

# Tools for Turning Mill

N1~N10

Tools for Turning Mill

N2~N10

HSK-T (ICTM Standard) Tooling

N2

Parts Compatibility of Lever Lock Toolholders  R42

# N



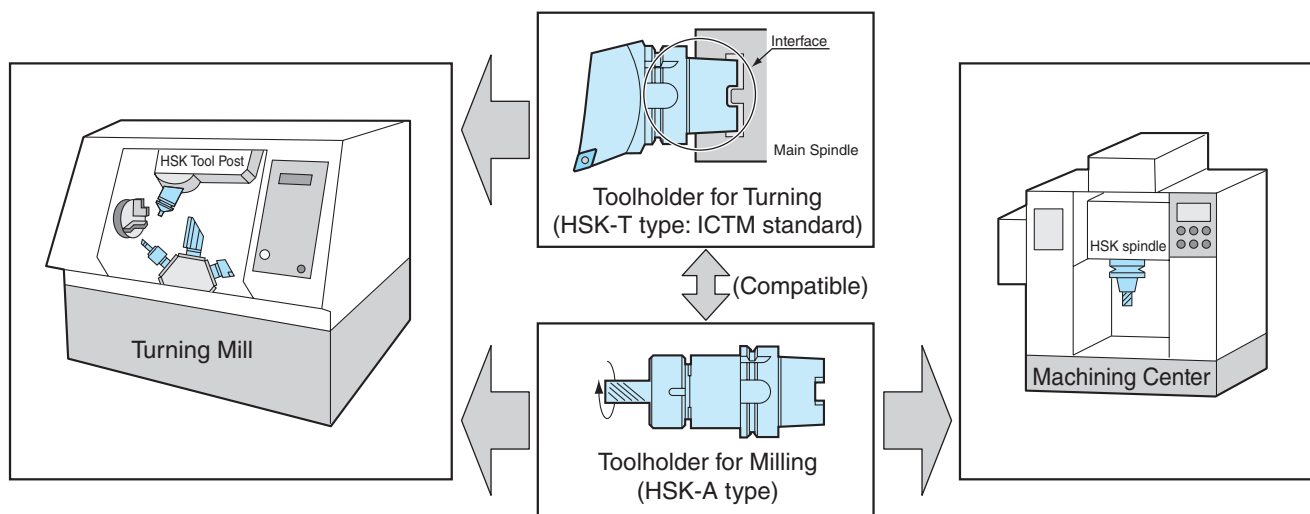
# Tools for Turning Mill

## Tools for Turning Mill

- The turning mill is a machine that combines turning and milling functions. Now an interface (between workpiece and toolholder - equivalent to the arbor for milling) is available for the turning mill that fulfils the ICTM standard.
- ICTM standard was developed by 16 companies in Japan, as the interface between turning mill machines. It is based on the two-face restraint type standard "ISO 12164-1:2001 HSK Standard Shank".
- This standard became an International Standard as ISO Standard "ISO12164-3:2008" in 2008. Description is indicated as HSK-TOO.

### Features

- (1) Compatible with HSK-A type for Machining Center.

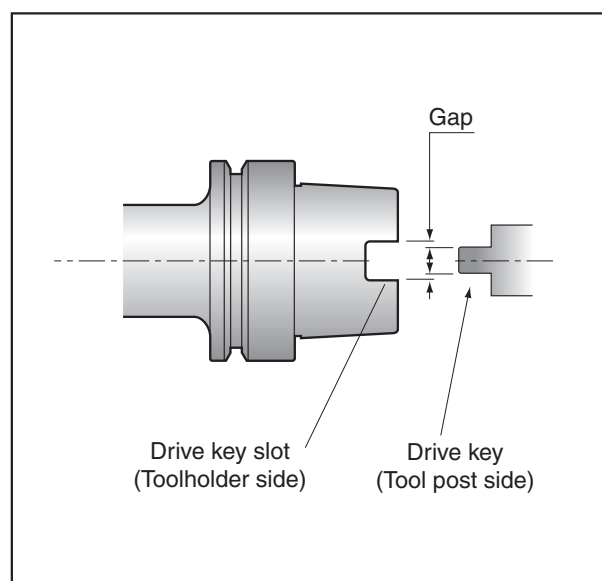


- (2) Machining precision for turning has improved by minimizing the gap between the drive key slot on toolholder side and the drive key on toolpost side.

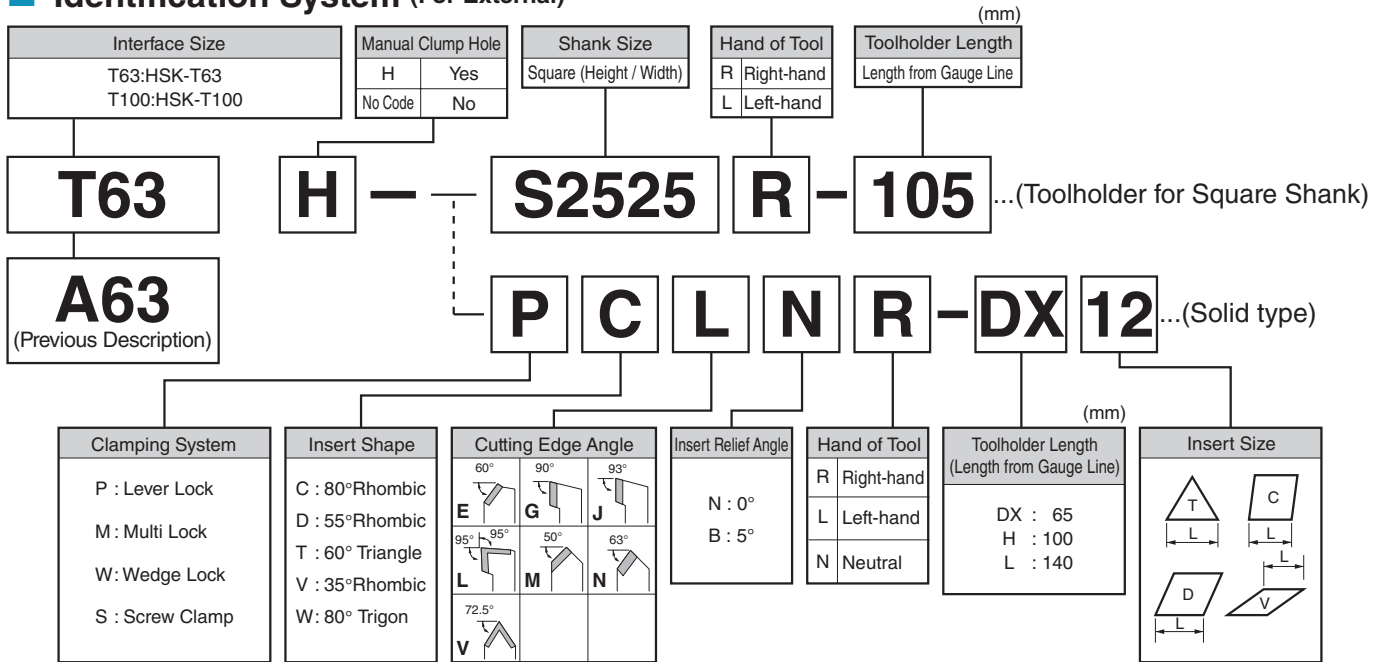
Table 1: Comparison of the gap of a key and key slot  
(Unit: mm)

