

YE-IT20
EUROPE
2020/2021

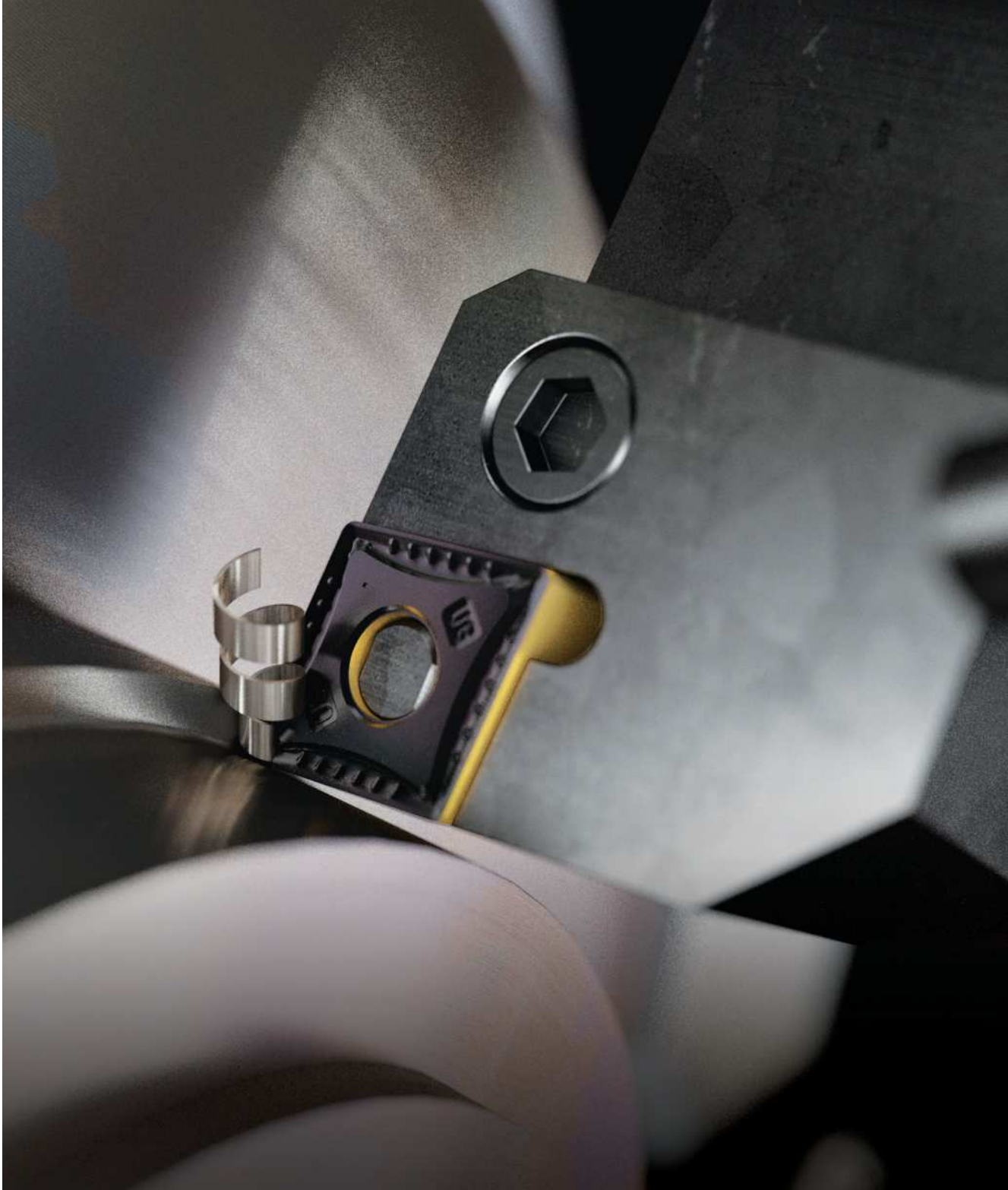


CUTTING TOOLS



INDEXABLE INSERTS

 YG-1 CO., LTD.



ISO TURNING

Product Overview

Application Guide

Turning Holders Overview

Turning Holders

Turning Inserts Overview

Turning Inserts

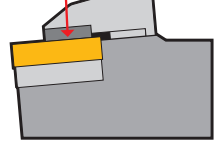
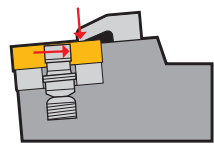
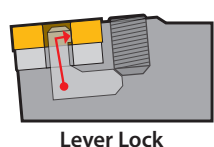
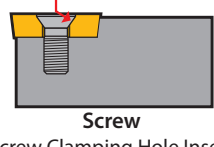
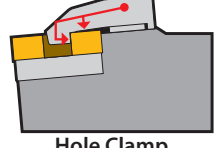
Turning - Name Code System

External Turning Holder Code (Metric)

*Metric

1	2	3	4	5	6	7	8	9	10
P	C	L	N	R	25	25	M	12	(C)
Clamping System	Insert Shape (1st Letter of Insert)	Tool Style	Insert Clearance (2nd Letter of Insert)	Tool Hand	Shank Height (H)	Shank Width (B)	Length (LF)	Insert Size	(Optional Clamp)

1 - Clamping System














Symbol	System
C	 Top Clamp (No Clamping Hole Insert)
M	 Pin & Top Clamp (Straight Clamping Hole Insert)
P	 Lever Lock (Straight Clamping Hole Insert)
S	 Screw (Screw Clamping Hole Insert)
T (D, A)	 Hole Clamp (Straight Clamping Hole Insert)

2, 4 — Insert Compatibility *



* Related to Insert Designation to check compatibility

3 - Tool Style

Approach Angle (KAPR)	Side Direction		End Direction
	Straight Shank	Offset Shank	
45°	D 	S 	
60°		T 	
63°	N 		
72.5°	V 		
75°	B 		K 
90°	A 	G 	F 
93°		J 	U
95°		L (Both Direction) 	
107.5°		H 	

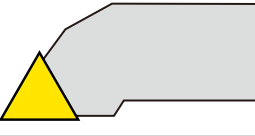
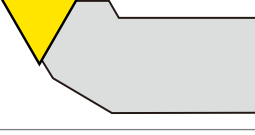
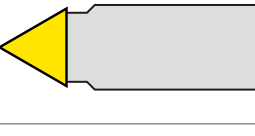
Turning - Name Code System

External Turning Holder Code (Metric)

*Metric

1	2	3	4	5	6	7	8	9
S	D	J	C	R	20	20	K	11
Clamping System	Insert Shape (1st Letter of Insert)	Tool Style	Insert Clearance (2nd Letter of Insert)	Tool Hand	Shank Height (H)	Shank Width (B)	Length (LF)	Insert Size

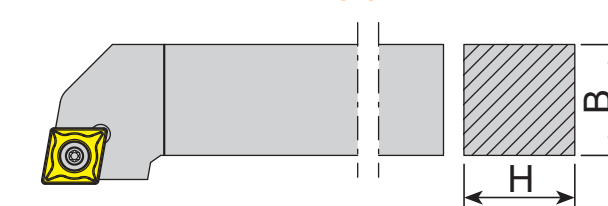
5 - Hand Direction

Symbol	Hand Direction
R	Right Hand 
L	Left Hand 
N	Neutral 

8 - Length (LF)

Symbol	Length (mm)	Symbol	Length (mm)
E	70	Q	180
F	80	R	200
H	100	S	250
K	125	T	300
M	150	U	350
P	170	V	400

6, 7 - Shank Height (H) Shank Width (B)



9 - Insert Size *

Examples	is Compatible with...
PCLNR 2525M 12	CNMG 120408
SCLCR 2020K 09	CCMT 09T308
TWLNLR 2525M 08	WNMG 080408

* Related to Insert Designation to check compatibility

(10 - Optional Clamp)

Symbol	Optional Clamp
C	Included

Turning - Name Code System

Internal Turning Holder Code (Metric)

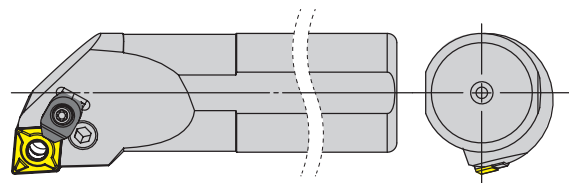
*Metric

1	2	3	-	4	5	6	7	8	9	10
A	32	S	-	P	W	L	N	R	12	(C)
Coolant & Material	Shank Diameter (DCON)	Legth (LF)		Clamping System	Insert Shape (1st Letter of Insert)	Tool Style	Insert Clearance (2nd Letter of Insert)	Tool Hand	Insert Size	(Optional Clamp)

1 - Coolant and Tool Material

Symbol	Internal Coolant	Tool Material
A	O	Steel
S	X	
E	O	Carbide

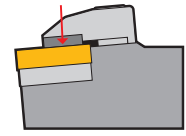
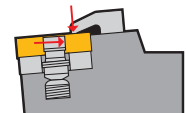
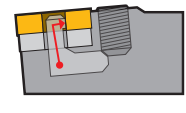
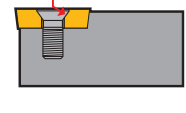
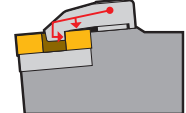
2 - Shank Diameter (DCON)



3 - Length (LF)

Symbol	Length (mm)	Symbol	Length (mm)
E	70	Q	180
F	80	R	200
H	100	S	250
K	125	T	300
M	150	U	350
P	170	V	400

4 - Clamping System

Symbol	System
C	 Top Clamp (No Clamping Hole Insert)
M	 Pin & Top Clamp (Straight Clamping Hole Insert)
P	 Lever Lock (Straight Clamping Hole Insert)
S	 Screw (Screw Clamping Hole Insert)
T (D, A)	 Hole Clamp (Straight Clamping Hole Insert)

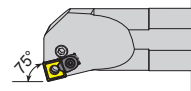
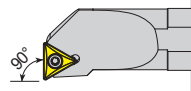
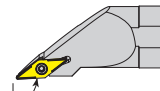
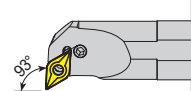
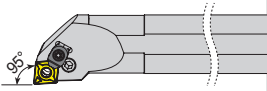
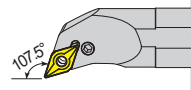
Turning - Name Code System

Internal Turning Holder Code (Metric)

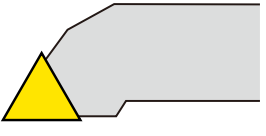
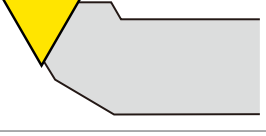
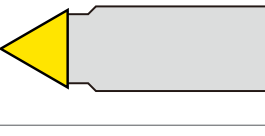
*Metric

1	2	3	-	4	5	6	7	8	9
A	25	R	-	S	C	L	C	R	09
Coolant & Material	Shank Diameter (DCON)	Legth (LF)		Clamping System	Insert Shape (1st Letter of Insert)	Tool Style	Insert Clearance (2nd Letter of Insert)	Tool Hand	Insert Size

6 - Tool Style

Approach Angle (KAPR)	Side Direction	End Direction
	Offset Shank	
75°		K 
90°		F 
93°	J 	U 
95°	L (Both Direction) 	
107.5°		Q 

8 - Hand Direction

Symbol	Hand Direction
R	Right Hand 
L	Left Hand 
N	Neutral 

9 - Insert Size *

Examples	is Compatible with...
PCLNR 2525M 12	CNMG 120408
SCLCR 2020K 09	CCMT 09T308
TWLNR 2525M 08	WNMG 080408

* Related to Insert Designation to check compatibility

5, 7 - Insert Compatibility *



* Related to Insert Designation to check compatibility

(10 - Optional Clamp)

Symbol	Optional Clamp
C	Included

Insert ISO Code System

*Metric : According to ISO 1832

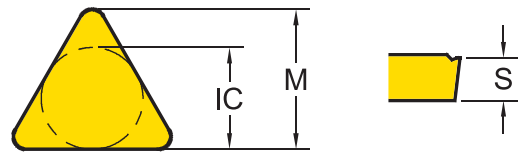
1	2	3	4	5	6	7	8	9
C	N	M	G	12	04	08	-UG	YG3020
Shape	Clearance	Tolerance	Clamping & Chipbreaker	Insert Size	Insert Thickness	Corner Radius	Chipbreaker Geometry	Grade

page 12

page 10

1 - Shape

Symbol	Shape	
H	Hexagonal	
O	Octagonal	
P	Pentagonal	
S	Square	
T	Triangular	
C	Rhombic 80°	
D	Rhombic 55°	
V	Rhombic 35°	
W	Trigon	
L	Rectangular	
K	Parallelogram 55°	
R	Round	



3 - Tolerance Class

Symbol	Inner Circle IC (mm)	Nose Height M (mm)	Thickness S (mm)
C	± 0.025	± 0.013	± 0.025
E	± 0.025	± 0.025	± 0.025
G	± 0.025	± 0.025	± 0.13
H	± 0.013	± 0.013	± 0.025
K*	± 0.05~0.15*	± 0.013	± 0.025
M*	± 0.05~0.15*	± 0.08~0.2*	± 0.13
U*	± 0.08~0.25*	± 0.13~0.38*	± 0.13

*Tolerance is different by insert IC size. Please see ISO 1832

4 - Clamping & Chipbreaker

Symbol	Clamping	Chipbreaker	Figure
N	No clamping hole	X	
R		One Face	
A	Cylindrical Clamping hole	X	
M		One Face	
G		Both Faces	
W	Screw Hole	X	
T		One Face	
U		Both Faces	
X		Special	

2 - Relief Angle (AN)

Symbol	Relief Angle (AN)	
N	No Relief Angle	
B	Relief 5°	
C	Relief 7°	
P	Relief 11°	
D	Relief 15°	
E	Relief 20°	
F	Relief 25°	
O	Special	

Insert ISO Code System

*Inch

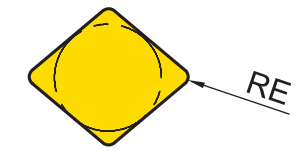
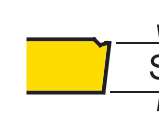
1	2	3	4	5	6	7	8	9
C	N	M	G	4	3	2	-UG	YG3020
Shape	Clearance	Tolerance	Clamping & Chipbreaker	Insert Size	Insert Thickness	Corner Radius	Chipbreaker Geometry	Grade

page 12

page 10

5 - Insert Size

Metric							Inner Circle IC (mm)	Inch
S	T	C	D	V	W	R		
06	11	06	07	11			6.35	2
07							7.94	2.5
09	16	09	11	16	06	09 (00)	9.525	3
12	22	12	15	22	08	12 (00)	12.7	4
15		16					15.875	5
19		19					19.05	6
25		25					25.4	8
						06 (M0)	6	
						08 (M0)	8	
						10 (M0)	10	
						12 (M0)	12	
						16 (M0)	16	



6 - Insert Thickness (S)

Metric	Thickness - S (mm)	Inch
T1	1.98	1.2
02	2.38	1.5
03	3.18	2
T3	3.97	2.5
04	4.76	3
05	5.56	3.5
06	6.35	4
07	7.94	5
09	9.525	6

7 - Corner Radius (RE)

Metric	Corner Radius - RE (mm)	Inch
01	0.1	0
02	0.2	0.5
04	0.4	1
08	0.8	2
12	1.2	3
16	1.6	4
20	2.0	5
24	2.4	6

Product Overview

Turning Grades

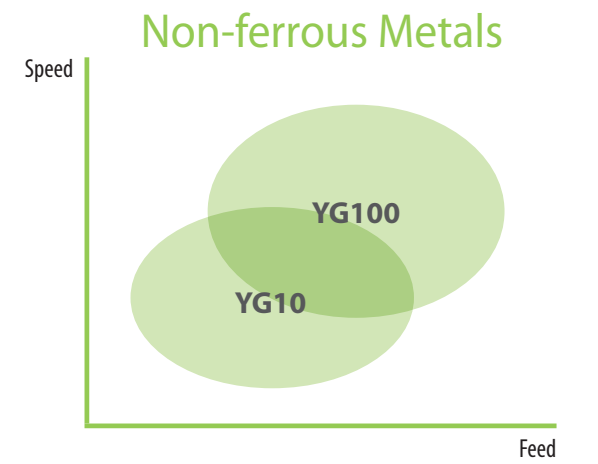
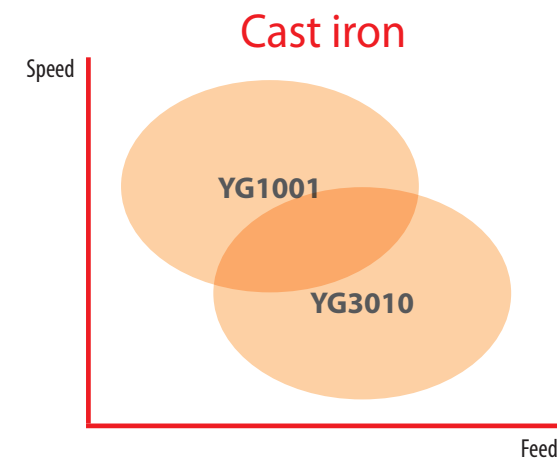
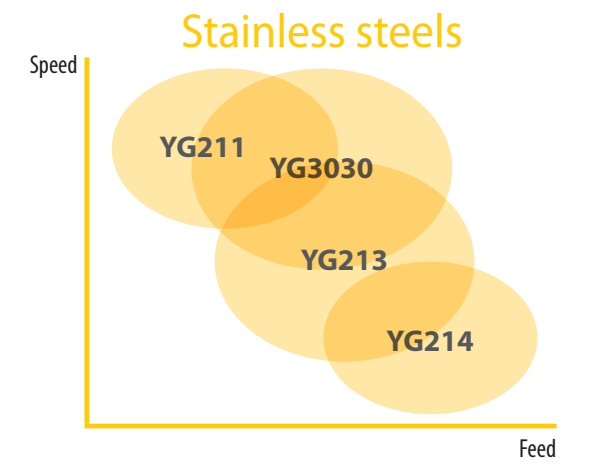
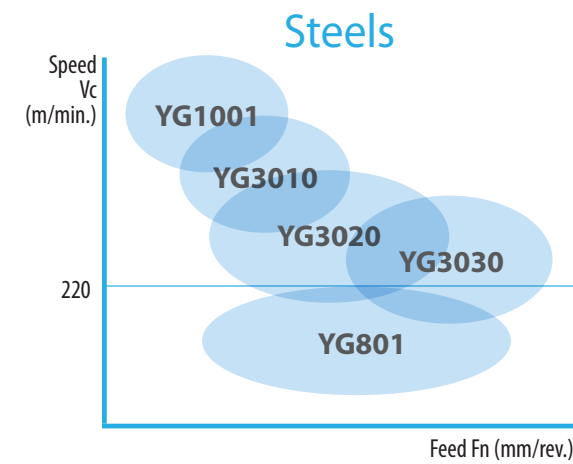
Turning Grades	P Steel				M Stainless steel			K Cast iron			N Non-ferrous		S Superalloys	
	P10	P20	P30	P40	M10	M20	M30	K10	K20	K30	N10	N20	S10	S20
CVD	YG1001	1001						1001						
	YG3010		3010					3010						
	YG3020			3020										
	YG3030				3030									
PVD	YG801	801												
	YG211				211								211	
	YG213					213								213
	YG214						214							214
DLC	YG100										100			
	- YG10										10			

YG1001 P01 - P10 K10 - K25		First choice for stable machining of Cast iron • Substrate especially designed for high wear resistance • Thick Al ₂ O ₃ layer ensures good wear resistance at high cutting speeds including dry machining
YG3010 P05 - P20 K15 - K35		First choice for Finishing Steels, and Ductile Cast iron • Finishing and light machining of steel under in stable condition • New Al ₂ O ₃ coating technology and excellent surface smoothness increase wear resistance and chipping resistance
YG3020 P15 - P30		First Choice grade for general Steel application • Substrate especially designed for good toughness • Excellent surface smoothness increases wear resistance and reliability
YG3030 P20 - P35 M10 - M30		Interrupted cut of Steel and Stainless steel • Heavy interrupted cut for Steel • High cutting speed for Stainless steel
YG801 P10 - P30		for Carbon Steel with Low cutting speed • Recommended for mild steel and boring application • Substrate and special PVD coating for excellent wear resistance
YG100 N05 - N25		First Choice grade for aluminum with DLC coating • Submicron carbide for high wear resistance • DLC coating minimizes Built Up Edge tendency. • Improve tool life in sticky non-ferrous alloy
YG10 N05 - N25		Uncoated Grade for General Aluminum • Substrate consisted of submicron carbide for high wear resistance • Shining surface to prevent built up edge

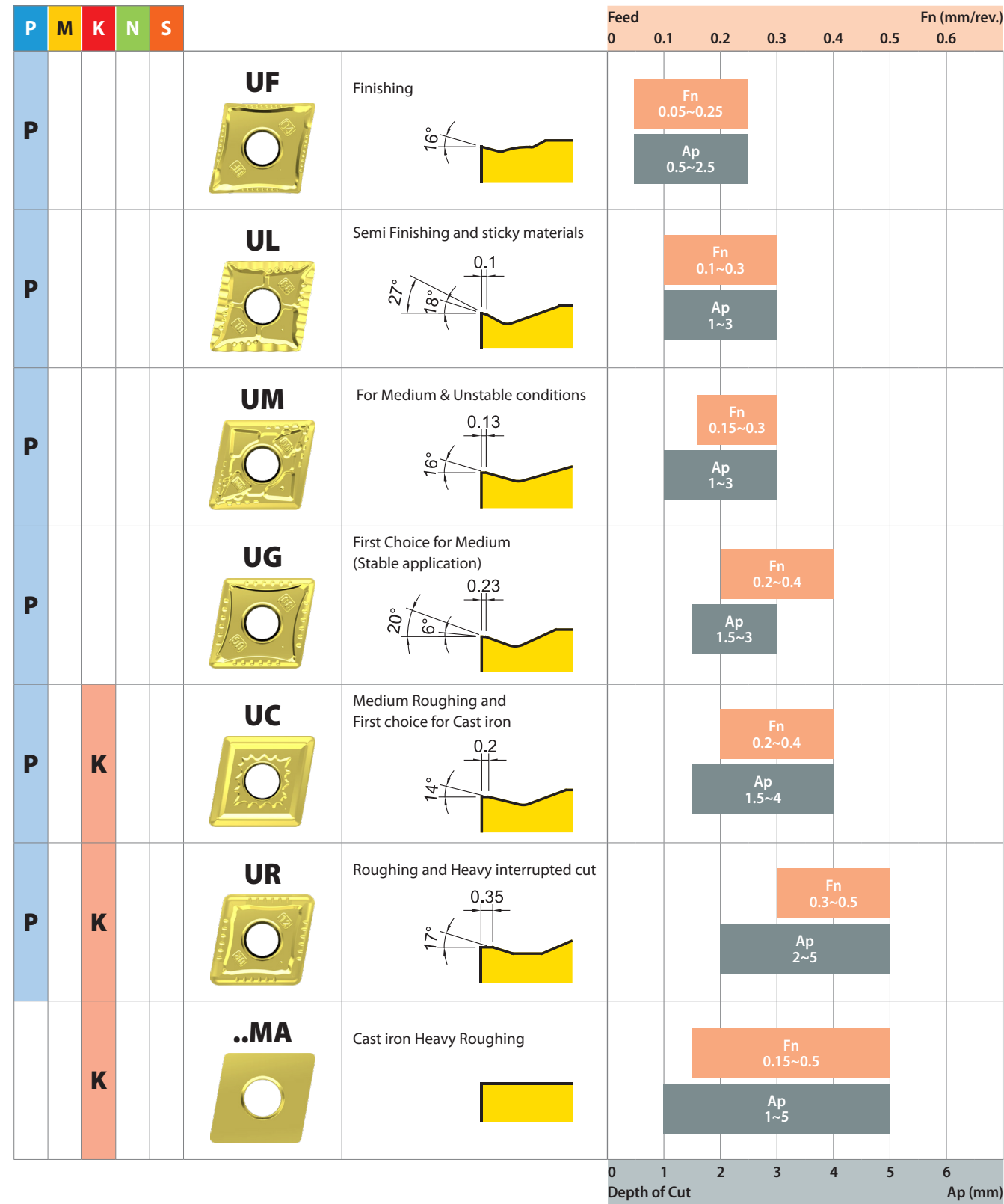
Product Overview

Turning Grade Map

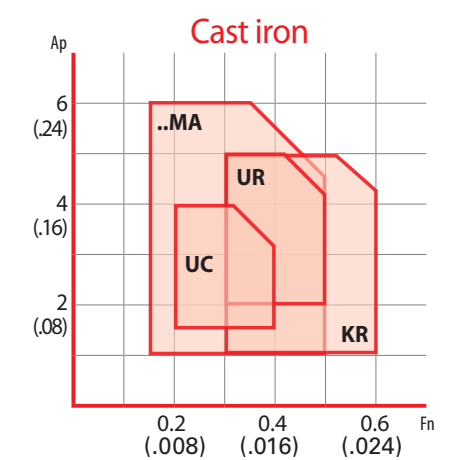
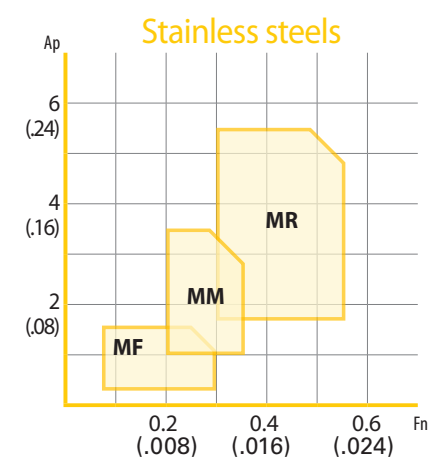
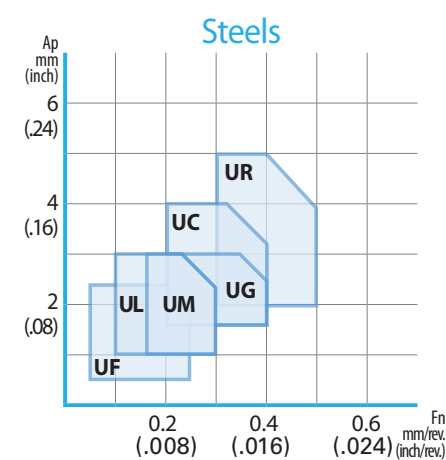
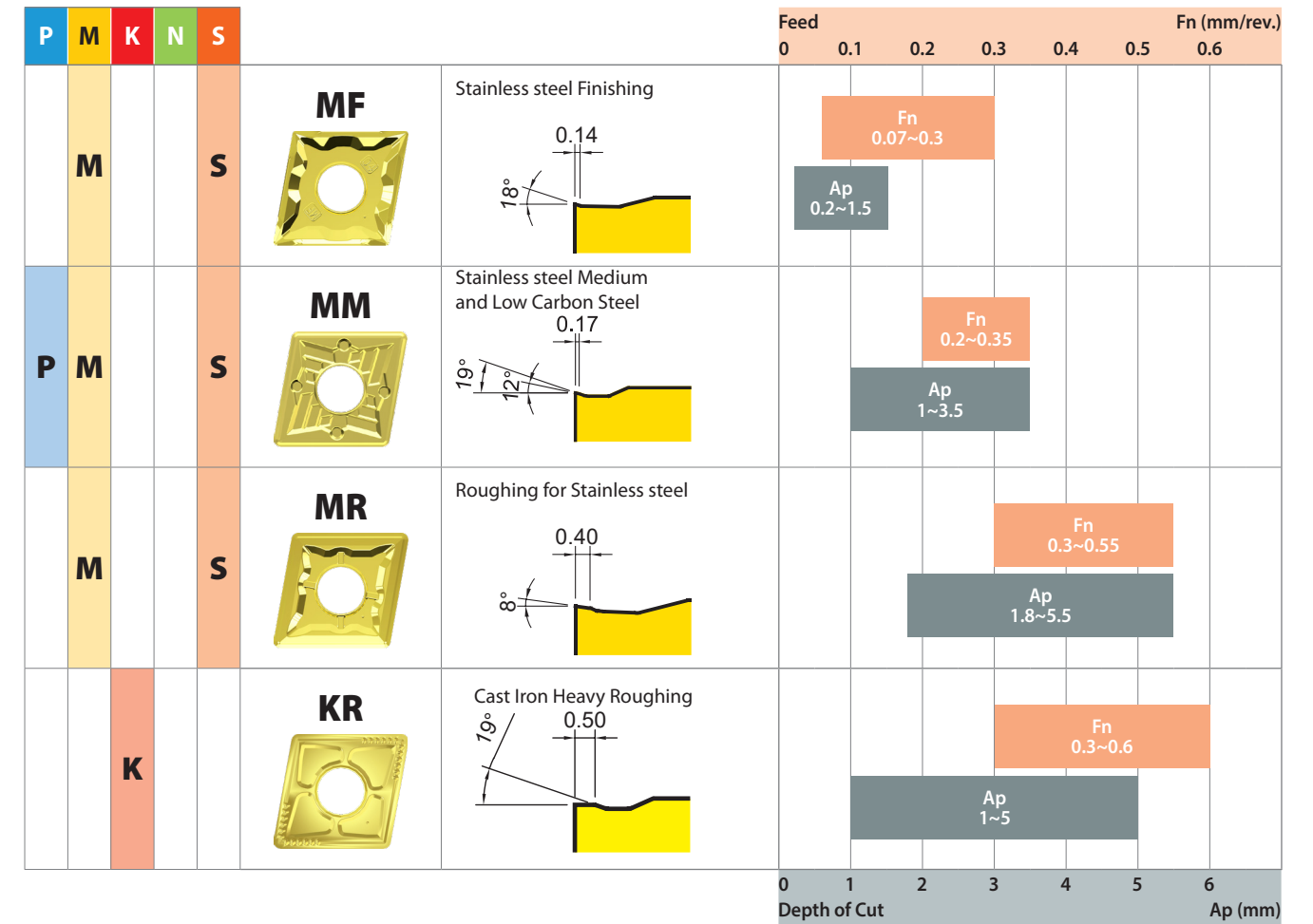
YG211 M05 - M25 S05 - S20		High wear resistance grade for Super alloys and Stainless steel • Finishing Stainless steel • Finishing Super alloys and Titanium
YG213 M20 - M35 S15 - S25		First Choice Grade on low cutting speed of Stainless steel • First choice on Stainless steel for Low cutting speed • For Medium to low cutting speed
YG214 M30 - M40 S25 - S30		Heavy Interrupted cut for Stainless steel • For Heavy Interrupted cut on Stainless steel • Minimize risk of Mechanical fracture or Chipping



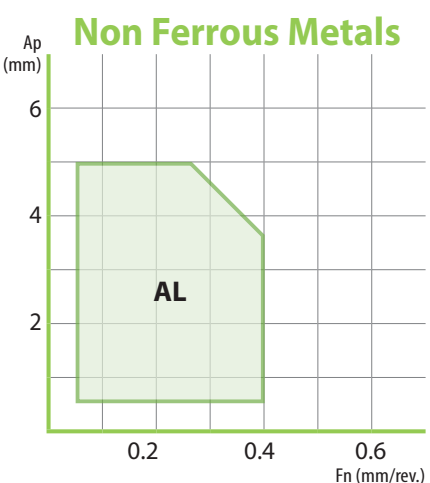
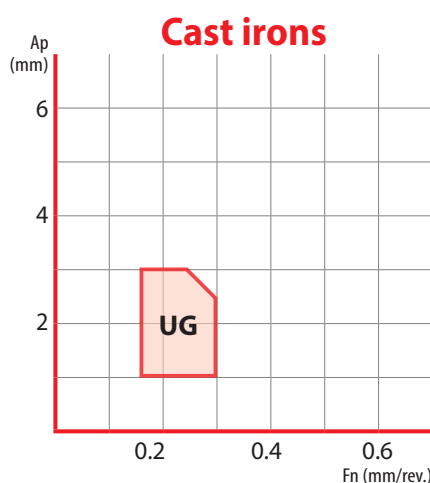
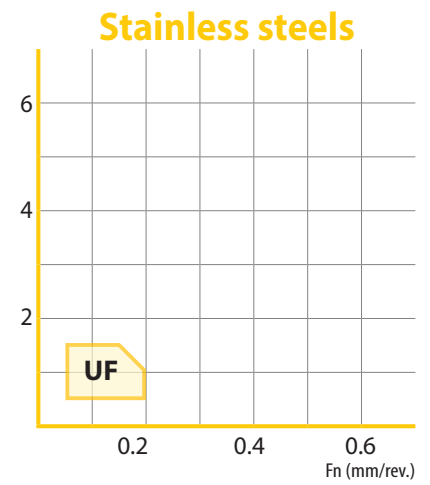
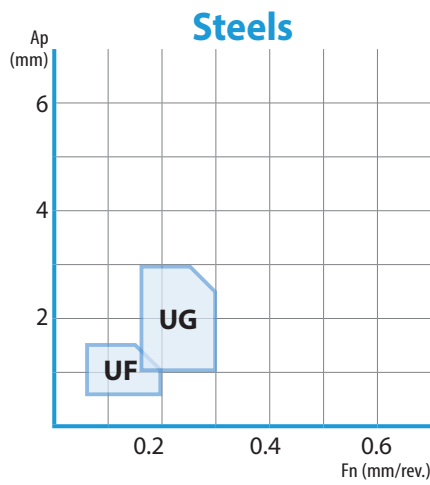
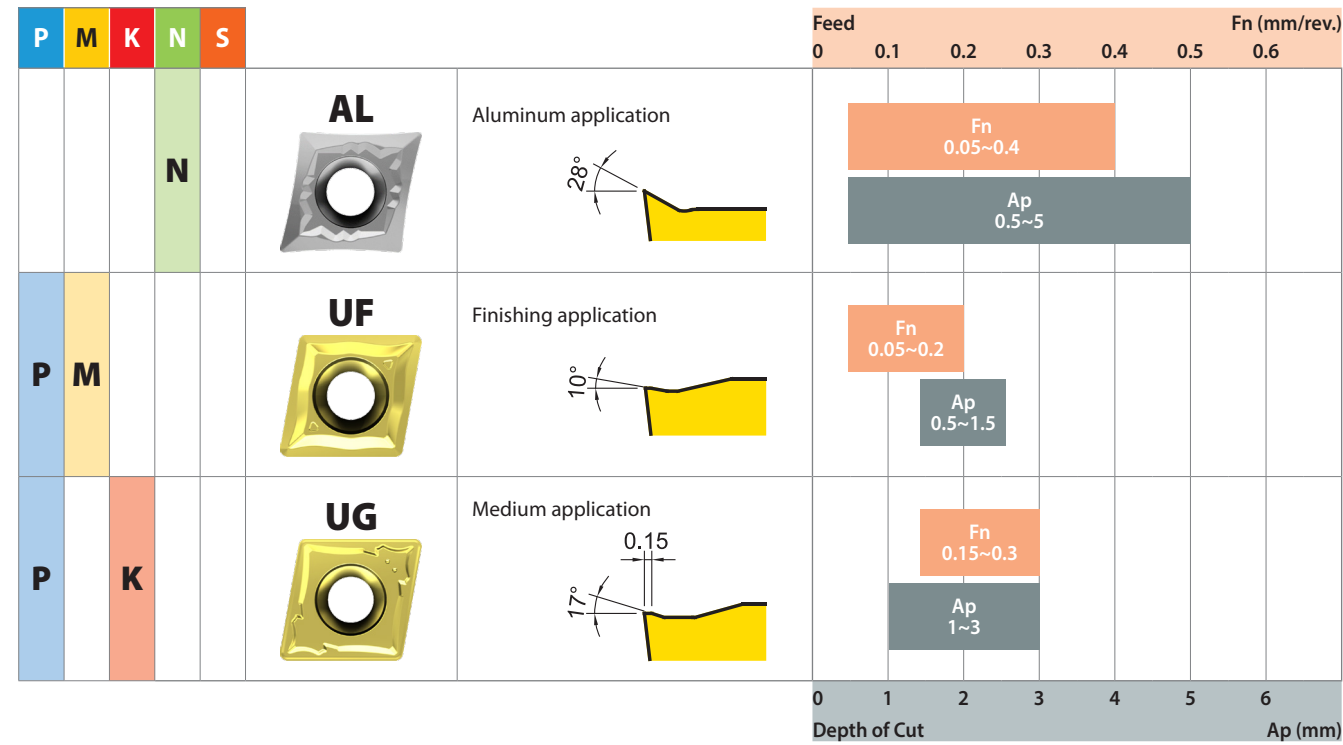
Turning Chipbreakers - Negative



Turning Chipbreakers - Negative



Product Overview
Turning Chipbreakers - Positive



Application Guide
Steel Guide

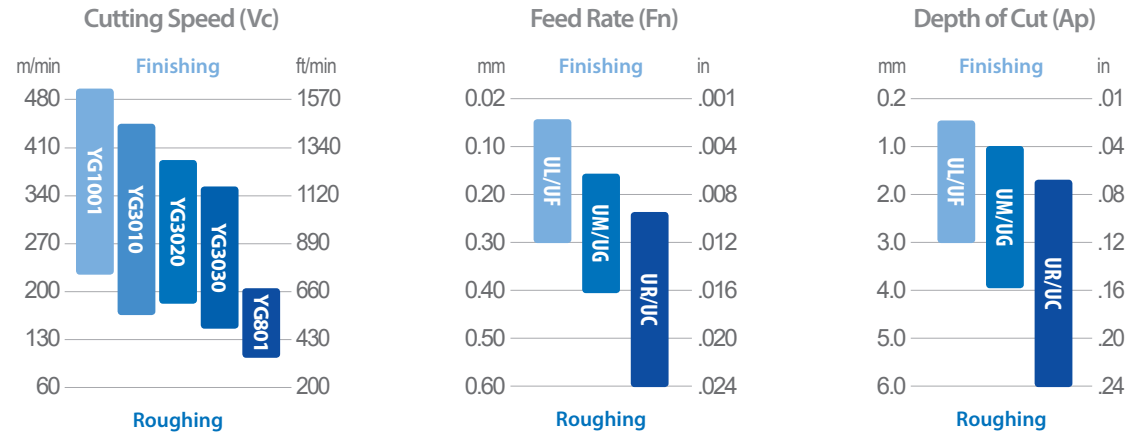
Grade Recommendation based on Workpiece Material Condition

	Pre Machined Condition No Outer Skin Uniform hardness on material Has stable machining condition	↑ HARD YG3010 YG3020 YG3030 ↓ TOUGH
	Welded Condition Soft / No Outer Skin Weld Bead Could be of Different Hardness than Actual Part Stock on Part could even except weld Seam during Machining causing shock loads	
	Cast Condition Hard Outer Skin Could have Sand Inclusion,- if Green Sand Cast Component could have uneven Stock during machining	
	Hot Rolled Condition Soft / No Outer Skin Usually heat treated before machine to reduce Hardness Component could have uneven Stock During Machining	
	Forged Condition Soft Outer Skin Usually heat treated before machine to reduce Hardness Component could have uneven Stock during machining	

Chipbreaker, Feed Rate and Depth of Cut

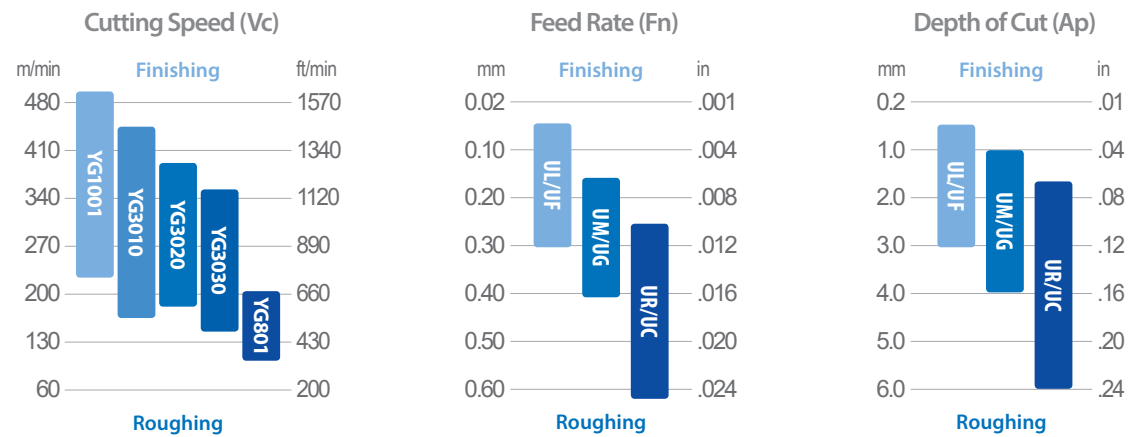
		Sharp Edge	General	Strong Edge
	Continuous			
	General			
	Heavy Interrupt			

P	Non Alloy Steel, About 0.15% C (Low Carbon Steel)									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
1	S15C	CK15	1.0401	1015	1350	XC18	C15	F.1110	080M15	15



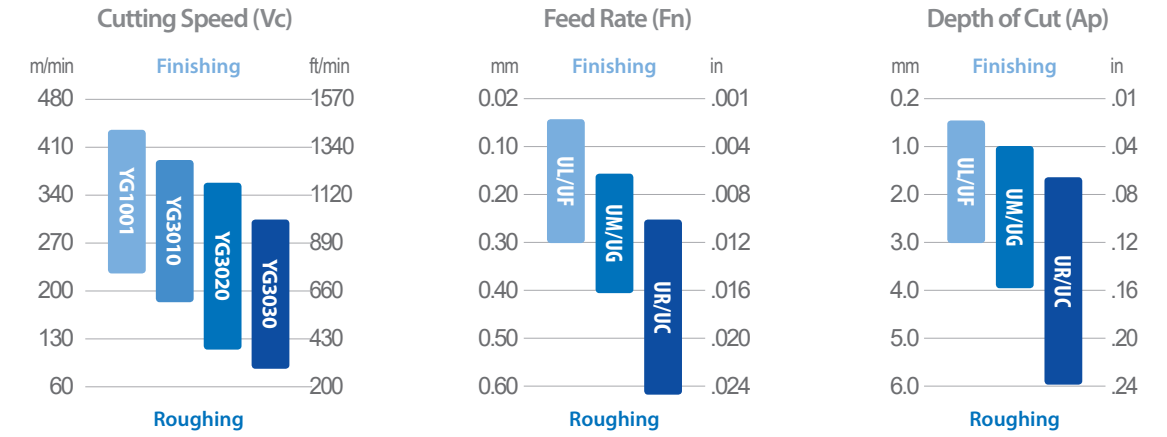
First Choice Grade and Value
 YG3010 - Vc 330m/min (1,080ft/min)
 YG801 - Vc 170m/min (560ft/min)

P	Non Alloy Steel, About 0.45% C (Medium Carbon Steel)									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
2-3	S45C	C45	1.0503	1045	1672	XC42H1TS	C45	F.1140	060A47	45



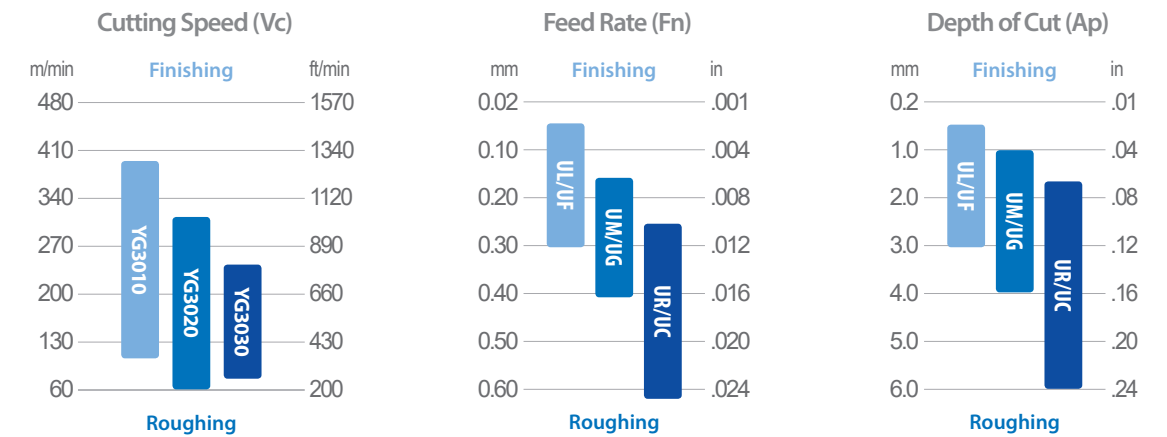
First Choice Grade and Value
 YG3010 - Vc 330m/min (1,080ft/min)
 YG801 - Vc 170m/min (560ft/min)

P	Low-alloyed Steel									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
6-9	SCM440	42CrMo4	1.7225	4140	2244	42 CD 4	42CrMo4	F.1252	708M40	38HM



First Choice Grade and Value
 YG3020 - Vc 240m/min (790ft/min)

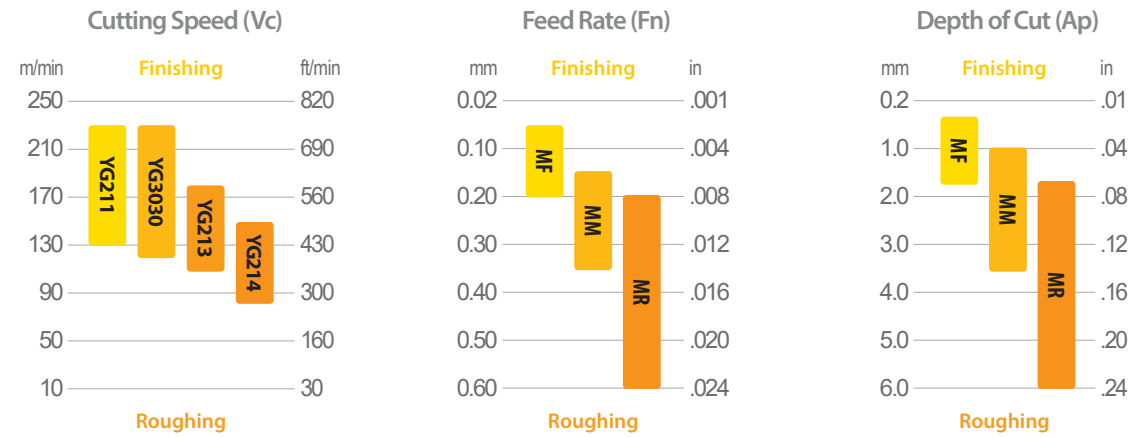
P	High Alloyed Steel, and Tool Steel									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
10-11	SKD11	X155CrVMo121	1.2379	D2	2310	Z160CDV12	X165CrMoW12KU	F.5318	BD2	KH12MF



First Choice Grade and Value
 YG3020 - Vc 230m/min (750ft/min)

Application Guide Stainless steel Guide

M	Ferritic / Martensitic Stainless									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
12-13	SUS430	X6Cr17	1.4016	430	2320	Z8C17	Z8C17	F3113	430S15	12C17



First Choice Grade and Value

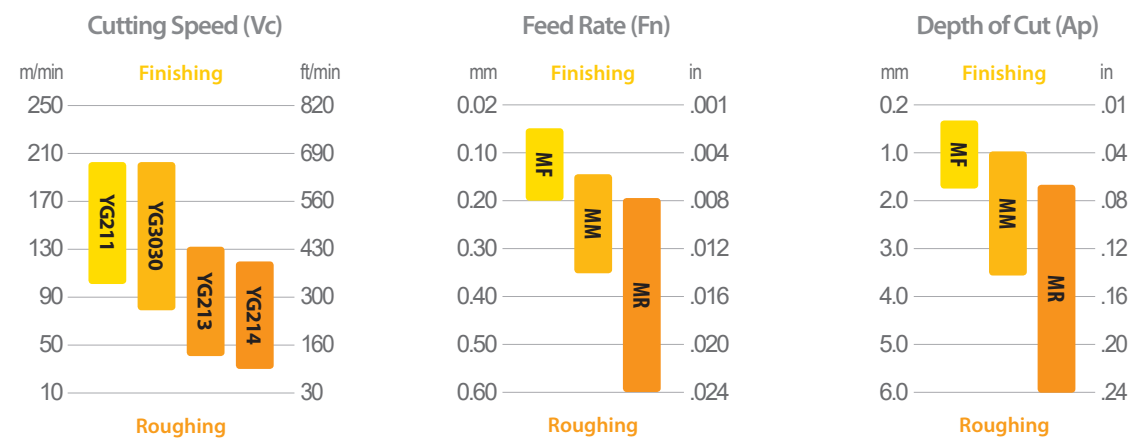
Ferritic Stainless steel

YG3030 - Vc 200m/min (660ft/min)
YG213 - Vc 160m/min (520ft/min)

