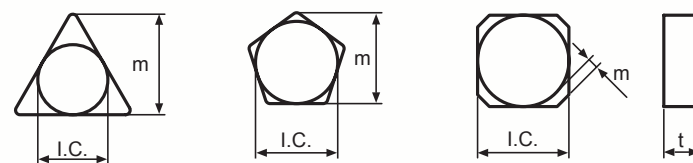
A	B	C	D	E	H	K	L
						Special	
O	P	R	S	T	W	X	

2 Clearance Angle

	5°	7°	15°	20°	25°	30°	0°	11°
	B	C	D	E	F	G	N	P

3 Tolerance

	Tolerance			I.C. Size					
	m	t	I.C.	.250	.375	.500	.625	.750	1
A	± .0002	± .0001	± .0001	●	●	●	●	●	●
C	± .0005	± .0010	± .0010	●	●	●	●	●	●
E	± .0010	± .0010	± .0010	●	●	●	●	●	●
F	± .0020	± .0010	± .0010	●	●	●	●	●	●
G	± .0010	± .0005	± .0010	●	●	●	●	●	●
H	± .0005	± .0010	± .0010	●	●	●	●	●	●
K	± .0005	± .0010	± .0020	●	●				
			± .0030			●			
			± .0040				●	●	
			± .0050						●
M	± .0030	± .0050	± .0020	●	●				
	± .0050		± .0030		●				
	± .0060		± .0040				●	●	
	± .0070		± .0050						●



4 Cross Section Shape

								Special
A	F	G	M	N	R	T	W	X



5 Cutting Edge Length

I.C. Size	Symbol	C	D	S	R	T	V	W	H
Inch		Metric							
5/32	1.2(5)	03	04	03	03	06		02	
3/16	1.5(6)	04	05	04	04	08	08		
7/32	1.8(7)	05	06	05	05	09	09	03	
1/4	2	06	07	06	06	11	11	04	
5/16	2.5	08	09	07	07	13	13	05	
3/8	3	09	11	09	09	16	16	06	
1/2	4	12	15	12	12	22	22	08	05
5/8	5	16	19	15	15	27	27	10	09
3/4	6	19	23	19	19	33	33	13	10
1	8	25	31	25	25	44	44	17	

*() symbol for small size insert

6 Thickness

Symbol(t)	Inch	
1.5(3)	3/32	
2	1/8	
2.5	5/32	
3	3/16	
4	1/4	
5	5/16	
6	3/8	

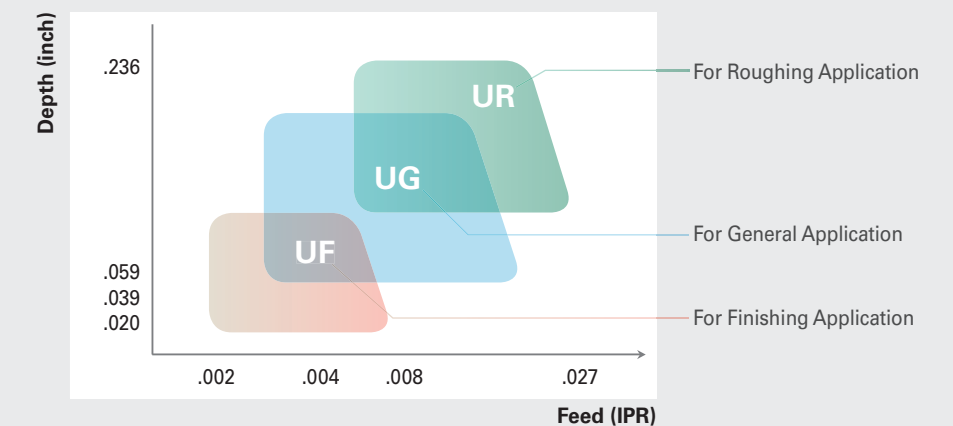
7 Nose Radius

Symbol(t)	Inch
0.5	.008
1	1/64
2	1/32
3	3/64
4	1/16
5	5/64
6	3/32
00	Round insert

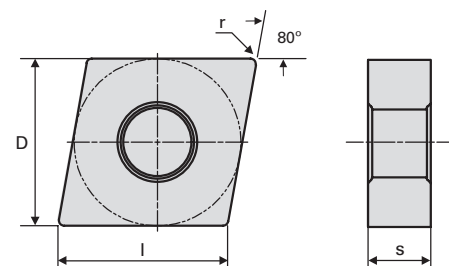
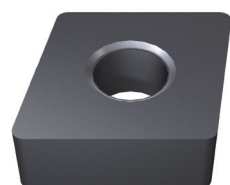
8 Chip Breaker

For Application

YG Turn Chip Breakers Application area

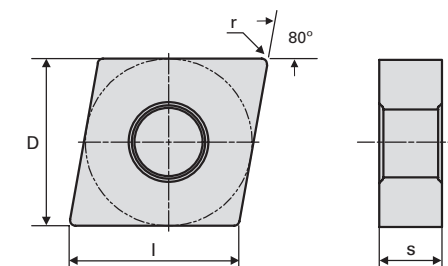
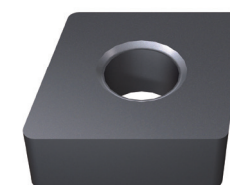


CNMA 43



Designation	Grade	Dimensions			
		I	D	s	r
CNMA 432-UC	YG1001	.476	.500	.187	.031
CNMA 433-UC	YG1001	.459	.500	.187	.047

CNMA 54



Designation	Grade	Dimensions			
		I	D	s	r
CNMA 543-UC	YG1001	.635	.625	.250	.047

CNMA 432

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
K	Grey Cast Iron	140	.0079	.0307	.0193	426	1279	852	.020	.197	.118

CNMA 433

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
K	Grey Cast Iron	140	.0079	.0319	.0199	426	1279	852	.028	.236	.157

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

CNMA 543

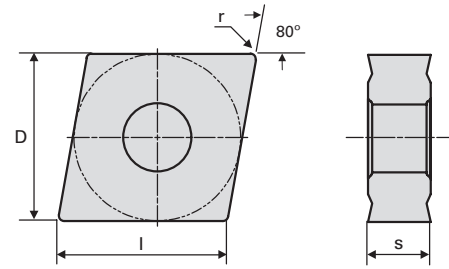
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
K	Grey Cast Iron	140	.0059	.0276	.0157	426	1279	852	.079	.315	.118

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

CNMG 43



Designation	Grade	Dimensions			
		L	D	s	r
CNMG 431-UF	YG801	.491	.500	.187	.016
CNMG 432-UG	YG801	.476	.500	.187	.031
CNMG 433-UR	YG801	.459	.500	.187	.047

CNMG 432

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0138	591	1083	820	.020	.197	.118
	Low Alloys	200	.0083	.0177	.0118	394	919	656	.020	.197	.118
	High Alloys	220	.0071	.0157	.0098	230	623	427	.020	.157	.098
M	Austenitic	190	.0079	.0157	.0118	558	886	722	.020	.197	.118
K	Grey Cast Iron	140	.0059	.0236	.0138	558	820	689	.020	.197	.118
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	164	123	.020	.118	.079
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	246	.020	.098	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