	12.2	12.3	12.4	12.5	12.6
<b>HSK-A63 Tolerance</b>			12.25	12.35	
		0.10	Min. gap	0.15	0.08
				12.5	12.58
				Key slot tolerance	
					Max. gap 0.33
<b>HSK-T63 Tolerance</b>			12.385	12.41	
		Min. gap 0.015	0.025	0.035	
			12.425	12.46	
					Max. gap 0.075

Table 2: Effect of the gap

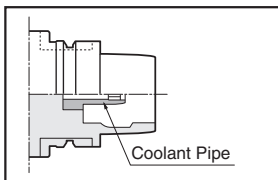


## Identification System (For External)

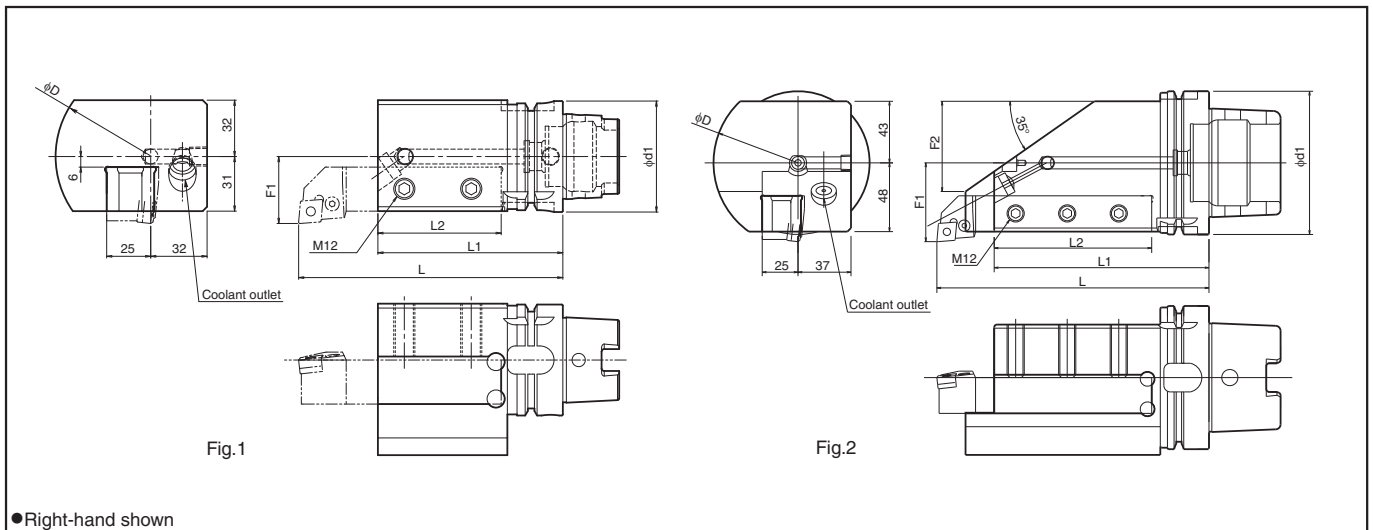


### Coolant Pipe

Coolant pipe is built into toolholder.



## Toolholder for Square Shank (For External / Facing)



### Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)								Drawing	Spare Parts		
			φd1	φD	L	L1	L2	F1	F2	Clamp Screw		Wrench	Coolant Pipe	
T63H- S2525R-105	A63-WH- S2525R-105	●	63	108	150	105	70	38	-	Fig.1	HS12X25	LW-6	CL63-1	
T100H- S2525R-150	-	●	100	118	190	150	110	55	63	Fig.2	HS12X30		CL100-1	

Coolant outlet direction is adjustable.

For 25mm square shank.

● : Std. Item

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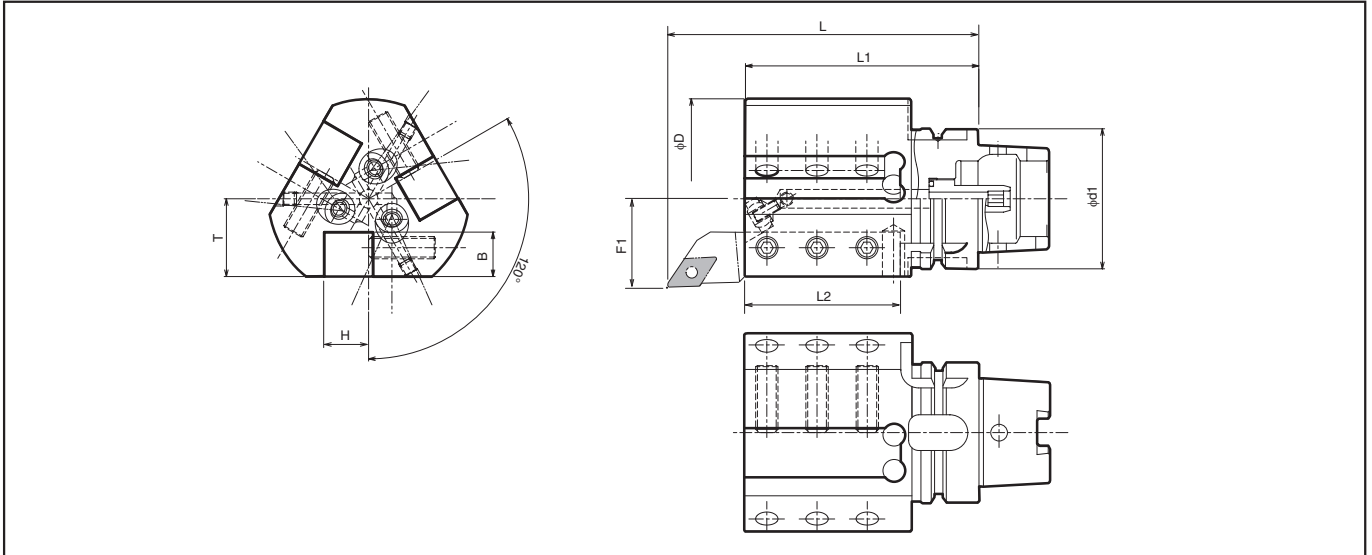


