

CUTTING TOOLS 2024



COMPLETE METALWORKING SOLUTIONS

(800) 991-4225

www.ahbinc.com

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customerservice@ahbinc.com

The logo for DIA EDGE. The word 'DIA' is in white, followed by a red and grey geometric symbol consisting of a square with a diagonal line, and the word 'EDGE' is in white. The background of the bottom section of the cover features a collage of industrial images, including a red-tinted close-up of a metal part, a black and white image of a drill bit, and a black and white image of a lathe cutting a metal part.

HOW TO READ THE STANDARD OF HSK-T TOOLS

● How this section page is organized

① Organized by application. (Refer to the index on the next page.)

PRODUCT TYPE indicates the first four letters of the order number, as well as cutting applications.

TITLE OF PRODUCT SERIES
PRODUCT SECTION

FIGURE SHOWING THE TOOLING APPLICATION uses illustrations and arrows to depict available machining applications along with cutting edge lead angles.

GEOMETRY
CHIP BREAKER BY CUTTING APPLICATION

HSK-T TOOLS FOR MULTI-TASK MACHINES

PCLN

External turning • Facing

Order Number	Stock	Insert Number	Dimensions (mm)		*2 WT (kg)	Inserts						
			DCOMNS	LF		WF	Shim	Shim Pin	Clamp Bracket	Spring	Clamp Screw	Wrench
H63TH-PCLNRL-DX12	*	CN-A CN-G CN-M	43	63	65	45	2.9	LLSCN42	LLP14	LLCL14	LLCS108	HKY30R

*1 Clamp Torque (Bf-in): LLCS108=29
*2 WT: Mass

PCMN

External turning • Facing

Order Number	Stock	Insert Number	Dimensions (mm)		*2 WT (kg)	Inserts						
			DCOMNS	LF		WF	Shim	Shim Pin	Clamp Bracket	Spring	Clamp Screw	Wrench
H63TH-PCMNN-H12	*	CN-A CN-G CN-M	43	63	100	3.7	LLSCN42	LLP14	LLCL14	LLCS108	NM-PT108	HKY30R
H63TH-PCMNN-L12	*	CN-A CN-G CN-M	43	63	140	6.0	LLSCN42	LLP14	LLCL14	LLCS108	NM-PT108	HKY30R

*1 Clamp Torque (Bf-in): LLCS108=29
*2 WT: Mass

DCLN

External turning • Facing

DOUBLE CLAMP type

Order Number	Stock	Insert Number	Dimensions (mm)		*2 WT (kg)	Inserts							
			DCOMNS	LF		WF	Shim	Shim Pin	Clamp Bracket	Spring	Clamp Screw	Wrench	
H63TH-DCLNRL-DX12	*	CN-A CN-G CN-M	43	63	65	45	2.9	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F

*1 Clamp Torque (Bf-in): DC0621T=44
*2 WT: Mass

DCMN

External turning • Facing

DOUBLE CLAMP type

Order Number	Stock	Insert Number	Dimensions (mm)		*2 WT (kg)	Inserts						
			DCOMNS	LF		WF	Shim	Shim Pin	Clamp Bracket	Spring	Clamp Screw	Wrench
H63TH-DCMNN-H12	*	CN-A CN-G CN-M	43	63	100	3.7	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F
H63TH-DCMNN-L12	*	CN-A CN-G CN-M	43	63	140	6.0	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F

*1 Clamp Torque (Bf-in): DC0621T=44
*2 WT: Mass

Note 1) Dimensions shown for insert corner RE: .031 inch.
Note 2) Insert photo is an example. Letters show chip breaker style. Figures show inscribed circle.

H006 * Stocked in Japan

PCLN type inserts > A106-A113
DCLN type inserts > A106-A113

CBN & PCD Inserts > B022-B024, B049
CUTTING CONDITIONS > SEE SECTION A

PCMN type inserts > A106-A113
DCMN type inserts > A106-A113
CBN & PCD inserts > B022-B024, B049

CUTTING CONDITIONS > SEE SECTION A
SPARE PARTS > M001
TECHNICAL DATA > N001

LEGEND FOR STOCK STATUS MARK is shown on the left hand page of each double-page spread.

REFERENCE PAGE FOR APPLICABLE INSERTS indicates reference pages for details of inserts that are applicable to the title product.

PAGE REFERENCE
· SPARE PARTS
· TECHNICAL DATA
indicates reference pages, including the above, on the right hand page of each double-page spread.

PRODUCT STANDARDS Indicates order numbers, stock status (per right/left hand), applicable inserts, dimensions, and spare parts.

● To Order : Please specify order number and hand of tool (right/left).

HSK-T TOOLS

OVERVIEW OF HSK-T TOOLS H002

CLASSIFICATION OF HSK-T TOOLS H004

HSK-T TOOL STANDARDS

EXTERNAL TURNING • FACING

CN^{○○} INSERTS TOOL HOLDERS H006

DN^{○○} INSERTS TOOL HOLDERS H011

EXTERNAL TURNING • FACING • BORING

CN^{○○} INSERTS TOOL HOLDERS H008

EXTERNAL TURNING • COPYING

DN^{○○} INSERTS TOOL HOLDERS H009

EXTERNAL TURNING • FACING • COPYING

RC^{○○} INSERTS TOOL HOLDERS H012

FACING • COPYING

VB^{○○} INSERTS TOOL HOLDERS H013

GROOVING

MG INSERTS TOOL HOLDERS H014

THREADING

MMT INSERTS TOOL HOLDERS H016

MT INSERTS TOOL HOLDERS H017

EXTERNAL TURNING TOOL HOLDERS ... H019

BORING BAR HOLDERS H021

BORING BAR SLEEVES H022

*Arranged by Alphabetical order

H022 H100TH-B^{○○○○○○}
 H020 H100TH-EN3232R/L-130
 H019 H100TH-EV3232R/L-180
 H008 H63TH-A^{○○○○}DCLNR/L12
 H021 H63TH-B^{○○○○}
 H008 H63TH-DCLNL-L12-3
 H006 H63TH-DCLNR/L-DX12
 H007 H63TH-DCMNN-H/L12
 H011 H63TH-DDJNL-L15-3
 H009 H63TH-DDJNR/L-DX15
 H010 H63TH-DDNNN-H/L15
 H020 H63TH-EN2525R/L-115
 H021 H63TH-EV2020R/L-105-3
 H019 H63TH-EV2525R/L-112

H014 H63TH-MGHR/L-DX43^{○○}
 H016 H63TH-MMTENR-H/L16
 H016 H63TH-MMTER-DX16
 H017 H63TH-MTHR/L-DX43
 H006 H63TH-PCLNR/L-DX12
 H007 H63TH-PCMNN-H/L12
 H009 H63TH-PDJNR/L-DX15
 H010 H63TH-PDNNN-H/L15
 H012 H63TH-PRDCN-H/L12
 H012 H63TH-PRGCR/L-DX12
 H013 H63TH-SVPBR/L-DX16
 H013 H63TH-SVVBH-H/L16
 H022 SL32^{○○○○}-90



Tooling system
for turning on
multi-task machines

HSK-T TOOLS

HSK-T System

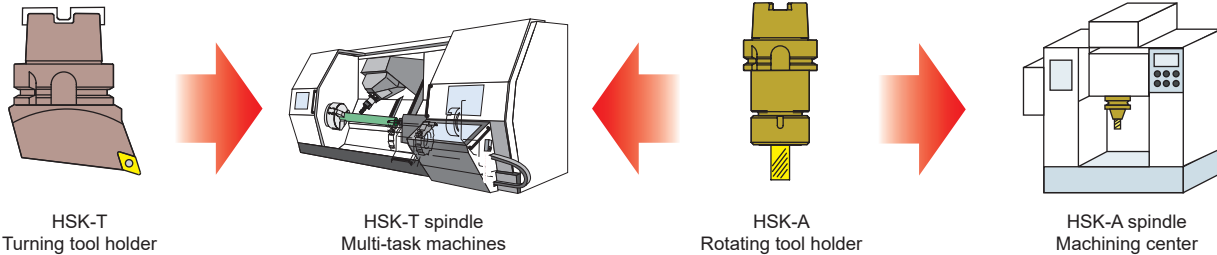
HSK-T is a new HSK system designed for turning on multi-task machines that are compatible with HSK-A type (ISO standard: ISO12164-1:2001). The HSK system was developed by a consortium of 17 Japanese manufacturers and registered in ISO standard (ISO12164-3:2008) under the name HSK-T type in 2008 and JIS standard (JIS B6064-3) in 2013.



High accuracy cutting edge positioning

The HSK-T type has a closer tolerance between the spindle key and tool holder keyway than the HSK-A type. This results in higher cutting edge positional accuracies. For milling, the conventional HSK-A type tools can be still used.

