

# External Turning Toolholders

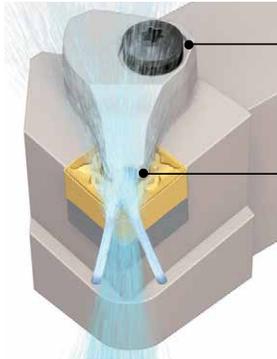
## D

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Jet Coolant-Through Holders for Turning

# Double-Clamp-JCT

## 1 Superior Chip Control Performance



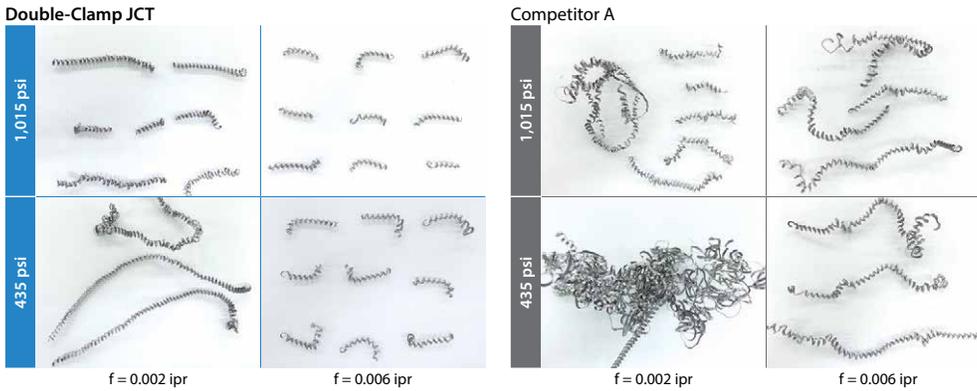
**Double-Clamp**

Firm insert clamp and easy to use in single operations  
High-density coolant supply close to the cutting edge

**Unique Nozzle Shape**

Provides coolant to a wide area of the insert surface

### Chip Control Comparison (Internal Evaluation)

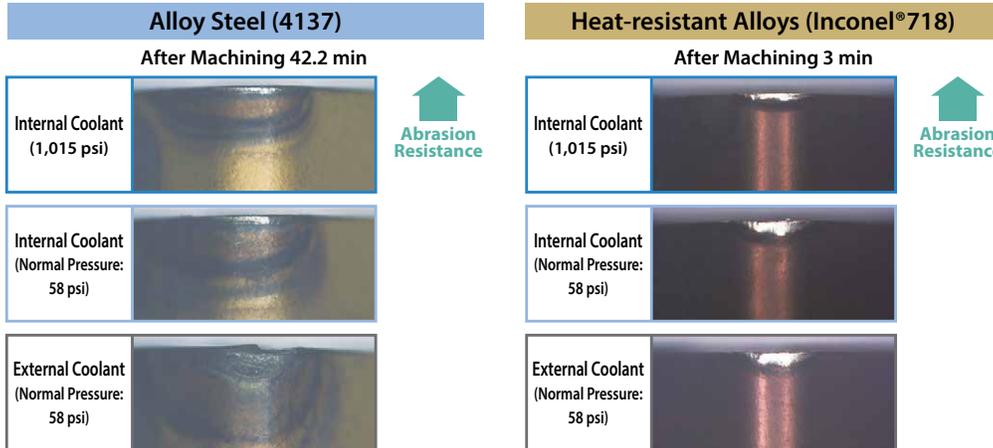


Cutting Conditions:  $V_c = 490$  sfm, D.O.C. =  $0.020^\circ$ , Wet, CNMG432 Insert Workpiece: 4131 External Turning

## 2 Longer Tool Life and High-Speed Machining

Coolant is also directed from two directions towards the flank face of the insert to ensure even cooling action

Longer tool life and high-speed machining with improved wear resistance



Cutting Conditions:  $V_c = 820$  sfm,  $f = 0.012$  ipr, D.O.C. =  $0.079^\circ$ , Wet CNMG432 Insert External Turning

Cutting Conditions:  $V_c = 260$  sfm,  $f = 0.006$  ipr, D.O.C. =  $0.020^\circ$ , Wet CNMG432 Insert External Turning

Using internal coolant improves wear resistance in alloy steel and heat-resistant alloys

High-pressure coolant is more effective

# External Turning Toolholder Identification System

① Clamping System	
A	Anchor Pin Style
C	Clamp Only
D	Double Clamp
M	Clamp and Lock Pin
P	Lock Pin Only (or Lever Lock)
S	Screw Only
W	Wedge Only

② Insert Shape	
R	Round
S	Square
T	Triangle
C	80° Diamond
D	55° Diamond
V	35° Diamond
W	80° Trigon
R	Round

③ Cutting Edge Angle	
A	90°
B	75°
C	90°
D	45°
E	60°
F	90°
G	90°
H	107.5°
J	93°
K	75°
L	95°
N	63°
P	117.5°
R	75°
S	45°
T	60°
U	93°
V	72.5°
W	60°
Y	85°

④ Insert Relief Angle	
B	5° Positive
C	7° Positive
D	15° Positive
E	20° Positive
N	0° Negative
P	11° Positive

⑤ Hand of Tool	
R	Right-hand
L	Left-hand
N	Neutral

⑥ Toolholder Shank Size			
This position shall be a significant number which indicates the holder cross section.			
For square shanks this number will represent the number of sixteenths of width and height.			
For rectangular holders the first digit represents the number of eighths of width and the second digit the number of quarters of height, except the following toolholder: 1-1/4 x 1-1/2 which is given the number 91.			

⑦ Insert Size IC	
Number of 1/8ths on 1/4" IC and over.	

⑧ Qualified Control			
Length and Width		Length and Side	
A	4.000 Back and End	M	4.000 Front and End
B	4.500 Back and End	N	4.500 Front and End
C	5.000 Back and End	P	5.000 Front and End
D	6.000 Back and End	R	6.000 Front and End
E	7.000 Back and End	S	7.000 Front and End
F	8.000 Back and End	T	8.000 Front and End
G	5.500 Back and End	U	5.500 Front and End

⑧ Qualified Control	
Insert IC	Radius
1/4" - 5/16"	0.015"
3/8" - 1/2"	0.031"
5/8" - 3/4"	0.047"
1"	0.062"

⑧ Toolholder Length (mm)					
A	32	J	110	R	200
B	40	JX	120	S	250
C	50	K	125	T	300
D	60	L	140	U	350
E	70	M	150	V	400
F	80	N	160	W	450
G	90	P	170	Y	500
H	100	Q	180	X	Special

⑨ Insert Size	
R	S
T	C
D	V

**ANSI**  
Inch

**D** **C** **L** **N** **R** **16** - **4** **D**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

**ISO**  
Metric

**D** **C** **L** **N** **R** **20** **20** **K** - **12**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

• Specifications may change without prior notice.  
• Due to the installation size constraints on the machine, the toolholder length of some products may not match with the symbol.

External Turning Toolholders

D TURNING HOLDERS

Applicable Insert Shape							
Application	External / Facing			External / Facing / Copying			External / Facing / Copying / Undercutting
Cutting Edge Angle	95°		105°	107.5°	Special		117.5°
Lever Lock							
Ref. Page	<b>D11</b>	<b>D50</b>		<b>D19</b>	<b>D45</b>	<b>D46</b>	<b>D47</b>
Wedge Lock							
Ref. Page		<b>D51</b>	<b>D31</b>				
Double Clamp							
Ref. Page	<b>D8/D9</b>	<b>D48/D49</b>		<b>D16</b>			<b>D36/D37</b>
Multi-Lock							
Ref. Page	<b>D10</b>	<b>D50</b>					

Applicable Insert Shape									
Application	External / Copying		External / Chamfering		External / Facing / Chamfering	External		Facing	
Cutting Edge Angle	72.5°	95°	93°	45°	60°	45°	75°	91°	15°
Lever Lock (Pin Lock)									
Ref. Page	<b>D44</b>	<b>D43</b>	<b>D18</b>	<b>D22</b>		<b>D23</b>	<b>D21</b>	<b>D28</b>	<b>D23</b>
Wedge Lock									
Ref. Page			<b>D31</b>	<b>D32</b>					
Double Clamp									
Ref. Page	<b>D38/D39</b>	<b>D34/D35</b>	<b>D14/D15</b>			<b>D21</b>	<b>D25/D26</b>		
Multi-Lock									
Ref. Page	<b>D42</b>	<b>D40/D41</b>	<b>D17</b>		<b>D22</b>		<b>D27</b>		

### Toolholders for Ceramic Inserts

Application	External / Facing			External / Copying		External / Chamfering	External / Facing / Chamfering
Cutting Edge Angle	95°	97.5°	Special	93°	Special	45°	45°
Top Clamp							
	CCLN / HCLN	CELN	CRSN / HRSN	CDJN	CRDN / CRDC	CSDN / HSDN	CSSN
Ref. Page	<b>D53</b>	<b>D55</b>	<b>D63</b>	<b>D54</b>	<b>D64</b>	<b>D60</b>	<b>D59</b>
Application	External			Facing			
Cutting Edge Angle	75°	85°	93°	5°	15°	-3°	
Top Clamp							
	CSRN / HSRN	CS-N	CTJN	CSYN	CSKN	CTUN	
Ref. Page	<b>D56/D57</b>	<b>D58</b>	<b>D61</b>	<b>D59</b>	<b>D58</b>	<b>D62</b>	

### Toolholders for Solid CBN Inserts

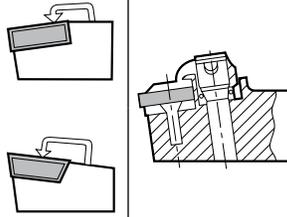
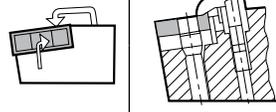
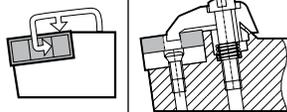
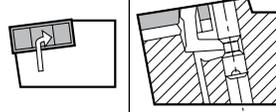
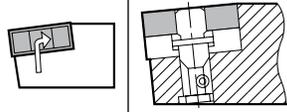
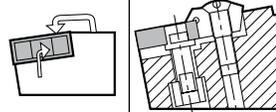
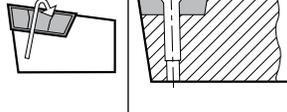
Application	External / Facing	External / Copying	External / Chamfering	External / Facing / Chamfering	External			
Cutting Edge Angle	95°	Special	Special	45°	45°	75°	93°	
Top Clamp								
	CCLN-A	CRSN-A	CRDN-A	CSDN-A	CSSN-A	CCRN-A	CSRN-A	CTJN-A
Ref. Page	<b>D66</b>	<b>D67</b>	<b>D67</b>	<b>D70</b>	<b>D70</b>	<b>D66</b>	<b>D69</b>	<b>D72</b>
Application	Facing							
Cutting Edge Angle	15°							
Top Clamp								
	CSKN-A							
Ref. Page	<b>D69</b>							

### Toolholder for Bearing Machining

Application	External	Application	Round Chamfering
Cutting Edge Angle	Special	Cutting Edge Angle	Special
Lever Lock		Top Clamp	
	PRGC-BE		CBSN
Ref. Page	<b>D73</b>	Ref. Page	<b>D74</b>

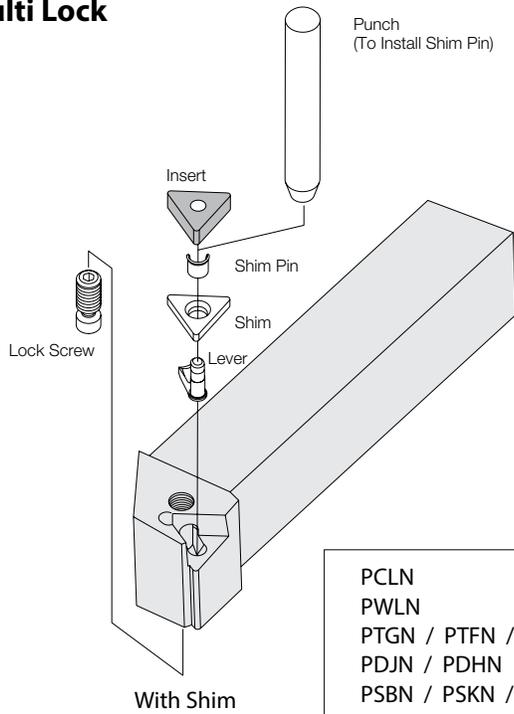
INSERT GRADES	<b>A</b>
TURNING INSERTS	<b>B</b>
CBN / PCD INSERTS	<b>C</b>
TURNING HOLDERS	<b>D</b>
SMALL TOOLS	<b>E</b>
BORING	<b>F</b>
GROOVING	<b>G</b>
CUT-OFF	<b>H</b>
THREADING	<b>J</b>
DRILLING	<b>K</b>
MILLING	<b>M</b>
QUICK CHANGE TOOLING	<b>N</b>
SPARE PARTS	<b>P</b>
TECHNICAL	<b>R</b>
INDEX	<b>T</b>

Clamping Systems

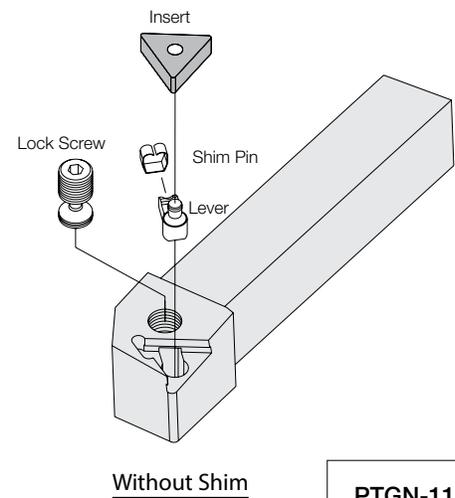
Series	Design	Features	Series	Design	Features
Top Clamp (C)		<ul style="list-style-type: none"> <li>• Rigid Clamping</li> <li>• Negative Insert : Medium to Heavy Machining (Mainly for Ceramic Insert)</li> <li>• Positive Insert : Low Cutting Force</li> </ul>	Multi-Lock (M)		<ul style="list-style-type: none"> <li>• Combination of Top Clamp and Pin Lock</li> <li>• Rigid Clamping</li> <li>• Heavy Machining</li> </ul>
Double Clamp (D)		<ul style="list-style-type: none"> <li>• Firmly clamp the insert in two directions with one action.</li> </ul>	Lever Lock (P)		<ul style="list-style-type: none"> <li>• Easy Insert Replacement</li> <li>• General Use</li> </ul>
Pin Lock (P)		<ul style="list-style-type: none"> <li>• Easy Insert Replacement</li> </ul>	Wedge Lock (W)		<ul style="list-style-type: none"> <li>• Rigid Clamping</li> <li>• Heavy Machining</li> </ul>
Screw Clamp (S)		<ul style="list-style-type: none"> <li>• Simple Mechanism</li> <li>• Fewer Parts</li> <li>• Finishing to Medium Machining</li> </ul>			

D TURNING HOLDERS

Multi Lock

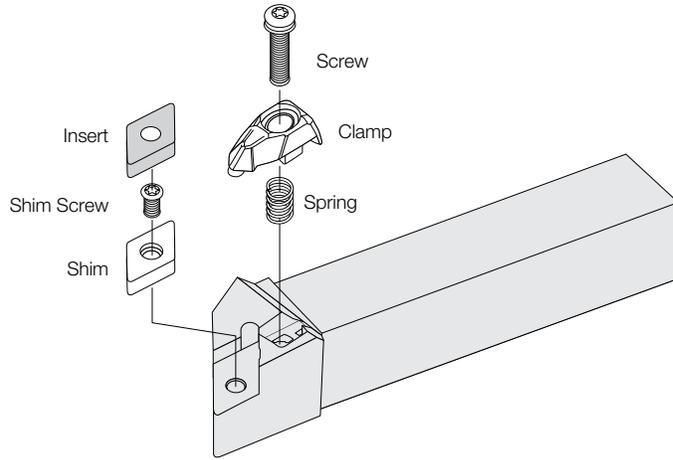


- PCLN
- PWLN
- PTGN / PTFN / PTLN
- PDJN / PDHN
- PSBN / PSKN / PSSN / PSDN
- PRGN
- PRGC / PRXC



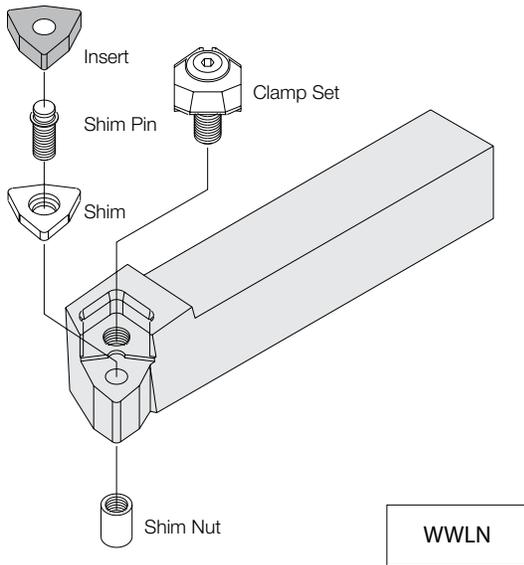
- PTGN-11
- PTFN-11

### Double Clamp

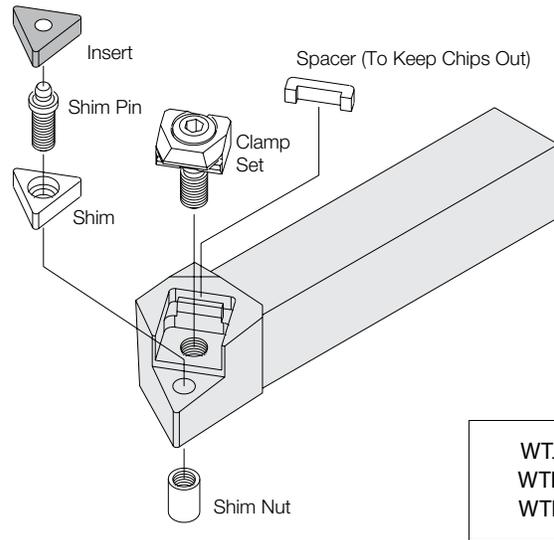


DCLN  
DDJN / DDHN  
DSBN  
DTGN  
DVLN / DVJN / DVPN / DVVN  
DWLN

### Wedge Lock

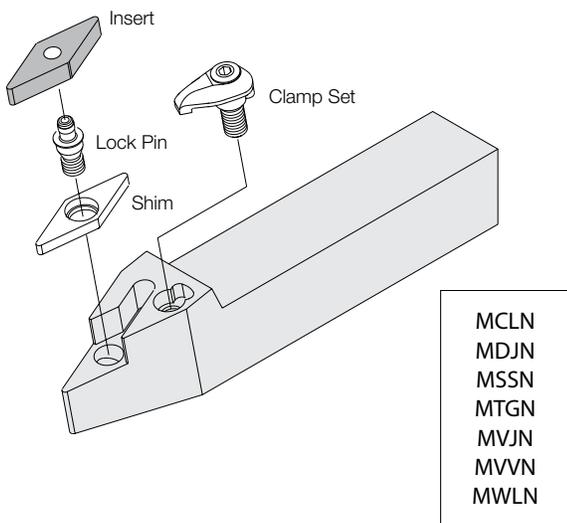


WWLN



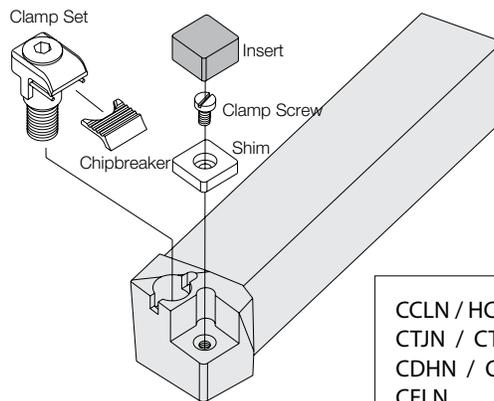
WTJN  
WTKN  
WTEN

### Multi Lock



MCLN  
MDJN  
MSSN  
MTGN  
MVJN  
MVVN  
MWLN

### Top Clamp

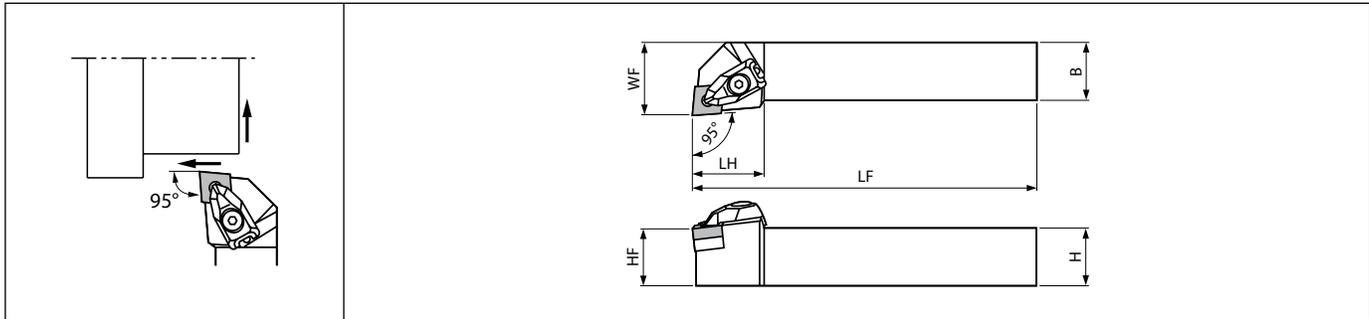


CCLN / HCLN  
CTJN / CTUN  
CDHN / CDJN  
CELN  
CSRN / HSRN / CS-N / CSKN  
CSYN / CSSN / CSDN / HSDN  
\*CRSN / HRSN / \*CRDN / CRDC

\* Chipbreaker is not included with CRSN / CRDN.

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**DCLN** (External Turning / External Facing)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts							Applicable Inserts
		R	L	H	B	LH	HF	LF	WF				Clamp	Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)	Wrench* (for shim)	
Inch	DCLN% 12-4B	●	●	0.75	0.75	1.30	0.75	4.50	1.00	1/32	-6	-6								CN□A43... CN□G43... CN□M43...
	16-4D	●	●	1.00	1.00	1.26	1.00	6.00	1.25											
mm	DCLN% 2020K-12	●	●	20	20	33	20	125	25	0.8	-6	-6								
	2525M-12	●	●	25	25	32	25	150	32											

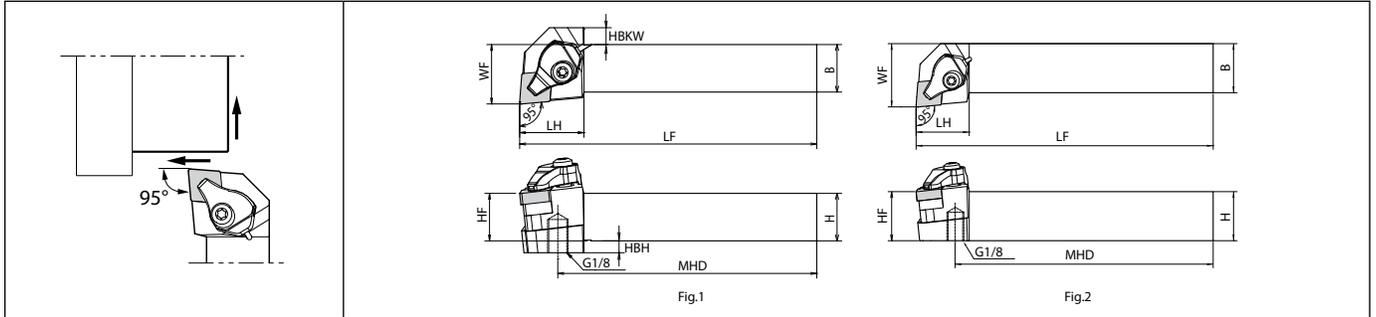
When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

When using inserts with SX chipbreaker, use shim (-C type) sold separately.

Wrench (FT-15) is sold separately.

Recommended tightening torque : 3.9N·m

**DCLN-JCT** (External Turning / External Facing, Coolant-Through Holders)



Right-hand shown | Coolant-Through | Applicable Pressure : ~4,350 psi

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								Standard Corner-R (RE)	Fig.	Coolant Hole	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts		
		R	L	H	B	LH	HBH	HBKW	MHD	HF	LF						WF	Clamp	Pipe Connection (* with O-Ring)	Screw (for clamp)	Spring	Shim		Screw (for shim)	Wrench
Inch	DCLN % 12-4BJCT	●	●	0.75	0.75	1.06	0.23	0.26	3.87	0.75	4.50	1.00	1/32	1	Yes	-6	-6	CP-3D-%-JCT	FP-12	CS-3D-TR	SP-3D	DC-44 (DC-44-C*)	SB-4085TR	FT-15	CN□A43... CN□G43... CN□M43...
	16-4DJCT	●	●	1.00	1.00	1.06	-	-	5.37	1.00	6.00	1.25													
mm	DCLN % 2020K-12JCT	●	●	25	20	27	5	7	109	25	125	25	0.8	1	Yes	-6	-6	CP-3D-%-JCT	FP-12	CS-3D-TR	SP-3D	DC-44 (DC-44-C*)	SB-4085TR	FT-15	
	2525M-12JCT	●	●	25	25	27	-	-	134	25	150	32													

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

When using inserts with SX chipbreaker, use shim (-C type) sold separately.

Clamp : CP-3D-R-JCT for Right-hand Toolholder, CP-3D-L-JCT for Left-hand Toolholder.

See page D13 for piping parts of coolant-through holders.

O-ring (SS-035) is available to order separately.

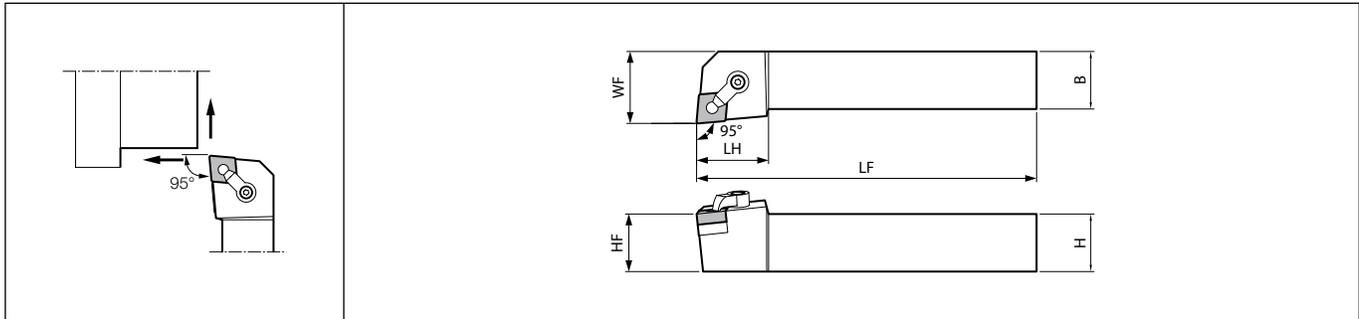
Recommended tightening torque : 3.9N-m

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**MCLN** (External Turning / External Facing)



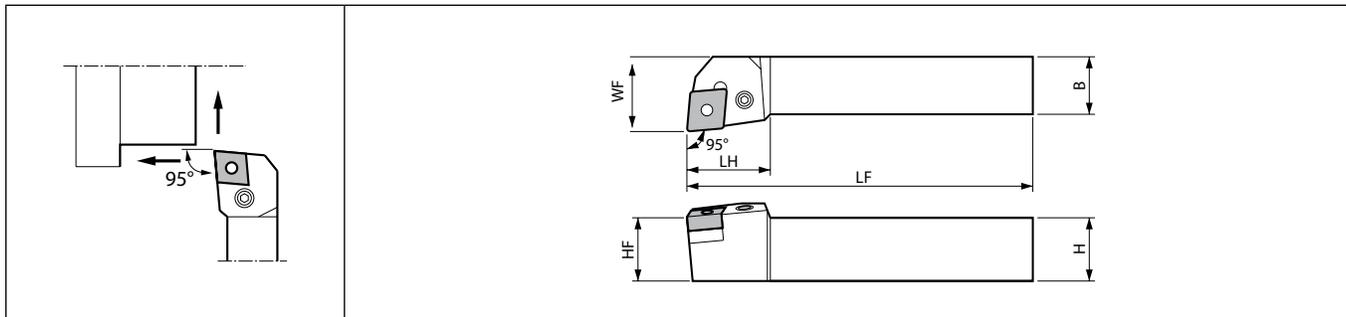
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts							Applicable Inserts
		R	L	H	B	LH	HF	LF	WF				Clamp	Screw (for clamp)	Wrench	Shim	Screw (for shim)	Lock Pin	Wrench	
Inch	MCLN% 12-4B	●	●	0.75	0.75	1.190	0.75	4.00	1.00	1/32	-6	-6								CN□A43... CN□G43... CN□M43...
	16-4D	●	●	1.00	1.00	1.260	1.00	6.00	1.25				CL-20	XNS-48	LW-125	ICSN433	S-46	NL46	LW-094	
	16-5D	●	●	1.00	1.00	1.375	1.00	6.00	1.25	1/32			CL-12	XNS-510	LW-156	ICSN533	S-58	NL58	LW-125	CN□A54... CN□G54... CN□M54...
	20-5D	●	●	1.25	1.25	1.375	1.25	6.00	1.50				CL-12	XNS-510	LW-156	ICSN633	S-68	NL68	LW-140	CN□A64... CN□G64... CN□M64...
	20-6D	●	●	1.25	1.25	1.500	1.25	6.00	1.50	1/32			CL-12	XNS-510	LW-156	ICSN633	S-68	NL68	LW-140	CN□A64... CN□G64... CN□M64...

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.  
 When using inserts with SX chipbreaker, use shim (-C type) sold separately.