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## Toolholder for Square Shank (For External / Facing)

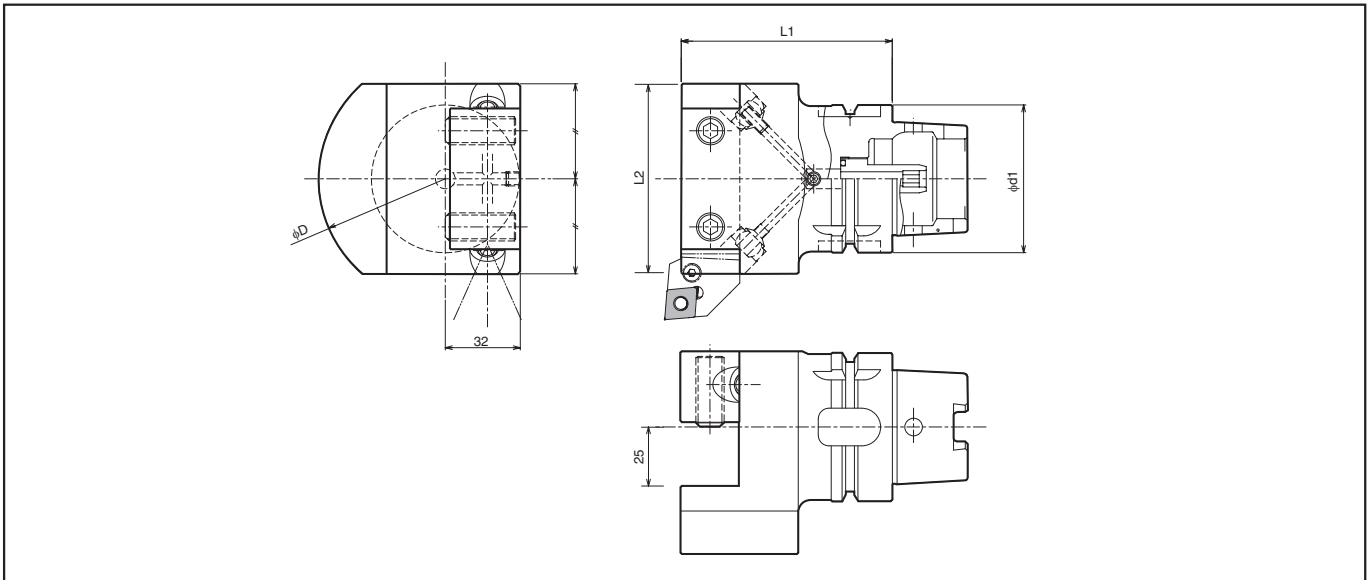


### Toolholder Dimensions

Description	Attachment toolholder Shank Dimension	Std.	Dimension (mm)										Spare Parts		
			phiD1	phiD	H	B	T	L	L1	L2	F1	Clamp Screw	Wrench	Coolant Pipe	
<b>T63H- S2020R-105T</b>	(20mm square)	●	63	90	20	20	35	150	105	70	40	HS12X30	LW-6	CL63-1	
<b>T100H- S2525R-150T</b>	(25mm square)	●	100	118	25	25	48	190	150	110	55	HS12X35		CL100-1	

· Coolant outlet direction is adjustable.

## Toolholder for Square Shank (For External / Facing)



### Toolholder Dimensions

Description	Attachment toolholder Shank Dimension	Std.	Dimension (mm)				Spare Parts		
			phiD1	phiD	L1	L2	Clamp Screw	Wrench	Coolant Pipe
<b>T63H- S2525-90F</b>	(25mm square)	●	63	108	90	81	HS12X30	LW-6	CL63-1
<b>S2525-120F</b>		●			120				
<b>T100H- S2525-105F</b>	(25mm square)	●	100	118	105				
<b>S2525-150F</b>		●			150				

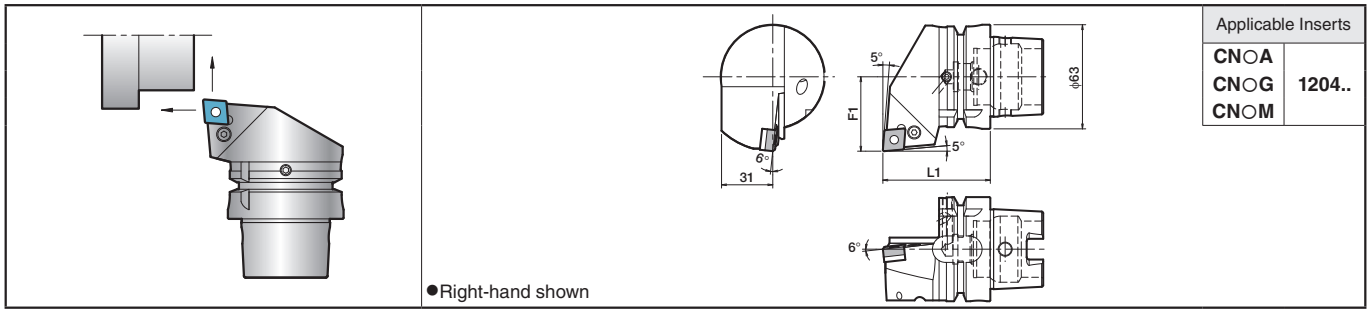
· Coolant outlet direction is adjustable.