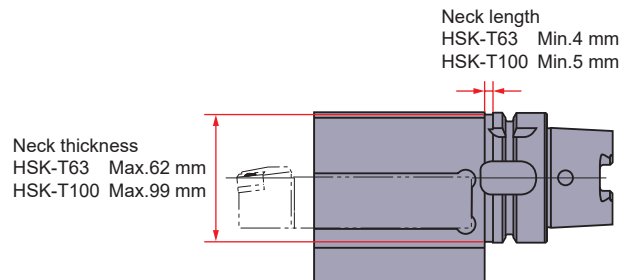
Compatible with both multi-task machines and machining centers



H

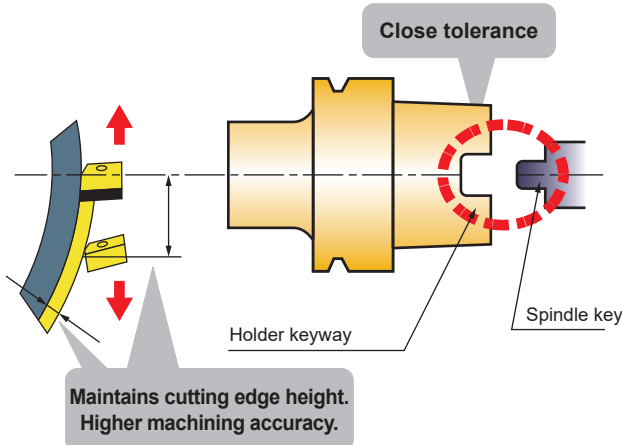
HSK-T TOOLS

*Note
Short neck length from the flange with thick body of the HSK-T turning tool as shown in the figure at the left. Because there are machines which cannot be mounted depending on the ATC specifications of the multi-task machine (HSK-A type), please check beforehand. Also be careful of interference of the magazine with adjacent tools.



HSK-T turning tool standard (Example)

Improved keyway tolerance



Tolerance comparison (Example)

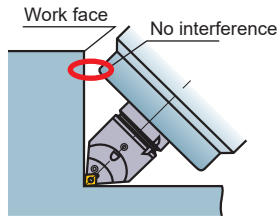
	Tolerance comparison (Example) (mm)				
HSK A63	12.25	12.35	12.41	12.58	12.68
	0.10 Key tolerance		0.15 Minimum clearance		0.08 Keyway tolerance
					0.33 Maximum clearance
HSK T63	12.2	12.3	12.4	12.5	12.6
	12.385		12.41		12.46
					0.025 Key tolerance
					0.035 Keyway tolerance
					0.075 Maximum clearance

High accuracy and rigidity HSK-T type tooling system developed for use on multi-task machines.

Straight type tools suitable for use on multi-task machines

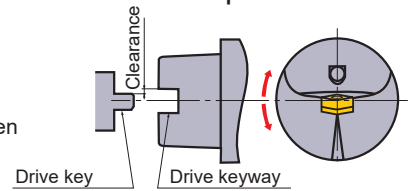
Avoid workpiece interference with improved tool accessibility.

By tilting the machines B spindle (main axis of the tool) at 45 degrees, interference between the spindle, holder, workpiece and chuck can be avoided.



Improve centering height by positioning the cutting edge at the center of the spindle.

Increased stability and accuracy can be achieved because the cutting edge centering height is not affected by the gap between the spindle and the key.



New single-action double clamp series

The double clamp mechanism offers high rigidity, accuracy and reliability that ensures secure insert clamping. Therefore making it suitable for turning of difficult to machine materials such as stainless and heat resistant alloys.



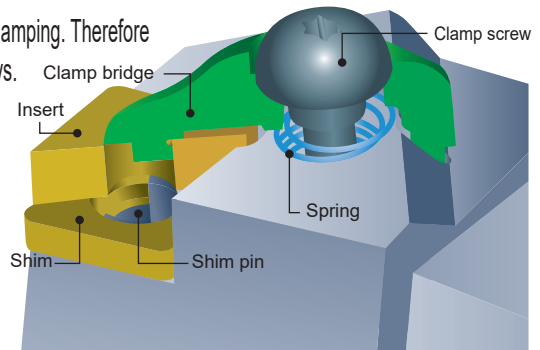
Handed type for turning and facing



Straight type for turning and facing



For turning, facing and boring



3 on 1 tool for process and tool consolidation

3 turning inserts of the same geometry can be installed on a single tool.

The same type of inserts can be installed for quick change with spare tools.

Different types of inserts can be installed for different applications (roughing, semi finishing and finishing)

Inserts in different grade types can be installed to cover various kinds of workpieces.



New HSK-T100 size for large workpieces

Larger tool holder sizes for high efficiency machining.

Square shank holder type



Boring bar / Drill type

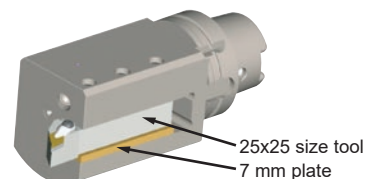


Sleeve




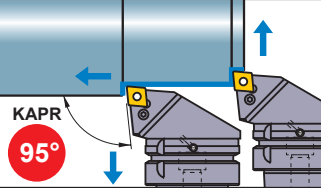

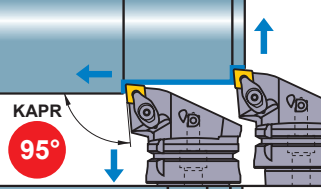

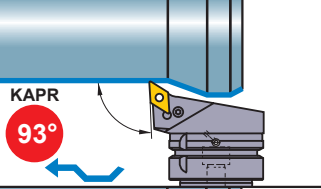

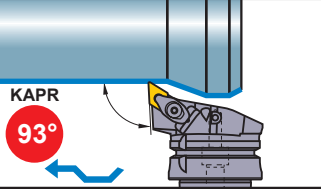

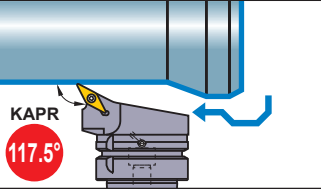

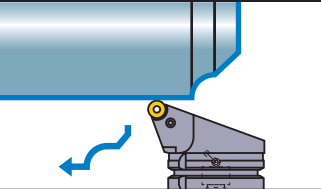

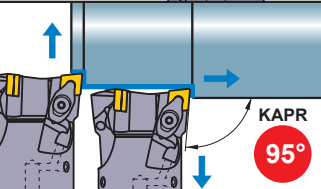

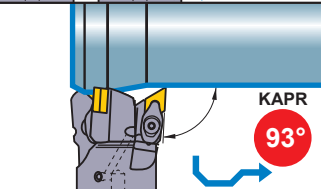
A single tool can be used with different sized tool holders.


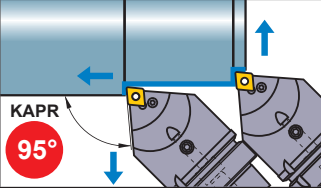

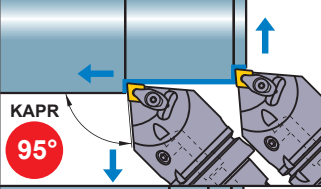

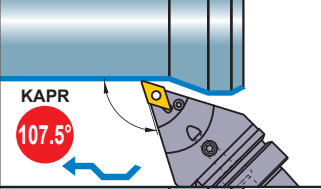

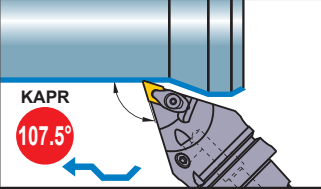

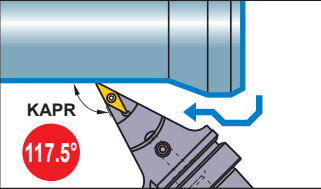

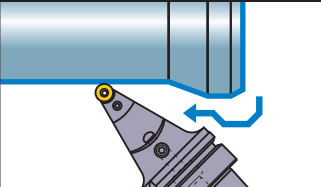
- Available for use with JIS B4126 (ISO 5610) 32x32 and 32x25 tools.
 - Possible to fit a 25x25 tool by using a 7 mm plate.
 - Possible to fit a 1"x1" tool by using a 6.6 mm plate.
- *Please prepare a plate on your own.