CNMG 431

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

CNMG 433

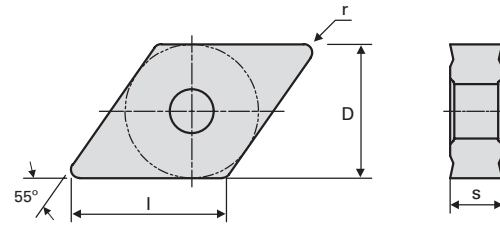
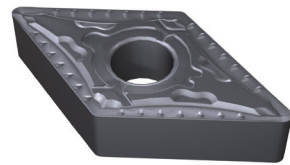
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0102	.0268	.0185	591	1083	820	.028	.236	.157
	Low Alloys	200	.0102	.0240	.0171	394	919	656	.028	.236	.157
	High Alloys	220	.0091	.0213	.0152	230	623	427	.028	.189	.134
M	Austenitic	190	.0098	.0213	.0156	558	886	722	.028	.236	.157
K	Grey Cast Iron	140	.0079	.0319	.0199	558	820	689	.028	.236	.157
S	Heat Resistant and Super Alloys	240	.0098	.0185	.0142	82	148	115	.028	.142	.106
H	Hardened Materials	45HRc	.0055	.0161	.0108	164	328	246	.028	.118	.106

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

DNMG 43



Designation	Grade	Dimensions			
		L	D	s	r
DNMG 431-UF	YG801	.596	.500	.187	.016
DNMG 432-UG	YG801	.581	.500	.187	.031

DNMG 431

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

DNMG 432

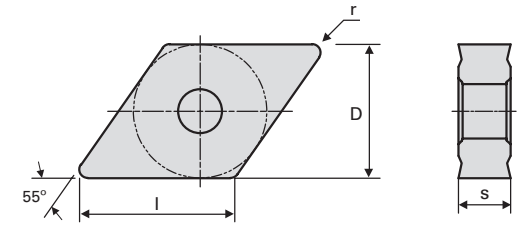
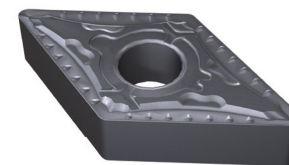
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0140	591	1083	820	.020	.197	.118
	Low Alloys	200	.0083	.0177	.0130	394	919	656	.020	.197	.118
	High Alloys	220	.0071	.0157	.0114	230	623	427	.020	.157	.098
M	Austenitic	190	.0079	.0157	.0118	558	886	722	.020	.197	.118
K	Grey Cast Iron	140	.0059	.0236	.0148	558	820	689	.020	.197	.118
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	148	115	.020	.118	.079
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	246	.020	.098	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

DNMG 44



Designation	Grade	Dimensions			
		L	D	s	r
DNMG 441-UF	YG801	.596	.500	.250	.016
DNMG 442-UG	YG801	.581	.500	.250	.031
DNMG 443-UR	YG801	.567	.500	.250	.047

DNMG 441

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0075	591	1083	951	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0055	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0051	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	787	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0071	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	131	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0039	164	328	246	.008	.079	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

DNMG 442

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0140	591	1083	820	.020	.197	.118
	Low Alloys	200	.0083	.0177	.0130	394	919	656	.020	.197	.118
	High Alloys	220	.0071	.0157	.0114	230	623	427	.020	.157	.098
M	Austenitic	190	.0079	.0157	.0118	558	886	722	.020	.197	.118
K	Grey Cast Iron	140	.0059	.0236	.0148	558	820	689	.020	.197	.118
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	148	115	.020	.118	.079
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	246	.020	.098	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

DNMG 443

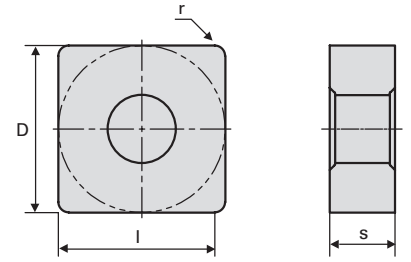
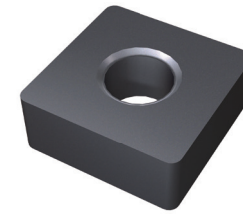
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0102	.0268	.0185	591	1083	820	.028	.236	.157
	Low Alloys	200	.0102	.0240	.0171	394	919	656	.028	.236	.157
	High Alloys	220	.0091	.0213	.0152	230	623	427	.028	.189	.134
M	Austenitic	190	.0098	.0213	.0156	558	886	722	.028	.236	.157
K	Grey Cast Iron	140	.0079	.0319	.0199	558	820	689	.028	.236	.157
S	Heat Resistant and Super Alloys	240	.0098	.0185	.0142	82	148	115	.028	.142	.106
H	Hardened Materials	45HRc	.0055	.0161	.0108	164	328	246	.028	.118	.106

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

SNMA 43



Designation	Grade	Dimensions			
		I	D	s	r
SNMA 432-UC	YG1001	.469	.500	.187	.031
SNMA 433-UC	YG1001	.453	.500	.187	.047

SNMA 432

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
K	Grey Cast Iron	140	.0059	.0276	.0138	426	1279	852	.039	.236	.098

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

SNMA 433

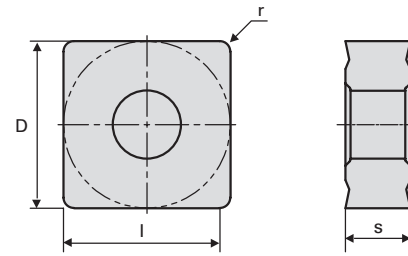
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
K	Grey Cast Iron	140	.0079	.0315	.0157	426	1279	852	.059	.236	.118

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

SNMG 43



Designation	Grade	Dimensions			
		L	D	s	r
SNMG 431-UF	YG801	.484	.500	.187	.016
SNMG 432-UG	YG801	.469	.500	.187	.031
SNMG 433-UR	YG801	.453	.500	.187	.047

SNMG 432

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0118	.0276	.0197	591	1083	820	.020	.197	.118
	Low Alloys	200	.0118	.0248	.0183	394	919	656	.020	.197	.118
	High Alloys	220	.0098	.0220	.0157	230	623	427	.020	.157	.098
M	Austenitic	190	.0110	.0220	.0165	558	886	722	.020	.197	.118
K	Grey Cast Iron	140	.0083	.0331	.0207	558	820	689	.020	.197	.118
S	Heat Resistant and Super Alloys	240	.0110	.0193	.0152	82	148	115	.020	.118	.079
H	Hardened Materials	45HRc	.0063	.0165	.0114	164	328	246	.020	.098	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

SNMG 431

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0118	.0276	.0217	591	1083	820	.008	.157	.083
	Low Alloys	200	.0118	.0248	.0183	394	919	656	.008	.157	.083
	High Alloys	220	.0098	.0220	.0157	230	623	427	.008	.118	.063
M	Austenitic	190	.0110	.0220	.0165	558	886	722	.008	.157	.083
K	Grey Cast Iron	140	.0083	.0331	.0207	558	820	689	.008	.157	.083
S	Heat Resistant and Super Alloys	240	.0110	.0193	.0152	82	148	115	.008	.079	.043
H	Hardened Materials	45HRc	.0063	.0165	.0114	164	328	246	.008	.079	.043

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

SNMG 433

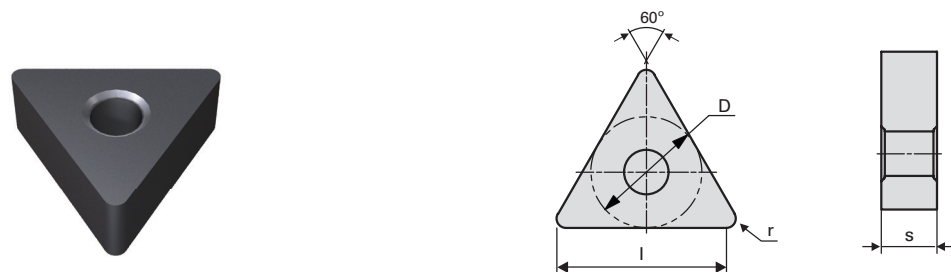
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0146	.0374	.0256	591	1083	820	.028	.236	.157
	Low Alloys	200	.0146	.0339	.0236	394	919	656	.028	.236	.157
	High Alloys	220	.0126	.0299	.0213	230	623	427	.028	.189	.134
M	Austenitic	190	.0138	.0299	.0217	558	886	722	.028	.236	.157
K	Grey Cast Iron	140	.0118	.0449	.0276	558	820	689	.028	.236	.157
S	Heat Resistant and Super Alloys	240	.0138	.0264	.0201	82	148	115	.028	.142	.106
H	Hardened Materials	45HRc	.0075	.0224	.0150	164	328	246	.028	.118	.106

* IPR: Feed Rate (inch/rev.)