PCLN (External Turning / External Facing)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts	
		R	L	H	B	LH	HF	LF	WF				Lever	Lock screw	Punch	Shim pin	Shim	Wrench		Wrench
Inch	PCLNR 12-4B	●		0.75	0.75	1.06	0.75	4.50	1.00	1/32	-6	-6	LL-2N	LS-2N	PC-2	LSP-2	LC-42N (LC-42N-C*) (LC-42N-20*)	LW-3	-	CN□A43... CN□G43... CN□M43...
	16-4D	●		1.00	1.00	1.06	1.00	6.00	1.25											
mm	PCLN% 1616H-09	●	●	16	16	22	16	100	20	0.8	-6	-6	LL-1N	LS-1N	PC-1	LSP-1	LC-32N	-	FH-2.5	CN□G33...
	2020K-09	●	●	20	20		20	125	25											
	2525M-09	●	●	25	25	25	150	32												
	PCLN% 2020H-12	●		20	20	27	20	100	25	0.8	-6	-6	LL-2N	LS-2N	PC-2	LSP-2	LC-42N (LC-42N-C*) (LC-42N-20*)	LW-3	-	CN□A43... CN□G43... CN□M43...
	2020K-12	●	●				25	150	32											
	2525M-12	●	●	25	25	32	170	32												
	3225P-12	●	●	32	32	32	170	40												
	PCLN% 2525M-16	●	●	25	25	32	25	150	32	0.8	-6	-6	LL-5N	LS-4N	-	LSP-3	LC-53N (LC-53N-C*)	LW-3	-	CN□A54... CN□G54... CN□M54...
	3232P-16	●	●				32	32	32											

When using inserts with corner-R (RE) greater than 1/16" (1.6mm), please purchase shim\* to prevent workpiece and shim from interfering with each other.

When using inserts with SX chipbreaker, use shim (-C type) sold separately.

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

Applicable Inserts

D TURNING HOLDERS

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Finishing - Medium
Insert								
Chipbreaker	<b>WF</b>	<b>WP</b>	<b>WE</b>	<b>WQ</b>	<b>PP</b>	<b>GP</b>	<b>PQ</b>	<b>HQ</b>
Page	<b>B16</b>	<b>B16</b>	<b>B16</b>	<b>B16</b>	<b>B16</b>	<b>B16</b>	<b>B16</b>	<b>B17</b>
Applications	Finishing - Medium	Finishing - Medium	Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker	<b>CQ</b>	<b>CJ</b>	<b>TN-V</b>	<b>PMG</b>	<b>GS</b>	<b>PG</b>	<b>PS</b>	<b>PT</b>
Page	<b>B17</b>	<b>B17</b>	<b>B17</b>	<b>B17</b>	<b>B17</b>	<b>B17</b>	<b>B18</b>	<b>B18</b>
Applications	Medium - Roughing	Roughing	Roughing	Roughing	Finishing	Medium	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker	<b>GT</b>	<b>Standard</b>	<b>PH</b>	<b>PX</b>	<b>R/L-S</b>	<b>R/L</b>	<b>R/L-25R</b>	<b>Z</b>
Page	<b>B18</b>	<b>B18</b>	<b>B18</b>	<b>B19</b>	<b>B23</b>	<b>B23</b>	<b>B23</b>	<b>B23</b>
Applications	Low carbon steel	Low carbon steel	Low carbon steel	Low carbon steel	Finishing - Medium	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys
Insert								
Chipbreaker	<b>XF</b>	<b>XP</b>	<b>XQ</b>	<b>XS</b>	<b>SK</b>	<b>FP-TK</b>	<b>TK</b>	<b>MQ</b>
Page	<b>B19</b>	<b>B19</b>	<b>B19</b>	<b>B19</b>	<b>B19</b>	<b>B19</b>	<b>B20</b>	<b>B20</b>
Applications	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Insert								
Chipbreaker	<b>MS</b>	<b>MU</b>	<b>KQ</b>	<b>KG</b>	<b>KH</b>	<b>C</b>	<b>ZS</b>	<b>GC</b>
Page	<b>B20</b>	<b>B20</b>	<b>B21</b>	<b>B21</b>	<b>B21</b>	<b>B22</b>	<b>B22</b>	<b>B22</b>
Applications	Cast Iron	Cast Iron / Hard Materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Heat-Resistant Alloys	Heat-Resistant Alloys	Heat-Resistant Alloys
Insert								
Chipbreaker	<b>No Chipbreaker</b>	<b>Ceramic</b>	<b>R/L-A3</b>	<b>AH</b>	<b>PCD</b>	<b>SQ</b>	<b>SG</b>	<b>R/L-SX</b>
Page	<b>B22</b>	<b>B113</b>	<b>B23</b>	<b>B23</b>	<b>C34</b>	<b>B20</b>	<b>B21</b>	<b>B21</b>
Applications	Hard Materials / Cast Iron	Hard Materials	Hard Materials	Hard Materials				
Insert								
Chipbreaker	<b>CBN</b>	<b>HH</b>	<b>HL</b>	<b>HD</b>				
Page	<b>C8</b>	<b>C9</b>	<b>C9</b>	<b>C9</b>				

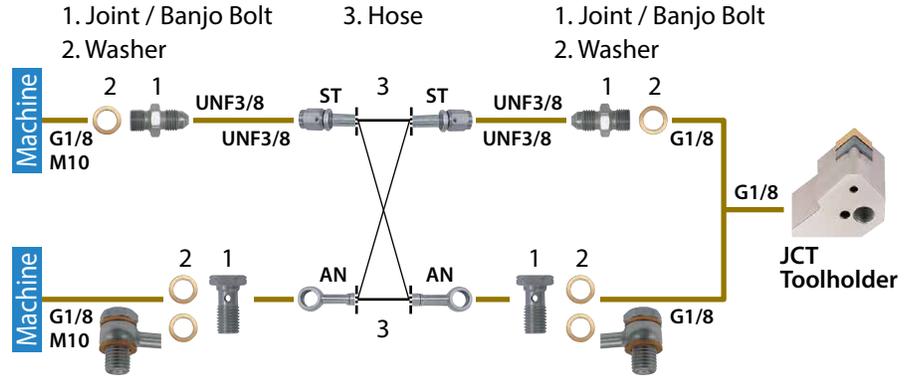
Recommended Cutting Conditions  D75~D76

# Easy Connection with High Pressure Hose and Joint



- Even without a high pressure pump, internal coolant can be used at a normal pressure
- Banjo bolt available for angled hose connection and can be used in a variety of machines

## Piping Installation Guide



## Piping Parts

### Optional Piping Parts Available

Choose from parts below to match your machine specifications

#### 1. Joint / Banjo Bolt

Pressure Resistance: up to 4,350 psi

Shape	Part Number	Std. Item	Thread Standard
	<b>J-G1/8-UNF3/8</b>	●	G1/8
	<b>J-M10X1.5-UNF3/8</b>	●	M10X1.5
	<b>BB-G1/8</b>	●	G1/8
	<b>BB-M10X1.5</b>	●	M10X1.5

#### 1. Joint / Banjo bolt × 2

#### 2. Washer × 2-4

#### 3. Hose × 1

#### 2. Washer

Pressure Resistance: up to 4,350 psi

Shape	Part Number	Std. Item
	<b>WS-10</b>	●

\* Use 2 washers for a banjo bolt

#### 3. Hose

Pressure Resistance: up to 4,350 psi

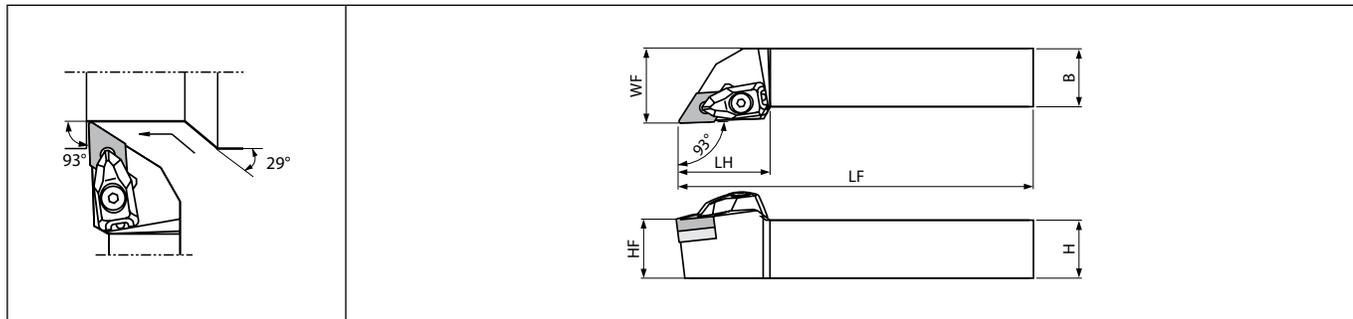
Shape	Part Number	Std. Item	Thread Standard		Dimensions (mm)
					L
	<b>HS-ST-ST-200</b>	●	UNF3/8	UNF3/8	200
	<b>HS-ST-ST-250</b>	●			250
	<b>HS-ST-AN-200</b>	●	UNF3/8	(Banjo Bolt)	200
	<b>HS-ST-AN-250</b>	●			250
	<b>HS-AN-AN-200</b>	●	-	-	200
	<b>HS-AN-AN-250</b>	●	(Banjo Bolt)	(Banjo Bolt)	250

## Precautions

1. Make sure machine door is completely closed before use of these parts.
2. Use appropriate seal for the male thread of the piping parts and make sure the connection is secure. Use plugs to seal off unused coolant holes.
3. Connect and fasten the coolant hose firmly.
4. The use of copper washers may cause leakage but will have no effect on the performance.
5. Commercial piping parts can be used if the thread standards are the same. Check the pressure resistance before use.
6. Regularly changing the coolant filter is recommended.

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**DDJN** (External Turning / External Copying)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts							Applicable Inserts
		R	L	H	B	LH	HF	LF	WF				Clamp	Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)	Wrench* (for shim)	
Inch	DDJN% 12-4B	●	●	0.75	0.75	1.54	0.75	4.50	1.00	1/32	-6	-6	CP-3D	CS-3D	SP-3D	LW-3	DD-44 (DD-43*)	SB-4085TR	FT-15	DN□A43... DN□G43... DN□M43... DN□X43...
	16-4D	●	●	1.00	1.00	1.54	1.00	6.00	1.25											
mm	DDJN% 2020K-1504	●	●	20	20	39	20	125	25	0.8	-6	-6	CP-3D	CS-3D	SP-3D	LW-3	DD-44 (DD-43*)	SB-4085TR	FT-15	DN□A43... DN□G43... DN□M43... DN□X43...
	2525M-1504	●	●	25	25		25	150	32											
	2020K-1506	●	●	20	20	20	125	25												
	2525M-1506	●	●	25	25	25	150	32	DN□A44... DN□G44... DN□M44... DN□X44...											

Shims indicated \* are not included with the toolholder. To change insert thickness, please purchase it separately.

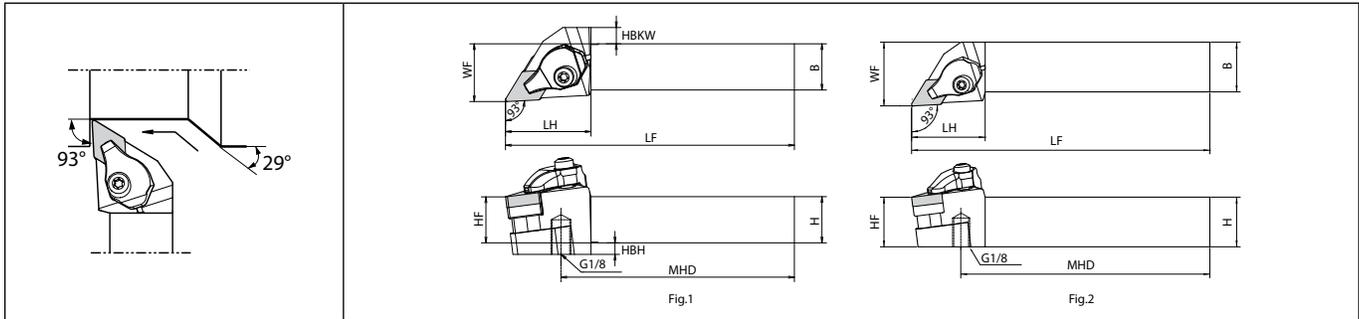
When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

When using the insert with WF chipbreaker, tool edge offset or program corrections are required on **R40** and **R41**.

Wrench (FT-15) is sold separately.

Recommended tightening torque : 3.9N·m

**DDJN-JCT** (External Turning / External Copying, Coolant-Through Holders)



Right-hand shown | Coolant-Through | Applicable Pressure : ~4,350 psi

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions										Standard Corner-R (RE)	Fig.	Coolant Hole	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts							Applicable Inserts	
			R	L	H	B	LH	HBH	HBKW	MHD	HF	LF						WF	Clamp	Pipe Connection (* with O-Ring)	Screw (for clamp)	Spring	Shim	Screw (for shim)		Wrench
																		1/32	Yes	-6	-7	CP-4D- $\frac{1}{2}$ -JCT	FP-12	CS-3D-TR		SP-3D
Inch	DDJN $\frac{1}{2}$ 12-4BJCT	●	0.75	0.75	1.46	0.23	0.26	3.56	0.75	4.50	1.00	0.8	1	Yes	-6	-7	CP-4D- $\frac{1}{2}$ -JCT	FP-12	CS-3D-TR	SP-3D	DD-44 (DD-43*)	SB-4085TR	FT-15	DN□A43... DN□G43... DN□M43... DN□X43...		
	16-4DJCT	●	1.00	1.00	1.46	-	-	5.06	1.00	6.00	1.25															
mm	DDJN $\frac{1}{2}$ 2020K-15JCT	●	20	20	37	5	7	101	20	125	25	0.8	1	Yes	-6	-7	CP-4D- $\frac{1}{2}$ -JCT	FP-12	CS-3D-TR	SP-3D	DD-44 (DD-43*)	SB-4085TR	FT-15			
	2525M-15JCT	●	25	25		-	-	126	25	150	32													2		

Shims indicated \* are not included with the toolholder. To change insert thickness, please purchase it separately.

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

When using the insert with WF chipbreaker, tool edge offset or program corrections are required on **R40** and **R41**.

Please see page **D13** for piping parts of coolant-through holders.

Clamp : CP-4D-R-JCT for Right-hand Toolholder, CP-4D-L-JCT for Left-hand Toolholder.

O-ring (SS-035) is available to order separately.

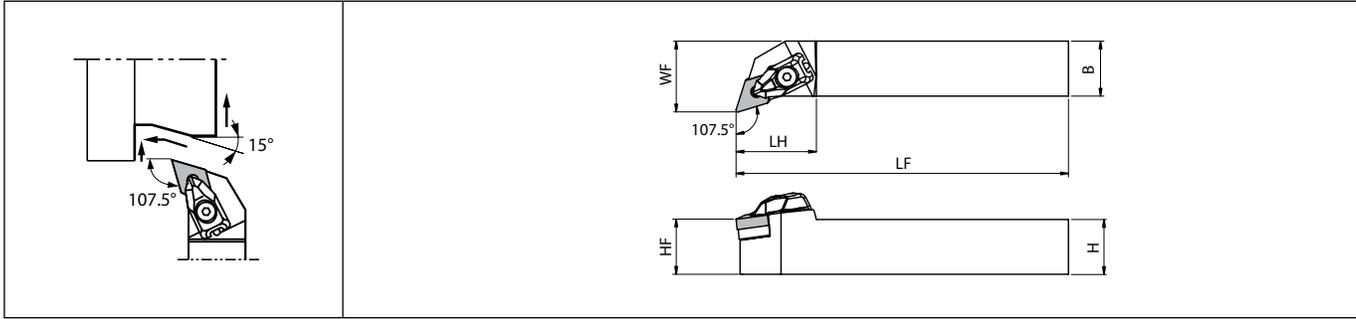
Recommended tightening torque : 3.9N-m

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

- INSERT GRADES **A**
- TURNING INSERTS **B**
- CBN/PCD INSERTS **C**
- TURNING HOLDERS **D**
- SMALL TOOLS **E**
- BORING **F**
- GROOVING **G**
- CUT-OFF **H**
- THREADING **J**
- DRILLING **K**
- MILLING **M**
- QUICK CHANGE TOOLING **N**
- SPARE PARTS **P**
- TECHNICAL **R**
- INDEX **T**

**DDHN** (External Turning / External Facing / External Copying)



Right-hand shown

D  
TURNING  
HOLDERS

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts			
		R	L	H	B	LH	HF				LF	WF	Clamp	Screw (for clamp)	Spring	Wrench (for clamp)		Shim	Screw (for shim)	Wrench* (for shim)
mm	DDHN% 2020K-1504	●	●	20	20	37	20	125	25	0.8	-6	-6	CP-3D	CS-3D	SP-3D	LW-3	DD-44 (DD-43*)	SB-408STR	FT-15	DN□A43...
	2525M-1504	●	●	25	25		25	150	32								DN□G43...			
	2020K-1506	●	●	20	20	37	20	125	25								DD-43 (DD-44*)			DN□A44...
	2525M-1506	●	●	25	25		25	150	32								DN□G44...			DN□M43...

Shims indicated \* are not included with the toolholder. To change insert thickness, please purchase it separately.

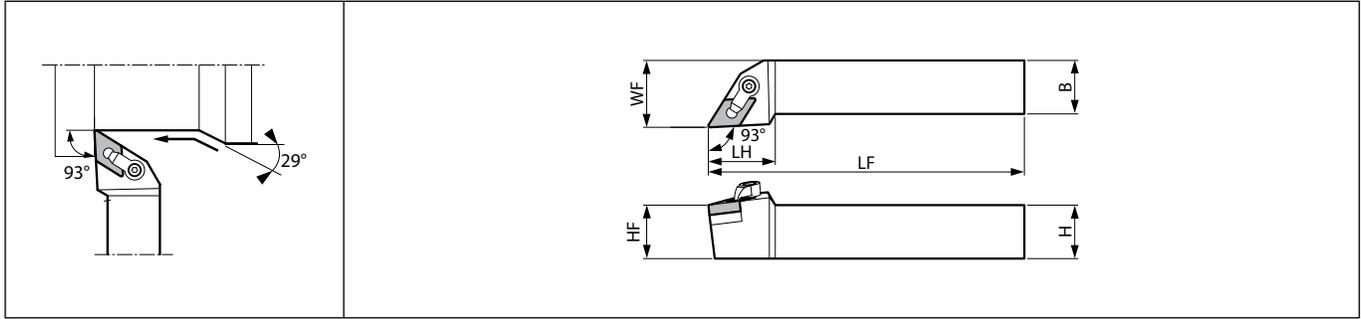
When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

Wrench (FT-15) is sold separately.

The insert with WF chipbreaker is not applicable for DDHN type toolholder.

Recommended tightening torque : 3.9N·m

**MDJN** (External Turning / External Facing / External Copying)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	LF	WF				Clamp	Screw (for clamp)	Lock Pin	Shim	Screw (for shim)	Wrench	
								CL-20	XNS-48				NL46L	IDSN443	S-46	LW-125, LW-094			
Inch	MDJN% 12-4B	●	●	0.75	0.75	1.25	0.75	4.50	1.00	1/32	-6	-6						DN□A43... DN□G43... DN□M43... DN□X43...	
	16-4D	●	●	1.00	1.00	1.25	1.00	6.00	1.25										

Shims indicated \* are not included with the toolholder. To change insert thickness, please purchase it separately.

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

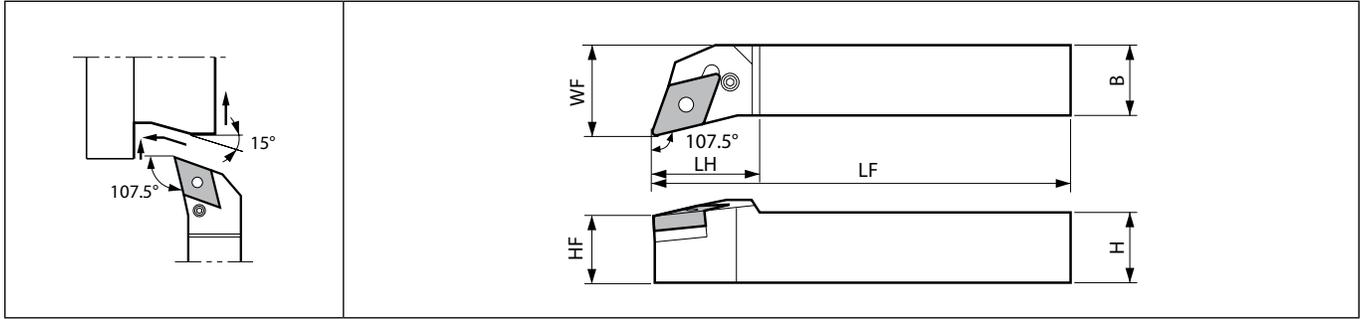
When using the insert with WF chipbreaker, tool edge offset or program corrections are required on **R40** and **R41**.

Recommended tightening torque : 3.9N·m

INSERT GRADES	<b>A</b>
TURNING INSERTS	<b>B</b>
CBN/PCD INSERTS	<b>C</b>
TURNING HOLDERS	<b>D</b>
SMALL TOOLS	<b>E</b>
BORING	<b>F</b>
GROOVING	<b>G</b>
CUT-OFF	<b>H</b>
THREADING	<b>J</b>
DRILLING	<b>K</b>
MILLING	<b>M</b>
QUICK CHANGE TOOLING	<b>N</b>
SPARE PARTS	<b>P</b>
TECHNICAL	<b>R</b>
INDEX	<b>T</b>



**PDHN** (External Turning / External Facing / External Copying)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	LF	WF				Lever	Lock screw	Punch	Shim pin	Shim	Wrench	
																			
mm	PDHN% 2020K-15	●	●	20	20	35	20	125	25	0.8	-6	-6	LL-4	LS-3	PC-2	LSP-2	LD-43 (LD-43-20*) (LD-42**) (LD-42-20**)	LW-3	DN□A43... DN□G43... DN□M43...
	2525M-15	●	●	25	25	34	25	150	32										

When using inserts with corner-R (RE) greater than 1/16" (1.6mm), please purchase shim\* to prevent workpiece and shim from interfering with each other.

Shim : PDHN ... LD-43 is attached to PDHN. When using DN□□44 type Insert, please purchase LD-42 (or LD-42-20 when using inserts whose corner-R (RE) is greater than 1/16") separately.

The insert with WF chipbreaker is not applicable for PDHN type toolholder.

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

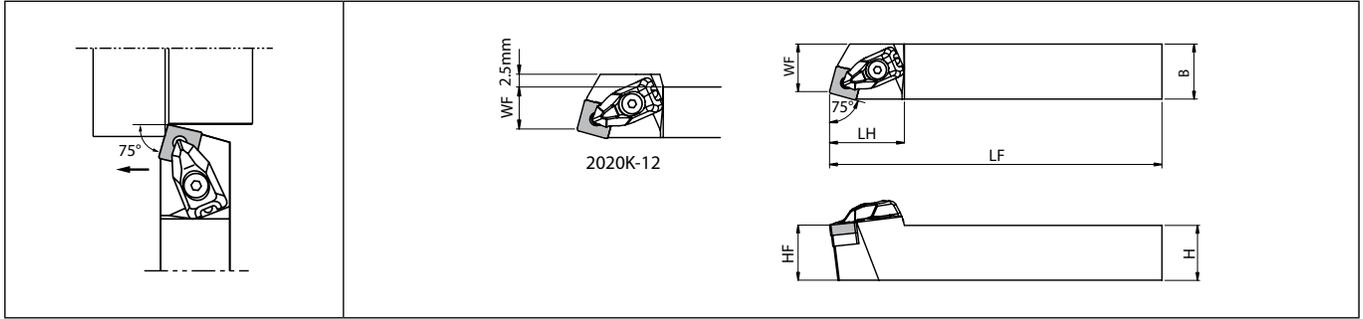
Applicable Inserts (DDJN / DDJN-JCT / MDJN / DDHN / PDJN / PDHN)

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium
Insert								
Chipbreaker	WF*	PP	GP	PQ	HQ	CQ	CJ	TN-V
Page	B24	B24	B24	B24	B25	B25	B25	B25
Applications	Medium - Roughing	Roughing	Roughing					
Insert								
Chipbreaker	PMG	GS	PG	PS	PT	GT	Standard	PH
Page	B25	B25	B26	B26	B26	B26	B27	B27
Applications	Roughing	Finishing	Medium	Low carbon steel	Low carbon steel	Low carbon steel	Low carbon steel	Finishing - Medium
Insert								
Chipbreaker	PX	R/S	R/L	XF	XP	XQ	XS	SK
Page	B27	B33	B32	B27	B27	B27	B27	B28
Applications	Large D.O.C.	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron			
Insert								
Chipbreaker	R-LD	FP-TK	TK	MQ	MS	MU	KQ	KG
Page	B28	B28	B28	B28	B29	B29	B30	B30
Applications	Cast Iron	Cast Iron / Hard Materials	Non-Ferrous Metals	Non-Ferrous Metals				
Insert								
Chipbreaker	KH	C	ZS	GC	No Chipbreaker	Ceramic	R-A3	AH
Page	B30	B30	B30	B30	B31	B114	B31	B31
Applications	Non-Ferrous Metals	Heat-Resistant Alloys	Heat-Resistant Alloys	Hard Materials / Cast Iron	Hard Materials	Hard Materials	Hard Materials	
Insert								
Chipbreaker	PCD	SQ	SG	CBN	HH	HL	HD	
Page	C35	B29	B29	C10	C11	C11	C11	

When using the insert with WF chipbreaker, tool edge offset or program corrections are required on R40 and R41. The insert with WF chipbreaker is not applicable for DDHN type and PDHN type toolholder.

Recommended Cutting Conditions  D75~D76

**DSBN** (External Turning)



Right-hand shown

Toolholder Dimensions

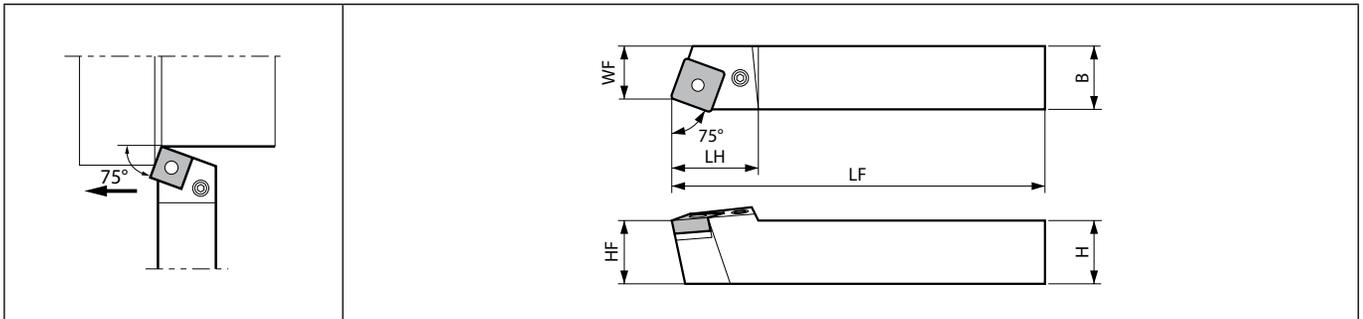
Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts							Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Clamp				Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)	Wrench* (for shim)		
		mm	mm	mm	mm	mm	mm	mm	mm	mm				mm	mm	mm	mm	mm	mm	mm	
mm	DSBN% 2020K-12	●	●	20	20	34	20	125	17	0.8	-4	-7	CP-3D	CS-3D	SP-3D	LW-3	DS-44	SB-4085TR	FT-15	SN□A43... SN□G43... SN□M43...	
	2525M-12	●	●	25	25	25	150	22													

Wrench (FT-15) is sold separately.

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

Recommended tightening torque : 3.9N·m

**PSBN** (External Turning)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Lever				Lock screw	Punch	Shim pin	Shim	Wrench		
		mm	mm	mm	mm	mm	mm	mm	mm	mm				mm	mm	mm	mm	mm	mm	
mm	PSBN% 2020K-12	●	●	20	20	27	20	125	17	0.8	-4	-7	LL-2N	LS-2N	PC-2	LSP-2	LS-42	LW-3	SN□A43... SN□G43... SN□M43...	
	2525M-12	●	●	25	25	24	25	150	22											

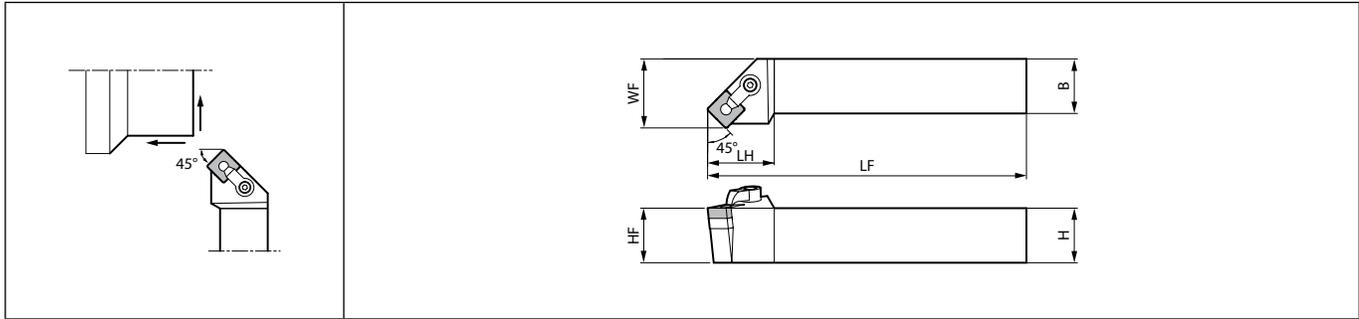
When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**MSSN** (External Turning / External Facing / External Chamfering)



Right-hand shown

Toolholder Dimensions

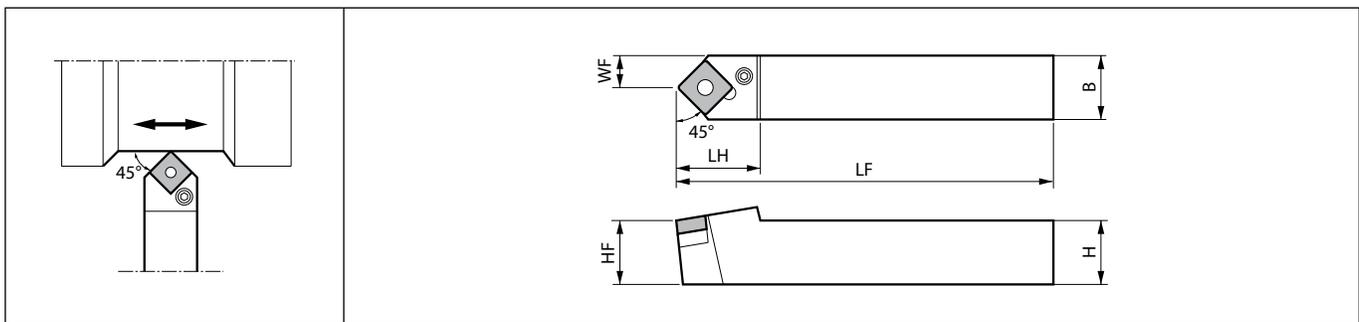
Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts	
			R	H	B	LH	HF	LF	WF				Clamp	Clamp Screw	Wrench	Shim	Shim Screw	Lock Pin		Wrench
Inch	MSSNR 16-4D	●	1.00	1.00	1.23	1.00	6.00	0.925	1/32	-8	0	CL-9	XNS59	LW-156	ISSN433	S-46	NL46	LW-094	SN□A43... SN□G43... SN□M43...	