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● : Std. Item

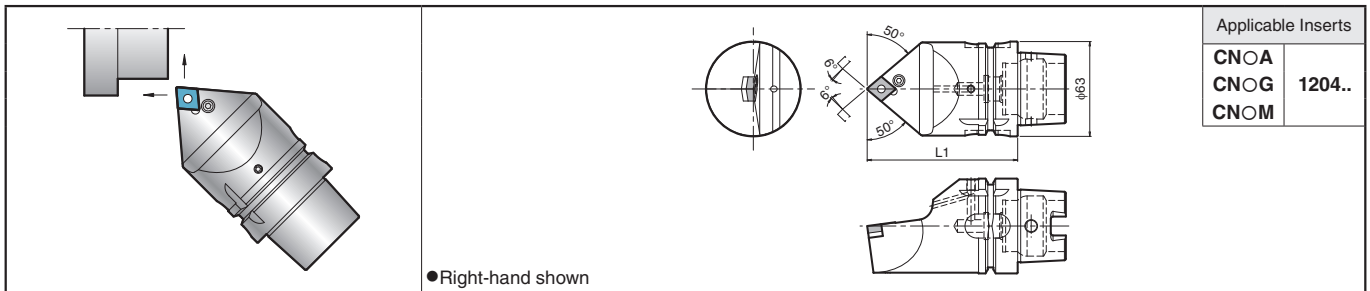
## PCLN (External / Facing)



### Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)		Spare Parts						
			L1	F1	Lever	Lock Screw	Shim	Shim Pin	Punch	Wrench	Coolant Pipe
T63H- PCLNR-DX12 PCLNL-DX12	A63-WH- PCLNR-DX12 PCLNL-DX12	● ●	65	45	LL-2N	LS-2N	LC-42N	LSP-2	PC-2	LW-3	CL63-1

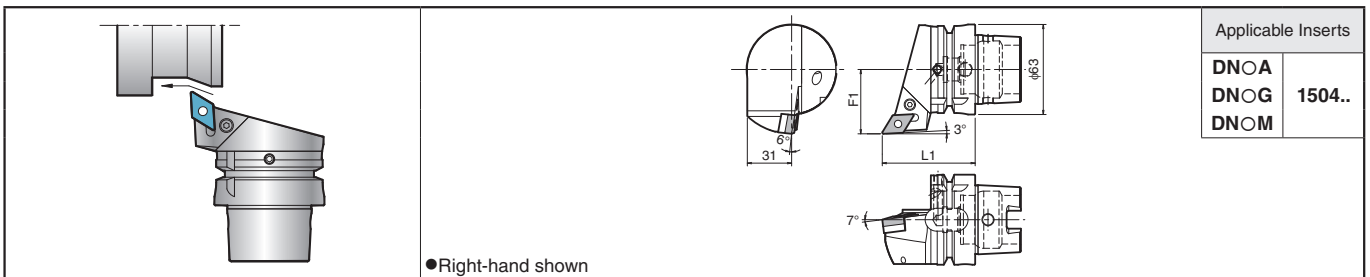
## PCMN (External / Facing)



### Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)		Spare Parts						
			L1		Lever	Lock Screw	Shim	Shim Pin	Punch	Wrench	Coolant Pipe
T63H- PCMNN-H12 PCMNN-L12	A63-WH- PCMNN-H12 PCMNN-L12	● ●	100		LL-2N	LS-2N	LC-42N	LSP-2	PC-2	LW-3	CL63-1
			140								

## PDJN (External / Copying)



### Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)		Spare Parts						
			L1	F1	Lever	Lock Screw	Shim	Shim Pin	Punch	Wrench	Coolant Pipe
T63H- PDJNR-DX15 PDJNL-DX15	A63-WH- PDJNR-DX15 PDJNL-DX15	● ●	65	45	LL-3N	LS-2N	LD-42 *LD-42-20	LSP-2	PC-2	LW-3	CL63-1

· When using inserts whose corner R (r<sub>c</sub>) is greater than 1.6mm, please purchase a shim with \* mark and use it in order to prevent workpiece and shim from interfering each other.

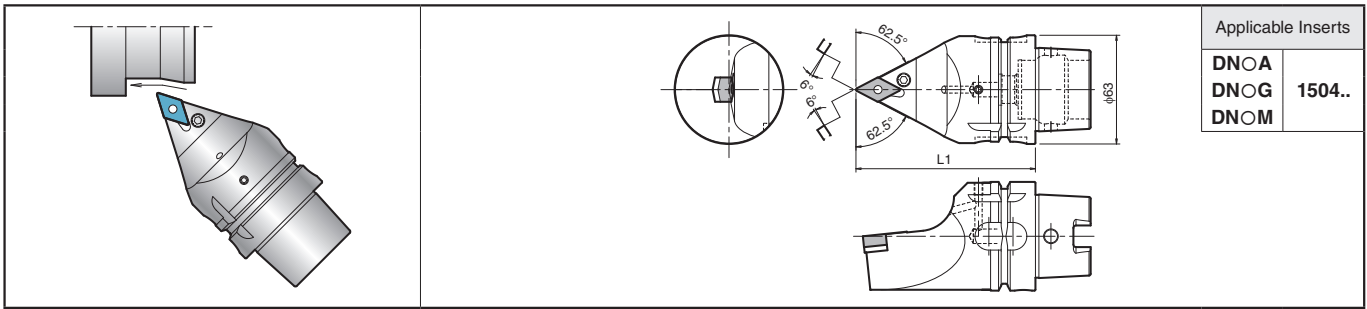
● : Std. Item



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## PDNN (External / Copying)