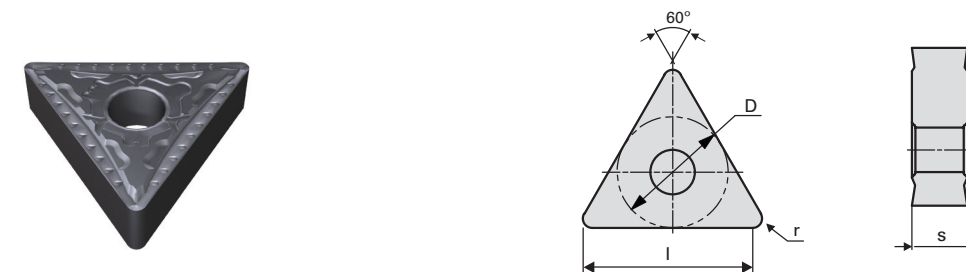
* SFM: Surface Feet per Minute (ft/min.)

TNMA 33



Designation	Grade	Dimensions			
		L	D	s	r
TNMA 332-UC	YG1001	.572	.375	.187	.031
TNMA 333-UC	YG1001	.533	.375	.187	.047

TNMG 33



Designation	Grade	Dimensions			
		L	D	s	r
TNMG 331-UF	YG801	.611	.375	.187	.016
TNMG 332-UG	YG801	.572	.375	.187	.031
TNMG 333-UR	YG801	.533	.375	.187	.047

TNMA 332

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
K	Grey Cast Iron	140	.0059	.0157	.0138	426	1279	852	.039	.157	.098

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TNMA 333

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
K	Grey Cast Iron	140	.0079	.0197	.0157	426	1279	852	.059	.177	.118

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TNMG 331

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TNMG 332

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0138	591	1083	820	.020	.197	.118
	Low Alloys	200	.0083	.0177	.0130	394	919	656	.020	.197	.118
	High Alloys	220	.0071	.0157	.0114	230	623	427	.020	.157	.098
M	Austenitic	190	.0079	.0157	.0118	558	886	722	.020	.197	.118
K	Grey Cast Iron	140	.0059	.0236	.0148	558	820	689	.020	.197	.118
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	148	115	.020	.118	.079
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	246	.020	.098	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TNMG 333

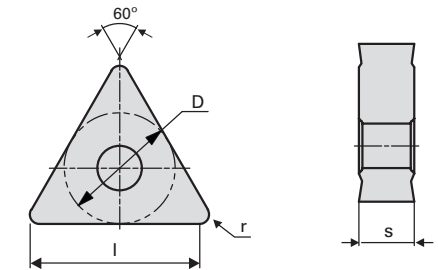
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0102	.0268	.0185	591	1083	820	.028	.197	.157
	Low Alloys	200	.0102	.0240	.0171	394	919	656	.028	.197	.157
	High Alloys	220	.0091	.0213	.0152	230	623	427	.028	.157	.134
M	Austenitic	190	.0098	.0213	.0156	558	886	722	.028	.197	.157
K	Grey Cast Iron	140	.0079	.0319	.0199	558	820	689	.028	.197	.157
S	Heat Resistant and Super Alloys	240	.0098	.0185	.0142	82	148	115	.028	.118	.106
H	Hardened Materials	45HRc	.0055	.0161	.0108	164	328	246	.028	.098	.087

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TNMG 43



Designation	Grade	Dimensions			
		I	D	s	r
TNMG 431-UF	YG801	.827	.500	.187	.016
TNMG 432-UG	YG801	.789	.500	.187	.031
TNMG 433-UR	YG801	.750	.500	.187	.047

TNMG 431

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TNMG 432

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0140	591	1083	820	.020	.276	.118
	Low Alloys	200	.0083	.0177	.0130	394	919	656	.020	.276	.118
	High Alloys	220	.0071	.0157	.0114	230	623	427	.020	.220	.098
M	Austenitic	190	.0079	.0157	.0118	558	886	656	.020	.276	.118
K	Grey Cast Iron	140	.0059	.0236	.0148	558	820	623	.020	.276	.118
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	148	115	.020	.165	.079
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	246	.020	.138	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TNMG 433

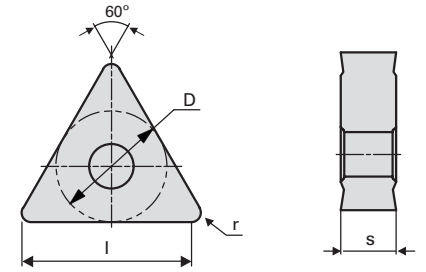
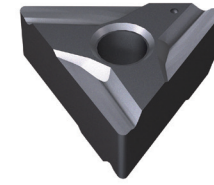
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0102	.0268	.0177	591	1083	820	.028	.276	.157
	Low Alloys	200	.0102	.0240	.0157	394	919	656	.028	.276	.157
	High Alloys	220	.0091	.0213	.0152	230	623	427	.028	.220	.134
M	Austenitic	190	.0098	.0213	.0156	558	886	591	.028	.276	.157
K	Grey Cast Iron	140	.0079	.0319	.0197	558	820	623	.028	.276	.157
S	Heat Resistant and Super Alloys	240	.0098	.0185	.0142	82	148	115	.028	.165	.106
H	Hardened Materials	45HRc	.0055	.0161	.0108	164	328	246	.028	.138	.087

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TNUX 33



Designation	Grade	Dimensions			
		I	D	s	r
TNUX 331 L	YG801	.611	.375	.187	.016
TNUX 332 L	YG801	.572	.375	.187	.031
TNUX 331 R	YG801	.611	.375	.187	.016
TNUX 332 R	YG801	.572	.375	.187	.031

TNUX 331

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TNUX 332

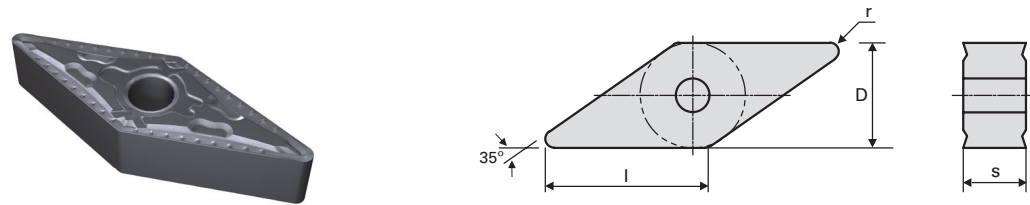
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0140	591	1083	837	.020	.197	.118
	Low Alloys	200	.0083	.0177	.0130	394	919	656	.020	.197	.118
	High Alloys	220	.0071	.0157	.0114	230	623	427	.020	.157	.098
M	Austenitic	190	.0079	.0157	.0118	558	886	722	.020	.197	.118
K	Grey Cast Iron	140	.0059	.0236	.0148	558	820	689	.020	.197	.118
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	148	115	.020	.118	.079
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	246	.020	.098	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