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

MSSN%: When using handed inserts, For External Turning, Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

For Facing, Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

**PSDN** (External Turning / External Chamfering)

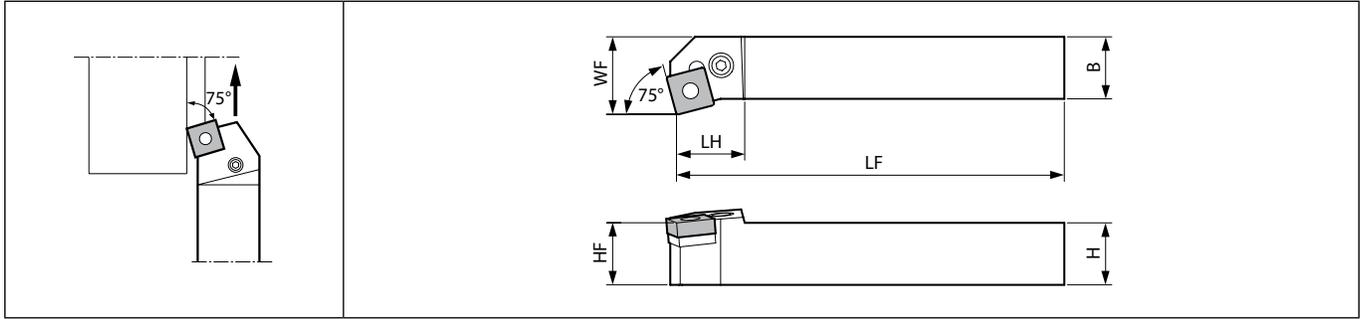


Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)	Back rake angle (°)	Spare Parts						Applicable Inserts	
			N	H	B	LH	HF	LF	WF			Lever	Lock screw	Punch	Shim pin	Shim	Wrench		Wrench
mm	PSDNN 1616H-09	●	16	16	21	16	100	8	0.8	-8.5	LL-1N	LS-1N	PC-1	LSP-1	LS-32	-	FH-2.5	SN□G32...	
	PSDNN 2020K-12	●	20	20	30	20	125	10	0.8	-8.5	LL-2N	LS-2N	PC-2	LSP-2	LS-42	LW-3	-	SN□A43... SN□G43... SN□M43...	
	PSDNN 2525M-12	●	25	25		25	150	12.5											

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

**PSKN** (External Facing)



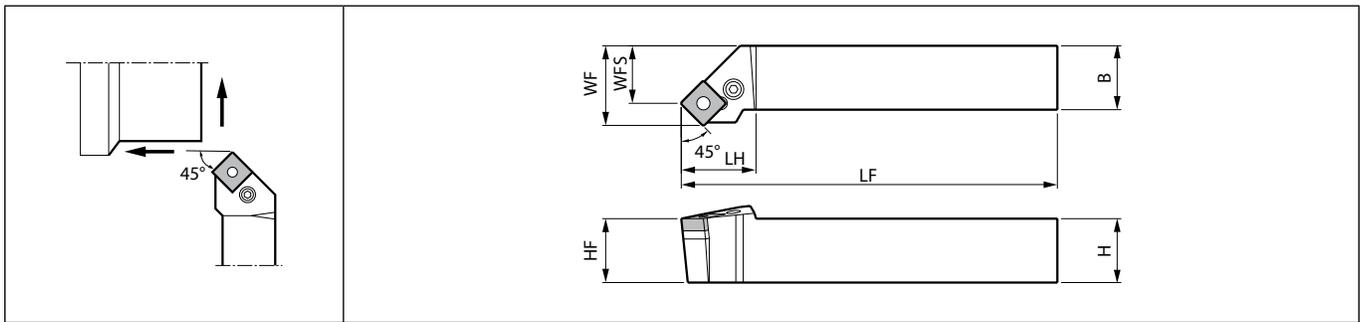
Right-hand shown | Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	LF	WF				Lever	Lock screw	Punch	Shim pin	Shim	Wrench	
mm	PSKN% 2020K-12	●	●	20	20	22.5	20	125	25	0.8	-4	-7	LL-2N	LS-2N	PC-2	LSP-2	LS-42	LW-3	SN□A43... SN□G43... SN□M43...
	2525M-12	●	●	25	25		25	150	32										

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.  
PSKN% : Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

**PSSN** (External Turning / External Facing / External Chamfering)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts							Applicable Inserts		
		R	L	H	B	LH	HF	LF	WF				WFS	Lever	Lock screw	Punch	Shim pin	Shim	Wrench		Wrench	
mm	PSSN% 1616H-09	●	●	16	16	22	16	100	20	13.6	0.8	-8	0	LL-1N	LS-1N	PC-1	LSP-1	LS-32	-	FH-2.5	SN□G32...	
	PSNN% 2020K-12	●	●	20	20	29	20	125	25	16.4												
	2525M-12	●	●	25	25			25	150	32	23.4				LL-2N	LS-2N	PC-2	LSP-2	LS-42	LW-3	-	

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

PSNN% : When using handed inserts, For External Turning, Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

For Facing, Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)  
Contact your local Kyocera sales engineer to upgrade old products to new technology

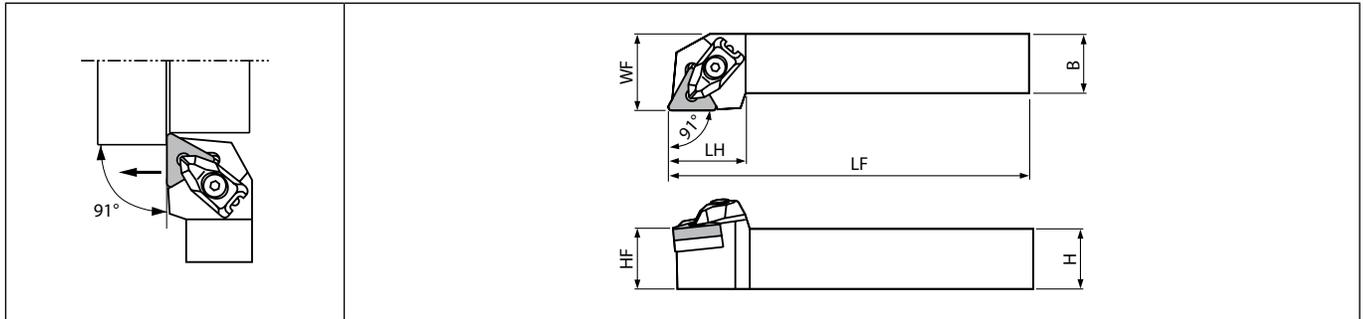
INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

Applicable Inserts (DSBN / PSBN / PSKN / PSSN / MSSN / PSDN)

<b>Applications</b>	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Roughing	Roughing
<b>Insert</b>								
<b>Chipbreaker type</b>	<b>PQ</b>	<b>HQ</b>	<b>PMG</b>	<b>PG</b>	<b>PS</b>	<b>PT</b>	<b>Standard</b>	<b>PH</b>
<b>Page</b>	<b>B34</b>	<b>B34</b>	<b>B34</b>	<b>B34</b>	<b>B34</b>	<b>B34</b>	<b>B34</b>	<b>B35</b>
<b>Applications</b>	Roughing	Finishing - Medium	Medium - Roughing	Medium - Roughing	Low carbon steel	Low carbon steel	Low carbon steel	Stainless Steel / Heat-Resistant Alloys
<b>Insert</b>								
<b>Chipbreaker type</b>	<b>PX</b>	<b>P% -B</b>	<b>P% -C</b>	<b>P% -25R</b>	<b>XP</b>	<b>XQ</b>	<b>XS</b>	<b>MQ</b>
<b>Page</b>	<b>B35</b>	<b>B37</b>	<b>B37</b>	<b>B37</b>	<b>B35</b>	<b>B35</b>	<b>B35</b>	<b>B36</b>
<b>Applications</b>	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron	Cast Iron / Hard Materials				
<b>Insert</b>								
<b>Chipbreaker type</b>	<b>MS</b>	<b>KG</b>	<b>KH</b>	<b>C</b>	<b>ZS</b>	<b>GC</b>	<b>No Chipbreaker</b>	<b>Ceramic</b>
<b>Page</b>	<b>B36</b>	<b>B36</b>	<b>B36</b>	<b>B36</b>	<b>B37</b>	<b>B37</b>	<b>B37</b>	<b>B117</b>
<b>Applications</b>	Heat-Resistant Alloys	Hard Materials / Cast Iron						
<b>Insert</b>								
<b>Chipbreaker type</b>	<b>SG</b>	<b>CBN</b>						
<b>Page</b>	<b>B36</b>	<b>C12</b>						

Recommended Cutting Conditions  D75~D76

DTGN (External Turning)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts			
		R	L	H	B	LH	HF				LF	WF	Clamp	Screw (for clamp)	Spring	Wrench (for clamp)		Shim	Screw (for shim)	Wrench* (for shim)
mm	DTGN%L 2020K-16	●	●	20	20	25	20	125	25	0.8	-6	-6	CP-2D	CS-2D	SP-2D	LW-2.5	DT-32	SB-3080TR	FT-10	TN□A33... TN□G33... TN□M33... TN□X33...
	2525M-16	●	●	25	25		25	150	32											

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

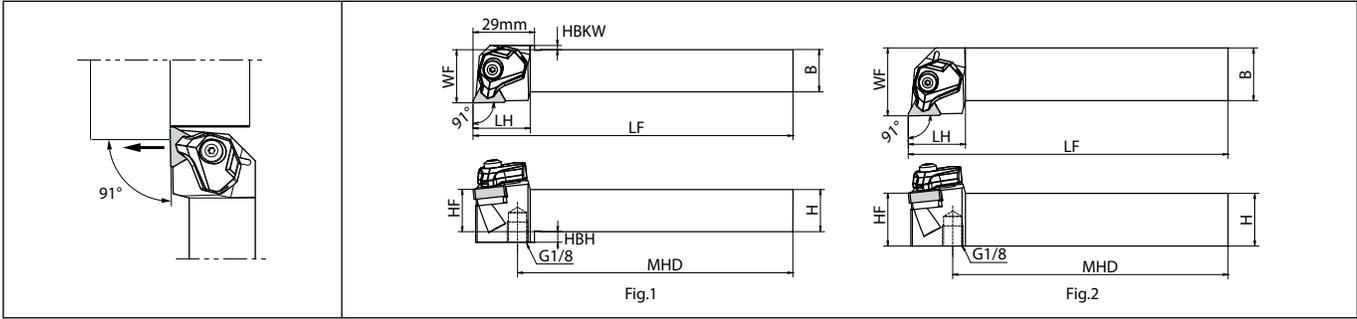
When using the insert with WF chipbreaker, tool edge offset or program corrections are required on **R40** and **R41**.

Wrench (FT-10) is sold separately.

Recommended tightening torque : 1.7N·m

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**DTGN-JCT** (External Turning, Coolant-Through Holders)



Right-hand shown | Coolant-Through | Applicable Pressure : ~4,350 psi

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								Standard Corner-R (RE)	Fig.	Coolant Hole	Side Rake Angle (°)	Inclination Angle (°)	Applicable Inserts	
		R	L	H	B	LH	HBH	HBKW	MHD	HF	LF							WF
mm	DTGN 2020K-16JCT	●	●	20	20	27	5	2	104	20	125	25	0.8	1	Yes	-6	-6	TN□A33... TN□G33... TN□M33... TN□X33...
	2525M-16JCT	●	●	25	25		-	-	129	25	150	32						

Unit	Part Number	Spare Parts							
		Clamp	Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)	Wrench* (for shim)	Pipe Connection (* with O-Ring)
mm	DTGN 2020K-16JCT								
	2525M-16JCT	CP-2D-16-JCT	CS-3D-TR	SP-3D	FT-15	DT-32	SB-3080TR	FT-10	FP-12

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other. When using the insert with WF chipbreaker, tool edge offset or program corrections are required on **R40** and **R41**.

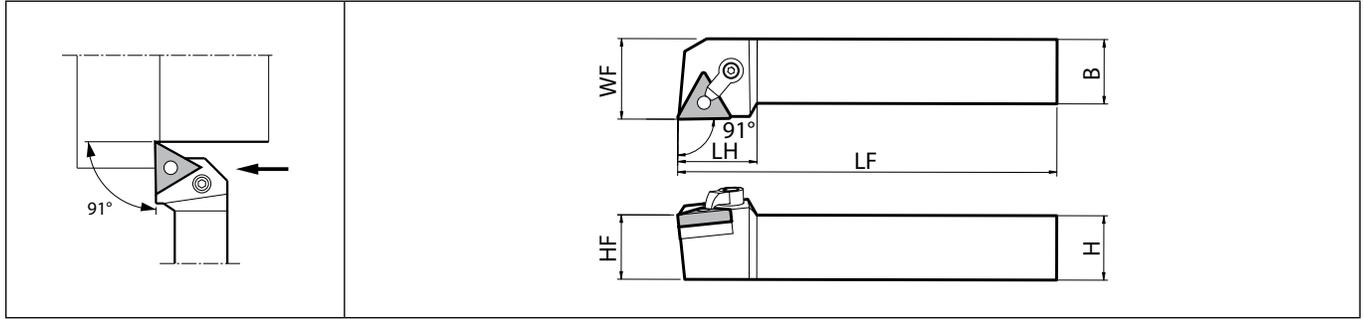
Wrench (FT-10) is sold separately.

Please see page **D13** for piping parts of coolant-through holders.

O-ring (SS-035) is available to order separately.

Recommended tightening torque : 3.9N·m

MTGN (External Turning)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts	
		R	L	H	B	LH	HF	LF	WF				Clamp	Screw (for clamp)	Wrench	Shim	Screw (for shim)	Lock Pin		Wrench
Inch	MTGN% 12-3B	●	●	0.75	0.75	0.94	0.75	4.50	1.00	1/64	-5	-5	CL-6	XNS36	LW-094	ITSN333 (ITSN323)	S-34	NL34L	(5/64 Hex)	TN□A33... TN□G33... TN□M33... TN□X33...
	MTGNR 16-4D	●		1.00	1.00	1.19	1.00	6.00	1.25	1/32			CL-9	XNS48	LW-156	ITSN433	S-46	NL46	LW0	TN□G43... TN□M43...

When using inserts with a corner-R (RE) greater than 1/16" (1.6 mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

When using the insert with WF chipbreaker, tool edge offset or program corrections are required on **R40** and **R41**.

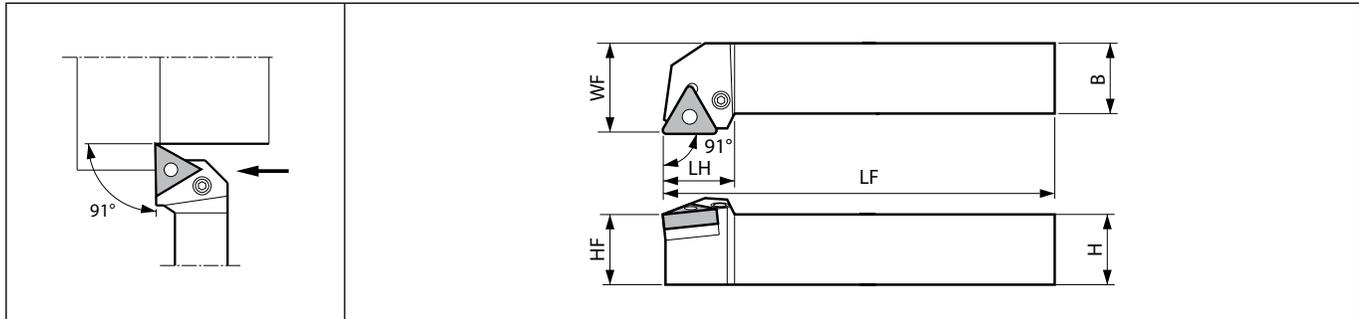
Shim: ITSN333 is included with MTGN% 12-3B. When using TN□□32... insert, please purchase ITSN323 separately.

Wrench (FT-10) is sold separately.

Recommended tightening torque : 3.9N-m

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

PTGN (External Turning)



Right-hand shown

Toolholder Dimensions

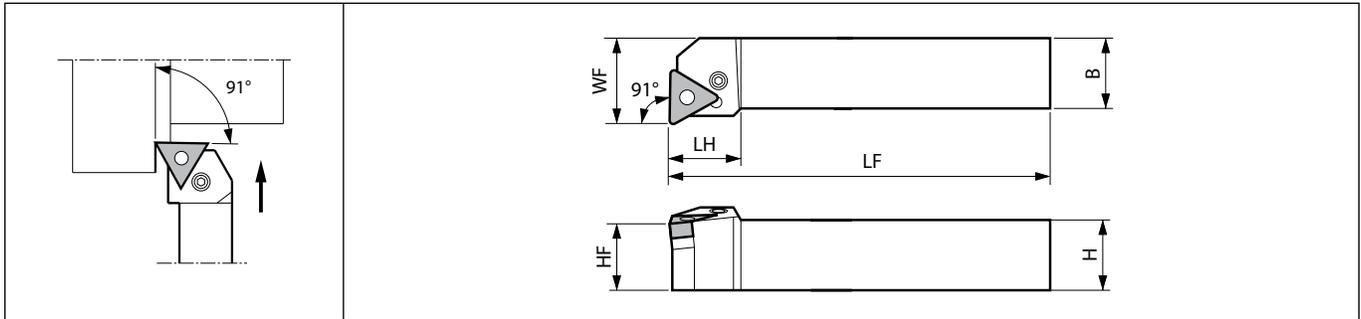
Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Incination Angle (°)	Spare Parts							Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Lever				Lock screw	Punch	Shim pin	Shim pin	Shim	Wrench	Wrench	
Inch	PTGNR 12-3B	●		0.75	0.75	0.96	0.75	4.50	1.00	1/32	-6	-6	LL-1N	LS-1N	PC-1	LSP-1	-	LT-32N (LT-32N-20*)	LW-2.5	-	TN□A33... TN□G33... TN□M33... TN□X33...
mm	PTGN% 1212F-11	●	●	12	12	18	12	80	16				LL-03N	LS-03N	-	-	P-03	-	FH-2	TNGA22... TNGG22...	
	1616H-11	●		16	16		16	100	20	0.8	-6	-6			-	-			FH-2.5	TNGG23... TNMG23...	
	2020K-11	●	●	20	20	22	20	125	25				LL-03TN	LS-03SN	-	-	P-03S	-	FH-2.5	TNGG23... TNMG23...	
	2525M-11	●	●	25	25		25	150	32						-	-			FH-2.5	TNGG23... TNMG23...	
	PTGN% 1616H-16	●	●	16	16		16	100	20						-	-			FH-2.5	TN□A33... TN□G33... TN□M33... TN□X33...	
	2020H-16	●		20	20	24	20	125	25	0.8	-6	-6	LL-1N	LS-1N	PC-1	LSP-1	-	LT-32N (LT-32N-20*)	-	FH-2.5	TN□A33... TN□G33... TN□M33... TN□X33...
	2020K-16	●	●	20	20		20	125	25						-	-			FH-2.5	TN□A33... TN□G33... TN□M33... TN□X33...	
	2525M-16	●	●	25	25		25	150	32						-	-			FH-2.5	TN□A33... TN□G33... TN□M33... TN□X33...	
	PTGN% 2525M-22	●	●	25	25	29	25	150	32	0.8	-6	-6	LL-2N	LS-2N	PC-2	LSP-2	-	LT-42N (LT-42N-20*)	LW-3	-	TN□G43... TN□M43...

When using inserts with corner-R (RE) greater than 1/16" (1.6mm), please purchase shim\* to prevent workpiece and shim from interfering with each other.

When using the insert with WF chipbreaker, tool edge offset or program corrections are required on R40 and R41.

PTGN% 1212F-11 : TNGA22.. and TNGG22.. type inserts are applicable.

PTFN (External Facing)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts							Applicable Inserts	
		R	L	H	B	LH	HF	LF	WF				Lever	Lock screw	Punch	Shim pin	Shim pin	Shim	Wrench		Wrench
Inch	PTFNL 12-3C	●		0.75	0.75	0.88	0.75	5.00	1.00	1/32	-6	-6	LL-1N	LS-1N	PC-1	LSP-1	-	LT-32N (LT-32N-20*)	-	FH-2.5	TN□A33... TN□G33... TN□M33... TN□X33...
mm	PTFN% 1212F-11	●	●	12	12	15	12	80	16	0.8	-6	-6	LL-03N	LS-03N	-	-	P-03	-	FH-2	TNGA22... TNGG22...	
	1616H-11	●	●	16	16		16	100	20				LL-03TN	LS-03SN	-	-	P-03S	-	-	FH-2.5	TNGG23... TNMG23...
	2020K-11	●		20	20	22.5	20	125	25				LL-1N	LS-1N	PC-1	LSP-1	-	LT-32N (LT-32N-20*)	-	FH-2.5	TN□A33... TN□G33... TN□M33... TN□X33...
	2525M-11	●	●	25	25		25	150	32				LL-2N	LS-2N	PC-2	LSP-2	-	LT-42N (LT-42N-20*)	LW-3	-	TN□G43... TN□M43...

When using inserts with corner-R (RE) greater than 1/16" (1.6mm), please purchase shim\* to prevent workpiece and shim from interfering with each other.

When using the insert with WF chipbreaker, tool edge offset or program corrections are required on R40 and R41.

PTFN% 1212F-11 : TNGA22.. and TNGG22.. type inserts are applicable.

PTFN % : Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

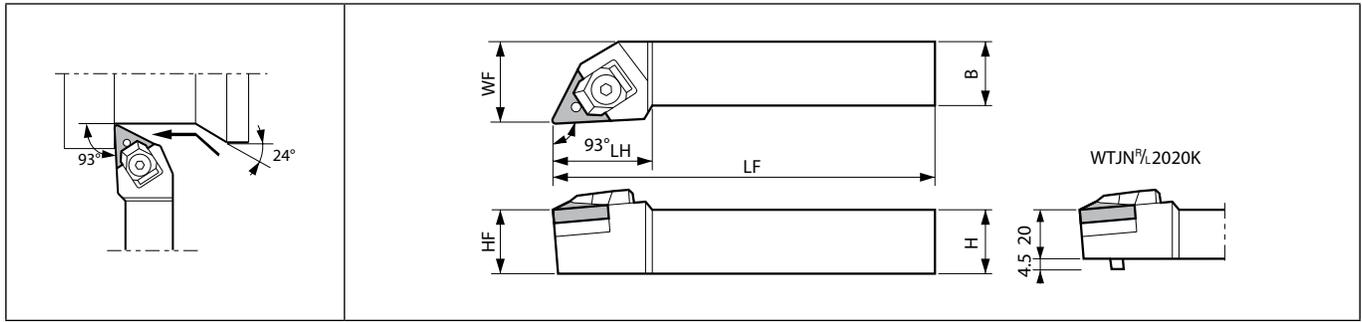
Applicable Inserts (DTGN / DTGN-JCT / MTGN / PTGN / PTFN)

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker type	WF	PP	GP	PQ	HQ	CQ	PMG	GS
Page	B39	B39	B39	B39	B39	B39	B40	B40
Applications	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Roughing	Roughing	Roughing	Finishing
Insert								
Chipbreaker type	PG	PS	PT	GT	Standard	PH	PX	P/L-SSF
Page	B40	B40	B40	B40	B40	B41	B41	B45
Applications	Finishing	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Low carbon steel	Low carbon steel	Low carbon steel
Insert								
Chipbreaker type	P/L-S	P/L-B	P/L-C	R/L	P/L-25R	XF	XP	XQ
Page	B45	B45	B46	B46	B46	B41	B41	B41
Applications	Low carbon steel	Finishing - Medium	Large D.O.C.	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys			
Insert								
Chipbreaker type	XS	SK	R-LD	FP-TK	TK	MQ	MS	MU
Page	B41	B42	B42	B42	B42	B42	B42	B42
Applications	Stainless Steel	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Insert								
Chipbreaker type	P/L-ST	KQ	KG	KH	C	ZS	GC	No Chipbreaker
Page	B43	B43	B43	B43	B43	B43	B43	B44
Applications	Cast Iron / Hard Materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Heat-Resistant Alloys	Hard Materials / Cast Iron		
Insert								
Chipbreaker type	Ceramic	P/L-A3	AH	PCD	SG	CBN		
Page	B118	B44	B44	C36	B43	C13		

Recommended Cutting Conditions D75~D76

D TURNING HOLDERS

**WTJN** (External Turning / External Copying)



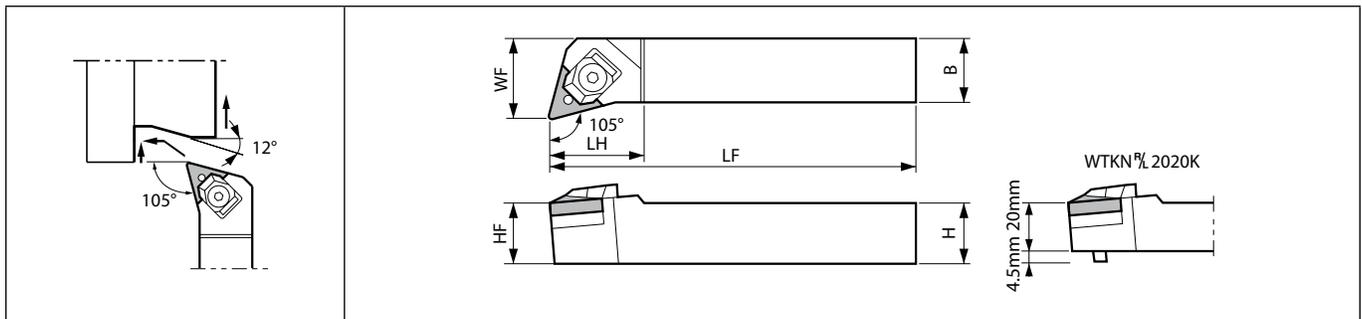
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
			R		L		H		B					Clamp set	Nut	Shim pin	Shim	Spacer	Wrench	
			R	L	H	B	LH	HF	LF	WF										
Inch	WTJN%L 12-3C 16-3D	●	0.75	0.75	1.26	0.75	5.00	1.00			1/32	-6	-6	WCS-1N	WN-1	WP-1S	WTN-33 (WTN-33-20*)	WSP-1	LW-3	TN□A33... TN□G33... TN□M33...
mm	WTJN%L 2020K-16N	●	20	20		20	125	25			0.8	-6	-6	WCS-1N	WN-1	WP-1S	WTN-33 (WTN-33-20*)	WSP-1	LW-3	
	2525M-16N	●	25	25	32	25	150	32												

When using inserts with corner-R (RE) greater than 1/16" (1.6mm), please purchase shim\* to prevent workpiece and shim from interfering with each other.  
For wedge lock, use of ceramic insert other than silicon nitride insert is not recommended due to strong restraint force.

**WTKN** (External Turning / External Facing / External Copying)



Right-hand shown

Toolholder Dimensions

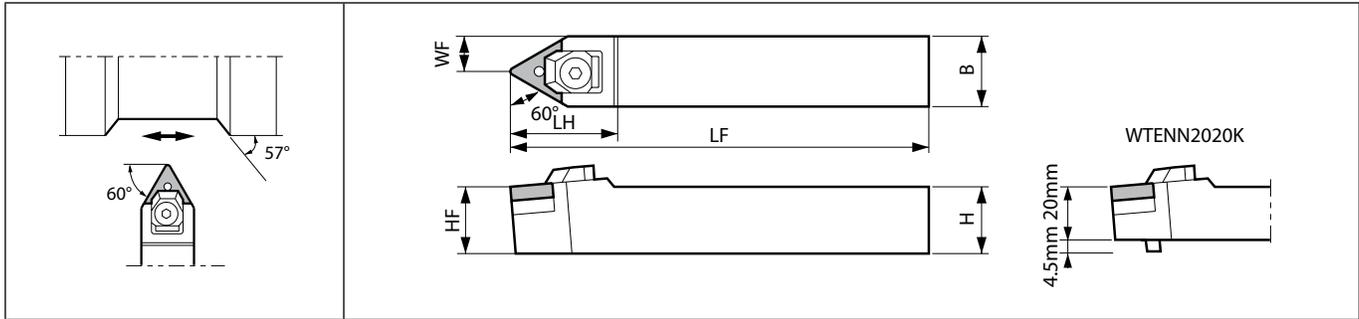
Unit	Part Number	Std. Item	Dimensions								Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
			R		L		H		B					Clamp set	Nut	Shim pin	Shim	Spacer	Wrench	
			R	L	H	B	LH	HF	LF	WF										
Inch	WTKNL 12-3C	●	0.75	0.75	1.26	0.75	5.00	1.00				-6	-6	WCS-1N	WN-1	WP-1S	WTN-33 (WTN-33-20*)	WSP-1	LW-3	TN□A33... TN□G33... TN□M33...
mm	WTKN%L 2020K-16N	●	20	20		20	125	25			0.8	-6	-6	WCS-1N	WN-1	WP-1S	WTN-33 (WTN-33-20*)	WSP-1	LW-3	
	2525M-16N	●	25	25	32	25	150	32												

When using inserts with corner-R (RE) greater than 1/16" (1.6mm), please purchase shim\* to prevent workpiece and shim from interfering with each other.  
For wedge lock, use of ceramic insert other than silicon nitride insert is not recommended due to strong restraint force.