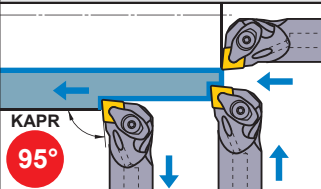
CLASSIFICATION OF HSK-T TOOLS

EXTERNAL TURNING • FACING • COPYING

Order Number	Cutting Mode
H63TH-PCLNR/L-DX12  → H006	 KAPR 95°
H63TH-DCLNR/L-DX12  → H006	 KAPR 95°
H63TH-PDJNR/L-DX15  → H009	 KAPR 93°
H63TH-DDJNR/L-DX15  → H009	 KAPR 93°
H63TH-SVPBR/L-DX16  → H013	 KAPR 117.5°
H63TH-PRGCR/L-DX12  → H012	 KAPR
H63TH-DCLNL-L12-3  → H008	 KAPR 95°
H63TH-DDJNL-L15-3  → H011	 KAPR 93°

Order Number	Cutting Mode
H63TH-PCMNN-H/L12  → H007	 KAPR 95°
H63TH-DCMNN-H/L12  → H007	 KAPR 95°
H63TH-PDNNN-H/L15  → H010	 KAPR 107.5°
H63TH-DDNNN-H/L15  → H010	 KAPR 107.5°
H63TH-SVVBH-H/L16  → H013	 KAPR 117.5°
H63TH-PRDCN-H/L12  → H012	 KAPR


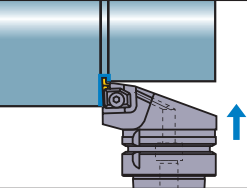

EXTERNAL TURNING • FACING • BORING

Order Number	Cutting Mode
H63TH-A25KDCLNR/L12 H63TH-A32LDCLNR/L12  → H008	 KAPR 95°











H

HSK-T TOOLS


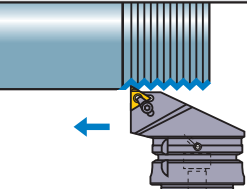


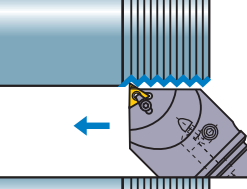


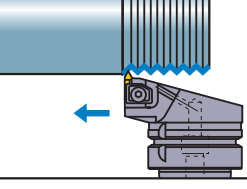

GROOVING

Order Number	Cutting Mode
H63TH-MGHR/L-DX43   	







EXTERNAL TURNING TOOL HOLDERS

Order Number	Holder
H63TH-EV2525R/L-112  	
H100TH-EV3232R/L-180  	
H63TH-EN2525R/L-115  	
H100TH-EN3232R/L-130  	
H63TH-EV2020R/L-105-3  	

THREADING

Order Number	Cutting Mode
H63TH-MMTER-DX16   	
H63TH-MMTENR-H/L16   	
H63TH-MTHR/L-DX43   	

BORING BAR HOLDERS

Order Number	Holder
H63TH-B  	
H100TH-B  	
SL32-90 (Sleeve)  	

*1 Mitsubishi Materials is licensed for production and distribution of these tools from MORI SEIKI Co., LTD. under Japan Patent No.3720202.









*2 The SL32-90 sleeve is only for use with H100TH-B32-135.

Note 1) The HSK63A shank type has a built-in coolant thru pipe for installation.







FOR MULTI-TASK MACHINES

PCLN

External turning • Facing

Finish	Light	Medium
FP  (4)	LP  (4)	MP  (4)
Medium MK  (4)	Medium Standard  (4)	Medium-Rough RP  (4)
Stainless MM  (4)	CBN  (4)	

Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)			*2 WT (lbs)				 *1		
	R	L		DCONMS	LF	WF		Shim	Shim Pin	Clamp Lever	Clamp Screw	Wrench	
H63TH-PCLNR/L-DX12	★	★		43	63	65	45	2.9	LLSCN42	LLP14	LLCL14	LLCS108	HKY30R

*1 Clamp Torque (lbf-in) : LLCS108=29









*2 WT : Mass

H








HSK-T TOOLS

DCLN

External turning • Facing **DOUBLE CLAMP type**

Finish	Light	Medium
FP  (4)	LP  (4)	MP  (4)
Medium MK  (4)	Medium Standard  (4)	Medium-Rough RP  (4)
Stainless MM  (4)	CBN  (4)	

Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)			*2 WT (lbs)					 *1		
	R	L		DCONMS	LF	WF		Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	
H63TH-DCLNR/L-DX12	★	★		43	63	65	45	2.9	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F

*1 Clamp Torque (lbf-in) : DC0621T=44

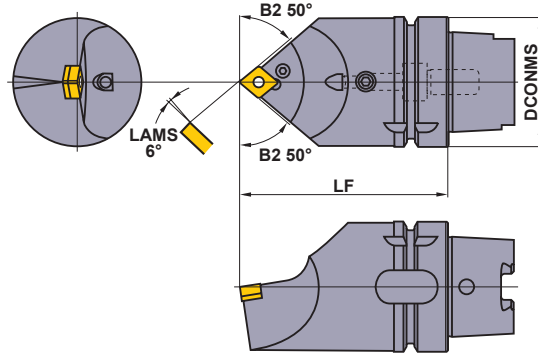
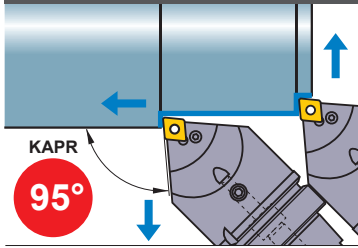
*2 WT : Mass









Note 1) Dimensions shown for insert corner RE .031 inch.







Note 2) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

PCMN

External turning • Facing



Finish	Light	Medium
FP  (4)	LP  (4)	MP  (4)
Medium MK  (4)	Medium Standard  (4)	Medium - Rough RP  (4)
Stainless MM  (4)	CBN  (4)	

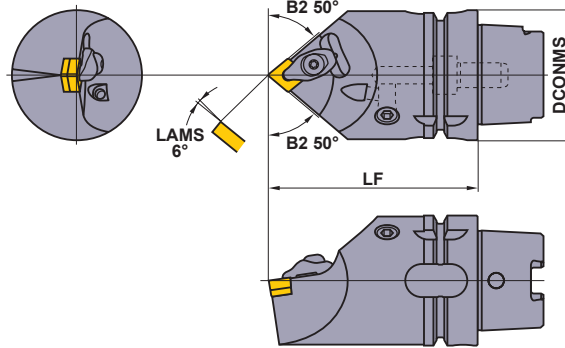
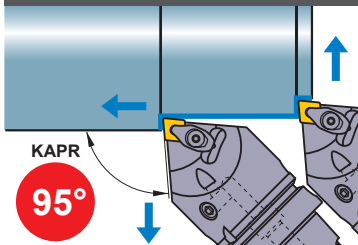
Order Number	Stock	Insert Number	Dimensions (mm)		*2 WT (lbs)						
			DCONMS	LF		Shim	Shim Pin	Clamp Lever	Clamp Screw	Plug	Wrench
H63TH-PCMNN-H12	★	CN \circ A CN \circ G CN \circ M	63	100	3.7	LLSCN42	LLP14	LLCL14	LLCS108	HGM-PT1/8	HKY30R
H63TH-PCMNN-L12	★	CN \circ A CN \circ G CN \circ M	63	140	6.0	LLSCN42	LLP14	LLCL14	LLCS108	HGM-PT1/8	HKY30R









*1 Clamp Torque (lbf-in) : LLCS108=29







*2 WT : Mass

DCMN

External turning • DOUBLE CLAMP type Facing



Finish	Light	Medium
FP  (4)	LP  (4)	MP  (4)
Medium MK  (4)	Medium Standard  (4)	Medium - Rough RP  (4)
Stainless MM  (4)	CBN  (4)	

Order Number	Stock	Insert Number	Dimensions (mm)		*2 WT (lbs)						
			DCONMS	LF		Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench
H63TH-DCMNN-H12	★	CN \circ A CN \circ G CN \circ M	63	100	3.7	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F
H63TH-DCMNN-L12	★	CN \circ A CN \circ G CN \circ M	63	140	6.0	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F

*1 Clamp Torque (lbf-in) : DC0621T=44

*2 WT : Mass

H
HSK-T TOOLS

PCMN type inserts > A106-A113
 DCMN type inserts > A106-A113
 CBN & PCD inserts > B022-B024, B049

CUTTING CONDITIONS > SEE SECTION A
 SPARE PARTS > M001
 TECHNICAL DATA > N001

FOR MULTI-TASK MACHINES

DCLN

External turning • Facing

DOUBLE CLAMP type

Finish	Light	Medium
FP (4)	LP (4)	MP (4)
Medium MK (4)	Medium Standard (4)	Medium-Rough RP (4)
Stainless MM (4)	CBN (4)	

Left hand tool holder only.