VNMG 33



Designation	Grade	Dimensions			
		L	D	s	r
VNMG 331-UF	YG801	.615	.375	.187	.016
VNMG 332-UG	YG801	.576	.375	.187	.031
VNMG 333-UR	YG801	.536	.375	.187	.047

VNMG 332

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0075	.0157	.0116	591	1083	820	.020	.157	.106
	Low Alloys	200	.0075	.0142	.0108	394	919	656	.020	.157	.106
	High Alloys	220	.0063	.0126	.0094	230	623	427	.020	.126	.091
M	Austenitic	190	.0071	.0126	.0098	558	886	656	.020	.157	.106
K	Grey Cast Iron	140	.0055	.0189	.0122	558	820	689	.020	.157	.106
S	Heat Resistant and Super Alloys	240	.0071	.0110	.0091	82	148	115	.020	.094	.079
H	Hardened Materials	45HRc	.0039	.0094	.0067	164	328	246	.020	.079	.071

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

VNMG 331

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

VNMG 333

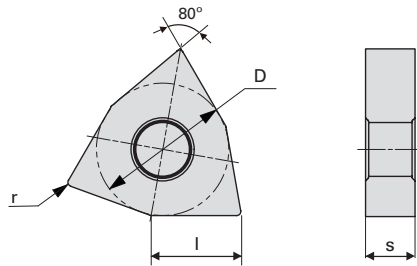
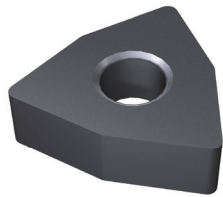
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0075	.0157	.0116	591	1083	820	.059	.157	.106
	Low Alloys	200	.0075	.0142	.0108	394	919	656	.059	.157	.106
	High Alloys	220	.0063	.0126	.0094	230	623	427	.059	.126	.091
M	Austenitic	190	.0071	.0126	.0098	558	886	656	.059	.157	.106
K	Grey Cast Iron	140	.0055	.0189	.0122	558	820	689	.059	.157	.106
S	Heat Resistant and Super Alloys	240	.0071	.0110	.0091	82	148	115	.059	.094	.079
H	Hardened Materials	45HRc	.0039	.0094	.0067	164	328	246	.059	.079	.071

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

WNMA 43



Designation	Grade	Dimensions			
		L	D	s	r
WNMA 431-UC	YG1001	.323	.500	.187	.016
WNMA 432-UC	YG1001	.304	.500	.187	.031
WNMA 433-UC	YG1001	.286	.500	.187	.047

WNMA 431

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
K	Grey Cast Iron	140	.0079	.0307	.0118	426	1279	852	.008	.118	.079

WNMA 432

Recommended Cutting Condition

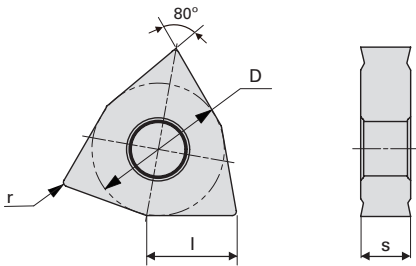
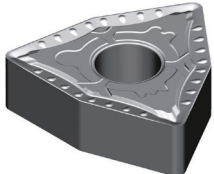
Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
K	Grey Cast Iron	140	.0079	.0307	.0193	426	1279	852	.028	.236	.132

WNMA 433

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
K	Grey Cast Iron	140	.0079	.0307	.0193	426	1279	852	.059	.236	.132

WNMG 33



Designation	Grade	Dimensions			
		L	D	s	r
WNMG 331-UF	YG801	.238	.375	.187	.016
WNMG 332-UG	YG801	.219	.375	.187	.031

WNMG 331

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

WNMG 332

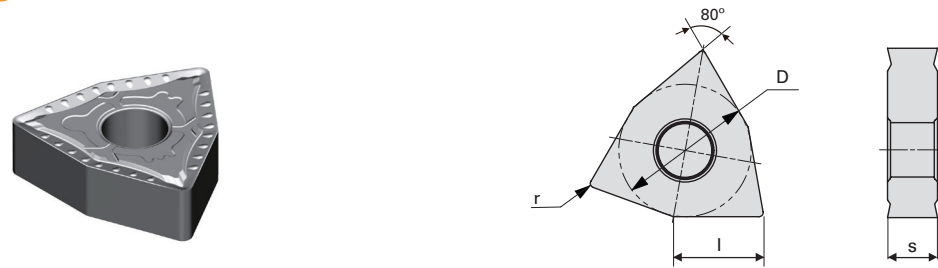
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0140	591	1083	820	.020	.098	.087
	Low Alloys	200	.0083	.0177	.0130	394	919	656	.020	.098	.087
	High Alloys	220	.0071	.0157	.0114	230	623	427	.020	.079	.071
M	Austenitic	190	.0079	.0157	.0118	558	886	656	.020	.098	.087
K	Grey Cast Iron	140	.0059	.0236	.0148	558	820	689	.020	.098	.087
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	148	98	.020	.059	.059
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	230	.020	.063	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

WNMG 43



Designation	Grade	Dimensions			
		L	D	s	r
WNMG 431-UF	YG801	.323	.500	.187	.016
WNMG 432-UG	YG801	.304	.500	.187	.031
WNMG 433-UR	YG801	.286	.500	.187	.047

WNMG 432

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0140	591	1083	820	.020	.138	.094
	Low Alloys	200	.0083	.0177	.0130	394	919	656	.020	.138	.094
	High Alloys	220	.0071	.0157	.0114	230	623	427	.020	.110	.079
M	Austenitic	190	.0079	.0157	.0118	558	886	656	.020	.138	.094
K	Grey Cast Iron	140	.0059	.0236	.0148	558	820	689	.020	.138	.094
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	148	98	.020	.083	.063
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	230	.020	.071	.063

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

WNMG 431

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

WNMG 433

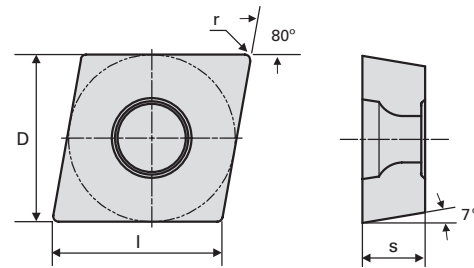
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0098	.0256	.0177	591	1083	820	.028	.138	.118
	Low Alloys	200	.0098	.0232	.0157	394	919	656	.028	.138	.118
	High Alloys	220	.0087	.0205	.0138	230	623	427	.028	.110	.098
M	Austenitic	190	.0094	.0205	.0138	558	886	656	.028	.138	.118
K	Grey Cast Iron	140	.0071	.0307	.0177	558	820	689	.028	.138	.118
S	Heat Resistant and Super Alloys	240	.0094	.0181	.0138	82	148	98	.028	.083	.079
H	Hardened Materials	45HRc	.0051	.0154	.0098	164	328	230	.028	.071	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

CCMT 21.5



Designation	Grade	Dimensions			
		L	D	s	r
CCMT 21.51-UF	YG801	.234	.250	.094	.016
CCMT 21.52-UG	YG801	.214	.250	.094	.031

CCMT 21.51

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0031	.0079	.0055	591	1083	984	.008	.083	.039
	Low Alloys	200	.0031	.0067	.0049	394	919	820	.008	.071	.039
	High Alloys	220	.0028	.0059	.0043	230	623	558	.008	.071	.039
M	Austenitic	190	.0031	.0059	.0045	558	886	820	.008	.071	.039
K	Grey Cast Iron	140	.0024	.0067	.0045	558	820	787	.008	.083	.039
S	Heat Resistant and Super Alloys	240	.0031	.0051	.0027	82	164	115	.008	.055	.039
H	Hardened Materials	45HRc	.0016	.0039	.0028	164	328	246	.008	.051	.031