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)  
Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**WTEN** (External Turning / External Chamfering)



D TURNING HOLDERS

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)	Back rake angle (°)	Spare Parts						Applicable Inserts
			N	H	B	LH	HF	LF	WF			Clamp set	Nut	Shim pin	Shim	Spacer	Wrench	
mm	WTENN 2020K-16N	●	20	20	32	20	125	10	0.8	-8.5				WTN-33 (WTN-33-20*)	WSP-1	LW-3	TN□A33... TN□G33... TN□M33...	
	2525M-16N	●	25	25		25	150	12.5			WCS-1N	WN-1	WP-1S	WTN-33 (WTN-33-20*)	WSP-1	LW-3	TN□A33... TN□G33... TN□M33...	

When using inserts with corner-R (RE) greater than 1/16" (1.6mm), please purchase shim\* to prevent workpiece and shim from interfering with each other.  
For wedge lock, use of ceramic insert other than silicon nitride insert is not recommended due to strong restraint force.

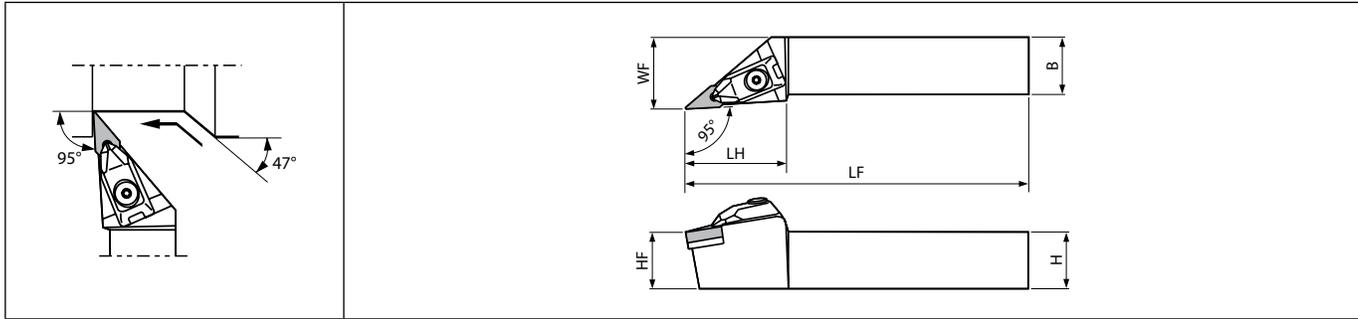
Applicable Inserts (WTJN / WTKN / WTEN)

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker type	PP	GP	PQ	HQ	CQ	GS	GS	PG
Page	B39	B39	B39	B39	B39	B40	B40	B40
Applications	Medium - Roughing	Medium - Roughing	Medium - Roughing	Roughing	Roughing	Roughing	Finishing	Finishing
Insert								
Chipbreaker type	PS	PT	GT	Standard	PH	PX	P/L-SSF	P/L-S
Page	B40	B40	B40	B40	B41	B41	B45	B45
Applications	Finishing - Medium	Medium - Roughing	Medium - Roughing	Low carbon steel	Low carbon steel	Low carbon steel	Low carbon steel	Finishing - Medium
Insert								
Chipbreaker type	P/L-B	P/L-C	P/L-25R	XF	XP	XQ	XS	SK
Page	B45	B46	B46	B41	B41	B41	B41	B42
Applications	Large D.O.C.	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel	Cast Iron
Insert								
Chipbreaker type	R-LD	FP-TK	TK	MQ	MS	MU	P/L-ST	KQ
Page	B42	B42	B42	B42	B42	B42	B43	B43
Applications	Cast Iron	Cast Iron	Non-Ferrous Metals	Non-Ferrous Metals				
Insert								
Chipbreaker type	KG	KH	C	ZS	GC	No Chipbreaker	P/L-A3	AH
Page	B43	B43	B43	B43	B43	B44	B44	B44
Applications	Non-Ferrous Metals	Heat-Resistant Alloys	Hard Materials / Cast Iron					
Insert								
Chipbreaker type	PCD	SG	CBN					
Page	C36	B43	C13					

Recommended Cutting Conditions  D75~D76

INSERT GRADES	A
TURNING INSERTS	B
CBN / PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

DVJN (External Turning / External Copying)



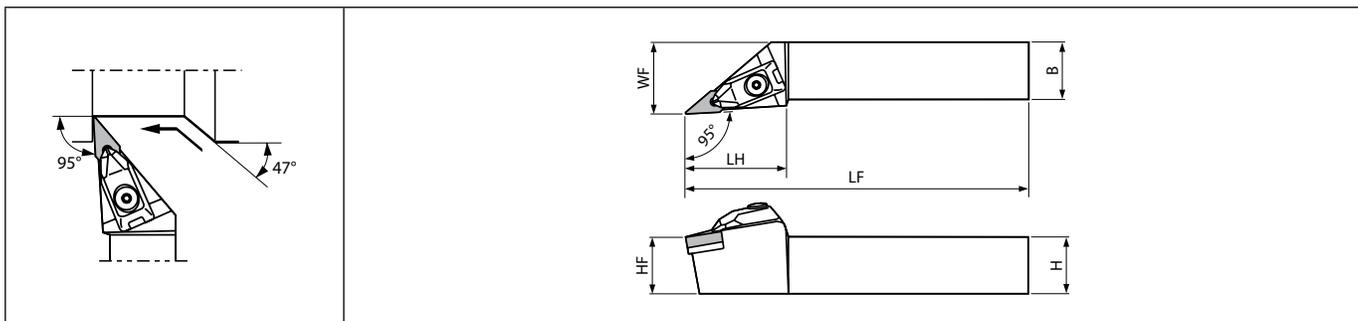
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts			
		R	L	H	B	LH	HF				LF	WF	Clamp	Screw (for clamp)	Spring	Wrench (for clamp)		Shim	Screw (for shim)	Wrench* (for shim)
		Inch	DVJN% 12-3B 16-3D	●	●	20	20				45	20	125	25	0.8	-6		-9	CP-5D	CS-5D
		●	●	25	25		25	150	32											

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.  
 Wrench (FT-15) is sold separately.  
 Recommended tightening torque : 3.0N·m

DVLN (External Turning / External Copying)



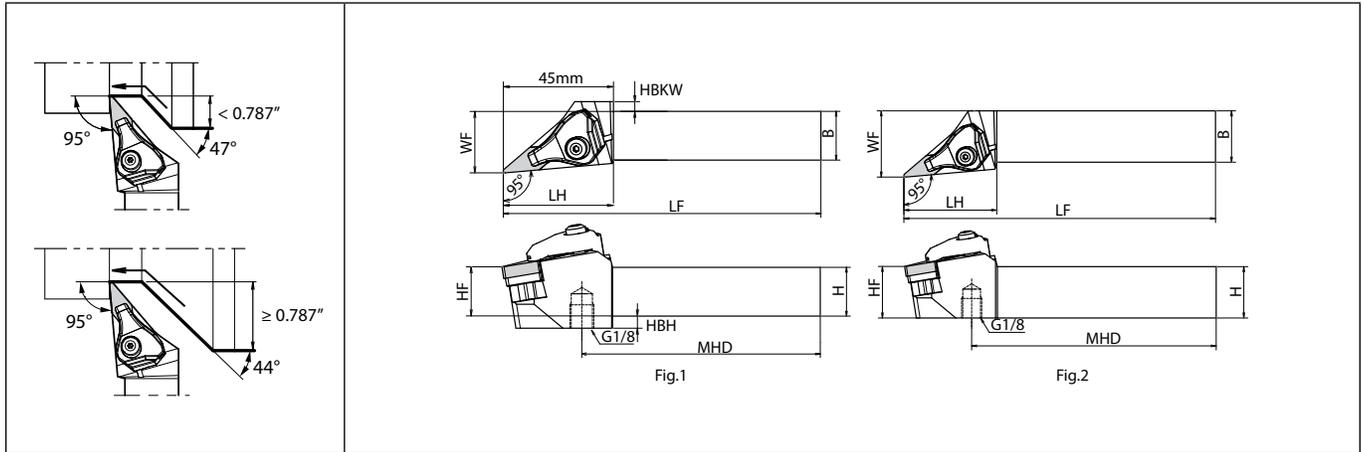
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts				
		R	L	H	B	LH	HF				LF	WF	Clamp	Screw (for clamp)	Spring	Wrench (for clamp)		Shim	Screw (for shim)	Wrench* (for shim)	
		mm	DVLN% 2020K-16 2525M-16	●	●	20	20				45	20	125	25	0.8	-6		-9	CP-5D	CS-5D	SP-5D
		●	●	25	25		25	150	32												

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.  
 Wrench (FT-15) is sold separately.  
 Recommended tightening torque : 3.0N·m

**DVLN-JCT** (External Turning / External Copying, Coolant-Through Holders)



Right-hand shown | Coolant-Through | Applicable Pressure : ~4,350 psi

Toolholder Dimensions

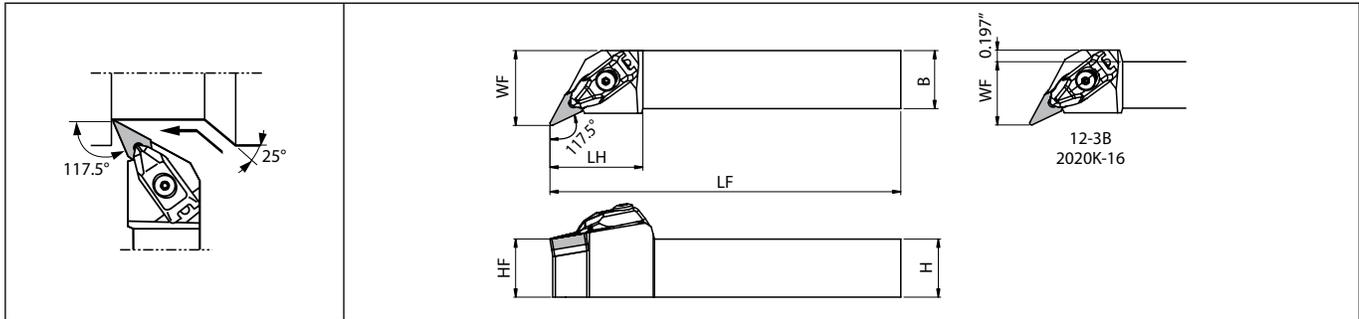
Unit	Part Number	Std. Item		Dimensions									Standard Corner-R (RE)	Fig.	Coolant Hole	Side Rake Angle (°)	Inclination Angle (°)	Applicable Inserts
		R	L	H	B	LH	HBH	HBKW	MHD	HF	LF	WF						
Inch	DVLNR 12-3BJCT	●		0.75	0.75	1.77	0.234	0.142	3.220	0.75	4.50	1.00	1/32	1	Yes	-6	-9	VN□A33... VN□G33... VN□M33...
	DVLNL 12-3BJCT		●						3.060									
	DVLNR 16-3DJCT	●		1.00	1.00		-	-	4.720	1.00	6.00	1.25	2					
	DVLNL 16-3DJCT		●				4.560											
mm	DVLNR 2020K-16JCT	●		20	20	45	5	4	92.5	20	125	25	0.8	1	Yes	-6	-9	
	DVLNL 2020K-16JCT		●						88.5									
	DVLNR 2525M-16JCT	●		25	25		-	-	117.5	25	150	32	2					
	DVLNL 2525M-16JCT		●				113.5											

Unit	Part Number	Spare Parts						
		Clamp	Pipe Connection (* with O-Ring)	Screw (for clamp)	Spring	Shim	Screw (for shim)	Wrench
Inch	DVLN% 12-3BJCT 16-3DJCT	CP-5D-JCT	FP-12	CS-3D-TR	SP-3D	DV-33	SB-4085TR	FT-15
mm	DVLN% 2020K-16JCT 2525M-16JCT	CP-5D-JCT	FP-12	CS-3D-TR	SP-3D	DV-33	SB-4085TR	FT-15

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other. The washer may protrude from the holder. To prevent interference, additional modifications to the washer may be required.  
 O-ring (SS-035) is available to order separately.  
 Please see page D13 for piping parts of coolant-through holders.  
 Recommended tightening torque : 3.9N·m

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

DVPN (External Turning / External Facing / External Copying / Undercutting)



Right-hand shown

Toolholder Dimensions

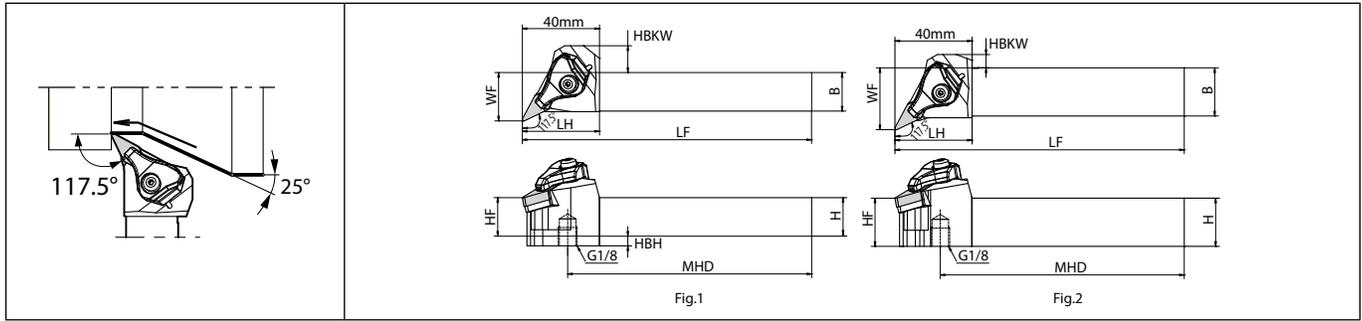
Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts	
		R	L	H	B	LH	HF	LF	WF				Clamp	Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)		Wrench* (for shim)
Inch	DVPN% 12-3B	●	●	0.75	0.75	1.58	0.75	4.50	1.00	1/32	-13	-10	CP-5D	CS-5D	SP-5D	LW-3	DV-33	SB-4085TR	FT-15	VN□A33... VN□G33... VN□M33...
	16-3D	●	●	1.00	1.00	1.58	1.00	6.00	1.25											
mm	DVPN% 2020K-16	●	●	20	20	40	20	125	27	0.8	-13	-10	CP-5D	CS-5D	SP-5D	LW-3	DV-33	SB-4085TR	FT-15	
	2525M-16	●	●	25	25	25	150	32												

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

Wrench (FT-15) is sold separately.

Recommended tightening torque : 3.0N·m

**DVPN-JCT** (External Turning / External Facing / External Copying / Undercutting, Coolant-Through Holders)



Right-hand shown | Coolant-Through | Applicable Pressure : ~4,350 psi

Toolholder Dimensions

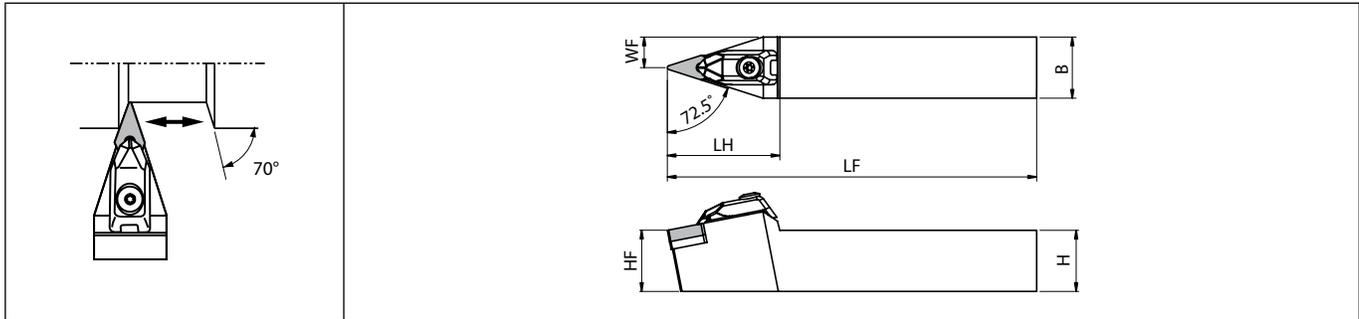
Unit	Part Number	Std. Item		Dimensions										Standard Corner-R (RE)	Fig.	Coolant Hole	Side Rake Angle (°)	Inclination Angle (°)	Applicable Inserts						
		R	L	H	B	LH	HBH	HBKW	MHD	HF	LF	WF													
mm	DVPNR 2020K-16JCT	●		20	20	40	5	14	101.5	20	125	25	0.8	1	Yes	-13	-10	VN □ A33... VN □ G33... VN □ M33...							
	DVPNL 2020K-16JCT		●							93.5															
	DVPNR 2525M-16JCT	●		25	25					126.5	25	150							32						
	DVPNL 2525M-16JCT		●							118.5															

Unit	Part Number	Spare Parts						
		Clamp	Pipe Connection (* with O-Ring)	Screw (for clamp)	Spring	Shim	Screw (for shim)	Wrench
mm	DVPN% 2020K-16JCT 2525M-16JCT							
		CP-5D-JCT	FP-12	CS-3D-TR	SP-3D	DV-33	SB-4085TR	FT-15

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other. The washer may protrude from the holder. To prevent interference, additional modifications to the washer may be required. O-ring (SS-035) is available to order separately. Please see page D13 for piping parts of coolant-through holders. Recommended tightening torque : 3.9N·m

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

DVVN (External Turning / External Copying)



D  
TURNING  
HOLDERS

Toolholder Dimensions

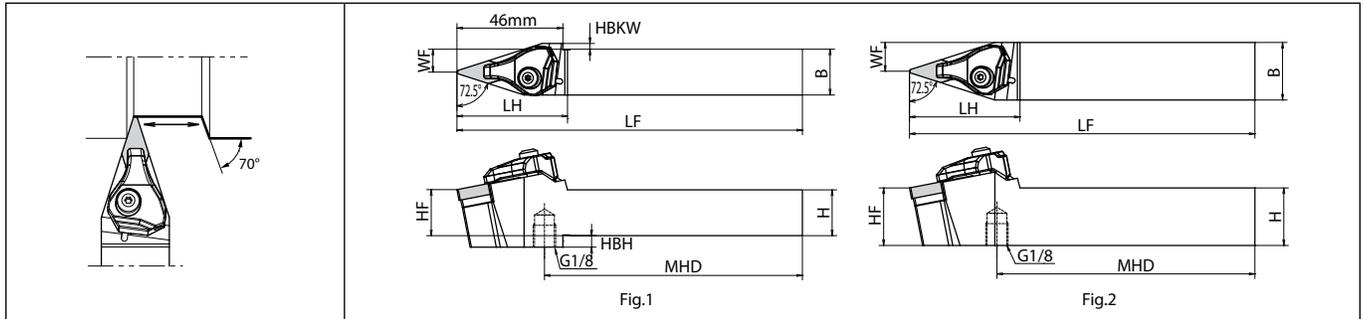
Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)		Spare Parts							Applicable Inserts
			N	H	B	LH	HF	LF	WF	Standard	Back rake angle (°)	Clamp	Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)	Wrench* (for shim)	
																			
Inch	DVVNN 12-3B	●	0.75	0.75	1.81	0.75	4.50	0.40	1/32	-11								VN□A33... VN□G33... VN□M33...	
	16-3D	●	1.00	1.00	1.81	1.00	6.00	0.52											CP-5D
mm	DVVNN 2020K-16	●	20	20	46	20	125	10	0.8	-11									
	2525M-16	●	25	25		25	150	12.5										CP-5D	CS-5D

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

Wrench (FT-15) is sold separately.

Recommended tightening torque : 3.0N·m

DVVN-JCT (External Turning / External Copying, Coolant-Through Holders)



Coolant-Through | Applicable Pressure : ~4,350 psi

Toolholder Dimensions

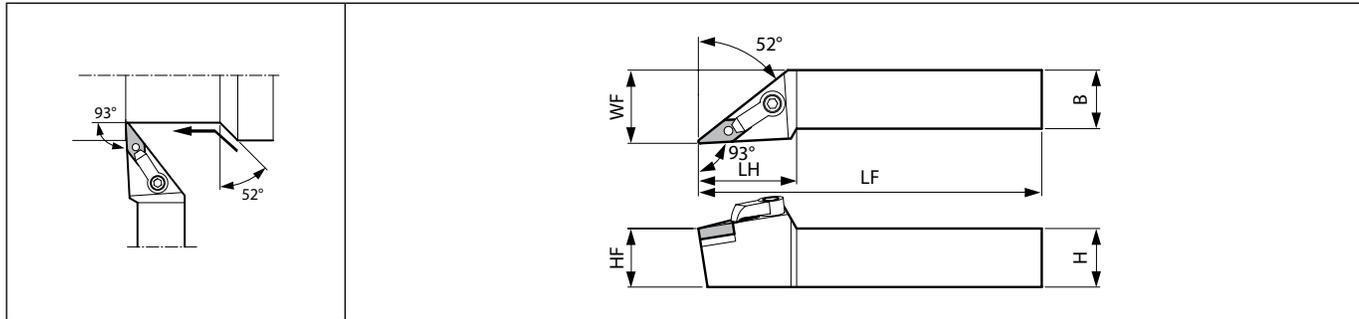
Unit	Part Number	Std. Item	Dimensions									Standard Corner-R (RE)	Fig.	Coolant Hole	Back rake angle (°)	Applicable Inserts
			N	H	B	LH	HBH	HBKW	MHD	HF	LF					
mm	DVVNN 2020K-16JCT	●	20	20		5	2.5	87	20	125	10	0.8	1	Yes	-11	VN□A33... VN□G33... VN□M33...
	2525M-16JCT	●	25	25	48	-	-	112	25	150	12.5		2			

Unit	Part Number	Spare Parts						
		Clamp	Pipe Connection (* with O-Ring)	Screw (for clamp)	Spring	Shim	Screw (for shim)	Wrench
mm	DVVNN 2020K-16JCT							
	2525M-16JCT	CP-5D-JCT	FP-12	CS-3D-TR	SP-3D	DV-33	SB-4085TR	FT-15

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other. The washer may protrude from the holder. To prevent interference, additional modifications to the washer may be required. O-ring (SS-035) is available to order separately. Please see page D13 for piping parts of coolant-through holders. Recommended tightening torque : 3.9N·m

A INSERT GRADES  
B TURNING INSERTS  
C CBN / PCD INSERTS  
D TURNING HOLDERS  
E SMALL TOOLS  
F BORING  
G GROOVING  
H CUT-OFF  
J THREADING  
K DRILLING  
M MILLING  
N QUICK CHANGE TOOLING  
P SPARE PARTS  
R TECHNICAL  
T INDEX

**MVJN** (External Turning / External Copying)



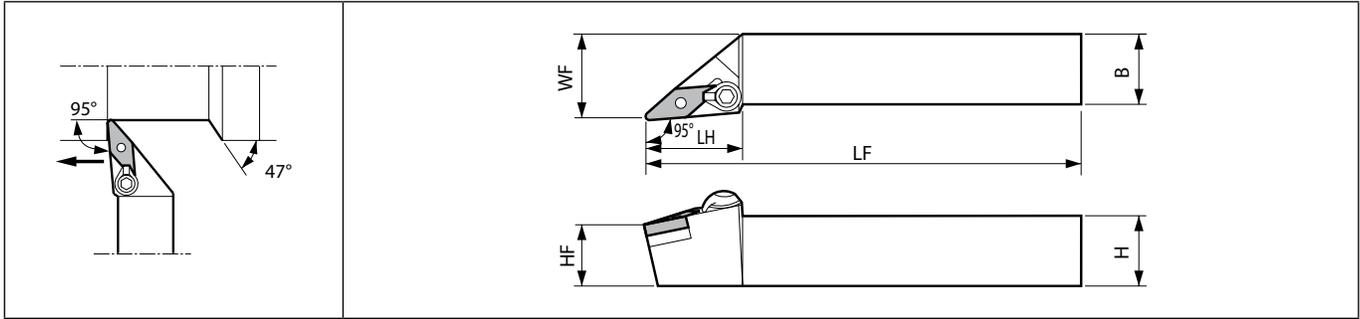
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts			
		R	L	H	B	LH	HF				LF	WF	Clamp	Clamp screw	Wrench	Lock pin		Shim	Shim screw	Wrench
																				
Inch	MVJN <sup>●</sup> 12-3B	●	●	0.75	0.75	1.69	0.75	4.50	1.00	1/32	-6	-9	CL-30	XNS48	LX-156	NL34L	IVSN322	S-34	(5/64 Hex)	VN□A33... VN□G33... VN□M33...
	16-3C	●	●	1.00	1.00		1.00	5.00	1.25											

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

**MVLN** (External Turning / External Copying)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts					Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Clamp set				Wrench (for clamp set)	Lock pin	Shim	Wrench (for shim)		
mm	MVLN% 2020K-16	●	●	20	20	38	20	125	25	0.8	-6	-9						VN□A33... VN□G33... VN□M33...	
	2525M-16	●	●	25	25		25	150	32										

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

Clamp Set : CPS-SR for Right-hand Toolholder, CPS-SL for Left-hand Toolholder.

Clamp set : CPS-SR has Right-hand thread.

When clamping the insert, turn the screw in the arrow direction (clockwise).

When removing the insert, turn the screw away from the arrow (counterclockwise).

Clamp set : CPS-SL has Left-hand thread.

When clamping the insert, turn the screw in the arrow direction (counterclockwise).

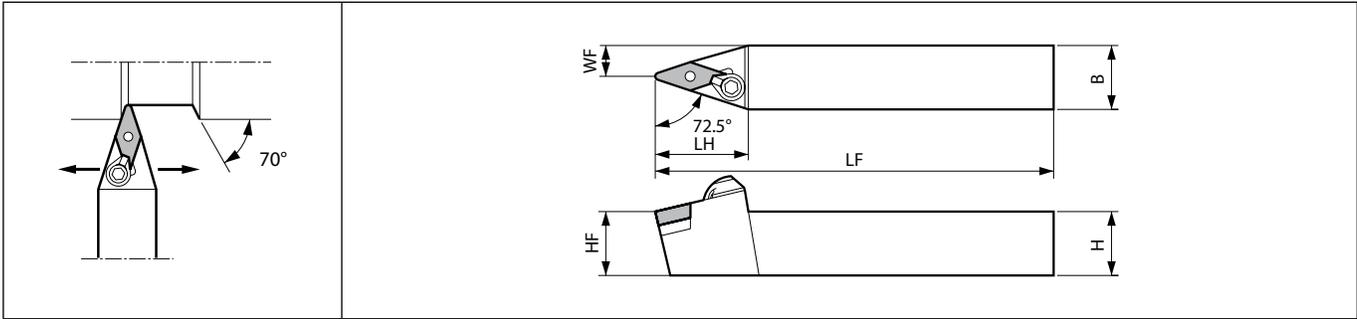
When removing the insert, turn the screw away from the arrow (clockwise).

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

- INSERT GRADES **A**
- TURNING INSERTS **B**
- CBN/PCD INSERTS **C**
- TURNING HOLDERS **D**
- SMALL TOOLS **E**
- BORING **F**
- GROOVING **G**
- CUT-OFF **H**
- THREADING **J**
- DRILLING **K**
- MILLING **M**
- QUICK CHANGE TOOLING **N**
- SPARE PARTS **P**
- TECHNICAL **R**
- INDEX **T**

MVNN (External Turning / External Copying)



D  
TURNING  
HOLDERS

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Standard Corner-R (RE)	Back rake angle (°)	Applicable Inserts	
			N	H	B	LH	HF				LF
Inch	MVVNN 12-3B	●	0.75	0.75	1.67	0.75	4.50	0.375	1/32	-11	VN□A33... VN□G33... VN□M33...
	16-3D	●	1.00	1.00	1.67	1.00	6.00	0.500			
mm	MVVNN 2020K-16	●	20	20	39	20	125	10	0.8	-11	
	2525M-16	●	25	25		25	150	12.5			

Unit	Part Number	Spare Parts								
		Clamp set	Wrench (for clamp set)	Clamp	Clamp screw	Wrench (for clamp screw)	Lock pin	Shim	Wrench (for shim)	Wrench (for shim)
Inch	MVVNN 12-3B									
	16-3D	-	-	CL-12	XNS510	(5/64 Hex)	NL34L	IVSN322	LW-156	-
mm	MVVNN 2020K-16	CPS-5R	FH-2.5	-	-	-	TS-3S	MVN-32	-	FH-2
	2525M-16									

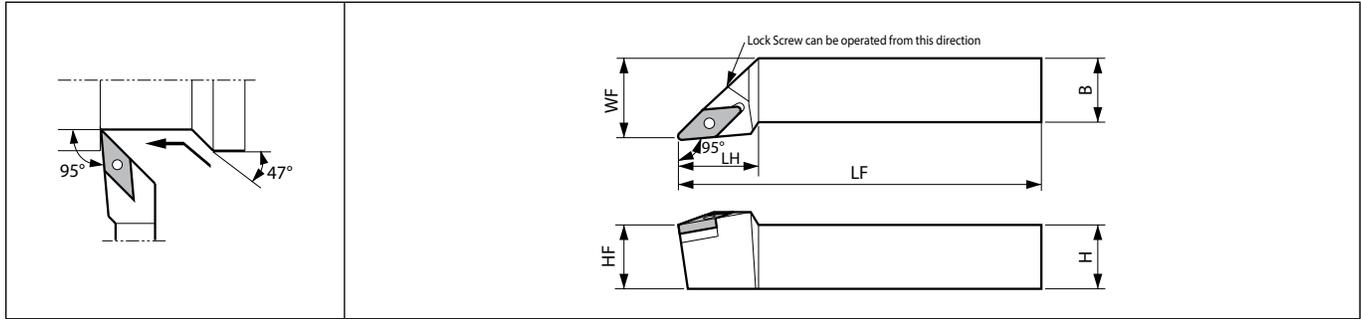
When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

Clamp set : CPS-5R has Right-hand thread.