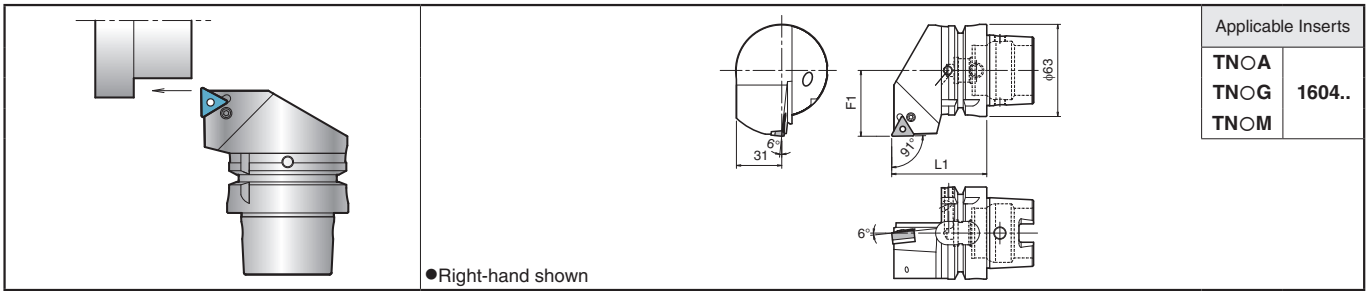


### ● Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)		Spare Parts						
			L1	F1	Lever	Lock Screw	Shim	Shim Pin	Punch	Wrench	Coolant Pipe
T63H- PDNNH-H15	A63-WH- PDNNH-H15	●	100		LL-3N	LS-2N	LD-42	LSP-2	PC-2	LW-3	CL63-1
PDNNH-L15	PDNNH-L15	●	140				*LD-42-20				

· When using inserts whose corner R (r<sub>c</sub>) is greater than 1.6mm, please purchase a shim with \* mark and use it in order to prevent workpiece and shim from interfering each other.

## PTGN (External)



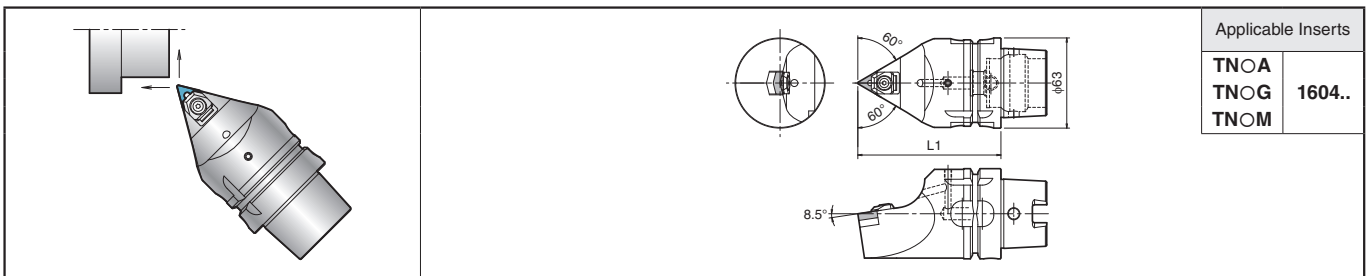
● Right-hand shown

### ● Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)		Spare Parts						
			L1	F1	Lever	Lock Screw	Shim	Shim Pin	Punch	Wrench	Coolant Pipe
T63H- PTGNR-DX16	A63-WH- PTGNR-DX16	●	65	45	LL-1N	LS-1N	LT-32N	LSP-1	PC-1	FH-2.5	CL63-1
PTGNL-DX16	PTGNL-DX16	●					*LT-32N-20				

· When using inserts whose corner R (r<sub>c</sub>) is greater than 1.6mm, please purchase a shim with \* mark and use it in order to prevent workpiece and shim from interfering each other.

## WTEN (External)



### ● Toolholder Dimensions

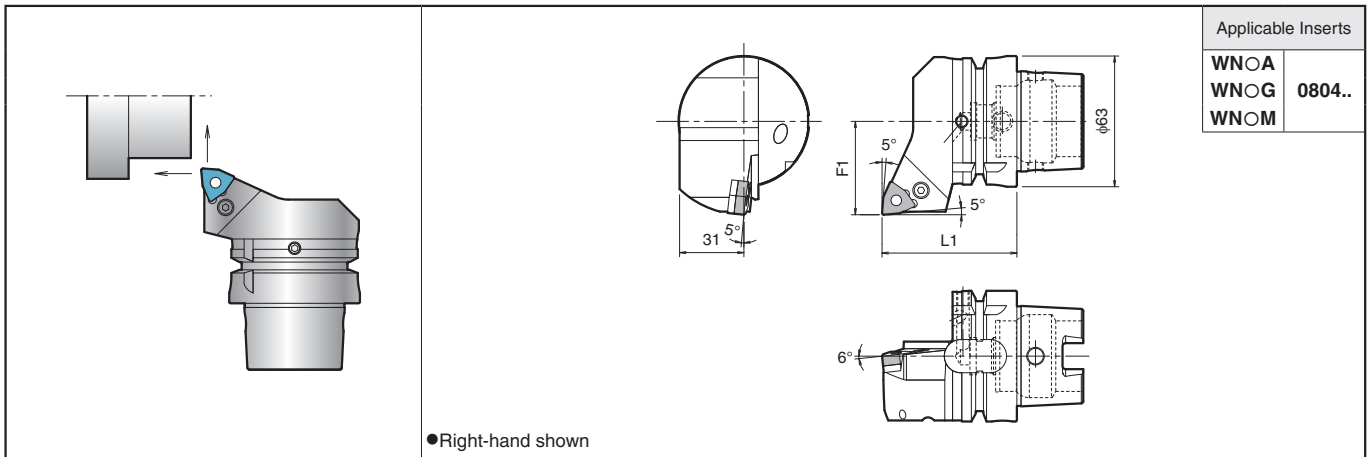
Description	(Previous Description)	Std.	Dimension (mm)		Spare Parts						
			L1	F1	Clamp Set	Shim	Shim Pin	Shim Nut	Wrench	Spacer	Coolant Pipe
T63H- WTENN-H16	A63-WH- WTENN-H16	●	100		WCS-1N	WTN-33	WP-1S	WN-1	LW-3	WSP-1	CL63-1
WTENN-L16	WTENN-L16	●	140								