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

CCMT 21.52

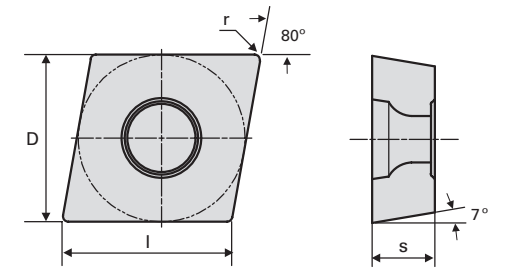
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0031	.0079	.0055	591	1083	820	.016	.083	.047
	Low Alloys	200	.0031	.0067	.0049	394	919	656	.016	.071	.047
	High Alloys	220	.0028	.0059	.0043	230	623	427	.016	.071	.047
M	Austenitic	190	.0031	.0059	.0045	558	886	656	.016	.071	.047
K	Grey Cast Iron	140	.0024	.0067	.0045	558	820	689	.016	.083	.047
S	Heat Resistant and Super Alloys	240	.0031	.0051	.0027	82	164	98	.016	.055	.047
H	Hardened Materials	45HRc	.0016	.0039	.0028	164	328	246	.016	.051	.031

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

CCMT 32.5



Designation	Grade	Dimensions			
		L	D	s	r
CCMT 32.51-UF	YG801	.364	.375	.156	.016
CCMT 32.52-UG	YG801	.348	.375	.156	.031

CCMT 32.51

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0031	.0079	.0055	591	1083	820	.008	.083	.039
	Low Alloys	200	.0031	.0067	.0049	394	919	656	.008	.071	.039
	High Alloys	220	.0028	.0059	.0043	230	623	427	.008	.071	.039
M	Austenitic	190	.0031	.0059	.0045	558	886	656	.008	.071	.039
K	Grey Cast Iron	140	.0024	.0067	.0045	558	820	689	.008	.083	.039
S	Heat Resistant and Super Alloys	240	.0031	.0051	.0027	82	164	98	.008	.055	.039
H	Hardened Materials	45HRc	.0016	.0039	.0028	164	328	246	.008	.051	.031

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

CCMT 32.52

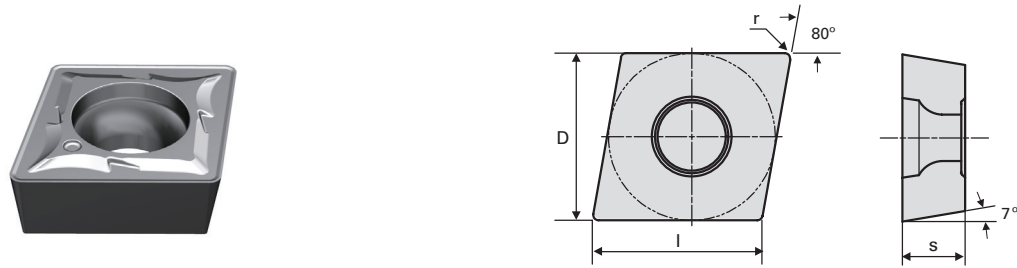
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

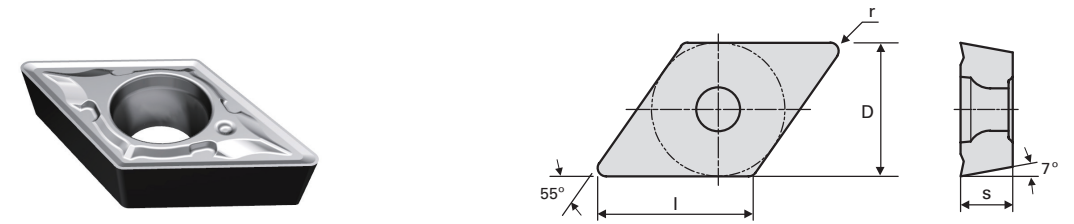
* SFM: Surface Feet per Minute (ft/min.)

CCMT 43



Designation	Grade	Dimensions			
		L	D	s	r
CCMT 432-UG	YG801	.468	.500	.187	.031

DCMT 21.5



Designation	Grade	Dimensions			
		L	D	s	r
DCMT 21.51-UF	YG801	.291	.250	.094	.016

CCMT 432

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0140	591	1083	837	.020	.197	.118
	Low Alloys	200	.0083	.0177	.0130	394	919	656	.020	.197	.118
	High Alloys	220	.0071	.0157	.0114	230	623	427	.020	.157	.098
M	Austenitic	190	.0079	.0157	.0118	558	886	722	.020	.197	.118
K	Grey Cast Iron	140	.0059	.0236	.0148	558	820	689	.020	.197	.118
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	148	115	.020	.118	.079
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	246	.020	.098	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

DCMT 21.51

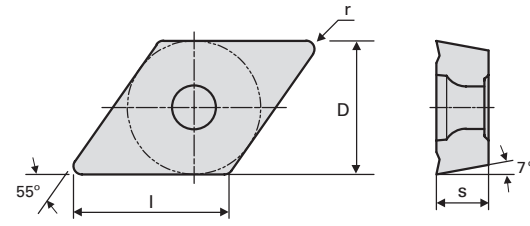
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0031	.0079	.0055	591	1083	984	.008	.083	.039
	Low Alloys	200	.0031	.0067	.0049	394	919	820	.008	.071	.039
	High Alloys	220	.0028	.0059	.0043	230	623	558	.008	.071	.039
M	Austenitic	190	.0031	.0059	.0045	558	886	820	.008	.071	.039
K	Grey Cast Iron	140	.0024	.0067	.0045	558	820	787	.008	.083	.039
S	Heat Resistant and Super Alloys	240	.0031	.0051	.0041	82	164	115	.008	.055	.039
H	Hardened Materials	45HRc	.0016	.0039	.0028	164	328	246	.008	.051	.031

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

DCMT 32.5



Designation	Grade	Dimensions			
		L	D	s	r
DCMT 32.51-UF	YG801	.443	.375	.156	.016
DCMT 32.52-UG	YG801	.429	.375	.156	.031

DCMT 32.51

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0047	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0059	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0059	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

DCMT 32.52

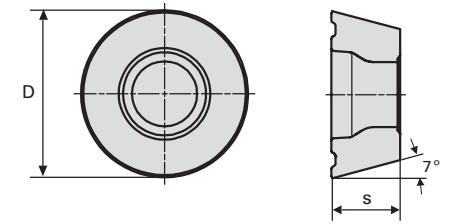
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0140	591	1083	837	.020	.157	.118
	Low Alloys	200	.0083	.0177	.0130	394	919	656	.020	.157	.118
	High Alloys	220	.0071	.0157	.0114	230	623	427	.020	.126	.098
M	Austenitic	190	.0079	.0157	.0118	558	886	656	.020	.157	.118
K	Grey Cast Iron	140	.0059	.0236	.0148	558	820	689	.020	.157	.118
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	148	115	.020	.094	.079
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	246	.020	.079	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

RCMT 0602



Designation	Grade	Dimensions			
		L	D	s	r
RCMT 0602M0	YG801	-	.236	.094	-

RCMT 0602M0

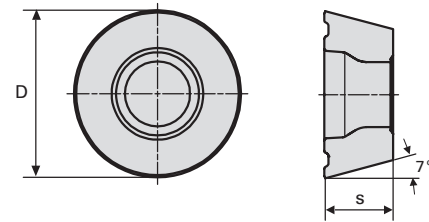
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0059	.0157	.0130	591	1083	837	.020	.079	.039
	Low Alloys	200	.0059	.0138	.0110	394	919	656	.020	.079	.039
	High Alloys	220	.0051	.0138	.0110	230	623	427	.020	.079	.039
M	Austenitic	190	.0055	.0138	.0118	558	886	722	.020	.079	.039
K	Grey Cast Iron	140	.0043	.0177	.0130	558	820	689	.020	.079	.039
S	Heat Resistant and Super Alloys	240	.0051	.0118	.0098	82	164	123	.020	.059	.039
H	Hardened Materials	45HRc	.0020	.0087	.0053	164	328	246	.020	.047	.035

* IPR: Feed Rate (inch/rev.)