When clamping the insert, turn the screw in the arrow direction (clockwise).

When removing the insert, turn the screw away from the arrow (counterclockwise).

**PVLN** (External Turning / External Copying)



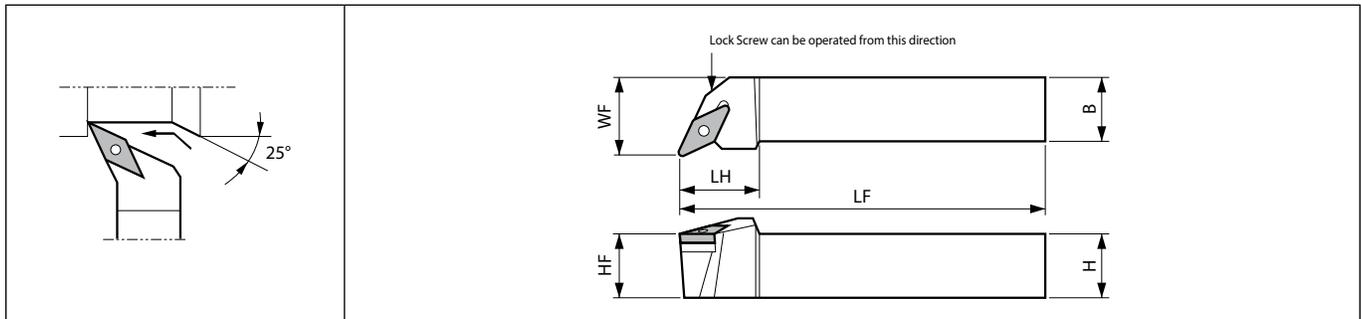
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions					Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts				Applicable Inserts	
		R	L	H	B	LH	HF	LF				WF	Lock pin	Lock screw	Shim		Wrench
		mm	PVLN%L 2525M-16Q	●	●	25	25	37				25	150	32	0.8		-6

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

**PVPN** (External Turning / External Facing / External Copying / Undercutting)



Right-hand shown

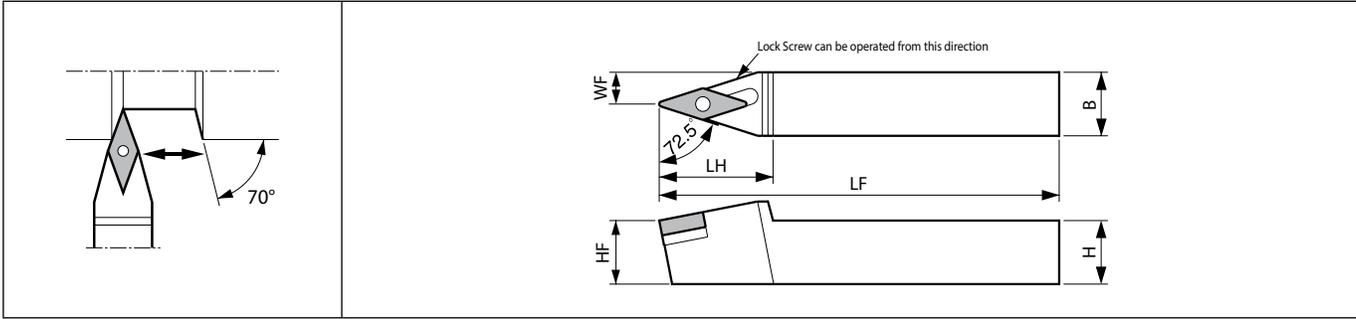
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions					Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts				Applicable Inserts	
		R	L	H	B	LH	HF	LF				WF	Lock pin	Lock screw	Shim		Wrench
		mm	PVPN%L 2020K-16Q 2525M-16Q	●	●	20	20	30				20	125	25	0.8		-13
●	●	25	25		25	150	32	LP-6S									

When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

PVVN (External Turning / External Copying)



Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)	Back rake angle (°)	Spare Parts				Applicable Inserts
			N	H	B	LH	HF	LF	WF			Lock pin	Lock screw	Shim	Wrench	
mm	PVVNN 2020K-16Q	●	20	20	35	20	125	10	0.8	-11	LP-2S	LS-15	KVN-32	LW-3	VN□A33... VN□G33... VN□M33...	
	2525M-16Q	●	25	25	40	25	150	12.5			LP-6S					

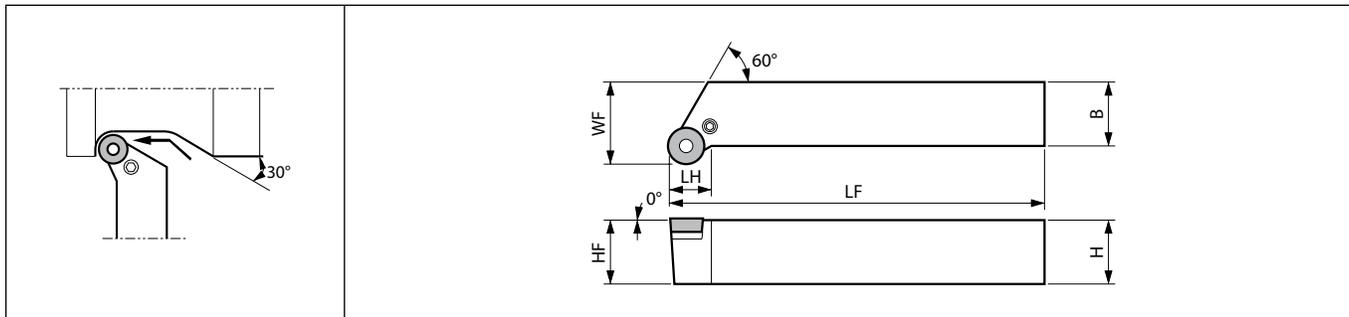
When using inserts with a corner-R (RE) greater than 3/64" (1.2mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

Applicable Inserts

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium	Roughing
Insert								
Chipbreaker type	PP	GP	VC	VF	PQ	HQ	TN-V	Standard
Page	B47	B47	B47	B47	B47	B47	B47	B47
Applications	Finishing - Medium	Finishing	Medium	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron
Insert								
Chipbreaker type	SK	S	R/L	MQ	MS	MU	KG	KH
Page	B48	B49	B49	B48	B48	B48	B48	B48
Applications	Cast Iron	Cast Iron / Hard Materials	Non-Ferrous Metals	Heat-Resistant Alloys	Hard Materials / Cast Iron			
Insert								
Chipbreaker type	No Chipbreaker	Ceramic	PCD	SG	CBN			
Page	B49	B119	C37	B48	C14			

Recommended Cutting Conditions ● D75~D76

**PRGC** (External Turning / External Facing / External Copying)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	LF	WF			Lever	Lock screw	Punch	Shim pin	Shim	Wrench	
Inch	PRGC% 12-10MC	●	●	0.75	0.75	0.60	0.75	5.00	1.00	0	0	LL-05C	LS-05	PC-1	LSP-1	LR-10C	FH-2	RC□X1003M0..
	16-10MD	●	●	1.00	1.00	0.60	1.00	6.00	1.25	0	0	LL-1CN	LS-1N	PC-1	LSP-1	LR-12C	FH-2.5	RCMX1204M0
mm	PRGC% 2020K-10	●	●	20	20	15	20	125	25	0	0	LL-05C	LS-05	PC-1	LSP-1	LR-10C	FH-2	RC□X1003M0..
	2525M-10	●	●	25	25		25	150	32	0	0	LL-1CN	LS-1N	PC-1	LSP-1	LR-12C	FH-2.5	RCMX1204M0
mm	PRGC% 2020K-12	●	●	20	20	14	20	125	25	0	0	LL-05C	LS-05	PC-1	LSP-1	LR-10C	FH-2	RC□X1003M0..
	2525M-12	●	●	25	25	17	25	150	32	0	0	LL-1CN	LS-1N	PC-1	LSP-1	LR-12C	FH-2.5	RCMX1204M0

Applicable Inserts

Applications	Medium	Non-Ferrous Metals
Insert		
Chipbreaker type	Standard	AQ
Page	B81	B81

Recommended Cutting Conditions ➔ D75~D76

INSERT GRADES **A**

TURNING INSERTS **B**

CBN/PCD INSERTS **C**

TURNING HOLDERS **D**

SMALL TOOLS **E**

BORING **F**

GROOVING **G**

CUT-OFF **H**

THREADING **J**

DRILLING **K**

MILLING **M**

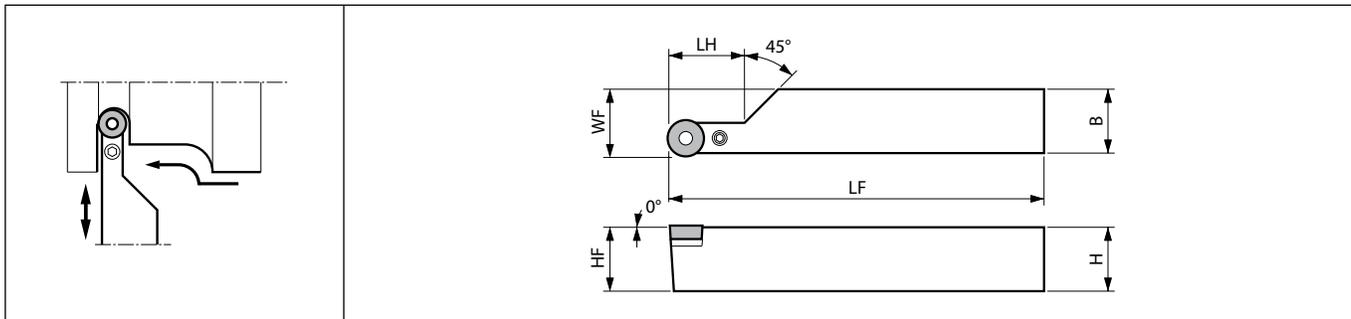
QUICK CHANGE TOOLING **N**

SPARE PARTS **P**

TECHNICAL **R**

INDEX **T**

**PRXC** (External Turning / External Facing / External Copying)



Right-hand shown

D TURNING HOLDERS

Toolholder Dimensions

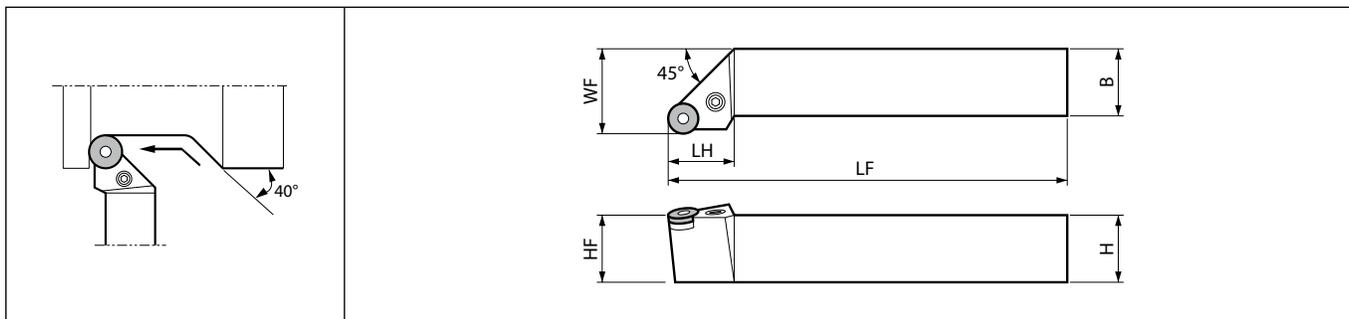
Unit	Part Number	Std. Item		Dimensions						Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	LF	WF			Lever	Lock screw	Punch	Shim pin	Shim	Wrench	
Inch	PRXC% 12-10MC	●	●	0.75	0.75	1.00	0.75	5.00	0.77	0	0	LL-05C	LS-05	PC-1	LSP-1	LR-10C	FH-2	RC□X1003M0..
	16-10MD	●	●	1.00	1.00	1.00	1.00	6.00	1.02	0	0	LL-1CN	LS-1N	PC-1	LSP-1	LR-12C	FH-2.5	RCMX1204M0
mm	PRXC% 12-12MC	●	●	0.75	0.75	1.00	0.75	5.00	0.77	0	0	LL-1CN	LS-1N	PC-1	LSP-1	LR-12C	FH-2.5	RCMX1204M0
	16-12MD	●	●	1.00	1.00	1.00	1.00	6.00	1.02	0	0	LL-1CN	LS-1N	PC-1	LSP-1	LR-12C	FH-2.5	RCMX1204M0
	PRXC% 2020K-10	●	●	20	20	25	20	125	20.5	0	0	LL-05C	LS-05	PC-1	LSP-1	LR-10C	FH-2	RC□X1003M0..
	2525M-10	●	●	25	25	30	25	150	25.5	0	0	LL-05C	LS-05	PC-1	LSP-1	LR-10C	FH-2	RC□X1003M0..
2525Q-10	●	●	180															
	PRXC% 2525M-12	●	●	25	25	30	25	150	25.7	0	0	LL-1CN	LS-1N	PC-1	LSP-1	LR-12C	FH-2.5	RCMX1204M0

Applicable Inserts

Applications	Medium	Non-Ferrous Metals
Insert		
Chipbreaker type	Standard	AQ
Page	B81	B81

Recommended Cutting Conditions ● D75~D76

**PRGN** (External Turning / External Facing / External Copying)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Side Rake Angle (°)	Inclination Angle (°)	Spare Parts							Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Lever			Lock screw	Punch	Shim pin	Shim	Wrench	Wrench		
mm	PRGN%L 2020K-09	●	●	20	20	19	20	125	25	-6	-6	LL-1N	LS-1N	PC-1	LSP-1	LR-80	-	FH-2.5	RNMG32	
	PRGN%L 2525M-12	●	●	25	25	26	25	150	32	-6	-6	LL-2N	LS-2N	PC-2	LSP-2	LR-81	LW-3	-	RNMG43	

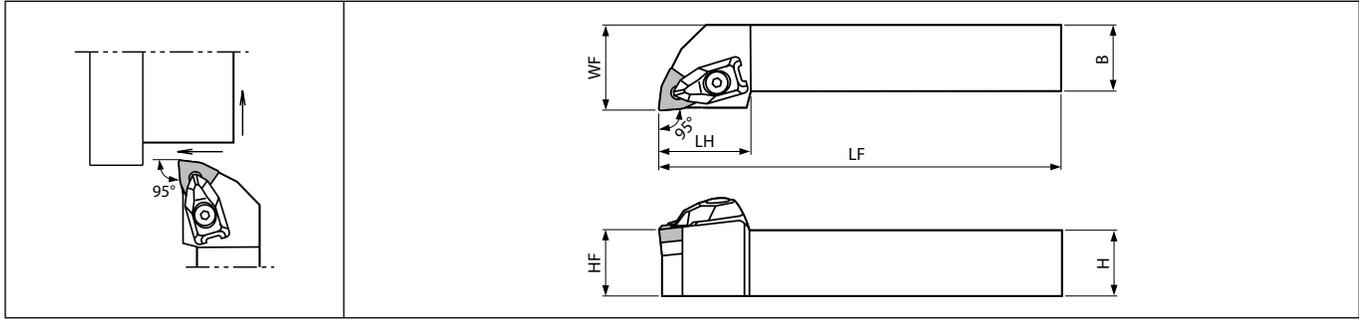
Applicable Inserts

Applications	Medium - Roughing
Insert	
Chipbreaker type	Standard
Page	B33

Recommended Cutting Conditions D75~D76

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

DWLN (External Turning / External Facing)



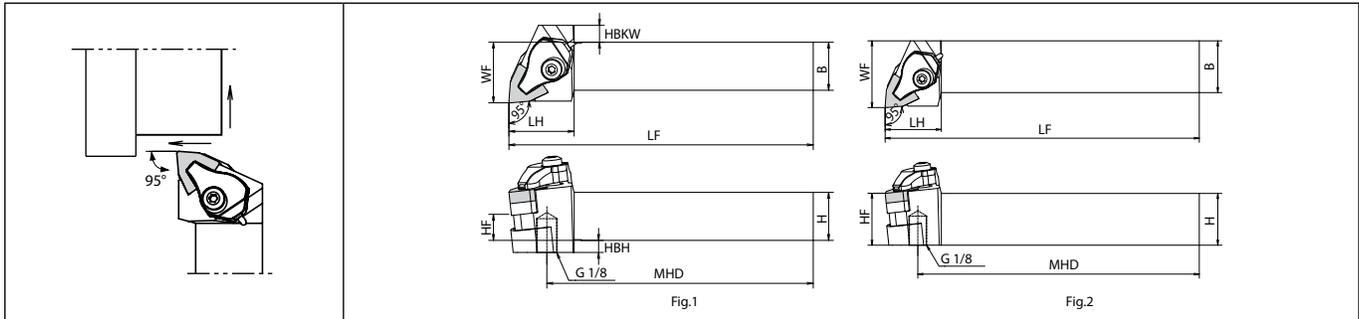
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts	
		R	L	H	B	LH	HF	LF	WF				Clamp	Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)		Wrench* (for shim)
																				
Inch	DWLN% 12-3B	●	●	0.75	0.75	1.06	0.75	4.50	1.00	1/32	-6	-6	CP-2D	CS-2D	SP-2D	LW-2.5	DW-32	SB-3080TR	FT-10	WN□G33... WN□M33...
	16-3D	●	●	1.00	1.00	1.06	1.00	6.00	1.25											
Inch	DWLN% 12-4B	●	●	0.75	0.75	1.34	0.75	4.50	1.25	1/32	-6	-6	CP-3D	CS-3D	SP-3D	LW-3	DW-44	SB-4085TR	FT-15	WN□A43... WN□G43... WN□M43...
	16-4D	●	●	1.00	1.00	1.34	1.00	6.00	1.25											
mm	DWLN% 2020K-08	●	●	20	20	34	20	125	25	0.8	-6	-6	CP-3D	CS-3D	SP-3D	LW-3	DW-44	SB-4085TR	FT-15	WN□A43... WN□G43... WN□M43...
	2525M-08	●	●	25	25		25	150	32											

Wrench (FT-15) is sold separately.  
Recommended tightening torque : 3.9N·m

DWLN-JCT (External Turning / External Facing, Coolant-Through Holders)



Right-hand shown | Coolant-Through | Applicable Pressure : ~4,350 psi

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								Standard Corner-R (RE)	Fig.	Coolant Hole	Side Rake Angle (°)	Inclination Angle (°)	Applicable Inserts	
		R	L	H	B	LH	HBH	HBKW	MHD	HF	LF							WF
Inch	DWLN% 12-4BJCT 16-4DJCT	●	●	0.75	0.75	1.06	0.23	0.26	3.88	0.75	4.50	1.00	1/32	1	Yes	-6	-6	WN□A43... WN□G43... WN□M43...
		●	●	1.00	1.00	1.06	-	-	5.38	1.00	6.00	1.25		2				
mm	DWLN% 2020K-08JCT 2525M-08JCT	●	●	20	20	27	5	7	109	20	125	25	0.8	1	Yes	-6	-6	
		●	●	25	25	-	-	-	134	25	150	32		2				

Unit	Part Number	Spare Parts						
		Clamp	Pipe Connection (* with O-Ring)	Screw (for clamp)	Screw	Shim	Spring	Wrench
Inch	DWLN% 12-4BJCT 16-4DJCT							
		CP-3D-%-JCT	FP-12	CS-3D-TR	SB-4085TR	DW-44	SP-3D	FT-15
mm	DWLN% 2020K-08JCT 2525M-08JCT							
		CP-3D-%-JCT	FP-12	CS-3D-TR	SB-4085TR	DW-44	SP-3D	FT-15

Clamp : CP-3D-R-JCT for Right-hand Toolholder, CP-3D-L-JCT for Left-hand Toolholder.

Please see page D13 for piping parts of coolant-through holders.

O-ring (SS-035) is available to order separately.

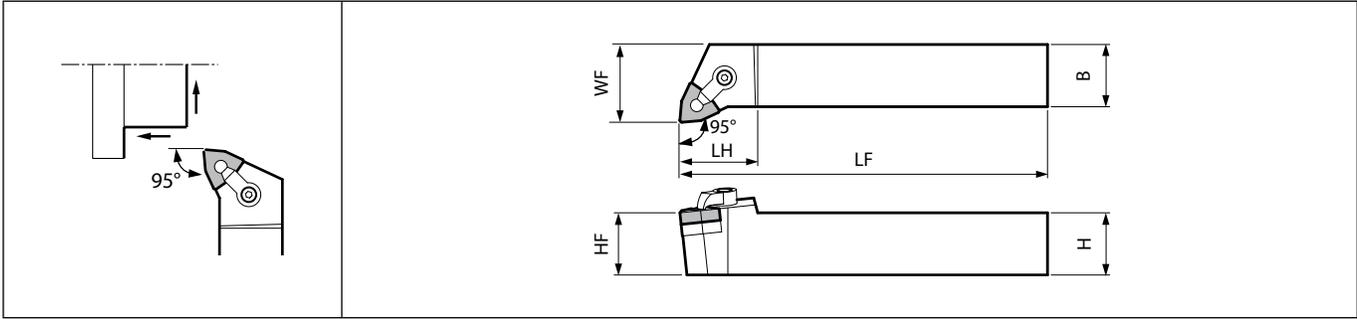
Recommended tightening torque : 3.9N·m

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

- INSERT GRADES **A**
- TURNING INSERTS **B**
- CBN/PCD INSERTS **C**
- TURNING HOLDERS **D**
- SMALL TOOLS **E**
- BORING **F**
- GROOVING **G**
- CUT-OFF **H**
- THREADING **J**
- DRILLING **K**
- MILLING **M**
- QUICK CHANGE TOOLING **N**
- SPARE PARTS **P**
- TECHNICAL **R**
- INDEX **T**

**MWLN** (External Turning / External Facing)



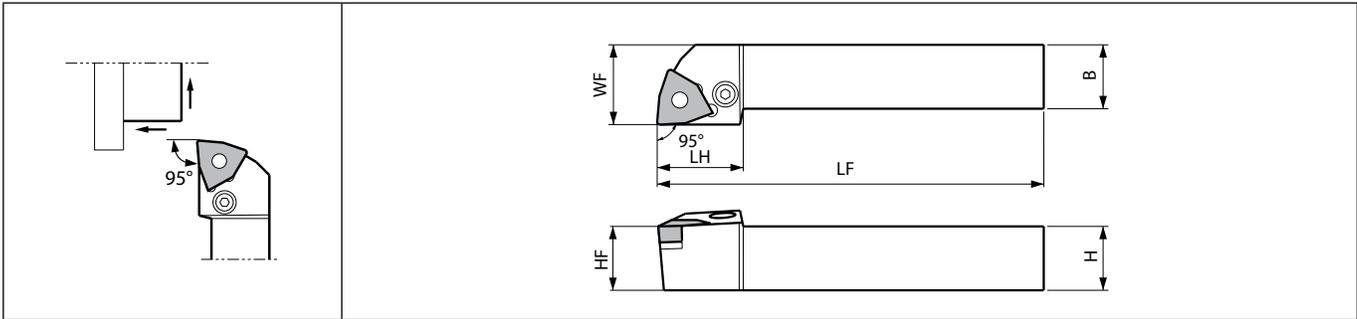
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions					Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts							Applicable Inserts	
		R	L	H	B	LH	HF	LF				WF	Clamp	Screw (for clamp)	Wrench	Shim	Shim Screw	Lock Pin		Wrench
Inch	MWLN%L 16-4D	●	●	1.00	1.00	1.19	1.00	6.00	1.25	1/32	-5	-5	CL-9	XNS-510	LW-156	IWSN432	S-46	NL46	LW-094	WN□A43... WN□G43... WN□M43...

When using inserts with a corner-R (RE) greater than 1/16" (1.6mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

**PWLN** (External Turning / External Facing)



Right-hand shown

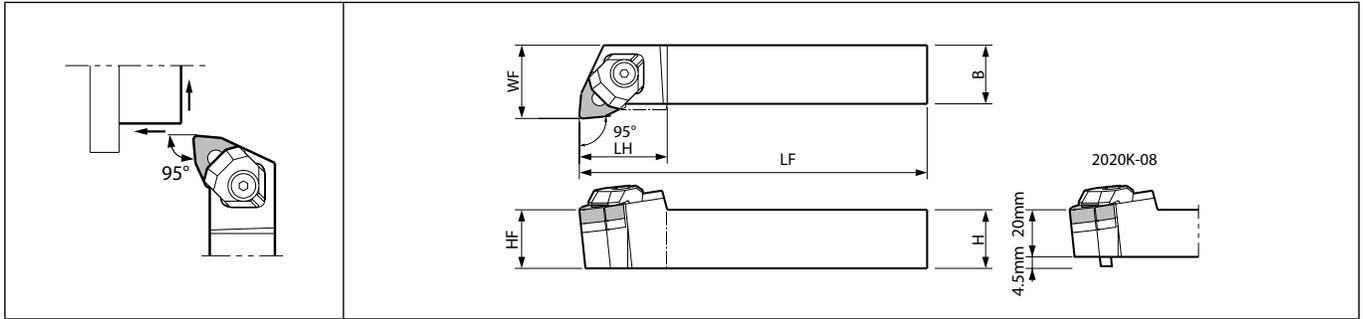
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions					Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts							Applicable Inserts	
		R	L	H	B	LH	HF	LF				WF	Lever	Lock screw	Punch	Shim pin	Shim	Wrench		Wrench
Inch	PWLN <sup>R</sup> 12-3B	●		0.75	0.75	0.87	0.75	4.50	1.00	1/32	-6	-6	LL-1N	LS-1N	PC-1	LSP-1	LW-32N	-	FH-2.5	WN□G33...
	16-3D	●		1.00	1.00	0.87	1.00	6.00	1.25				LL-1N	LS-1N	PC-1	LSP-1	LW-32N	-	FH-2.5	WN□G33...
mm	PWLN%L 1616H-06	●	●	16	16		16	100	20	0.8	-6	-6	LL-1N	LS-1N	PC-1	LSP-1	LW-32N	-	FH-2.5	WN□G33...
	2020K-06	●	●	20	20	22	20	125	25				LL-1N	LS-1N	PC-1	LSP-1	LW-32N	-	FH-2.5	WN□G33...
	2525M-06	●	●	25	25		25	150	32				LL-1N	LS-1N	PC-1	LSP-1	LW-32N	-	FH-2.5	WN□G33...
	PWLN%L 2020K-08	●	●	20	20		20	125	25	0.8	-6	-6	LL-2N	LS-2N	PC-2	LSP-2	LW-42N	LW-3	-	WN□A43... WN□G43... WN□M43...
	2525M-08	●	●	25	25	26	25	150	32				LL-2N	LS-2N	PC-2	LSP-2	LW-42N	LW-3	-	WN□A43... WN□G43... WN□M43...

When using inserts with a corner-R (RE) greater than 1/16" (1.6mm), additional modifications to the shim are necessary in order to prevent workpiece and shim from interfering with each other.

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)  
Contact your local Kyocera sales engineer to upgrade old products to new technology

WWLN (External Turning / External Facing)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts					Applicable Inserts		
		R	L	H	B	LH	HF				LF	WF	Clamp set	Nut	Shim pin		Shim	Wrench
mm	WWLN% 2020K-08	●	●	20	20	30	20	125	25	1.2	-6	-6						WN□A43... WN□G43... WN□M43...
	2525M-08	●	●	25	25		25	150	32									

In wedge lock, use of ceramic insert other than silicon nitride insert is not recommended due to strong restrain force.

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

Applicable Inserts (DWLN / DWLN-JCT / MWLN / PWLN / WWLN)

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Finishing - Medium
Insert								
Chipbreaker type	WF	WP	WE	WQ	PP	GP	PQ	HQ
Page	B50	B50	B50	B50	B50	B50	B50	B51
Applications	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker type	CQ	CJ	PMG	GS	PG	PS	PT	GT
Page	B51	B51	B51	B51	B51	B51	B51	B52
Applications	Roughing	Roughing	Finishing	Medium	Low carbon steel	Low carbon steel	Low carbon steel	Stainless Steel / Heat-Resistant Alloys
Insert								
Chipbreaker type	Standard	PH	P/S	R/L	XP	XQ	XS	TK
Page	B52	B52	B54	B54	B52	B52	B52	B52
Applications	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Insert								
Chipbreaker type	MQ	MS	MU	KQ	KG	KH	C	ZS
Page	B53	B53	B53	B53	B53	B53	B54	B54
Applications	Cast Iron	Cast Iron	Non-Ferrous Metals	Cast Iron / Hard Materials	Non-Ferrous Metals	Heat-Resistant Alloys	Hard Materials / Cast Iron	
Insert								
Chipbreaker type	GC	No Chipbreaker	AH	Ceramic	PCD	SG	CBN	
Page	B54	B54	B54	B119	C38	B53	C15	

In wedge lock, use of ceramic insert other than silicon nitride insert is not recommended due to strong restrain force.