Order Number	Stock L	Insert Number	Dimensions (mm)					*2 WT (lbs)						
			DCONMS	LF	WF	Shim	Shim Pin		Clamp Bridge	Spring	Clamp Screw	Wrench		
H63TH-DCLNL-L12-3	★	CNOA CNOG CNOM	43	63	140	30	4.9	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	

*1 Clamp Torque (lbf-in) : DC0621T=44

*2 WT : Mass

DCLN

External turning • Facing • Boring

DOUBLE CLAMP type

Finish	Light	Medium
FP (4)	LP (4)	MP (4)
Medium MK (4)	Medium Standard (4)	Medium-Rough RP (4)
Stainless MM (4)	CBN (4)	

Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)						*2 WT (lbs)							
	R	L		DCONMS	LF	LU	WF	GAMP	DMIN (mm)		Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	
H63TH-A25KDCLNR/L12	★	★	CNOA CNOG CNOM	43	63	125	82	17	11°	32	2.4	LLSCP42	LLP14	DCK2613	DCS1	DC0621T	TKY20F
H63TH-A32LDCLNR/L12	★	★	CNOA CNOG CNOM	43	63	140	100	22	13°	40	3.9	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F

*1 Clamp Torque (lbf-in) : DC0621T=44

*2 WT : Mass

Note 1) Dimensions shown for insert corner RE .031 inch.

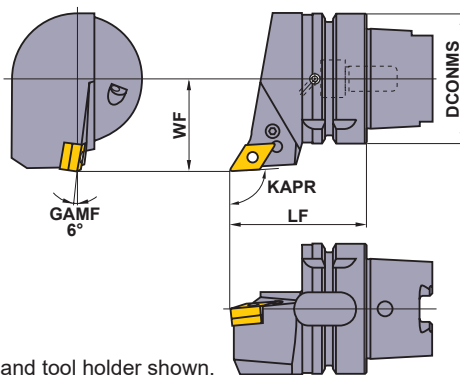
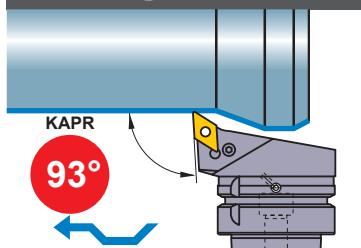
Note 2) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

DCLN type inserts > A106-A113
 CBN & PCD inserts > B022-B024, B049
 CUTTING CONDITIONS > SEE SECTION A









★ : Stocked in Japan

PDJN

External turning • Copying



Right hand tool holder shown.

Finish	Light	Medium
FP  (4)	LP  (4)	MP  (4)
Medium MK  (4)	Medium-Rough RP  (4)	Stainless MM  (4)
G Class R/L  (4)	CBN  (4)	

Order Number	Stock		Insert Number	Dimensions (mm)			*3 WT (lbs)	*2					
	R	L		DCONMS	LF	WF		Shim	Shim Pin	Clamp Lever	Clamp Screw	Wrench	
H63TH-PDJNR/L-DX15	★	★	DN [○] OA DN [○] OG DN [○] OM DNMX	43 [○]	63	65	45	2.6	LLSDN43 (LLSDN42)	LLP14	LLCL24	LLCS108	HKY30R

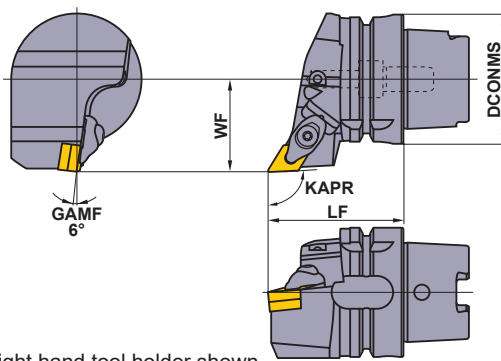
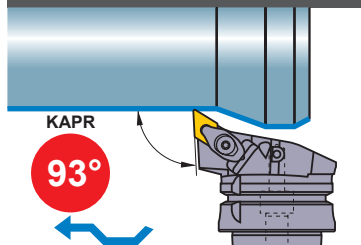
*1 Clamp Torque (lbf-in) : LLCS108=29

*2 Please use shim no. LLSDN42 with .25 inch thick inserts. When using .25 inch thick inserts, the shim should be ordered separately.









*3 WT : Mass

DDJN

External turning • DOUBLE CLAMP type Copying



Right hand tool holder shown.

Finish	Light	Medium
FP  (4)	LP  (4)	MP  (4)
Medium MK  (4)	Medium-Rough RP  (4)	Stainless MM  (4)
G Class R/L  (4)	CBN  (4)	

Order Number	Stock		Insert Number	Dimensions (mm)			*3 WT (lbs)	*2						
	R	L		DCONMS	LF	WF		Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	
H63TH-DDJNR/L-DX15	★	★	DN [○] OA DN [○] OG DN [○] OM DNMX	43 [○]	63	65	45	2.6	LLSDN43 (LLSDN42)	LLP24	DCK2613	DCS1	DC0621T	TKY20F

*1 Clamp Torque (lbf-in) : DC0621T=44

*2 Please use shim no. LLSDN42 with .25 inch thick inserts. When using .25 inch thick inserts, the shim should be ordered separately.

*3 WT : Mass

H
HSK-T TOOLS

PDJN type inserts	> A114-A121
DDJN type inserts	> A114-A121
CBN & PCD inserts	> B025-B028, B049

CUTTING CONDITIONS	> SEE SECTION A
SPARE PARTS	> M001
TECHNICAL DATA	> N001

FOR MULTI-TASK MACHINES

PDNN

External turning • Copying

Finish	Light	Medium
FP (4)	LP (4)	MP (4)
Medium MK (4)	Medium-Rough RP (4)	Stainless MM (4)
G Class R/L (4)	CBN (4)	

Order Number	Stock	Insert Number	Dimensions (mm)		*3 WT (lbs)	*2				*1		
			DCONMS	LF		Shim	Shim Pin	Clamp Lever	Clamp Screw	Plug	Wrench	
H63TH-PDNNN-H15	★	DN \circ A DN \circ G DN \circ M	43 \circ	63	100	3.5	LLSDN43 (LLSDN42)	LLP14	LLCL24	LLCS108	HGM-PT1/8	HKY30R
H63TH-PDNNN-L15	★			63	140	5.5	LLSDN43 (LLSDN42)	LLP14	LLCL24	LLCS108	HGM-PT1/8	HKY30R

*1 Clamp Torque (lbf-in) : LLCS108=29

*2 Please use shim no. LLSDN42 with .25 inch thick inserts. When using .25 inch thick inserts, the shim should be ordered separately.

*3 WT : Mass

H

HSK-T TOOLS

DDNN

External turning • Copying **DOUBLE CLAMP type**

Finish	Light	Medium
FP (4)	LP (4)	MP (4)
Medium MK (4)	Medium-Rough RP (4)	Stainless MM (4)
G Class R/L (4)	CBN (4)	

Order Number	Stock	Insert Number	Dimensions (mm)		*3 WT (lbs)	*2				*1		
			DCONMS	LF		Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	
H63TH-DDNNN-H15	★	DN \circ A DN \circ G DN \circ M	43 \circ	63	100	3.5	LLSDN43 (LLSDN42)	LLP24	DCK2613	DCS1	DC0621T	TKY20F
H63TH-DDNNN-L15	★			63	140	5.5	LLSDN43 (LLSDN42)	LLP24	DCK2613	DCS1	DC0621T	TKY20F

*1 Clamp Torque (lbf-in) : DC0621T=44

*2 Please use shim no. LLSDN42 with .25 inch thick inserts. When using .25 inch thick inserts, the shim should be ordered separately.

*3 WT : Mass

Note 1) Dimensions shown for insert corner RE .031 inch.

Note 2) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

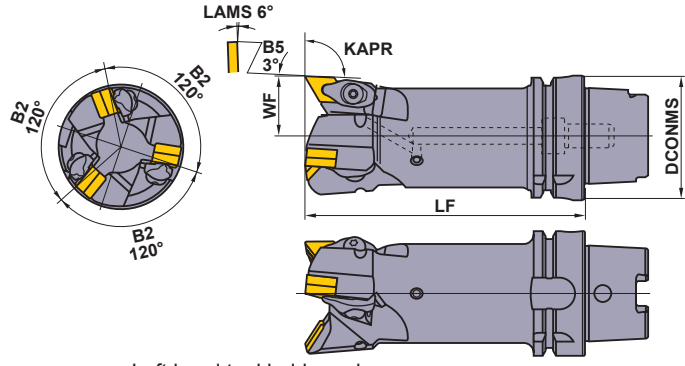
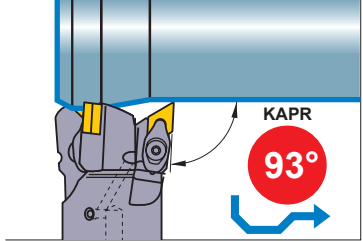
PDNN type inserts	> A114-A121
DDNN type inserts	> A114-A121
CBN & PCD inserts	> B025-B028, B049
CUTTING CONDITIONS	> SEE SECTION A

★ : Stocked in Japan




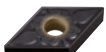


DDJN

External turning • Facing

DOUBLE CLAMP type



Left hand tool holder only.