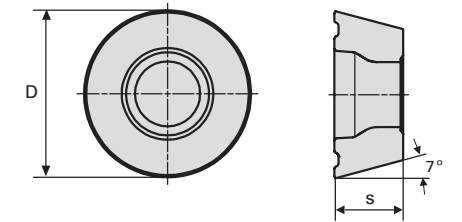
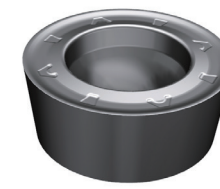
* SFM: Surface Feet per Minute (ft/min.)

RCMT 0803



Designation	Grade	Dimensions			
		l	D	s	r
RCMT 0803M0	YG801	-	.315	.125	-

RCMT 10T3



Designation	Grade	Dimensions			
		l	D	s	r
RCMT 10T3M0	YG801	-	.394	.156	-

RCMT 0803M0

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0059	.0157	.0130	591	1083	837	.020	.094	.047
	Low Alloys	200	.0059	.0138	.0110	394	919	656	.020	.094	.047
	High Alloys	220	.0051	.0138	.0110	230	623	427	.020	.094	.047
M	Austenitic	190	.0055	.0138	.0118	558	886	722	.020	.094	.047
K	Grey Cast Iron	140	.0043	.0177	.0130	558	820	689	.020	.094	.047
S	Heat Resistant and Super Alloys	240	.0051	.0118	.0098	82	164	123	.020	.071	.047
H	Hardened Materials	45HRc	.0020	.0087	.0053	164	328	246	.020	.055	.043

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

RCMT 10T3M0

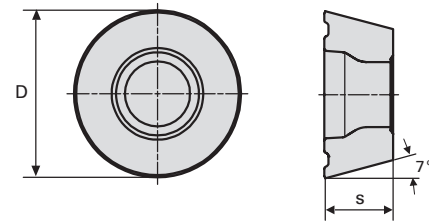
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0059	.0157	.0130	591	1083	837	.020	.110	.055
	Low Alloys	200	.0059	.0138	.0110	394	919	656	.020	.110	.055
	High Alloys	220	.0051	.0138	.0110	230	623	427	.020	.110	.055
M	Austenitic	190	.0055	.0138	.0118	558	886	722	.020	.110	.055
K	Grey Cast Iron	140	.0043	.0177	.0130	558	820	689	.020	.110	.055
S	Heat Resistant and Super Alloys	240	.0051	.0118	.0098	82	164	123	.020	.083	.055
H	Hardened Materials	45HRc	.0020	.0087	.0053	164	328	246	.020	.067	.051

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

RCMT 1204



Designation	Grade	Dimensions			
		I	D	s	r
RCMT 1204M0	YG801	-	.472	.187	-

RCMT 1204M0

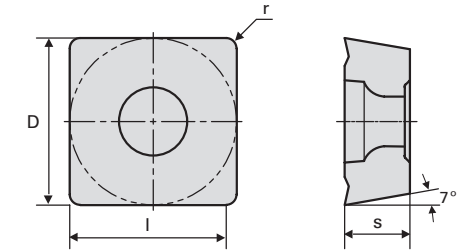
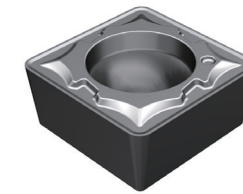
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0059	.0157	.0157	591	1083	837	.020	.126	.079
	Low Alloys	200	.0059	.0138	.0138	394	919	656	.020	.126	.079
	High Alloys	220	.0051	.0138	.0138	230	623	427	.020	.126	.079
M	Austenitic	190	.0055	.0138	.0138	558	886	722	.020	.126	.079
K	Grey Cast Iron	140	.0043	.0177	.0157	558	820	689	.020	.126	.079
S	Heat Resistant and Super Alloys	240	.0051	.0118	.0118	82	164	123	.020	.094	.059
H	Hardened Materials	45HRc	.0020	.0087	.0079	164	328	246	.020	.075	.071

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

SCMT 32.5



Designation	Grade	Dimensions			
		I	D	s	r
SCMT 32.51-UF	YG801	.359	.375	.156	.016
SCMT 32.52-UG	YG801	.344	.375	.156	.031

SCMT 32.51

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0102	.0073	591	1083	984	.008	.157	.098
	Low Alloys	200	.0039	.0091	.0065	394	919	820	.008	.130	.098
	High Alloys	220	.0035	.0083	.0059	230	623	558	.008	.130	.098
M	Austenitic	190	.0039	.0083	.0061	558	886	820	.008	.130	.098
K	Grey Cast Iron	140	.0031	.0091	.0061	558	820	787	.008	.157	.098
S	Heat Resistant and Super Alloys	240	.0035	.0067	.0051	82	164	115	.008	.106	.079
H	Hardened Materials	45HRc	.0020	.0055	.0037	164	328	246	.008	.094	.075

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

SCMT 32.52

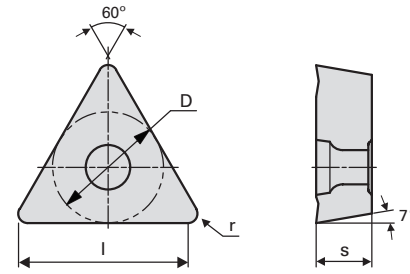
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0083	.0197	.0140	591	1083	837	.020	.157	.118
	Low Alloys	200	.0083	.0177	.0130	394	919	656	.020	.157	.118
	High Alloys	220	.0071	.0157	.0114	230	623	427	.020	.126	.098
M	Austenitic	190	.0079	.0157	.0118	558	886	722	.020	.157	.118
K	Grey Cast Iron	140	.0059	.0236	.0148	558	820	689	.020	.157	.118
S	Heat Resistant and Super Alloys	240	.0079	.0138	.0108	82	148	115	.020	.094	.079
H	Hardened Materials	45HRc	.0043	.0118	.0081	164	328	246	.020	.079	.079

* IPR: Feed Rate (inch/rev.)

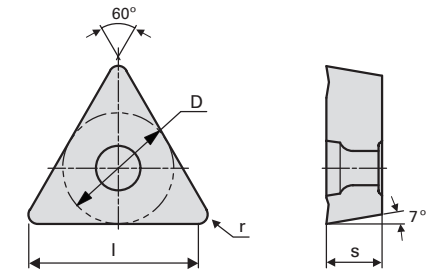
* SFM: Surface Feet per Minute (ft/min.)