● : Std. Item

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## PWLN (External / Facing)

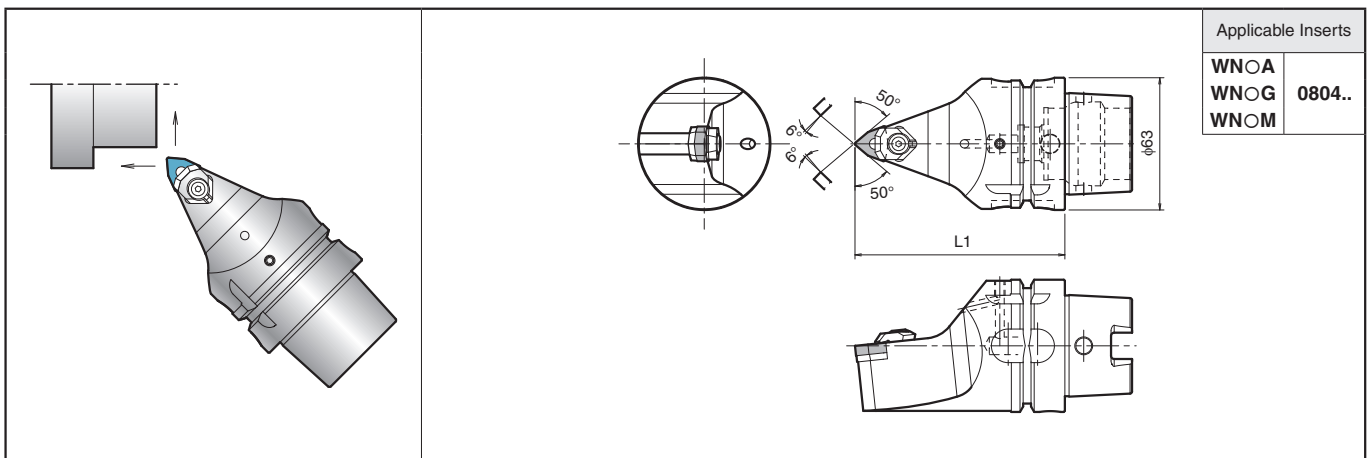


Applicable Inserts	
WN $\circ$ A	0804..
WN $\circ$ G	
WN $\circ$ M	

### Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)		Spare Parts								
			L1	F1	Lever	Lock Screw	Shim	Shim Pin	Punch	Wrench	Coolant Pipe		
T63H-	PWLN $\circ$ R-DX08	A63-WH-	PWLN $\circ$ R-DX08	●	65	45	LL-2N	LS-2N	LW-42N	LSP-2	PC-2	LW-3	CL63-1
	PWLN $\circ$ L-DX08		PWLN $\circ$ L-DX08	●									

## WWMN (External / Facing)



Applicable Inserts	
WN $\circ$ A	0804..
WN $\circ$ G	
WN $\circ$ M	

### Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)		Spare Parts						
			L1		Clamp Set	Shim	Shim Pin	Shim Nut	Wrench	Coolant Pipe	
T63H-	WWMN $\circ$ N-H08	A63-WH-	WWMN $\circ$ N-H08	●	100	WCS-8	WWN-42	WP5X15	WN-1	LW-3	CL63-1
	WWMN $\circ$ N-L08		WWMN $\circ$ N-L08	●	140						

● : Std. Item

N



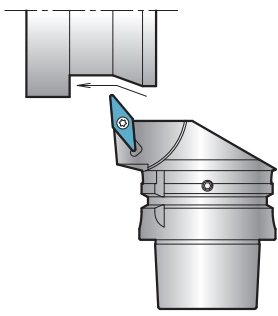
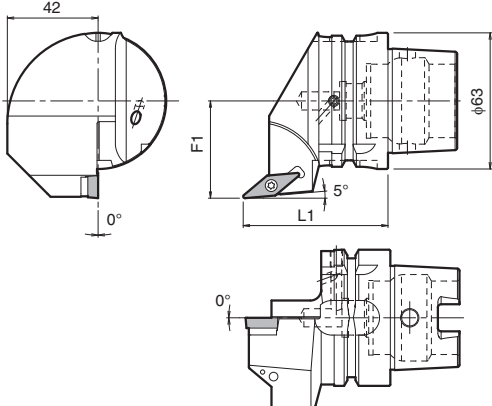
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## SVLB (External / Copying)

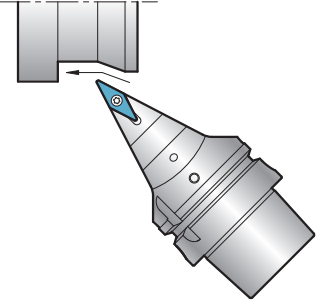
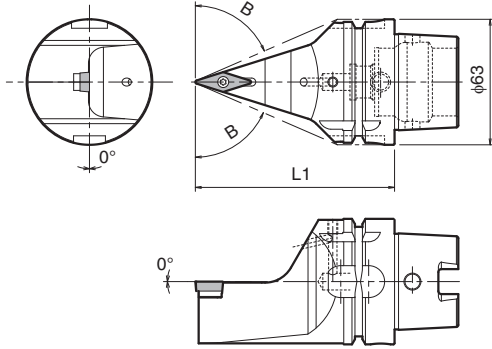
Applicable Inserts	
VB $\odot$ T	1604..
VBGW	
VCGT	

● Right-hand shown

### Toolholder Dimensions

Description	Std.	Dimension (mm)		Spare Parts					
		L1	F1	Clamp Screw	Wrench	Shim	Shim Screw	Wrench (for Shim Screw)	Coolant Pipe
T63H- SVLBR-DX16N	●	65	45	SB-40125TRN	FT-15	SVN-32N	SS-4N	LW-4	CL63-1
SVLBL-DX16N	●								

## SVVB (External / Copying)

Applicable Inserts	
VB $\odot$ T	1604..
VBGW	
VCGT	

### Toolholder Dimensions

Description	Std.	Dimension (mm)		Spare Parts					
		L1	*B(°)	Clamp Screw	Wrench	Shim	Shim Screw	Wrench (for Shim Screw)	Coolant Pipe
T63H- SVVBN-H16N	●	100	66.5	SB-40125TRN	FT-15	SVN-32N	SS-4N	LW-4	CL63-1
SVVBN-L16N	●	140	72.5						

\* Angle B shows the interference angle from the line of cutting edge point and toolholder.