Finish	Light
FP  (4)	LP  (4)
Medium MP  (4)	Medium MK  (4)
Medium-Rough RP  (4)	Stainless MM  (4)

Order Number	Stock L	Insert Number	Dimensions (mm)			*3 WT (lbs)	*2					*1					
			DCONMS	LF	WF		Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench					
H63TH-DDJNL-L15-3	★	<table border="1"> <tr> <td>DN○A</td> <td rowspan="4">43○</td> </tr> <tr> <td>DN○G</td> </tr> <tr> <td>DN○M</td> </tr> <tr> <td>DNMX</td> </tr> </table>	DN○A	43○	DN○G	DN○M	DNMX	63	140	30	4.9	LLSDN43 (LLSDN42)	LLP24	DCK2613	DCS1	DC0621T	TKY20F
DN○A	43○																
DN○G																	
DN○M																	
DNMX																	

*1 Clamp Torque (lbf-in) : DC0621T=44

*2 Please use shim no. LLSDN42 with .25 inch thick inserts. When using .25 inch thick inserts, the shim should be ordered separately.

*3 WT : Mass

Note 1) Dimensions shown for insert corner RE .031 inch.

DDJN type inserts	> A114-A121	CUTTING CONDITIONS	> SEE SECTION A
CBN & PCD inserts	> B025-B028, B049	SPARE PARTS	> M001
		TECHNICAL DATA	> N001

FOR MULTI-TASK MACHINES

PRGC

External turning • Facing • Copying

Medium

Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)			*2 WT (lbs)					
	R	L		DCONMS	LF	WF		Shim	Shim Pin	Clamp Lever	Clamp Screw	Wrench
H63TH-PRGCR/L-DX12	★	★	RCMX 1204M0	63	65	45	2.6	LLSRN123	LLP13	LLCL112	LLCS106	HKY25R

*1 Clamp Torque (lbf-in) : LLCS106=19
 *2 WT : Mass

PRDC

External turning • Facing • Copying

Medium

Order Number	Stock		Insert Number	Dimensions (mm)			*2 WT (lbs)						
	R	L		DCONMS	LF	B2		Shim	Shim Pin	Clamp Lever	Clamp Screw	Plug	Wrench
H63TH-PRDCN-H12	★		RCMX 1204M0	63	100	69°	3.1	LLSRN123	LLP13	LLCL112	LLCS106	HGM-PT1/8	HKY25R
H63TH-PRDCN-L12	★			63	140	75°	5.1	LLSRN123	LLP13	LLCL112	LLCS106	HGM-PT1/8	HKY25R

*1 Clamp Torque (lbf-in) : LLCS106=19
 *2 WT : Mass

RECOMMENDED CUTTING CONDITIONS

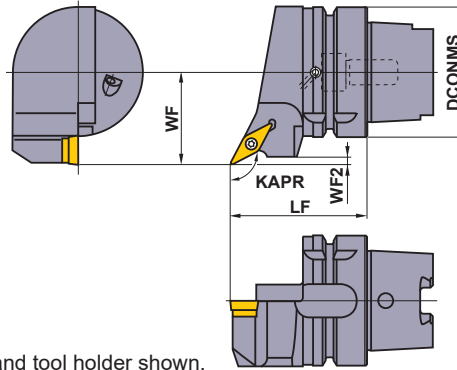
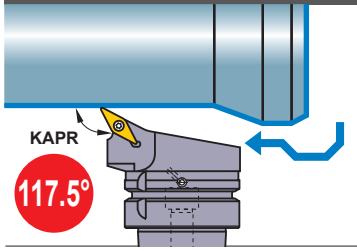
Work Material	Hardness	Cutting Mode	Chip Breaker	Grade	Cutting Speed (SFM)
P Mild Steel	≤180HB	Medium Cutting	Standard	MC6115	805–1540
Carbon Steel • Alloy Steel	180HB–350HB	Medium Cutting	Standard	MC6115	590–1150
M Stainless Steel	≤200HB	Medium Cutting	Standard	US735	230–425

Note 1) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

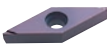




HSK-T TOOLS





SVPB

Facing • Copying



Right hand tool holder shown.

Finish	Light
R/L-F	SV
	
(3)	(3)
Medium	Medium
MV	MP
	
(3)	(3)
CBN	
	
(3)	

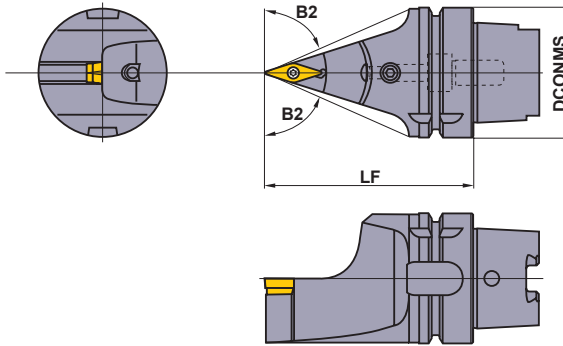
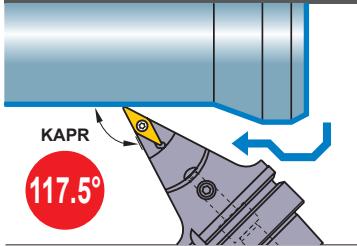
Order Number	Stock		Insert Number	Dimensions (mm)				*2 WT (lbs)					
	R	L		DCONMS	LF	WF	WF2						Shim
H63TH-SVPBR/L-DX16	★	★	VB [○] T VB [○] W	33 [○]	63	65	45	3.8	2.4	SPSVN32	BCP141	TS35D	TKY15F






*1 Clamp Torque (lbf-in) : TS35D=31






*2 WT : Mass

SVVB

Facing • Copying



Finish	Light
R/L-F	SV
	
(3)	(3)
Medium	Medium
MV	MP
	
(3)	(3)
CBN	
	
(3)	

Order Number	Stock		Insert Number	Dimensions (mm)			*2 WT (lbs)						
	R	L		DCONMS	LF	B2							Shim
H63TH-SVVBH-H16	★		VB [○] T VB [○] W	33 [○]	63	100	66.5°	2.9	SPSVN32	BCP141	TS35D	HGM-PT1/8	TKY15F
H63TH-SVVBH-L16	★		VB [○] T VB [○] W	33 [○]	63	140	72.5°	4.9	SPSVN32	BCP141	TS35D	HGM-PT1/8	TKY15F

*1 Clamp Torque (lbf-in) : TS35D=31

*2 WT : Mass

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Cutting Mode	Chip Breaker	Grade	Cutting Speed (SFM)
P	Mild Steel	≤180HB	Finish Cutting	F	AP25N	820 (490—985)
			Medium Cutting	MP	MC6125	1050 (785—1310)
	Carbon Steel Alloy Steel	180HB—350HB	Finish Cutting	F	AP25N	690 (490—850)
			Medium Cutting	MP	MC6125	820 (655—985)
M	Stainless Steel	≤200HB	Medium Cutting	MM	MP7035	330 (230—395)
K	Gray Cast Iron	Tensile Strength ≤350MPa	Medium Cutting	MK	MC5015	670 (510—840)

Note 1) Dimensions shown for insert corner RE .031 inch.

Note 2) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

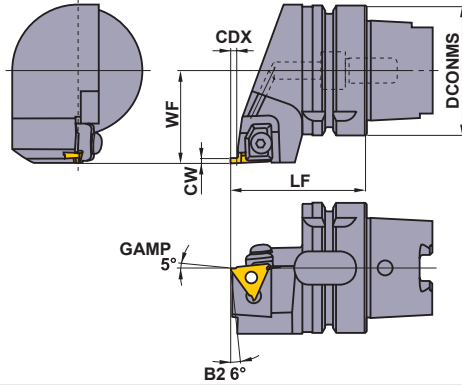
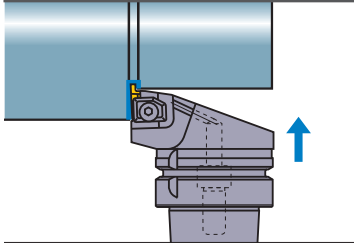
SVPB type inserts	➤ A186—A189	SVVB type inserts	➤ A186—A189	SPARE PARTS	➤ M001
		CBN & PCD inserts	➤ B045, B058	TECHNICAL DATA	➤ N001

H
HSK-T TOOLS





FOR MULTI-TASK MACHINES

MG

Grooving



Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)					*2 WT (lbs)	 Clamp Bridge	 Clamp Screw *1	 Spring	 Wrench
	R	L		CW	CDX	DCONMS	LF	WF					
H63TH-MGHR/L-DX4315	★	★	MGTR/L 43125 43470	1.25	1.2	63	65	45	2.6	MTK1R/L	HBH06020	MES3	HKY40R
				1.45	1.5								
H63TH-MGHR/L-DX4323	★	★		1.5 ≤ CW ≤ 2.3	3								
H63TH-MGHR/L-DX4333	★	★		2.3 < CW ≤ 3.3	4.5								
			3.3 < CW ≤ 4.7	4.5									