Martensitic

YG3030 - Vc 160m/min (520ft/min)
YG213 - Vc 130m/min (430ft/min)

M	Austenitic Stainless steel									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
14	SUS304	X5CrNi18 9	1.4350	304	2332	Z6CN18 09	X5CrNi18 10	F3551	304S15	03KH18N11

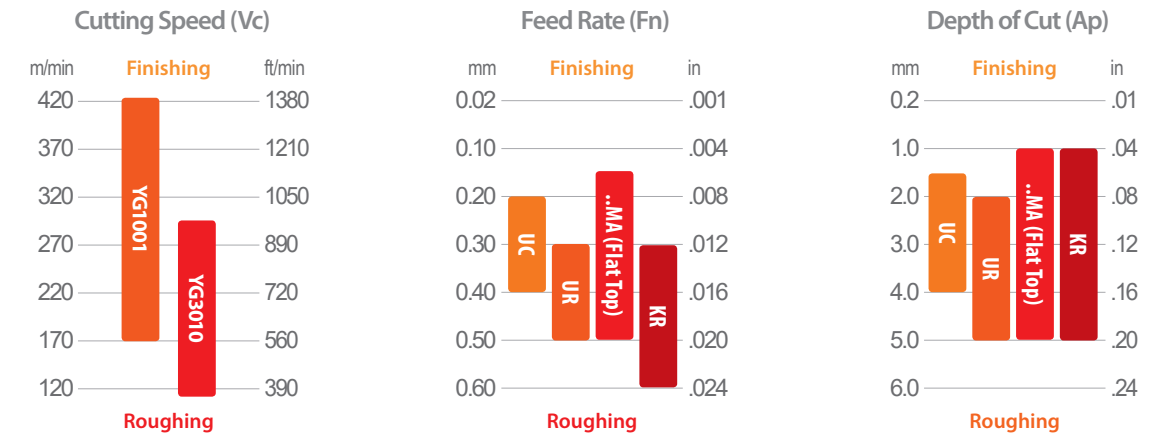


First Choice Grade and Value

YG3030 - Vc 180m/min (590ft/min)
YG213 - Vc 140m/min (460ft/min)

Application Guide Cast iron Guide

K	Grey cast iron									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
15-16	FC250	GG25	0.6025	A48 40 B	0125	Ft 25 D	G25	FG25	Grade 260	Sc 25



First Choice Grade and Value

YG1001 - Vc 350m/min (1,150ft/min)

K	Nodular cast iron									
VDI	JIS	DIN	Mat'l No.	AISI/ASTM	SS	AFNOR	UNI	UNE	BS	GOST
17-18	FCD500	GGG50	0.7050	80-55-06	0.7050	FGS 500-7	GS 500-7	FGE50-7	SNG 500-7	Vc 50-2



First Choice Grade and Value

YG3010 - Vc 220m/min (720ft/min)

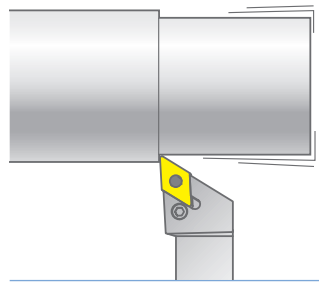
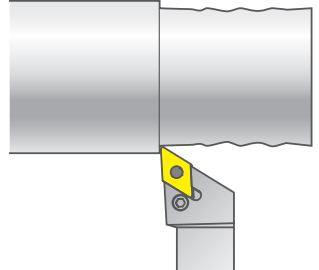
Formulas

Cutting Speed (Vc)	Metric $Vc = D \times RPM \times 0.0031$ (m/min)
	Inch $Vc = D \times RPM \times .262$ (ft/min)
	Metric Vc to Inch Vc $Inch\ Vc = Metric\ Vc \times 3.28$ (ft/min)
	Inch Vc to Metric Vc $Metric\ Vc = Inch\ Vc \times .305$ (m/min)
Spindle Speed (RPM)	Metric $RPM = Vc \times 318.3 \div D$ (rev/min)
	Inch $RPM = Vc \times 3.82 \div D$ (rev/min)
Feed Rate (Vf = Table Feed)	$Vf = Fn \times RPM$ (mm/min or in/min)
Feed per Revolution (Fn)	$Fn = Vf \div RPM$ (mm/min or in/min)
Metal Removal Rate (Q)	Metric $Q = Vc \times Fn \times Ap$ (cm ³ /min)
	Inch $Q = Vc \times Fn \times Ap \times 12$ (in ³ /min)
Cutting Time	$T = L \div Vf$ (min)

Terms

RPM (n)	Spindle Speed (Revolution per minute)
Vc	Cutting Speed
D	Work Diameter
Vf	Feed Rate (Table Feed)
Fn	Feed per Revolution
Ap	Depth of Cut
Q	Metal Removal Rate
L	Length of cut
T	Cutting Time (min)

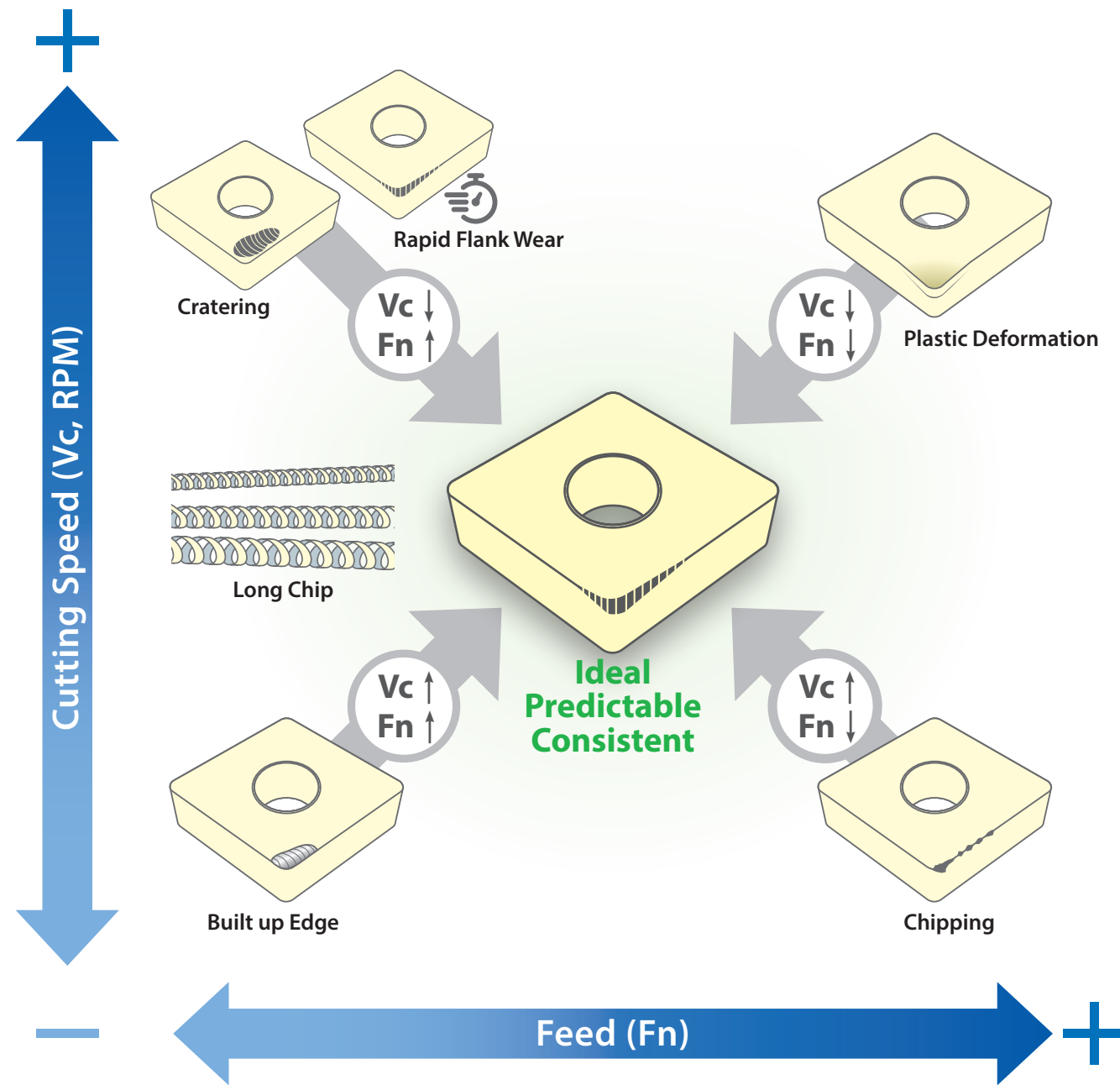
Trouble Shooting

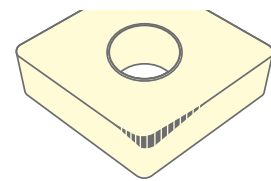
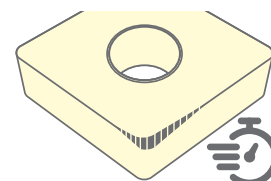
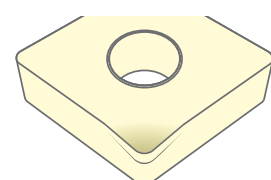
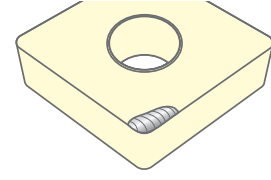
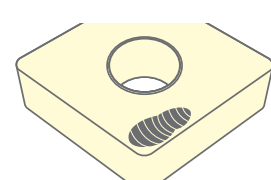
Pattern	Reasons	Solutions
Vibration 	<ul style="list-style-type: none"> - High radial or tangential force - Unstable condition 	<ul style="list-style-type: none"> - Lower depth of cut (ap) - Use sharper chipbreaker - Check stability, and position of tool and workpiece - Reduce the overhang (bigger and shorter tool)
Bad Surface 	<ul style="list-style-type: none"> - Work material is damaged by chips - Feed is too high for corner radius 	<ul style="list-style-type: none"> - Different chipbreaker - Lower depth of cut (ap) - Lower feed - Bigger corner radius

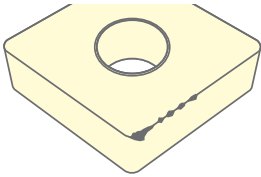
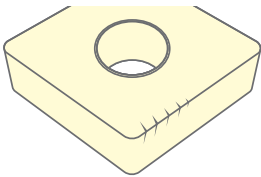
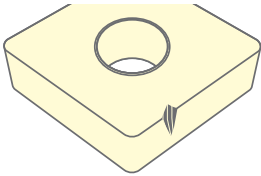
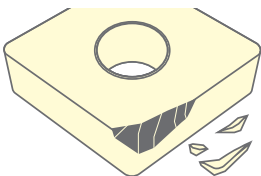
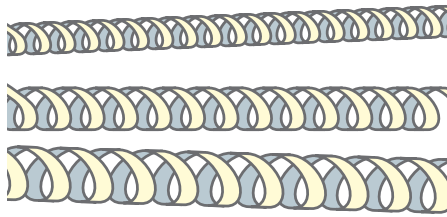
Theoretical Surface Roughness


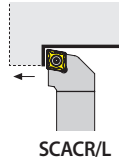
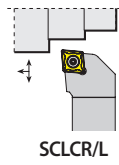

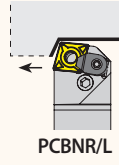
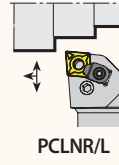
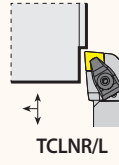

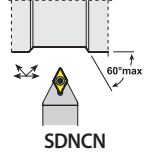
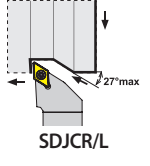

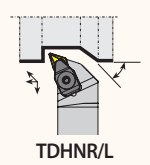
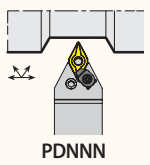
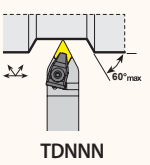
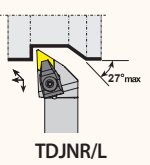
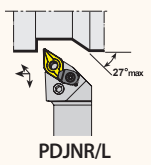

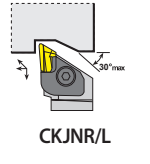

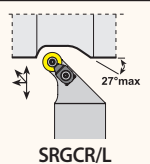
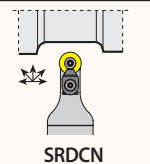

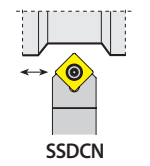
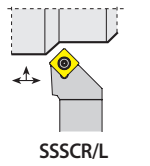
Ra / Rz μm (μ inch)	Insert Corner Radius Code ISO (ANSI)					
	02 (0)	04 (1)	08 (2)	12 (3)	16 (4)	24 (6)
	Feed Rate mm/rev (inch/rev)					
0.4 / 1.6 (16 / 64)	0.05 (.002)	0.07 (.003)	0.1 (.004)	0.12 (.005)	0.14 (.006)	0.18 (.007)
1.6 / 6.3 (64 / 256)	0.1 (.004)	0.14 (.006)	0.2 (.008)	0.25 (.010)	0.28 (.011)	0.35 (.014)
3.2 / 12.5 (128 / 512)	0.14 (.006)	0.2 (.008)	0.28 (.011)	0.35 (.014)	0.4 (.016)	0.49 (.019)
6.3 / 25 (250 / 1000)	-	0.28 (.011)	0.4 (.016)	0.49 (.019)	0.57 (.022)	0.69 (.027)
8 / 32 (320 / 1280)	-	-	0.45 (.018)	0.55 (.022)	0.64 (.025)	0.78 (.031)

Trouble Shooting Guide map



Pattern	Reasons	Solutions
<p>General Flank Wear</p>  <p>Flank face near by corner is abraded</p>	<ul style="list-style-type: none"> - The most ideal wear - Consistent and predictable - General wear behavior when machining condition is normal 	
<p>Rapid Flank Wear</p>  <p>Looks same as general flank wear, but happens quickly</p>	<p>Grade</p> <ul style="list-style-type: none"> - Not enough wear resistance - Too tough grade <p>Heat</p> <ul style="list-style-type: none"> - Cutting speed is too high - Not enough coolant 	<ul style="list-style-type: none"> - More wear resistant grade - Reduce the cutting speed (Vc, SFM, RPM or SFPM) - Optimize coolant - Increase Feed (Fn) if feed is low
<p>Plastic Deformation</p>  <p>Deformed Edge</p>	<ul style="list-style-type: none"> - Excess thermal load - Excess mechanical load 	<ul style="list-style-type: none"> - Reduce cutting temperature - More wear resistant grade - Reduce the cutting speed (Vc, SFM, RPM or SFPM) - Lower feed (Fn) - Lower depth of cut (ap) - Optimize coolant
<p>Built up Edge</p>  <p>Workpiece material is welded on the cutting edge</p>	<ul style="list-style-type: none"> - Sticky materials (low carbon steel, Stainless steel, non-ferrous metal, heat resistant super alloys) - Too low cutting speed 	<ul style="list-style-type: none"> - Increase cutting speed - Lower feed rate - Sharper chipbreaker & geometry - Use high pressure coolant - Use PVD grade - Use Positive Insert
<p>Cratering</p> 	<p>Heat</p> <ul style="list-style-type: none"> - Cutting speed is too high - Too tough grade 	<ul style="list-style-type: none"> - Reduce cutting temperature - Lower cutting speed (Vc, SFM, RPM or SFPM) - Adjust Feed (Fn) - Harder grade

Pattern	Reasons	Solutions
<p>Chipping</p> 	<ul style="list-style-type: none"> - Unstable machining condition (Vibration) - Grade is too hard / brittle - Grade is too sharp 	<ul style="list-style-type: none"> - Focus on stabilizing cutting condition - Reduce overhang (shorter and bigger tool) - Tougher grade - Tougher chipbreaker
<p>Thermal Crack</p> 	<ul style="list-style-type: none"> - Thermal stress due to rapid change of temperature 	<ul style="list-style-type: none"> - Tougher grade - Lower cutting speed (Vc, SFM, RPM or SFPM) - Lower feed (Fn) - Sharper chipbreaker - Change coolant / dry cut
<p>Notching</p> 	<ul style="list-style-type: none"> - Improved edge strength work piece has hardened skin 	<ul style="list-style-type: none"> - More wear resistant grade - Reduce the cutting speed (Vc, SFM, RPM or SFPM) - Adjust Feed (Fn) - Lower depth of cut (ap) - Optimize coolant - Go for tougher chipbreaker
<p>Breakage (Mechanical Fracture)</p> 	<ul style="list-style-type: none"> - Mechanical load is too heavy (feed or depth is too high) - Heavy interrupted cut - Grade is too hard for work material - Unstable machining(vibration) - Cutting speed is too low - Impurities in work material 	<ul style="list-style-type: none"> - Lower feed (Fn)or depth of cut (ap) - Tougher grade - Reduce overhang and check stability of tool and work material - Higher cutting speed (Vc, SFM, RPM or SFPM)
<p>Long Chip</p> 	<ul style="list-style-type: none"> - Feed is too low for chipbreaker - Depth of cut is too shallow for corner radius - Chip area (Fn x Ap) too low 	<ul style="list-style-type: none"> - Higher feed - Sharper chipbreaker - Higher depth of cut - Select a smaller corner radius

Series	Turning Holder				
 <p>CCGT CCMT</p> <p>p. 78</p>	 <p>SCACR/L</p> <p>Screw</p> <p>p. 29</p>	 <p>SCLCR/L</p> <p>Screw</p> <p>p. 29</p>			
 <p>CNMA CNMG</p> <p>p. 60</p>	 <p>PCBNR/L</p> <p>Lever</p> <p>p. 30</p>	 <p>PCLNR/L</p> <p>Lever (+Clamp)</p> <p>p. 30</p>	 <p>TCLNR/L</p> <p>Hole Clamp</p> <p>p. 30</p>		
 <p>DCGT DCMT</p> <p>p. 79</p>	 <p>SDNCN</p> <p>Screw</p> <p>p. 31</p>	 <p>SDJCR/L</p> <p>Screw</p> <p>p. 31</p>			
 <p>DNMA DNMG</p> <p>p. 63</p>	 <p>TDHNR/L</p> <p>Hole Clamp</p> <p>p. 32</p>	 <p>PDNNN</p> <p>Lever (+Clamp)</p> <p>p. 32</p>	 <p>TDNNN</p> <p>Hole Clamp</p> <p>p. 32</p>	 <p>TDJNR/L</p> <p>Hole Clamp</p> <p>p. 32</p>	 <p>PDJNR/L</p> <p>Lever (+Clamp)</p> <p>p. 32</p>
 <p>KNUX</p> <p>p. 66</p>	 <p>CKJNR/L</p> <p>Top Clamp</p> <p>p. 33</p>				
 <p>RCMT</p> <p>p. 80</p>	 <p>SRGCR/L</p> <p>Screw</p> <p>p. 34</p>	 <p>SRDCN</p> <p>Screw</p> <p>p. 34</p>			
 <p>SCMT</p> <p>p. 81</p>	 <p>SSDCN</p> <p>Screw</p> <p>p. 35</p>	 <p>SSSCR/L</p> <p>Screw</p> <p>p. 35</p>			


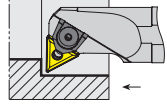
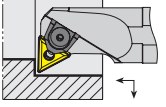
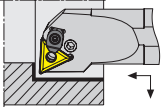
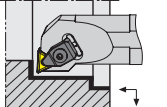

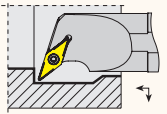
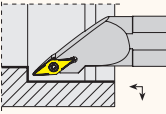
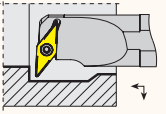

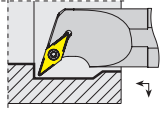
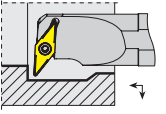

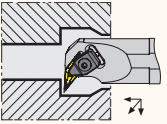

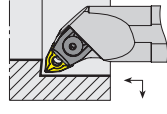
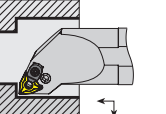
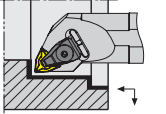
Turning - Holder - External External Holders Overview

Series	Turning Holder			
SNMA SNMG	PSDNN Lever (+Clamp)	TSDNN Hole Clamp	PSSNR/L Lever (+Clamp)	TSSNR/L Hole Clamp
p. 67	p. 36	p. 36	p. 36	p. 36
TCGT TCMT	STFCR/L Screw	STGCR/L Screw	STJCR/L Screw	STUCR/L Screw
p. 82	p. 37	p. 37	p. 37	p. 37
TNMA TNMG TNUX	PTTNR/L Lever (+Clamp)	PTFNR/L Lever (+Clamp)	PTGNR/L Lever (+Clamp)	TTGNR/L Hole Clamp
p. 69	p. 38	p. 38	p. 38	p. 39
VBMT	SVHBR/L Screw	SVVBN Screw	SVJBR/L Screw	
p. 83	p. 40	p. 40	p. 40	
VCGT VCMT	SVHCR/L Screw	SVVCN Screw	SVJCR/L Screw	
p. 84	p. 41	p. 41	p. 41	
VNMA VNMG	TVVNN Hole Clamp	TVJNR/L Hole Clamp		
p. 73	p. 42	p. 42		
WNMA WNMG	MWLNR/L Pin + Clamp	PWLNR/L Lever (+Clamp)	TWLNR/L Hole Clamp	
p. 75	p. 43	p. 43	p. 43	

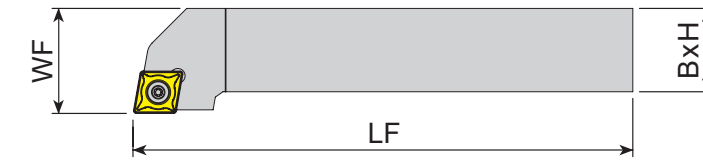
Turning - Holder - Internal Internal Holders Overview

Series	Turning Holder		
CCGT CCMT	..SCFCR/L Screw	..SCLCR/L Screw	E..SCLCR/L Screw
p. 78	p. 44	p. 45	p. 45
CNMA CNMG	..PCLNR/L Lever (+Clamp)	..TCLNR/L Hole Clamp	
p. 60	p. 46	p. 46	
DCGT DCMT	..SDQCR/L Screw	..SDUCR/L Screw	E..SDUCR/L Screw
p. 79	p. 47	p. 48	p. 48
DNMA DNMG	..PDQNR/L Lever (+Clamp)	..TDQNR/L Hole Clamp	..PDUNR/L Lever (+Clamp)
p. 63	p. 49	p. 49	p. 49
SNMA SNMG	..PSKNR/L Lever (+Clamp)		
p. 67	p. 50		
TCGT TCMT	..STFCR/L Screw	..STUCR/L Screw	
p. 82	p. 51	p. 51	

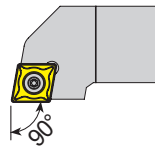
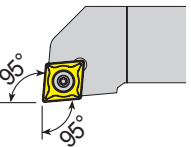
Turning - Holder - Internal
Internal Holders Overview

Series	Turning Holder			
 <p>TNMA TNMG TNUX</p>	 <p>..MTFNR/L Pin + Clamp</p>	 <p>..MTUNR/L Pin + Clamp</p>	 <p>..PTUNR/L Lever (+Clamp)</p>	 <p>..TTUNR/L Hole Clamp</p>
p. 69	p. 52	p. 52	p. 53	p. 53
 <p>VBMT</p>	 <p>..SVQBR/L Screw</p>	 <p>..SVJBR/L Screw</p>	 <p>..SVUBR/L Screw</p>	
p. 83	p. 54	p. 54	p. 54	
 <p>VCGT VCMT</p>	 <p>..SVQCR/L Screw</p>	 <p>..SVUCR/L Screw</p>		
p. 84	p. 55	p. 55		
 <p>VNMA VNMG</p>	 <p>..TVUNR/L Hole Clamp</p>			
p. 73	p. 56			
 <p>WNMA WNMG</p>	 <p>..MWLNR/L Pin + Clamp</p>	 <p>..PWLNR/L Lever (+Clamp)</p>	 <p>..TWLNR/L Hole Clamp</p>	
p. 75	p. 57	p. 57	p. 58	

Turning - Holder - External
External Holders for CC Insert**

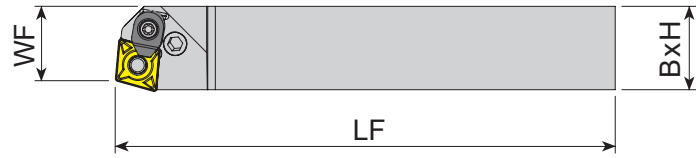


□: p. 78 unit:mm

Series	Designation	EDP 2700..		H	B	WF	LF	Insert
		R	L					
 <p>SCACR/L (Screw Type 90°)</p>	SCACR/L 0808E 06	0675	0676	08	08	10	70	CC0602
	SCLCR/L 0808E 06	0689	0690	08	08	10	70	CC0602
	SCLCR/L 1010E 06	0691	-	10	10	12	70	
 <p>SCLCR/L (Screw Type 95°)</p>	SCLCR/L 1010E 09	0692	0693	10	10	12	70	CC09T3
	SCLCR/L 1212F 09	0089	0090	12	12	16	80	
	SCLCR/L 1616H 09	0091	0092	16	16	20	100	
	SCLCR/L 2020K 09	0093	0094	20	20	25	125	CC1204
	SCLCR/L 2525M 09	0694	0695	25	25	32	150	
	SCLCR/L 1616H 12	0696	-	16	16	20	100	
	SCLCR/L 2020K 12	0095	0096	20	20	25	125	
SCLCR/L 2525M 12	0097	0098	25	25	32	150		

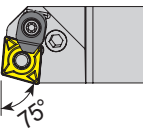
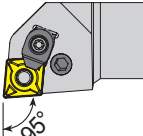
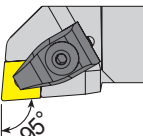
Series	Size	Screw	Shim	Shim Screw	Torx Key
SCACR/L	.06	Y4008-M2.5x6	-	-	Y80-T08
	.06	Y4008-M2.5x6	-	-	Y80-T08
	.1010..09	Y4015-M3x9	-	-	Y80-T15
SCLCR/L	.1212..09	Y4015-M3.5x11	-	-	Y80-T15
	.1616~2525..09	Y4015-M3.5x14	YAACN-2-0001	YAAV-06-M3.5x11	Y80-T15
	.1616..12	Y1020-M5x11	-	-	Y80-T20
	.2020~2525..12	Y1020-M4.5x16	YAACN-2-0003	YAAV-07-M4.5x13	Y80-T20

Turning - Holder - External
External Holders for CN Insert**



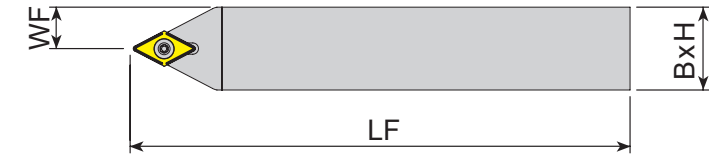
* 'C' Letter at Last : Optional Clamp Included

□: p.60 unit:mm

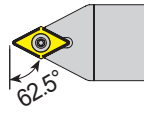
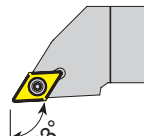
Series	Designation	EDP 2700..		H	B	WF	LF	Insert
		R	L					
 PCBNR/L (Lever Type 75°)	PCBNR/L 2525M 16C	0444	0445	25	25	22	150	CN1606
	PCBNR/L 3232P 16C	0446	0447	32	32	27	170	
	PCBNR/L 3232P 19C	0448	0449	32	32	37	170	CN1906
	PCBNR/L 4040S 19C	0450	0451	40	40	37	250	
 PCLNR/L (Lever Type 95°)	PCLNR/L 1616H 12	0464	0465	16	16	20	100	CN1204
	PCLNR/L 2020K 12C	0466	0467	20	20	25	125	
	PCLNR/L 2525M 12C	0468	0469	25	25	32	150	
	PCLNR/L 3232P 12C	0470	0471	32	32	40	170	
	CN1606	PCLNR/L 2525M 16C	0472	0473	25	25	32	150
		PCLNR/L 3232P 16C	0474	0475	32	32	40	170
		PCLNR/L 2525M 19C	0476	0477	25	25	32	150
		PCLNR/L 3232P 19C	0478	0479	32	32	40	170
PCLNR/L 4040S 19C		0480	0481	40	40	50	250	
 TCLNR/L (Hole Clamp Type 95°)	TCLNR/L 2020K 12	0482	0483	20	20	25	125	CN1204
	TCLNR/L 2525M 12	0484	0485	25	25	32	150	
	TCLNR/L 3232P 12	0486	0487	32	32	40	170	CN1606
	TCLNR/L 2525M 16	0492	0493	25	25	32	150	
	TCLNR/L 3232P 16	0494	-	32	32	40	170	

Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Shim	Shim Screw	Shim Pin	Allen Key
PCBNR/L	..16C	YAPL-04	YALV-04-M8x22	YACK-09	YAAV-05-M6x15	-	-	YAACN-3-0002	-	YAAV-03	YAAL-03-3
	..19C	YAPL-05	YALV-05-M10x27	YACK-09	YAAV-05-M6x15	-	-	YAACN-3-0003	-	YAAV-04	YAAL-05-4
PCLNR/L	..12	YAPL-02	YALV-03-M8x19	-	-	-	-	YAACN-3-0001	-	YAAV-02	YAAL-03-3
	..2020~3232..12C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	YAACN-3-0001	-	YAAV-02	YAAL-03-3
	..16C	YAPL-04	YALV-04-M8x22	YACK-09	YAAV-05-M6x15	-	-	YAACN-3-0002	-	YAAV-03	YAAL-03-3
	..19C	YAPL-05	YALV-05-M10x27	YACK-09	YAAV-05-M6x15	-	-	YAACN-3-0003	-	YAAV-04	YAAL-05-4
TCLNR/L	..12	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAACN-3-0001	YAAV-02-M5x12	-	YAAL-03-3
	..16	-	-	YATK-04	YAKV-19-M7x25	YABPL-02	-	YAACN-3-0002	YAAV-05-M6x15	-	YAAL-05-4

Turning - Holder - External
External Holders for DC Insert**

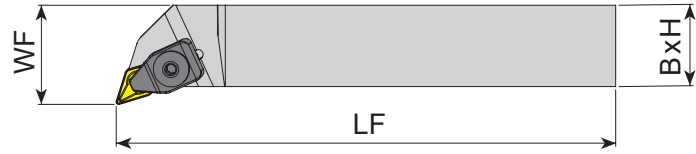


□: p.79 unit:mm

Series	Designation	EDP 2700..		H	B	WF	LF	Insert	
		R	L						
 SDNCN (Screw Type 62.5°)	SDNCN 0808E 07	0723		08	08	4	70	DC0702	
	SDNCN 1010E 07	0724		10	10	5	70		
	SDNCN 1212F 07	0123		12	12	6	80	DC11T3	
	SDNCN 1616H 07	0725		16	16	8	100		
	SDNCN 1616H 11	0124		16	16	8	100		
	SDNCN 2020K 11	0125		20	20	10	125		
	 SDJCR/L (Screw Type 93°)	SDNCN 2525M 11	0126		25	25	12.5	150	DC0702
		SDNCN 3232P 11	0726		32	32	16	170	
SDJCR/L 0808E 07		0713	0714	08	08	10	70	DC0702	
SDJCR/L 1010E 07		0715	0716	10	10	12	70		
SDJCR/L 1212F 07		0113	0114	12	12	16	80		
DC11T3		SDJCR/L 1616H 07	0717	0718	16	16	20	100	
		SDJCR/L 1616H 11	0117	0118	16	16	20	100	
		SDJCR/L 2020K 11	0119	0120	20	20	25	125	
		SDJCR/L 2525M 11	0719	0720	25	25	32	150	
		SDJCR/L 3232P 11	0721	0722	32	32	40	170	

Series	Size	Screw	Shim	Shim Screw	Torx Key
SDNCN	..07	Y4008-M2.5x6	-	-	Y80-T08
	..11	Y4015-M3.5x14	YAADN-2-0001	YAAV-06-M3.5x11	Y80-T15
SDJCR/L	..07	Y4008-M2.5x6	-	-	Y80-T08
	..11	Y4015-M3.5x14	YAADN-2-0001	YAAV-06-M3.5x11	Y80-T15

Turning - Holder - External
External Holders for DN Insert**

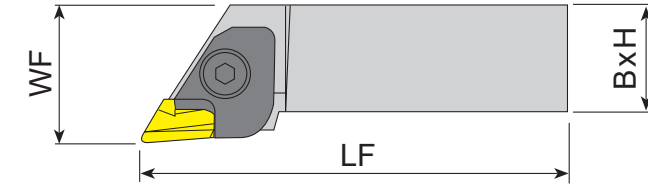


* 'C' Letter at Last : Optional Clamp Included □: p.63 unit:mm

Series	Designation	EDP 2700..		H	B	WF	LF	Insert
		R	L					
 TDHNR/L (Hole Clamp Type 107.5°)	TDHNR/L 2020K 15	0495	0496	20	20	25	125	DN1506
	TDHNR/L 2525M 15	0497	0498	25	25	32	150	
 PDNNN (Lever Type 62.5°)	PDNNN 2020K 15C	0515		20	20	10	125	DN1506
	PDNNN 2525M 15C	0516		25	25	12.5	150	
	PDNNN 3232P 15C	0517		32	32	16	170	
 TDNNN (Hole Clamp Type 62.5°)	TDNNN 2020K 15	0518		20	20	10	125	DN1506
	TDNNN 2525M 15	0519		25	25	12.5	150	
	TDNNN 3232P 15	0520		32	32	16	170	
 PDJNR/L (Lever Type 93°)	PDJNR/L 2020K 15C	0500	0501	20	20	25	125	DN1506
	PDJNR/L 2525M 15C	0502	0503	25	25	32	150	
	PDJNR/L 3232P 15C	0504	0505	32	32	40	170	
	PDJNR/L 4040S 15C	-	0506	40	40	50	250	
 TDJNR/L (Hole Clamp Type 93°)	TDJNR/L 2020K 15	0507	0508	20	20	25	125	DN1506
	TDJNR/L 2525M 15	0509	0510	25	25	32	150	
	TDJNR/L 3232P 15	0511	0512	32	32	40	170	
	TDJNR/L 4040S 15	0513	0514	40	40	50	250	

Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Shim	Shim Screw	Shim Pin	Allen Key
TDHNR/L	..15	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAADN-3-0001	YAAV-02-M5x12	-	YAAL-03-3
PDNNN	..15C	YAPL-03	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	YAADN-3-0001	-	YAAV-02	YAAL-03-3
TDNNN	..15	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAADN-3-0001	YAAV-02-M5x12	-	YAAL-03-3
PDJNR/L	..15C	YAPL-03	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	YAADN-3-0001	-	YAAV-02	YAAL-03-3
TDJNR/L	..15	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAADN-3-0001	YAAV-02-M5x12	-	YAAL-03-3

Turning - Holder - External
External Holders for KN Insert**

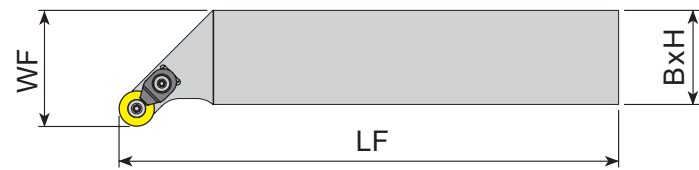


□: p.66 unit:mm

Series	Designation	EDP 2700..		H	B	WF	LF	Insert
		R	L					
 CKJNR/L (Top Clamp Type 93°)	CKJNR/L 2525M 16	0152	0153	25	25	31.5	150	KNUX1604
	CKJNR/L 3232P 16	0154	0155	32	32	40	170	

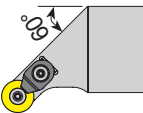
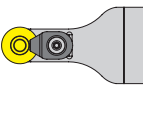
Series	Size	Clamp	Clamp Screw	Spring	Upper Ring	Shim	Shim Screw	Allen Key
CKJNR	..16	YACK-01-R	YAKV-06-M6x20	YAKY-02	YABPL-01	YAKS-16-R	YAAV-01-M3x10	YAAL-05-4
CKJNL	..16	YACK-01-L	YAKV-06-M6x20	YAKY-02	YABPL-01	YAKS-16-L	YAAV-01-M3x10	YAAL-05-4

Turning - Holder - External
External Holders for RC Insert**



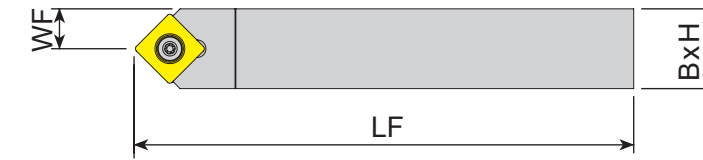
* 'C' Letter at Last : Optional Clamp Included

□: p.80 unit:mm

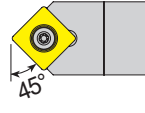
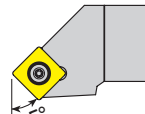
Series	Designation	EDP 2700.. R L	H	B	WF	LF	Insert
 SRGCR/L (Screw Type 90°)	SRGCR/L 1616H 06	0739 0740	16	16	20	100	RC0602
	SRGCR/L 2020K 06	0741 0742	20	20	25	125	
	SRGCR/L 1616H 08C	0743 0744	16	16	32	100	RC0803
	SRGCR/L 2020K 08C	0745 0746	20	20	25	125	
	SRGCR/L 2525M 08C	0747 0748	25	25	32	150	RC10T3
	SRGCR/L 1616H 10C	0749 0750	16	16	20	100	
	SRGCR/L 2020K 10C	0751 0752	20	20	25	125	RC10T3
	SRGCR/L 2525M 10C	0753 0754	25	25	32	150	
	SRGCR/L 3232P 10C	0755 0756	32	32	40	170	RC1204
	SRGCR/L 2020K 12C	0757 0758	20	20	25	125	
SRGCR/L 2525M 12C	0759 0760	25	25	32	150	RC1204	
SRGCR/L 3232P 12C	0761 0762	32	32	40	170		
 SRDCN (Screw Type 90°)	SRDCN 1616H 06	0162	16	16	8	100	RC0602
	SRDCN 2020K 06	0163	20	20	10	125	
	SRDCN 2525M 06	0164	25	25	12.5	150	
	SRDCN 1616H 08C	0727	16	16	8	100	RC0803
	SRDCN 2020K 08C	0728	20	20	10	125	
	SRDCN 2525M 08C	0729	25	25	12.5	150	
	SRDCN 1616H 10C	0730	16	16	8	100	RC10T3
	SRDCN 2020K 10C	0731	20	20	10	125	
	SRDCN 2525M 10C	0732	25	25	12.5	150	
	SRDCN 3232P 10C	0733	32	32	16	170	RC1204
	SRDCN 2020K 12C	0734	20	20	10	125	
	SRDCN 2525M 12C	0735	25	25	12.5	150	
SRDCN 3232P 12C	0736	32	32	16	170		

Series	Size	Clamp	Clamp Screw	Screw	Torx Key
SRGCR/L	..06	-	-	Y3008-M2.5x6	Y80-T08
	..1616..08C	YACK-15	Y4015-M3.5x11	Y3008-M3x8	Y80-T08
	..10C	YACK-15	Y4015-M3.5x11	Y3008-M3x8	Y80-T15
	..12C	YACK-05	Y4015-M4x11	Y4015-M3.5x11	Y80-T15
SRDCN	..06	-	-	Y3008-M2.5x6	Y80-T08
	..08C	YACK-15	Y4015-M3.5x11	Y3008-M3x8	Y80-T08
	..10C	YACK-15	Y4015-M3.5x11	Y4015-M3.5x11	Y80-T15
	..12C	YACK-05	Y4015-M4x11	Y4015-M3.5x11	Y80-T15

Turning - Holder - External
External Holders for SC Insert**

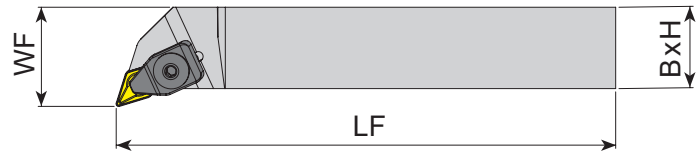


□: p.81 unit:mm

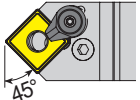
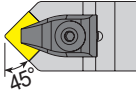
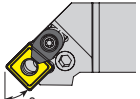
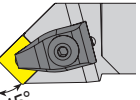
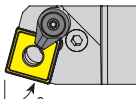
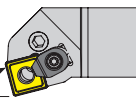
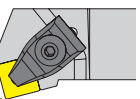
Series	Designation	EDP 2700.. R L	H	B	WF	LF	Insert
 SSDCN (Screw Type 45°)	SSDCN 1212F 09	0148	12	12	6	80	SC09T3
	SSDCN 1616H 09	0149	16	16	8	100	
	SSDCN 2020K 09	0770	20	20	10	125	
	SSDCN 1616H 12	0771	16	16	8	100	SC1204
	SSDCN 2020K 12	0150	20	20	10	125	
	SSDCN 2525M 12	0151	25	25	12.5	150	
 SSSCR/L (Screw Type 45°)	SSSCR/L 1212F 09	0772 0773	12	12	16	80	SC09T3
	SSSCR/L 1616H 09	0774 0775	16	16	20	100	
	SSSCR/L 2020K 09	0776 0777	20	20	25	125	
	SSSCR/L 1616H 12	0778 0779	16	16	20	100	SC1204
	SSSCR/L 2020K 12	0780 0781	20	20	25	125	
	SSSCR/L 2525M 12	0782 0783	25	25	32	150	

Series	Size	Screw	Shim	Shim Screw	Torx Key
SSDCN	..1212..09	Y4015-M3.5x11	-	-	Y80-T15
	..1616~2020..09	Y4015-M3.5x14	YAASN-2-0001	YAAV-06-M3.5x11	Y80-T15
	..1616..12	Y4020-M4.5x12	YAASN-2-0004	YAAV-10-M4.5x8	Y80-T20
	..2020~2525..12	Y1020-M4.5x16	YAASN-2-0004	YAAV-07-M4.5x13	Y80-T20
SSSCR/L	..1212..09	Y4015-M3.5x11	-	-	Y80-T15
	..1616~2020..09	Y4015-M3.5x14	YAASN-2-0001	YAAV-06-M3.5x11	Y80-T15
	..1616..12	Y4020-M4.5x12	YAASN-2-0004	YAAV-10-M4.5x8	Y80-T20
	..2020~2525..12	Y1020-M4.5x16	YAASN-2-0004	YAAV-07-M4.5x13	Y80-T20

Turning - Holder - External
External Holders for SN Insert**

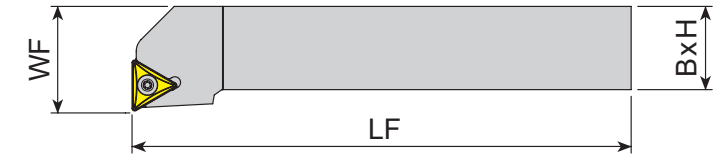


* 'C' Letter at Last : Optional Clamp Included □: p.67 unit:mm

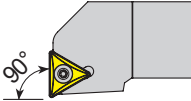
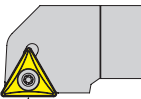
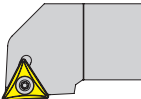
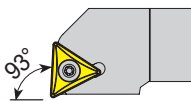
Series	Designation	EDP 2700.. R L	H	B	WF	LF	Insert
 PSDNN (Lever Type 45°)	PSDNN 2020K 12C	0530	20	20	10	125	SN1204
	PSDNN 2525M 12C	0531	25	25	12.5	150	
	PSDNN 3232P 12C	0532	32	32	16	170	
 TSDNN (Hole Clamp Type 45°)	TSDNN 1616H 12	0533	16	16	8	100	SN1204
	TSDNN 2020K 12	0534	20	20	10	125	
	TSDNN 2525M 12	0535	25	25	12.5	150	
 PSSNR/L (Lever Type 45°)	PSSNR/L 2020K 12C	0548 0549	20	20	25	125	SN1204
	PSSNR/L 2525M 12C	0550 0551	25	25	32	150	
	PSSNR/L 3232P 12C	0552 0553	32	32	40	170	
 TSSNR/L (Hole Clamp Type 45°)	TSSNR/L 2020K 12	0554 0555	20	20	25	125	SN1204
	TSSNR/L 2525M 12	0556 0557	25	25	32	150	
	TSSNR/L 3232P 12	0558 0559	32	32	40	170	
 PSBNR/L (Lever Type 75°)	PSBNR/L 2020K 12	0430 0525	20	20	17	125	SN1204
	PSBNR/L 2525M 12C	0526 0527	25	25	22	150	
 PSKNR/L (Lever Type 75°)	PSKNR/L 2020K 12C	0537	20	20	25	125	SN1204
	PSKNR/L 2525M 12C	0538 0539	25	25	32	150	
	PSKNR/L 3232P 12C	0540 0541	32	32	40	170	
 TSKNR/L (Hole Clamp Type 75°)	TSKNR/L 2020K 12	0542 0543	20	20	25	125	SN1204
	TSKNR/L 2525M 12	0544 0545	25	25	32	150	
	TSKNR/L 3232P 12	0546 0547	32	32	40	170	

Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Shim	Shim Screw	Shim Pin	Allen Key
PSDNN	..12C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	YAASN-3-0004	-	YAAY-02	YAAL-03-3
TSDNN	..12	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAASN-3-0004	YAAV-02-M5x12	-	YAAL-03-3
PSSNR/L	..12C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	YAASN-3-0004	-	YAAY-02	YAAL-03-3
TSSNR/L	..12	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAASN-3-0004	YAAV-02-M5x12	-	YAAL-03-3
PSBNR/L	..12	YAPL-02	YALV-03-M8x19	-	-	-	-	YAASN-3-0004	-	YAAY-02	YAAL-03-3
PSKNR/L	..12C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	YAASN-3-0004	-	YAAY-02	YAAL-03-3
PSKNR/L	..12C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	YAASN-3-0004	-	YAAY-02	YAAL-03-3
TSKNR/L	..12	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAASN-3-0004	YAAV-02-M5x12	-	YAAL-03-3

Turning - Holder - External
External Holders for TC Insert**

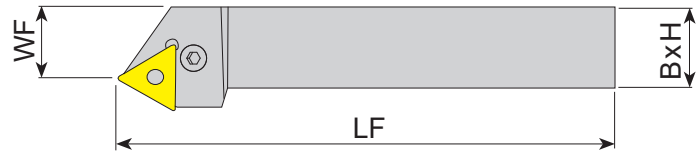


□: p.82 unit:mm

Series	Designation	EDP 2700.. R L	H	B	WF	LF	Insert
 STFCR/L (Screw Type 90°)	STFCR/L 1212F 11	0099 0100	12	12	16	80	TC1102
	STFCR/L 1616H 11	0101 0102	16	16	20	100	
	STFCR/L 1616H 16	0105 0106	16	16	20	100	TC16T3
	STFCR/L 2020K 16	0107 0108	20	20	25	125	
	STFCR/L 2525M 16	0109 0110	25	25	32	150	
 STGCR/L (Screw Type 90°)	STGCR/L 1212F 11	0786 0787	12	12	16	80	TC1102
	STGCR/L 1616H 11	0433 0788	16	16	20	100	
	STGCR/L 1616H 16	0789 0790	16	16	20	100	TC16T3
	STGCR/L 2020K 16	0434 0791	20	20	25	125	
	STGCR/L 2525M 16	0792 0793	25	25	32	150	
 STJCR/L (Screw Type 93°)	STJCR/L 1212F 11	0796 0797	12	12	16	80	TC1102
	STJCR/L 1616H 11	0798 0799	16	16	20	100	
	STJCR/L 1616H 16	0800 0801	16	16	20	100	TC16T3
	STJCR/L 2020K 16	0802 0803	20	20	25	125	
	STJCR/L 2525M 16	0804 0805	25	25	32	150	
 STUCR/L (Screw Type 93°)	STUCR/L 1212F 11	0808 0809	12	12	16	80	TC1102
	STUCR/L 1616H 11	0810 0811	16	16	20	100	
	STUCR/L 2020K 16	0812 0813	20	20	25	125	TC16T3
	STUCR/L 2525M 16	0814 0815	25	25	32	150	
	STUCR/L 3232P 16	0816 0817	32	32	40	170	