TCMT 21.5



Designation	Grade	Dimensions			
		I	D	s	r
TCMT 21.51-UF	YG801	.433	.250	.094	.016

TCMT 32.5



Designation	Grade	Dimensions			
		I	D	s	r
TCMT 32.51-UF	YG801	.609	.375	.156	.016
TCMT 32.52-UG	YG801	.541	.375	.156	.031

TCMT 21.51

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0031	.0079	.0055	591	1083	984	.008	.083	.039
	Low Alloys	200	.0031	.0067	.0049	394	919	820	.008	.071	.039
	High Alloys	220	.0028	.0059	.0043	230	623	558	.008	.071	.039
M	Austenitic	190	.0031	.0059	.0045	558	886	820	.008	.071	.039
K	Grey Cast Iron	140	.0024	.0067	.0045	558	820	787	.008	.083	.039
S	Heat Resistant and Super Alloys	240	.0031	.0051	.0041	82	164	115	.008	.055	.039
H	Hardened Materials	45HRc	.0016	.0039	.0028	164	328	246	.008	.051	.031

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TCMT 32.51

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0079	591	1083	984	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	820	.008	.098	.079
	High Alloys	220	.0035	.0071	.0047	230	623	558	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0059	558	886	820	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0059	558	820	787	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0043	82	148	115	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0035	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

TCMT 32.52

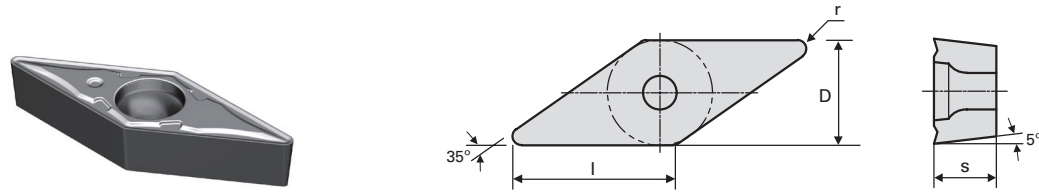
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0079	591	1083	820	.008	.118	.118
	Low Alloys	200	.0039	.0079	.0059	394	919	656	.008	.098	.118
	High Alloys	220	.0035	.0071	.0047	230	623	427	.008	.098	.098
M	Austenitic	190	.0039	.0071	.0059	558	886	722	.008	.098	.118
K	Grey Cast Iron	140	.0031	.0079	.0059	558	820	689	.008	.098	.118
S	Heat Resistant and Super Alloys	240	.0079	.0118	.0098	82	148	115	.020	.118	.079
H	Hardened Materials	45HRc	.0043	.0102	.0073	164	328	246	.020	.098	.079

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

VBMT 33



Designation	Grade	Dimensions			
		L	D	s	r
VBMT 331-UF	YG801	.615	.375	.187	.016
VBMT 332-UG	YG801	.576	.375	.187	.031

VBMT 331

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	837	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	656	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	427	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	722	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	689	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	123	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

VBMT 332

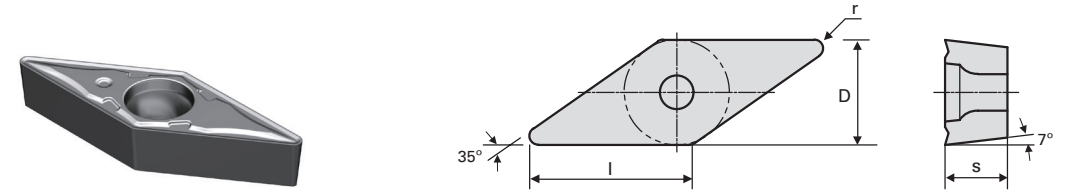
Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0075	.0157	.0116	591	1083	837	.020	.138	.098
	Low Alloys	200	.0075	.0142	.0108	394	919	656	.020	.138	.098
	High Alloys	220	.0063	.0126	.0094	230	623	427	.020	.110	.083
M	Austenitic	190	.0071	.0126	.0098	558	886	722	.020	.138	.098
K	Grey Cast Iron	140	.0055	.0189	.0122	558	820	689	.020	.138	.098
S	Heat Resistant and Super Alloys	240	.0071	.0110	.0091	82	148	115	.020	.083	.079
H	Hardened Materials	45HRc	.0039	.0094	.0067	164	328	246	.020	.071	.063

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

VCMT 33



Designation	Grade	Dimensions			
		L	D	s	r
VCMT 331-UF	YG801	.615	.375	.187	.016
VCMT 332-UG	YG801	.576	.375	.187	.031

VCMT 331

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0043	.0091	.0067	591	1083	837	.008	.118	.079
	Low Alloys	200	.0039	.0079	.0059	394	919	656	.008	.098	.079
	High Alloys	220	.0035	.0071	.0053	230	623	427	.008	.098	.079
M	Austenitic	190	.0039	.0071	.0055	558	886	722	.008	.098	.079
K	Grey Cast Iron	140	.0031	.0079	.0055	558	820	689	.008	.118	.079
S	Heat Resistant and Super Alloys	240	.0035	.0059	.0047	82	164	123	.008	.079	.079
H	Hardened Materials	45HRc	.0020	.0047	.0033	164	328	246	.008	.071	.059

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

VCMT 332

Recommended Cutting Condition

Material			Cutting Conditions								
Group	Sub Group	Hardness (HB)	Feed (IPR)			Vc (SFM)			Depth Of Cut (Inch)		
			Min.	Max.	Recommend	Min.	Max.	Recommend	Min.	Max.	Recommend
P	Non Alloys	120	.0075	.0157	.0116	591	1083	837	.020	.138	.098
	Low Alloys	200	.0075	.0142	.0108	394	919	656	.020	.138	.098
	High Alloys	220	.0063	.0126	.0094	230	623	427	.020	.110	.083
M	Austenitic	190	.0071	.0126	.0098	558	886	722	.020	.138	.098
K	Grey Cast Iron	140	.0055	.0189	.0122	558	820	689	.020	.138	.098
S	Heat Resistant and Super Alloys	240	.0071	.0110	.0091	82	148	115	.020	.083	.079
H	Hardened Materials	45HRc	.0039	.0094	.0067	164	328	246	.020	.071	.063

* IPR: Feed Rate (inch/rev.)

* SFM: Surface Feet per Minute (ft/min.)

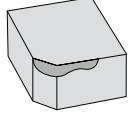
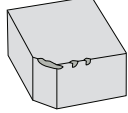
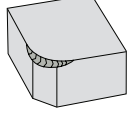
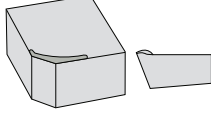
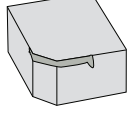
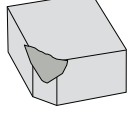
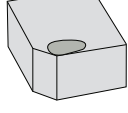
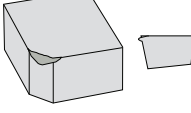
YGTURN



YGDRILL

TECHNICAL INFORMATION

Damage of Insert & Counter Measure

Trouble Type	Cause	Solution
 Rapid Flank wear	1. Inappropriate feed(f) rate 2. Cutting speed(s) too high	1. Adjust feed(f) rate according to depth(ap), width(ae) 2. Reduce cutting speed(s)
 Chipping	1. Feed(f) rate too high 2. Cutting speed(s) too low 3. Vibration of holder & machine 4. Lack of toughness of cutting edge 5. Lack of rigid of shank type holder	1. Reduce feed(f) rate 2. Increase cutting speed(s) 3. Reduce the tool overhang & improve the rigidity of machine and workpiece 4. Apply big size shank type holder 5. Increase honing size
 Thermal crack	1. Insufficient coolant 2. Cutting speed(s) too high 3. Workpiece too hardened	1. Check cooling system, supply enough coolant or use dry milling 2. Reduce cutting speed(s) 3. Apply workpiece with high toughness
 Built-up edge	1. Cutting speed(s) too low 2. Insufficient coolant 3. Not enough rake angle	1. Increase cutting speed(s) 2. Supply enough coolant 3. Increase rake angle of change inserts
 Notch wear	1. Scaling or work hardening in workpiece surface area 2. Burrs in workpiece	1. Change/Vary cutting condition (feed & depth) 2. Change path or direction
 Fracture	1. Wrong insert shape or corner radius 2. Corner radius too small 3. Cutting force fluctuation too high	1. Choose the insert with bigger corner or radius 2. Reduce feed rate and depth 3. Choose thicker insert
 Cratering	1. Insufficient coolant supply 2. Cutting speed(s) and feed(f) rate too high 3. Workpiece too softened	1. Increase coolant supply or concentration 2. Reduce cutting speed(s) and feed(f) rate 3. Apply workpiece with high wear resistance
 Plastic deformation	1. Feed(f) and depth of cut too high 2. Cutting speed(s) too high 3. Too much stress applied on the cutting edge	1. Reduce cutting speed(s) 2. Supply enough coolant 3. Choose insert with bigger corner radius 4. Reduce feed rate and depth of cut 5. Apply workpiece with high wear resistance or high thermal conductivity