Recommended Cutting Conditions  D75~D76

D  
TURNING  
HOLDERS

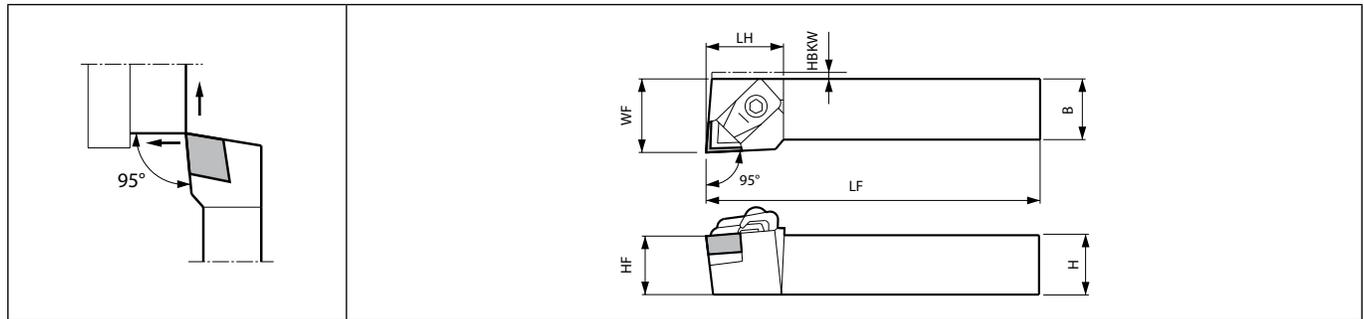
Selection Guide for Ceramic Inserts

Select the suitable ceramic specifications (Corner-R (RE), Feed Rate, Chamfer, etc.) from the table below.

Insert Shape	Corner-R (RE)	f (ipr)										D.O.C. (in)	
		0.004	0.006	0.008	0.010	0.012	0.014	0.016	0.018	0.020	0.024		
	RN	-	→										0.012~0.158
	SN	5/64	→										0.012~0.158
		1/16	→										
	EN CN	3/64	→										
		1/32	→										
		1/64	→										
	TN	1/16	→										0.012~0.079
		3/64	→										
	DN	1/32	→										
Chamfer		0.002" x 20°		(0.004"~0.008") x (20°~25°)				0.012" x 30°				-	
Insert Thickness		5/16"										-	

CCLN (External Turning / External Facing)

(No.45, Cutting Edge Angle: 0°~15°)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Spare Parts			Applicable Inserts					
		R	L	H	B	LH	HF	HBKW	LF	WF	Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)		Chipbreaker	Clamp Set	Shim Screw	Shim	Wrench
Inch	CCLNR 16-4D	●		1.00	1.00	1.26	1.00	-	6.00	1.25	0.8	-6	-6	CB-16	CE-010	M3X8 (M3X12*)	SP-441 (SP-443*)	LW-4	CNG45..., CNM45... (CNG43..., CNM43...)*
mm	CCLN% 2020K-12	●	●	20	20	32	20	5	125	27	0.8	-6	-6	CB-16	CE-010	M3X8 (M3X12*)	SP-441 (SP-443*)	LW-4	CNG45..., CNM45... (CNG43..., CNM43...)*
	CCLN% 2525M-12	●	●	25	25	32	25	-	150	32	0.8	-6	-6	CB-16	CE-010	M3X8 (M3X12*)	SP-441 (SP-443*)	LW-4	CNG45..., CNM45... (CNG43..., CNM43...)*
	CCLN% 3225P-16	●	●	32	25	35	32	-	170	32	0.8	-6	-6	CB-17	CE-220	M4X10	SP-454	LW-4	CNG55...

Shims indicated with \* are not included with the toolholder. When using CNG43 or CNM43 type insert, please purchase shim (SP-443) and screw (M3X12) separately.

Applicable Inserts

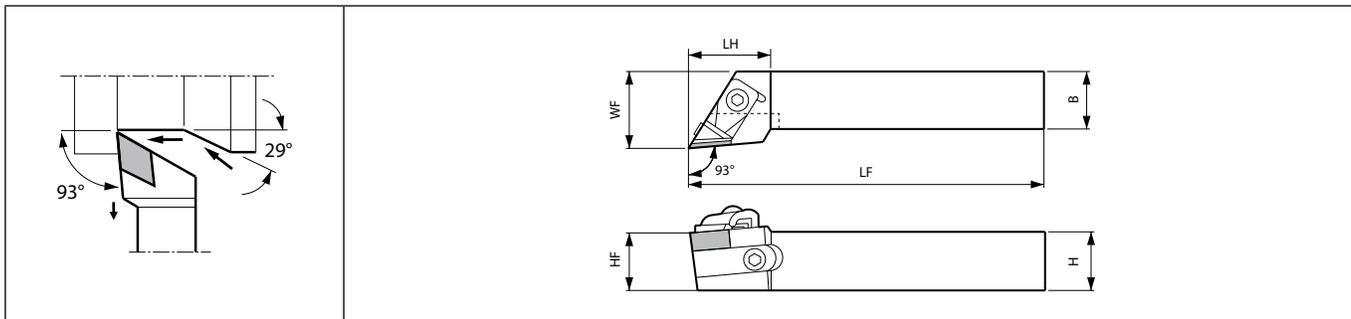
Applications	Cast Iron / Hard Materials	Hard Materials / Cast Iron
Insert		
Type	Ceramic	CBN
Page	B113	C16

Recommended Cutting Conditions Ⓢ D75~D76

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)  
Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**CDJN** (External Turning / External Copying / Back Turning)



Right-hand shown

D TURNING HOLDERS

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts					Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Chipbreaker				Clamp bolt	Clamp set	Shim	Wrench		
mm	CDJN % 2525M-15	●	●	25	25	32	25	150	32	0.8	-5	-8	CB-14/15	HHSX16	CE-010	556C%	LW-4	DNG45...	
	3225P-15	●	●	32			32	170											

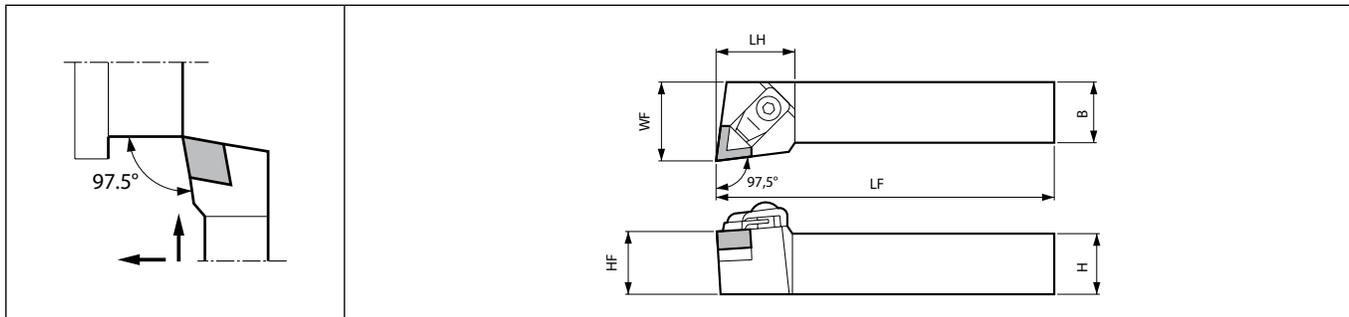
Chipbreaker : CB-14 for Right-hand Toolholder, CB-15 for Left-hand Toolholder.  
 Shim : 556CR for Right-hand Toolholder, 556CL for Left-hand Toolholder.

Applicable Inserts

Applications	Cast Iron / Hard Materials
Insert	
Type	Ceramic
Page	B114

Recommended Cutting Conditions ➡ D75~D76

**CELN** (External Turning / External Facing)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								Spare Parts					Applicable Inserts	
		R	L	H	B	LH	HF	LF	WF	Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Chipbreaker	Clamp set	Shim screw	Shim		Wrench
mm	CELN% 2525M-13	●	●	25	25	32	25	150	32	0.8	-6	-6	CB-16	CE-010	M3X8	SP-342	LW-4	ENG45...

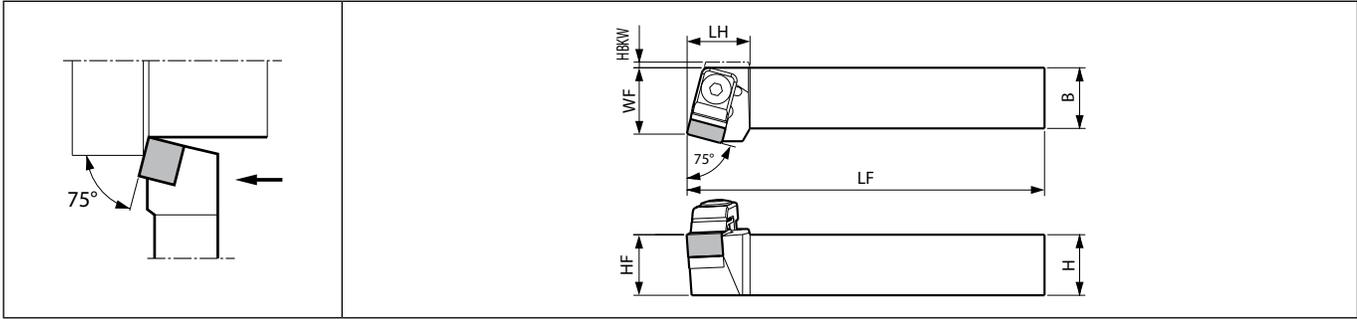
Applicable Inserts

Applications	Cast Iron / Hard Materials
Insert	
Type	Ceramic
Page	B115

Recommended Cutting Conditions ➡ D75~D76

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

CSRN (External Turning)



Right-hand shown

D TURNING HOLDERS

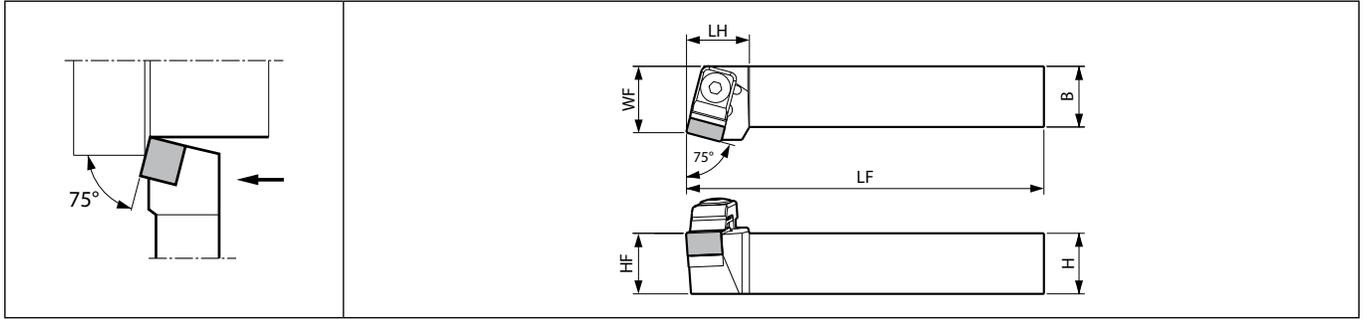
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	HBKW	LF	WF				Chipbreaker	Clamp set	Clamp set	Shim screw	Shim	Wrench	
Inch	CSRN % 20-4E	●	●	1.25	1.25	0.88	1.25	-	7.00	1.50	1/32	-6	-4	CB-11	CE-020	-	M3X8 (M3X12*)	SP-141 (SP-143*)	LW-4	SN□45... (SN□43...*)
mm	CSRN % 2020K-12	●	●	20	20	22	20	2	125	22	0.8	-6	-4	CB-11	CE-020	-	M3X8 (M3X12*)	SP-141 (SP-143*)	LW-4	SN□45... (SN□43...*)
	2525M-12	●	●	25	25		150	27												
	3225P-12	●	●	32	25	32	-	170												
mm	CSRN % 3225P-15	●		32	25	30	32	-	170	32.4	1.2	-6	-4	CB-51	-	CE-220	M4X10	SP-162	LW-4	SNG55...
	4040R-15	●	●	40	40	40	200	43												

Shims indicated with \* are not included with the toolholder. When using SN□43 type insert, please purchase shim (SP-143) and screw (M3X12) separately.

If installing SNM43... inserts in grade CA410K or CA415K, see clamping caution on Page D61

**HSRN** (External Turning)



Right-hand shown

Toolholder Dimensions

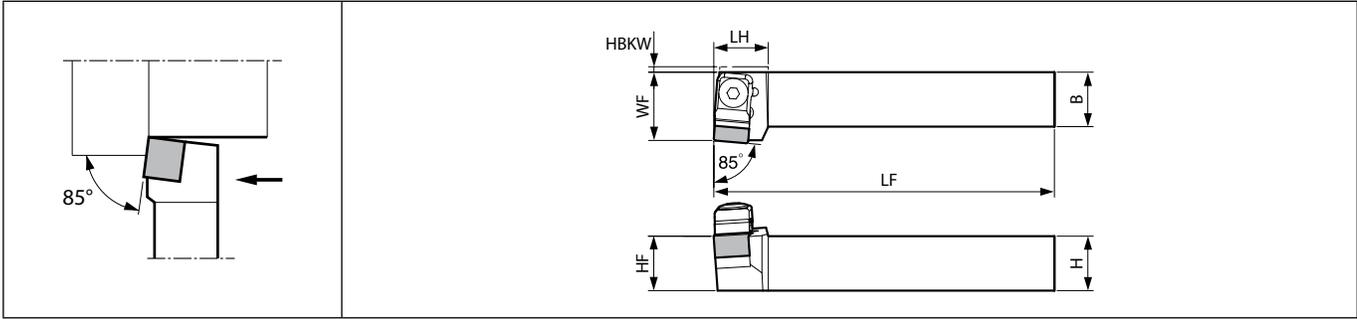
Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
			R	H	B	LH	HF	LF	WF				Chipbreaker	Clamp set	Shim screw	Shim	Lock Pin	Wrench	
Inch	HSRNR 16-4D	●	1.00	1.00	0.87	1.00	6.00	1.13	1/32	-6	-4	HCB300	HCL-000 (HCL-001*)	S-46	ISSN433 (ISSN453*)	NL46L	LW-094	SN□45... (SN□43..., SN□A43...)*	

Shim and Clamp Set indicated with \* are not included with the toolholder. When using SN□43 or SN□A43 type insert, please purchase clamp set (HCL-001) and shim (ISSN453) separately.

If installing SNM43... inserts in grade CA410K or CA415K, see clamping caution on **Page D61**

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**CS-N** (External Turning)



Right-hand shown

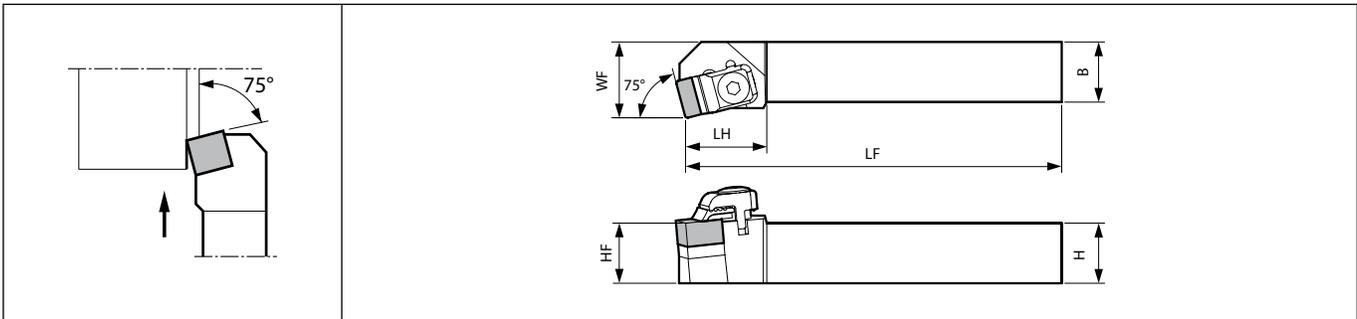
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts					Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Chipbreaker				Clamp set	Shim screw	Shim	Wrench		
mm	CS-N%L 2525M-12	●	●	25	25	20	25	150	32	0.8	-6	-4	CB-11	CE-020	M3X8 (M3X12*)	SP-141 (SP-143*)	LW-4	SN□45... (SN□43...*)	

Shims indicated with \* are not included with the toolholder. When using SN□43 type insert, please purchase shim (SP-143) and screw (M3X12) separately.

If installing SNM43... inserts in grade CA410K or CA415K, see clamping caution on Page D61

**CSKN** (External Facing)



Right-hand shown

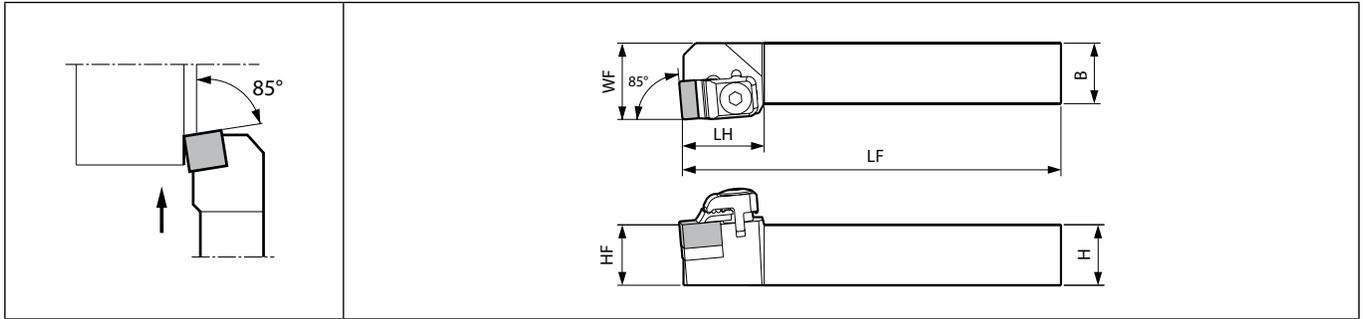
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Chipbreaker				Clamp set	Clamp set	Shim screw	Shim	Wrench		
mm	CSKN%L 2020K-12	●		20	20	27	20	125	25	0.8	-6	-4	CB-11	CE-020	-	M3X8 (M3X12*)	SP-141 (SP-143*)	LW-4	SN□45... (SN□43...*)	
	2525M-12	●	●	25	25		25	150	32											
	CSKNR 3225P-15	●		32	25	37	32	170	32											1.2

Shims indicated with \* are not included with the toolholder. When using SN□43 type insert, please purchase shim (SP-143) and screw (M3X12) separately.

If installing SNM43... inserts in grade CA410K or CA415K, see clamping caution on Page D61

CSYN (External Facing)



Right-hand shown

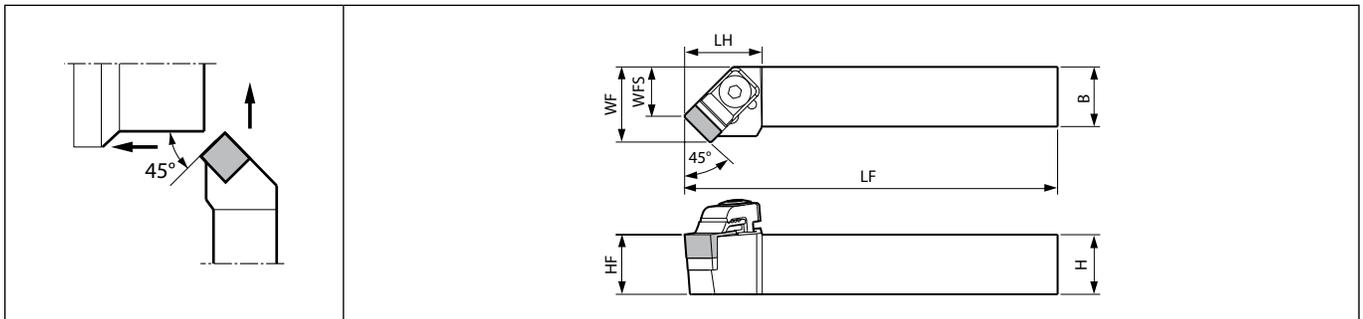
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)			Spare Parts					Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Standard	Side Rake Angle (°)	Inclination Angle (°)	Chipbreaker	Clamp set	Shim screw	Shim	Wrench		
mm	CSYN%L 2525M-12	●	●	25	25	27	25	150	32	0.8	-6	-4	CB-11	CE-020	M3X8 (M3X12*)	SP-141 (SP-143*)	LW-4	SN□45... (SN□43...*)	

Shims indicated with \* are not included with the toolholder. When using SN□43 type insert, please purchase shim (SP-143) and screw (M3X12) separately.

If installing SNM43... inserts in grade CA410K or CA415K, see clamping caution on Page D61

CSSN (External Turning / External Facing / Chamfering)



Right-hand shown

Toolholder Dimensions

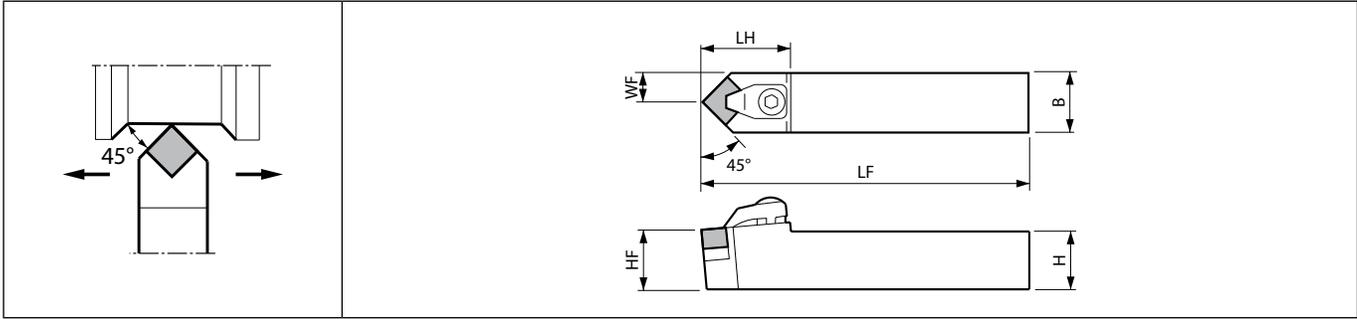
Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)			Spare Parts					Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	WFS	Standard	Side Rake Angle (°)	Inclination Angle (°)	Chipbreaker	Clamp set	Shim screw	Shim	Wrench	
Inch	CSSN%L 16-4D	●	●	1.00	1.00	1.00	1.00	6.00	1.25	-	1/32	-6	0	CB-11	CE-020	M3X8 (M3X12*)	SP-141 (SP-143*)	LW-4	SN□45... (SN□43...*)
mm	CSSN%L 2020K-12	●		20	20	26	20	125	25	16	0.8	-6	0	CB-11	CE-020	M3X8 (M3X12*)	SP-141 (SP-143*)	LW-4	SN□45... (SN□43...*)
		CSSN%L 2525M-12	●	●	25	25	26	25	150	32	23	0.8	-6						

Shims indicated with \* are not included with the toolholder. When using SN□43 type insert, please purchase shim (SP-143) and screw (M3X12) separately.

If installing SNM43... inserts in grade CA410K or CA415K, see clamping caution on Page D61

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**CSDN** (External Turning / Chamfering)



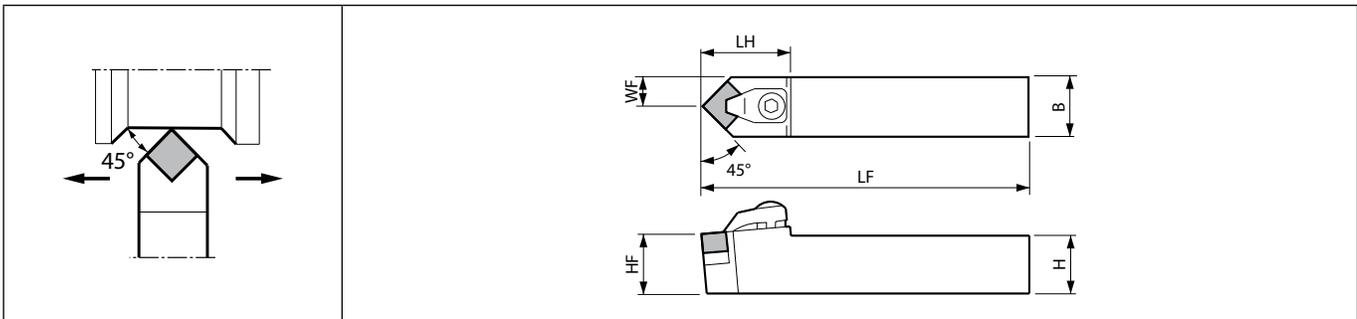
D  
TURNING  
HOLDERS

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)		Spare Parts				Applicable Inserts
			N	H	B	LH	HF	LF	WF	Standard	Back rake angle (°)	Clamp set	Shim screw	Shim	Wrench	
												CE-040	M3X8 (M3X12*)	SP-141 (SP-143*)	LW-4	
mm	CSDNN 2020K-12 2525M-12 3225P-12	●	20	20		20	125	10	0.8	-8.5	CE-040	M3X8 (M3X12*)	SP-141 (SP-143*)	LW-4	SN□45... (SN□43...*)	

Shims indicated with \* are not included with the toolholder. When using SN□43 type insert, please purchase shim (SP-143) and screw (M3X12) separately.

**HSDN** (External Turning / Chamfering)



Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)		Spare Parts						Applicable Inserts
			N	H	B	LH	HF	LF	WF	Standard	Back rake angle (°)	Clamp set	Wrench	Shim screw	Shim	Lock Pin	Wrench	
												CE-040	LW-4	S-46	ISSN433 (ISSN453*)	NL46L	LW-094	
Inch	HSDNN 20-4D	●	1.25	1.25	1.30	1.25	6.00	0.625	1/32	-8.5	CE-040	LW-4	S-46	ISSN433 (ISSN453*)	NL46L	LW-094	SN□45... (SN□43..., SN□A43...)*	

Shim and Clamp Set indicated with \* are not included with the toolholder. When using SN□43 or SN□A43 type insert, please purchase shim (ISSN453) separately.

Applicable Inserts

Applications	Cast Iron / Hard Materials	Cast Iron / Hard Materials	Cast Iron
Type	Ceramic	Ceramic	Coated Carbide
Insert			
Toolholder			
CSRN $\frac{\%}{L}$ ...-4E CSRN $\frac{\%}{L}$ ...-12	SNG45.. (SNG43..) SNM45..	-	(SNM43..)
HSRN $\frac{\%}{L}$ ...-4D	SNG45.. (SNG43..) SNM45..	(SNGA43..) (SNMA43..)	(SNM43..)
CSRN $\frac{\%}{L}$ ...-15	SNGN55..	-	-
CS-N $\frac{\%}{L}$ ...-12	SNG45.. (SNG43..) SNM45..	-	(SNM43..)
CSKN $\frac{\%}{L}$ ...-12	SNG45.. (SNG43..) SNM45..	-	(SNM43..)
CSKN $\frac{\%}{L}$ ...-15	SNGN55..	-	-
CSYN $\frac{\%}{L}$ ...-12	SNG45.. (SNG43..) SNM45..	-	(SNM43..)
CSSN $\frac{\%}{L}$ ...-4D CSSN $\frac{\%}{L}$ ...-12	SNG45.. (SNG43..) SNM45..	-	(SNM43..)
CSDNN ...-12	SNG45.. (SNG43..) SNM45..	-	(SNM43..)
HSDNN ...-4D	SNG45.. (SNG43..) SNM45..	(SNGA43..) (SNMA43..)	(SNM43..)
Page	B117	B117	B38

Spare Parts

When using toolholder with CBN inserts (KBN900), please purchase spare parts below separately.

Hard Materials / Cast Iron	Spare Parts			
CBN	Clamp Set	Shim	Shim screw	Shim screw
(SNM43..)	CE-030A	SP-143	M3X12	-
(SNM43..)	HCL-001	ISSN453	-	S-46
-	-	-	-	-
(SNM43..)	CE-030A	SP-143	M3X12	-
(SNM43..)	CE-030A	SP-143	M3X12	-
-	-	-	-	-
(SNM43..)	CE-030A	SP-143	M3X12	-
(SNM43..)	CE-030A	SP-143	M3X12	-
(SNM43..)	*-	SP-143	M3X12	-
(SNM43..)	*-	ISSN453	-	S-46

Recommended Cutting Conditions  $\rightarrow$  D75~D76

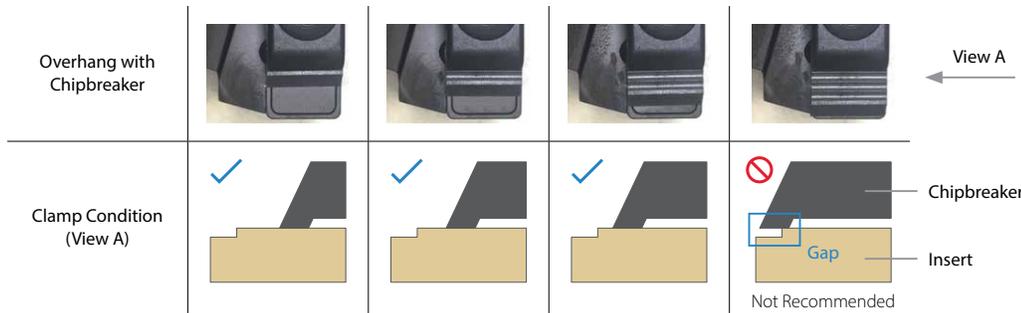
\* CSDNN...-12: Clamp Set CE-040 is used continuously.

Installation Precautions for SNM43  $\square$  in Grade CA410K & CA415K

For the insert part numbers listed below, when using a top-clamp type holder with the CB-11 chipbreaker, it is not recommended to use chipbreaker with the maximum overhang.