Series	Size	Screw	Shim	Shim Screw	Torx Key
STFCR/L	..11	Y4008-M2.5x6	-	-	Y80-T08
	..16	Y4015-M3.5x14	YAATN-2-0001	YAAV-06-M3.5x11	Y80-T15
STGCR/L	..11	Y4008-M2.5x6	-	-	Y80-T08
	..16	Y4015-M3.5x14	YAATN-2-0001	YAAV-06-M3.5x11	Y80-T15
STJCR/L	..11	Y4008-M2.5x6	-	-	Y80-T08
	..16	Y4015-M3.5x14	YAATN-2-0001	YAAV-06-M3.5x11	Y80-T15
STUCR/L	..11	Y4008-M2.5x6	-	-	Y80-T08
	..16	Y4015-M3.5x14	YAATN-2-0001	YAAV-06-M3.5x11	Y80-T15

Turning - Holder - External
External Holders for TN Insert**



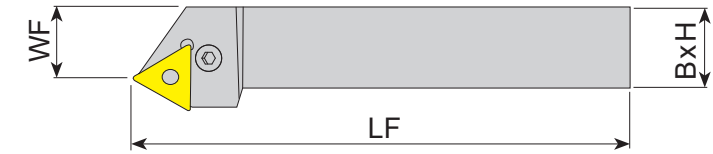
* 'C' Letter at Last : Optional Clamp Included □: p. 69 unit:mm

Series	Designation	EDP 2700.. R L	H	B	WF	LF	Insert
 PTTNR/L (Lever Type 60°)	PTTNR/L 2020K 16	0429 0621	20	20	17	125	TN1604
	PTTNR/L 2525M 16	0622 0623	25	25	21.5	150	
	PTTNR/L 2525M 22C	0626 0627	25	25	20.5	150	TN2204
	PTTNR/L 3232P 22C	0628 0629	32	32	29	170	
 PTFNR/L (Lever Type 90°)	PTFNR/L 1616H 16	0560 0561	16	16	20	100	TN1604
	PTFNR/L 2020K 16	0049 0050	20	20	25	125	
	PTFNR/L 2525M 16	0051 0052	25	25	32	150	
	PTFNR/L 3232P 16	0562 0563	32	32	40	170	
 PTGNR/L (Lever Type 90°)	PTGNR/L 3232P 22C	0566 0567	32	32	40	170	TN2204
	PTGNR/L 1616H 16	0568 0569	16	16	20	100	TN1604
	PTGNR/L 2020K 16	0055 0056	20	20	25	125	
	PTGNR/L 2525M 16	0057 0058	25	25	32	150	
 TTGNR/L (Hole Clamp Type 90°)	PTGNR/L 2525M 22C	0570 0571	25	25	32	150	TN2204
	PTGNR/L 3232P 22C	0572 0573	32	32	40	170	
	TTGNR/L 2020K 16	0574 0575	20	20	25	125	TN1604
	TTGNR/L 2525M 16	0576 0577	25	25	32	150	
 TTGNR/L (Hole Clamp Type 90°)	TTGNR/L 3232P 16	0578 0579	32	32	40	170	TN1604
	TTGNR/L 2525M 22	0580 0581	25	25	32	150	
	TTGNR/L 3232P 22	0582 0583	32	32	40	170	TN2204
	TTGNR/L 4040S 22	0584 -	40	40	50	250	

▶ NEXT PAGE

Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Pin	Shim	Shim Screw	Shim Pin	Allen Key
PTTNR/L	..16	YAPL-01	YALV-02-M6x17	-	-	-	-	-	YAATN-3-0025	-	YAAY-01	YAAL-02-2.5
	..22C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	-	YAATN-3-0015	-	YAAY-02	YAAL-03-3
PTFNR/L	..16	YAPL-01	YALV-02-M6x17	-	-	-	-	-	YAATN-3-0025	-	YAAY-01	YAAL-02-2.5
	..22C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	-	YAATN-3-0015	-	YAAY-02	YAAL-03-3
PTGNR/L	..16	YAPL-01	YALV-02-M6x17	-	-	-	-	-	YAATN-3-0025	-	YAAY-01	YAAL-02-2.5
	..22C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	-	YAATN-3-0015	-	YAAY-02	YAAL-02-2.5
TTGNR/L	..16	-	-	YATK-01	YAKV-01-M5x22	YABPL-01	-	-	YAATN-2-0002	YAAV-03-M5x12	-	YAAL-03-3
	..22	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	-	YAATN-3-0015	YAAV-02-M5x12	-	YAAL-03-3

Turning - Holder - External
External Holders for TN Insert**



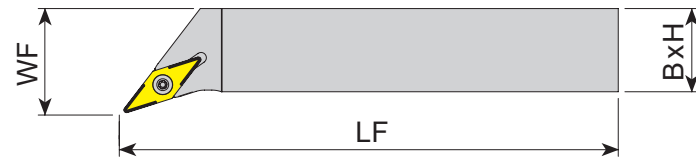
* 'C' Letter at Last : Optional Clamp Included □: p. 69 unit:mm

Series	Designation	EDP 2700.. R L	H	B	WF	LF	Insert
 MTJNR/L (Pin + Top Clamp Type 93°)	MTJNR/L 2020K 16	0585 0586	20	20	25	125	TN1604
	MTJNR/L 2525M 16	0587 0588	25	25	32	150	
	MTJNR/L 3232P 16	0589 0590	32	32	40	170	TN2204
	MTJNR/L 2525M 22	0591 0592	25	25	32	150	
	MTJNR/L 3232P 22	0593 0594	32	32	40	170	
	MTJNR/L 4040S 22	0595 0596	40	40	50	250	
 PTJNR/L (Lever Type 93°)	PTJNR/L 1616H 16	0597 0598	16	16	20	100	TN1604
	PTJNR/L 2020K 16	0599 0600	20	20	25	125	
	PTJNR/L 2525M 16	0601 0602	25	25	32	150	TN2204
	PTJNR/L 3232P 16	0603 0604	32	32	40	170	
	PTJNR/L 2525M 22C	0605 0606	25	25	32	150	
	PTJNR/L 3232P 22C	0607 0608	32	32	40	170	
 TTJNR/L (Hole Clamp Type 93°)	TTJNR/L 2020K 16	0609 0610	20	20	25	125	TN1604
	TTJNR/L 2525M 16	0611 0612	25	25	32	150	
	TTJNR/L 3232P 16	0613 0614	32	32	40	170	TN2204
	TTJNR/L 2525M 22	0615 0616	25	25	32	150	
	TTJNR/L 3232P 22	0617 0618	32	32	40	170	

Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Pin	Shim	Shim Screw	Shim Pin	Allen Key
MTJNR/L	..16	-	-	YAMK-04	YAKV-30-M6x22	YABPL-01	YAS-01	YAPM-01	YAATN-2-0002	-	-	YAAL-03-3
	..22	-	-	YAMK-04	YAKV-30-M6x22	YABPL-01	YAS-01	YAPM-02	YAATN-3-0015	-	-	YAAL-03-3
PTJNR/L	..16	YAPL-01	YALV-02-M6x17	-	-	-	-	-	YAATN-3-0025	-	YAAY-01	YAAL-02-2.5
	..22C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	-	YAATN-3-0015	-	YAAY-02	YAAL-03-3
TTJNR/L	..16	-	-	YATK-01	YAKV-01-M5x22	YABPL-01	-	-	YAATN-2-0002	YAAV-03-M5x12	-	YAAL-03-3
	..22	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	-	YAATN-3-0015	YAAV-02-M5x12	-	YAAL-03-3

Turning - Holder - External

External Holders for VB** Insert



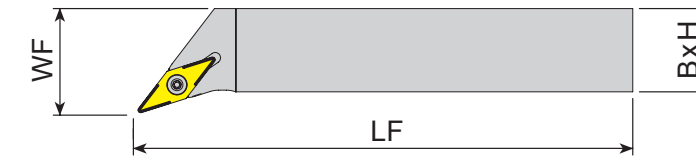
: p. 83 unit:mm

Series	Designation	EDP 2700..		H	B	WF	LF	Insert
		R	L					
 SVHBR/L (Screw Type 107.5°)	SVHBR/L 2020K 16	0818	0819	20	20	25	125	VB1604
	SVHBR/L 2525M 16	0820	0821	25	25	32	150	
	SVHBR/L 3232P 16	0822	0823	32	32	40	170	
 SVVBN (Screw Type 72.5°)	SVVBN 2020K 16	0131		20	20	10	125	VB1604
	SVVBN 2525M 16	0132		25	25	12.5	150	
	SVVBN 3232P 16	0827		32	32	16	170	
 SVJBR/L (Screw Type 93°)	SVJBR/L 1616H 16	0824	0825	16	16	20	100	VB1604
	SVJBR/L 2020K 16	0127	0128	20	20	25	125	
	SVJBR/L 2525M 16	0129	0130	25	25	32	150	
	SVJBR/L 3232P 16	0436	0826	32	32	40	170	

Series	Size	Screw	Shim	Shim Screw	Torx Key
SVHBR/L	..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15
SVVBN	..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15
SVJBR/L	..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15

Turning - Holder - External

External Holders for VC** Insert

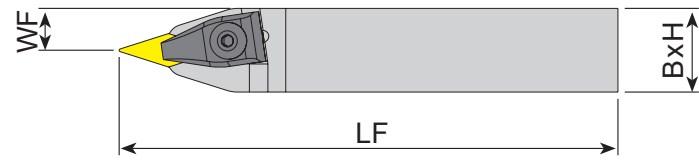


: p. 84 unit:mm

Series	Designation	EDP 2700..		H	B	WF	LF	Insert
		R	L					
 SVHCR/L (Screw Type 107.5°)	SVHCR/L 2020K 16	0828	0829	20	20	25	125	VC1604
	SVHCR/L 2525M 16	0830	0831	25	25	32	150	
	SVHCR/L 3232P 16	0832	0833	32	32	40	170	
 SVVCN (Screw Type 72.5°)	SVVCN 2525M 16	0147		25	25	12.5	150	VC1604
	SVVCN 3232P 16	0838		32	32	16	170	
 SVJCR/L (Screw Type 93°)	SVJCR/L 1212F 16	0834	0835	12	12	16	80	VC1604
	SVJCR/L 2020K 16	0139	0140	20	20	25	125	
	SVJCR/L 2525M 16	0141	0142	25	25	32	150	
	SVJCR/L 3232P 16	0836	0837	32	32	40	170	

Series	Size	Screw	Shim	Shim Screw	Torx Key
SVHCR/L	..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15
SVVCN	..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15
SVJCR/L	..1212..16	Y4015-M3.5x11	-	-	Y80-T15
	..2020~3232..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15

Turning - Holder - External
External Holders for VN Insert**



: p. 73 unit:mm

Series	Designation	EDP 2700.. R L	H	B	WF	LF	Insert
 TVVNN (Hole Clamp Type 72.5°)	TVVNN 2020K 16	0642	20	20	10	125	VN1604
	TVVNN 2525M 16	0643	25	25	12.5	150	
	TVVNN 3232P 16	0644	32	32	16	170	
 TVJNR/L (Hole Clamp Type 93°)	TVJNR/L 2020K 16	0636 0637	20	20	25	125	VN1604
	TVJNR/L 2525M 16	0638 0639	25	25	32	150	
	TVJNR/L 3232P 16	0640 0641	32	32	40	170	

Series	Size	Clamp	Clamp Screw	Upper Ring	Lower Ring	Shim	Shim Screw	Allen Key
TVVNN	..16	YATK-03	YAKV-30-M6x22	YABPL-01	YAS-01	YAAVN-2-0002	YAAV-04-M5x12	YAAL-03-3
TVJNR/L	..16	YATK-03	YAKV-30-M6x22	YABPL-01	YAS-01	YAAVN-2-0002	YAAV-04-M5x12	YAAL-03-3

Turning - Holder - External
External Holders for WN Insert**



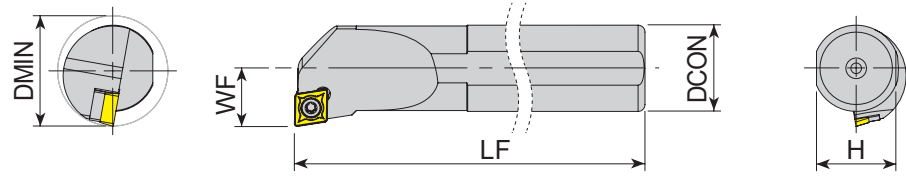
: p. 75 unit:mm

* 'C' Letter at Last : Optional Clamp Included

Series	Designation	EDP 2700.. R L	H	B	WF	LF	Insert
 MWLNR/L (Pin + Top Clamp Type 95°)	MWLNR/L 1616H 06	0645 0646	16	16	20	100	WN0604
	MWLNR/L 2020K 06	0021 0022	20	20	25	125	
	MWLNR/L 2525M 06	0023 0024	25	25	32	150	WN0804
	MWLNR/L 2020K 08	0025 0026	20	20	25	125	
	MWLNR/L 2525M 08	0027 0028	25	25	32	150	WN0804
	MWLNR/L 3232P 08	0029 0030	32	32	40	170	
 PWLNR/L (Lever Type 95°)	PWLNR/L 1616H 06	0647 0648	16	16	20	100	WN0604
	PWLNR/L 2020K 06	0649 0650	20	20	25	125	
	PWLNR/L 2525M 06	0651 0652	25	25	32	150	WN0804
	PWLNR/L 1616H 08	0653 0654	16	16	20	100	
	PWLNR/L 2020K 08C	0655 0656	20	20	25	125	WN0804
	PWLNR/L 2525M 08C	0657 0658	25	25	32	150	
PWLNR/L 3232P 08C	0659 0660	32	32	40	170	WN0804	
 TWLNR/L (Hole Clamp Type 95°)	TWLNR/L 1616H 06	0661 0662	16	16	20		100
	TWLNR/L 2020K 06	0663 0664	20	20	25		125
	TWLNR/L 2525M 06	0665 0666	25	25	32		150
	TWLNR/L 2020K 08	0667 0668	20	20	25		125
	TWLNR/L 2525M 08	0669 0670	25	25	32		150
	TWLNR/L 3232P 08	0671 0672	32	32	40	170	
TWLNR/L 4040S 08	0673 0674	40	40	50	250		

Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Pin	Shim	Shim Screw	Shim Pin	Allen Key
MWLNR/L	..06	-	-	YAMK-01	YAKV-04-M5x17	-	-	YAPM-08	-	-	-	YAAL-03-3
	..08	-	-	YAMK-05	YAKV-03-M6x22	YABPL-01	YAS-01	YAPM-02	YAAWN-3-0001	-	-	YAAL-03-3
PWLNR/L	..06	YAPL-01	YALV-02-M6x17	-	-	-	-	-	YAAWN-SW317	-	YAAY-01	YAAL-02-2.5
	..08	YAPL-02	YALV-03-M8x19	-	-	-	-	-	YAAWN-3-0001	-	YAAY-02	YAAL-03-3
	..08C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	-	YAAWN-3-0001	-	YAAY-02	YAAL-03-3
TWLNR/L	..06	-	-	YATK-01	YAKV-01-M5x22	YABPL-01	-	-	YAAWN-SW317	YAAV-01-M3x10	-	YAAL-03-3
	..08	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	-	YAAWN-3-0001	YAAV-02-M5x12	-	YAAL-03-3

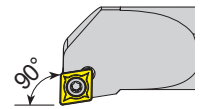
Turning - Holder - Internal
Internal Holders for CC Insert**



□: p. 78 unit:mm

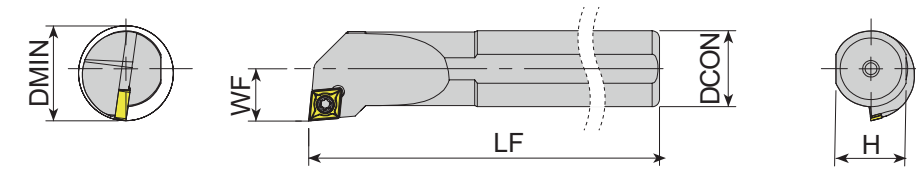
Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert
	S08H - SCFCR/L 06	1102 1103	11	08	7.3	6	100	CC0602
X	S10K - SCFCR/L 06	1104 1105	13	10	9	7	125	
	S12K - SCFCR/L 06	1106 1107	16	12	11	9	125	
	S12K - SCFCR/L 09	1108 1109	16	12	11	9	125	CC09T3
X	S16P - SCFCR/L 09	1110 1111	20	16	14.8	11	170	
	S20R - SCFCR/L 09	1112 1113	25	20	18.3	13	200	
	S25S - SCFCR/L 09	1114 1115	32	25	23	17	250	CC1204
X	S25S - SCFCR/L 12	1116 -	32	25	23	17	250	

▶ NEXT PAGE



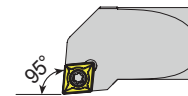
..-SCFCR/L
(Screw Type 90°)

Turning - Holder - Internal
Internal Holders for CC Insert**

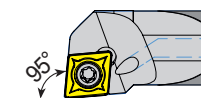


□: p. 78 unit:mm

Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert
	A08H - SCLCR/L 06	1117 1118	11	08	7.3	6	100	CC0602
●	A10H - SCLCR/L 06	1119 1120	13	10	9	7	100	
	A12H - SCLCR/L 06	1121 1122	16	12	11	9	100	
	S08H - SCLCR/L 06	1133 1134	11	08	7.3	6	100	CC0602
X	S10K - SCLCR/L 06	1135 1136	13	10	9	7	125	
	S12K - SCLCR/L 06	1137 1138	16	12	11	9	125	
	S16P - SCLCR/L 06	1139 1140	20	16	14.8	11	170	CC09T3
	A16M - SCLCR/L 09	1123 1124	20	16	14.8	11	150	
●	A20P - SCLCR/L 09	1125 1126	25	20	18.3	13	170	
	A25R - SCLCR/L 09	1127 1128	32	25	23	17	200	CC09T3
	A32S - SCLCR/L 09	1129 1130	40	32	30	22	250	
	S12K - SCLCR/L 09	1141 1142	16	12	11	9	125	
	S16P - SCLCR/L 09	- 1143	20	16	14.8	11	170	CC1204
X	S20R - SCLCR/L 09	1144 1145	25	20	18.3	13	200	
	S25S - SCLCR/L 09	1146 1147	32	25	23	17	250	
	S32T - SCLCR/L 09	1148 1149	40	32	30	22	300	CC1204
●	A25R - SCLCR/L 12	1131 1132	32	25	23	17	200	
	S25S - SCLCR/L 12	1150 1151	32	25	23	17	250	
X	S32T - SCLCR/L 12	1152 1153	40	32	30	22	300	CC1204
	S40U - SCLCR/L 12	1154 1155	50	40	37.5	27	350	
●	E08K - SCLCR/L 06	0325 1156	11	08	7.3	6	125	
	E12Q - SCLCR/L 06	1157 1158	16	12	11	9	180	CC09T3
●	E16R - SCLCR/L 09	0329 1159	20	16	14.8	11	200	
●	E20S - SCLCR/L 09	1160 1161	24	20	18.3	13	250	



..-SCLCR/L
(Screw Type 95°)

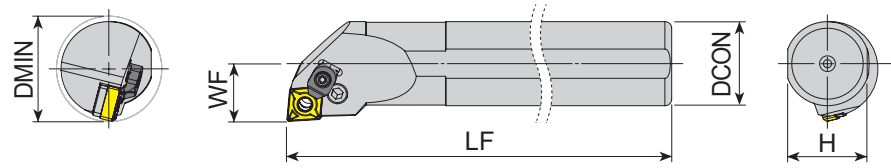


E..-SCLCR/L
(Screw Type 95° Carbide)

Series	Size	Screw	Shim	Shim Screw	Torx Key
..SCFCR/L	..06	Y4008-M2.5x6	-	-	Y80-T08
	..12..09	Y4015-M3.5x8	-	-	Y80-T15
	..16~20..09	Y4015-M3.5x9	-	-	Y80-T15
	..25..09	Y4015-M3.5x12	YAACN-2-0001	YAAV-08-M3.5x8	Y80-T15
	..12	Y4020-M4.5x12	YAACN-2-0003	YAAV-10-M4.5x8	Y80-T20

Series	Size	Screw	Shim	Shim Screw	Torx Key
..SCLCR/L	..06	Y4008-M2.5x6	-	-	Y80-T08
	..12..09	Y4015-M3.5x8	-	-	Y80-T15
	..16~20..09	Y4015-M3.5x9	-	-	Y80-T15
	..25~32..09	Y4015-M3.5x12	YAACN-2-0001	YAAV-08-M3.5x8	Y80-T15
	..25~32..12	Y4020-M4.5x12	YAACN-2-0003	YAAV-10-M4.5x8	Y80-T20
	..40..12	Y1020-M4.5x16	YAACN-2-0003	YAAV-07-M4.5x13	Y80-T20
E..SCLCR/L	..06	Y4008-M2.5x6	-	-	Y80-T08
	..09	Y4015-M3.5x9	-	-	Y80-T15

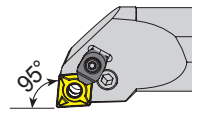
Turning - Holder - Internal
Internal Holders for CN Insert**



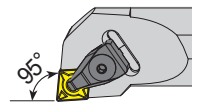
* 'C' Letter at Last : Optional Clamp Included

□ : p. 60 unit:mm

Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert		
●	A25R - PCLNR/L 12C	0839 0840	32	25	23	17	200	CN1204		
	A32S - PCLNR/L 12C	0841 0842	40	32	30	22	250			
	A40T - PCLNR/L 12C	0843 0844	50	40	37.5	27	300			
	A50U - PCLNR/L 12C	0845 0846	63	50	47	35	350			
	S25S - PCLNR/L 12C	0863 0864	32	25	23	17	250			
	X S32T - PCLNR/L 12C	0865 0866	40	32	30	22	300			
	X S40U - PCLNR/L 12C	0867 0868	50	40	37.5	27	350			
	X S50V - PCLNR/L 12C	0869 0870	63	50	47	35	400			
	●	A32S - PCLNR/L 16C	0847 0848	40	32	30	22		250	CN1606
		A40T - PCLNR/L 16C	0849 0850	50	40	37.5	27		300	
A50U - PCLNR/L 16C		0851 0852	63	50	47	35	350			
X S32T - PCLNR/L 16C		0871 0872	40	32	30	22	300			
X S40U - PCLNR/L 16C		0873 0874	50	40	37.5	27	350			
●	X S50V - PCLNR/L 16C	0875 0876	63	50	47	35	400	CN1906		
	A40T - PCLNR/L 19C	0853 0854	50	40	37.5	27	300			
	A50U - PCLNR/L 19C	0855 0856	63	50	47	35	350			
	X S40U - PCLNR/L 19C	0877 0878	50	40	37.5	27	350			
●	X S50V - PCLNR/L 19C	0879 0880	63	50	47	35	400	CN1204		
	S25S - TCLNR/L 12	0881 0882	32	25	23	17	250			
	X S32T - TCLNR/L 12	0883 0884	40	32	30	22	300			
	X S40U - TCLNR/L 12	0885 0886	50	40	37.5	27	350			
●	X S50V - TCLNR/L 12	0887 0888	63	50	47	35	400	CN1606		
	S32T - TCLNR/L 16	0889 0890	40	32	30	22	300			
	X S40U - TCLNR/L 16	0891 0892	50	40	37.5	27	350			
	X S50V - TCLNR/L 16	0893 0894	63	50	47	35	400			



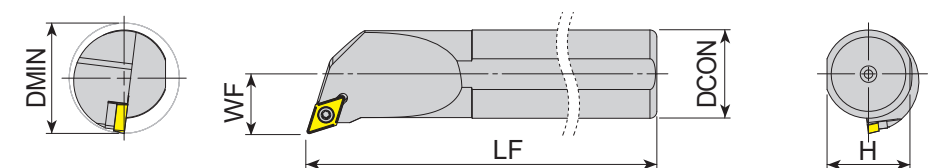
● ..PCLNR/L
(Lever Type 95°)



● ..TCLNR/L
(Hole Clamp Type 95°)

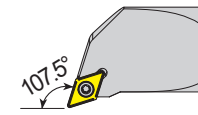
Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Shim	Shim Screw	Shim Pin	Allen Key
● ..PCLNR/L	..25..12C	YAPL-02	YALV-08-M8x16	YACK-05	Y4015-M4x11	-	-	YAACN-3-0001	-	YAAY-02	YAAL-03-3
	..32~50..12C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	YAACN-3-0001	-	YAAY-02	YAAL-03-3
	..16C	YAPL-04	YALV-04-M8x22	YACK-09	YAAV-05-M6x15	-	-	YAACN-3-0002	-	YAAY-03	YAAL-03-3
	..19C	YAPL-05	YALV-05-M10x27	YACK-09	YAAV-05-M6x15	-	-	YAACN-3-0003	-	YAAY-04	YAAL-05-4
● ..TCLNR/L	..25..12	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAACN-3-0001	YAAV-13-M5x8	-	YAAL-03-3
	..32~50..12	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAACN-3-0001	YAAV-02-M5x12	-	YAAL-03-3
	..16	-	-	YATK-04	YAKV-19-M7x25	YABPL-02	-	YAACN-3-0002	YAAV-05-M6x15	-	YAAL-05-4

Turning - Holder - Internal
Internal Holders for DC Insert**



□ : p. 79 unit:mm

Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert		
●	A10H - SDQCR/L 07	1172 1173	13	10	9	7	100	DC0702		
	A12H - SDQCR/L 07	1174 1175	16	12	11	9	100			
	A16M - SDQCR/L 07	1176 1177	20	16	14.8	11	150			
	A20P - SDQCR/L 07	1178 1179	25	20	18.3	13	170			
	S10K - SDQCR/L 07	1188 1189	13	10	9	7	125			
	X S12K - SDQCR/L 07	1190 1191	16	12	11	9	125			
	X S16P - SDQCR/L 07	1192 1193	20	16	14.8	11	170			
	X S20R - SDQCR/L 07	1194 1195	25	20	18.3	13	200			
	●	A16M - SDQCR/L 11	1180 1181	20	16	14.8	11		150	DC11T3
		A20P - SDQCR/L 11	1182 1183	25	20	18.3	13		170	
A25R - SDQCR/L 11		1184 1185	32	25	23	17	200			
A32S - SDQCR/L 11		1186 1187	40	32	30	22	250			
S16P - SDQCR/L 11		1196 1197	20	16	14.8	11	170			
●	X S20R - SDQCR/L 11	1198 1199	25	20	18.3	13	200	DC11T3		
	X S25S - SDQCR/L 11	1200 1201	32	25	23	17	250			
	X S32T - SDQCR/L 11	1202 1203	40	32	30	22	300			
	X S40U - SDQCR/L 11	1204 1205	50	40	37.5	27	350			

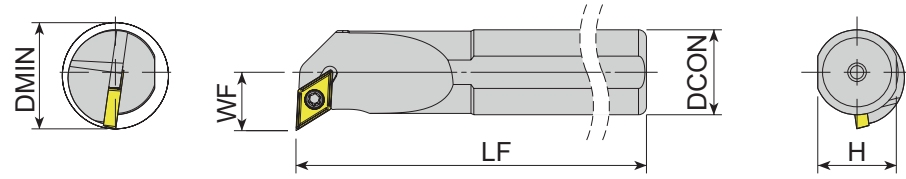


● ..SDQCR/L
(Screw Type 107.5°)

▶ NEXT PAGE

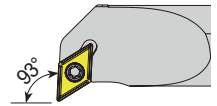
Series	Size	Screw	Shim	Shim Screw	Torx Key
● ..SDQCR/L	..07	Y4008-M2.5x6	-	-	Y80-T08
	..16..11	Y4015-M3.5x9	-	-	Y80-T15
	..20..11	Y4015-M3.5x11	-	-	Y80-T15
	..25..11	Y4015-M3.5x12	YAADN-2-0001	YAAV-08-M3.5x8	Y80-T15
	..32..11	Y4015-M3.5x14	YAADN-2-0001	YAAV-06-M3.5x11	Y80-T15

Turning - Holder - Internal
Internal Holders for DC Insert**

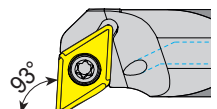


□: p. 79 unit:mm

Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert		
●	A10H - SDUCR/L 07	1206 1207	13	10	9	8	100	DC0702		
	A12H - SDUCR/L 07	1208 1209	16	12	11	9	100			
	A16M - SDUCR/L 07	1210 1211	20	16	14.8	11	150			
	A20P - SDUCR/L 07	1212 1213	25	20	18.3	13	170			
	S10K - SDUCR/L 07	1222 1223	13	10	9	8	125			
	X S12K - SDUCR/L 07	1224 1225	16	12	11	9	125			
	X S16P - SDUCR/L 07	1226 1227	20	16	14.8	11	170			
	X S20R - SDUCR/L 07	1228 1229	25	20	18.3	13	200			
	●	A16M - SDUCR/L 11	1214 1215	20	16	14.8	11		150	DC11T3
		A20P - SDUCR/L 11	1216 1217	25	20	18.3	13		170	
A25R - SDUCR/L 11		1218 1219	32	25	23	17	200			
A32S - SDUCR/L 11		1220 1221	40	32	30	22	250			
X S16P - SDUCR/L 11		1230 1231	20	16	14.8	11	170			
X S20R - SDUCR/L 11		1232 1233	25	20	18.3	13	200			
X S25S - SDUCR/L 11		1234 1235	32	25	23	17	250			
X S32T - SDUCR/L 11		1236 1237	40	32	30	22	300			
X S40U - SDUCR/L 11		1238 1239	50	40	37.5	27	350			
X S50V - SDUCR/L 11		- 1240	63	50	47	35	400			
●	E10M - SDUCR/L 07	1241 1242	13	10	9	8	150	DC0702		
	E12Q - SDUCR/L 07	1243 1244	16	12	11	9	180	DC0702		
	E16R - SDUCR/L 11	0339 1245	20	16	14.8	11	200	DC11T3		
	E20S - SDUCR/L 11	1246 1247	23	20	18.3	12	250	DC11T3		



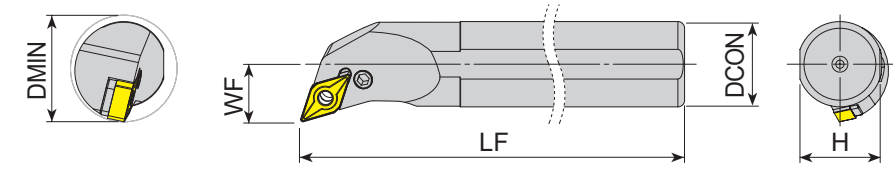
..SDUCR/L
(Screw Type 93°)



E..SDUCR/L
(Screw Type 93° Carbide)

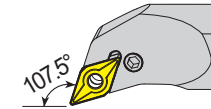
Series	Size	Screw	Shim	Shim Screw	Torx Key
..SDUCR/L	..07	Y4008-M2.5x6	-	-	Y80-T08
	..16..11	Y4015-M3.5x9	-	-	Y80-T15
	..20..11	Y4015-M3.5x11	-	-	Y80-T15
	..25..11	Y4015-M3.5x12	YAADN-2-0001	YAAV-08-M3.5x8	Y80-T15
	..32..11	Y4015-M3.5x14	YAADN-2-0001	YAAV-06-M3.5x11	Y80-T15
E..SDUCR/L	..07	Y4008-M2.5x6	-	-	Y80-T08
	..11	Y4015-M3.5x9	-	-	Y80-T15

Turning - Holder - Internal
Internal Holders for DN Insert**

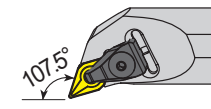


□: p. 63 unit:mm

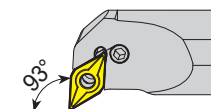
Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert
●	A32S - PDQNR/L 1504	0895 -	40	32	30	22	250	DN1504
	A40T - PDQNR/L 1504	0896 -	50	40	37.5	27	300	
	S32T - PDQNR/L 1504	0903 -	40	32	30	22	300	
	X S40U - PDQNR/L 1504	0904 -	50	40	37.5	27	350	
	S50V - PDQNR/L 1504	0905 -	63	50	47	35	400	
●	A32S - PDQNR/L 15	0897 0898	40	32	30	22	250	DN1506
	A40T - PDQNR/L 15	0899 0900	50	40	37.5	27	300	
	A50U - PDQNR/L 15	0901 0902	63	50	47	35	350	
	X S32T - PDQNR/L 15	0906 0907	40	32	30	22	300	
	X S40U - PDQNR/L 15	0908 0909	50	40	37.5	27	350	
●	S50V - PDQNR/L 15	0910 0911	63	50	47	35	400	DN1506
	S25S - TDQNR/L 15	0912 0913	32	25	23	17	250	
	X S32T - TDQNR/L 15	0914 0915	40	32	30	22	300	
	X S40U - TDQNR/L 15	0916 0917	50	40	37.5	27	350	
	S50V - TDQNR/L 15	0918 0919	63	50	47	35	400	
●	A32S - PDUNR/L 15	0920 0921	40	32	30	22	250	DN1506
	A40T - PDUNR/L 15	0922 0923	50	40	37.5	27	300	
	A50U - PDUNR/L 15	0924 0925	63	50	47	35	350	
	X S25S - PDUNR/L 15	0934 0935	32	25	23	19	250	
	X S32T - PDUNR/L 15	0936 0937	40	32	30	22	300	
●	S40U - PDUNR/L 15	0938 0939	50	40	37.5	27	350	DN1506
	S50V - PDUNR/L 15	0940 0941	63	50	47	35	400	
	S25S - TDUNR/L 15	0942 0943	34	25	23	17	250	
	X S32T - TDUNR/L 15	0944 0945	40	32	30	22	300	
	X S40U - TDUNR/L 15	0946 0947	50	40	37.5	27	350	
●	S50V - TDUNR/L 15	0948 0949	63	50	47	35	400	DN1506



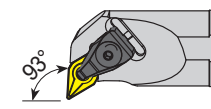
..PDQNR/L
(Lever Type 107.5°)



..TDQNR/L
(Hole Clamp Type 107.5°)



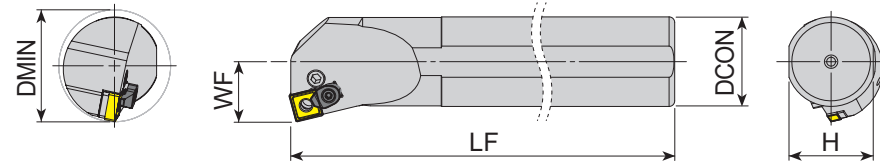
..PDUNR/L
(Lever Type 93°)



..TDUNR/L
(Hole Clamp Type 93°)

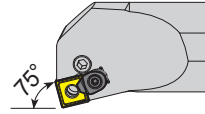
Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Shim	Shim Screw	Shim Pin	Allen Key
..PDQNR/L	..15	YAPL-03	YALV-03-M8x19	-	-	-	-	YAADN-3-0001	-	YAAV-02	YAAL-03-3
	..1504	YAPL-03	YALV-03-M8x19	-	-	-	-	YAADN-2-0003	-	YAAV-02	YAAL-03-3
..TDQNR/L	..25..15	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	-	YAADN-3-0001	YAAV-13-M5x8	-	YAAL-03-3
	..32~50..15	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAADN-3-0001	YAAV-02-M5x12	-	YAAL-03-3
..PDUNR/L	..25..15	YAPL-03	YALV-08-M8x16	-	-	-	-	YAADN-3-0001	-	YAAV-02	YAAL-03-3
	..32~50..15	YAPL-03	YALV-03-M8x19	-	-	-	-	YAADN-3-0001	-	YAAV-02	YAAL-03-3
..TDUNR/L	..25..15	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAADN-3-0001	YAAV-13-M5x8	-	YAAL-03-3
	..32~50..15	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	YAADN-3-0001	YAAV-02-M5x12	-	YAAL-03-3

Turning - Holder - Internal
Internal Holders for SN Insert**



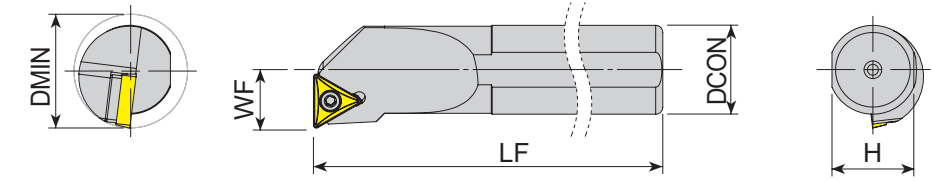
* 'C' Letter at Last : Optional Clamp Included

: p.67 unit:mm

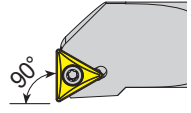
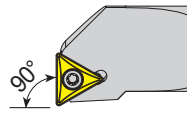
Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert
 ..-PSKNR/L (Lever Type 75°)	X S25S - PSKNR/L 12C	0958 0959	32	25	23	17	250	SN1204
	S32T - PSKNR/L 12C	0960 0961	40	32	30	22	300	

Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Shim	Shim Pin	Allen Key
..-PSKNR/L	..25..12C	YAPL-02	YALV-08-M8x16	YACK-05	Y4015-M4x11	YAASN-3-0004	YAAY-02	YAAL-03-3
	..32..12C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	YAASN-3-0004	YAAY-02	YAAL-03-3

Turning - Holder - Internal
Internal Holders for TC Insert**

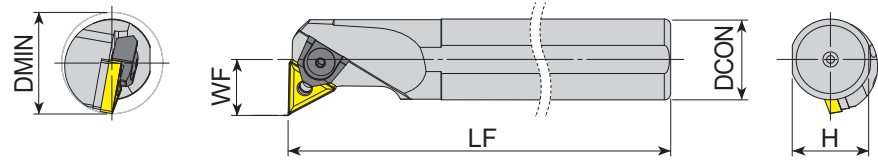


: p.82 unit:mm

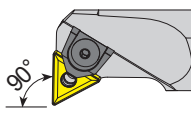
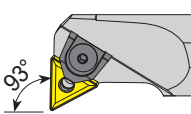
Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert	
 ..-STFCR/L (Screw Type 90°)	S12K - STFCR/L 11	1264 1265	17	12	11	9	125	TC1102	
	X S16P - STFCR/L 11	1266 1267	20	16	14.8	11	170		
	S20R - STFCR/L 11	1268 1269	25	20	18.3	13	200		
	X	S16P - STFCR/L 16	1270 1271	20	16	14.8	11	170	TC16T3
		S20R - STFCR/L 16	1272 1273	25	20	18.3	13	200	
		S25S - STFCR/L 16	1274 1275	32	25	23	17	250	
	S32T - STFCR/L 16	1276 1277	40	32	30	22	300		
	S40U - STFCR/L 16	1278 -	50	40	37.5	27	350		
 ..-STUCR/L (Screw Type 93°)	S12K - STUCR/L 11	1279 1280	17	12	11	9	125	TC1102	
	X S16P - STUCR/L 11	1281 1282	20	16	14.8	11	170		
	S20R - STUCR/L 11	1283 1284	25	20	18.3	13	200		
	X	S16P - STUCR/L 16	1285 1286	20	16	14.8	11	170	TC16T3
		S20R - STUCR/L 16	1287 1288	25	20	18.3	13	200	
		S25S - STUCR/L 16	1289 1290	32	25	23	17	250	
		S32T - STUCR/L 16	1291 1292	40	32	30	22	300	
		S40U - STUCR/L 16	1293 1294	50	40	37.5	27	350	

Series	Size	Screw	Shim	Shim Screw	Torx Key
..-STFCR/L	..12~20..11	Y4008-M2.5x6	-	-	Y80-T08
	..16..16	Y4015-M3.5x9	-	-	Y80-T15
	..20..16	Y4015-M3.5x11	-	-	Y80-T15
	..25..16	Y4015-M3.5x14	YAATN-2-0001	YAAV-08-M3.5x8	Y80-T15
	..32~40..16	Y4015-M3.5x14	YAATN-2-0001	YAAV-06-M3.5x11	Y80-T15
..-STUCR/L	..11	Y4008-M2.5x6	-	-	Y80-T08
	..16..16	Y4015-M3.5x9	-	-	Y80-T15
	..20..16	Y4015-M3.5x11	-	-	Y80-T15
	..25..16	Y4015-M3.5x14	YAATN-2-0001	YAAV-08-M3.5x8	Y80-T15
	..32~40..16	Y4015-M3.5x14	YAATN-2-0001	YAAV-06-M3.5x11	Y80-T15

Turning - Holder - Internal
Internal Holders for TN Insert**



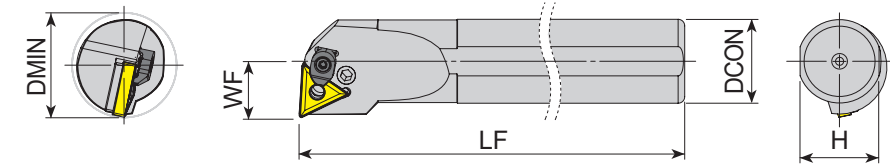
□: p. 69 unit:mm

Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert
 ..-MTFNR/L (Pin + Top Clamp Type 90°)	X S20R - MTFNR/L 16	0972 -	25	20	18.3	14	200	TN1604
	S25S - MTFNR/L 16	0973 0974	32	25	23	17	250	
	S32T - MTFNR/L 16	0975 0976	40	32	30	22	300	
	S40U - MTFNR/L 16	0977 0978	50	40	37.5	27	350	
	S32T - MTFNR/L 22	0979 0980	40	32	30	22	300	
X S40U - MTFNR/L 22	0981 0982	50	40	37.5	27	350	TN2204	
S50V - MTFNR/L 22	0983 -	63	50	47	35	400		
 ..-MTUNR/L (Pin + Top Clamp Type 93°)	X S20R - MTUNR/L 16	0998 0999	25	20	18.3	13	200	TN1604
	S25S - MTUNR/L 16	1000 1001	32	25	23	17	250	
	S32T - MTUNR/L 16	1002 1003	40	32	30	22	300	
	S40U - MTUNR/L 16	1004 1005	50	40	37.5	27	350	
	S50V - MTUNR/L 16	1006 1007	63	50	47	35	400	

▶ NEXT PAGE

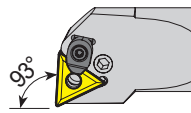
Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Pin	Shim	Shim Screw	Shim Pin	Allen Key
..-MTFNR/L	..20..16	-	-	YAMK-02	YAKV-17-M5x15	-	-	YAPM-03	-	-	-	YAAL-03-3
	..25..16	-	-	YAMK-04	YAKV-30-M6x22	YABPL-01	YAS-01	YAPM-14	YAATN-2-0002	-	-	YAAL-03-3
	..32~40..16	-	-	YAMK-04	YAKV-30-M6x22	YABPL-01	YAS-01	YAPM-01	YAATN-2-0002	-	-	YAAL-03-3
	..22	-	-	YAMK-04	YAKV-30-M6x22	YABPL-01	YAS-01	YAPM-02	YAATN-3-0015	-	-	YAAL-03-3
..-MTUNR/L	..20..16	-	-	YAMK-02	YAKV-17-M5x15	-	-	YAPM-03	-	-	-	YAAL-03-3
	..25..16	-	-	YAMK-04	YAKV-30-M6x22	YABPL-01	YAS-01	YAPM-14	YAATN-2-0002	-	-	YAAL-03-3
	..32~50..16	-	-	YAMK-04	YAKV-30-M6x22	YABPL-01	YAS-01	YAPM-01	YAATN-2-0002	-	-	YAAL-03-3

Turning - Holder - Internal
Internal Holders for TN Insert**



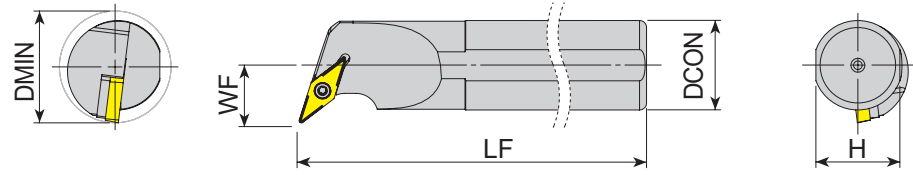
□: p. 69 unit:mm

* 'C' Letter at Last : Optional Clamp Included

Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert
 ..-PTUNR/L (Lever Type 93°)	S16P - PTUNR/L 16	1014 1015	20	16	14.8	11	170	TN1604
	S20R - PTUNR/L 16	1016 1017	25	20	18.3	13	200	
	X S25S - PTUNR/L 16C	1018 1019	32	25	23	17	250	
	S32T - PTUNR/L 16C	1020 1021	40	32	30	22	300	
	S40U - PTUNR/L 16C	1022 1023	50	40	37.5	27	350	
X S32T - PTUNR/L 22C	1024 1025	40	32	30	22	300	TN2204	
	X S40U - PTUNR/L 22C	1026 1027	50	40	37.5	27		350
	S50V - PTUNR/L 22C	1028 1029	63	50	47	35		400
X S25S - TTUNR/L 16	1030 1031	32	25	23	17	250	TN1604	
	S32T - TTUNR/L 16	1032 1033	40	32	30	22		300
	X S25S - TTUNR/L 22	1034 1035	32	25	23	17		250
S32T - TTUNR/L 22		1036 1037	40	32	30	22	300	
S40U - TTUNR/L 22		1038 1039	50	40	37.5	27	350	
S50V - TTUNR/L 22	1040 1041	63	50	47	35	400		

Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Pin	Shim	Shim Screw	Shim Pin	Allen Key
..-PTUNR/L	..16..16	YAPL-08	YALV-07-M6x13	-	-	-	-	-	-	-	YAAY-07	YAAL-02-2.5
	..20..16	YAPL-01	YALV-01-M6x14	-	-	-	-	-	YAATN-3-0025	-	YAAY-01	YAAL-02-2.5
	..16C	YAPL-01	YALV-02-M6x17	YACK-05	Y4015-M4x11	-	-	-	YAATN-3-0025	-	YAAY-01	YAAL-02-2.5
	..22C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	-	YAATN-3-0015	-	YAAY-02	YAAL-03-3
	..-TTUNR/L	..16	-	-	YATK-01	YAKV-01-M5x22	YABPL-01	-	-	YAATN-2-0002	YAAV-03-M5x12	-
..22		-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	-	YAATN-3-0015	YAAV-02-M5x12	-	YAAL-03-3

Turning - Holder - Internal
Internal Holders for VB Insert**

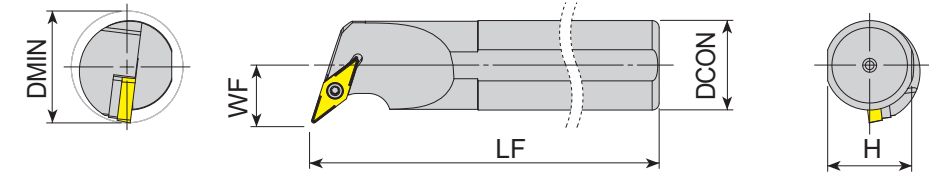


: p. 83 unit:mm

Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert
 ..-SVQBR/L (Screw Type 107.5°)	A20Q - SVQBR/L 16	1299 1300	30	20	18.3	20	180	VB1604
	● A25S - SVQBR/L 16	1301 1302	32	25	23	17	250	
	A32S - SVQBR/L 16	1303 1304	40	32	30	22	250	
	S25S - SVQBR/L 16	1305 1306	32	25	23	17	250	
	X S32T - SVQBR/L 16	1307 1308	40	32	30	22	300	
	S40U - SVQBR/L 16	1309 1310	50	40	37.5	27	350	
 ..-SVJBR/L (Screw Type 93°)	S25S - SVJBR/L 16	1295 1296	32	25	23	17	250	VB1604
	X S32T - SVJBR/L 16	1297 1298	40	32	30	22	300	
 ..-SVUBR/L (Screw Type 93°)	● A20Q - SVUBR/L 16	1311 -	30	20	18.3	20	180	VB1604
	A32S - SVUBR/L 16	1312 1313	40	32	30	22	250	
	S25S - SVUBR/L 16	1314 1315	32	25	23	19	250	
	X S32T - SVUBR/L 16	1316 1317	40	32	30	22	300	
	S40U - SVUBR/L 16	1318 1319	50	40	37.5	27	350	