*1 Clamp Torque (lbf-in) : HBH06020=62

*2 WT : Mass

H

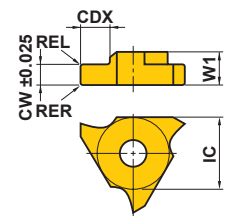
HSK-T TOOLS

RECOMMENDED CUTTING CONDITIONS

Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P Carbon Steel Alloy Steel	180–350HB	VP20MF	390 (330–460)	.0039 (.0012–.0071)
		NX2525	425 (330–525)	.0047 (.0012–.0079)
M Stainless Steel	≤200HB	VP20MF	390 (330–460)	.0039 (.0012–.0071)
K Gray Cast Iron	Tensile Strength ≤350MPa	VP20MF	390 (330–460)	.0039 (.0012–.0071)

INSERTS FOR MG TYPE

Order Number	Stock						Dimensions (mm)						Geometry
	Coated		Cermet		Carbide		CW	CDX	IC	W1	RER/L	LE	
	VP20MF		NX2525		UTi20T								
	R	L	R	L	R	L							
MGTR/L43125	★	★	★	★	★	★	1.25	1.2	12.7	4.76	0.2	2.7	MGTR/L...
MGTR/L43145	★	★		★	★	★	1.45	1.5	12.7	4.76	0.2	—	
MGTR/L43150	★	★	★	★	★	★	1.5	3	12.7	4.76	0.2	2.7	
MGTR/L43175	★	★	★	★	★	★	1.75	3	12.7	4.76	0.2	—	
MGTR/L43200	★	★	★	★	★	★	2	3	12.7	4.76	0.2	2.7	
MGTR/L43230	★	★	★	★	★	★	2.3	3	12.7	4.76	0.2	—	
MGTR/L43250	★	★	★	★	★	★	2.5	4.5	12.7	4.76	0.3	2.7	
MGTR/L43260	★	★	★		★	★	2.6	4.5	12.7	4.76	0.3	—	
MGTR/L43270	★	★			★	★	2.7	4.5	12.7	4.76	0.3	—	
MGTR/L43280		★		★	★	★	2.8	4.5	12.7	4.76	0.3	—	
MGTR/L43300	★	★	★	★	★	★	3	4.5	12.7	4.76	0.3	2.7	
MGTR/L43320	★				★	★	3.2	4.5	12.7	4.76	0.3	—	
MGTR/L43330		★		★	★	★	3.3	4.5	12.7	4.76	0.3	—	
MGTR/L43350	★	★	★	★	★	★	3.5	4.5	12.7	4.76	0.3	2.7	
MGTR/L43400	★	★	★		★	★	4	4.5	12.7	4.76	0.3	2.7	
MGTR/L43420	★	★	★		★	★	4.2	4.5	12.7	4.76	0.4	—	
MGTR/L43430	★	★	★		★	★	4.3	4.5	12.7	4.76	0.4	—	
MGTR/L43450	★	★	★	★	★	★	4.5	4.5	12.7	4.76	0.4	—	
MGTR/L43470	★	★	★	★	★	★	4.7	4.5	12.7	4.76	0.4	—	



Right hand insert shown.

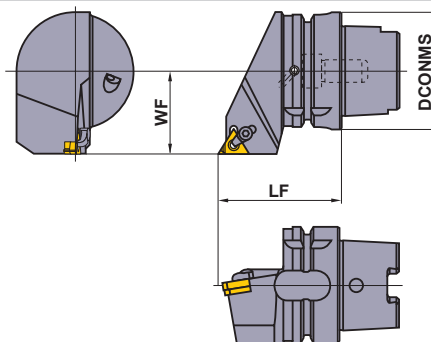
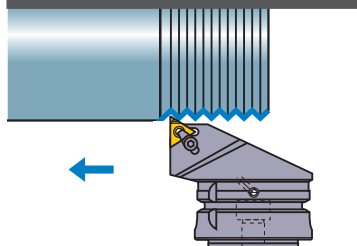


HSK-T TOOLS

FOR MULTI-TASK MACHINES

MMTE

Threading



Right hand tool holder only.

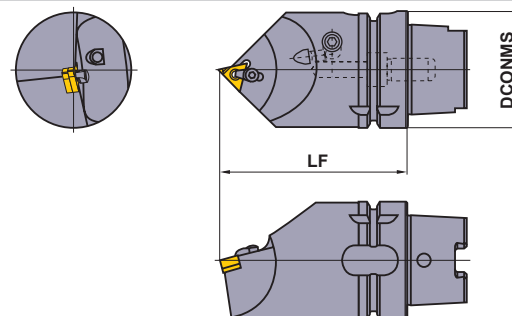
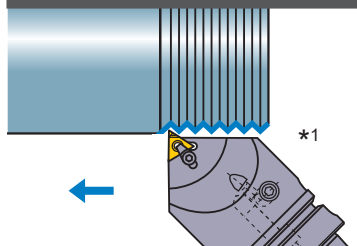
Order Number	Stock R	Insert Number	Dimensions (mm)			*2 WT (lbs)						
			DCONMS	LF	WF		Clamp Bridge	Clamp Screw	Stop Ring	Shim	Shim Screw	Wrench
H63TH-MMTER-DX16	★	MMT16ER	63	65	45	2.6	SETK51	SETS51	CR4	CTE32TP15	HFC03008	TKY15F HKY20R

*1 Clamp Torque (lbf-in) : SETS51=31, HFC03008=13

*2 WT : Mass

MMTEN

Threading



Tool holder for right hand insert only.

Order Number	Stock R	Insert Number	Dimensions (mm)			*3 WT (lbs)							
			DCONMS	LF			Clamp Bridge	Clamp Screw	Stop Ring	Shim	Shim Screw	Plug	Wrench
H63TH-MMTENR-H16	★	MMT16ER	63	100	3.7	SETK51	SETS51	CR4	CTE32TP15	HFC03008	HGM-PT1/8	TKY15F HKY20R	
H63TH-MMTENR-L16	★	MMT16ER	63	140	6.0	SETK51	SETS51	CR4	CTE32TP15	HFC03008	HGM-PT1/8	TKY15F HKY20R	

*1 For use with B axis tilted at 45 degrees.

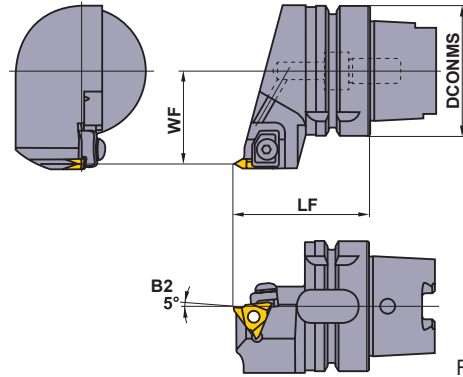
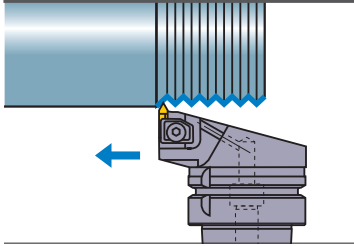
*2 Clamp Torque (lbf-in) : SETS51=31, HFC03008=13

*3 WT : Mass

RECOMMENDED CUTTING CONDITIONS

Work Material	Hardness	Grade	Cutting Speed (SFM)
P Mild Steel	≤ 180HB	VP10MF	490 (230–755)
		VP15TF	330 (195–460)
	180–350HB	VP10MF	460 (260–655)
		VP15TF	330 (195–460)
M Stainless Steel	≤ 200HB	VP10MF	425 (260–590)
		VP15TF	260 (130–390)
K Gray Cast Iron	Tensile Strength ≤ 350MPa	VP10MF	460 (260–655)
		VP15TF	295 (195–390)

MT Threading



Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)			*2 WT (lbs)		*1		
	R	L		DCONMS	LF	WF		Clamp Bridge	Clamp Screw	Spring	Wrench
H63TH-MTHR/L-DX43	★	★	MTTR/L 43○○○○	63	65	45	2.6	MTK1R/L	HBH06020	MES3	HKY40R