- Inserts : SNM43... (CA410K/CA415K)
- Holders : CSRN  $\frac{\%}{L}$  ...-4E, HSRN  $\frac{\%}{L}$  ...-4D, CSSN  $\frac{\%}{L}$  ...-4D  
CSRN  $\frac{\%}{L}$  ...-12, CS-N  $\frac{\%}{L}$  ...-12, CSKN  $\frac{\%}{L}$  ...-12, CSYN  $\frac{\%}{L}$  ...-12, CSSN  $\frac{\%}{L}$  ...-12

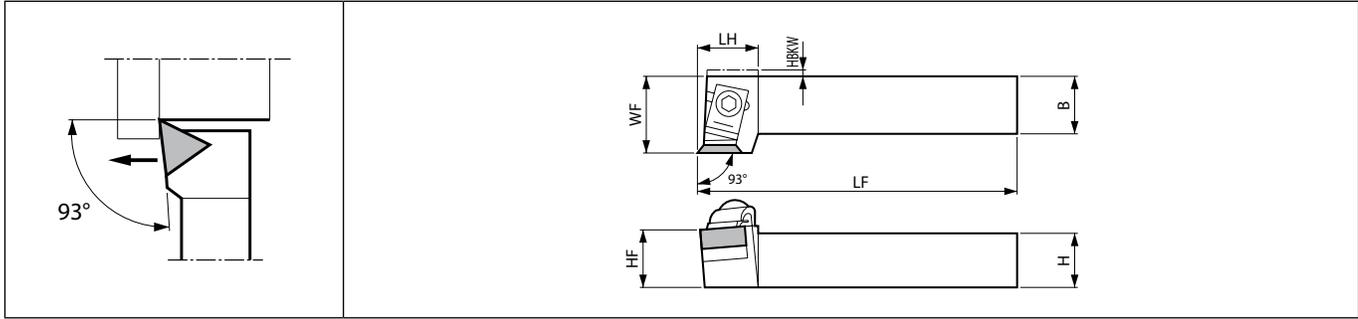
Overhang of the chipbreaker and the clamp



SNM43... (CA310/CA315/CA320) can be installed.

- INSERT GRADES **A**
- TURNING INSERTS **B**
- CBN / PCD INSERTS **C**
- TURNING HOLDERS **D**
- SMALL TOOLS **E**
- BORING **F**
- GROOVING **G**
- CUT-OFF **H**
- THREADING **J**
- DRILLING **K**
- MILLING **M**
- QUICK CHANGE TOOLING **N**
- SPARE PARTS **P**
- TECHNICAL **R**
- INDEX **T**

**CTJN** (External Turning)



Right-hand shown

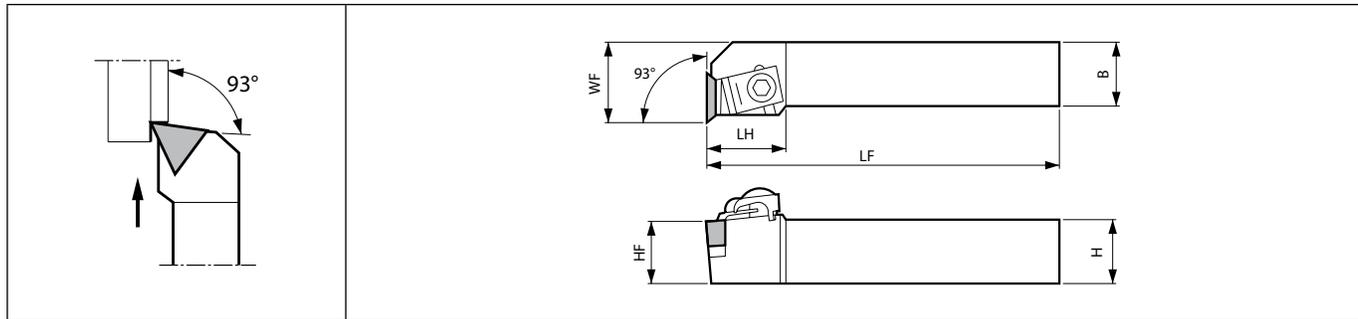
**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts					Applicable Inserts
		R	L	H	B	LH	HF	HBKW	LF	WF				Chipbreaker	Clamp set	Shim screw	Shim	Wrench	
Inch	CTJN% 16-3D 16-4D	●	●	1.00	1.00	0.88	1.00	-	6.00	1.25	1/32	-6	-4	CB-12/13	CE-020	M3X8 (M3X12*)	SP-221 (SP-223*)	LW-4	TNG35... (TN□33...*)
		●	●	1.00	1.00	0.88	1.00	-	6.00	1.25									TNG45... (TN□43...*)
mm	CTJN% 2020K-16 2525M-16	●	●	20	20	21	20	2	125	25	0.8	-6	-4	CB-12/13	CE-020	M3X8 (M3X12*)	SP-221 (SP-223*)	LW-4	TNG35... (TN□33...*)
		●	●	25	25		25	-	150	32									TNG35... (TN□33...*)

Chipbreaker : CB-12 for Right-hand Toolholder, CB-13 for Left-hand Toolholder.

Shims indicated with \* are not included with the toolholder. When using TN□33 or TN□43 type insert, please purchase shim (SP-223) and screw (M3X12) separately.

**CTUN** (External Facing)



Right-hand shown

**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts					Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Chipbreaker				Clamp set	Shim screw	Shim	Wrench		
mm	CTUN% 2020K-16 2525M-16	●	●	20	20	27	20	125	25	0.8	-6	-4	CB-13/12	CE-020	M3X8 (M3X12*)	SP-221 (SP-223*)	LW-4	TNG35... (TN□33...*)	
		●	●	25	25		25	150	32									TNG35... (TN□33...*)	

Chipbreaker : CB-13 for Right-hand Toolholder, CB-12 for Left-hand Toolholder.

Shims indicated with \* are not included with the toolholder. When using TN□33 type insert, please purchase shim (SP-223) and screw (M3X12) separately.

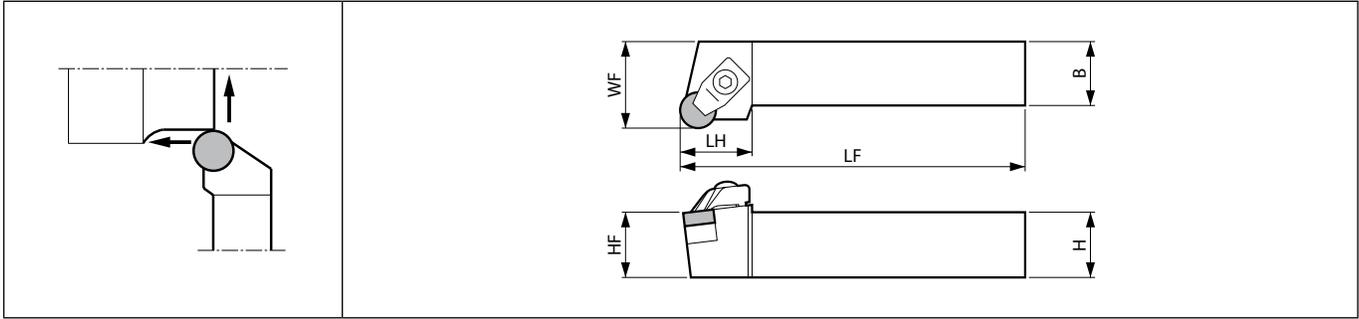
**Applicable Inserts (CTJN / CTUN)**

Applications	Cast Iron / Hard Materials	Hard Materials / Cast Iron
Insert		
Type	Ceramic	CBN
Page	B118	C19

Recommended Cutting Conditions ● D75~D76

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)  
Contact your local Kyocera sales engineer to upgrade old products to new technology

**CRSN** (External Turning / External Facing)



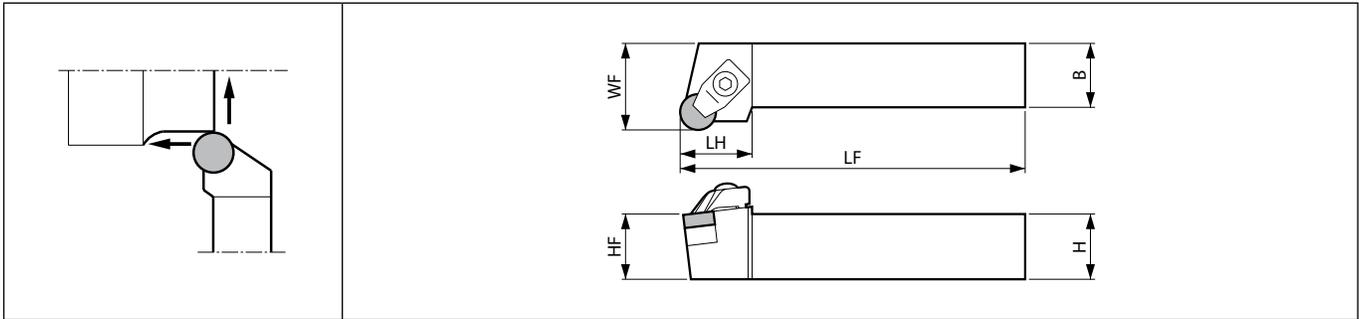
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Side Rake Angle (°)	Inclination Angle (°)	Spare Parts				Applicable Inserts				
		R	L	H	B	LH	HF	LF	WF			Clamp set	Shim screw	Shim	Wrench					
mm	CRSN% 2020K-12	●	●	20	20		20	125	25	-6	-6					RNG45... (RN□43...*)				
	2525M-12	●	●	25	25	26	25	150	32								CE-030	M3X8 (M3X12*)	SP-841 (SP-843*)	LW-4
	3225P-12	●	●	32			32	170												

Shims indicated with \* are not included with the toolholder. When using RN□43 type insert, please purchase shim (SP-843) and screw (M3X12) separately.

**HRSN** (External Turning / External Facing)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Side Rake Angle (°)	Inclination Angle (°)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	LF	WF			Clamp set	Wrench	Shim screw	Shim	Lock Pin	Wrench	
Inch	HRSNR 16-4D	●	□	1.00	1.00	1.03	1.00	6.00	1.25	-6	-6							RNG45... (RN□43...*)
	20-4D	●	□	1.25	1.25	1.03	1.25	6.00	1.50									

Shims indicated with \* are not included with the toolholder. When using RN□43 type insert, please purchase shim (IRS45) separately.

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T



Applicable Inserts

Applications	Cast Iron / Hard Materials	Hard Materials / Cast Iron
Type	Ceramic	CBN
<b>Insert</b>		
<b>Toolholder</b>		
CRSN $\frac{P}{L}$ ...-12	RNG45... (RNG43...)	(RNM43...)
HRSN $\frac{P}{L}$ ...-4D	RNG45... (RNG43...)	(RNM43...)
CRDNN ...-4D / 4E CRDNN ...-12	RNG45... (RNG43...)	(RNM43...)
CRDNN ...-15	RNG55...	-
Page	B116	C17

Applications	Cast Iron / Hard Materials
Type	Ceramic
<b>Insert</b>	
<b>Toolholder</b>	
CRDCN ...-2	RCGX24..., RCGX102T04015
CRDCN ...-3	RCGX35..., RCGX103...
CRDCN ...-4	RCGX45..., RCGX104...
CRDCN ...-6	RCGX106...
Page	B116

Recommended Cutting Conditions  D75~D76

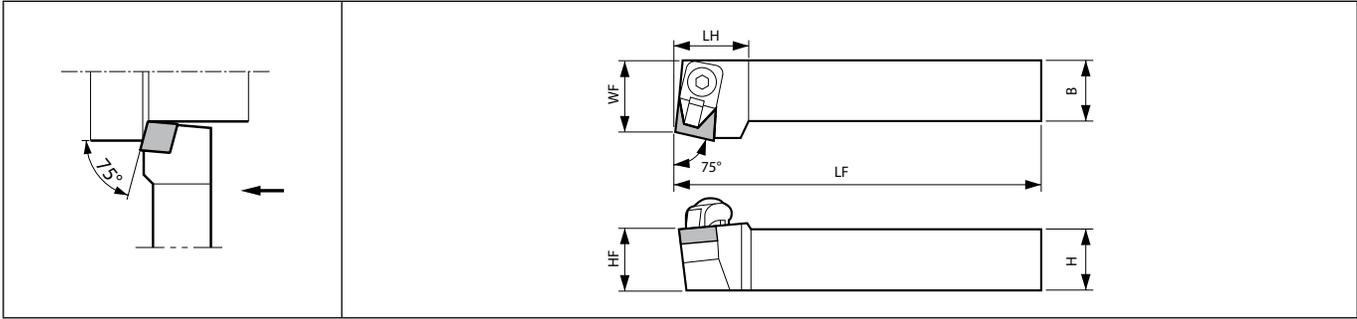
Spare Parts

When using toolholder with CBN inserts (KBN900), please purchase spare parts below separately.

Applications	Hard Materials / Cast Iron	Spare Parts				
Type	CBN	Clamp set	Clamp set	Shim	Shim screw	Shim screw
<b>Insert</b>						
<b>Toolholder</b>						
CRSN $\frac{P}{L}$ ...-12	(RNM43...)	CE-030A	-	SP-843	M3X12	-
HRSN $\frac{P}{L}$ ...-4D	(RNM43...)	-	HCL-001	IRS45	-	S-46
CRDNN ...-4D / 4E CRDNN ...-12	(RNM43...)	CE-030A	-	SP-843	M3X12	-
CRDNN ...-15	-	-	-	-	-	-

INSERT GRADES	A
TURNING INSERTS	B
CBN / PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**CCRN-A** (External Turning)

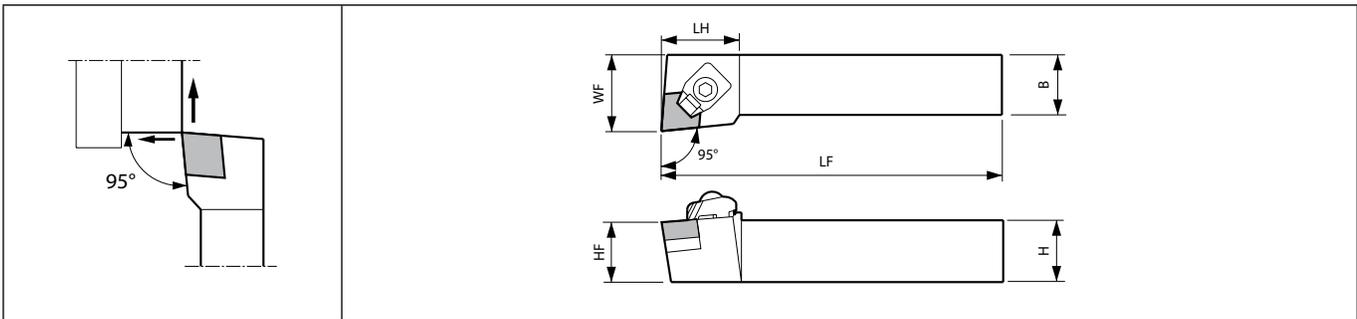


Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts				Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Clamp set				Shim screw	Shim	Wrench		
		mm	CCRN% 2525M-09A	●	●	25	25	27	25	150				27	0.8	-6	-6	

**CCLN-A** (External Turning / External Facing)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts				Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Clamp set				Shim screw	Shim	Wrench		
		mm	CCLN% 2525M-09A	●	●	25	25	28	25	150				32	0.8	-5	-5	

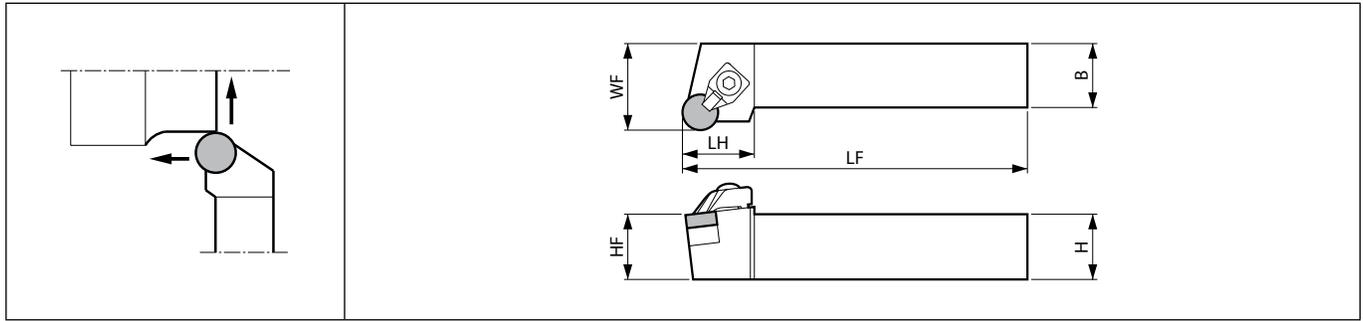
For CNMN1204 Insert toolholder, see page D49

Applicable Inserts

Applications	Hard Materials / Cast Iron
Insert	
Type	CBN
Page	C16

Recommended Cutting Conditions ➔ D75~D76

**CRSN-A** (External Turning / External Facing)



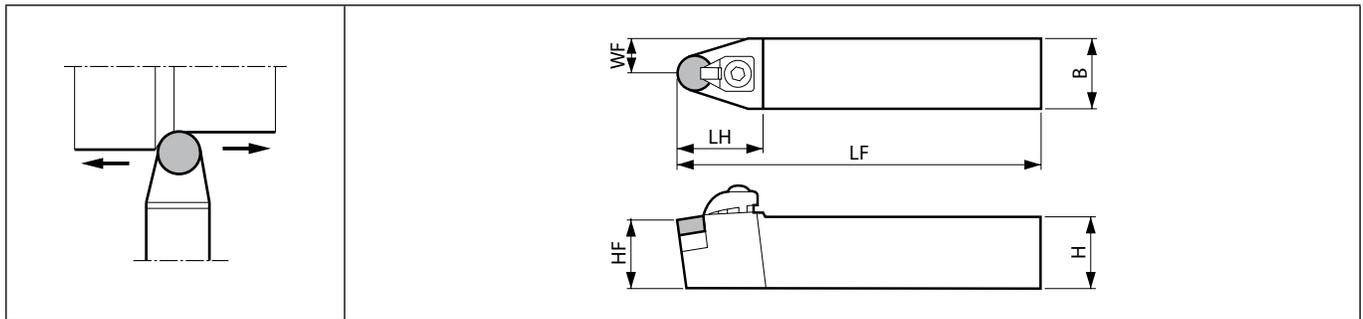
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Side rake angle (°)	Inclination angle (°)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Clamp set			Shim screw	Shim screw	Shim	Shim	Wrench		
mm	CRSN% 2525M-09A	●	●	25	25	26	25	150	32	-6	-6	CE-030A	-	HH3X12	SP-829 (SP-826*)	-	LW-4	RNM33... (RNG33...*)	
	3225P-09A	●	●	32			32	170											
	CRSN% 2525M-12A	●	●	25	25	26	25	150	32	-6	-6	CE-030A	BH3X12	-	-	SP-849 (SP-843**) (SP-841***)	LW-4	RNM42... (RN□43...**) (RNG45...***)	
	3225P-12A	●	●	32			32	170											

When using RNG33 type insert, please purchase shim (SP-826) separately.  
 When using RN□43 type insert, please purchase shim (SP-843) separately.  
 When using RNG45 type insert, please purchase shim (SP-841) separately.

**CRDN-A** (External Turning / External Copying)



Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Back rake angle (°)	Spare Parts						Applicable Inserts
		N	H	B	LH	HF	LF	WF	Clamp set	Shim screw		Shim screw	Shim	Shim	Wrench			
mm	CRDNN 2525M-09A	●	25	25	29	25	150	12.5	-8.5	CE-030A	-	HH3X12	SP-829 (SP-826*)	-	LW-4	RNM33... (RNG33...*)		
	3225P-09A	●	32			32	170											
	CRDNN 2525M-12A	●	25	25	28	25	150	12.5	-8.5	CE-030A	BH3X12	-	-	SP-849 (SP-843**) (SP-841***)	LW-4	RNM42... (RN□43...**) (RNG45...***)		
	3225P-12A	●	32			32	170											

When using RNG33 type insert, please purchase shim (SP-826) separately.  
 When using RN□43 type insert, please purchase shim (SP-843) separately.  
 When using RNG45 type insert, please purchase shim (SP-841) separately.

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)  
 Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

Applicable Inserts

Applications	Hard Materials / Cast Iron	Cast Iron / Hard Materials
Type	CBN	Ceramic
Toolholder \ Insert		
CRSN P/L ...-09A	RNM32	(RNG33)
CRSN P/L ...-12A	RNM42 (RNM43)	(RNG43) (RNG45)
CRDNN ...-09A	RNM32	(RNG33)
CRDNN ...-12A	RNM42 (RNM43)	(RNG43) (RNG45)
Page	C17	B116

Recommended Cutting Conditions  D75~D76

Spare Parts

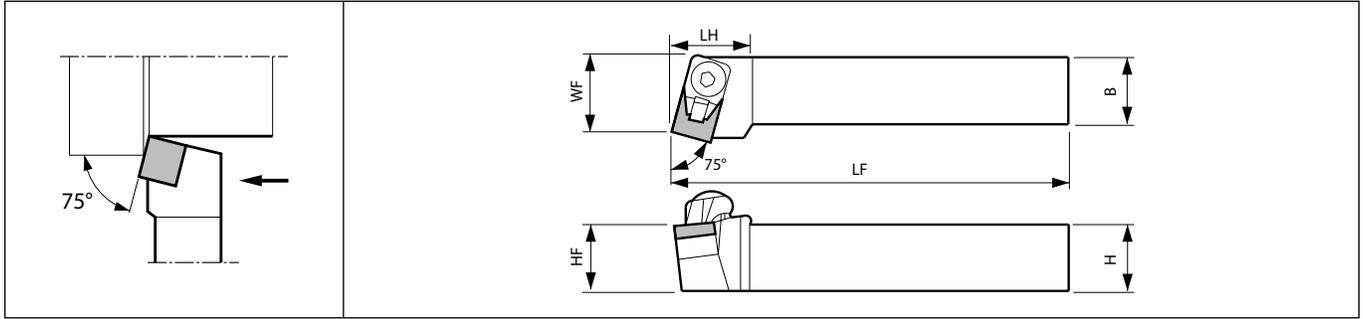
When using toolholder with Ceramic inserts, please purchase spare parts below separately.

Applications	Cast Iron / Hard Materials	Spare Parts	
		Shim	Shim screw
Toolholder \ Insert			
CRSN P/L ...-09A	(RNG33)	SP-826	-
CRSN P/L ...-12A	(RNG43)	SP-843	M3X12
	(RNG45)	SP-841	M3X8
CRDNN ...-09A	(RNG33)	SP-826	-
CRDNN ...-12A	(RNG43)	SP-843	M3X12
	(RNG45)	SP-841	M3X8

Recommended Cutting Conditions  D39-D40

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)  
Contact your local Kyocera sales engineer to upgrade old products to new technology

**CSRN-A** (External Turning)



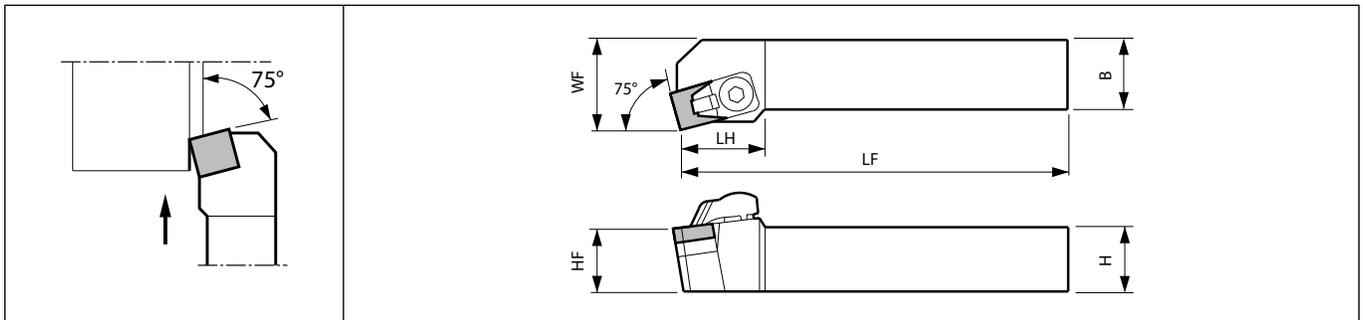
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts				Applicable Inserts		
		R	L	H	B	LH	HF				LF	WF	Clamp set	Shim screw		Shim	Wrench
		mm	CSRN% 2525M-12A	●	●	25	25				22	25	150	27		0.8	-6

When using SN□43 type insert, please purchase shim (SP-143) separately.

**CSKN-A** (External Facing)



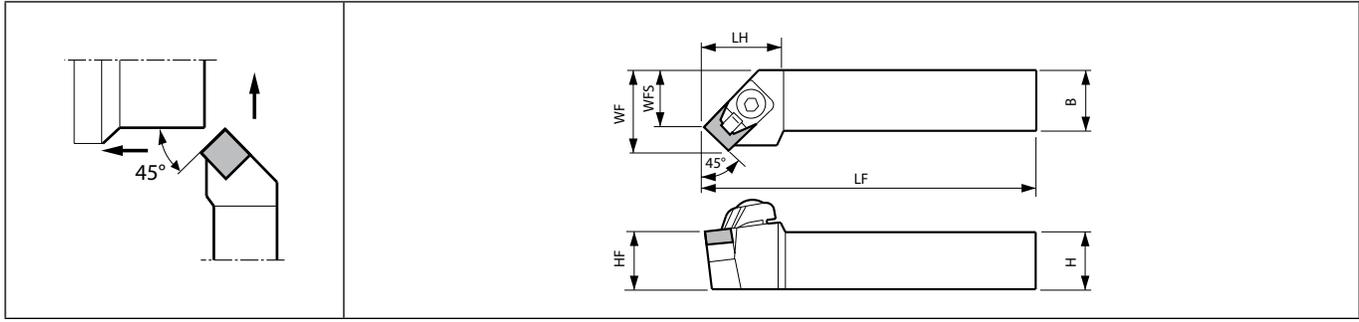
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts				Applicable Inserts	
		R	H	B	LH	HF	LF				WF	Clamp set	Shim screw	Shim		Wrench
		mm	CSKNR 2525M-09A	●	25	25	27				25	150	32	0.8		-6

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

CSSN-A (External Turning / External Facing / Chamfering)



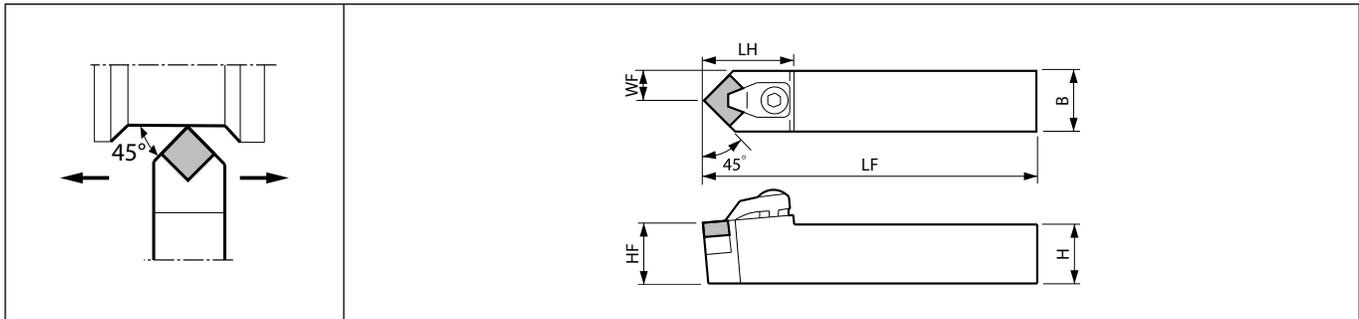
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)			Spare Parts			Applicable Inserts			
		R	L	H	B	LH	HF	LF	WF	WFS	Standard	Side	Inclination	Clamp set	Shim screw	Shim screw		Shim	Shim	Wrench
									(°)	(°)	(°)									
mm	CSSN% 2525M-09A	●	●	25	25	26	25	150	32	25	0.8	-6	0	CE-030A	-	HH3X12	SP-129	-	LW-4	SNM32...
	CSSN% 2525M-12A	●	●	25	25	26	25	150	32	23	0.8	-6	0	CE-030A	BH3X12	-	-	SP-148 (SP-143*) (SP-141*)	LW-4	SNM42... (SN□43...*) (SN□45...*)

When using SN□43 type insert, please purchase shim (SP-143) separately. When using SN□45 type insert, please purchase shim (SP-141) separately.

CSDN-A (External Turning / Chamfering)



Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)		Spare Parts						Applicable Inserts
		N	H	B	LH	HF	LF	WF	Standard	Back	Clamp set	Shim screw	Shim screw	Shim	Shim	Wrench			
									(°)	rate									
mm	CSDNN 2525M-09A	●	25	25	32	25	150	12.5	0.8	-8.5	CE-040	-	HH3X12	SP-129	-	LW-4	SNM32...		
	CSDNN 2525M-12A	●	25	25	32	25	150	12.5	0.8	-8.5	CE-040	BH3X12	-	-	SP-148 (SP-143*) (SP-141*)	LW-4	SNM42... (SN□43...*) (SN□45...*)		

When using SN□43 type insert, please purchase shim (SP-143) separately. When using SN□45 type insert, please purchase shim (SP-141) separately.