Series	Size	Screw	Shim	Shim Screw	Torx Key
..SVQBR/L	..20..16	Y4015-M3.5x11	-	-	Y80-T15
	..25..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15
	..25..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-08-M3.5x8	Y80-T15
	..32~40..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15
..SVJBR/L	..16	Y4015-M3.5x12	YAAVN-2-0002	YAAV-08-M3.5x8	Y80-T15
..SVUBR/L	..20..16	Y4015-M3.5x11	-	-	Y80-T15
	..25~40..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15

Turning - Holder - Internal
Internal Holders for VC Insert**

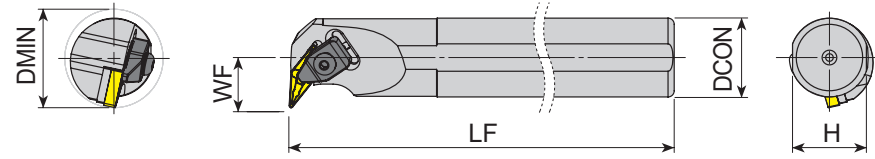


: p. 84 unit:mm

Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert
 ..-SVQCR/L (Screw Type 107.5°)	S25S - SVQCR/L 16	1320 1321	32	25	23	17	250	VC1604
	X S32T - SVQCR/L 16	1322 1323	40	32	30	22	300	
	S40U - SVQCR/L 16	1324 1325	50	40	37.5	27	350	
 ..-SVUCR/L (Screw Type 93°)	● A25R - SVUCR/L 16	1326 -	32	25	23	19	200	VC1604
	S25S - SVUCR/L 16	1327 1328	32	25	23	19	250	
	X S32T - SVUCR/L 16	1329 1330	40	32	30	22	300	
	S40U - SVUCR/L 16	1331 1332	50	40	37.5	27	350	

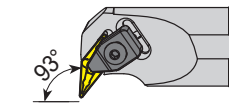
Series	Size	Screw	Shim	Shim Screw	Torx Key
..SVQCR/L	..25..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-08-M3.5x8	Y80-T15
	..32~40..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15
..SVUCR/L	..16	Y4015-M3.5x14	YAAVN-2-0002	YAAV-06-M3.5x11	Y80-T15

Turning - Holder - Internal
Internal Holders for VN Insert**



: p.73 unit:mm

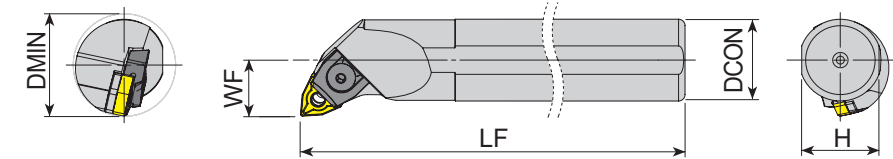
Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert
..TVUNR/L (Hole Clamp Type 93°) X	S25S - TVUNR/L 16	1042 1043	36	25	23	20	250	VN1604
	S32T - TVUNR/L 16	1044 1045	40	32	30	22	300	
	S40U - TVUNR/L 16	1046 1047	50	40	37.5	27	350	



..TVUNR/L
(Hole Clamp Type 93°) X

VN1604

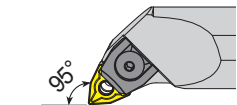
Turning - Holder - Internal
Internal Holders for WN Insert**



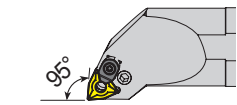
: p.75 unit:mm

* 'C' Letter at Last : Optional Clamp Included

Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert	
..MWLNR/L (Pin + Top Clamp Type 95°) X	S16P - MWLNR/L 06	1064 1065	20	16	14.8	11	170	WN0604	
	S20R - MWLNR/L 06	1066 1067	25	20	18.3	13	200		
	S25S - MWLNR/L 06	1068 1069	32	25	23	17	250		
	S25S - MWLNR/L 08	1070 1071	32	25	23	17	250		
..PWLNR/L (Lever Type 95°)	X S32T - MWLNR/L 08	1072 1073	40	32	30	22	300	WN0804	
	S40U - MWLNR/L 08	1074 1075	50	40	37.5	27	350		
	A20P - PWLNR/L 06	1048 1049	25	20	18.3	13	170		WN0604
	● A25R - PWLNR/L 06	1050 1051	32	25	23	17	200		
A32S - PWLNR/L 06	1052 1053	40	32	30	22	250			
S20R - PWLNR/L 06	1076 1077	25	20	18.3	13	200			
..PWLNR/L (Lever Type 95°)	X S25S - PWLNR/L 06	1078 1079	32	25	23	17	250	WN0804	
	S32T - PWLNR/L 06	1080 1081	40	32	30	22	300		
	● A25R - PWLNR/L 08C	1054 1055	32	25	23	17	200		
	● A32S - PWLNR/L 08C	1056 1057	40	32	30	22	250		
	● A40T - PWLNR/L 08C	1058 1059	50	40	37.5	27	300		
	A50U - PWLNR/L 08C	1060 1061	63	50	47	35	350		
	S25S - PWLNR/L 08C	1082 1083	32	25	23	17	250		
	X S32T - PWLNR/L 08C	1084 1085	40	32	30	22	300		
S40U - PWLNR/L 08C	1086 1087	50	40	37.5	27	350			
S50V - PWLNR/L 08C	1088 1089	63	50	47	35	400			



..MWLNR/L
(Pin + Top Clamp Type 95°) X



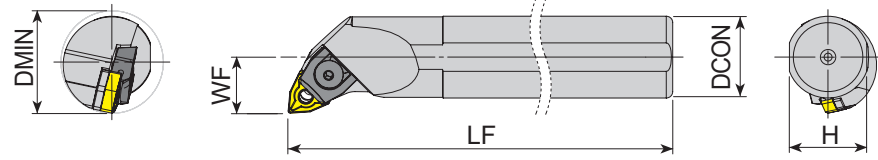
..PWLNR/L
(Lever Type 95°)

TECHNICAL INFORMATION

Series	Size	Clamp	Clamp Screw	Upper Ring	Shim	Shim Screw	Allen Key
..TVUNR/L	..16	YATK-01	YAKV-01-M5x22	YABPL-01	YAAVN-2-0002	YAAV-04-M5x12	YAAL-03-3

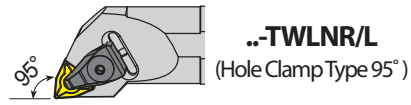
Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Pin	Shim	Shim Screw	Shim Pin	Allen Key
..MWLNR/L	..16..06	-	-	YAMK-01	YAKV-17-M5x15	-	-	YAPM-09	-	-	-	-
	..20..06	-	-	YAMK-01	YAKV-04-M5x17	-	-	YAPM-10	-	-	-	-
	..25..06	-	-	YAMK-01	YAKV-04-M5x17	-	-	YAPM-08	-	-	-	-
	..25..08	-	-	YAMK-05	YAKV-27-M6x20	YABPL-01	YAS-01	YAPM-04	YAAWN-3-0001	-	-	YAAL-03-3
..PWLNR/L	..32~40..08	-	-	YAMK-05	YAKV-03-M6x22	YABPL-01	YAS-01	YAPM-02	YAAWN-3-0001	-	-	YAAL-03-3
	..20..06	YAPL-01	YALV-01-M6x14	-	-	-	-	-	YAAWN-SW317	-	YAAY-01	YAAL-02-2.5
..PWLNR/L	..25~32..06	YAPL-01	YALV-02-M6x17	-	-	-	-	-	YAAWN-SW317	-	YAAY-01	YAAL-02-2.5
	..08C	YAPL-02	YALV-03-M8x19	YACK-05	Y4015-M4x11	-	-	-	YAAWN-3-0001	-	YAAY-02	YAAL-03-3

Turning - Holder - Internal
Internal Holders for WN Insert**



□: p. 75 unit:mm

Series	Designation	EDP 2700.. R L	DMIN	DCON	H	WF	LF	Insert	
X	S25S - TWLNR/L 06	1090 1091	32	25	23	17	250	WN0604	
	S32T - TWLNR/L 06	1092 1093	40	32	30	22	300		
	A40T - TWLNR/L 08	1062 -	50	40	37.5	27	300		
●	A50U - TWLNR/L 08	1063 -	63	50	47	35	350	WN0804	
	S25S - TWLNR/L 08	1094 1095	32	25	23	17	250		
	X	S32T - TWLNR/L 08	1096 1097	40	32	30	22		300
	S40U - TWLNR/L 08	1098 1099	50	40	37.5	27	350		
	S50V - TWLNR/L 08	1100 1101	63	50	47	35	400		



Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Pin	Shim	Shim Screw	Shim Pin	Allen Key
..-TWLNR/L	..06	-	-	YATK-01	YAKV-01-M5x22	YABPL-01	-	-	YAAWN-SW317	YAAV-01-M3x10	-	YAAL-03-3
	..25..08	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	-	YAAWN-3-0001	YAAV-13-M5x8	-	YAAL-03-3
	..32~50..08	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	-	YAAWN-3-0001	YAAV-02-M5x12	-	YAAL-03-3

Turning Inserts Overview

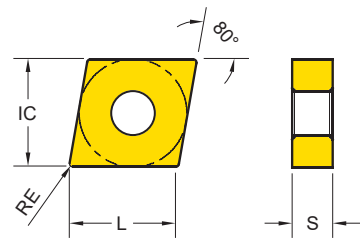
Negative Inserts

Shape	Series	Size				Page
C	CNMA	12	16	19	60	
	CNMG	12	16	19		
D	DNMA	1504	1506		63	
	DNMG	1504	1506			
K	KNUX	16			66	
S	SNMA	12	15		67	
	SNMG	12				
T	TNMA	16			69	
	TNMG	16	22			
	TNUX	16				
V	VNMA	16			73	
	VNMG	16				
W	WNMA		08		75	
	WNMG	06	08			

Positive Inserts

Shape	Series	Size				Page
C	CCGT		09	12	78	
	CCMT	06	09	12		
D	DCGT		11		79	
	DCMT	07	11			
R	RCMT	06	08	10	12	80
S	SCMT	09	12			81
T	TCGT		16		82	
	TCMT	11	16			
V	VBMT	16			83	
	VCGT / VCMT	16			84	

Turning Inserts - Negative
CNMG / CNMA (80° Negative)



Series	L	IC	S
CN** 1204	12	12.7	4.76
CN** 1606	16	15.875	6.35
CN** 1906	19	19.05	6.35

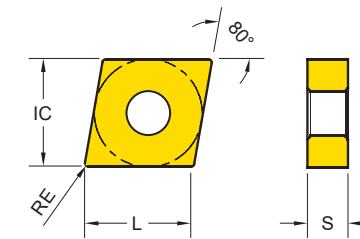
EDP 2200.. ● : Stock item ○ : Order made item

P05	P10	P20	P30	M15	M30	M40	N20	N20
K10	K20	M20	P20	S10	S20	S30	N20	N20

CNMA CNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..													
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10				
..MA Cast iron	CNMA 120404	0.4	0.15~0.5	0.5~2.5	●0089	●0354												
	CNMA 120408	0.8	0.15~0.5	1~3.5	●0010	●0355												
	CNMA 120412	1.2	0.15~0.5	1.5~5	●0011	●0356												
	CNMA 160612	1.2	0.15~0.5	1.5~5	●0012	●0357												
	CNMA 160616	1.6	0.15~0.5	2~5	●0446	●0447												
	CNMA 190616	1.6	0.15~1	3~10	●0448	●0449												
-UF Finishing	CNMG 120404 - UF	0.4	0.05~0.25	0.5~1.5	○0178	○0179	○0180	○0003										
	CNMG 120408 - UF	0.8	0.05~0.25	1~2.5	○0189	○0190	○0191											
-UL Light Machining and Sticky Material	CNMG 120404 - UL	0.4	0.1~0.3	0.5~2	●0358	●0359	●0524											
	CNMG 120408 - UL	0.8	0.1~0.3	1~3	●0192	●0193	●0194											
	CNMG 120412 - UL	1.2	0.1~0.3	1.5~3.5	●0201	●0202	●0203											
-UM Medium Machining Unstable condition	CNMG 120404 - UM	0.4	0.15~0.3	0.5~1.5	●0184	●0185	●0186											
	CNMG 120408 - UM	0.8	0.15~0.3	0.5~2	●0338	●0114	●0100	●0140										
	CNMG 120412 - UM	1.2	0.15~0.3	1.5~3.0	●0525	●0486	●0526											

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative
CNMG / CNMA (80° Negative)



Series	L	IC	S
CN** 1204	12	12.7	4.76
CN** 1606	16	15.875	6.35
CN** 1906	19	19.05	6.35

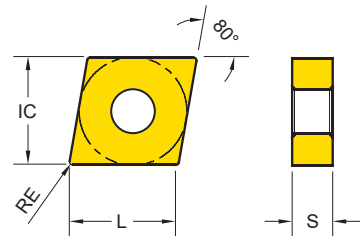
EDP 2200.. ● : Stock item ○ : Order made item

P05	P10	P20	P30	M15	M30	M40	N20	N20
K10	K20	M20	P20	S10	S20	S30	N20	N20

CNMA CNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..													
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10				
-UG Medium Machining at stable condition	CNMG 120404 - UG	0.4	0.2~0.4	0.5~2		○0181	○0182	○0183										
	CNMG 120408 - UG	0.8	0.2~0.4	1~3	●0337	●0113	●0099	●0139	●0001									
	CNMG 120412 - UG	1.2	0.2~0.4	1.5~4	●0685	●0198	●0199	●0200										
	CNMG 160608 - UG	0.8	0.20~0.40	1.5~5.0				●0749										
	CNMG 160612 - UG	1.2	0.2~0.4	1.5~5		●0530	●0508	●0531										
	CNMG 160616 - UG	1.6	0.2~0.4	1.8~5		●0534	●0510	●0535										
-UC Cast iron and Medium roughing	CNMG 120404 - UC	0.4	0.2~0.4	0.5~2.5	●0096	●0115	●0101	●0116										
	CNMG 120408 - UC	0.8	0.2~0.4	1~4	●0062	●0117	●0102	●0118										
	CNMG 120412 - UC	1.2	0.2~0.4	1.5~4.5	●0088	●0119	●0103	●0120										
-UR Roughing	CNMG 120408 - UR	0.8	0.3~0.5	1~4		●0195	●0196	●0197										
	CNMG 120412 - UR	1.2	0.3~0.5	1.5~5		●0204	●0205	●0206	●0004									
	CNMG 120416 - UR	1.6	0.3~0.5	2~5		●0707	●0623											
	CNMG 160612 - UR	1.2	0.3~0.5	1.5~5		●0532	●0509	●0533										
	CNMG 160616 - UR	1.6	0.3~0.5	2~5	●0676	●0536	●0511	●0537										
	CNMG 190608 - UR	0.8	0.3~0.8	3.0~9.0		●0804	●0805	●0806										
CNMG 190612 - UR		1.2	0.3~0.8	3~9	●0450	●0451	●0698	●0699										
					●0480	●0481	●0734	●0735										
	CNMG 190616 - UR	1.6	0.3~0.8	3.0~9.0														

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative
CNMG / CNMA (80° Negative)



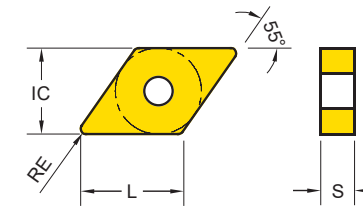
Series	L	IC	S
CN** 1204	12	12.7	4.76
CN** 1606	16	15.875	6.35
CN** 1906	19	19.05	6.35

EDP 2200.. ●: Stock item ○: Order made item

CNMA CNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..																
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10							
-MF Stainless steel Finishing	CNMG 120404 - MF	0.4	0.07~0.3	0.2~1.5																	
	CNMG 120408 - MF	0.8	0.07~0.3	0.2~1.5																	
-MM Stainless steel Medium	CNMG 120404 - MM	0.4	0.2~0.35	0.5~3																	
	CNMG 120408 - MM	0.8	0.2~0.35	1~3.5																	
	CNMG 120412 - MM	1.2	0.2~0.35	1.5~3.5																	
-MR Stainless steel Roughing	CNMG 120408 - MR	0.8	0.3~0.55	1.2~5.5																	
	CNMG 120412 - MR	1.2	0.3~0.55	1.5~5.5																	
-KR Cast Iron Heavy Roughing	CNMG 120408 - KR	0.8	0.30~0.60	1.0~5.0																	
	CNMG 120412 - KR	1.2	0.30~0.60	1.5~5.0																	

Cutting Speed			Vc (m/min.)										
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230	
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200	
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200	
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	30	90	20	40
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	

Turning Inserts - Negative
DNMG / DNMA (55° Negative)



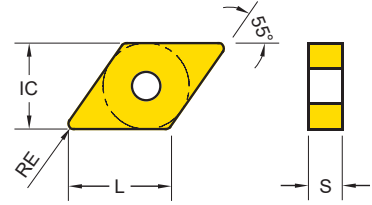
Series	L	IC	S
DN** 1504	14	12.7	4.76
DN** 1506	14	12.7	6.35

EDP 2200.. ●: Stock item ○: Order made item

DNMA DNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..																
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10							
..MA Cast iron	DNMA 150408	0.8	0.15~0.5	1~3																	
	DNMA 150412	1.2	0.15~0.5	1.5~4																	
	DNMA 150608	0.8	0.15~0.5	1~3																	
	DNMA 150612	1.2	0.15~0.5	1.5~4																	
-UF Finishing	DNMG 150404 - UF	0.4	0.05~0.25	0.5~1.5																	
	DNMG 150604 - UF	0.4	0.05~0.25	1~2																	
	DNMG 150608 - UF	0.8	0.05~0.25	1.5~3.5																	
-UL Light Machining and Sticky Material	DNMG 150404 - UL	0.4	0.10~0.3	0.5~3.0																	
	DNMG 150408 - UL	0.8	0.10~0.3	1.0~3.0																	
	DNMG 150412 - UL	1.2	0.10~0.3	1.5~3.0																	
	DNMG 150604 - UL	0.4	0.1~0.3	0.5~2																	
	DNMG 150608 - UL	0.8	0.1~0.3	1.5~3																	
-UM Medium Machining Unstable condition	DNMG 150612 - UL	1.2	0.10~0.3	1.5~3.0																	
	DNMG 150408 - UM	0.8	0.15~0.3	1.0~3.0																	
	DNMG 150412 - UM	1.2	0.15~0.3	1.5~4																	
	DNMG 150608 - UM	0.8	0.15~0.3	0.5~2																	
DNMG 150612 - UM	1.2	0.15~0.3	1.5~3.0																		

Cutting Speed			Vc (m/min.)										
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230	
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200	
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200	
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	30	90	20	40
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	

Turning Inserts - Negative
DNMG / DNMA (55° Negative)

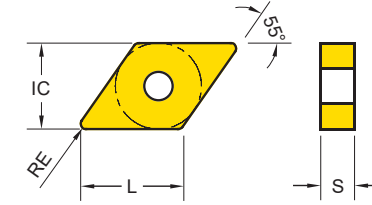


Series	L	IC	S
DN** 1504	14	12.7	4.76
DN** 1506	14	12.7	6.35

EDP 2200.. ●: Stock item ○: Order made item

DNMA DNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20	M20	S10	S20	S30	N20	N20		
-UG Medium Machining at stable condition	DNMG 150404 - UG	0.4	0.2~0.4	0.5~3.0				●						
	DNMG 150408 - UG	0.8	0.2~0.4	1~2.5	●	●	●	●	●					
	DNMG 150412 - UG	1.2	0.2~0.4	1.5~3	●		●	●	●					
	DNMG 150604 - UG	0.4	0.2~0.4	0.5~2		●	●	●	●					
	DNMG 150608 - UG	0.8	0.2~0.4	1~3	●	●	●	●	●	●				
	DNMG 150612 - UG	1.2	0.2~0.4	1.5~3.5	●	●	●	●	●					
-UC Cast iron and Medium roughing	DNMG 150408 - UC	0.8	0.2~0.4	1~3	●	●		●						
	DNMG 150412 - UC	1.2	0.2~0.4	1.5~3.5	●	●		●						
	DNMG 150608 - UC	0.8	0.2~0.4	1~3	●	●	●	●	●					
	DNMG 150612 - UC	1.2	0.2~0.4	1.5~3.5	●	●	●	●	●					
-UR Roughing	DNMG 150408 - UR	0.8	0.3~0.5	1~3.5		●								
	DNMG 150412 - UR	1.2	0.3~0.5	1.5~4		●								
	DNMG 150608 - UR	0.8	0.3~0.5	1.0~5.0	●	●	●							
	DNMG 150612 - UR	1.2	0.3~0.5	1.5~4	●	●	●	●	●					

Turning Inserts - Negative
DNMG / DNMA (55° Negative)



Series	L	IC	S
DN** 1504	14	12.7	4.76
DN** 1506	14	12.7	6.35

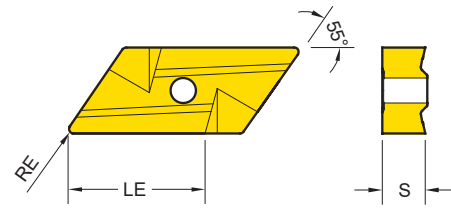
EDP 2200.. ●: Stock item ○: Order made item

DNMA DNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20	M20	S10	S20	S30	N20	N20		
-MF Stainless steel Finishing	DNMG 150404 - MF	0.4	0.07~0.3	0.2~1.5										
	DNMG 150408 - MF	0.8	0.07~0.3	0.2~1.5				●						
	DNMG 150604 - MF	0.4	0.07~0.3	0.2~1.5						●				
	DNMG 150608 - MF	0.8	0.07~0.3	0.2~1.5						●	●			
-MM Stainless steel Medium	DNMG 150404 - MM	0.4	0.2~0.35	0.5~3				●		●	●			
	DNMG 150408 - MM	0.8	0.2~0.35	1~3.5				●		●	●			
	DNMG 150412 - MM	1.2	0.2~.35	1.5~3.5				●		●	●			
	DNMG 150604 - MM	0.4	0.2~0.35	0.5~3				●		●	●			
	DNMG 150608 - MM	0.8	0.2~0.35	1~3.5				●		●	●			
	DNMG 150612 - MM	1.2	0.2~0.35	1.5~3.5				●		●	●			
-MR Stainless steel Roughing	DNMG 150408 - MR	0.8	0.3~0.55	2.0~5.5							●	●		
	DNMG 150412 - MR	1.2	0.3~0.55	2.0~5.5							●	●		
	DNMG 150608 - MR	0.8	0.3~0.55	2.0~5.5							●	●		
	DNMG 150612 - MR	1.2	0.3~0.55	2.0~5.5							●	●		

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative
KNUX (55° - 2 Corners Single Side)

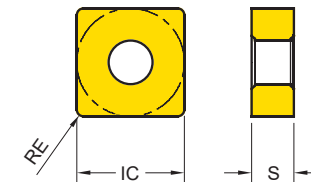


Series	LE	S
KN** 1604	15	4.76

EDP 2200.. ●: Stock item ○: Order made item

KNUX	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..															
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10						
..UX Left	KNUX 160405 L	0.5	0.1~0.4	0.5~6	●	●	●	●	●											
..UX Right	KNUX 160405 R	0.5	0.1~0.4	0.5~6	○	○	○	○	○											

Turning Inserts - Negative
SNMG / SNMA (90° Negative)



Series	IC	S
SN** 1204	12.7	4.76
SN** 1506	15.875	6.35

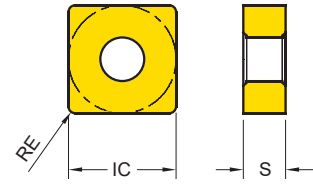
EDP 2200.. ●: Stock item ○: Order made item

SNMA SNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..															
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10						
..MA Cast iron	SNMA 120408	0.8	0.15~0.5	1~3.5	●															
	SNMA 120412	1.2	0.15~0.5	1.5~5	●															
	SNMA 150612	1.2	0.15~0.5	1.5~5	●															
-UF Finishing	SNMG 120404 - UF	0.4	0.05~0.25	0.5~1.5					●											
-UL Light Machining and sticky material	SNMG 120404 - UL	0.4	0.10~0.30	0.5~3.0				●												
	SNMG 120408 - UL	0.8	0.1~0.3	1~3	●	●	●													
-UM For Medium & Unstable conditions	SNMG 120408 - UM	0.8	0.15~0.30	1.0~3.0	●	●	●													
-UG Medium Machining at stable condition	SNMG 120408 - UG	0.8	0.2~0.4	1~3	●	●	●	●												
	SNMG 120412 - UG	1.2	0.2~0.4	1.5~4	●	●	●													
	SNMG 120416 - UG	1.6	0.2~0.40	2.0~3.0	●															
-UC Cast iron and Medium roughing	SNMG 120408 - UC	0.8	0.2~0.4	1~4	●	●	●	●												
	SNMG 120412 - UC	1.2	0.2~0.4	1.5~4.5	●	●	●	●												

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative
SNMG / SNMA (90° Negative)



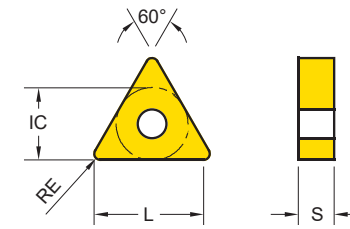
Series	IC	S
SN** 1204	12.7	4.76

EDP 2200.. ●: Stock item ○: Order made item

SNMA SNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..															
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10						
-UR Roughing	SNMG 120408 - UR	0.8	0.3~0.5	1~4.5	●	●	●													
	SNMG 120412 - UR	1.2	0.3~0.5	1.5~5		●	●	●		●										
-MF Stainless steel Finishing	SNMG 120408 - MF	0.8	0.07~0.3	0.2~1.5				●	●	●	●									
	SNMG 120412 - MF	1.2	0.07~0.3	0.2~1.5				●	●	●	●									
-MM Stainless steel Medium	SNMG 120408 - MM	0.8	0.2~0.35	1~3.5					●	●										
	SNMG 120412 - MM	1.2	0.2~0.35	1.5~3.5					●	●										
-MR Stainless steel Roughing	SNMG 120408 - MR	0.8	0.3~0.55	0.15~5.5					●	●	●									
	SNMG 120412 - MR	1.2	0.3~0.55	0.15~5.5				●	●	●	●									
-KR Cast Iron Heavy Roughing	SNMG 120416 - KR	1.6	0.30~0.60	2.0~5.0	●															

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative
TNMG / TNMA (60° Negative)



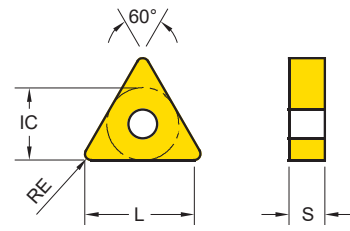
Series	L	IC	S
TN** 1604	15.7	9.525	4.76
TN** 2204	22	12.7	4.76

EDP 2200.. ●: Stock item ○: Order made item

TNMA TNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..															
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10						
..MA Cast iron	TNMA 160408	0.8	0.15~0.5	1~3	●															
	TNMA 160412	1.2	0.15~0.5	1.5~4	●															
-UF Finishing	TNMG 160404 - UF	0.4	0.05~0.25	1~2		●	●	●	●											
	TNMG 160408 - UF	0.8	0.05~0.25	1.5~3.5		●	●	●	●											
	TNMG 160412 - UF	1.2	0.05~0.25	1.5~3.5		●	●	●	●											
-UL Light Machining and sticky material	TNMG 220404 - UF	0.4	0.1~0.35	1~4		●				●										
	TNMG 160408 - UL	0.8	0.1~0.3	1~3		●	●	●												
-UM Medium Machining Unstable condition	TNMG 160408 - UM	0.8	0.15~0.3	0.5~2		●	●	●												
	TNMG 160412 - UM	1.2	0.15~0.3	1.5~3		●	●	●												

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative
TNMG / TNMA (60° Negative)

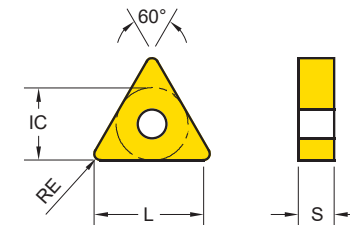


Series	L	IC	S
TN** 1604	15.7	9.525	4.76
TN** 2204	22	12.7	4.76

EDP 2200.. ●: Stock item ○: Order made item

TNMA TNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..															
					P05 K10	P10 K20	P20 M20	P30 M20	P20	M15 S10	M30 S20	M40 S30	N20	N20						
-UG Medium Machining at Stable condition	TNMG 160404 - UG	0.4	0.2~0.4	0.5~2	●	●	●	●												
	TNMG 160408 - UG	0.8	0.2~0.4	1~3	●	●	●	●	●											
	TNMG 160412 - UG	1.2	0.2~0.4	1.5~3	●	●	●	●	●											
	TNMG 220408 - UG	0.8	0.25~0.6	1~4	●	●	●	●	●											
-UC Cast iron and Medium roughing	TNMG 160404 - UC	0.4	0.2~0.4	0.5~2.5	●	●	●	●												
	TNMG 160408 - UC	0.8	0.2~0.4	1~3	●	●	●	●	●											
	TNMG 160412 - UC	1.2	0.2~0.4	1.5~3.5	●	●	●	●	●											
-UR Roughing	TNMG 160408 - UR	0.8	0.30~0.50	1.0~5.0	●	●	●													
	TNMG 160412 - UR	1.2	0.3~0.5	1.5~3	●	●	●	●	●											
	TNMG 220412 - UR	1.2	0.30~0.65	1.5~4	●	●	●	●	●											
	TNMG 220416 - UR	1.6	0.3~0.65	2~4	●	●	●	●												

Turning Inserts - Negative
TNMG / TNMA (60° Negative)



Series	L	IC	S
TN** 1604	15.7	9.525	4.76
TN** 2204	22	12.7	4.76

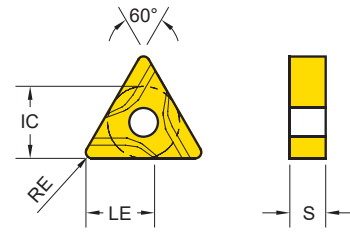
EDP 2200.. ●: Stock item ○: Order made item

TNMA TNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..															
					P05 K10	P10 K20	P20 M20	P30 M20	P20	M15 S10	M30 S20	M40 S30	N20	N20						
-MF Stainless steel Finishing	TNMG 160404 - MF	0.4	0.05~0.3	0.2~1.5														●	●	
	TNMG 160408 - MF	0.8	0.05~0.3	0.15~1.5															●	●
-MM Stainless steel Medium	TNMG 160404 - MM	0.4	0.2~0.35	0.5~3														●	●	
	TNMG 160408 - MM	0.8	0.15~0.3	1~3.5														●	●	
	TNMG 160412 - MM	1.2	0.15~0.3	1.5~3.5														●	●	
-MR Stainless steel Roughing	TNMG 160408 - MR	0.8	0.30~0.55	2.0~5.5														●	●	
	TNMG 160412 - MR	1.2	0.30~0.55	2.0~5.5														●	●	

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max
P	1~5	Non-Alloyed Steel	220 480	170 450	180 380	150 350	120 200	- -	- -	- -	- -	- -
	6~9	Low-Alloyed Steel	220 420	180 380	110 350	90 300	70 200	- -	- -	- -	- -	- -
	10~11	High-Alloyed Steel	- -	100 330	60 300	70 250	- -	- -	- -	- -	- -	- -
M	12~13	Ferritic & Martensitic	- -	- -	- -	120 230	- -	130 230	110 180	80 150	- -	- -
	14	Austenitic Stainless Steel	- -	- -	- -	80 200	- -	100 200	40 130	30 120	- -	- -
K	15~16	Grey Cast Iron	170 420	120 300	- -	- -	- -	- -	- -	- -	- -	- -
	17~18	Nodular Cast Iron	120 410	120 280	- -	- -	- -	- -	- -	- -	- -	- -
N	21~30	Non-Ferrous Metals (Al)	- -	- -	- -	- -	- -	- -	- -	- -	350 1200	250 800
S	31~37	Superalloys & Titanium	- -	- -	- -	35 80	- -	30 90	20 40	20 40	- -	- -
H	38~41	Hard Materials	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max
P	1~5	Non-Alloyed Steel	220 480	170 450	180 380	150 350	120 200	- -	- -	- -	- -	- -
	6~9	Low-Alloyed Steel	220 420	180 380	110 350	90 300	70 200	- -	- -	- -	- -	- -
	10~11	High-Alloyed Steel	- -	100 330	60 300	70 250	- -	- -	- -	- -	- -	- -
M	12~13	Ferritic & Martensitic	- -	- -	- -	120 230	- -	130 230	110 180	80 150	- -	- -
	14	Austenitic Stainless Steel	- -	- -	- -	80 200	- -	100 200	40 130	30 120	- -	- -
K	15~16	Grey Cast Iron	170 420	120 300	- -	- -	- -	- -	- -	- -	- -	- -
	17~18	Nodular Cast Iron	120 410	120 280	- -	- -	- -	- -	- -	- -	- -	- -
N	21~30	Non-Ferrous Metals (Al)	- -	- -	- -	- -	- -	- -	- -	- -	350 1200	250 800
S	31~37	Superalloys & Titanium	- -	- -	- -	35 80	- -	30 90	20 40	20 40	- -	- -
H	38~41	Hard Materials	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Turning Inserts - Negative
TNUX (60° Negative)



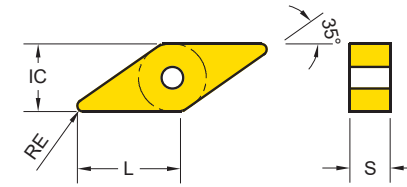
Series	LE	IC	S
TN** 1604	9.4	9.525	4.76

EDP 2200.. ●: Stock item ○: Order made item

P05	P10	P30	P20	M15	M30	M40	N20	N20
K10	K20	M20	P20	S10	S20	S30	N20	N20

TNUX	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
					●	●	●	●	●	●	●	●	●	●
..UX Left	TNUX 160404 L	0.4	0.1~0.3	0.5~4	●	●	●	●	●	●	●	●	●	●
	TNUX 160408 L	0.8	0.1~0.4	0.5~6	●	●	●	●	●	●	●	●	●	●
..UX Right	TNUX 160404 R	0.4	0.1~0.3	0.5~4	●	●	●	●	●	●	●	●	●	●
	TNUX 160408 R	0.8	0.1~0.4	0.5~6	●	●	●	●	●	●	●	●	●	●

Turning Inserts - Negative
VNMG / VNMA (35° Negative)



Series	L	IC	S
VN** 1604	15.8	9.525	4.76

EDP 2200.. ●: Stock item ○: Order made item

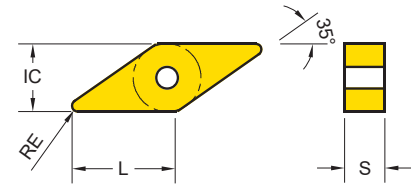
P05	P10	P30	P20	M15	M30	M40	N20	N20
K10	K20	M20	P20	S10	S20	S30	N20	N20

VNMA VNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
					●	●	●	●	●	●	●	●	●	●
..MA Cast iron	VNMA 160408	0.8	0.15~0.5	1~3	●	●	●	●	●	●	●	●	●	●
	VNMG 160404 - UF	0.4	0.05~0.25	0.5~2	●	●	●	●	●	●	●	●	●	●
-UF Finishing	VNMG 160408 - UF	0.8	0.05~0.25	1~2.5	●	●	●	●	●	●	●	●	●	●
	VNMG 160404 - UL	0.4	0.05~0.25	0.5~2	●	●	●	●	●	●	●	●	●	●
-UL Medium Machining and sticky material	VNMG 160408 - UL	0.8	0.10~0.30	1~2.5	●	●	●	●	●	●	●	●	●	●
	VNMG 160412 - UM	1.2	0.15~0.3	1.5~3	●	●	●	●	●	●	●	●	●	●
-UM Medium Machining Unstable condition	VNMG 160408 - UG	0.8	0.2~0.4	1~3	●	●	●	●	●	●	●	●	●	●
	VNMG 160404 - UG	0.4	0.05~0.25	0.5~2	●	●	●	●	●	●	●	●	●	●
-UG Medium Machining at stable condition	VNMG 160408 - UG	0.8	0.2~0.4	1~3	●	●	●	●	●	●	●	●	●	●
	VNMG 160404 - UG	0.4	0.05~0.25	0.5~2	●	●	●	●	●	●	●	●	●	●

Cutting Speed			Vc (m/min.)																				
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	
P	1~5	Non-Alloyed Steel	220 480	170 450	180 380	150 350	120 200	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	6~9	Low-Alloyed Steel	220 420	180 380	110 350	90 300	70 200	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10~11	High-Alloyed Steel	- -	100 330	60 300	70 250	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
M	12~13	Ferritic & Martensitic	- -	- -	- -	120 230	- -	130 230	110 180	80 150	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	14	Austenitic Stainless Steel	- -	- -	- -	80 200	- -	100 200	40 130	30 120	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
K	15~16	Grey Cast Iron	170 420	120 300	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	17~18	Nodular Cast Iron	120 410	120 280	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N	21~30	Non-Ferrous Metals (Al)	- -	- -	- -	- -	- -	- -	- -	- -	- -	350 1200	250 800	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S	31~37	Superalloys & Titanium	- -	- -	- -	35 80	- -	30 90	20 40	20 40	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
H	38~41	Hard Materials	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Cutting Speed			Vc (m/min.)																				
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	
P	1~5	Non-Alloyed Steel	220 480	170 450	180 380	150 350	120 200	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	6~9	Low-Alloyed Steel	220 420	180 380	110 350	90 300	70 200	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10~11	High-Alloyed Steel	- -	100 330	60 300	70 250	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
M	12~13	Ferritic & Martensitic	- -	- -	- -	120 230	- -	130 230	110 180	80 150	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	14	Austenitic Stainless Steel	- -	- -	- -	80 200	- -	100 200	40 130	30 120	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
K	15~16	Grey Cast Iron	170 420	120 300	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	17~18	Nodular Cast Iron	120 410	120 280	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N	21~30	Non-Ferrous Metals (Al)	- -	- -	- -	- -	- -	- -	- -	- -	- -	350 1200	250 800	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S	31~37	Superalloys & Titanium	- -	- -	- -	35 80	- -	30 90	20 40	20 40	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
H	38~41	Hard Materials	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Turning Inserts - Negative
VNMG (35° Negative)



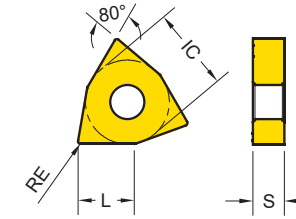
Series	L	IC	S
VN** 1604	15.8	9.525	4.76

EDP 2200.. ●: Stock item ○: Order made item

VNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..															
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10						
-UC Cast iron and Medium roughing	VNMG 160404 - UC	0.4	0.2~0.4	0.5~2.5	●	○														
	VNMG 160408 - UC	0.8	0.2~0.4	1~3	●	●	●	●												
-UR Roughing	VNMG 160412 - UR	1.2	0.3~0.5	1.2~3		●	●	●	●											
	VNMG 160408 - MF	0.8	0.05~0.3	0.2~1.5				●		●										
-MM Stainless steel Medium	VNMG 160404 - MM	0.4	0.2~0.35	0.5~3.5							●	●								
	VNMG 160408 - MM	0.8	0.2~0.35	0.5~3.5							●	●								
-MR Stainless steel Roughing	VNMG 160408 - MR	0.8	0.30~0.55	2.0~5.5				●			●									

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative
WNMG / WNMA (80° Trigonal Negative)



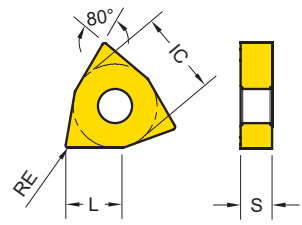
Series	L	IC	S
WN** 0604	5.7	9.525	4.76
WN** 0804	7.8	12.7	4.76

EDP 2200.. ●: Stock item ○: Order made item

WNMA WNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..															
					YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10					
..MA Cast iron	WNMA 080404	0.4	0.15~0.5	0.5~2.5	●	○														
	WNMA 080408	0.8	0.15~0.5	1~3.5	●	●														
	WNMA 080412	1.2	0.15~0.5	1.5~5	●	●														
-UF Finishing	WNMG 060404 - UF	0.4	0.05~0.2	0.5~1.5		●		●	●	●										
	WNMG 080404 - UF	0.4	0.05~0.25	0.5~2		●		●	●	●										
	WNMG 080408 - UF	0.8	0.05~0.25	1~2.5		●		●	●	●										
-UL Light Machining and sticky material	WNMG 060408 - UL	0.8	0.1~0.3	1~2.5		●		●	●											
	WNMG 080408 - UL	0.8	0.1~0.3	1~3		●		●	●											
-UM Medium Machining at unstable condition	WNMG 060404 - UM	0.4	0.15~0.30	1.0~2.5		●		●	●											
	WNMG 060408 - UM	0.8	0.15~0.3	1~2		●		●	●											
	WNMG 080404 - UM	0.4	0.15~0.30	0.5~3.0		●		●	●											
	WNMG 080408 - UM	0.8	0.15~0.3	1~3		●		●	●											
	WNMG 080412 - UM	1.2	0.15~0.3	1.5~3		●		●	●											
	WNMG 080416 - UM	1.6	0.15~0.3	2~3.5		●		●	●											

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative
WNMG / WNMA (80° Trigonal Negative)



Series	L	IC	S
WN** 0604	5.7	9.525	4.76
WN** 0804	7.8	12.7	4.76

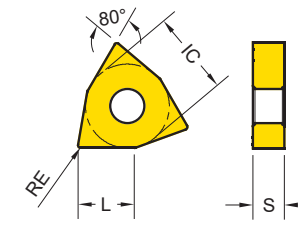
EDP 2200.. ●: Stock item ○: Order made item

WNMA WNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P15	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20	M20	S10	S20	S30	N20	N20			
-UG Medium Machining at stable condition	WNMG 060408 - UG	0.8	0.2~0.4	1~2.5	●	○	○	○	○	○	○	○	○	○	○
	WNMG 080404 - UG	0.4	0.2~0.4	1.5~2.5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080408 - UG	0.8	0.2~0.4	1~3.5	●	○	○	○	○	○	○	○	○	○	○
	WNMG 080412 - UG	1.2	0.2~0.4	1.5~3.5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080416 - UG	1.6	0.2~0.4	2~4	○	○	○	○	○	○	○	○	○	○	○
-UC Cast iron and Medium roughing	WNMG 080404 - UC	0.4	0.25~0.4	0.5~3.5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080408 - UC	0.8	0.2~0.4	1~4	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080412 - UC	1.2	0.2~0.4	1.5~4.5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080416 - UC	1.6	0.20~0.40	2.0~4.0	○	○	○	○	○	○	○	○	○	○	○
-UR Roughing	WNMG 080408 - UR	0.8	0.3~0.5	1.2~5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080412 - UR	1.2	0.3~0.5	1.5~5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080416 - UR	1.6	0.3~0.5	2~5	○	○	○	○	○	○	○	○	○	○	○

* YG3015 = Vc 90~430 m/min

Cutting Speed			Vc (m/min.)										
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230	
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200	
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	350 1200 250 800	
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90	
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	

Turning Inserts - Negative
WNMG / WNMA (80° Trigonal Negative)



Series	L	IC	S
WN** 0604	5.7	9.525	4.76
WN** 0804	7.8	12.7	4.76

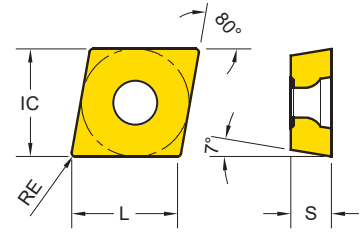
EDP 2200.. ●: Stock item ○: Order made item

WNMA WNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P15	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20	M20	S10	S20	S30	N20	N20			
-MF Stainless steel Finishing	WNMG 060404 - MF	0.4	0.07~0.30	0.2~1.5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080404 - MF	0.4	0.07~0.3	0.15~1.5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080408 - MF	0.8	0.07~0.3	0.2~1.5	○	○	○	○	○	○	○	○	○	○	○
-MM Stainless steel Medium	WNMG 080404 - MM	0.4	0.2~0.35	0.5~3.5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080408 - MM	0.8	0.2~0.35	1~3.5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080412 - MM	1.2	0.2~0.35	1.5~3.5	○	○	○	○	○	○	○	○	○	○	○
-MR Stainless steel Roughing	WNMG 060412 - MR	1.2	0.2~0.5	1.2~4	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080408 - MR	0.8	0.30~0.55	2.0~5.5	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080412 - MR	1.2	0.30~0.55	2.0~5.5	○	○	○	○	○	○	○	○	○	○	○
-KR Cast Iron Heavy Roughing	WNMG 080408 - KR	0.8	0.30~0.60	1.0~5.0	○	○	○	○	○	○	○	○	○	○	○
	WNMG 080412 - KR	1.2	0.30~0.60	1.5~5.0	○	○	○	○	○	○	○	○	○	○	○

* YG3015 = Vc 90~430 m/min

Cutting Speed			Vc (m/min.)										
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230	
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200	
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	350 1200 250 800	
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90	
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	

Turning Inserts - Positive
CCMT / CCGT (80° Positive)



Series	L	IC	S
CC** 0602	6.2	6.35	2.38
CC** 09T3	9.2	9.525	3.97
CC** 1204	12.4	12.7	4.76

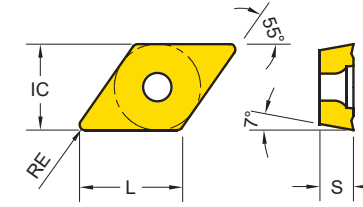
EDP 2200.. ●: Stock item ○: Order made item

CCGT CCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..											
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
-AL Aluminum	CCGT 09T302 - AL	0.2	0.02 ~ 0.08	0.5 ~ 1											●	●
	CCGT 09T304 - AL	0.4	0.05 ~ 0.25	0.5 ~ 2											●	●
	CCGT 09T308 - AL	0.8	0.1 ~ 0.35	1 ~ 3											●	●
	CCGT 120402 - AL	0.2	0.04 ~ 0.15	0.1 ~ 1											●	●
	CCGT 120404 - AL	0.4	0.04 ~ 0.2	0.3 ~ 1.5											●	●
	CCGT 120408 - AL	0.8	0.04 ~ 0.2	0.6 ~ 2.5											●	●
-UF Finishing	CCMT 060204 - UF	0.4	0.05 ~ 0.2	0.5 ~ 1.5	○	○	○									
	CCMT 09T304 - UF	0.4	0.05 ~ 0.2	0.5 ~ 2	○	○										
-UG General	CCMT 060204 - UG	0.4	0.1 ~ 0.25	0.5 ~ 2	●	●	●	●								
	CCMT 060208 - UG	0.8	0.1 ~ 0.25	0.8 ~ 2	●	●	●	●								
	CCMT 09T304 - UG	0.4	0.15 ~ 0.3	0.5 ~ 2	●	●	●	●								
	CCMT 09T308 - UG	0.8	0.15 ~ 0.3	0.8 ~ 2.5	●	●	●	●								
	CCMT 120404 - UG	0.4	0.15 ~ 0.35	0.5 ~ 2.5	●	●										
	CCMT 120408 - UG	0.8	0.15 ~ 0.35	0.8 ~ 3.5	●	●	●	●								

* YG3015 = Vc 90~430 m/min

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive
DCMT / DCGT (55° Positive)



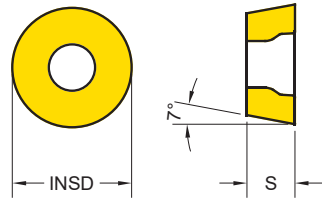
Series	L	IC	S
DC** 0702	7.5	6.35	2.38
DC** 11T3	11.2	9.525	3.97

EDP 2200.. ●: Stock item ○: Order made item

DCGT DCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..											
					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
-AL Aluminum	DCGT 11T302 - AL	0.2	0.02 ~ 0.08	0.5 ~ 1												
	DCGT 11T304 - AL	0.4	0.05 ~ 0.25	0.5 ~ 2											●	●
	DCGT 11T308 - AL	0.8	0.1 ~ 0.3	1 ~ 2.5											●	●
-UF Finishing	DCMT 070204 - UF	0.4	0.05 ~ 0.2	0.5 ~ 1.5		○	○									
	DCMT 11T304 - UF	0.4	0.05 ~ 0.25	0.5 ~ 2		○	○									
	DCMT 11T308 - UF	0.8	0.05 ~ 0.25	1 ~ 2.5		○	○									
-UG General	DCMT 070204 - UG	0.4	0.1 ~ 0.25	0.5 ~ 1.5		○	○							●		
	DCMT 070208 - UG	0.8	0.1 ~ 0.25	0.8 ~ 1.5		○	○							●		
	DCMT 11T304 - UG	0.4	0.15 ~ 0.3	0.5 ~ 2		○	○							●		

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive
RCMT (Round Positive)

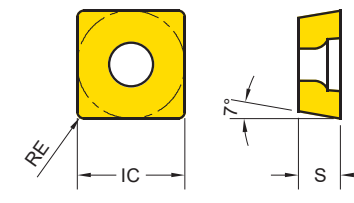


Series	INSD	S
RC** 0602	6	2.38
RC** 0803	8	3.18
RC** 10T3	10	3.97
RC** 1204	12	4.76

EDP 2200.. ●: Stock item ○: Order made item

RCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05		P10		P20		P30		M15		M30		M40		N20		
					K10	K20	K10	K20	P20	M20	P20	S10	S20	S30	N20	N20					
General	RCMT 0602M0	3	0.05~0.25	0.2~1.2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RCMT 0803M0	4	0.05~0.3	0.5~1.5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RCMT 10T3M0	5	0.1~0.35	0.5~2.5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RCMT 1204M0	6	0.15~0.45	0.5~3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Turning Inserts - Positive
SCMT (Square Positive)



Series	IC	S
SC** 09T3	9.525	3.97
SC** 1204	12.7	4.76

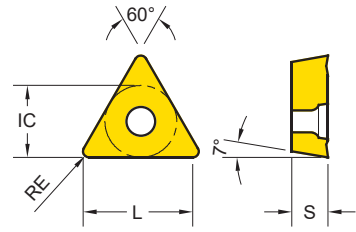
EDP 2200.. ●: Stock item ○: Order made item

SCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05		P10		P20		P30		M15		M30		M40		N20	
					K10	K20	K10	K20	P20	M20	P20	S10	S20	S30	N20	N20				
-UF Finishing	SCMT 09T304 - UF	0.4	0.05~0.25	0.5~2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	SCMT 09T304 - UG	0.4	0.15~0.3	1~2.5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
-UG General	SCMT 09T308 - UG	0.8	0.15~0.3	1~2.5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	SCMT 120408 - UG	0.8	0.15~0.35	1~3.5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive
TCMT / TCGT (Triangle Positive)

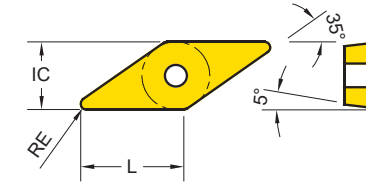


Series	L	IC	S
TC** 1102	10.3	6.35	2.38
TC** 16T3	15.6	9.525	3.97

EDP 2200.. ●: Stock item ○: Order made item

	TCGT TCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..												
						YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10			
-AL		TCGT 16T302 - AL	0.2	0.02~0.05	0.5~1											●	●	
		TCGT 16T304 - AL	0.4	0.05~0.25	0.5~2												●	●
		TCGT 16T308 - AL	0.8	0.1~0.35	1~3												●	●
-UF		TCMT 110204 - UF	0.4	0.05~0.2	0.5~2		●	●										
		TCMT 16T304 - UF	0.4	0.05~0.25	0.5~3		●	●		●								
		TCMT 16T308 - UF	0.8	0.05~0.25	0.8~3		●	●										
-UG		TCMT 110204 - UG	0.4	0.15~0.25	0.5~1.5	●					●							
		TCMT 110208 - UG	0.8	0.15~0.25	0.8~2		●	●										
		TCMT 16T304 - UG	0.4	0.15~0.3	0.5~2		●	●	●									
		TCMT 16T308 - UG	0.8	0.15~0.3	0.8~3		●	●	●	●	●							

Turning Inserts - Positive
VBMT (35° Positive)



Series	L	IC	S
VB** 1604	15.8	9.525	4.76

EDP 2200.. ●: Stock item ○: Order made item

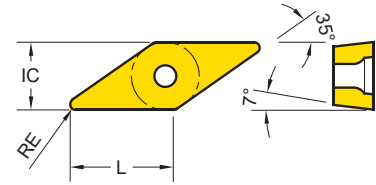
	VBMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..											
						YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
-UF		VBMT 160404 - UF	0.4	0.05~0.25	0.5~2			●	●								
		VBMT 160408 - UF	0.8	0.05~0.25	0.5~3			●	●								
-UG		VBMT 160404 - UG	0.4	0.15~0.30	0.5~2.5	●	●	●			●						
		VBMT 160408 - UG	0.8	0.2~0.4	1~3	●	●	●	●		●						

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Cutting Speed			Vc (m/min.)									
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive VCMT / VCGT (35° Positive)

Series	L	IC	S
VC** 1604	15.8	9.525	4.76



EDP 2200.. ●: Stock item ○: Order made item

P05	P10	P30	M15	M30	M40	N20	N20
K10	K20	M20	S10	S20	S30		

VCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
-AL Aluminum	VCMT 160402 - AL	0.2	0.02~0.05	0.5~1									● 0417	● 0418
	VCMT 160404 - AL	0.4	0.05~0.25	0.5~2									● 0087	● 0336
	VCMT 160408 - AL	0.8	0.1~0.35	1~3									● 0419	● 0420
-UF Finishing	VCMT 160404 - UF	0.4	0.05~0.25	0.5~3	● 0716	● 0421								
	VCMT 160404 - UG	0.4	0.15~0.30	0.5~2.5					● 0060					
-UG General	VCMT 160408 - UG	0.8	0.15~0.30	1~3		● 0422			● 0061					



PARTING & GROOVING

Parting & Grooving Overview
Parting & Grooving Inserts (TD.)