*1 Clamp Torque (lbf-in) : HBH06020=62

*2 WT : Mass

H
HSK-T TOOLS

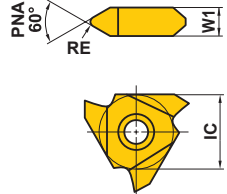
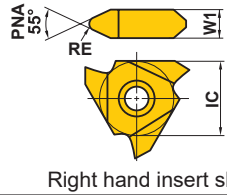
RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)
P	Mild Steel	≤180HB	UP20M	460 (330-590)
			NX2525	655 (490-820)
			UTi20T	390 (330-490)
	Carbon Steel Alloy Steel	180HB-350HB	UP20M	390 (330-490)
			NX2525	555 (490-655)
			UTi20T	330 (230-390)
M	Stainless Steel	≤200HB	UP20M	390 (260-490)
			UTi20T	330 (230-425)
K	Gray Cast Iron	Tensile Strength ≤350MPa	UP20M	260 (195-330)
			UTi20T	260 (195-330)
			HTi10	330 (230-425)

MT type inserts > H018
 SPARE PARTS > M001
 TECHNICAL DATA > N001

FOR MULTI-TASK MACHINES

INSERTS FOR MT TYPE

Type	Order Number	Class	Coated		Cermet		Carbide		ISO Pitch mm (thread / inch)	Dimensions (mm)			Geometry
			UP20M	NX2525	UT120T	HT110	IC	W1		RE			
General 60°	MTTR436000	G		★	★			-0.8	12.7	4.76	0	MTTR/L(60°) (G Class)  Right hand insert shown.	
	MTTR436001	G	★	★	★	★		1.0-1.75	12.7	4.76	0.1		
	MTTL436001	G	★		★	★		1.0-1.75	12.7	4.76	0.1		
	MTTR436002	G	★	★	★	★		2.0-2.5	12.7	4.76	0.2		
	MTTL436002	G		★	★			2.0-2.5	12.7	4.76	0.2		
	MTTR436003	G	★	★	★	★		3.0-3.5	12.7	4.76	0.3		
	MTTL436003	G		★	★			3.0-3.5	12.7	4.76	0.3		
	MTTR436004	G		★	★			4.0-4.5	12.7	4.76	0.4		
General 55°	MTTR435501	G		★	★			(28-10)	12.7	4.76	0.1	MTTR(55°) (G Class)  Right hand insert shown.	
	MTTR435502	G		★	★			(16-8)	12.7	4.76	0.2		
	MTTR435503	G		★	★			(11-8)	12.7	4.76	0.3		

STANDARD OF DEPTH OF CUT ● Metric Screw Thread

Unit : mm

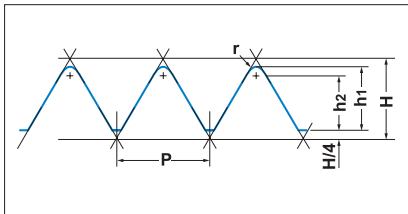
P (Pitch)	0.75	1.00	1.25	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.50
h1	0.46	0.61	0.77	0.92	1.07	1.23	1.53	1.84	2.15	2.45	2.76
h2	0.35	0.47	0.59	0.70	0.82	0.94	1.17	1.41	1.65	1.87	2.11
r (Corner Radius)	0.11	0.14	0.18	0.22	0.25	0.29	0.36	0.43	0.50	0.58	0.65
Number of Passes	1	0.18	0.20	0.20	0.25	0.25	0.30	0.30	0.35	0.35	0.40
	2	0.13	0.15	0.18	0.20	0.20	0.25	0.25	0.30	0.30	0.35
	3	0.10	0.10	0.12	0.15	0.20	0.20	0.20	0.25	0.25	0.30
	4	0.05	0.10	0.12	0.15	0.15	0.15	0.20	0.20	0.20	0.25
	5		0.06	0.10	0.10	0.12	0.15	0.15	0.20	0.20	0.25
	6			0.05	0.07	0.10	0.10	0.10	0.15	0.20	0.20
	7					0.05	0.08	0.10	0.15	0.15	0.20
	8						0.05	0.10	0.10	0.15	0.15
	9							0.08	0.10	0.10	0.15
	10							0.05	0.09	0.10	0.10
	11								0.05	0.10	0.10
	12									0.05	0.10
	13										0.05
	14										

Note 1) The first pass causes a high load on the cutting edge.
In order to avoid damage, keep the depth of cut to 0.4-0.5 mm maximum.

H

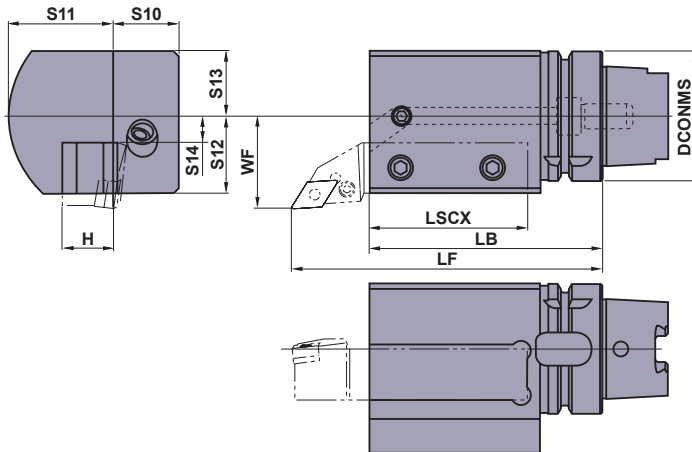
HSK-T TOOLS

- The chart on the right shows the cutting depths when machining external ISO metric screw threads.
- When using cermet grades or cutting stainless steel, please increase the number of passes by 2 or 3 extra passes.

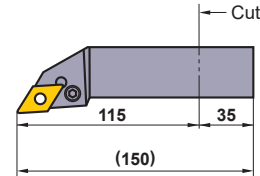


EXTERNAL TURNING TOOL HOLDERS

External turning • Facing



■ This holder is for 25×25 size tools.
Please shorten the tool as shown below before use.



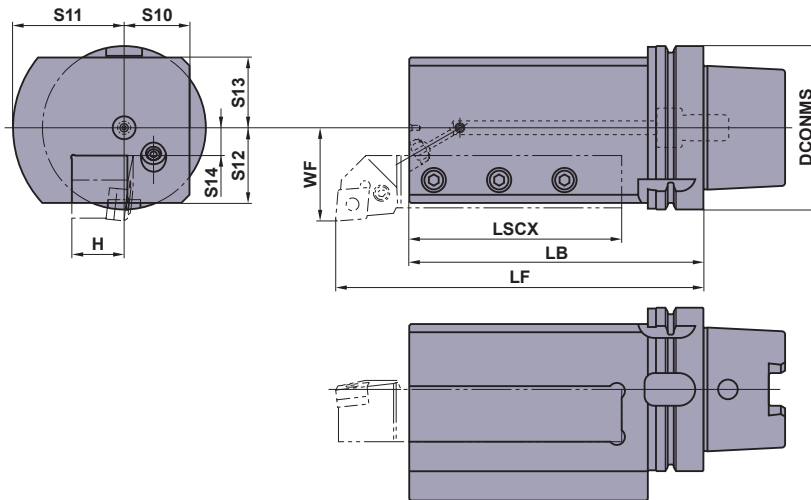
Right hand tool holder shown.

Order Number	Stock		Dimensions (mm)										WT* (lbs)	
	R	L	DCONMS	LF	LB	LSCX	H	S10	S11	WF	S14	S12		S13
H63TH-EV2525R/L-112	★	★	63	150	112	77	25	32	53	45	13	38	32	8.6

* WT : Mass

EXTERNAL TURNING TOOL HOLDERS

External turning • Facing



■ This holder is for 32×32 and 32×25 size tools.

Right hand tool holder shown.

Order Number	Stock		Dimensions (mm)										WT* (lbs)	
	R	L	DCONMS	LF	LB	LSCX	H	S10	S11	WF	S14	S12		S13
H100TH-EV3232R/L-180	★	★	100	220	180	130	32	40	68	57	17	46	43	25.8

* WT : Mass

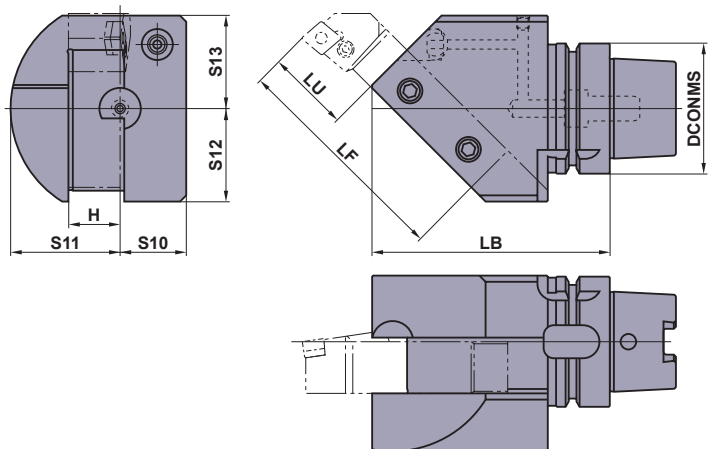
Note 1) Possible to fit a 25 x 25 tool by using a 7 mm plate.
Possible to fit a 1" x 1" tool by using a 6.6 mm plate.