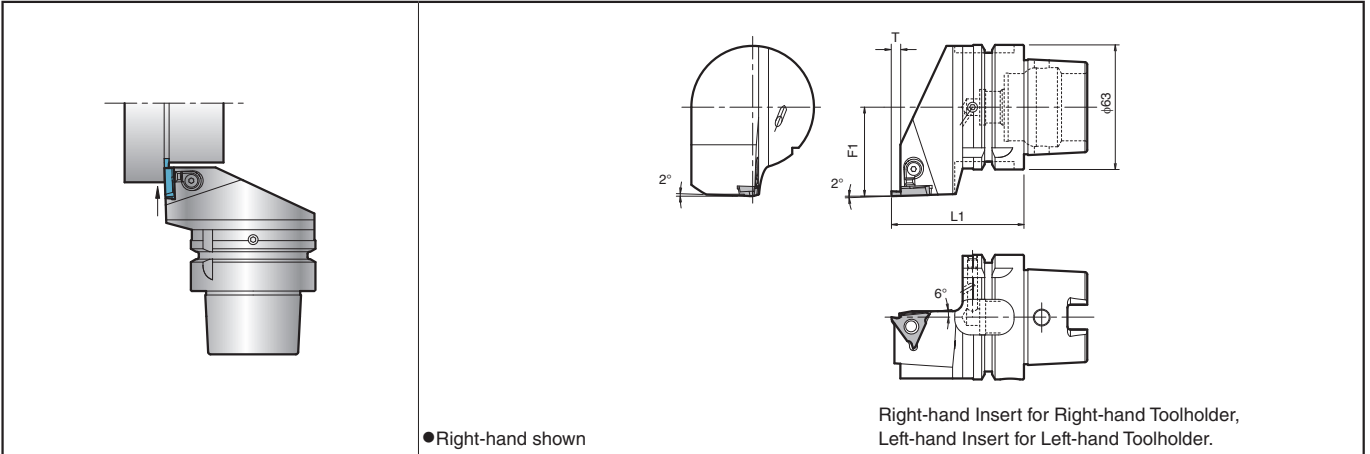
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Tools for Turning Mill

● : Std. Item



## ■ KGBA (External Grooving)



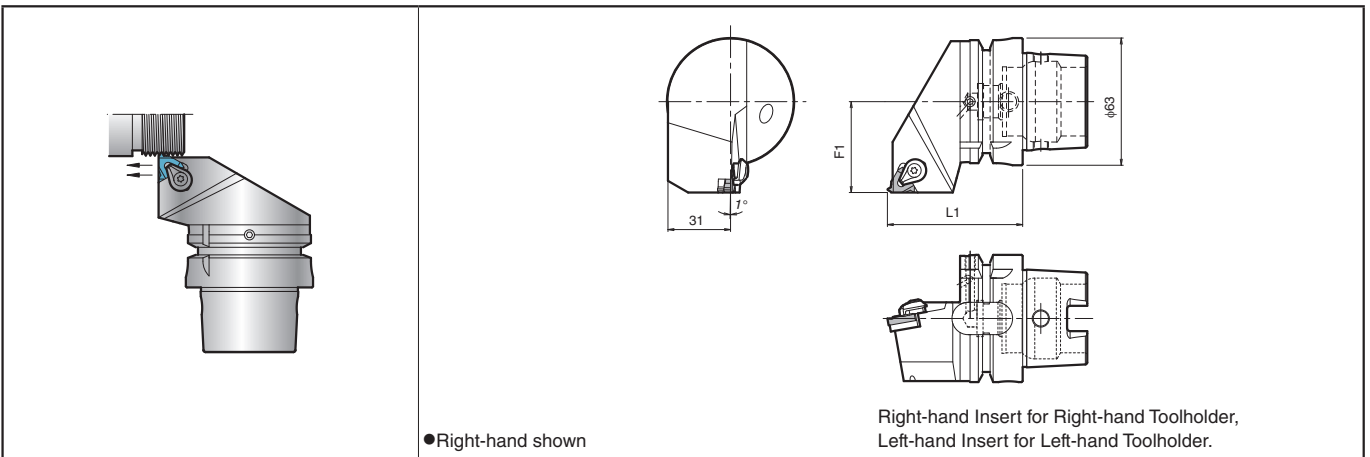
### ● Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)			Spare Parts			Applicable Inserts ●G10~G12		
			L1	F1	T	Clamp Set	Wrench	Coolant Pipe			
T63H-	KGBAR-16	A63-WH-	KGBAR-16	●	67	45	2.5	LGBA-16RS	FT-15	CL63-1	GBA32R Type
	KGBAR-22-15		KGBAR-22-15	●	67	45	4.0	LGBA-22RS			GBA43R Type
	KGBAR-22-25		KGBAR-22-25	●			4.5		GBA32L Type		
	KGBAR-22-35		KGBAR-22-35	●			5.5			GBA43L Type	
T63H-	KGBAL-16	A63-WH-	KGBAL-16	●	67	45	2.5	LGBA-16LS	FT-15	CL63-1	GBA32L Type
	KGBAL-22-15		KGBAL-22-15	●	67	45	4.0	LGBA-22LS			GBA43L Type
	KGBAL-22-25		KGBAL-22-25	●			4.5				
	KGBAL-22-35		KGBAL-22-35	●			5.5				

\* For details of applicable inserts, please refer to the General Catalog.

· Dimension T shows the distance from the Toolholder to the cutting edge.

## ■ KTN (Threading)



### ● Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)		Spare Parts					Applicable Inserts ●J6, J8, J10, J12, J14		
			L1	F1	Clamp Set	Wrench	Shim	Shim Screw	Coolant Pipe			
T63H-	KTNR-16	A63-WH-	KTNR-16	●	67	45	CPS-5S	FT-15	TN-32	SP3X8	CL63-1	16ER Type
	KTNR-22		KTNR-22	●			CPS-6S	LW-3	TN-43			22ER Type

\* For details of applicable inserts, please refer to the General Catalog.