1. APKT 100305PDTR

Test Condition

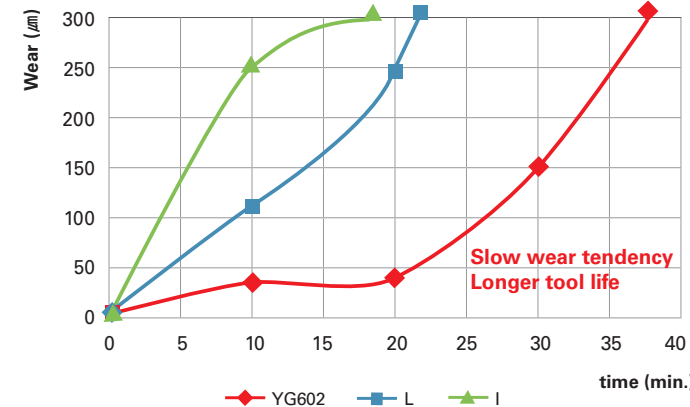
Workpiece (Alloy Tool Steel)	DIN: X100CrMoV5 1 AISI: D2 JIS: SKD11
Workpiece HB	210 ~ 220
Workpiece Size	150 × 200 × 120 (5.905 × 7.874 × 4.724)
Vc (SFM)	459
Feed (IPT)	.0039
ap/ae (inch)	.3149 / .1181
Coolant	Dry



Test samples

Designation	Grade	Cutter
APKT 100305PDTR	YG602	Ø.787 (Ø20)
APKT 1003PDTR	L	
APKT 1003PDER	I	

Test Result



※ Test finishing wear value : 300µm (flank wear)

Tool life comparison results

- YG602 had best tool life result compare than others.
- YG602 showed slow wear tendency compare than others.

2. APKT 100305PDTR

Test Condition

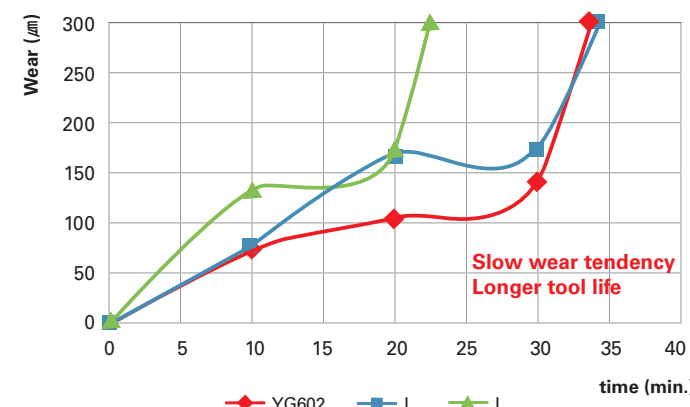
Workpiece (Stainless steel)	DIN: X2CrNi19-11 AISI: 304 JIS: SUS304
Workpiece HB	170 ~ 180
Workpiece Size	300 × 80 × 150 (11.811 × 3.150 × 5.906)
Vc (SFM)	590
Feed (IPT)	.0031
ap/ae (inch)	.3149 / .1181
Coolant	Dry



Test samples

Designation	Grade	Cutter
APKT 100305PDTR	YG602	Ø.787 (Ø20)
APKT 1003PDTR	L	
APKT 1003PDER	I	

Test Result



※ Test finishing wear value : 300µm (flank wear)

Tool life comparison results :

- YG602 had best tool life result compare than others.
- YG602 showed slow wear tendency compare than others.

3. APMT 160408PDTR

Test Condition

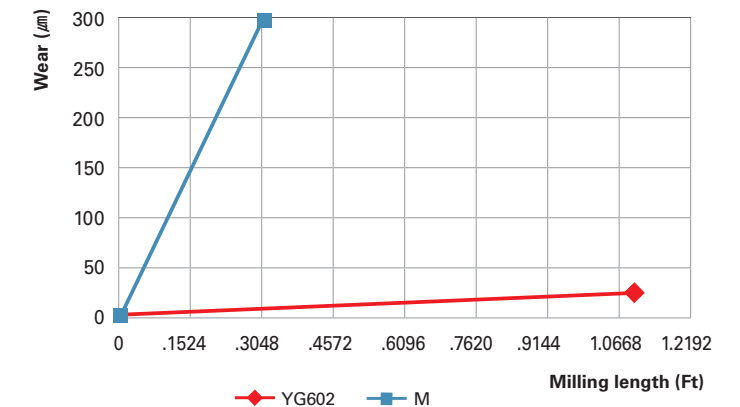
Workpiece (Alloy steel)	DIN: 42CrMo4 AISI: 4140 JIS: SCM440
Workpiece HB	270 ~ 290
Workpiece Size	200 × 300 × 150 (7.876 × 11.811 × 5.906)
Vc (SFM)	656
Feed (IPT)	.0071
ap/ae (inch)	.0787 / .7874
Coolant	Dry



Test samples

Designation	Grade	Cutter
APMT 160408PDTR	YG602	Ø1.969 (Ø50)
APMT 1604PDER	M	

Test Result



※ Test finishing wear value : 300µm (flank wear)

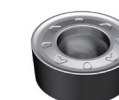
Tool life comparison results :

- YG602 had best tool life result compare than the other.
- YG602 showed slow wear tendency compare than the other.

4. RDKT 1204M0

Test Condition

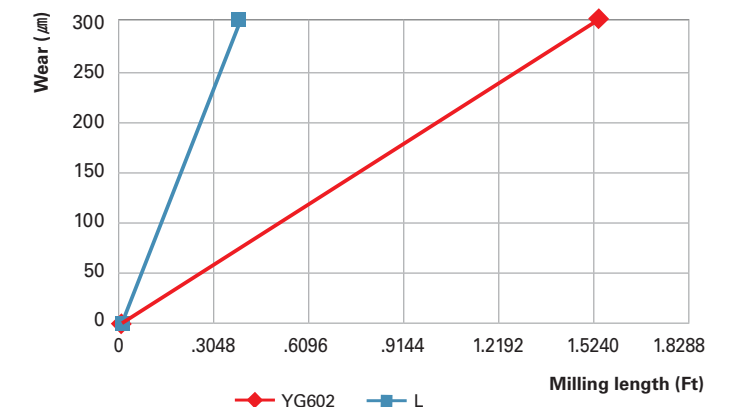
Workpiece (Alloy Tool Steel)	DIN: X100CrMoV5 1 AISI: D2 JIS: SKD11
Workpiece HB	200 ~ 210
Workpiece Size	120 × 100 × 150 (4.724 × 3.937 × 5.906)
Vc (SFM)	394
Feed (IPT)	.0078
ap/ae (inch)	.0196 / .7874
Coolant	Dry



Test samples

Designation	Grade	Cutter
RDKT 1204M0	YG602	Ø1.969 (Ø50)
RDMT 1204M0	L	

Test Result



※ Test finishing wear value : 300µm (flank wear)

Tool life comparison results

- YG602 had best tool life result compare than the other.
- YG602 showed slow wear tendency compare than the other.



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