SPARE PARTS > M001
TECHNICAL DATA > N001

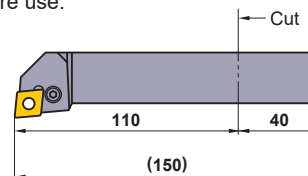
FOR MULTI-TASK MACHINES

EXTERNAL TURNING TOOL HOLDERS

External turning • Facing



■ This holder is for 25×25 size tools.
Please shorten the tool as shown below before use.



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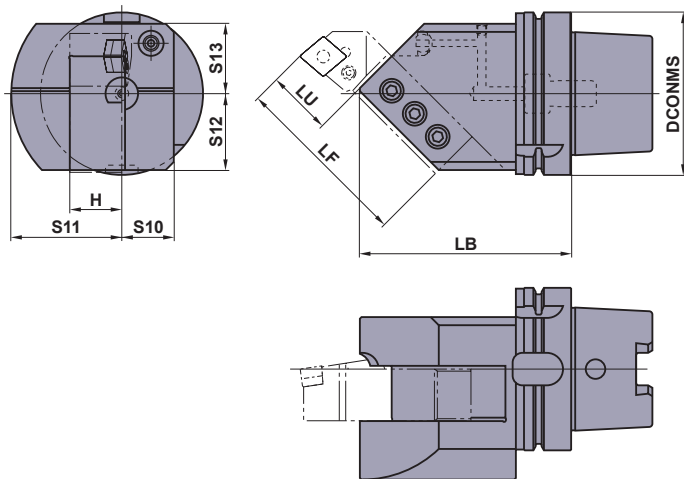
Right hand tool holder shown.

Order Number	Stock		Dimensions (mm)								WT* (lbs)	
	R	L	DCONMS	LB	LU	LF	H	S10	S11	S12		S13
H63TH-EN2525R/L-115	★	★	63	115	40	110	25	32	53	45	45	8.2

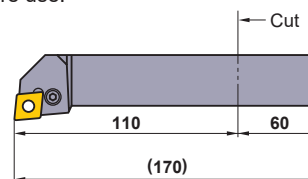
* WT : Mass

EXTERNAL TURNING TOOL HOLDERS

External turning • Facing



■ This holder is for 32×32 and 32×25 size tools.
Please shorten the tool as shown below before use.



Mitsubishi Materials is licensed for production and distribution of these tools from MORI SEIKI CO., LTD under Patent No.3720202.

Right hand tool holder shown.

Order Number	Stock		Dimensions (mm)								WT* (lbs)	
	R	L	DCONMS	LB	LU	LF	H	S10	S11	S12		S13
H100TH-EN3232R/L-130	★	★	100	130	40	110	32	32	68	47	43	14.6

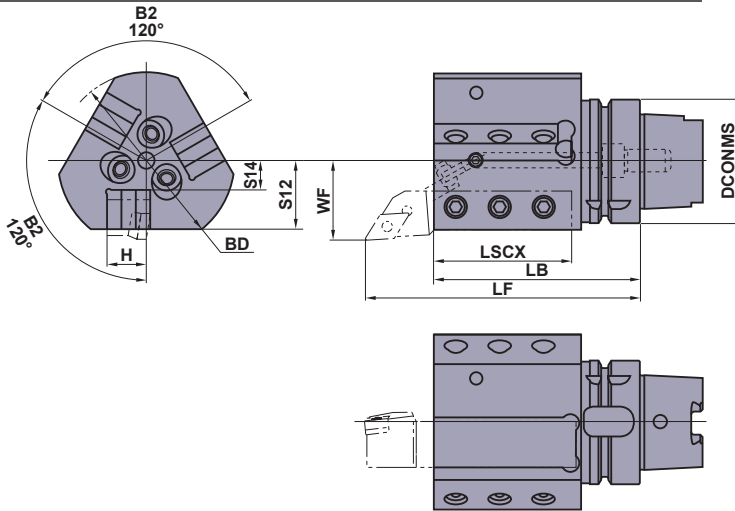
* WT : Mass

Note 1) Possible to fit a 25 x 25 tool by using a 7 mm plate.
Possible to fit a 1" x 1" tool by using a 6.6 mm plate.

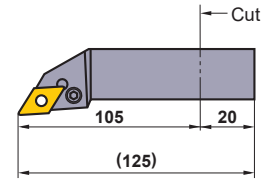
★ : Stocked in Japan

EXTERNAL TURNING TOOL HOLDERS

External turning • Facing



■ This holder is for 20×20 size tools.
Please shorten the tool as shown below before use.



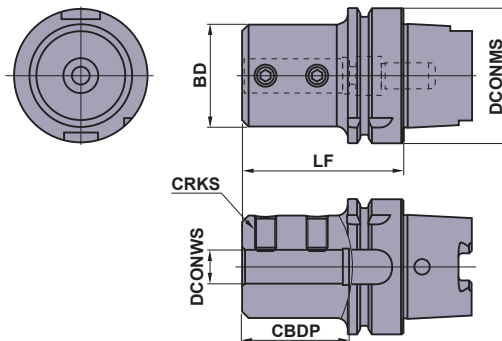
Right hand tool holder shown.

Order Number	Stock		Dimensions (mm)								WT* (lbs)	
	R	L	DCONMS	LF	LB	LSCX	H	BD	WF	S14		S12
H63TH-EV2020R/L-105-3	★	★	63	140	105	70	20	90	40	15	35	6.4

* WT : Mass

BORING BAR HOLDERS

Boring



Order Number	Stock	Dimensions (mm)						WT* (lbs)
		DCONMS	BD	DCONWS	LF	CBDP	CRKS	
H63TH-B08-65	★	63	28	8	65	40	M8	2.0
H63TH-B10-70	★	63	35	10	70	45	M8	2.2
H63TH-B12-70	★	63	42	12	70	45	M8	2.4
H63TH-B16-75	★	63	48	16	75	50	M10	2.9
H63TH-B20-75	★	63	52	20	75	50	M10	3.1
H63TH-B25-83	★	63	62	25	83	58	M12	3.7
H63TH-B32-87	★	63	62	32	87	62	M12	3.7
H63TH-B40-97	★	63	65	40	97	72	M16	4.0

* WT : Mass

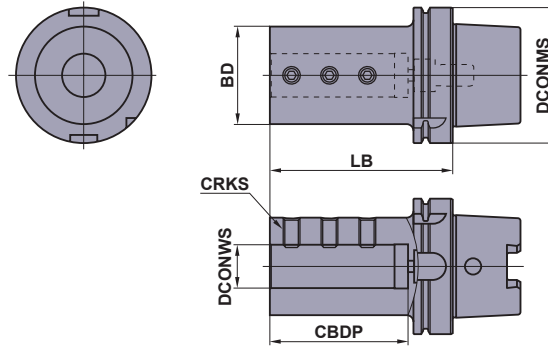
Note 1) Please shorten a boring bar to the required shank length. This holder is for boring bars and indexable type drills.

SPARE PARTS > M001
TECHNICAL DATA > N001

FOR MULTI-TASK MACHINES

BORING BAR HOLDERS

Boring



Order Number	Stock	Dimensions (mm)						WT* (lbs)
		DCONMS	BD	DCONWS	LB	CBDP	CRKS	
H100TH-B25-120	★	100	62	25	120	88	M12	8.6
H100TH-B32-135	★	100	72	32	135	102	M12	10.6
H100TH-B40-150	★	100	82	40	150	117	M16	13.0
H100TH-B50-180	★	100	92	50	180	147	M16	17.0

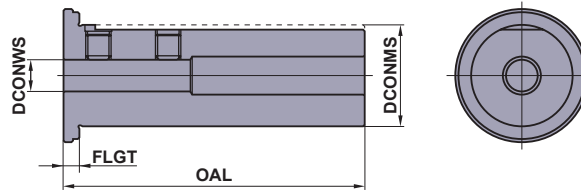
* WT : Mass

Note 1) Please shorten a boring bar to the required shank length. This holder is for boring bars and indexable type drills.



HSK-T TOOLS

BORING BAR SLEEVES FOR H100TH-B32-135



Order Number	Stock	Dimensions (mm)				WT* (lbs)
		DCONWS	DCONMS	OAL	FLGT	
SL3208-90	★	8	32	95	5	1.3
SL3210-90	★	10	32	95	5	1.1
SL3212-90	★	12	32	95	5	1.1
SL3216-90	★	16	32	95	5	1.1
SL3220-90	★	20	32	95	5	0.9

* WT : Mass

Note 1) These sleeves are only compatible with H100TH-B32-135 holder.

Memo

A series of horizontal dotted lines for writing, spanning the width of the page.