Cutting Speed			Vc (m/min.)										
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230	
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200	
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	350 1200	
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90	
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	20 40	

Parting & Grooving
Parting & Grooving Overview

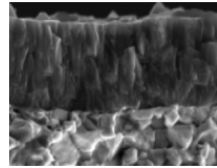
Parting & Groove Turn Grades

Parting and Grooving Grades	P Steel				M Stainless steel			K Cast iron			N Non Ferrous		S Super Alloy	
	P10	P20	P30	P40	M10	M20	M30	K10	K20	K30	N10	N20	S10	S20
PVD YG602G (YG602)			602G				602G			602G				602G

YG602G (YG602)

P20 - P35 M20 - M40
 K20 - K40 S15 - S25

PVD - TiAlN






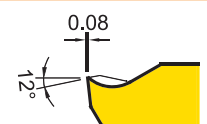


Universal grade for Parting & Groove Turn

- Ultra Dense PVD Coating with optimal thermal resistance & strength
- Sub-Micron substrate designed for demanding application
- YG602G : First Choice for Low Cutting Speed, Soft and Sticky Material with Low Hardness
- YG602 : First Choice for General Application

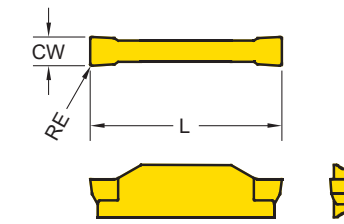
Parting & Grooving Inserts

Inserts	TD. Series	2, 3, 4

Parting & Grooving Chipbreakers

-P TDP			• Parting & Grooving (Positive)
-N TDN			• Parting & Grooving (General)
-Y TDY			• Turning, Parting & Grooving

Parting & Grooving - Inserts
Parting & Grooving Inserts (TD.)



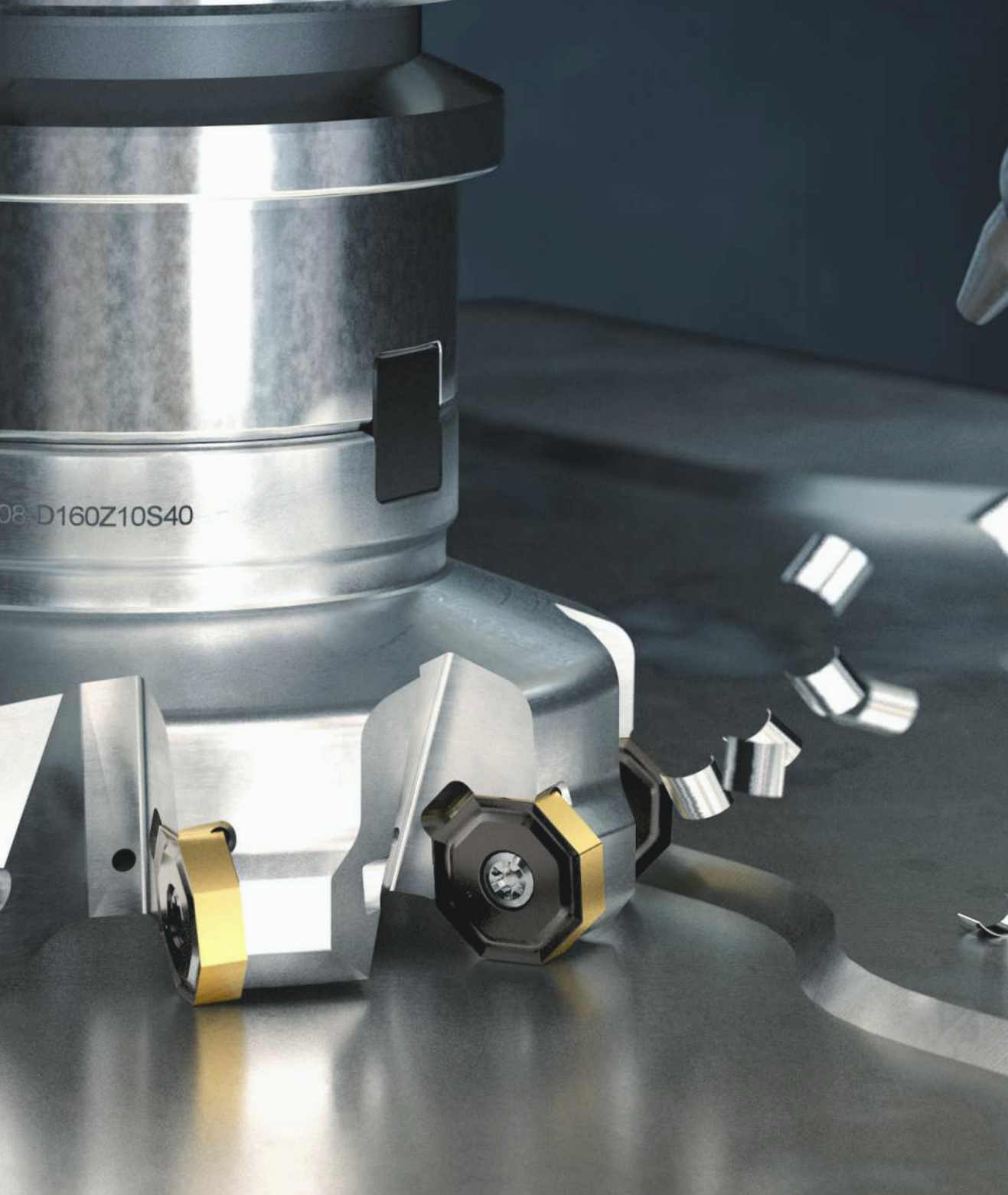
Series	L	CW
TD* 2	20	2
TD* 3	20	3
TD* 4	20	4

* CDX : Cutting Depth Maximum

● : Stock item ○ : Order made item

TD.	Designation	RE	Parting & Grooving		Side Turning		EDP 5200..	
			Fn (mm/rev.)	CDX (mm)	Fn (mm/rev.)	Ap (mm)	YG602	YG602G
TDP Parting & Grooving (Positive)	TDP2002	0.2	0.04~0.12	19			● 0012	○ 0036
	TDP3002	0.2	0.05~0.16	19			● 0029	○ 0030
	TDP4003	0.3	0.06~0.18	19			● 0023	○ 0038
TDN Parting & Grooving (General)	TDN2002	0.2	0.06~0.18	19			● 0010	○ 0035
	TDN3002	0.2	0.07~0.22	19			● 0024	○ 0025
	TDN4003	0.3	0.08~0.25	19			● 0022	○ 0037
TDY Groove Turn	TDY3E - 0.4	0.4	0.10~0.20	19	0.10~0.38	0.50~2.20	○ 0019	● 0027
	TDY4E - 0.4	0.4	0.15~0.26	19	0.10~0.40	0.50~2.80		● 0020

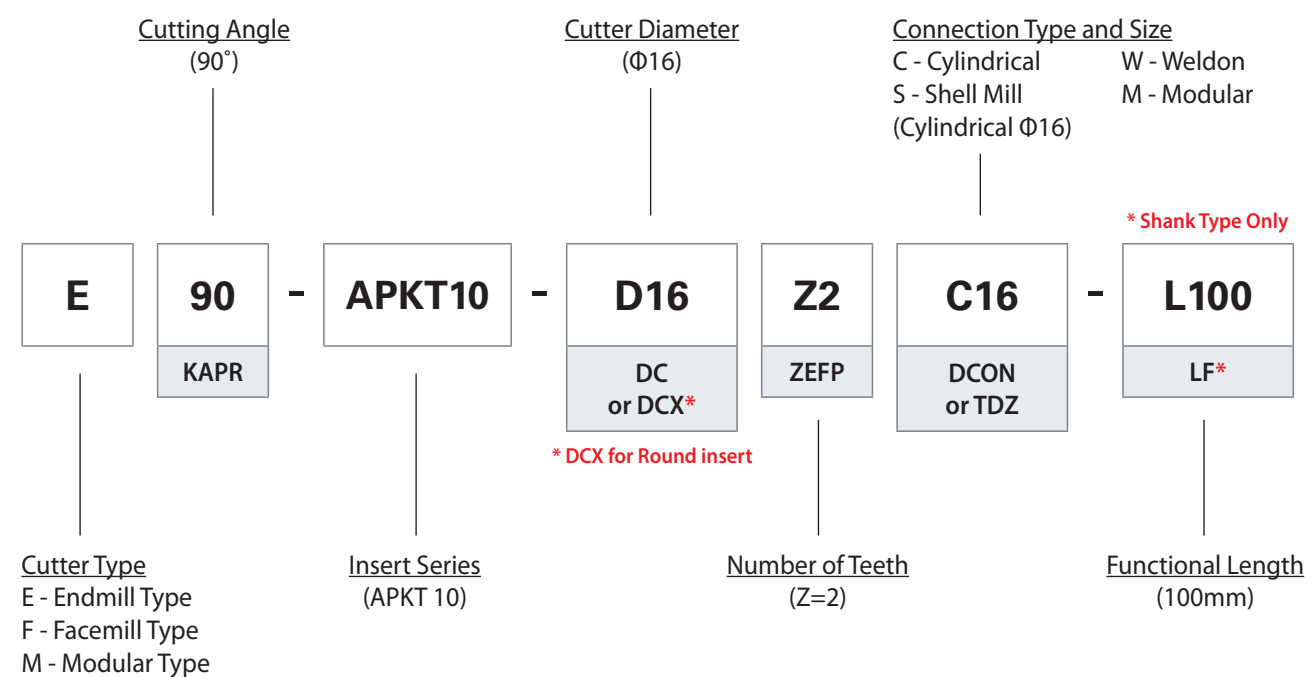
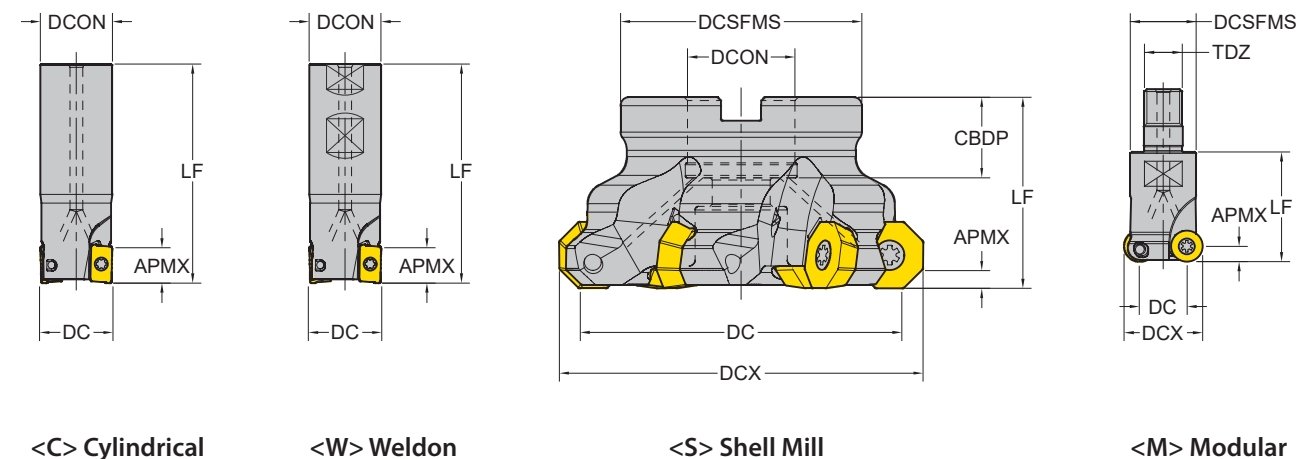
Cutting Speed			Vc (m/min.)	
ISO	VDI	Sub Group	YG602G (YG602)	
			Min.	Max.
P	1~5	Non-alloyed steel	90	180
	6~9	Low-alloyed steel	80	120
	10~11	High-alloyed steel	80	110
M	12~13	Ferritic & martensitic stainless steel	70	160
	14	Austenitic stainless steel	55	140
K	15~16	Grey cast iron	110	185
	17~18	Nodular cast iron	110	140
N	21~30	Non-ferrous metals (al)	250	440
S	31~37	Superalloys & Titanium	25	45
H	38~41	Hard materials	25	50



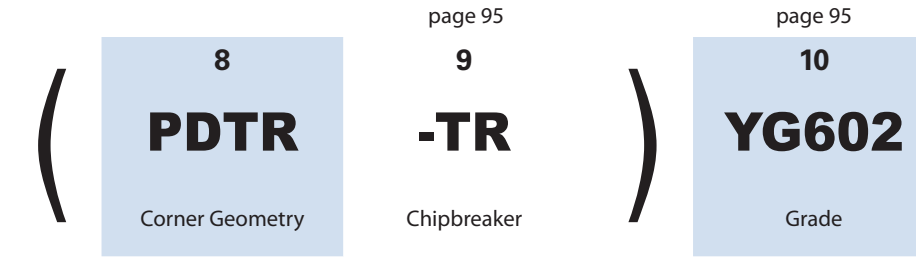
MILLING

- Product Overview
- Application Guide
- Milling Inserts & Cutter Overview
- Milling Inserts & Cutter

Code Keys - Milling Cutters

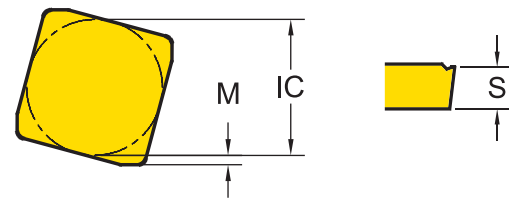


Milling - Code System
Insert ISO Code System



1 - Shape

Symbol	Shape	Diagram
H	Hexagonal	
O	Octagonal	
P	Pentagonal	
S	Square	
T	Triangular	
V	Rhombic 35°	
W	Trigon	
L	Rectangular	
A	Parallelogram 80°	
R	Round	



3 - Tolerance Class

Symbol	Inner Circle IC (mm)	Nose Height M (mm)	Thickness S (mm)
C	± 0.025	± 0.013	± 0.025
E	± 0.025	± 0.025	± 0.025
G	± 0.025	± 0.025	± 0.13
H	± 0.013	± 0.013	± 0.025
K*	± 0.05~0.15*	± 0.013	± 0.025
M*	± 0.05~0.15*	± 0.08~0.2*	± 0.13
U*	± 0.08~0.25*	± 0.13~0.38*	± 0.13

*Tolerance is different by insert IC size. Please see ISO 1832

4 - Clamping & Chipbreaker

Symbol	Clamping	Chipbreaker	Figure
N	No clamping hole	X	
R		One Face	
W	Screw Hole	X	
T		One Face	
U		Both Faces	
X		Special	

5 - Insert Size

* No Standard for milling insert size

6 - Insert Thickness

* No Standard for milling insert thickness

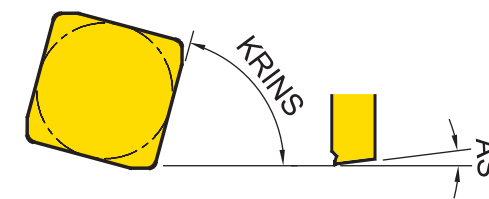
2 - Relief Angle (AN)

Symbol	Relief Angle (AN)	Diagram
N	No Relief Angle	
B	Relief 5°	
C	Relief 7°	
P	Relief 11°	
D	Relief 15°	
E	Relief 20°	
F	Relief 25°	
O	Special	

7 - Corner Radius (RE)

Symbol	Corner Radius - RE (mm)	Symbol	Corner Radius - RE (mm)
04	0.4	16	1.6
08	0.8	20	2.0
12	1.2	24	2.4

8 - Corner Geometry



8-1	8-2	8-3	8-4
P	D	T	R
Cutting Edge Angle (KRINS)	Wiper Edge Clearance (AS)	Edge Condition	Feed Direction

*Refer to page. 95 for -AL, -ST, -TR... types

8-1 - Cutting Edge Angle (KRINS)

Symbol	Cutting Edge Angle (KRINS)
P	90°
A	45°
D	60°
E	75°
F	85°
Z	Special

8-3 - Edge Condition

Symbol	Edge Condition	Diagram
F	Sharp	
E	Rounded	
T	Chamfered	
S	Chamfered and Rounded	

8-2 - Wiper Edge Clearance (AS)

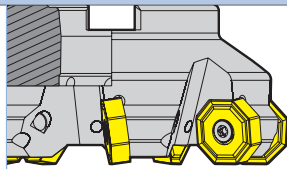
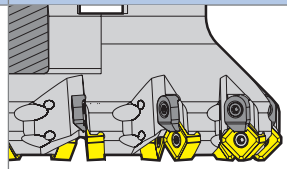
Symbol	Wiper Edge Clearance (AS)
N	0°
P	11°
D	15°
E	20°
F	25°
Z	Special

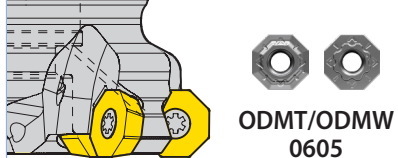
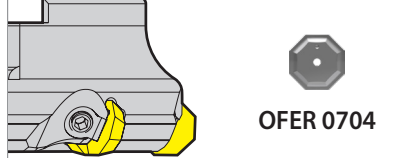
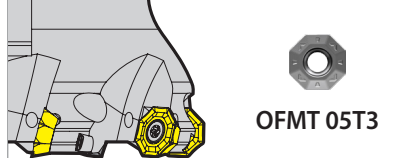
8-4 - Feed Direction

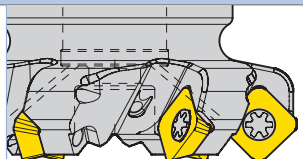
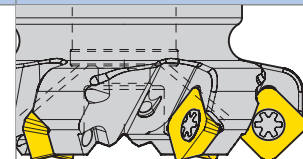
Symbol	Feed Direction	Diagram
R	Right-hand Insert	
N	Neutral Insert	
L	Left-hand Insert	

Milling Overview


Face Milling

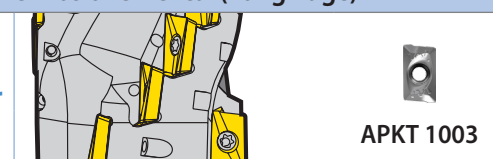

	Negative Octagonal	Negative Square
Cutter	 ONMU 0806	 SNMX 1206
APMX	5.5	6
DC	Φ63~315	Φ50~200
page	p. 96	p. 97

	Positive Octagonal	Positive Square	ISO
Cutter	 ODMT/ODMW 0605	 OFER 0704	 OFMT 05T3
APMX	4	5	3
DC	Φ63~125	Φ63~160	Φ50~125
page	p. 98	p. 99	p. 98

	Positive Square	ISO
Cutter	 SEKT 1204 SEKT 12T3	 SPKN/SPKR/SPCN 1203
APMX	6	8
DC	Φ40~160	Φ50~200
page	p. 100	p. 101

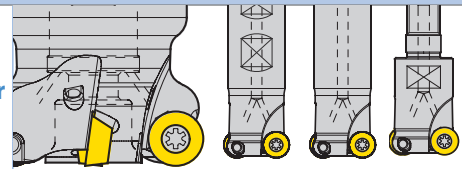
Shoulder Milling

	2 Corner Positive
Cutter	 ADKT 1505 AOMT 1236 APKT 1003 APKT 1604 APMT 1135 APMT 1604
APMX	15 12 10 16 10 16
DC	Φ25~125 Φ16~50 Φ16~100 Φ25~200 Φ16~80 Φ25~80
page	p. 113 p. 113 p.114-115 p.116-117 p. 73 p. 73

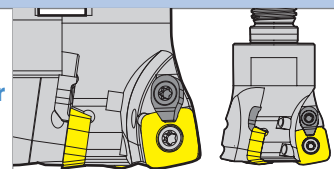
	2 Corner Positive Helical (Long Edge)	ISO
Cutter	 APKT 1003	 TPKN/TPKR/TPCN 1603 TPKN/TPKR/TPCN 2204
APMX	37~55	12 18
DC	Φ25~40	Φ50~125 Φ63~315
page	p. 119	p. 120

Milling Overview

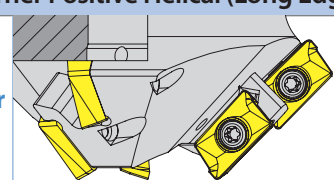
Profiling

	Round Positive
Cutter	 RDKT/RDKW RPMT/RPMW
APMX	0802 10T3 1204 08T2 10T3 1204
DC	4 5 6 4 5 6
page	Φ16~25 Φ20~63 Φ25~100 Φ20~25 Φ25~32 Φ32~80
	p. 126 p. 126 p. 127 p. 128 p. 128 p. 128

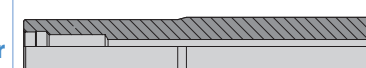
High Feed Milling

	Positive 4 Corner
Cutter	 SDMT/SDMW 1204
APMX	6
DC	Φ50~200
page	p. 133

Taper Milling

	2 Corner Positive Helical (Long Edge)
Cutter	 APKT 1604
KAPR	15° 45° 60° 75°
page	p. 135

Modular Shank

	Modular Shank for Modular Head
Cutter	 M08 ~ M16
page	p. 137

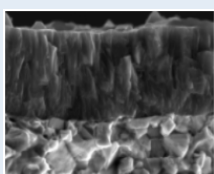
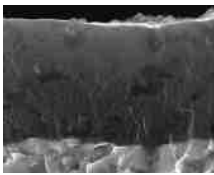
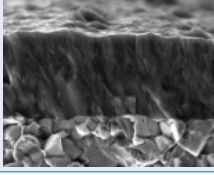
Milling Inserts Overview

A 2 Corner	 Positive	ADKT	ADKT 1505	p. 121
		AOMT	AOMT 1236	p. 121
		APKT	APKT 1003, 1604	p. 122
		APMT	APMT 1135, 1504, 1604	p. 123
O Octagon	 Positive	ODMT / ODMW	ODMT / ODMW 0605	p. 102
		OFER	OFER 0704	p. 103
		OFMT	OFMT 05T3	
	 Negative	ONMU / ONHU	ONMU / ONHU 0806	p. 104
R Round	 Positive Round	RDKT / RDKW	RDKT 0802, 10T3, 1204 RDKW 0501, 0702, 0802, 10T3, 1204	p. 129
		RDMT / RDMW	RDMT 0802, 0803, 10T3, 1204 RDMW 0802, 10T3, 1204	p. 130
	 Positive 3 Corner	RPMT / RPMW	RPMT 08T2, 10T3, 1204 RPMW 1003, 1204	p. 131
		RBEX50	RBEX50	P. 132
S Square	 High Feed	SDMT / SDMW	SDMT 1204, SDMW 1204	p. 134
		SEKT	SEKT 12T3, 1204	p. 107
	 Positive	SEMT	SEMT1204, 13T3	P. 108
		SPMT	SPMT 1204	p. 111
		SDKN (45°)	SDKN 1203, 1504	p. 105
	 ISO	SEKN / SEKR (45°)	SEKN 1203 / SEKR 1203	p. 106
		SPKN / SPKR / SPCN(75°)	SPKN 1203, 1504 SPKR 1203 SPCN 1203, 1504	p. 110
		SPUN	SPUN 1203	
	 Negative	SNMX	SNMX1206	p. 109
	T Triangle	 ISO	TPKN / TPKR / TPCN(90°)	TPKN 1603, 2204 TPKR 1603, 2204 TPCN 2204
TPUN			TPUN 160308	p. 125





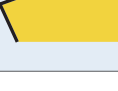
Milling Grades and Chipbreakers

Milling Grades

Milling Grades	P Steel				M Stainless Steel				K Cast Iron				N Non Ferrous				S Super Alloy			
	P05	P15	P25	P35	M05	M15	M25	M35	K05	K15	K25	K35	N05	N15	N25	N35	S05	S15	S25	S35
PVD	YG602			602			602				602									602
	YG622			622							622									
	YG712			712																

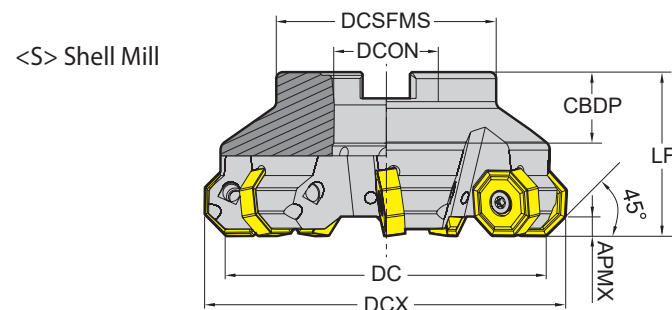
YG602 P20 - P35 M20 - M40 K20 - K40 S15 - S25	PVD - TiAlN 	Universal grade for General Milling Application • Ultra Dense PVD Coating with optimal thermal resistance & strength • Sub-Micron substrate designed for demanding application
YG622 P20 - P40 K20 - K40	PVD - TiAlN 	Optimized Grade for High Alloyed or Prehardened Steel Excellent hot hardness and oxidation resistance at high speed
YG712 P10 - P30	PVD - AlTiCrN 	General Milling Grade for Steel

Milling Chipbreakers

-AL		• For Aluminum • Very Sharp Geometry
-ST		• For Stainless Steel, Super Alloy • Sharp Geometry
General Inserts (No Description)		• First Choice for General Application
-TR		• For Hardened Steels • Reinforced Geometry
...W / ...N		• For Hardened Material and Cast Irons

Milling - Face Milling - Cutter
Cutters for ONMU

Cutting Angle : 45°
16 Corner Negative



ZEFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CDBP : Connection Bore Depth

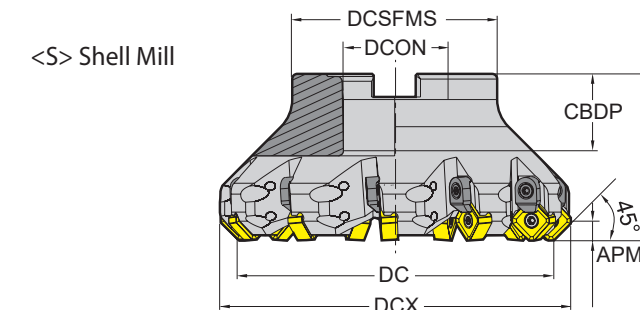
□: p. 104 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZEFP	LF	TYPE	DCON	CBDP	DCSFMS	PCD1	PCD2	☉
ONMU 0806	5.5	F45 - ONMU08 - D63Z5S22	0493	63	75	5	40	Shellmill	22	22	49	-	-	●
		F45 - ONMU08 - D80Z6S27	0494	80	92	6	50		27	25	58	-	-	●
		F45 - ONMU08 - D100Z7S32	0495	100	112	7	50		32	26	67	-	-	●
		F45 - ONMU08 - D125Z8S40 - WOC	0496	125	137	8	63		40	32	87	-	-	X
		F45 - ONMU08 - D160Z10S40 - WOC	0497	160	172	10	63		40	32	107	66.7	-	X
		F45 - ONMU08 - D200Z12S60 - WOC	0498	200	212	12	63		60	40	130	101.6	-	X
		F45 - ONMU08 - D315Z16S60 - WOC	0499	315	327	16	63		60	40	220	101.6	177.8	X

▶ ONMU is Available for Wiper Insert

Milling - Face Milling - Cutter
Cutters for SNMX

Cutting Angle : 45°
8 Corner Negative



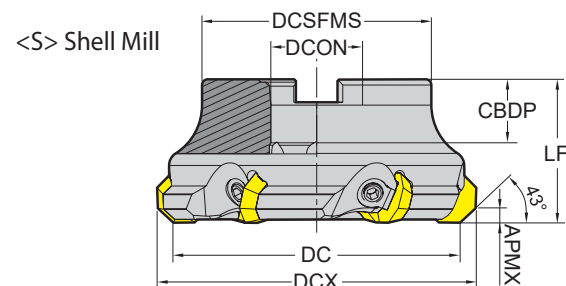
ZEFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CDBP : Connection Bore Depth

□: p. 109 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZEFP	LF	TYPE	DCON	CBDP	DCSFMS	PCD1	PCD2	☉
SNMX 1206	6.0	F45 - SNMX12 - D50Z4S22	0506	50	63	4	42	Shellmill	22	22	42	-	-	●
		F45 - SNMX12 - D50Z5S22	0507	50	63	5	42		22	22	42	-	-	●
		F45 - SNMX12 - D63Z6S22	0508	63	76	6	42		22	22	48	-	-	●
		F45 - SNMX12 - D63Z7S22	0509	63	76	7	42		22	22	48	-	-	●
		F45 - SNMX12 - D80Z7S27	0510	80	93	7	52		27	25	58	-	-	●
		F45 - SNMX12 - D80Z8S27	0511	80	93	8	52		27	25	58	-	-	●
		F45 - SNMX12 - D100Z10S32	0512	100	113	10	52		32	26	67	-	-	●
		F45 - SNMX12 - D100Z8S32	0513	100	113	8	52		32	26	67	-	-	●
		F45 - SNMX12 - D125Z11S40 - WOC	0514	125	138	11	65		40	32	80	-	-	X
		F45 - SNMX12 - D160Z12S40 - WOC	0515	160	173	12	65		40	32	110	66.7	-	X
		F45 - SNMX12 - D200Z14S60 - WOC	0516	200	213	14	65		60	40	130	101.6	-	X

Milling - Face Milling - Cutter Cutters for OFER

Cutting Angle : 43°
8 Corner Positive



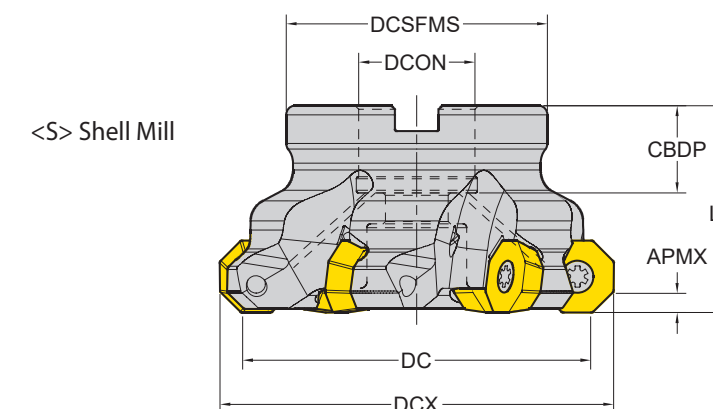
ZEFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CBDP : Connection Bore Depth

□: p. 103 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZEFP	LF	TYPE	DCON	CBDP	DCSFMS	PCD1	PCD2	☉
Ofer 0704	5.0	F43 - OFER07 - D63Z4S22 - WOC	0484	63	75	4	45	Shellmill	22	22	48	-	-	X
		F43 - OFER07 - D80Z5S27 - WOC	0485	80	92	5	50		27	25	58	-	-	X
		F43 - OFER07 - D100Z6S32 - WOC	0486	100	112	6	50		32	26	80	-	-	X
		F43 - OFER07 - D125Z8S40 - WOC	0487	125	137	8	63		40	32	85	-	-	X
		F43 - OFER07 - D160Z9S40 - WOC	0488	160	172	9	63		40	32	110	66.7	-	X

Milling - Face Milling - Cutter Cutters for ODMT, ODMW, OFMT

Cutting Angle : 43°
8 Corner Positive

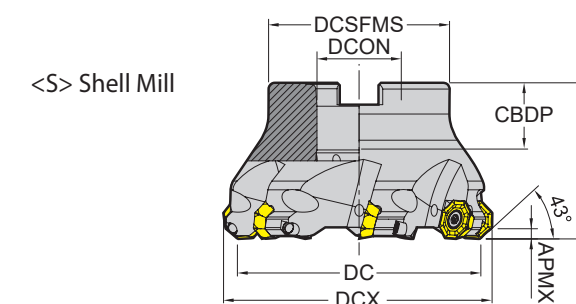


ZEFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CBDP : Connection Bore Depth

□: p. 102 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZEFP	LF	TYPE	DCON	CBDP	DCSFMS	PCD1	PCD2	☉
ODMT ODMW 0605	3.5	F43 - ODMT06 - D63Z5S22	0001	63	73	5	40	Shellmill	22	20	50	-	-	●
		F43 - ODMT06 - D80Z6S27	0002	80	90	6	50		27	23	56	-	-	●
		F43 - ODMT06 - D100Z7S32	0003	100	110	7	50		32	26	78	-	-	●
		F43 - ODMT06 - D125Z8S40	0004	125	135	8	63		40	28	89	-	-	●

Cutting Angle : 43°
8 Corner Positive

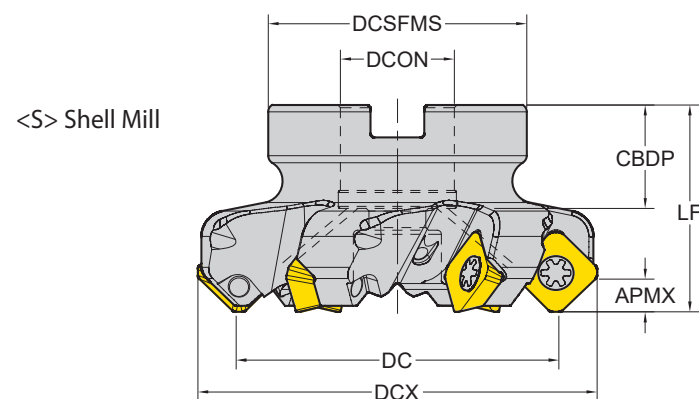


□: p. 103 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZEFP	LF	TYPE	DCON	CBDP	DCSFMS	PCD1	PCD2	☉
OFMT 05T3	3.0	F43 - OFMT05 - D50Z5S22	0489	50	58	5	40	Shellmill	22	22	42	-	-	●
		F43 - OFMT05 - D63Z6S22	0490	63	71	6	40		22	22	48	-	-	●
		F43 - OFMT05 - D80Z7S27	0491	80	88	7	50		27	25	58	-	-	●
		F43 - OFMT05 - D125Z9S40 - WOC	0492	125	133	9	63		40	32	85	-	-	X

Milling - Face Milling - Cutter
Cutters for SEKT

Cutting Angle : 45°
4 Corner Positive



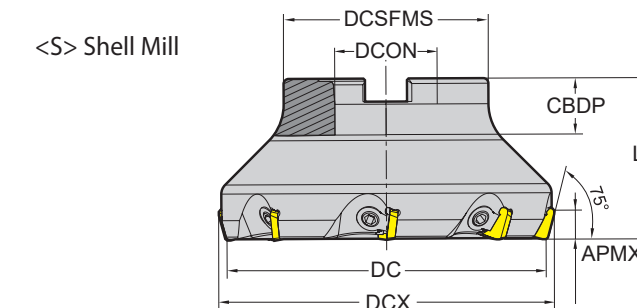
ZAFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CBDP : Connection Bore Depth

□: p. 107 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZAFP	LF	TYPE	DCON	CBDP	DCSFMS	PCD1	PCD2	☉
SEKT 12T3	6.0	F45 - SE12T3 - D50Z4S22	0500	50	63	4	40	Shellmill	22	22	48	-	-	●
		F45 - SE12T3 - D63Z5S22	0501	63	76	5	40		22	22	48	-	-	●
		F45 - SE12T3 - D80Z6S27	0502	80	93	6	50		27	25	58	-	-	●
		F45 - SE12T3 - D100Z7S32	0503	100	113	7	50		32	26	65	-	-	●
		F45 - SE12T3 - D125Z8S40 - WOC	0504	125	138	8	63		40	32	85	-	-	X
		F45 - SE12T3 - D160Z10S40 - WOC	0505	160	173	10	63		40	32	110	66.7	-	X
SEKT 1204	6.0	F45 - SEKT12 - D40Z4S16	0031	40	54	4	40	Shellmill	16	18	32	-	-	●
		F45 - SEKT12 - D50Z5S22	0032	50	64	5	40		22	20	48	-	-	●
		F45 - SEKT12 - D63Z4S22	0033	63	77	4	40		22	20	50	-	-	●
		F45 - SEKT12 - D63Z6S22	0034	63	77	6	40		22	20	50	-	-	●
		F45 - SEKT12 - D80Z4S27	0035	80	94	4	50		27	22	56	-	-	●
		F45 - SEKT12 - D80Z7S27	0036	80	94	7	50		27	22	56	-	-	●
		F45 - SEKT12 - D100Z8S32	0037	100	114	8	50		32	25	78	-	-	●
		F45 - SEKT12 - D125Z10S40	0038	125	139	10	63		40	29	90	-	-	●
		F45 - SEKT12 - D160Z12S40	0039	160	174	12	63		40	30	114	-	-	X

Milling - Face Milling - Cutter
Cutters for SPKN, SPKR, SPCN

Cutting Angle : 75°
4 Corner Positive ISO



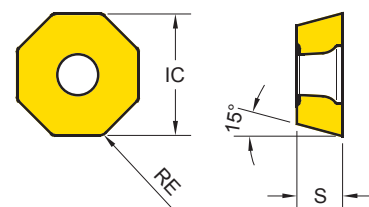
ZAFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CBDP : Connection Bore Depth

□: p. 110 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZAFP	LF	TYPE	DCON	CBDP	DCSFMS	PCD1	PCD2	☉
SPKN SPKR SPCN 1203	8.0	F75 - SPKN12 - D50Z4S22 - WOC	0611	50	56	4	40	Shellmill	22	22	42	-	-	X
		F75 - SPKN12 - D63Z5S22 - WOC	0612	63	69	5	40		22	22	48	-	-	X
		F75 - SPKN12 - D80Z6S27 - WOC	0613	80	86	6	50		27	25	58	-	-	X
		F75 - SPKN12 - D100Z7S32 - WOC	0614	100	106	7	50		32	26	65	-	-	X
		F75 - SPKN12 - D125Z8S40 - WOC	0615	125	131	8	63		40	32	80	-	-	X
		F75 - SPKN12 - D160Z9S40 - WOC	0616	160	166	9	63		40	32	110	66.7	-	X
		F75 - SPKN12 - D200Z12S60 - WOC	0617	200	206	12	63		60	40	130	101.6	-	X

Milling - Face Milling - Inserts

ODMT, ODMW - Face Milling Positive (8 Corners)



Series	IC	S
ODM* 0605	15.9	5.6

EDP 1200..

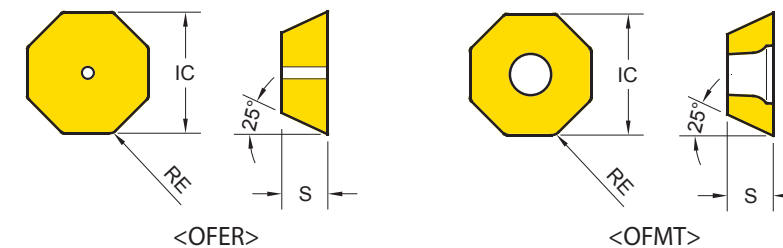
P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	EDP 1200..		
					YG602	YG622	YG712
ODMT General	ODMT 060508	0.8	0.21 ~ 0.35		● 0030		
ODMW Hard Materials	ODMW 060508	0.8	0.26 ~ 0.40		● 0031		

Milling - Face Milling - Inserts

OFER, OFMT - Face Milling Positive (8 Corners)



Series	IC	S
OFER 0704	18.05	4.78
OFMT 05T3	12.73	4.06

EDP 1200..