Applicable Inserts

Applications	Hard Materials / Cast Iron	Cast Iron	Cast Iron / Hard Materials
Type	CBN	Coated carbide	Ceramic
Insert			
Toolholder			
CSRN $\frac{\text{P}}{\text{L}}$ ...-12A	SNM42.. (SNM43..)	(SNM43..)	(SNG43..) (SNM43..) (SNG45..) (SNM45..)
CSKN $\frac{\text{P}}{\text{L}}$ ...-09A	SNM32..	-	-
CSSN $\frac{\text{P}}{\text{L}}$ ...-09A	SNM32..	-	-
CSSN $\frac{\text{P}}{\text{L}}$ ...-12A	SNM42.. (SNM43..)	(SNM43..)	(SNG43..) (SNM43..) (SNG45..) (SNM45..)
CSDNN ...-09A	SNM32..	-	-
CSDNN ...-12A	SNM42.. (SNM43..)	(SNM43..)	(SNG43..) (SNM43..) (SNG45..) (SNM45..)
Page	C18	B38	B117

Recommended Cutting Conditions  D75~D76

Spare Parts

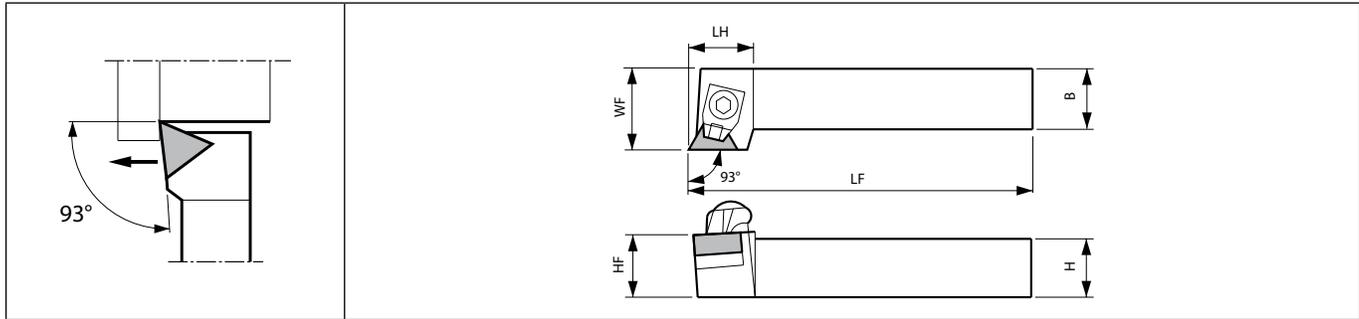
When using toolholder with Ceramic inserts, please purchase spare parts below separately.

Applications	Cast Iron / Hard Materials	Spare Parts			
Type	Ceramic	Chipbreaker	Clamp set	Shim	Shim screw
Insert					
Toolholder					
CSRN $\frac{\text{P}}{\text{L}}$ ...-12A	(SNG43..) (SNM43..)	CB-11	CE-020	SP-143	M3X12
	(SNG45..) (SNM45..)			SP-141	M3X8
CSKN $\frac{\text{P}}{\text{L}}$ ...-09A	-	-	-	-	-
CSSN $\frac{\text{P}}{\text{L}}$ ...-09A	-	-	-	-	-
CSSN $\frac{\text{P}}{\text{L}}$ ...-12A	(SNG43..) (SNM43..)	CB-11	CE-020	SP-143	M3X12
	(SNG45..) (SNM45..)			SP-141	M3X8
CSDNN ...-09A	-	-	-	-	-
CSDNN ...-12A	(SNG43..) (SNM43..)	-	-	SP-143	M3X12
	(SNG45..) (SNM45..)			SP-141	M3X8

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)  
 Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN / PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**CTJN-A** (External Turning)



Right-hand shown

D TURNING HOLDERS

**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Side Rake Angle (°)	Inclination Angle (°)	Spare Parts				Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Clamp set				Shim screw	Shim	Wrench		
mm	CTJN% 2525M-11A	●	●	25	25	22	25	150	32	0.8	-6	-4	CE-030A	HH3X12	SP-219	LW-4	TN□22...	

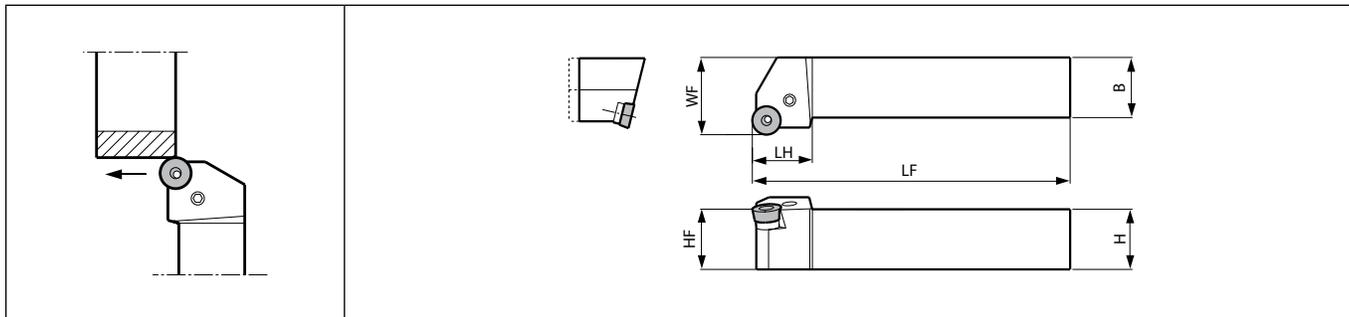
For TNMN1604 Insert toolholder, see page D56.

**Applicable Inserts**

Applications	Hard Materials / Cast Iron	Cast Iron / Hard Materials
Insert		
Type	<b>CBN</b>	<b>Ceramic</b>
Page	<b>C19</b>	<b>B118</b>

Recommended Cutting Conditions [D75~D76](#)

**PRGC-BE** (External Turning)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions						Spare Parts						Applicable Inserts
									Lever	Lock screw	Punch	Shim pin	Shim	Wrench	
			R	H	B	LH	HF	LF	WF						
mm	PRGCR 2525M-12BE	●	25	25	25	25	150	32	LL-1CN	LS-1N	PC-1	LSP-1	LR-12C	FH-2.5	RCMT1204M0-BB

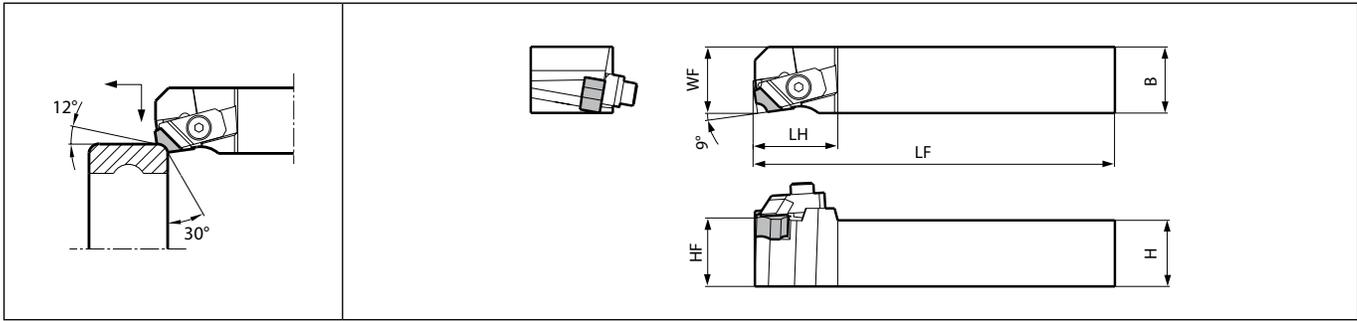
Applicable Inserts

Applications	Finishing
Insert	
Chipbreaker type	BB
Page	B109

Recommended Cutting Conditions [D75~D76](#)

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

**CBSN** (External Corner Filleting)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Spare Parts				Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Clamp set	Shim screw	Shim	Wrench		
															
mm	CBSN%L 2020K-12 2525M-12	●	●	20	20	32	20	125	20	CP-RC%L	SP3X8	SP-RC	LW-5	SNMF1204...-21	

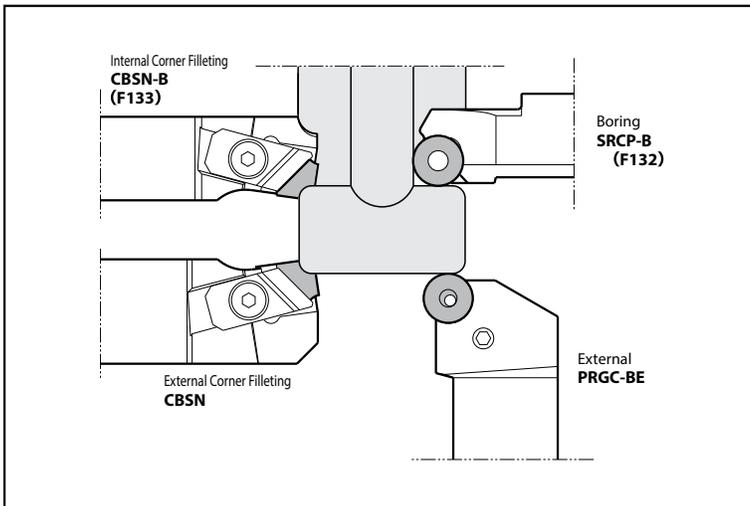
Clamp Set : CP-RCR for Right-hand Toolholder, CP-RCL for Left-hand Toolholder.

Applicable Inserts

Applications	Finishing
Insert	
Chipbreaker type	21
Page	B109

Recommended Cutting Conditions  D75~D76

Tooling for Bearing Machining



# Recommended Cutting Conditions

## External Turning - Negative Insert

D.O.C. Indicates Radius

ISO Class	Workpiece Material	Hardness	Cutting Range	Application	Recommended Chipbreaker	Recommended Insert Grade	Corner-R (RE)	Lower Limit - Recommendation - Upper Limit		
								Vc (sfm)	D.O.C. (in)	f (ipr)
P	Low Carbon Steel Low Carbon Alloy	HB ≤ 300	Finishing (High Speed Machining)	Continuous	XP	CX	1/32	980 - 1,970 - 2,620	0.008 - 0.020 - 0.028	0.003 - 0.005 - 0.008
			Finishing (Small D.O.C.)	Continuous Interruption	XF	PV710 PV720	1/64 1/32	820 - 1,150 - 1,710 790 - 1,050 - 1,570	0.002 - 0.005 - 0.024 0.002 - 0.006 - 0.024	0.001 - 0.004 - 0.009 0.002 - 0.005 - 0.010
			Finishing (Gloss Oriented)	Continuous Interruption	XP	TN610 TN620	1/64 1/32	820 - 1,050 - 1,310 790 - 1,020 - 1,210	0.008 - 0.020 - 0.028 0.008 - 0.020 - 0.028	0.003 - 0.005 - 0.008 0.003 - 0.005 - 0.008
			Finishing (Tool Life Oriented)	Continuous Interruption	XP	PV710 PV720	1/64 1/32	820 - 980 - 1,210 790 - 950 - 1,120	0.008 - 0.020 - 0.028 0.008 - 0.020 - 0.028	0.003 - 0.005 - 0.008 0.003 - 0.005 - 0.008
			Finishing - Medium (Gloss Oriented)	Continuous Interruption	XQ	TN610 TN620	1/64 1/32	820 - 1,050 - 1,310 790 - 920 - 1,120	0.020 - 0.039 - 0.059 0.020 - 0.039 - 0.059	0.007 - 0.010 - 0.012 0.007 - 0.010 - 0.012
			Finishing - Medium (Tool Life Oriented)	Continuous Interruption	XQ	PV710 PV720	1/32 1/32	820 - 980 - 1,210 790 - 920 - 1,120	0.020 - 0.039 - 0.059 0.020 - 0.039 - 0.059	0.007 - 0.010 - 0.012 0.007 - 0.010 - 0.012
			Medium - Roughing	Continuous Interruption	XS	PV720 CA115P	1/32 1/32	720 - 850 - 1,050 520 - 690 - 850	0.031 - 0.059 - 0.079 0.031 - 0.059 - 0.079	0.010 - 0.012 - 0.016 0.010 - 0.012 - 0.016
			Roughing	Continuous Interruption	PMG	CA115P CA125P	1/32 3/64	590 - 720 - 850 490 - 660 - 790	0.039 - 0.098 - 0.138 0.039 - 0.098 - 0.138	0.008 - 0.012 - 0.016 0.008 - 0.012 - 0.016
			Medium - Roughing (High Feed Rate)	Continuous Interruption	PT	CA115P CA125P	1/32 3/64	490 - 660 - 790 390 - 590 - 720	0.059 - 0.118 - 0.177 0.059 - 0.118 - 0.177	0.010 - 0.014 - 0.018 0.010 - 0.014 - 0.018
			Roughing (High Feed Rate)	Continuous Interruption	PH	CA115P CA125P	3/64 1/16	490 - 660 - 790 390 - 590 - 720	0.079 - 0.197 - 0.315 0.079 - 0.197 - 0.315	0.016 - 0.024 - 0.031 0.012 - 0.020 - 0.028
			Roughing (Low Cutting Force)	Continuous Interruption	PX (Single-Sided)	CA115P CA125P	3/64 1/16	490 - 660 - 790 390 - 590 - 720	0.079 - 0.197 - 0.315 0.079 - 0.197 - 0.315	0.016 - 0.024 - 0.031 0.012 - 0.020 - 0.028
	Medium Carbon Steel Medium Carbon Alloy	HB ≤ 300	Finishing (Time Oriented)	Continuous Interruption	WF (Wiper)	PV710 CA115P	1/32 1/32	660 - 820 - 1,050 520 - 720 - 920	0.012 - 0.020 - 0.039 0.012 - 0.020 - 0.039	0.008 - 0.012 - 0.016 0.008 - 0.012 - 0.016
			Finishing - Medium (Time Oriented)	Continuous Interruption	WE (Wiper)	PV710 CA125P	1/32 1/32	590 - 720 - 920 430 - 590 - 790	0.039 - 0.079 - 0.118 0.039 - 0.079 - 0.118	0.008 - 0.012 - 0.016 0.008 - 0.012 - 0.016
			Finishing (High Speed Machining)	Continuous	PP	CX	1/32	660 - 980 - 1,480	0.008 - 0.020 - 0.059	0.002 - 0.006 - 0.011
			Finishing (Gloss Oriented)	Continuous Interruption	PP	TN610 TN610	1/64 1/32	660 - 820 - 1,050 590 - 750 - 980	0.008 - 0.020 - 0.059 0.008 - 0.020 - 0.059	0.002 - 0.006 - 0.011 0.002 - 0.008 - 0.014
			Finishing (Tool Life Oriented)	Continuous Interruption	PP	PV710 PV720	1/64 1/32	660 - 820 - 1,050 660 - 790 - 950	0.008 - 0.020 - 0.059 0.008 - 0.020 - 0.059	0.002 - 0.006 - 0.011 0.002 - 0.008 - 0.014
			Finishing - Medium (Gloss Oriented)	Continuous Interruption	PQ	TN610 TN620	1/32 3/64	590 - 750 - 980 520 - 720 - 850	0.020 - 0.059 - 0.098 0.020 - 0.059 - 0.098	0.004 - 0.008 - 0.012 0.004 - 0.007 - 0.010
			Finishing - Medium (Tool Life Oriented)	Continuous Interruption	PQ	PV710 CA125P	1/32 1/32	520 - 690 - 920 460 - 660 - 790	0.020 - 0.059 - 0.098 0.020 - 0.059 - 0.098	0.004 - 0.008 - 0.012 0.004 - 0.007 - 0.010
			Medium - Roughing	Continuous Interruption	PMG	CA115P CA125P	1/32 3/64	490 - 660 - 790 390 - 520 - 660	0.039 - 0.098 - 0.138 0.039 - 0.098 - 0.138	0.008 - 0.012 - 0.016 0.008 - 0.012 - 0.016
			Medium - Roughing (High Feed Rate)	Continuous Interruption	PT	CA115P CA125P	1/32 3/64	390 - 590 - 750 330 - 490 - 660	0.059 - 0.118 - 0.177 0.059 - 0.118 - 0.177	0.010 - 0.014 - 0.018 0.010 - 0.014 - 0.018
			Roughing (High Feed Rate)	Continuous Interruption	PH	CA115P CA125P	3/64 1/16	390 - 590 - 750 330 - 490 - 660	0.079 - 0.197 - 0.315 0.079 - 0.197 - 0.315	0.016 - 0.024 - 0.031 0.012 - 0.020 - 0.028
			Roughing (Low Cutting Force)	Continuous Interruption	PX (Single-Sided)	CA115P CA125P	3/64 1/16	390 - 590 - 750 330 - 490 - 660	0.079 - 0.197 - 0.315 0.079 - 0.197 - 0.315	0.016 - 0.024 - 0.031 0.012 - 0.020 - 0.028
	High Carbon Alloy	HB ≤ 280	Finishing (High Speed Machining)	Continuous	PP	CX	1/32	660 - 980 - 1,310	0.008 - 0.020 - 0.059	0.002 - 0.006 - 0.011
			Finishing (Gloss Oriented)	Continuous Interruption	PP	TN610 TN620	1/64 1/32	490 - 660 - 920 460 - 590 - 790	0.008 - 0.020 - 0.059 0.008 - 0.020 - 0.059	0.002 - 0.006 - 0.011 0.002 - 0.008 - 0.014
			Finishing (Tool Life Oriented)	Continuous Interruption	PP	PV710 CA115P	1/64 1/32	390 - 590 - 850 330 - 490 - 660	0.008 - 0.020 - 0.059 0.008 - 0.020 - 0.059	0.002 - 0.006 - 0.011 0.002 - 0.008 - 0.014
			Finishing - Medium	Continuous Interruption	PQ	CA115P CA125P	1/32 1/32	390 - 520 - 720 330 - 460 - 590	0.020 - 0.059 - 0.098 0.020 - 0.059 - 0.098	0.006 - 0.010 - 0.012 0.006 - 0.008 - 0.010
			Medium - Roughing	Continuous Interruption	PMG	CA115P CA125P	1/32 1/32	390 - 490 - 660 330 - 430 - 590	0.039 - 0.079 - 0.118 0.039 - 0.079 - 0.118	0.008 - 0.012 - 0.020 0.006 - 0.008 - 0.012
			Medium - Roughing (High Feed Rate)	Continuous Interruption	PT	CA115P CA125P	1/32 3/64	330 - 460 - 590 260 - 390 - 520	0.059 - 0.118 - 0.177 0.059 - 0.118 - 0.177	0.010 - 0.014 - 0.018 0.010 - 0.014 - 0.018
			Roughing (High Feed Rate)	Continuous Interruption	PH	CA115P CA125P	3/64 1/16	330 - 460 - 590 260 - 390 - 520	0.079 - 0.197 - 0.315 0.079 - 0.197 - 0.315	0.016 - 0.024 - 0.031 0.012 - 0.020 - 0.028
			Roughing (Low Cutting Force)	Continuous Interruption	PX (Single-Sided)	CA115P CA125P	3/64 1/16	330 - 460 - 590 260 - 390 - 520	0.079 - 0.197 - 0.315 0.079 - 0.197 - 0.315	0.016 - 0.024 - 0.031 0.012 - 0.020 - 0.028

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

# Recommended Cutting Conditions

## External Turning - Negative Insert

D.O.C. Indicates Radius

ISO Class	Workpiece Material	Hardness	Cutting Range	Application	Recommended Chipbreaker	Recommended Insert Grade	Corner-R (RE)	Lower Limit - Recommendation - Upper Limit			
								Vc (sfm)	D.O.C. (in)	f (ipr)	
M	Stainless Steel (Austenitic)	HB ≤ 220	Finishing (Gloss Oriented)	Continuous Interruption	PQ	TN620 TN620	1/32 1/32	390 - 520 - 660 330 - 390 - 490	0.020 - 0.039 - 0.059 0.020 - 0.039 - 0.059	0.003 - 0.006 - 0.008 0.002 - 0.004 - 0.006	
			Finishing	Continuous Interruption	MQ	CA6515 CA6525	1/64 1/32	390 - 590 - 790 330 - 520 - 720	0.020 - 0.039 - 0.059 0.020 - 0.039 - 0.059	0.003 - 0.006 - 0.008 0.002 - 0.004 - 0.006	
			Medium-Roughing (Chip Control Oriented)	Continuous Interruption	MS	CA6515 CA6525	1/64 1/32	390 - 520 - 660 260 - 460 - 590	0.039 - 0.079 - 0.118 0.039 - 0.079 - 0.118	0.004 - 0.008 - 0.012 0.008 - 0.012 - 0.016	
			Medium-Roughing (Sharpness Oriented)	Continuous Interruption	MU	CA6515 CA6525	1/64 1/32	390 - 520 - 660 260 - 460 - 590	0.039 - 0.079 - 0.118 0.039 - 0.079 - 0.118	0.006 - 0.010 - 0.014 0.006 - 0.010 - 0.012	
			Roughing	Continuous Interruption	Standard	CA6515 CA6525	1/32 3/64	330 - 460 - 590 260 - 390 - 490	0.039 - 0.079 - 0.157 0.039 - 0.079 - 0.157	0.008 - 0.012 - 0.016 0.008 - 0.012 - 0.016	
	Stainless Steel (Precipitation Hardened)	HB ≤ 300	Finishing (Gloss Oriented)	Continuous Interruption	PQ	TN620 TN620	1/32 1/32	330 - 390 - 490 260 - 330 - 390	0.020 - 0.039 - 0.059 0.020 - 0.039 - 0.059	0.002 - 0.004 - 0.006 0.002 - 0.003 - 0.004	
			Finishing	Continuous Interruption	MQ	CA6515 CA6525	1/64 1/32	330 - 390 - 490 260 - 330 - 390	0.020 - 0.039 - 0.059 0.020 - 0.039 - 0.059	0.002 - 0.006 - 0.008 0.002 - 0.004 - 0.006	
			Medium-Roughing (Chip Control Oriented)	Continuous Interruption	MS	CA6515 CA6525	1/64 1/32	330 - 390 - 490 260 - 330 - 390	0.039 - 0.059 - 0.079 0.039 - 0.079 - 0.118	0.004 - 0.006 - 0.010 0.004 - 0.006 - 0.008	
			Medium-Roughing (Sharpness Oriented)	Continuous Interruption	MU	CA6515 CA6525	1/64 1/32	330 - 390 - 490 260 - 330 - 390	0.039 - 0.059 - 0.079 0.039 - 0.079 - 0.118	0.004 - 0.006 - 0.010 0.004 - 0.006 - 0.008	
			Roughing	Continuous Interruption	Standard	CA6515 CA6525	1/32 3/64	260 - 330 - 390 200 - 260 - 330	0.039 - 0.079 - 0.118 0.039 - 0.079 - 0.157	0.008 - 0.012 - 0.016 0.008 - 0.012 - 0.016	
K	Gray Cast Iron	HB ≤ 250	High Speed Machining	Continuous Interruption	No Chipbreaker	KBN475 KBN900 KBN900	1/32 3/64 3/64	1,310 - 2,620 - 3,940 1,640 - 2,950 - 3,940 1,640 - 2,300 - 2,950	0.002 - 0.008 - 0.020 0.004 - 0.020 - 0.039 0.020 - 0.039 - 0.059	0.004 - 0.008 - 0.012 0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	
			Finishing (Gloss Oriented)	Continuous Interruption	Standard	PV7005 PV720	1/32 1/32	980 - 1,150 - 1,310 490 - 660 - 980	0.020 - 0.039 - 0.059 0.020 - 0.039 - 0.059	0.004 - 0.008 - 0.012 0.003 - 0.006 - 0.008	
			Finishing (Ceramic)	Continuous Continuous	No Chipbreaker	KA30 PT600M	3/64 1/32	980 - 1,640 - 2,300 980 - 1,480 - 1,970	0.012 - 0.020 - 0.039 0.012 - 0.020 - 0.039	0.004 - 0.008 - 0.012 0.004 - 0.008 - 0.012	
			Medium (Ceramic)	Continuous Interruption	No Chipbreaker	CS7050 KS6050	3/64 3/64	980 - 1,480 - 1,800 820 - 1,310 - 1,640	0.039 - 0.079 - 0.118 0.039 - 0.079 - 0.118	0.006 - 0.010 - 0.014 0.006 - 0.008 - 0.012	
			Medium	Continuous Interruption	KH	CA410K CA415K	1/32 3/64	660 - 1,310 - 2,300 590 - 980 - 1,480	0.020 - 0.079 - 0.098 0.020 - 0.079 - 0.098	0.004 - 0.008 - 0.012 0.003 - 0.006 - 0.008	
			Roughing	Continuous Interruption	KH	CA410K CA415K	1/32 3/64	660 - 1,310 - 2,300 590 - 980 - 1,480	0.039 - 0.079 - 0.157 0.039 - 0.079 - 0.157	0.008 - 0.012 - 0.016 0.008 - 0.012 - 0.016	
	Nodular Cast Iron	HB ≤ 270	High Speed Machining	Continuous Continuous	No Chipbreaker	KBN60M PT600M	1/64 1/32	660 - 980 - 1,310 660 - 820 - 1,150	0.004 - 0.012 - 0.020 0.004 - 0.020 - 0.039	0.004 - 0.006 - 0.008 0.004 - 0.008 - 0.012	
			Finishing (Gloss Oriented)	Continuous Interruption	Standard	PV7005 PV720	1/32 1/32	490 - 820 - 980 390 - 660 - 820	0.020 - 0.039 - 0.059 0.020 - 0.039 - 0.059	0.004 - 0.008 - 0.012 0.003 - 0.006 - 0.008	
			Medium	Continuous Interruption	KG	CA410K CA415K	1/32 3/64	660 - 1,150 - 1,640 490 - 820 - 1,150	0.020 - 0.079 - 0.098 0.020 - 0.079 - 0.098	0.004 - 0.008 - 0.012 0.003 - 0.006 - 0.008	
			Roughing	Continuous Interruption	KG KH	CA410K CA415K	1/32 3/64	660 - 1,150 - 1,640 490 - 820 - 1,150	0.039 - 0.079 - 0.157 0.039 - 0.079 - 0.157	0.008 - 0.012 - 0.016 0.008 - 0.012 - 0.016	
N	Non-ferrous Metals Copper Alloy Aluminum Aluminum Alloys	HB ≤ 100	High Speed Machining (Glossy Surface)	Continuous	No Chipbreaker	KPD001	1/64	980 - 2,620 - 6,560	0.002 - 0.020 - 0.039	0.002 - 0.004 - 0.006	
			Finishing (Long Tool Life)	Continuous Interruption	A3	PDL025 PDL025	1/64 1/32	1,310 - 1,640 - 2,300 1,310 - 1,640 - 2,300	0.020 - 0.039 - 0.079 0.020 - 0.039 - 0.079	0.004 - 0.008 - 0.010 0.004 - 0.008 - 0.010	
			Finishing	Continuous Interruption	A3	KW10 KW10	1/32 1/32	1,310 - 1,640 - 2,300 1,310 - 1,640 - 2,300	0.020 - 0.039 - 0.079 0.020 - 0.039 - 0.079	0.004 - 0.008 - 0.010 0.004 - 0.008 - 0.010	
			Medium	Continuous Interruption	AH	KW10 KW10	1/32 1/32	660 - 980 - 1,640 660 - 980 - 1,640	0.039 - 0.079 - 0.138 0.039 - 0.079 - 0.138	0.004 - 0.012 - 0.016 0.004 - 0.012 - 0.016	
S	Titanium Alloys	HB ≤ 400	Precision Finishing (Glossy Surface)	Continuous Interruption	No Chipbreaker	KPD001 KPD001	1/64 1/64	330 - 490 - 590 230 - 390 - 490	0.002 - 0.012 - 0.020 0.002 - 0.012 - 0.020	0.001 - 0.004 - 0.006 0.001 - 0.003 - 0.004	
			Finishing	Continuous Interruption	MQ	SW05 SW05	1/64 1/64	130 - 230 - 330 130 - 230 - 330	0.008 - 0.020 - 0.039 0.008 - 0.020 - 0.039	0.002 - 0.008 - 0.012 0.002 - 0.006 - 0.008	
			Medium	Continuous Interruption	MU	SW05 SW05	1/32 1/32	130 - 200 - 260 130 - 200 - 260	0.020 - 0.039 - 0.118 0.020 - 0.039 - 0.118	0.004 - 0.010 - 0.014 0.004 - 0.008 - 0.012	
	Heat-Resistant Alloys	HB ≤ 350	Finishing	Continuous Interruption	MQ	PRO055 PR115S	1/64 1/32	100 - 180 - 300 80 - 150 - 230	0.008 - 0.012 - 0.039 0.008 - 0.020 - 0.039	0.002 - 0.003 - 0.006 0.002 - 0.004 - 0.008	
			Medium	Continuous Interruption	SQ	PR115S PR120S	1/32 1/32	100 - 180 - 300 80 - 150 - 230	0.012 - 0.020 - 0.059 0.012 - 0.020 - 0.059	0.004 - 0.007 - 0.014 0.004 - 0.007 - 0.014	
			Roughing	Continuous Interruption	SX	PR115S PR120S	- -	100 - 180 - 300 80 - 150 - 230	0.020 - 0.079 - 0.157 0.020 - 0.079 - 0.157	0.006 - 0.012 - 0.018 0.006 - 0.012 - 0.018	
	H	Hardened Steel Hard Materials	40~50 HRC	Finishing	Continuous Interruption	PQ Standard	CA115P CA115P	1/32 1/32	200 - 330 - 390 100 - 160 - 230	0.004 - 0.012 - 0.020 0.004 - 0.012 - 0.020	0.002 - 0.003 - 0.004 0.002 - 0.003 - 0.004
			40~50 HRC	Finishing	Continuous	No Chipbreaker	PT600M	1/32	200 - 250 - 325	0.008 - 0.020 - 0.028	0.002 - 0.004 - 0.006
50~65 HRC			Finishing	Continuous	No Chipbreaker	PT600M	3/64	100 - 125 - 200	0.008 - 0.020 - 0.028	0.002 - 0.004 - 0.006	
50~68 HRC			Finishing	Continuous Interruption	ME MET	KBN010 KBN015	1/32 3/64	260 - 590 - 820 260 - 590 - 750	0.002 - 0.012 - 0.020 0.002 - 0.012 - 0.020	0.002 - 0.003 - 0.004 0.002 - 0.003 - 0.004	
			Medium	Continuous Interruption	No Chipbreaker	KBN900 KBN900	3/64 Radius	250 - 325 - 400 225 - 300 - 350	0.020 - 0.039 - 0.079 0.012 - 0.028 - 0.039	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.006	