● : Std. Item

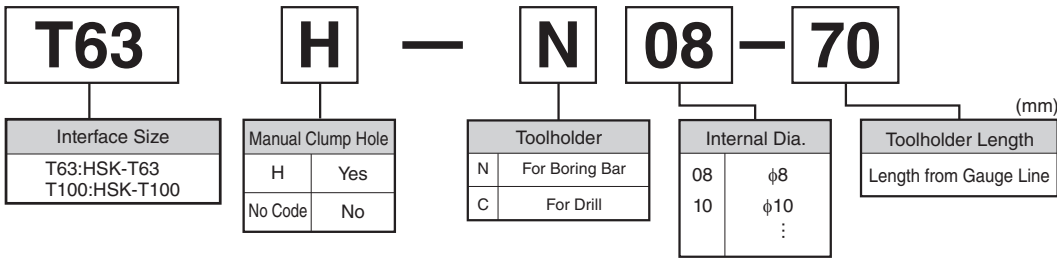


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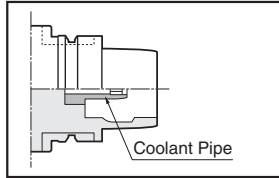
# Tools for Turning Mill

## Identification System (For Boring Bar / Drill)

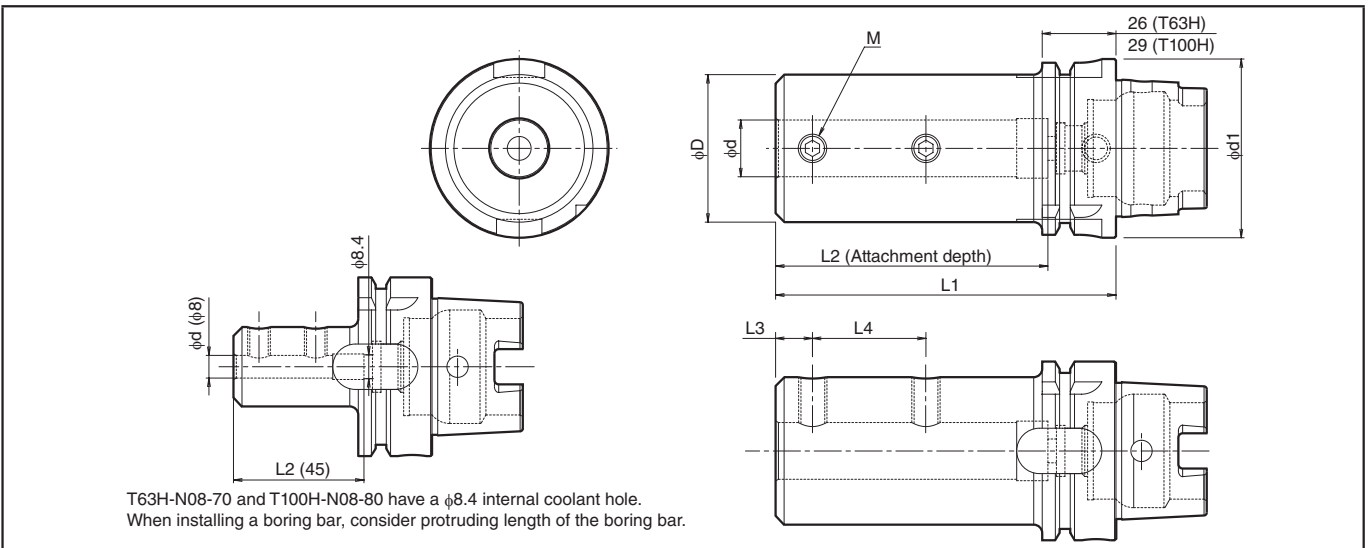


### Coolant Pipe

Coolant pipe is built into toolholder.



## Toolholder for Boring Bar / Drill



### Toolholder Dimensions

Description	(Previous Description)	Std.	Dimension (mm)								Spare Parts			Remarks		
			$\phi d$	$\phi d1$	$\phi D$	L1	L2	L3	L4	M	Clamp Screw	Wrench	Coolant Pipe			
T63H- N08-70 N10-80 N12-90 N16-100 N20-120 N25-140 N32-160	A63-WH- N08-70 N10-80 N12-90 N16-100 N20-120 N25-140 N32-160	●	8	63	28	70	45	9	20	M8	HS8X10	LW-4	CL63-1	For Boring Bar		
		●	10		35	80	55	9	22						HS8X12	
		●	12		42	90	65	9	22		M10					HS10X16
		●	16		48	100	75	11	30						M12	
		●	20		52	120	95	13	40		HS12X12					
		●	25		56	140	115	13	50						M16	HS16X12
		●	32		56	160	135	13	60		HS12X12					
T63H- C20-75 C25-85 C32-90 C40-100	A63-WH- C20-75 C25-85 C32-90 C40-100	●	20	63	52	75	50	13	22	M10	HS10X16	LW-5	CL63-1	*For Drill		
		●	25		56	85	58	15	28						M12	HS12X16
		●	32		56	90	62	15	30							
		●	40		68	100	72	18	35						HS12X12	LW-8
T100H- N08-80 N10-90 N12-100 N16-110 N20-130 N25-150 N32-170	-	●	8	100	28	80	45	9	20	M8	HS8X10	LW-4	CL100-1	For Boring Bar		
		●	10		35	90	55	9	22						HS8X12	
		●	12		42	100	65	9	22		M10					HS10X16
		●	16		48	110	75	11	30						M12	
		●	20		52	130	95	13	40		HS12X20					
		●	25		62	150	115	13	50						M16	HS16X18
		●	32		72	170	135	13	60		HS10X16					
T100H- C20-85 C25-90 C32-95 C40-105	-	●	20	100	52	85	50	13	22	M10	HS10X16	LW-5	CL100-1	*For Drill		
		●	25		62	90	58	15	20						M16	HS16X18
		●	32		72	95	62	15	20							
		●	40		82	105	72	15	25						HS16X12	LW-8

\* Shorter than the toolholder for boring bar.

● : Std. Item