P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

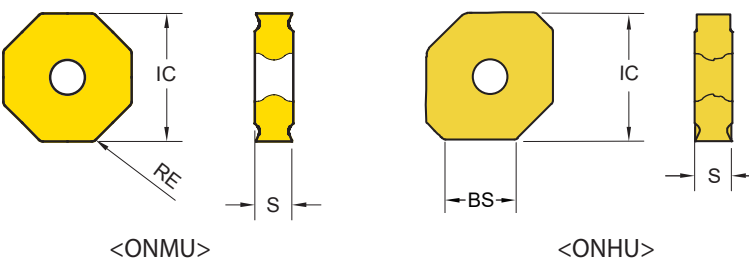
	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	EDP 1200..		
					YG602	YG622	YG712
OFER General	OFER 070405	0.5	0.22 ~ 0.50		● 0209		
OFMT General	OFMT 05T308	0.8	0.15 ~ 0.25		● 0032		

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Face Milling - Inserts

ONMU / ONHU - Face Milling Negative (16 Corners)



Series	IC	S
ON*U 0806	20.2	5.8

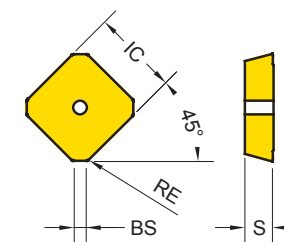
EDP 1200..			
P25	P30	P20	
M30			
K30	K30		K15
S20			

● : Stock item
○ : Order made item

ONMU ONHU	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712	YG5020
ONMU General	ONMU 080608	0.8	0.22 ~ 0.50		● 0233			● 0414
	ONHU 080612		0.22 ~ 0.50	10.6				● 0482

Milling - Face Milling - Inserts

SDKN / CN - Face Milling Positive (4 Corners ISO)



Series	AS	IC	S
SD** 1203	15°	12.7	3.18
SD** 1504	15°	15.88	4.76

EDP 1200..			
P25	P30	P20	
M30			
K30	K30		
S20			

● : Stock item
○ : Order made item

SDKN SDCN	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
SDKN Hard Materials	SDKN 1203 AETN	0.5	0.22 ~ 0.35	1.85	● 0058		
	SDKN 1504 AETN	0.45	0.22 ~ 0.40	2	● 0059		
	SDKN 1203 AETN - PW	0.4	0.22 ~ 0.35	1.98	● 0253		
	SDKN 1504 AETN - PW	0.4	0.22 ~ 0.40	1.95	● 0288		
	SDKN 1203 AETN - GW	1.3	0.2 ~ 0.4	1.85	● 0251		
	SDKN 1504 AETN - GW	1.3	0.19 ~ 0.38	2.05	● 0286		
SDCN Ground insert	SDCN 1203 AESN - M		0.18 ~ 0.36	2.04			● 0135
	SDCN 1504 AESN - M		0.18 ~ 0.36	2.19			● 0150
	SDCN 1504 AESN - MR	1	0.18 ~ 0.36	2.19			● 0201

- PW : for Improved Surface Roughness
- GW : Ground Wiper
- M : for Mold & Die
- MR : for Mold & Die Roughing

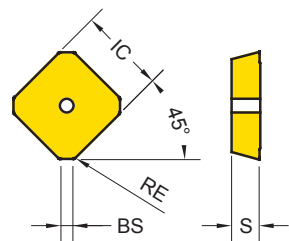
Cutting Speed			Vc (m/min.)							
ISO	VDI	Sub Group	YG602		YG622		YG712		YG5020	
			Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300	-	-
	6~9	Low-Alloyed Steel	120	300	120	320	180	250	-	-
	10~11	High-Alloyed Steel	70	150	70	170	100	140	-	-
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-	200	350
	17~18	Nodular Cast Iron	130	220	130	240	-	-	150	300
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-	-	-

Cutting Speed			Vc (m/min.)							
ISO	VDI	Sub Group	YG602		YG622		YG712			
			Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300		
	6~9	Low-Alloyed Steel	120	300	120	320	180	250		
	10~11	High-Alloyed Steel	70	150	70	170	100	140		
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-		
	14	Austenitic Stainless Steel	130	250	-	-	-	-		
K	15~16	Grey Cast Iron	120	250	120	270	-	-		
	17~18	Nodular Cast Iron	130	220	130	240	-	-		
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-		
S	31~37	Superalloys & Titanium	25	45	-	-	-	-		
H	38~41	Hard Materials	40	80	40	100	-	-		

Milling - Face Milling - Inserts

SEKR / N - Face Milling Positive (4 Corners ISO)

Series	AS	IC	S
SEK* 1203	20°	12.7	3.2



EDP 1200..		
P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

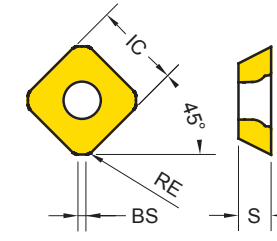
SEKR SEKN	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	EDP 1200..		
					YG602	YG622	YG712
SEKR General	SEKR 1203 AFTN	0.4	0.14~0.30	1.4	● 0051		
	SEKR 1203 AFTN -PW	0.4	0.14~0.30	1.4	● 0296		
SEKN Hard Materials	SEKN 1203 AFTN	0.4	0.22~0.35	1.4	● 0054		
	SEKN 1203 AFTN -PW	0.4	0.22~0.35	1.4	● 0297		
	SEKN 1203 AFTN -GW	0.4	0.23 ~ 0.35	2	● 0304		

- PW : for Improved Surface Roughness
- GW : Ground Wiper

Milling - Face Milling - Inserts

SEKT - Face Milling Positive (4 Corners)

Series	IC	S
SEKT 1204	12.7	4.9
SEKT 12T3	13.4	4



EDP 1200..		
P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

SEKT 1204	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	EDP 1200..		
					YG602	YG622	YG712
SEKT 1204 General	SEKT 1204 AFTN	1.1	0.20~0.35	1.18	● 0055		
	SEKT 1204 -ST	1.1	0.08~0.30	1.18	● 0257		

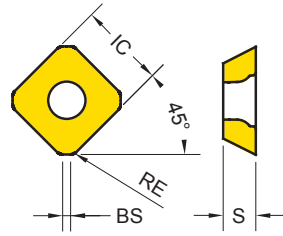
SEKT 12T3	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	EDP 1200..		
					YG602	YG622	YG712
SEKT 12T3 General	SEKT 12T3 AGTN	1.5	0.15~0.30	1.3	● 0056		
	SEKT 12T3 -ST	1.5	0.08~0.30	1.3	● 0271		

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Face Milling - Inserts

SEMT - Face Milling Positive (4 Corners)



Series	IC	S
SEMT1204	12.92	5.1
SEMT13T3	13.4	4.0

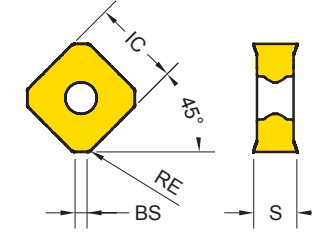
EDP 1200..		
P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

SEMT	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
SEMT 1204 General	SEMT 1204 AFTN	1.2	0.25 ~ 0.5	1.24	● 0052		
	SEMT 13T3 AGSN	1.5	0.15 ~ 0.3	1.31	● 0203		

Milling - Face Milling - Inserts

SNMX - Face Milling Negative (8 Corners)



Series	IC	S
SNMX 1206	12.7	6.25

EDP 1200..		
P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

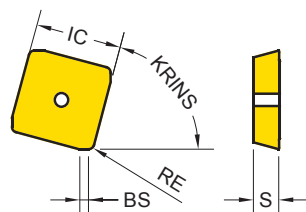
SNMX	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
SNMX General	SNMX 1206 ANN	0.8	0.16 ~ 0.34	1.7	● 0231		

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Face Milling - Inserts

SPKN / R/ CN - Face Milling Positive (4 Corners ISO)



Series	KRINS	AS	IC	S
SP** 1203	75°	11°	12.7	3.18
SP** 1504	75°	11°	15.88	4.76

EDP 1200..		
P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

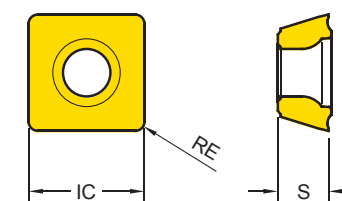
SPKR SPKN SPCN	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
SPKR General	SPKR 1203 EDTR	0.8	0.15~0.35	1.4	● 0050		
	SPKR 1203 EDTR -PW	0.8	0.15~0.35	1.4	● 0298		
SPKN Hard Materials	SPKN 1203 EDTR	0.8	0.16~0.34	1.4	● 0048		
	SPKN 1504 EDTR		0.15~0.34	1.3	● 0049		
	SPKN 1203 EDTR - PW	0.8	0.20~0.35	1.4	● 0279		
	SPKN 1504 EDTR - PW		0.25~0.40	1.3	● 0299		
	SPKN 1203 EDTR - GW	0.6	0.25 ~ 0.5	1.51	● 0280		
	SPKN 1504 EDTR - GW	0.8	0.25 ~ 0.5	2.2	● 0305		
SPCN Ground insert	SPCN 1203 EDSR - M	0.8	0.2~0.4	1.82			● 0081
	SPCN 1203 EDSR - MR	0.8	0.2~0.4	1.77			● 0198
	SPCN 1504 EDSR - M	0.8	0.2~0.4	1.92			● 0098
	SPCN 1504 EDSR - MR	0.8	0.2~0.4	1.86			● 0199

- PW : for Improved Surface Roughness
- GW : Ground Wiper
- M : for Mold & Die
- MR : for Mold & Die Roughing

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Face Milling - Inserts

SPMT - Universal Positive (4 Corners)



Series	AS	IC	S
SPMT 1204	11°	12.7	4.81

EDP 1200..		
P25	P30	P20
M30		
K30	K30	
S20		

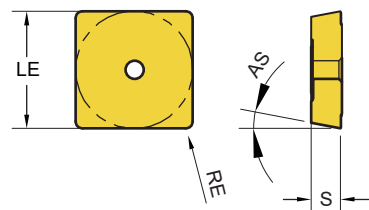
● : Stock item
○ : Order made item

SPMT	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
SPMT General	SPMT 120408	0.8	0.15~0.3		● 0223		

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Face Milling - Inserts

SPUN - Universal Positive (4 Corners ISO)



Series	AS	IC	S
SPUN 1203	11°	12.7	3.2

EDP 1200..

P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

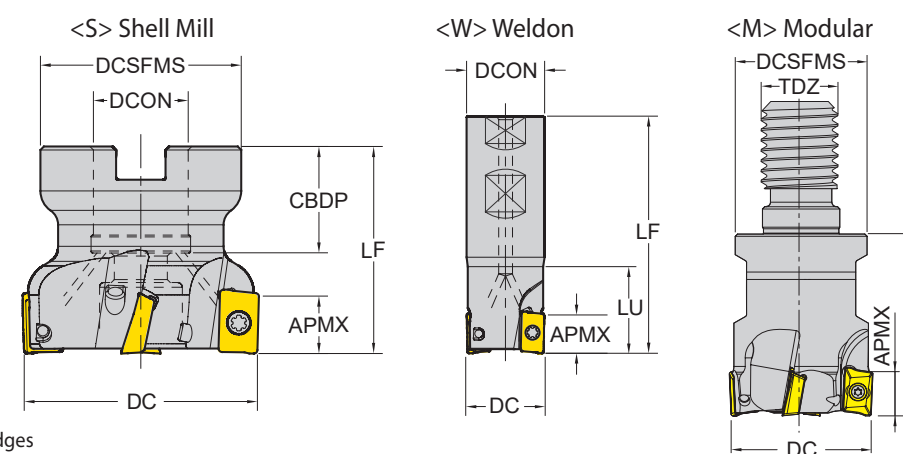
SPUN	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
	SPUN 120308	0.8			● 0224		

SPUN
General



Milling - Shoulder Milling - Cutter
Cutters for ADKT, AOMT

Cutting Angle : 90°
2 Corner Positive



ZEFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CDBP : Connection Bore Depth

unit:mm

Series	APMX	Designation	EDP 1700..	DC	ZEFP	LU	LF	TYPE	DCON	CDBP	DCSFMS	PCD1	PCD2	⚡
ADKT 1505	15.0	E90 - ADKT15 - D25Z2W25 - L150 - WOC	0517	25	2	50	150	Weldon	25	-	-	-	-	X
		E90 - ADKT15 - D30Z3W25 - L150 - WOC	0518	30	3	40	150		25	-	-	-	-	X
		E90 - ADKT15 - D32Z3W32 - L150 - WOC	0519	32	3	50	150		32	-	-	-	-	X
		F90 - ADKT15 - D40Z4S16	0520	40	4	-	40	Shellmill	16	20	36	-	-	●
		F90 - ADKT15 - D50Z5S22	0521	50	5	-	40		22	22	42	-	-	●
		F90 - ADKT15 - D63Z6S22	0522	63	6	-	40		22	22	48	-	-	●
		F90 - ADKT15 - D80Z7S27	0523	80	7	-	50		27	25	58	-	-	●
		F90 - ADKT15 - D100Z8S32	0524	100	8	-	50		32	26	65	-	-	●
F90 - ADKT15 - D125Z9S40 - WOC	0525	125	9	-	63	40	32	80	-	-	-	X		

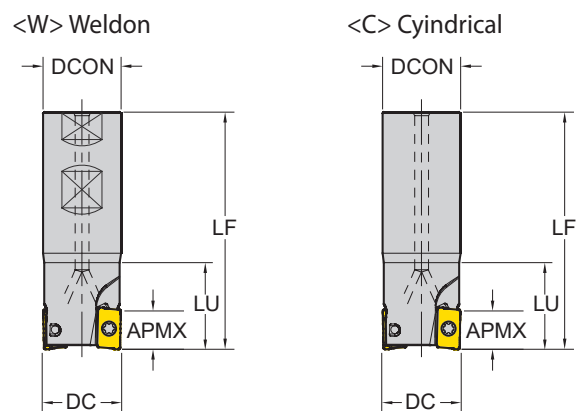
unit:mm

Series	APMX	Designation	EDP 1700..	DC	ZEFP	LU	LF	TYPE	DCON /TDZ	CDBP	DCSFMS	PCD1	PCD2	⚡
AOMT 1236	12.0	E90 - AOMT12 - D16Z2W16 - L150 - WOC	0526	16	2	50	150	Weldon	16	-	-	-	-	X
		E90 - AOMT12 - D25Z3W25 - L150 - WOC	0527	25	3	50	150		25	-	-	-	-	X
		E90 - AOMT12 - D32Z4W32 - L150 - WOC	0528	32	4	50	150		32	-	-	-	-	X
		F90 - AOMT12 - D50Z5S22	0529	50	5	-	40	Shellmill	22	22	42	-	-	●
		M90 - AOMT12 - D16Z2M08 - WOC	0530	16	2	-	30	Modular	M08	-	14.8	-	-	X
		M90 - AOMT12 - D20Z3M10 - WOC	0531	20	3	-	35		M10	-	18	-	-	X

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

**Milling - Shoulder Milling - Cutter
Cutters for APKT**

Cutting Angle : 90°
2 Corner Positive



ZAFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CBDP : Connection Bore Depth

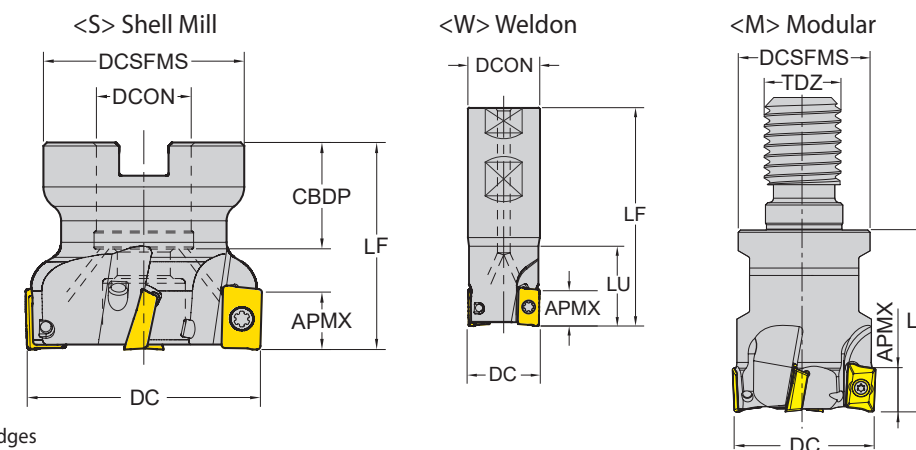
□: p. 122 unit:mm

Series	APMX	Designation	EDP 1700..	DC	ZAFP	LU	LF	TYPE	DCON	CBDP	DCSFS	PCD1	PCD2	🔴
APKT 1003	10.0	E90 - APKT10 - D16Z2C16 - L100	0083	16	2	-	100	Cylindrical	16	-	-	-	-	●
		E90 - APKT10 - D16Z2C16 - L120	0532	16	2	30	120		16	-	-	-	-	●
		E90 - APKT10 - D16Z2C16 - L150	0154	16	2	50	150		16	-	-	-	-	●
		E90 - APKT10 - D16Z2C16 - L200	0533	16	2	100	200		16	-	-	-	-	●
		E90 - APKT10 - D20Z2C20 - L250	0534	20	2	150	250		20	-	-	-	-	●
		E90 - APKT10 - D20Z3C20 - L100	0535	20	3	30	100		20	-	-	-	-	●
		E90 - APKT10 - D20Z3C20 - L120	0085	20	3	-	120		20	-	-	-	-	●
		E90 - APKT10 - D20Z3C20 - L150	0536	20	3	50	150		20	-	-	-	-	●
		E90 - APKT10 - D20Z3C20 - L200	0270	20	3	100	200		20	-	-	-	-	●
		E90 - APKT10 - D25Z3C25 - L100	0537	25	3	30	100		25	-	-	-	-	●
		E90 - APKT10 - D25Z3C25 - L120	0186	25	3	30	120	25	-	-	-	-	●	
		E90 - APKT10 - D30Z4C25 - L100	0122	30	4	30	100	25	-	-	-	-	●	
		E90 - APKT10 - D30Z4C25 - L120	0086	30	4	30	120	25	-	-	-	-	●	
		E90 - APKT10 - D32Z4C25 - L100	0538	32	4	35	100	25	-	-	-	-	●	
		E90 - APKT10 - D32Z4C25 - L150 - WOC	0539	32	4	35	150	25	-	-	-	-	X	
		E90 - APKT10 - D12Z1W16 - L100	0540	12	1	30	100	Weldon	16	-	-	-	-	●
		E90 - APKT10 - D14Z1W16 - L100	0541	14	1	30	100		16	-	-	-	-	●
		E90 - APKT10 - D16Z2W16 - L100	0542	16	2	30	100		16	-	-	-	-	●
		E90 - APKT10 - D16Z2W16 - L85	0082	16	2	-	85		16	-	-	-	-	●
		E90 - APKT10 - D18Z2W16 - L100	0543	18	2	30	100		16	-	-	-	-	●

▶ NEXT PAGE

**Milling - Shoulder Milling - Cutter
Cutters for APKT**

Cutting Angle : 90°
2 Corner Positive



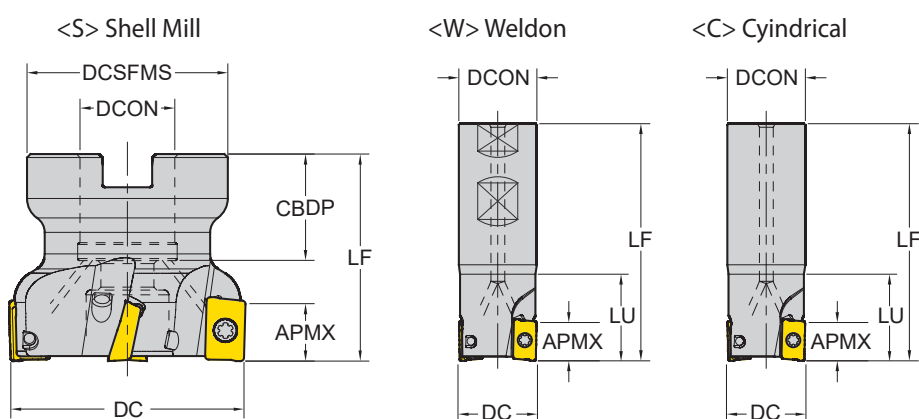
ZAFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CBDP : Connection Bore Depth

□: p. 122 unit:mm

Series	APMX	Designation	EDP 1700..	DC	ZAFP	LU	LF	TYPE	DCON /TDZ	CBDP	DCSFS	PCD1	PCD2	🔴	
APKT 1003	10.0	E90 - APKT10 - D20Z3W20 - L100	0461	20	3	30	100	Weldon	20	-	-	-	-	●	
		E90 - APKT10 - D20Z3W20 - L90	0084	20	3	-	90		20	-	-	-	-	●	
		E90 - APKT10 - D22Z3W20 - L100	0544	22	3	30	100		20	-	-	-	-	●	
		E90 - APKT10 - D25Z3W25 - L100	0545	25	3	30	100		25	-	-	-	-	●	
		E90 - APKT10 - D25Z4W25 - L100	0546	25	4	30	100		25	-	-	-	-	●	
		E90 - APKT10 - D32Z4W32 - L150 - WOC	0547	32	4	50	150		32	-	-	-	-	X	
		F90 - APKT10 - D40Z4S16	0087	40	4	-	40		Shellmill	16	18	34	-	-	●
		F90 - APKT10 - D40Z5S16	0472	40	5	-	40	16		20	36	-	-	●	
		F90 - APKT10 - D50Z6S22	0215	50	6	-	40	22		22	42	-	-	●	
		F90 - APKT10 - D50Z7S22	0088	50	7	-	40	22		20	42	-	-	●	
		F90 - APKT10 - D63Z7S22	0548	63	7	-	40	22		22	48	-	-	●	
		F90 - APKT10 - D80Z8S27	0549	80	8	-	50	27		25	58	-	-	●	
		F90 - APKT10 - D100Z9S32	0550	100	9	-	50	32		26	65	-	-	●	
		M90 - APKT10 - D16Z2M08	0551	16	2	-	30	Modular		M08	-	14.75	-	-	●
		M90 - APKT10 - D20Z3M10	0552	20	3	-	30			M10	-	18	-	-	●
		M90 - APKT10 - D25Z3M12	0553	25	3	-	35			M12	-	21	-	-	●
		M90 - APKT10 - D32Z4M16	0554	32	4	-	35		M16	-	29	-	-	●	
		M90 - APKT10 - D40Z5M16	0555	40	5	-	43		M16	-	29	-	-	●	
		M90 - APKT10 - D42Z5M16	0556	42	5	-	43		M16	-	29	-	-	●	

Milling - Shoulder Milling - Cutter
Cutters for APKT

Cutting Angle : 90°
2 Corner Positive



ZAFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CBDP : Connection Bore Depth

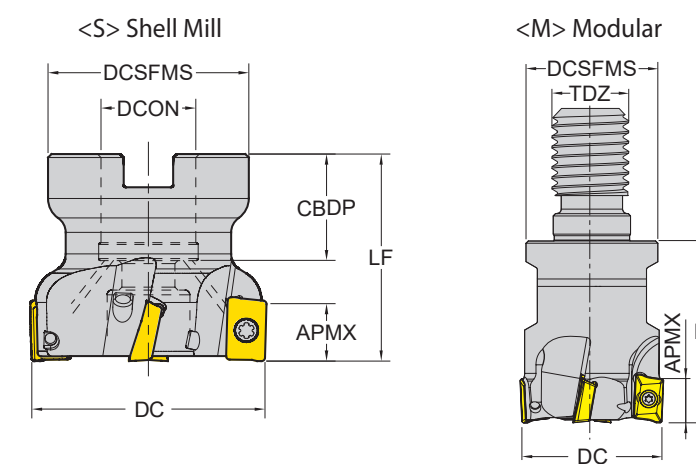
□: p. 122 unit:mm

Series	APMX	Designation	EDP 1700..	DC	ZAFP	LU	LF	TYPE	DCON	CBDP	DCSFMS	PCD1	PCD2	☉	
APKT 1604	16.0	E90 - APKT16 - D25Z2C20 - L100	0091	25	2	-	100	Cylindrical	20	-	-	-	-	●	
		E90 - APKT16 - D25Z2C20 - L100 - WOC	0243	25	2	35	100		20	-	-	-	-	-	X
		E90 - APKT16 - D25Z2C25 - L250 - WOC	0557	25	2	100	250		25	-	-	-	-	-	X
		E90 - APKT16 - D32Z2C32 - L250 - WOC	0558	32	2	100	250		32	-	-	-	-	-	X
		E90 - APKT16 - D32Z3C25 - L110	0094	32	3	-	110		25	-	-	-	-	-	●
		E90 - APKT16 - D32Z3C25 - L200	0559	32	3	40	200		25	-	-	-	-	-	●
		E90 - APKT16 - D32Z3C32 - L150 - WOC	0250	32	3	50	150		32	-	-	-	-	-	X
		E90 - APKT16 - D32Z3C32 - L250 - WOC	0560	32	3	100	250		32	-	-	-	-	-	X
		E90 - APKT16 - D40Z4C32 - L150 - WOC	0561	40	4	40	150		32	-	-	-	-	-	X
		E90 - APKT16 - D25Z2W25 - L100	0562	25	2	35	100		25	-	-	-	-	-	●
		E90 - APKT16 - D25Z2W25 - L110	0092	25	2	-	110	25	-	-	-	-	-	●	
		E90 - APKT16 - D28Z3W25 - L100	0563	28	3	40	100	25	-	-	-	-	-	●	
		E90 - APKT16 - D30Z3W25 - L110	0564	30	3	40	110	25	-	-	-	-	-	●	
		E90 - APKT16 - D32Z3W25 - L110	0093	32	3	-	110	25	-	-	-	-	-	●	
		E90 - APKT16 - D32Z3W32 - L110	0565	32	3	40	110	32	-	-	-	-	-	●	
		E90 - APKT16 - D36Z3W32 - L110	0566	36	3	40	110	32	-	-	-	-	-	●	
		F90 - APKT16 - D40Z4S16	0275	40	4	-	40	16	20	36	-	-	-	●	
		F90 - APKT16 - D50Z5S22	0095	50	5	-	40	22	20	45	-	-	-	●	

▶ NEXT PAGE

Milling - Shoulder Milling - Cutter
Cutters for APKT

Cutting Angle : 90°
2 Corner Positive



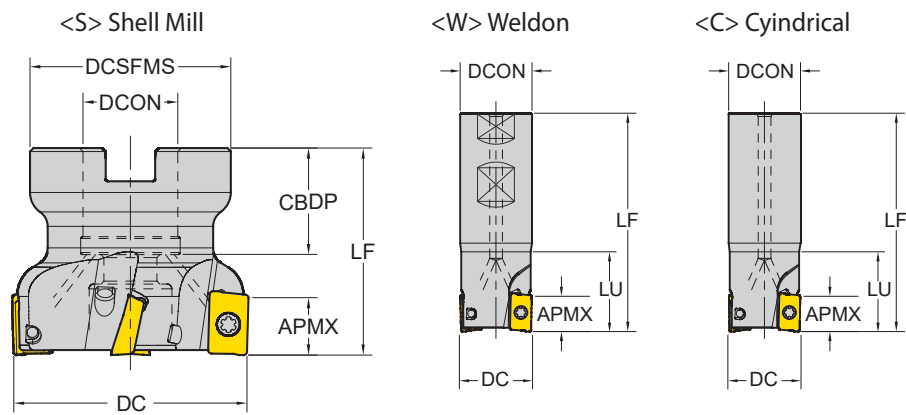
ZAFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CBDP : Connection Bore Depth

□: p. 122 unit:mm

Series	APMX	Designation	EDP 1700..	DC	ZAFP	LU	LF	TYPE	DCON / TDZ	CBDP	DCSFMS	PCD1	PCD2	☉
APKT 1604	16.0	F90 - APKT16 - D52Z5S22	0567	52	5	-	40	Shellmill	22	22	42	-	-	●
		F90 - APKT16 - D63Z6S22	0096	63	6	-	40		22	20	50	-	-	●
		F90 - APKT16 - D80Z7S27	0097	80	7	-	50		27	23	56	-	-	●
		F90 - APKT16 - D100Z8S32	0181	100	8	-	50		32	26	65	-	-	●
		F90 - APKT16 - D125Z9S40 - WOC	0238	125	9	-	63		40	32	80	-	-	X
		F90 - APKT16 - D160Z10S40 - WOC	0568	160	10	-	63		40	32	110	66.7	-	X
		F90 - APKT16 - D200Z12S60 - WOC	0569	200	12	-	63		60	40	130	101.6	-	X
		M90 - APKT16 - D25Z2M12	0570	25	2	-	43		M12	-	21	-	-	●
		M90 - APKT16 - D32Z3M16	0571	32	3	-	43		M16	-	29	-	-	●
		M90 - APKT16 - D42Z4M16	0572	42	4	-	43		M16	-	29	-	-	●

Milling - Shoulder Milling - Cutter
Cutters for APMT

Cutting Angle : 90°
2 Corner Positive



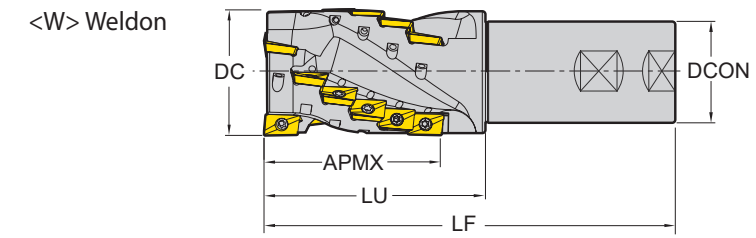
ZAFP : Effective Number of Cutting Edges
CICT : Number of Inserts
CDBP : Connection Bore Depth

p. 123 unit:mm

Series	APMX	Designation	EDP 1700..	DC	ZAFP	LU	LF	TYPE	DCON	CDBP	DCSFMS	PCD1	PCD2	☉
APMT 1135	10.0	E90 - APMT11 - D16Z2C16 - L120	0102	16	2	-	120	Cylindrical	16	-	-	-	-	●
		E90 - APMT11 - D20Z2C20 - L120	0103	20	2	-	120		20	-	-	-	-	●
		E90 - APMT11 - D25Z4C25 - L150	0104	25	4	-	150		25	-	-	-	-	●
		E90 - APMT11 - D32Z4W25 - L110	0105	32	4	-	110	Weldon	25	-	-	-	-	●
APMT 1604	16.0	E90 - APMT16 - D25Z2C25 - L120	0107	25	2	-	120	Cylindrical	25	-	-	-	-	●
		E90 - APMT16 - D32Z3W32 - L110	0108	32	3	-	110	Weldon	32	-	-	-	-	●
		F90 - APMT16 - D50Z5S22	0109	50	5	-	40	Shellmill	22	20	42	-	-	●
		F90 - APMT16 - D63Z6S22	0110	63	6	-	40		22	20	50	-	-	●
		F90 - APMT16 - D80Z7S27	0111	80	7	-	50		27	23	56	-	-	●

Milling - Shoulder Milling - Helical Cutter
Cutters for APKT

Cutting Angle : 90°
2 Corner Positive



ZAFP : Effective Number of Cutting Edges
CICT : Number of Inserts

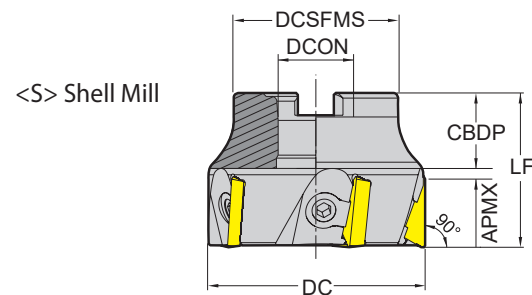
p. 122 unit:mm

Series	APMX	Designation	EDP 1700..	DC	ZAFP	CICT*	LU	LF	TYPE	DCON	☉
APKT 1003	37.0	E90 - APKT10 - D25AP37Z208W25 - L105	0573	25	2	8	50	105	Weldon	25	●
	46.0	E90 - APKT10 - D32AP46Z315W32 - L115	0574	32	3	15	55	115		32	●
	55.0	E90 - APKT10 - D40AP55Z318W32 - L130	0575	40	3	18	70	130		32	●

*: No. of inserts

Milling - Shoulder Milling - Cutter
Cutters for TPKN, TPKR, TPCN

Cutting Angle : 90°
 3 Corner Positive ISO

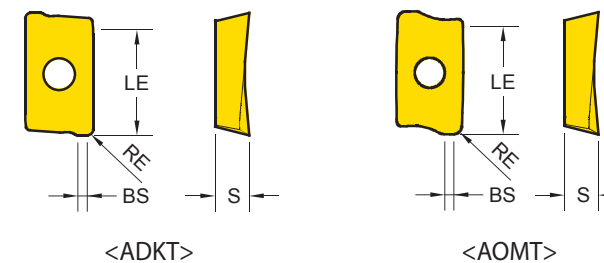


ZEPF : Effective Number of Cutting Edges
 CICT : Number of Inserts
 CDBP : Connection Bore Depth

□: p. 124 unit:mm

Series	APMX	Designation	EDP 1700..	DC	ZEPF	LU	LF	TYPE	DCON	CBDP	DCSFMS	PCD1	PCD2	☉
TPKN TPKR TPCN 1603	12.0	F90-TPKN16-D50Z4S22-WOC	0618	50	4	-	40	Shellmill	22	22	42	-	-	X
		F90-TPKN16-D63Z6S22-WOC	0619	63	6	-	45		22	22	48	-	-	X
		F90-TPKN16-D80Z7S27-WOC	0620	80	7	-	50		27	25	58	-	-	X
		F90-TPKN16-D125Z8S40-WOC	0621	125	8	-	63		40	32	80	-	-	X
TPKN TPKR TPCN 2204	18.0	F90-TPKN22-D63Z5S22-WOC	0622	63	5	-	45	Shellmill	22	22	48	-	-	X
		F90-TPKN22-D80Z6S27-WOC	0623	80	6	-	50		27	25	58	-	-	X
		F90-TPKN22-D100Z7S32-WOC	0624	100	7	-	50		32	26	65	-	-	X
		F90-TPKN22-D125Z8S40-WOC	0625	125	8	-	63		40	32	80	-	-	X
		F90-TPKN22-D160Z9S40-WOC	0626	160	9	-	63		40	32	110	66.7	-	X
		F90-TPKN22-D200Z12S60-WOC	0627	200	12	-	63		60	40	130	101.6	-	X
		F90-TPKN22-D250Z15S60-WOC	0628	250	15	-	63		60	40	160	101.6	-	X
		F90-TPKN22-D315Z18S60-WOC	0629	315	18	-	63		60	40	220	101.6	177.8	X

Milling - Shoulder Milling - Inserts
ADKT / AOMT - Shoulder Milling Positive (2 Corner)



Series	LE	IC	S
ADKT 1505	13.7	9.7	5.8
AOMT 1236	10.5	6.6	3.6

EDP 1200..
 P25 P30 P20
 MB0
 K30 K30
 S20
 ● : Stock item
 ○ : Order made item

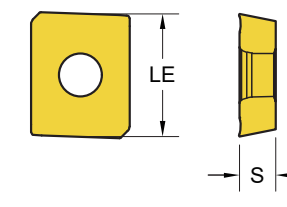
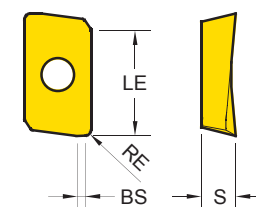
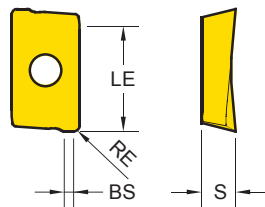
ADKT	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
ADKT General	ADKT 150508 PDTR	0.8	0.16~0.30	1.87	● 0220		

AOMT	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
AOMT General	AOMT 123604 PDTR	0.4	0.08~0.22	1.07	● 0217		
	AOMT 123608 PDTR	0.8	0.08~0.24	0.91	● 0218		

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Shoulder Milling - Inserts
APKT - Shoulder Milling Positive (2 Corner)

Milling - Shoulder Milling - Inserts
APMT - Shoulder Milling Positive (2 Corner)



Series	LE	IC	S
APKT 1003	9.9	6.7	3.6
APKT 1604	15.2	9.4	5.3

Series	LE	IC	S
APMT 1135	9.5	6.2	3.5
APMT 1604	14.6	9.2	4.76
APMT 1504	14	12.7	4.76

EDP 1200..

P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

APKT	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	EDP 1200..		
					YG602	YG622	YG712
APKT General	APKT 100305 PDTR	0.5	0.15~0.24	0.86	●		
	APKT 100308 PDTR	0.8	0.15~0.24	0.9	●		
	APKT 160404 PDTR	0.4	0.15~0.25	1.11	●		
	APKT 160408 PDTR	0.8	0.15~0.30	1.32	●		
	APKT 160412 PDTR	1.2	0.15~0.32	1.13	●		
	APKT 160416 PDTR	1.6	0.15~0.34	1.13	●		
	APKT 160424 PDTR	2.4	0.15~0.28		●		
-ST Stainless Steel Super Alloy	APKT 100305 - ST	0.5	0.08~0.22	0.86	●		
	APKT 160408 - ST	0.8	0.08~0.25	1.32	●		
-TR Hardened Steel	APKT 160404 - TR	0.4	0.26~0.40	2.12	●		
	APKT 160408 - TR	0.8	0.26~0.40	1.32	●	●	0337
	APKT 160412 - TR	1.2	0.26~0.40	2.4	●		
	APKT 160416 - TR	1.6	0.26~0.40	2.4	●		
	APKT 160424 - TR	2.4	0.26~0.40	1.5	●		

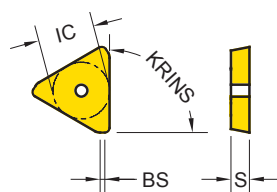
APMT	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	EDP 1200..		
					YG602	YG622	YG712
APMT General	APMT 113504 PDTR	0.4	0.15~0.22	1.26	●		
	APMT 113508 PDTR	0.8	0.15~0.25	1.07	●		
	APMT 160408 PDTR	0.8	0.16~0.30	1.11	●		●
APMT 1504 General	APMT 1504		0.14~0.28		●	●	

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Shoulder Milling - Inserts

TPKN / KR / CN - Shoulder Milling Positive (3 Corner ISO)



Series	KRINS	IC	S
TP** 1603	90°	9.53	3.18
TP** 2204	90°	12.7	4.76

EDP 1200..

P25 P30 P20

M30

K30 K30

S20

● : Stock item
○ : Order made item

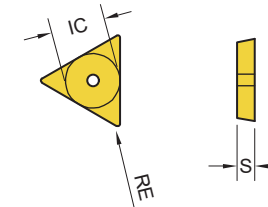
TPKR TPKN TPCN	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712	
TPKR General	TPKR 1603 PDTR		0.15 ~ 0.28	1.2	● 0060			
	TPKR 1603 PDTR -PW		0.15 ~ 0.28	1.2	● 0300			
	TPKR 2204 PDTR		0.18 ~ 0.35	1.7	● 0061			
	TPKR 2204 PDTR -PW		0.18 ~ 0.35	1.7	● 0301			
TPKN Hard Materials	TPKN 1603 PDTR		0.15 ~ 0.30	1.2	● 0062			
	TPKN 2204 PDTR		0.17 ~ 0.30	1.7	● 0063			
	TPKN 1603 PDTR -PW		0.20 ~ 0.35	1.2	● 0302			
	TPKN 2204 PDTR -PW		0.24 ~ 0.40	1.7	● 0303			
	TPKN 1603 PDTR-GW		0.15 ~ 0.3	1.62	● 0306			
	TPKN 2204 PDTR-GW		0.24 ~ 0.4	2.49	● 0307			
	TPCN Ground insert	TPCN 2204 PDSR -M		0.2 ~ 0.4	1.76			● 0180
		TPCN 2204 PDSR -MR		0.2 ~ 0.4	1.76			● 0202

- PW : for Improved Surface Roughness
- GW : Ground Wiper
- M : for Mold & Die
- MR : for Mold & Die Roughing

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Shoulder Milling - Inserts

TPUN- Universal Positive (3 Corners ISO)



Series	IC	S
TPUN 1603	9.53	3.18

EDP 1200..

P25 P30 P20

M30

K30 K30

S20

● : Stock item
○ : Order made item

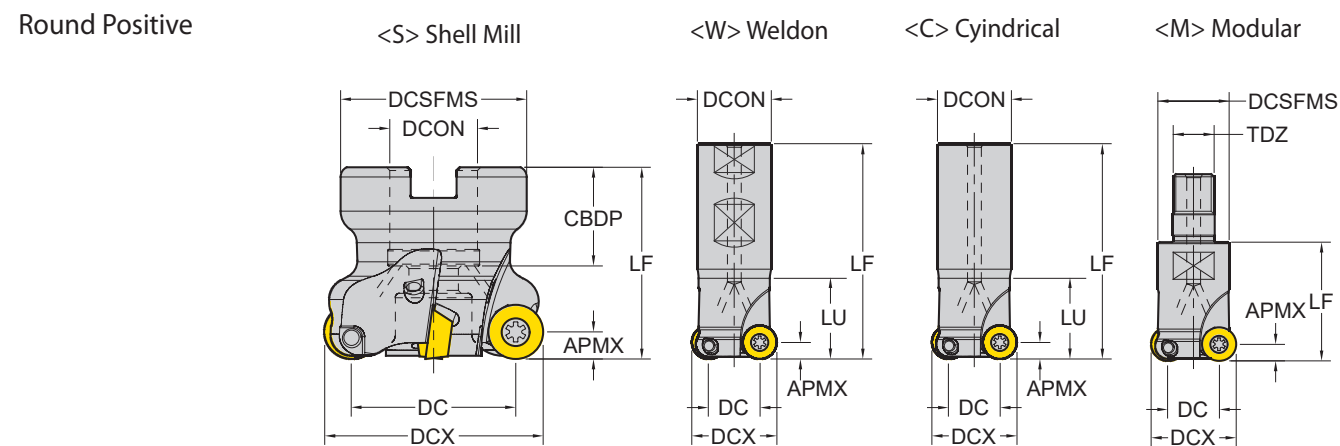
TPUN	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
	TPUN 160308	0.8	0.08 ~ 0.15		● 0064		

TPUN



Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Profiling - Cutter Cutters for RDKT, RDKW

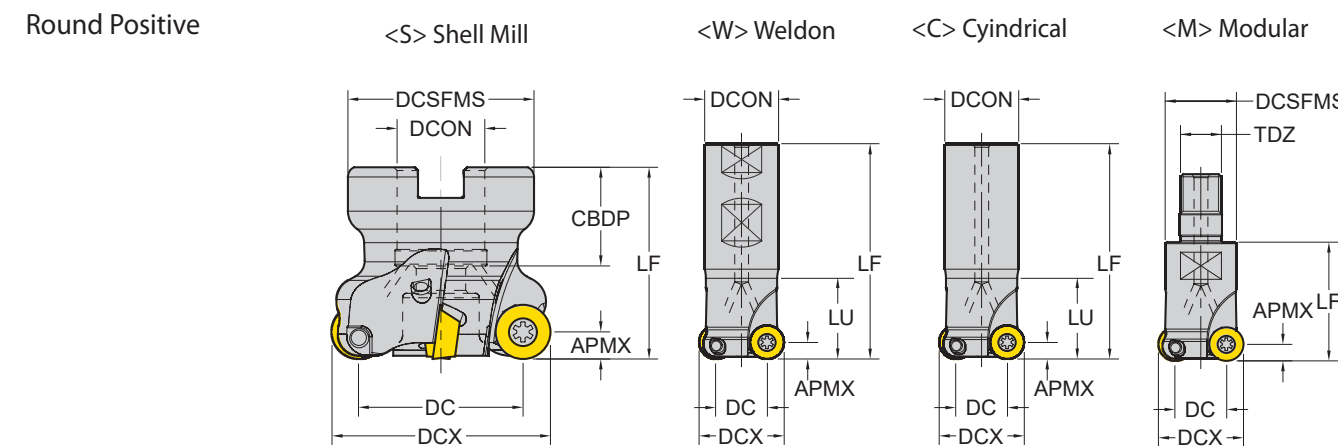


ZEFP : Effective Number of Cutting Edges
CDBP : Connection Bore Depth

□: p. 129 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZEFP	LU	LF	TYPE	DCON /TDZ	CDBP	DCSFMS	🔴
RDKT RDKW 0802	4.0	E - RDKT08 - D16Z2C16 - L160	0005	8	16	2	-	160	Cylindrical	16	-	-	●
		E - RDKT08 - D20Z2C20 - L180	0007	12	20	2	-	180		20	-	-	●
		E - RDKT08 - D25Z3C20 - L180	0009	17	25	3	-	180		20	-	-	●
		M - RDKT08 - D16Z2M08	0010	8	16	2	-	23	Modular	M08	-	13	●
		M - RDKT08 - D20Z2M10	0011	12	20	2	-	30		M10	-	18	●
		M - RDKT08 - D25Z3M12	0012	17	25	3	-	35		M12	-	21	●
RDKT RDKW 10T3	5.0	E - RDKT10 - D20Z2C20 - L150 - WOC	0576	10	20	2	60	150	Cylindrical	20	-	-	X
		E - RDKT10 - D20Z2C20 - L180	0013	10	20	2	-	180		20	-	-	●
		E - RDKT10 - D25Z2C25 - L150 - WOC	0299	15	25	2	60	150		25	-	-	X
		E - RDKT10 - D25Z2C25 - L180	0015	15	25	2	-	180		25	-	-	●
		E - RDKT10 - D20Z2W20 - L150 - WOC	0577	10	20	2	60	150	Weldon	20	-	-	X
		E - RDKT10 - D25Z2W25 - L150 - WOC	0578	15	25	2	60	150		25	-	-	X
		E - RDKT10 - D32Z3W32 - L150 - WOC	0579	22	32	3	60	150		32	-	-	X
		F - RDKT10 - D40Z5S16	0019	30	40	5	-	40	Shellmill	16	18	34	●
		F - RDKT10 - D50Z5S22	0580	40	50	5	-	50		22	22	42	●
		F - RDKT10 - D50Z6S22	0020	40	50	6	-	50		22	22	42	●
		F - RDKT10 - D63Z6S22	0581	53	63	6	-	50		22	22	48	●
		M - RDKT10 - D20Z2M10	0017	10	20	2	-	30	Modular	M10	-	18	●
M - RDKT10 - D25Z3M12	0018	15	25	3	-	35	M12	-		21	●		

Milling - Profiling - Cutter Cutters for RDKT, RDKW

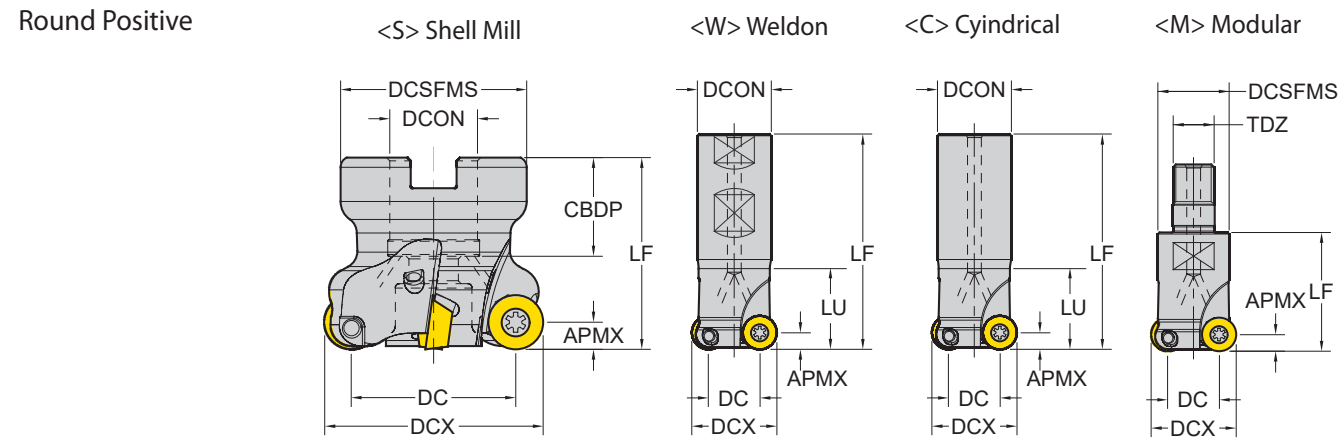


ZEFP : Effective Number of Cutting Edges
CDBP : Connection Bore Depth

□: p. 129 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZEFP	LU	LF	TYPE	DCON /TDZ	CDBP	DCSFMS	🔴
RDKT RDKW 1204	6.0	E - RDKT12 - D25Z2C25 - L180	0021	13	25	2	-	180	Cylindrical	25	-	-	●
		E - RDKT12 - D32Z2C32 - L200	0023	20	32	2	-	200		32	-	-	●
		E - RDKT12 - D32Z3C32 - L160	0024	20	32	3	-	160		32	-	-	●
		E - RDKT12 - D32Z3C32 - L160 - WOC	0582	20	32	3	70	160		32	-	-	X
		E - RDKT12 - D32Z3C32 - L160 - WOC	0583	21	33	3	70	160	Weldon	32	-	-	X
		E - RDKT12 - D32Z3W32 - L160 - WOC	0584	20	32	3	50	160		32	-	-	X
		F - RDKT12 - D40Z4S16	0028	28	40	4	-	40	Shellmill	16	18	34	●
		F - RDKT12 - D50Z5S22	0029	38	50	5	-	50		22	22	42	●
		F - RDKT12 - D52Z5S22	0585	40	52	5	-	50		22	22	42	●
		F - RDKT12 - D63Z6S22	0030	51	63	6	-	50		22	20	48	●
		F - RDKT12 - D80Z7S27	0586	68	80	7	-	50	Modular	27	25	58	●
		F - RDKT12 - D100Z7S32	0587	88	100	7	-	50		32	26	65	●
F - RDKT12 - D100Z8S32	0588	88	100	8	-	50	32	26		65	●		
M - RDKT12 - D25Z2M12	0026	13	25	2	-	35	M12	-		21	●		
M - RDKT12 - D32Z3M16	0027	20	32	3	-	42	M16	-	29	●			
M - RDKT12 - D42Z4M16	0589	30	42	4	-	43	M16	-	29	●			

Milling - Profiling - Cutter
Cutters for RPMT, RPMW

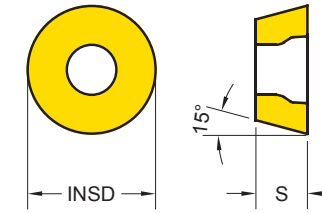


ZEFP : Effective Number of Cutting Edges
CDBP : Connection Bore Depth

□: p. 131 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZEFP	LU	LF	TYPE	DCON /TDZ	CBDP	DCSFMS	●
RPMT RPMW 08T2	4.0	E - RPMT08 - D20Z2W20 - L150	0590	12	20	2	60	150	Weldon	20	-	-	●
		E - RPMT08 - D25Z3W25 - L200	0591	17	25	3	100	200		25	-	-	●
		M - RPMT08 - D20Z2M10	0592	12	20	2	-	30	Modular	M10	-	18	●
RPMT RPMW 10T3	5.0	E - RPMT10 - D25Z2W25 - L200	0593	15	25	2	100	200	Weldon	25	-	-	●
		M - RPMT10 - D25Z2M12	0594	15	25	2	-	35		Modular	M12	-	21
		M - RPMT10 - D32Z3M16	0595	22	32	3	-	43	M16		-	29	●
RPMT RPMW 1204	6.0	E - RPMT12 - D32Z3W32 - L150	0596	20	32	3	60	150	Weldon	32	-	-	●
		E - RPMT12 - D32Z3W32 - L200	0597	20	32	3	100	200		32	-	-	●
		F - RPMT12 - D50Z4S22	0598	38	50	4	-	50	Shellmill	22	22	42	●
		F - RPMT12 - D52Z5S22	0599	40	52	5	-	50		22	22	42	●
		F - RPMT12 - D63Z5S22	0600	51	63	5	-	50		22	22	48	●
		F - RPMT12 - D80Z6S27	0601	68	80	6	-	50		27	25	58	●
		M - RPMT12 - D32Z3M16	0602	20	32	3	-	43	Modular	M16	-	29	●
		M - RPMT12 - D40Z4M16	0603	28	40	4	-	43		M16	-	29	●

Milling - Profiling - Inserts
RDKT / W- Profiling Positive (Round)



Series	INSD	S
RDK* 0501	5	1.4
RDK* 0702	7	2.4
RDK* 0802	8	2.4
RDK* 10T3	10	4.0
RDK* 1204	12	4.8

EDP 1200..		
P25	P30	P20
M30		
K30	K30	
S20		

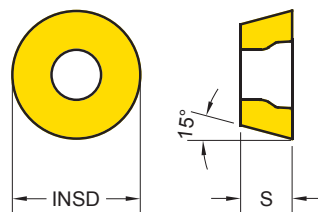
● : Stock item
○ : Order made item

RDKT / RDKW	Designation	Fz (mm/tooth)	YG602	YG622	YG712
RDKT General	RDKT 0802M0	0.15 ~ 0.25	● 0035		
	RDKT 10T3M0	0.15 ~ 0.28	● 0041		
	RDKT 1204M0	0.20 ~ 0.30	● 0034		
-ST Stainless Steel Super Alloy	RDKT 0802M0 - ST	0.08 ~ 0.25	● 0292		
	RDKT 10T3M0 - ST	0.08 ~ 0.28	● 0293		
	RDKT 1204M0 - ST	0.10 ~ 0.30	● 0294		
-TR Hardened Steel	RDKT 0802M0 - TR	0.18 ~ 0.35	● 0284	● 0339	
	RDKT 10T3M0 - TR	0.22 ~ 0.40	● 0285	● 0338	
	RDKT 1204M0 - TR	0.22 ~ 0.40	● 0272	● 0340	
RDKW Hard Materials	RDKW 0501M0	0.10 ~ 0.20	● 0207		
	RDKW 0702M0	0.12 ~ 0.25	● 0208		
	RDKW 0802M0	0.13 ~ 0.25	● 0043		
	RDKW 10T3M0	0.16 ~ 0.30	● 0040		
	RDKW 1204M0	0.16 ~ 0.35	● 0042		

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Profiling - Inserts

RDMT / W- Profiling Positive (Round)



Series	INSD	S
RDM* 0802	8	2.38
RDM* 0803	8	3.18
RDM* 10T3	10	3.97
RDM* 1204	12	4.76

EDP 1200..

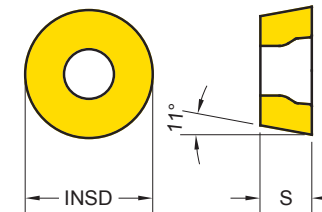
P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

RDMT RDMW	Designation	Fz (mm/tooth)	EDP 1200..		
			YG602	YG622	YG712
RDMT General	RDMT 0802M0	0.15~0.25	●		
	RDMT 0803M0	0.15~0.25	●		
	RDMT 10T3M0	0.18~0.28	●		
	RDMT 1204M0	0.2~0.3	●		
RDMW Hard Materials	RDMW 0802M0	0.05~0.15	●		
	RDMW 10T3M0	0.1~0.25	●		
	RDMW 1204M0	0.16~0.3	●		

Milling - Profiling - Inserts

RPMT / W - Profiling Positive (Round)



Series	INSD	S
RPM* 08T2	8	2.78
RPM* 10T3	10	3.97
RPM* 1204	12	4.76

EDP 1200..

P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
○ : Order made item

RPMT RPMW	Designation	Fz (mm/tooth)	EDP 1200..		
			YG602	YG622	YG712
RPMT General	RPMT 08T2M0	0.10~0.24	●		
	RPMT 10T3M0	0.16~0.30	●		
	RPMT 1204M0	0.20~0.35	●		●
-ST Stainless Steel Super Alloy	RPMT 1204M0 - ST	0.10~0.30	●		
RPMW Hard Materials	RPMW 1003M0	0.16~0.30	●		
	RPMW 1204M0	0.16~0.35	●		

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Profiling - Inserts
RBEX50 - Profiling / Highfeed (3 Corner)

Series	CEMR	IC	S
RBEX50	25	12.7	5.55

RBEX50	Designation	RE (mm)	EDP 1200..		
			P25	P30	P20
			M30		
			K30	K30	
			S20		
			YG602	YG622	YG712
			● 0277	● 0443	

● : Stock item
○ : Order made item

RBEX50	Designation	RE (mm)	YG602	YG622	YG712
	RBEX 50	1.2	● 0277	● 0443	

RBEX50
General

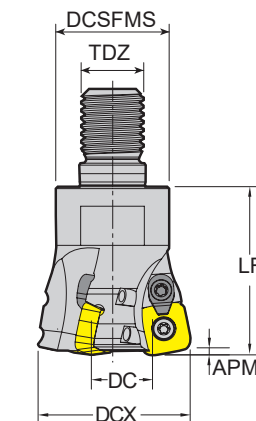
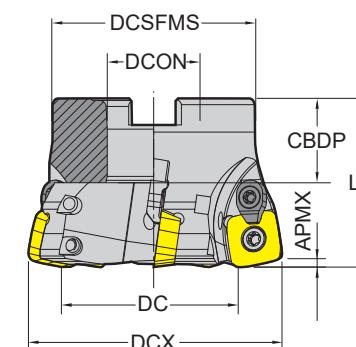
Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - High Feed Milling - Cutter
Cutters for SDMT, SDMW

Cutting Angle : 10°
4 Corner Positive

<S> Shell Mill

<M> Modular



ZEFP : Effective Number of Cutting Edges
CBDP : Connection Bore Depth

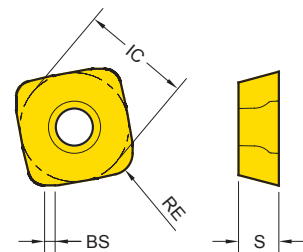
p. 134 unit:mm

Series	APMX	Designation	EDP 1700..	DC	DCX	ZEFP	LF	TYPE	DCON /TDZ	CBDP	DCSFMS	●
SDMT SDMW 1204	1.8	FHF - SDMW12 - D50Z4S22	0604	32.4	50	4	40	Shellmill	22	22	42	●
		FHF - SDMW12 - D63Z5S22	0605	45.4	63	5	40		22	22	48	●
		FHF - SDMW12 - D80Z6S27	0606	62.4	80	6	50		27	25	58	●
		FHF - SDMW12 - D100Z8S32	0607	82.4	100	8	50		32	26	65	●
		MHF - SDMW12 - D3Z2M16	0608	14.4	32	2	43	Modular	M16	-	29	●
		MHF - SDMW12 - D40Z3M16	0609	22.4	40	3	43		M16	-	29	●

Technical Information

APMXR	RP	UTCN
Radial AP Max	Programmed Corner R	Uncut Thickness
8.6	R3.5	0.94

Milling - High Feed Milling - Inserts
SDMT / W - High Feed Positive (4 Corners)



Series	IC	S
SDM* 1204	12.7	4.7

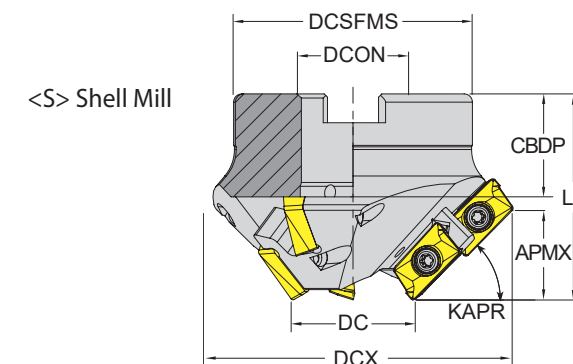
EDP 1200..		
P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
 ○ : Order made item

SDMT SDMW	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
	SDMT 120420-ST	1.9	0.60 ~ 1.20	1.45	● 0274		
-ST Stainless Steel Super Alloy							
	SDMW 120420	1.9	0.60 ~ 1.40	1.4	● 0273	● 0341	
SDMW Hard Materials							

Milling - Taper Milling - Cutter
Cutters for APKT

2 Corner Positive



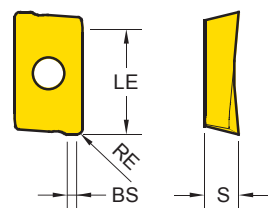
ZEFP : Effective Number of Cutting Edges
 CICT : Number of Inserts
 CDBP : Connection Bore Depth

p. 136 unit:mm

Series	KAPR	APMX	Designation	EDP 1700..	DC	DCX	ZEFP	CICT	LF	TYPE	DCON	CDBP	DCSFMS	
APKT 1604	15	8.0	F15 - APKT16 - D35AP8Z306S27	0630	35	93	3	6	50	Shellmill	27	25	58	●
	45	21.5	F45 - APKT16 - D35AP21Z306S27	0631	35	77	3	6	50		27	25	58	●
	60	26.5	F60 - APKT16 - D35AP26Z306S22	0632	35	65	3	6	50		22	22	48	●
	75	29.5	F75 - APKT16 - D35AP29Z306S22	0633	35	50	3	6	50		22	22	42	●

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-

Milling - Taper Milling - Inserts
APKT - Taper Milling Positive (2 Corner)






Series	LE	IC	S
APKT 1604	15.2	9.4	5.3

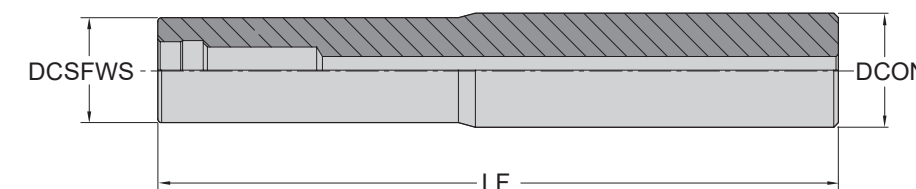
EDP 1200..

P25	P30	P20
M30		
K30	K30	
S20		

● : Stock item
 ○ : Order made item

APKT	Designation	RE (mm)	Fz (mm/tooth)	BS (mm)	YG602	YG622	YG712
APKT General 	APKT 160408 PDTR	0.8	0.15~0.30	1.32	● 0001		
	APKT 160408 - ST	0.8	0.08~0.25	1.32	● 0270		
	APKT 160408 - TR	0.8	0.26~0.40	1.32	● 0256	● 0337	
-ST Stainless Steel Super Alloy 							
-TR Hardened Steel 							

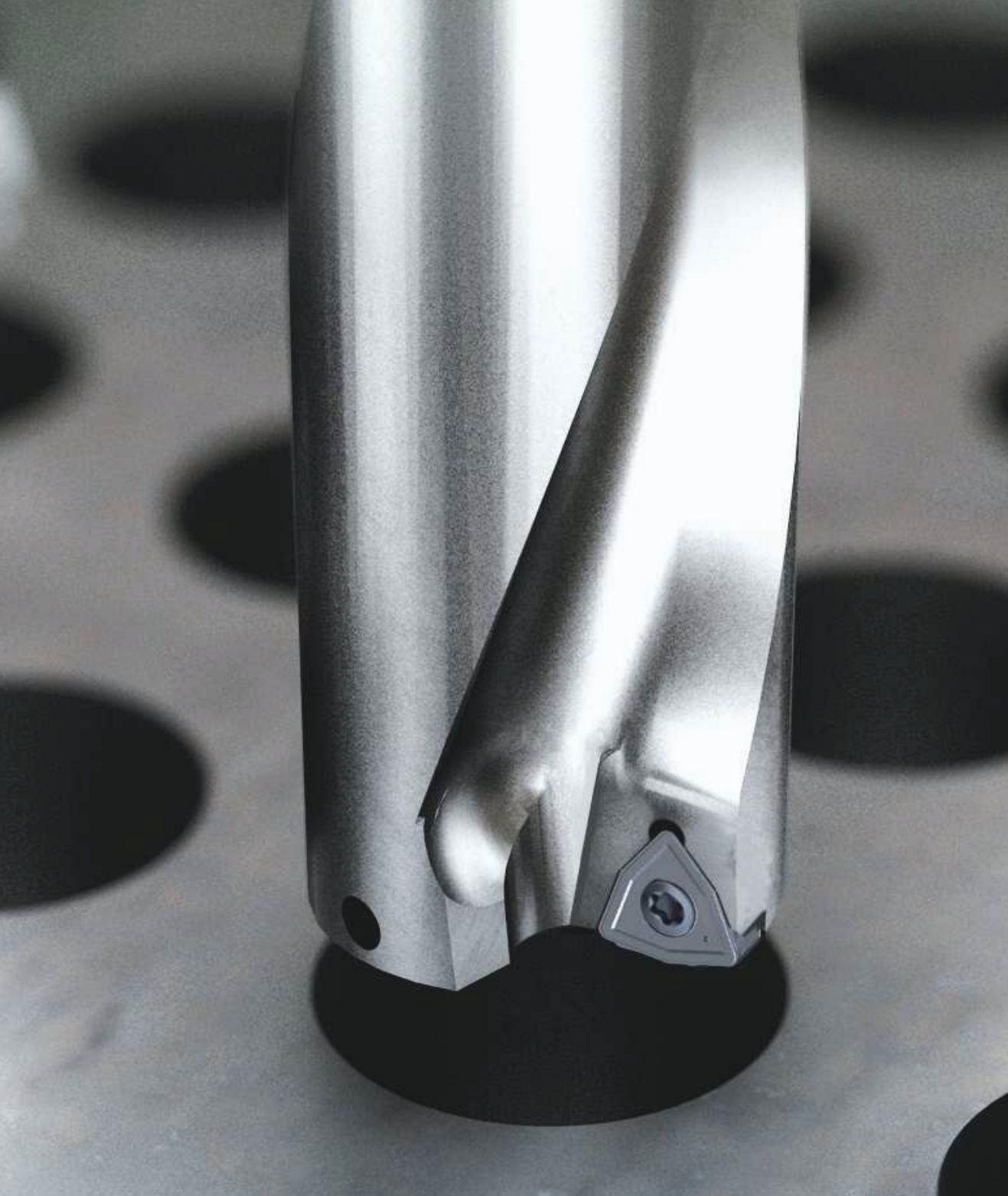
Milling - Modular Shank
Modular Shanks



unit:mm

Series	Designation	EDP 1700..	DCSFWS	LF	TYPE	DCON	
M08	EM - M08 - D16ZC16 - L100	0634	16	100	Cylindrical	16	●
	EM - M08 - D16ZC16 - L130	0635	16	130		16	●
M10	EM - M10 - D20ZC20 - L130	0636	20	130	Cylindrical	20	●
M12	EM - M12 - D25ZC25 - L150	0637	25	150	Cylindrical	25	●
	EM - M12 - D25ZC25 - L200	0638	25	200		25	●
	EM - M12 - D25ZC25 - L250	0639	25	250		25	●
M16	EM - M16 - D32ZC32 - L150	0640	32	150	Cylindrical	32	●
	EM - M16 - D32ZC32 - L200	0641	32	200		32	●
	EM - M16 - D32ZC32 - L250	0642	32	250		32	●
	EM - M16 - D32ZC32 - L300	0643	32	300		32	●

Cutting Speed			Vc (m/min.)					
ISO	VDI	Sub Group	YG602		YG622		YG712	
			Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	140	380	140	400	170	300
	6~9	Low-Alloyed Steel	120	300	120	320	180	250
	10~11	High-Alloyed Steel	70	150	70	170	100	140
M	12~13	Ferritic & Martensitic	120	200	-	-	-	-
	14	Austenitic Stainless Steel	130	250	-	-	-	-
K	15~16	Grey Cast Iron	120	250	120	270	-	-
	17~18	Nodular Cast Iron	130	220	130	240	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-
S	31~37	Superalloys & Titanium	25	45	-	-	-	-
H	38~41	Hard Materials	40	80	40	100	-	-



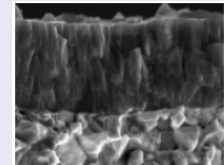
DRILLING

- Drilling Overview
- Drill Holder
- Drilling Inserts (SPMX)
- Drilling Inserts (WCMX)

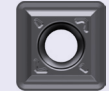
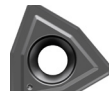
Drilling Overview

Drilling Grades



Drilling Grades		P Steel				M Stainless Steel				K Cast Iron			
		P05	P15	P25	P35	M05	M15	M25	M35	K05	K15	K25	K35
PVD	YG602			602			602					602	

YG602 P20 - P35 M20 - M40 K20 - K40 S15 - S25	PVD - TiAlN 	Universal grade for General Drilling Application <ul style="list-style-type: none"> Ultra Dense PVD Coating with optimal thermal resistance & strength Sub-Micron substrate designed for demanding application
--	--	---

Universal Drilling Inserts

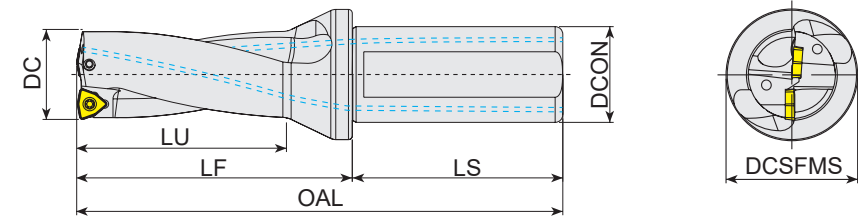
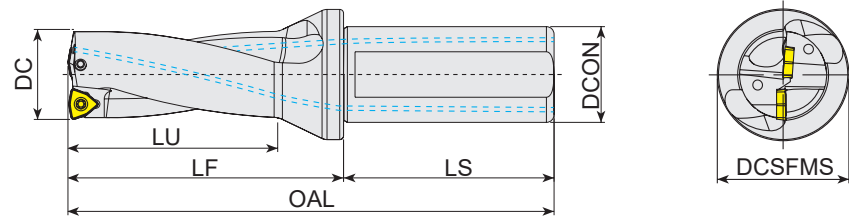
	4 Corner	SPMX Series	SPMX	05, 06, 07, 09, 11, 14
	ISO 3 Corner	WCMX Series	WCMX	04, 05, 06, 08

Drilling Chipbreakers

P	M	K			
	M		-ST		<ul style="list-style-type: none"> Sharp Geometry Sticky Material, Stainless Steel
P	M	K	General Inserts (No Description)		<ul style="list-style-type: none"> First Choice for General Application

Drilling - Drill Holder
WCMX 040208 Drill (DC 20~23.5)

Drilling - Drill Holder
WCMX 050308 Drill (DC 24~29.5)



Screw Y3008-M2.5x6
 Wrench Y80-T08

Screw Y3008-M3x8
 Wrench Y80-T08

△: p.147 unit:mm

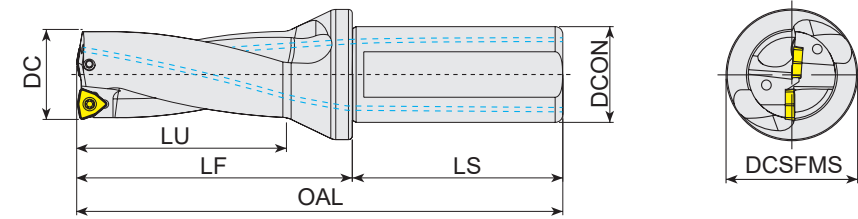
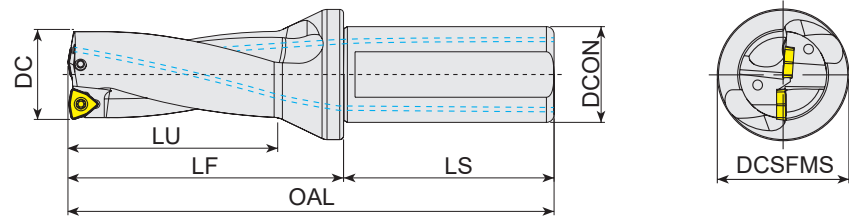
△: p.147 unit:mm

Series	DC	LU	Designation	EDP 3700..	LF	OAL	DCON	DCSFMS	LS
WCMX 040208	20	40	YGWC2 - 20S25F040 - 04	0257	62	118	25	34	56
		60	YGWC3 - 20S25F060 - 04	0300	82	138			
		80	YGWC4 - 20S25F080 - 04	0343	102	158			
	20.5	40	YGWC2 - 20.5S25F040 - 04	0726	62	118			
		60	YGWC3 - 20.5S25F060 - 04	0727	82	138			
	21	42	YGWC2 - 21S25F042 - 04	0258	64	120			
		63	YGWC3 - 21S25F063 - 04	0301	85	141			
		84	YGWC4 - 21S25F084 - 04	0344	106	162			
	21.5	42	YGWC2 - 21.5S25F042 - 04	0728	64	120			
		63	YGWC3 - 21.5S25F063 - 04	0729	85	141			
	22	44	YGWC2 - 22S25F044 - 04	0259	66	122			
		66	YGWC3 - 22S25F066 - 04	0302	88	144			
88		YGWC4 - 22S25F088 - 04	0345	110	166				
22.5	44	YGWC2 - 22.5S25F044 - 04	0730	66	122				
	66	YGWC3 - 22.5S25F066 - 04	0731	88	144				
	88	YGWC4 - 22.5S25F088 - 04	0732	110	166				
23	46	YGWC2 - 23S25F046 - 04	0260	68	124				
	69	YGWC3 - 23S25F069 - 04	0303	91	147				
	92	YGWC4 - 23S25F092 - 04	0346	114	170				
23.5	46	YGWC2 - 23.5S25F046 - 04	0733	68	124				
	69	YGWC3 - 23.5S25F069 - 04	0734	91	147				

Series	DC	LU	Designation	EDP 3700..	LF	OAL	DCON	DCSFMS	LS
WCMX 050308	24	48	YGWC2 - 24S25F048 - 05	0261	70	126	25	34	56
		72	YGWC3 - 24S25F072 - 05	0304	94	150			
		96	YGWC4 - 24S25F096 - 05	0347	118	174			
	24.5	48	YGWC2 - 24.5S25F048 - 05	0735	70	126			
		72	YGWC3 - 24.5S25F072 - 05	0736	94	150			
	25	50	YGWC2 - 25S25F050 - 05	0262	72	128			
		75	YGWC3 - 25S25F075 - 05	0305	97	153			
		100	YGWC4 - 25S25F100 - 05	0251	122	178			
	25.5	50	YGWC2 - 25.5S25F050 - 05	0737	72	128			
		75	YGWC3 - 25.5S25F075 - 05	0738	97	153			
	26	52	YGWC2 - 26S25F052 - 05	0263	74	130			
		78	YGWC3 - 26S25F078 - 05	0306	100	156			
		104	YGWC4 - 26S25F104 - 05	0349	126	182			
	26.5	52	YGWC2 - 26.5S25F052 - 05	0739	74	130			
		78	YGWC3 - 26.5S25F078 - 05	0741	100	156			
		104	YGWC4 - 26.5S25F104 - 05	0742	126	182			
	27	54	YGWC2 - 27S25F054 - 05	0264	76	132			
		81	YGWC3 - 27S25F081 - 05	0307	103	159			
		108	YGWC4 - 27S25F108 - 05	0350	130	186			
	27.5	54	YGWC2 - 27.5S25F054 - 05	0743	76	132			
		81	YGWC3 - 27.5S25F081 - 05	0744	103	159			
	28	56	YGWC2 - 28S25F056 - 05	0265	78	134			
		84	YGWC3 - 28S25F084 - 05	0308	106	162			
		112	YGWC4 - 28S25F112 - 05	0351	134	190			
28.5	56	YGWC2 - 28.5S25F056 - 05	0745	78	134				
	84	YGWC3 - 28.5S25F084 - 05	0746	106	162				
29	58	YGWC2 - 29S25F058 - 05	0266	80	136				
	87	YGWC3 - 29S25F087 - 05	0309	109	165				
	116	YGWC4 - 29S25F116 - 05	0352	138	194				
29.5	58	YGWC2 - 29.5S25F058 - 05	0748	80	136				
	87	YGWC3 - 29.5S25F087 - 05	0749	109	165				

Drilling - Drill Holder
WCMX 06T308 Drill (DC 30~44.5)

Drilling - Drill Holder
WCMX 06T308 Drill (DC 30~44.5)



Screw Y3010-M3.5x9
 Wrench Y80-T10

Screw Y3010-M3.5x9
 Wrench Y80-T10

△:p.147 unit:mm

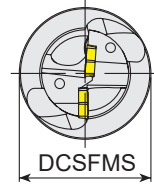
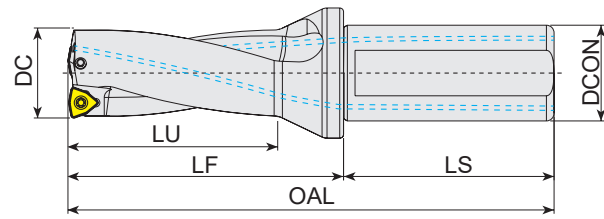
△:p.147 unit:mm

Series	DC	LU	Designation	EDP 3700..	LF	OAL	DCON	DCSFMS	LS
30	60		YGWC2 - 30S32F060 - 06	0267	87	147	32	44	60
	90		YGWC3 - 30S32F090 - 06	0310	117	177			
	120		YGWC4 - 30S32F120 - 06	0353	147	207			
30.5	90		YGWC3 - 30.5S32F090 - 06	0750	117	177			
	62		YGWC2 - 31S32F062 - 06	0268	89	149			
31	93		YGWC3 - 31S32F093 - 06	0311	120	180			
	124		YGWC4 - 31S32F124 - 06	0354	151	211			
31.5	93		YGWC3 - 31.5S32F093 - 06	0751	120	180			
	64		YGWC2 - 32S32F064 - 06	0269	91	151			
32	96		YGWC3 - 32S32F096 - 06	0312	123	183			
	128		YGWC4 - 32S32F128 - 06	0252	155	215			
32.5	96		YGWC3 - 32.5S32F096 - 06	0752	123	183			
	66		YGWC2 - 33S32F066 - 06	0753	93	153			
33	99		YGWC3 - 33S32F099 - 06	0754	126	186			
	132		YGWC4 - 33S32F132 - 06	0755	159	219			
33.5	99		YGWC3 - 33.5S32F099 - 06	0756	126	186			
	132		YGWC4 - 33.5S32F132 - 06	0757	159	219			
34	68		YGWC2 - 34S32F068 - 06	0271	95	155			
	102		YGWC3 - 34S32F102 - 06	0314	129	189			
34.5	136		YGWC4 - 34S32F136 - 06	0357	163	223			
	102		YGWC3 - 34.5S32F102 - 06	0758	129	189			
35	70		YGWC2 - 35S32F070 - 06	0272	97	157			
	105		YGWC3 - 35S32F105 - 06	0315	132	192			
35.5	140		YGWC4 - 35S32F140 - 06	0358	167	227			
	105		YGWC3 - 35.5S32F105 - 06	0759	132	192			
36	72		YGWC2 - 36S32F072 - 06	0273	99	159			
	108		YGWC3 - 36S32F108 - 06	0316	135	195			
36.5	144		YGWC4 - 36S32F144 - 06	0359	171	231			
	108		YGWC3 - 36.5S32F108 - 06	0760	135	195			
37	74		YGWC2 - 37S32F074 - 06	0274	101	161			
	111		YGWC3 - 37S32F111 - 06	0317	138	198			
	148		YGWC4 - 37S32F148 - 06	0360	175	235			

Series	DC	LU	Designation	EDP 3700..	LF	OAL	DCON	DCSFMS	LS
37.5	111		YGWC3 - 37.5S32F111 - 06	0761	138	198	32	44	60
	76		YGWC2 - 38S32F076 - 06	0275	103	163			
38	114		YGWC3 - 38S32F114 - 06	0318	141	201			
	152		YGWC4 - 38S32F152 - 06	0361	179	239			
38.5	114		YGWC3 - 38.5S32F114 - 06	0762	141	201			
	152		YGWC4 - 38.5S32F152 - 06	0763	179	239			
39	78		YGWC2 - 39S32F078 - 06	0276	105	165			
	117		YGWC3 - 39S32F117 - 06	0319	144	204			
39.5	156		YGWC4 - 39S32F156 - 06	0362	183	243			
	117		YGWC3 - 39.5S32F117 - 06	0764	144	204			
40	80		YGWC2 - 40S32F080 - 06	0277	107	167			
	120		YGWC3 - 40S32F120 - 06	0320	147	207			
40.5	160		YGWC4 - 40S32F160 - 06	0363	187	247			
	120		YGWC3 - 40.5S32F120 - 06	0765	147	207			
41	82		YGWC2 - 41S32F082 - 06	0278	109	169			
	123		YGWC3 - 41S32F123 - 06	0321	150	210			
41.5	164		YGWC4 - 41S32F164 - 06	0364	191	251			
	123		YGWC3 - 41.5S32F123 - 06	0766	150	210			
42	84		YGWC2 - 42S32F084 - 06	0279	111	171			
	126		YGWC3 - 42S32F126 - 06	0322	153	213			
42.5	168		YGWC4 - 42S32F168 - 06	0365	195	255			
	126		YGWC3 - 42.5S32F126 - 06	0767	153	213			
43	86		YGWC2 - 43S32F086 - 06	0280	113	173			
	129		YGWC3 - 43S32F129 - 06	0323	156	216			
43.5	172		YGWC4 - 43S32F172 - 06	0366	199	259			
	129		YGWC3 - 43.5S32F129 - 06	0768	156	216			
44	88		YGWC2 - 44S32F088 - 06	0281	115	175			
	132		YGWC3 - 44S32F132 - 06	0324	159	219			
44.5	176		YGWC4 - 44S32F176 - 06	0367	203	263			
	132		YGWC3 - 44.5S32F132 - 06	0769	159	219			

▶ NEXT PAGE

Drilling - Drill Holder
WCMX 080412 Drill (DC 45~60)



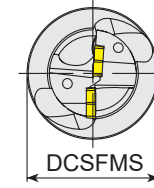
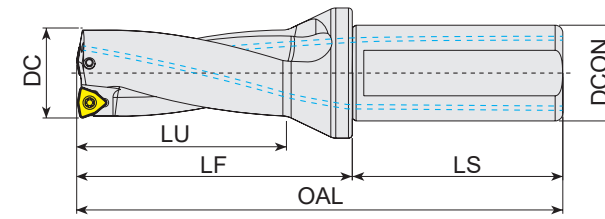
Screw Y4015-M4x11
 Wrench Y80-T15

△: p.147 unit:mm

Series	DC	LU	Designation	EDP 3700..	LF	OAL	DCON	DCSFMS	LS
WCMX 080412	45	90	YGWC2 - 45S40F090 - 08	0282	122	192	40	54	70
		135	YGWC3 - 45S40F135 - 08	0325	167	237			
		180	YGWC4 - 45S40F180 - 08	0368	212	282			
	45.5	135	YGWC3 - 45.5S40F135 - 08	0770	167	237			
		92	YGWC2 - 46S40F092 - 08	0283	124	194			
	46	138	YGWC3 - 46S40F138 - 08	0326	170	240			
		184	YGWC4 - 46S40F184 - 08	0369	216	286			
		94	YGWC2 - 47S40F094 - 08	0284	126	196			
	47	141	YGWC3 - 47S40F141 - 08	0327	173	243			
		188	YGWC4 - 47S40F188 - 08	0370	220	290			
		96	YGWC2 - 48S40F096 - 08	0285	128	198			
	48	144	YGWC3 - 48S40F144 - 08	0328	176	246			
		192	YGWC4 - 48S40F192 - 08	0371	224	294			
		98	YGWC2 - 49S40F098 - 08	0286	130	200			
	49	147	YGWC3 - 49S40F147 - 08	0329	179	249			
		196	YGWC4 - 49S40F196 - 08	0372	228	298			
		100	YGWC2 - 50S40F100 - 08	0287	132	202			
	50	150	YGWC3 - 50S40F150 - 08	0330	182	252			
		200	YGWC4 - 50S40F200 - 08	0373	232	302			
	51	102	YGWC2 - 51S40F102 - 08	0288	134	204			

▶ NEXT PAGE

Drilling - Drill Holder
WCMX 080412 Drill (DC 45~60)

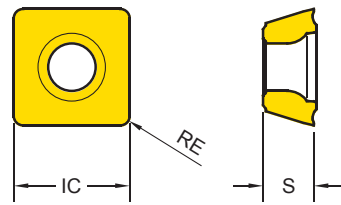


Screw Y4015-M4x11
 Wrench Y80-T15

△: p.147 unit:mm

Series	DC	LU	Designation	EDP 3700..	LF	OAL	DCON	DCSFMS	LS
WCMX 080412	51	153	YGWC3 - 51S40F153 - 08	0331	185	255	40	54	70
		104	YGWC2 - 52S40F104 - 08	0289	136	206			
	52	156	YGWC3 - 52S40F156 - 08	0332	188	258			
		106	YGWC2 - 53S40F106 - 08	0290	138	208			
	53	159	YGWC3 - 53S40F159 - 08	0333	191	261			
		108	YGWC2 - 54S40F108 - 08	0291	140	210			
	54	162	YGWC3 - 54S40F162 - 08	0334	194	264			
		110	YGWC2 - 55S40F110 - 08	0292	142	212			
	55	165	YGWC3 - 55S40F165 - 08	0335	197	267			
		112	YGWC2 - 56S40F112 - 08	0293	144	214			
	56	168	YGWC3 - 56S40F168 - 08	0336	200	270			
		114	YGWC2 - 57S40F114 - 08	0294	146	216			
	57	171	YGWC3 - 57S40F171 - 08	0337	203	273			
		116	YGWC2 - 58S40F116 - 08	0295	148	218			
	58	174	YGWC3 - 58S40F174 - 08	0338	206	276			
		118	YGWC2 - 59S40F118 - 08	0771	150	220			
	59	177	YGWC3 - 59S40F177 - 08	0772	209	279			
		120	YGWC2 - 60S40F120 - 08	0773	152	222			
	60	180	YGWC3 - 60S40F180 - 08	0774	212	282			

Drilling - Inserts
Drilling Inserts (SPMX)

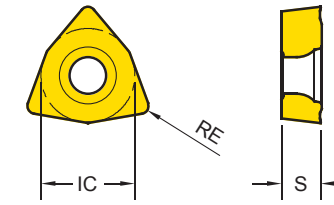


Series	Metric	
	IC	S
SPMX 0502	5.00	2.38
SPMX 0602	6.00	2.41
SPMX 07T3	7.94	3.97
SPMX 0904	9.80	4.30
SPMX 1104	11.50	4.90
SPMX 1405	14.30	5.30

SPMX		Designation	Fn (mm/rev.)	EDP 3200.. YG602
SPMX General		SPMX 050204	0.07 ~ 0.14	● 0005
		SPMX 060204	0.08 ~ 0.14	● 0006
		SPMX 07T308	0.08 ~ 0.16	● 0007
		SPMX 090408	0.08 ~ 0.16	● 0008
		SPMX 110408	0.10 ~ 0.18	● 0009
		SPMX 140512	0.10 ~ 0.20	● 0010
-ST Stainless Steel		SPMX 050204 - ST	0.03 ~ 0.10	● 0011
		SPMX 060204 - ST	0.04 ~ 0.11	● 0012
		SPMX 07T308 - ST	0.04 ~ 0.11	● 0013
		SPMX 090408 - ST	0.05 ~ 0.12	● 0014

Cutting Speed			Vc (m/min.)	
ISO	VDI	Sub Group	YG602	
			Min	Max
P	1~5	Non-Alloyed Steel	140	380
	6~9	Low-Alloyed Steel	120	300
	10~11	High-Alloyed Steel	70	150
M	12~13	Ferritic & Martensitic	120	200
	14	Austenitic Stainless Steel	130	250
K	15~16	Grey Cast Iron	120	250
	17~18	Nodular Cast Iron	130	220

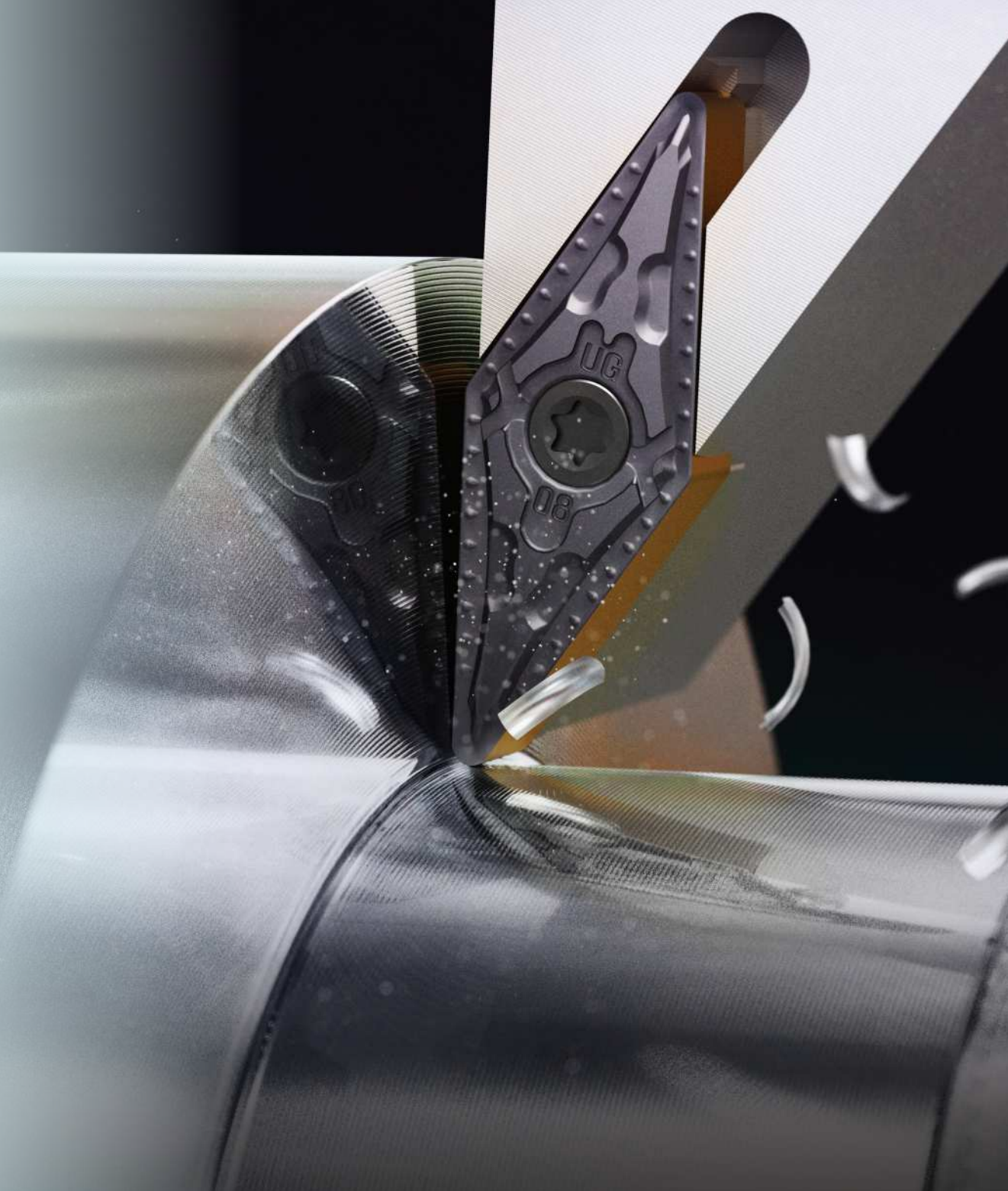
Drilling - Inserts
Drilling Inserts (WCMX)



Series	Metric	
	IC	S
WCMX 0402	6.35	2.38
WCMX 0503	7.94	3.18
WCMX 06T3	9.53	3.97
WCMX 0804	12.70	4.76

WCMX		Designation	Fn (mm/rev.)	EDP 3200.. YG602
WCMX General		WCMX 040208	0.05 ~ 0.11	● 0003
		WCMX 050308	0.06 ~ 0.14	● 0001
		WCMX 06T308	0.08 ~ 0.14	● 0002
		WCMX 080412	0.08 ~ 0.14	● 0004

Cutting Speed			Vc (m/min.)	
ISO	VDI	Sub Group	YG602	
			Min	Max
P	1~5	Non-Alloyed Steel	140	380
	6~9	Low-Alloyed Steel	120	300
	10~11	High-Alloyed Steel	70	150
M	12~13	Ferritic & Martensitic	120	200
	14	Austenitic Stainless Steel	130	250
K	15~16	Grey Cast Iron	120	250
	17~18	Nodular Cast Iron	130	220



TECHNICAL INFORMATION

ISO 13399 Terms
 Hardness Conversion Table
 Material Groups
 Comparison Chart
 Search

Technical Information ISO 13399 Terms

AN	Clearance angle major	INSD	Insert diameter
APMX	Depth of cut maximum	KAPR	Tool cutting edge angle
AS	Clearance angle wiper edge	KRINS	Cutting edge angle major
B	Shank width	KWW	Keyway width
BS	Wiper edge length	L	Cutting edge length
CBDP	Connection bore depth	LE	Cutting edge effective length
CDX	cutting depth maximum	LF	Functional length
CICT	Number of Inserts	LH	Head length
CW	Cutting width	LS	Shank length
CZC	Connection size code	LU	Usable length
DC	Cutting diameter	LUX	Usable length maximum
DCON	Connection diameter	M	Nose (or Wiper) Height
DCSFMS	Contact surface diameter machine side	OAL	Overall length
DCX	Cutting diameter maximum	RE	Corner radius
DMIN	Minimum bore diameter	RMPX	Maximum ramping angle
DMM	Shank diameter	RPMX	Rotational speed maximum
EPSR	Insert included angle	S	Insert thickness
H	Shank height	TDZ	Thread diameter size
HAND	Hand	WF	Functional width
IC	Inscribed circle diameter	ZEFP	Peripheral effective cutting edge count

Technical Information Hardness Conversion Table

HB	HRC	HRB	HV	N/mm ²
199	15	93	199	667
203	16	94	201	680
208	17	95	210	696
212	18	95	218	706
216	19	96	222	716
223	20	97	227	755
229	21	98	235	775
233	22	99	241	794
240	23	100	247	824
245	24	100	252	838
250	25	101	255	853
255	26	102	258	870
262	27	103	262	880
264	28	103	271	892
271	29	104	277	941
277	30	105	285	971
290	31	106	292	990
300	32	107	303	1020
308	33	107	311	1035
314	34	108	320	1049
322	35	108	332	1089
331	36	109	342	1118
341	37	109	351	1157
348	38	110	361	1187
360	39	111	376	1236
373	40	111	388	1265
375	41	112	393	1314
388	42	113	406	1363
402	43	114	424	1390
415	44	114	438	1422
419	45	114	448	1447
430	46	115	458	1471
445	47	115	474	1520
456	48	116	490	1569
468	49	117	497	
469	50	117	505	
486	51	118	531	
504	52	118	549	
513	53	119	567	
534	54	120	589	
552	55		649	
572	56		694	
592	57		727	
601	58		746	
613	59			
627	60			
642	61			
658	62			
681	63			
695	64			
HB	HRC	HRB	HV	N/mm ²

Technical Information Material Groups

Please visit
globalyg1.com/mat
for material search

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRC	Examples	Page
P	1	Non-alloyed steel	About 0.15% C Annealed	125		S15C, C15, 1015	152
	2		About 0.45% C Annealed	190	13	S45C, C45, 1045	
	3		About 0.45% C Quenched & tempered	250	25		
	4		About 0.75% C Annealed	270	28		
	5	About 0.75% C Quenched & Tempered	300	32	SK5, Ck75, 1080		
	6	Low-alloyed Steel	Annealed	180	10	SCM440, 42CrMo4, 410	
	7		Quenched & Tempered	275	29		
	8		Quenched & Tempered	300	32		
	9		Quenched & Tempered	350	38		
	10	High-alloyed steel, and tool steel	Annealed	200	15	SKD, D2	
	11		Quenched & Tempered	325	35	SKH, SUH, M42	
M	12	Stainless Steel	Ferritic / Martensitic Annealed	200	15	SUS 420, X40Cr13, 420	159
	13		Martensitic Quenched & Tempered	240	23		
	14		Austenitic	180	10		
K	15	Grey cast iron	Pearlitic / Ferritic	180	10	FC, GG, EN-GJL-250	161
	16		Pearlitic (Martensitic)	260	26		
	17	Nodular cast iron	Ferritic	160	3	FCD, GGG, EN-GJS-500-7	
	18		Pearlitic	250	25		
	19	Malleable cast iron	Ferritic	130		FCMW, FCMP, GTS, GJMB350-10	
20	Pearlitic		230	21			
N	21	Aluminum-wrought alloy	Not Curable	60		SAE 1000, AIMg 1, 3.3315	163
	22		Curable Hardened	100		SAE 7050, AlCuMg 1, 3.1325	
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		ADC12, G-AISi12, 3.2581	
	24		≤ 12% Si, Curable Hardened	90		C4BS, G-AISi10Mg, 3.2381	
	25		> 12% Si, Not Curable	130			
	26	Copper and copper alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110		CuZn36Pb 3, 2.0375	
	27		CuZn, CuSnZn (Brass)	90		CuZn 15, 2.0240	
	28		CuSn, lead-free copper and electrolytic copper	100		G-CuZn40Fe, 2.0590	
	29	Non-metallic materials	Duroplastic, Fiber Reinforced Plastic			CFRP	
	30		Rubber, Wood, etc.				
S	31	Heat resistant super alloys	Fe Based Annealed	200	15	X12 NiCrSi 36-16, 1.4864	165
	32		Fe Based Aged	280	30		
	33		Annealed	250	25	Inconel 718, NiCr20TiAl, 2.4631	
	34		Ni or Co Based Aged	350	38	NiCu30Al, 2.4375	
	35		Ni or Co Based Cast	320	34	G-X120Mn12, 1.3401	
	36	Titanium alloys	Pure Titanium	400 Rm			
	37		Alpha + Beta Alloys Hardened	1050 Rm		TiAl6V4, 3.7165	
H	38	Hardened steel	Hardened	550	55	SK3	167
	39		Hardened	630	60		
	40	Chilled cast iron	400	42			
	41	Hardened cast iron	550	55			

Technical Information

Material Groups

Please visit
globalyg1.com/mat
 for material search



Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRC
			Non-alloyed steel			About 0.15% C, Annealed						
VDI 3323 1			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.0037	STKM 12 C	St 37-2	-	4360 40 B	S235JR	E24-2	1311	Fe 360 B			16D	
1.0038	STKM 12 A	St 37-3	A570.36	4360 40 C	S275J2G3	E28-3	1312	Fe 360 D FF			ST14KP	
1.0045	SM 490 YA	S 355 JR	-	-	S 1207	E36-2	-	Fe 510 BFN				
1.0050	SS 50	St 50-2	A570 Gr. 50	4360 50 B	E 295	A50-2	2172	Fe 490			ST5PS	
1.0060	SM 58	St 60-2	A572 Gr. 65	4360 55 E	-	A60-2	1650	Fe 60-2			ST6PS	
1.0114		S 235 J0	-	En 40C	S 235 J0	E24-3		Fe 360 CFN				
1.0143		S 275 J0	-	-	S 275 J0	E28-3	1414	Fe 430 C				
1.0144	SM41C, SM400	St 44-3 N	A573 Gr. 81	4360 43C	S 275 J2 G3	E28-3	1412	Fe 430 D FF			ST14KP	
1.0149		Ro St 44-2	-	43C	S 275 J0 H	-	1412	Fe430C				
1.0301	S10C	C10	1010	045M10	C10	34C10, XC10		C10	F.1511	G10100	10	
1.0330	SPCC	St 12	-	DC01	Fe P01	DC 01/Fe P01	1142	Fe P01			15KP	
1.0335	SPHE	DD 13 (StW 24)	A622(1008)	HS 3	DD 13	3C		FeP13			08KP	
1.0338	SPCE	St 4	A620(1008)	14491CR	Fe P04	Fe 14	1147	DC04/FeP04			08JU	
1.0345	SPV 50	P235 GH	A516 Gr. 65	P 235 GH	P 235 GH	A 37 CP	1330	Fe E 235		K02503		
1.0401	S15C	C15	1015	080M15	-	C18RR, XC18	1350	C15, C16	F.1110	G10170	15	
1.0402	S20C	C22	1020	050 A 20	1 C 22	C20	1450	C 20	F.1120	G10200	20	
1.0425	SPV315	P265GH/HII				A42CP	1430	Fe4101KW		K02801	16K	
1.0443	SC 450	GS-45	A2765-35	A1		E23-45M	1305					
1.0539		S355NH				TSE355-4	2134	Fe510B				
1.0545		S355N		4360-50E		E355R	2334	FeE355KG				
1.0546		S355NL		4360-50EE		E355FP	2135	FeE355KT				
1.0547		S355J0H		4360-50C		TSE355-3	2172	Fe510C				
1.0549		S355NLH					2135	Fe510D				
1.0553	SM 520 M	St52-3U	A14880-40	4360-50C		320-560M	1606	Fe510C				
1.0562	SM490A	St E 355	A633 Gr.C	P 355 N		FeE355KGN	2132	Fe E 355 KG		K12000	15GF	
1.0565		W St E 355		P 355 NH		P 355 NH	2106	Fe E 355 KW		K01600		
1.0566	SLA 37	T St E 355		P 355 NL1		P 355 NL1	2107	Fe E 355 KT				
1.0570	SM 50 YA	St 52-3	1	4360-50 C	S355JR	E36-3	2172	Fe 510 B			17G15	
1.0715	SUM22	95Mn28	1213	230M07		S250	1912	CF5Mn28	F.2111	G12130		
1.0718	SUM22L	95MnPb28	12L13			S250Pb	1914	CF95MnPb28	F.2112	G12134		
1.0721		10S20	1108	10S20		10S20		CF10S20	F.2121	G11080		
1.0722		10SPb20	11L08			10PbF2		CF10SPb20		G11084		
1.0736	SUM25	95Mn36	1215			S300		CF9Mn36	F.2113	G12150		
1.0737		95MnPb36	12L14			S300Pb	1926	CF95MnPb36	F.2114	G12144		
1.0972		S315MC		1501-40F30		E315D						
1.0976		S355MC		1501-43F35		E355D	2642	FeE355TM				
1.0982		S460MC		1501-50F45								
1.0984		S500MC				E490D	2662	FeE490TM				
1.0986		S500MC		1501-60F55		E560D		FeE560TM				
1.1121	S10C	Ck10	1010	040A10		XC10	1265	C10	F.1510	G10100	10	
1.1141	S15	Ck15	1015	040A15	32C	XC15	1370	C15	F.1110	G10150	15	
1.1151	S20C	C22E	1020	055M15		2C22	1450	C20	F.1120	G10230	20	
1.8900	S25C	StE380	A572-60	436055E			2145	FeE390KG				
		St44-2	A36	436043A		NFA35-501E28	1411					
		StE320-3Z		1501160			1421					

Technical Information

Material Groups

Please visit
globalyg1.com/mat
 for material search



Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRC
			Non-alloyed steel			About 0.45% C, Annealed						
VDI 3323 2			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.0501	S35C	C35	1035	080A32		1C35	1572	C35	F.113	G10350	35	
1.0503	S45C	C45	1045	060A47		XC42H1TS	1672	C45	F.114	G10450	45	
1.0511	S40C	C40	1040	080M40		1C40		C40	F.114A	G10400	40	
1.0540	S50C	C50					1674	C50		G10500		
1.0551		GS-52	A2770-36	A2		280-480M	1505					
1.0553	SM 520 M	St52-3U	A14880-40	4360-50C		320-560M	1606	Fe510C				
1.0577		S 355 J 2 G 4	A738	Fe 510 D 2 FF		A52FP	2107					
1.0726		35S20	1140	212M36	8M	35MF6	1957			G11400	40	
1.0727		45S20	1146			45MF4	1973			G11460		
1.1157		40Mn4	1039	150M36	15	40M5				G10390	40G	
1.1158	S25C	C25E	1025	070M25		XC25		C25	F.1120	G10250	25	
1.1166	SMn433H	34Mn5	1536						TO.B	G15360		
1.1167	SMn438(H)	36Mn5	1335	150M36		40M5	2120	36Mn6	F.1203	G13350	35G2	
1.1170	SCMn1	28Mn6	1330	150M28	14A	20M5		C28Mn	28Mn6	G13300	30G	
1.1178	S30C	C30E		080M30		XC32		C30	2C30	G10300		
1.1180		C35R	1035	080A35		3C35	1572		F.1135	G10350		
1.1181	S35C	C35E	1035	080A35		XC38	1572	C36	F.1130	G10340	35	
1.1191	S45C	Ck45	1045	080A46		XC45	1672	C45	F.1140		45	
1.1206	S50C	C50E	1050	080M50		2C50	1674	C50		G10500	50	
1.1213	S50C	C53	1050	070M55		XC48HTS	1674	C53		G10500	50	

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRC
			Non-alloyed steel			About 0.45% C, Annealed						
VDI 3323 3			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.0481	SG365	17 Mn 4/P 295 GH	A516 Gr. 70	224-460B	P 295 GH	A 48 CP	2102	Fe E 295	A47RC1	K03501	14G2	
1.0501	S35C	C35	1035	080A32		1C35	1572	C35	F.1130	G10350	35	
1.0503	S45C	C45	1045	060A47		XC42H1TS	1672	C45	F.1140	G10450	45	
1.0614		C76D	1074			XC75				G10750		
1.0616		C86D	1086			XC80		C85		G10860		
1.0618		C92D	1095			XC90				G10950		
1.0726		35S20	1140	212M36	8M	35MF6	1957			G11400	40	
1.1157		40Mn4	1039	150M36	15	40M5				G10390	40G	
1.1165	SMn433H	30Mn5	1036	120M36		35M5		30Mn5	F.8211	K13300	30G2	
1.1167	SMn438(H)	36Mn5	1335	150M36		40M5	2120	36Mn6	F.1203	G13350	35G2	
1.1186	S40C	C40E	1040	060A40		2C40		C40		G10400		
1.1191	S45C	Ck45	1045	080M46		2C45	1672	C45	F.1140		45	
1.1201	S50C	C45R	1049	080M46		3C45	1660	C45	F.1145		38HM	
1.1213	S50C	C53	1050	070M55		XC48HTS	1674	C53		G10500	50	
1.7242	SCM418 H	18CrMo4										
1.7337		16CrMo4-4	A387 Gr.12					A18CrMo45KW		K11564	15C M	
1.7362	SCMV 6	12CrMo195		3606-625		Z10CD5-05		16CrMo205		K41545		
		17MnV6	A572-60	436055E		NFA35-501E36	2142					

Technical Information
Material Groups

Please visit globalyg1.com/mat for material search



Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc
			VDI 3323 4	Non-alloyed steel		About 0.75% C, Annealed						
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.0603	S 70 C-CSP	C67	107	080A67		XC65		C67		G10700		
1.0605		C75	1075	144980HS				C75		G10740	75	
1.1203	S55C	Ck55	1055	060A57		2C55	1655	C55	F.1150	G10550	55	
1.1209		C55R	1055	070M55		3C55		C55	F.1155	G10550		
1.1221	S58C	Ck60	1060	060A62	43D	2C60	1678	C60	F.1150	G10640	60	
1.1231	S 70 C-CSP	C67E	1070	060A67		XC68	1770	C70	F.5103	G10700	65GA	
1.1248	C 75	C75E	1074	060A78		XC75	1774	C75	F.5107	G10800	75(A)	
1.1269	SK 5-CSP	C85E	1086			XC90		C90		G10900	85(A)	
1.1274	SUP4	Ck 101	1095	060 A 96	C 100S	XC100	1870	C100	F.5117	G10950		
1.1545	SK 3	C 105W1	W1	BW 2	C 105U	Y1 105	1880	C 100 KU	F.5118		U10A	
1.1663	SK 2	C125W	W112			Y2120					U13	

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc
			VDI 3323 5	Non-alloyed steel		About 0.75% C, Quenched & Tempered						
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.0070		St 70-2	1055	Fe690-2FN	-	A70-2	1655	Fe 690	F.1150		55	
1.0535	S55C	C55	1055	070M55		1C55	1655	C55		J05000	55	
1.0601	S58C	C60	1060	060A62	43D	1C60		C60		G10600	60(G)	
1.1203	S55C	Ck55	1055	060A57		2C55	1655	C55	F.1150	G10550	55	
1.1221	S58C	Ck60	1060	060A62	43D	2C60	1678	C60	F.1150	G10640	60	
1.1274	SUP4	Ck 101	1095	060 A 96	C 100S	XC100	1870	C100	F.5117	G10950		
1.1545	SK 3	C 105W1	W1	BW 2	C 105U	Y1 105	1880	C 100 KU	F.5118		U10A	
1.1663	SK 2	C125W	W112			Y2120					U13	
1.5120		38MnSi4										
1.5710	SNC236	36NiCr6	3135	640A35	111A	35NC6						
1.7701		51CrMoV4						51CrMoV4				

Technical Information
Material Groups

Please visit globalyg1.com/mat for material search



Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc
			VDI 3323 6	Low-alloyed Steel		Annealed						
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.0116		St 37-3	A570 Gr. 36	4360-40C	S 235 J2 G3	E24-3	1312	Fe 360 D1(2)	AE235D		ST3KP	
1.0904	SKH 1, SKT 4	55Si7	9255	250A53	45	55S7	2085	55Si8	56Si7	G92550	55S2	
1.0961	SUP 7	60SiCr7	9262			60SC6		60SiCr8	60SiCr8	G92620		
1.2067		100Cr6	L3	BL3		Y100C6				100Cr6		
1.2108		90CrSi5	L1				2092	105WCr5				
1.2210		115CrV3	L2			100C3		107CrV3KU	F.520L		11KHf	
1.2241		51CrV4										
1.2330	SCM435TK	35CrMo4	4135	708A37		34CD4	2234	35CrMo4			35KHfM	
1.2419	SKS31	105WCr6		105WC13		105WC13	2140	10WCr6			CWG	
1.2510	SKS3	100MnCrW4	O1	BO1		90MWCV 5	2140	95 MnWCr 5 KU	F.5220		9KHfVG	
1.2542		45WCrV7	S1	BS1			2710	45WCrV8KU			5CW25F	
1.2550		60WCrV7	S1			55WC20	2710	58WCr9KU			5KHfV25F	
1.2713	SKT4	55NiCrMoV6	L6			55NCDV7			F.5205		5C NM	
1.2721		50NiCr13	L6			55NCV6	2550		F.528			
1.2842		90MnCrV8	O2	BO2		90MV8				T31502	9G2F	
1.3501		100Cr2	E50100									
1.3505	SUJ2	100Cr6	52100	25135	31	100C6	2258	100Cr6	F.1310		SC C 15	
1.5024		46Si7						46Si7	F.1451			
1.5025		51Si7	9259H		50Si7	51S7	2090	50Si7	F.1450			
1.5026		55Si7			56Si7	55S7	2085	55Si7	F.1440	G92550	55S2	
1.5027		60Si7	9260	251A60	60Si7	60S7		60Si7	F.1441	G92600	60S2	
1.5028	SUP7	65Si7	9260H									
1.5415	STFA 12	15Mo3	A204Gr.A	1503-243B		15D3	2912	16Mo3(KG)	F.2601	K11820		
1.5419	SCPH11	20Mo4	4419	1503-243-430			2512	G20Mo5		G44190		
1.5423	SB450M	16Mo5	4520	1503-245-420				16Mo5(KG)	F.2602	K11522		
1.5622		14Ni6	A350-LF5					14Ni6(KG)	F.2641			
1.5732	SNC415(H)	14NiCr10	3415			14NC11		16NiCr11				
1.5752	SNC815(H)	14NiCr14	3310	655M13	36A	12NC15					20X2H4A	
1.6511	SUP10	36CrNiMo4	9840	816M40	110	40NCD3		36NiCrMo4(KB)			40C N2MA	
1.6523	SNCM220(H)	21NiCrMo2	8620	805M20	362	20NCD2	2506	20NiCrMo2			20C GNM	
1.6546	SNCM240	40NiCrMo2-2	8740	311-Tyre7				40NiCrMo2(KB)			38C GNM	
1.6566		17NiCrMo6-4										
1.6587		17CrNiMo6		820A16		18NCD6		14NiCrMo13				
1.6657		10NiCrMo13-4						14NiCrMo131				
1.7015	SCr415(H)	10Cr3	5015	523M15		12C3			G50150		15C	
1.7033	SCr430(H)	34Cr4	5132	530A32	18B	32C4		34Cr4(KB)	G51300		35C	
1.7035	SCr440(H)	41Cr4	5140	530M40	18	42C4	2245	41Cr4	G51400		40H	
1.7131	SCR 415	16MnCr5	5115	527M17		16MCS	2511	16MnCr5	G51150		12KHfN2	
1.7139		16MnCr5S					2127				18HG	
1.7176	SUP9(A)	55Cr3	5155	527A60	48	55C3	2253	55Cr3			50C GA	
1.7218	SCM420	25CrMo4	4130	CDS110		25CD4	2225	25CrMo4(KB)			20C M	
1.7220	SCM432	34CrMo4	4135	708 A 37		35CD4	2234	34CrMo4			35C M	
1.7223	SNB22-1	41CrMo4	4142					41CrMo4			40C FA	
1.7225	SCM 440 (H)	42CrMo4	4140	708 M 40	42 CrMo 4	42 CD 4	2244	42 CrMo 4	F.1252		38HM	
1.7228		55NiCrMoV6G		823M30	33		2512	653M31				
1.7262	SCM415(H)	15CrMo5				12CD4	2216	12CrMo4				
1.7321		20mOcr4					2625					
1.7335	SCM415(H)	13CrMo4-4	A182-F11	1501-620		15CD4-5	2216	14CrMo45			12C M	
1.7361		32CrMo12		722M24	40B	30CD12	2240	30CrMo12	F.124A			
1.7380		10CrMo9-10	A182F22	1501-622		12CD9-10	2218	12CrMo9			12KHf	

Technical Information
Material Groups

Please visit globalyg1.com/mat for material search



P	VDI 3323 6	Material Description				Composition / Structure / Heat Treatment					HB	HRC
		Low-alloyed Steel				Annealed					180	10
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.7715		14MoV6-3		1503-660-440				13MoCrV6				
1.8159	SUP 10	50CrV4	6150	735A50	47	50CrV4	2230	50CrV4		G61500	50C GFA	
1.8161		58CrV4										
1.8509	SACM 645	41CrAlMo7	A355A	905M39	41B	40CAD6-12	2940	41CrAlMo7				
1.8523		39CrMoV13-9		897M39	40C			36CrMoV12				

P	VDI 3323 7	Material Description				Composition / Structure / Heat Treatment					HB	HRC
		Low-alloyed Steel				Quenched & Tempered					275	29
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.5415	STFA 12	15Mo3	A204GrA	1503-243B		15D3	2912	16Mo3(KG)	F2601	K11820		
1.5423	SB450M	16Mo5	4520	1503-245-420				16Mo5(KG)	F2602	K11522		
1.5622		14Ni6	A350-LF5			16N6		14Ni6(KG)	F2641			
1.5732	SNC415(H)	14NiCr10	3415			14NC11		16NiCr11				
1.5752	SNC815(H)	14NiCr14	3310	655M13	36A	12NC15					20X2H4A	
1.5755	SNC236	31NiCr14		653M31		18NC13	2534		F1270			
1.6565	SNCM447	40NiCrMo6	4340	817M40	24	35NCD6	2541	35NiCrMo6(KB)			38C 2N2MA	
1.6587		17CrNiMo6		820A16		18NCD6		14NiCrMo13				
1.6657		10NiCrMo13-4						14NiCrMo131				
1.6957		26NiCrMoV14-5										
1.7015	SCr415(H)	10Cr3	5015	523M15		12C3				G50150	15C	
1.7262	SCM415(H)	15CrMo5				12CD4	2216	12CrMo4				
1.7335	SCM415(H)	13CrMo4-4	A182-F11	1501-620		15CD4-5	2216	14CrMo45			12C M	
1.7380		10CrMo9-10	A182F22	1501-622		12CD9-10	2218	12CrMo9			12KH8	
1.7715		14MoV6-3		1503-660-440				13MoCrV6				
1.7733		24CrMoV55				20CDV6		21CrMoV511				
1.7755		GS-45CrMoV10-4										
1.8070		21CrMoV511						35NiCr9				

P	VDI 3323 8	Material Description				Composition / Structure / Heat Treatment					HB	HRC
		Low-alloyed Steel				Quenched & tempered					300	32
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.1730		C45W3	C45W			XC48						
1.2332	SCM(440)	47CrMo4	4142	708M40	19A	42CD4	2244	42CrMo4				
1.5736	SNC 631 (H)	36NiCr10	3435			30NC11						
1.6523	SNCM220(H)	21NiCrMo2	8620	805M20	362	20NCD2	2506	20NiCrMo2			20C GNM	
1.7033	SCr430(H)	34Cr4	5132	530A32	18B	32C4		34Cr4(KB)		G51300	35C	
1.7218	SCM420	25CrMo4	4130	CDS110		25CD4	2225	25CrMo4(KB)			20C M	
1.8515		32CrMo12		722M24	40B	30CD12	2240	32CrMo12	F124A			

Technical Information
Material Groups

Please visit globalyg1.com/mat for material search



P	VDI 3323 9	Material Description				Composition / Structure / Heat Treatment					HB	HRC
		Low-alloyed Steel				Quenched & Tempered					350	38
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.0904	SKH 1, SKT 4	55Si7	9255	250A53	45	55S7	2085	55Si8		G92550	55S2	
1.0961	SUP 7	60SiCr7	9262			60SC6		60SiCr8		G92620		
1.2067		100Cr6	L3	BL3		Y100C6		100Cr6				
1.2419	SKS31	105WCr6		105WC13		105WC13	2140	10WCr6			CWG	
1.2542		45WCrV7	S1	BS1						2710	45WCrV8KU	5CW25F
1.2713	SKT4	55NiCrMoV6	L6					55NCDV7		F520S	5C NM	
1.4882		X50CrMnNiNbN219						Z50CMNNb21-09				
1.5120		38MnSi4										
1.5710	SNC236	36NiCr6	3135	640A35	111A	35NC6						
1.5755	SNC236	31NiCr14		830m31		18NC13	2534		F1270			
1.6511	SUP10	36CrNiMo4	9840	816M40	110	40NCD3		36NiCrMo4(KB)			40C N2MA	
1.6546	SNCM240	40NiCrMo2-2	8740	311-Tyre7				40NiCrMo2(KB)			38C GNM	
1.7035	SCr440(H)	41Cr4	5140	530M40	18	42C4	2245	41Cr4		G51400	40H	
1.7176	SUP9(A)	55Cr3	5155	527A60	48	55C3	2253	55Cr3			50C GA	
1.7220	SCM432	34CrMo4	4135	708Aa37		35CD4	2234	34CrMo4			35C M	
1.7223	SNB22-1	41CrMo4	4142					41CrMo4			40C FA	
1.7225	SCM 440 (H)	42CrMo4	4140	708 M 40	42 CrMo 4	42 CD 4	2244	42 CrMo 4	F1252		38HM	
1.7361		32CrMo12		722M24	40B	30CD12	2240	30CrMo12	F124A			
1.8159	SUP 10	50CrV4	6150	735A50	47	50CrV4	2230	50CrV4	51CrV4	G61500	50C GFA	
1.8161		58CrV4										
1.8509	SACM 645	41CrAlMo7	A355A	905M39	41B	40CAD6-12	2940	41CrAlMo7				
1.8523		39CrMoV13-9		897M39	40C			36CrMoV12				

P	VDI 3323 10	Material Description				Composition / Structure / Heat Treatment					HB	HRC
		High-alloyed steel, and tool steel				Annealed					200	15
Mat'l No.	JIS	DIN	AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands
1.0347	SPCD	RRSt 3	A619	CR 3	Fe P03	F 13		DC03/FeP03			08JU	
1.0723	SUM32	15S22		210A15			1922		F210F			
1.2080	SKD1	X210Cr12	D3	BD3	X210Cr12	Z200C12		X205Cr12KU		T30403	KH12	
1.2162	SCR 420 H	21MnCr5				20MC5						
1.2311		40CrMnMo7				40CMD8		35cRm08KU				
1.2312		40CrMnMoS8.6	P20+S			40CMD8S						
1.2316		X36CrMo17						X38CrMo16				
1.2343	SKD 6	X38CrMoV5-1	H11	BH11		Z38CDV5		X37CrMoV51KU		T20811	4C 5MFS	
1.2344	SKD61	X40CrMoV5-1	H13	BH13		Z40CDV5	2242	X40CrMoV511KU	F5318	T20813	4C 5MF1S	
1.2363	SKD12	X100CrMoV5-1	A2	BA2		Z100CDV5	2260	X100CrMoV51KU	F5227		9KH5VF	
1.2379	SKD11	X155CrVMo121	D2	BD2		Z160CDV12	2310	X165CrMoW12KU		T30402	KH12MF	KRUPP2379
1.2436	SKD 2	X210CrW12	D4(D6)	BD6		Z200CD12	2312	X215CrW121KU	F5213		KH12	

Technical Information
Material Groups

Please visit globalyg1.com/mat for material search



Mat'l No.	JIS	DIN	Material Description					Composition / Structure / Heat Treatment					HB	HRc
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands		
0.8135	FCMW330	GTS-35	32510	B 340-12	GJMB350-10	MN 35-10	0815	GMN 35	GTS35			Kc 35-10	130	

Mat'l No.	JIS	DIN	Material Description					Composition / Structure / Heat Treatment					HB	HRc
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands		
0.8145	FCMW370	GTS-45	A220-40010	P 440-7	GJMB450-6	MN 450	0852	GMN 45					230	21
0.8155	FCMP490	GTS-55	50005	P 510-4	GJMB-550-4	MP 50-5	0854	GMN 55				Kc 60-3		
0.8165	FCMP590	GTS-65	70003	P 570-3	GJMB-650-2	MN 650-3	0856	GMN 65						
0.8170	FCMP690	GTS-70	90001	P 690-2	GJMB-700-2	MN 700-2	0862	GMN 70				Kc 70-2		

Technical Information
Material Groups

Please visit globalyg1.com/mat for material search



Mat'l No.	JIS	DIN	Material Description					Composition / Structure / Heat Treatment					HB	HRc
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands		
3.0205		Al99	Al99										60	
3.0255	(A1050)	Al99.5	1000	L31			A59050C						D1	
3.3315		AlMg1												

Mat'l No.	JIS	DIN	Material Description					Composition / Structure / Heat Treatment					HB	HRc
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands		
3.1325		AlCuMg1											100	
3.1655	A2011	AlCuSiPb											AD35	
3.2315		AlMgSi1											AK9	
3.4345		AlZnMgCu0,5	7050	L86			AZ4GU/9051		811-04					
3.4365	7075	AlZnMgCu1,5	7075	7075			7075		AlZn5.8MgCuCr				B95	

Mat'l No.	JIS	DIN	Material Description					Composition / Structure / Heat Treatment					HB	HRc
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS	GOST	Brands		
3.2163		G-AlSi9Cu3											75	
3.2382		GD-AlSi10Mg											VAL8	
3.2383		G-AlSi0Mg(Cu)	A360.2	LM9					4253					
3.2581		G-AlSi12												
3.3561		G-AlMg5												
3.5101		G-MgZn4sE1Zr1	ZE41	MAG5										
3.5103		MgSE3Zn27r1	EZ33	MAG6			G-TR3Z2							
3.5812		G-MgAl8Zn1	AZ81	NMAG1										
3.5912		G-MgAl9Zn1	AZ91	MAG7										
			A356-72	2789			NFA32-201							
A5052		G-AlSi12	356.1	LM25					4244				AK7	
		G-AlSi12	A413.2	LM6					4261					
ADC12		G-AlSi12(Cu)	A413.1	LM20					4260				AK12	
A6061		GD-AlSi12	A413.0						4247					
A7075		GD-AlSi8Cu3	A380.1	LM24					4250					

Technical Information
Material Groups

Please visit globalyg1.com/mat for material search



Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>N VDI 3323 24 Aluminum-cast, alloyed ≤ 12% Si, Curable, Hardened 90</p>													
2.1871		G-AlCu4TiMg											
3.1754		G-AlCu5Ni1,5											
3.2371		G-AlSi7Mg	4218B									AK8	
3.2373	C4BS	G-AlSi9MgWA	SC64D			A-S7G		4251				AK9	
3.2381		G-AlSi10Mg										AK12	
3.5106		G-MgAg3SE2Zr1	QE22	mag12									
		G-ALMG5	GD-AISI12	LMS		A-SU12		4252					

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>N VDI 3323 26 Copper and Copper Alloys (Bronze / Brass) Cutting alloys, PB>1% 110</p>													
2.0375		CuZn36Pb3											LS60-2
2.1090		G-CuSn75pb	C93200			U-E7Z5pb4							
2.1096		G-CuSn5ZnPb	c83600	LG2									
2.1098		G-CuSn2Znpb	C83600										
2.1182		G-CuPb15Sn	C23000	LB1		U-pb15E8							

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>N VDI 3323 27 Copper and copper alloys (Bronze / Brass) CuZn, CuSnZn (Brass) 90</p>													
2.0240	C2300	CuZn15											L90
2.0321		CuZn37	C27200	c2108		CuZn36,CuZn37		C2700					L63
2.0590		G-CuZn40Fe											
2.0592		G-CuZn35Al1	C86500	U-Z36N3		HTB1							
2.0596		G-CuZn34Al2	C86200	HTB1		U-Z36N3							LTS23AD
2.1293		CuCrZr	C18200	CC102		U-Cr0-8Zr							

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>N VDI 3323 28 Copper and copper alloys (Bronze / Brass) CuSn, lead-free copper and electrolytic copper 100</p>													
2.0060		E-Cu57											
2.0966		CuAl10Ni5Fe4	C63000	Ca104		U-A10N							BrAD
2.0975		G-CuAl10Ni	B-148-52										
2.1050		G-CuSn10	c90700	CT1									
2.1052		G-CuSn12	C90800	pb2		UE12P							
2.1292		G-CuCrF35	C81500	CC1-FF									

Technical Information
Material Groups

Please visit globalyg1.com/mat for material search



Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>S VDI 3323 31 Heat resistant super alloys Fe Based, Annealed 200 15</p>													
1.4558	NCF 800 TB	X2NiCrAlTi3220	N08800	NA15									
1.4562		X1NiCrMoCu32287	N08031										
1.4563		X1NiCrMoCuN31274	N08028			Z1NCDU31-27-03	2584					EK77	
1.4864	SUH330	X12NiCrSi36-16	330	NA17		Z12NCS37-18						N08330	
1.4865	SCH15	GX40NiCrSi38-18		330C40				XG50NiCr3919				J94605	
1.4958		X5NiCrAlTi3120											

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>S VDI 3323 32 Heat resistant super alloys Fe Based, Aged 280 30</p>													
1.4977		X40CoCrNi2020				Z42CNKDWNb							

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>S VDI 3323 33 Heat resistant super alloys Ni or Co Based, Annealed 250 25</p>													
2.4360		NiCu30Fe		NA13		NU30					N04400		Monel400
2.4603		NiCr 30 FeMo	5390A			NC22FeD							Hastelloy G-30
2.4610		NiMo16Cr16Ti									N26455		HastelloyC-4
2.4630		NiCr20Ti		HR5,203-4		NC20T					N06075		Nimonic75
2.4631	NCF 80A	NiCr20TiAl		Hr40		NC20TA					N07080	KHN77TYuR	Nimonic 80A
2.4642	NCF 690	NiCr29Fe				Nnc30Fe					N06690		Inconel 690
2.4856		NiCr22Mo9Nb		NA21		NC22FeDNb					N06625		Inconel 625
2.4858		NiCr21Mo		NA16		NC21FeDU					N08825	KHN38VT	Incoloy 825

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>S VDI 3323 34 Heat resistant super alloys Ni or Co Based, Aged 350 38</p>													
2.4375		NiCu30Al	4676	NA18		NU30AT					N05500		Monel500
2.4662		NiFe35Cr14MoTi	5660			ZSNCDF42					N09901		Incoloy 901
2.4668		NiCr19Fe19NbMo	5383	HR8		NC19eNB					N07718		Inconel 718
2.4670		S-NiCr13Al16MoNb	5391	Mar-46		NC12AD							Nimocast 713
2.4694		NiCr16fE7TiAl									N07751		Inconel 751
2.4955		NiFe25Cr20NbTi											
2.4964		CoCr20W15Ni	5772			KC20WN							Haynes 25
		CoCr22W14Ni	AMS 5772			KC22WN							

Technical Information
Material Groups

Please visit globalyg1.com/mat for material search



Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>S VDI 3323 35 Material Description: Heat resistant super alloys Composition / Structure / Heat Treatment: Ni or Co Based, Cast HB: 320 HRc: 34</p>													
2.4669		NiCr15Fe7TiAl				NC15TNbA					N07750		Inconel X750
2.4685		G-NiMo28									N10665		Hastelloy B
2.4810		G-NiMo30											Hastelloy C
2.4973		NiCr19Co11MoTi	AMS 5399			NC19KDT					VT5-1		
3.7115		TiAl5Sn2									R54520	VT1-00	ATI Grade 6

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>S VDI 3323 36 Material Description: Titanium alloys Composition / Structure / Heat Treatment: Pure Titanium HB: 400 Rm</p>													
2.4674		NiCo15Cr10MoAlTi	AMS 5397								N13100		IN 100
3.7025		Ti1	R50250	2TA1							R50250		ATI 30 CP Gr. 1
3.7225		Ti1pd	R52250	TP1							R52250		

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>S VDI 3323 37 Material Description: Titanium alloys Composition / Structure / Heat Treatment: Alpha + Beta Alloys, Hardened HB: 1050 Rm</p>													
3.7124		TiCu2		2TA21-24									
3.7145		TiAl6Sn2Zr4Mo2Si	R54620								R54620		
3.7165		TiAl6V4	AMS R56400	TA10-13		T-A6V						VT6	
3.7185		TiAl4Mo4Sn2		TA45-51									
3.7195		TiAl3V2.5									R56320		ATI 3-2.5
		TiAl4Mo4Sn4Si0.5											
		TiAl5Sn2.5	AMS R54520	TA14/17		T-A5E							
		Ti6Al4VELI	AMS R56401	TA11									

Technical Information
Material Groups

Please visit globalyg1.com/mat for material search



Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc	
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS			GOST
<p>H VDI 3323 38 Material Description: Hardened steel Composition / Structure / Heat Treatment: Hardened HB: 550 HRc: 55</p>													
1.1231	S 70 C-CSP	Ck 67	1070	060 A 67	C 67S	XC 68	1770	C 70	F 5103		70		
1.1248	C 75	Ck 75	1078, 1080	060 A 78	C 75S	XC 75	1774	C 75	F 5107		75		
1.1274	SUP 4	Ck 101	1095	060 A 96	C 100S	XC100	1870	C100	F 5117				
1.1545	SK 3	C 105 W1	W1	BW 2	C 105U	Y1 105	1880	C 100 KU	F 5118		U10A		
1.2762		75CrMoNiW67	-	-	-	-	-	-	-		-		
1.3401	SCMnH1	GX120Mn12	A128(A)			Z120M12	2183	GX120Mn12	F 8251		110G13L		
1.4021	SUS 420 J1	X 20 Cr 13	420	420 S 37	X 20 Cr 13	Z 20 C 13	2303	X 20 Cr 13	F 5261		20KH13	ATI 420	
1.4109	SUS 440 A	X 65 CrMo 14	440 A	-	X 70 CrMo 15	Z 70 D 14	-	-	-		-	ATI 440A	
1.4112	SUS 440 B	X 90 CrMoV 18	440 B	409 S 19	X 90 CrMoV 18	Z 2 CND 18 05	2327	X CrTi 12					
1.4125	SUS 440 C	X 105 CrMo 17	440 C	-	X 105 CrMo 17	Z 100 CD 17	-	X 105 CrMo 17			95KH18	ATI 440C	
1.6746		32NiCrMo14-5	-	832M31	32nicRmO145	35NCD14	-	-					
1.7176	SUP9(A)	55Cr3	5155	527A60	48	55C3	2253	55Cr3					
1.7225	SCM 440 (H)	42CrMo4	4140	708 M 40	42 CrMo 4	42 CD 4	2244	42 CrMo 4	F 1252		38HM		

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS		
<p>H VDI 3323 40 Material Description: Chilled cast iron Composition / Structure / Heat Treatment: Cast HB: 400 HRc: 42</p>												
0.9620		GX260NiCr42	A532 IB	Grade 2 A	GJN-HV520	FB Ni4 Cr2 BC	0512	-		F45001		Ni-Hard2
0.9625		GX330NiCr42	A532 IA	Grade 2 B	GJN-HV550	FB Ni4 Cr2 HC	0513	-		F45000		Ni-Hard1
0.9630		GX300CrNiSi9.5.2	A532 ID	Grade 2 C	GJN-HV600	FB Cr9 Ni5	0457	-		F45003		Ni-Hard 4
0.9640		GX300CrMoNi1521	-	-	-	-	-	-		F45005		
0.9650		GX260Cr27	-	Grade 3 D	-	-	0466	-		-		
0.9655		GX300CrNiMo271	-	Grade 3 E	-	-	-	-		-	20C 25N2052	
1.4841	SUH 310	X15CrNiSi25-20	310	314531	X 15 CrNiSi 25 20	Z15CNS25-20	-	-		S31400		Cronifer 2520

Mat'l No.	JIS	DIN	Material Description			Composition / Structure / Heat Treatment					HB	HRc
			AISI/ASTM/SAE	BS	EN	AFNOR	SS	UNI	UNE / IHA	UNS		
<p>H VDI 3323 41 Material Description: Hardened cast iron Composition / Structure / Heat Treatment: Hardened HB: 550 HRc: 55</p>												
0.9635		GX300 CrMo 15 3	-	-	-	-	-	-		-		
0.9645		GX260 CrMoNi 20 21	-	-	-	-	-	-		F45007		

Technical Information Comparison Chart - Turning Chipbreakers

Negative Inserts

Material	YG	Sandvik	Iscar	Kenna metal	Seco	Walter	Mitsu bishi	Kyocera	Tungaloy	Sumi tomo	Taegutec	Korloy	Duracarb
STEEL	UF	PF	F3P NF	FF FN	F1 MF2	FP5	FH LP	GP PP	TF	FL SP	FG FA	VF HU	41
	UL		PP NF			FP5	FY SY	CQ VF	TSF	LU	FC FT	HC	43
	UM		TF	MN	M3	MP3	MP	HS	TM	GU UX	MC PC	VM GM	46
	UG	PM	GN M3P	MN	M3 MR3	MP5	MP MA	PS	TM	UG	MT PC	GR HR	45
	UC	PR	NR	MP RP	MR4	RP5	Standard	Standard	TH	UZ	MG-	B25	53
	UR	PR	NR R3P	UN RN MG-	MR3 MR6	RP7	RP MH RK	PT PH	THS	ME MU	RT	GR	
STAINLESS STEEL	MF	MF	SF	FF	MF1	NF4	LM	MQ	SF HRF	SU	EA ML	HA	
	MM	MM	M3M	MP	MF3 MF4	NM4	MM	MS	SM	GU	EM	GS	42
	MR	MR	F3M	RF	M5	NR4	RM	MS MU	SH	EM	ET RT	RM	
CAST IRON	UC	PR	NR	MP RP	MR4	MK5	Standard	Standard	All Round	UZ	MG-	B25	53
	UR	PR	NR R3P	UN RN MG-	MR3 MR6	RK5 RK7	RP MH RK	PT PH	CH	ME MU	RT	GR	
	..MA			RP	MR7	..MA	MG-	C	CH	GZ	..MA		53

Positive Inserts

Material	YG	Sandvik	Iscar	Kenna metal	Seco	Walter	Mitsu bishi	Kyocera	Tungaloy	Sumi tomo	Taegutec	Korloy	Duracarb
STEEL	UF	PF	PF	LF UF	MF2	PF2 FP4	FM LM LP	GQ PP	01 PSF	FP	FG	HFP	41
	UG	PM		MF	MF3	MP4 FP6	MP Standard MM MV	HQ	PS PM	MU	MT	C25	51
STAINLESS STEEL	UF	PF	PF	LF	MF2	MM4 PS5	FM LM LP	GQ PP	PM	FP	FG	HFP	41
CAST IRON	UG	PM		UF	MF3	MK4 RK4	MP Standard MM MV	HQ	CM	MU	MT	C25	51
ALUMINUM	AL		AS	MF	AL	PF2 PM2	AZ	CF CK	AL	AG	FL	AK	AU

Technical Information Comparison Chart - Turning Grades

ISO	YG	Sandvik	Iscar	Kenna metal	Seco	Walter	Mitsu bishi	Kyocera	Tungaloy	Sumi tomo	Taegutec	Korloy	Duracarb
P10	YG3010	GC4305	IC8005	KCP05	TP0501	WPP01	UE6105	CA5505	T9105	AC8015P	TT8115	NC3010	DC9015
		GC4205	IC428	KC9105	TP0500	WPP05S	MC6015	CA510	T9115	AC810P		NC3215	
		GC4315	IC8150	KCP10	TP1501	WPP10S	UE6110	CA515					
P20	YG3020 (YG801)	GC4325	IC8250	KCP25	TP2501	WPP20S	MC6025	CA525	T9125	AC8025P	TT8125	NC3220	DC9025
		GC4225	IC9015	KC9125	TP2500		UE6020	CA5525				NC3120	
P30	YG3030 (YG801)	GC4335	IC8350	KCP30	TP3501	WPP30S	MC6035	CA530	T9135	AC8035P	TT5100	NC3030	DC9025
		GC4235	IC8025	KC9140	TP3500		UE6035	CA5535		AC830P	TT8135	NC5330	DC8035
		VP15TF					CR9025			AC630M		PC3545	
M10	YG211	GC2015	IC807	KCS10	CP200	WSM10S	MC7015	CA6515	T6120	AC610M	TT9215	PC8105	DC8035
		GC1115	IC6015	KCM15(B)	TS2000		VP10RT	PR930	AH110		TT5080	PC8110	
			IC8150	KCS010			US7020		AH8005				
M20	YG3030	GC2025	IC3028	KCM25(B)	TM2000	WMP20S	MC7025	CA6525	T6130	AC6030M	TT9225	PC8115	DC8035
		GC1125	IC808	KCU25	TS2500	WSM20S	VP15TF	PR1025	AH120	AC610M		NC9115	
			IC8250	KCS025		WSM21	VP20MF	PR1125	AH725	AC520U		PC5300	
							VP20RT	PR1425	SH725				
							UP20M		GH330				
M30	YG213	GC2035	IC6025	KCM35(B)	CP500	WSM30S	US735	PR1535	AH630	AC6030M	TT9235	NC9125	DC8035
			IC8350				MP7035		SH730	AC630M	TT9080	NC5330	
									GH730	AC830P		PC9030	
M40	YG214				CP600		US735		AH645	AC6040M	TT9235	NC9135	DC8035
					TM4000		MP7035			AC530U	TT8020	PC5400	
					TP40						TT8080		
K05	YG1001	GC3205	IC5005	KCK05	TK1001	WKK10S	MC5005	CA4505	T5105	AC405K	TT7005	NC6205	DC820
					TK1000		UC5105	CA4010					DC610
K10	YG1001	GC3210	IC5010	KCK15	TK1001	WKK10S	MC5015	CA4515	T515	AC415K	TT7310	NC6210	DC820
					TK1000		UC5115	CA4115			TT7015		
K15	YG3010	GC3215	IC8150	KCK20	TK2001	WKK20S	UE6110	CA4120	T5125	AC420K	TT6300	NC6215	DC820
					TK2000	WKP30S	VP15TF						
S10	YG211	GC1105	IC807	K313	TS2000	WSM10S	VP05RT	CA6515	AH110	AC510U	TT9215	PC8105	DC820
		S05F	IC808	K68	TS2050	WS10	MP9005	PR1305	AH120		TT5080	PC8110	
		H13A		KCS10	TS2500		VP10RT	PR1310	AH8015			PC8115	
				KCU10	CP200		MP9015		AH905				
				KCS010					SH730				
S20	YG213	GC1115	IC806	KCU25	890	WSM20S	VP15TF	CA6525	AH725	AC520U	TT9225	NC9125	DC820
				KCS025	883	WSM21	VP20RT	PR1125			TT9080	NC9135	
								PR1325				PC5300	
								PR1535					
S30	YG214	GC1125			CP500	WSM30S		PR1125			TT9235	PC5400	DC820
					CP600			PR1535			TT8020		
											TT8080		

Technical Information

Comparison Chart - Milling Grades

ISO	YG-1	Sandvik	Iscar	Kennametal	Seco	Walter	Mitsubishi	Kyocera	Tungaloy	Sumitomo	Taegutec	Korloy
P20	YG712	GC4220 GC4230	IC950	KCPM20 KC522M	MP2500 MP3000 T250M	WKP25 WKP25S	MP6120 VP15TF	PR720 PR1025 PR1225	T3130 AH330 GH330	ACP200	TT7080 TT7030	NC5330 PC3500 PC3600
P30	YG622 YG602	GC1025 GC1030	IC808 IC907 IC908	KC522M KC635M KC927M	F25M F30M	WAM30 WKP35	MP6120 VP15TF MP6130 F7030	PR630 PR830 PR1230	AH725 AH730 AH120 GH130	ACP300 ACZ350	TT9080 TT9030	NC5340 NCM325 PC5300
M20	YG602	GC1125 GC1025 GC1030	IC808 IC907 IC908	KC522M KC635M	MP2500 F25M F30M	WQM35 WSM35S	VP15TF MP7130 VP20RT	PR730 PR1025 PR1225	T3030 AH725 AH120 AH4035	ACP200 ACM100 ACM200	TT9030 TT9080	NC5330 PC5300 PC9530 NC5340 NCM325
K10	YG5020	GC3330	IC5100	KC915M	MK1500 MP1500	WAK15	MP8010 MC5020			ACK100	TT7515	PC8110 PC6510
K20	YG622	GC3040	IC810 IC910	KCK15 KC520M	MK2050	WKK25	VP15TF	PR1210 PR1510	T1115 AH110	ACK200 ACK300	TT6080	NC5330 PC5300 NC5340
S20	YG602	S30T GC1025 S40T	IC328 IC907	KC510M KC635M	MS2050 MS2500	WSM35S WSP45S	MP9120 VP15TF	PR905 PR1025	AH725	AC520U	TT9030 TT8020	PC5300 PC5400

Search

Description	Page	Description	Page	Description	Page
INSERT					
ADKT	121	VCGT	84	PTTNR/L	38
AOMT	121	VCMT	84	PWLNRL/L	43
APKT	122, 136	VNMA	73	SCACR/L	29
APMT	123	VNMG	73	SCLCR/L	29
CCGT	78	WCMX	147	SDJCR/L	31
CCMT	78	WNMA	75	SDNCN	31
CNMA	60	WNMG	75	SRDCN	34
CNMG	60			SRGCR/L	34
DCGT	79	MILLING CUTTER			
DCMT	79	...-ADKT15-...	113	SSDCN	35
DNMA	63	...-AOMT12-...	113	SSSCR/L	35
DNMG	63	...-APKT10-...	114	STFCR/L	37
KNUX	66	...-APKT10-... (Helical)	119	STGCR/L	37
ODMT	102	...-APKT16-...	116	STJCR/L	37
ODMW	102	...-APKT16-... (Taper)	135	STUCR/L	37
OFER	103	...-APMT11-...	118	SVHBR/L	40
OFMT	103	...-APMT16-...	118	SVHCR/L	41
ONHU	104	...-M08-...	137	SVJBR/L	40
ONMU	104	...-M10-...	137	SVJCR/L	41
RBEX	132	...-M12-...	137	SVVBN	40
RCMT	80	...-M16-...	137	SVVCN	41
RDKT	129	...-ODMT06-...	99	TCLNR/L	30
RDKW	129	...-OFER07-...	98	TDHNR/L	32
RDMT	130	...-OFMT05-...	99	TDJNR/L	32
RDMW	130	...-ONMU08-...	96	TDNNN	32
RPMT	131	...-RDKT08-...	126	TSDNN	36
RPMW	131	...-RDKT10-...	126	TSKNR/L	36
SCMT	81	...-RDKT12-...	127	TSSNR/L	36
SDCN	105	...-RPMT08-...	128	TTGNR/L	38
SDKN	105	...-RPMT10-...	128	TTJNR/L	39
SDMT	134	...-RPMT12-...	128	TVJNR/L	42
SDMW	134	...-SDMW12-...	133	TVVNN	42
SEKN	106	...-SE12T3-...	100	TWLNR/L	43
SEKR	106	...-SEKT12-...	100	...-MTFNR/L	52
SEKT	107	...-SNMX12-...	97	...-MTUNR/L	52
SEMT	108	...-SPKN12-...	101	...-MWLNR/L	57
SNMA	67	...-TPKN16-...	120	...-PCLNR/L	46
SNMG	67	...-TPKN22-...	120	...-PDQNR/L	49
SNMX	109			...-PDUNR/L	49
SPCN	110	INSERT DRILL			
SPKN	110	YGWC	140	...-PSKNR/L	50
SPKR	110			...-PTUNR/L	53
SPMT	111	TURNING HOLDER			
SPMX	146	CKJNR/L	33	...-PWLNR/L	57
SPUN	112	MTJNR/L	39	...-SCFCR/L	44
TCGT	82	MWLNR/L	43	...-SCLCR/L	45
TCMT	82	PCBNR/L	30	...-SDQCR/L	47
TDN	87	PCLNR/L	30	...-SDUCR/L	48
TDP	87	PDJNR/L	32	...-STFCR/L	51
TDY	87	PDNNN	32	...-STUCR/L	51
TNMA	69	PSBNR/L	36	...-SVJBR/L	54
TNMG	69	PSDNN	36	...-SVQBR/L	54
TNUX	72	PSKNR/L	36	...-SVQCR/L	55
TPCN	124	PSSNR/L	36	...-SVUBR/L	54
TPKN	124	PTFNR/L	38	...-SVUCR/L	55
TPKR	124	PTGNR/L	38	...-TCLNR/L	46
TPUN	125	PTJNR/L	39	...-TDQNR/L	49
VBMT	83			...-TDUNR/L	49
				...-TTUNR/L	53
				...-TVUNR/L	56
				...-TWNLR/L	58

MEMO

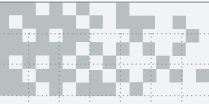


A large grid of small squares for writing, covering the majority of the page.

MEMO



A large grid of small squares for writing, covering the majority of the page.





HEAD OFFICE

211, Sewolcheon-ro, Bupyeong-gu, Incheon, South Korea

Phone: +82-32-526-0909

Http://www.yg1.kr E-mail: yg1@yg1.kr

Note The information is provided for reference only. Tool specifications are subject to change without prior notice.
Although we endeavor to supply accurate and timely information, there can be no guarantee to cover every particular application.
YG-1 or publishers are not liable for any damage for use of the information.



Search 'YG-1' on social media outlets