

Tooling system
for turning on
multi-task machines

HSK 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.

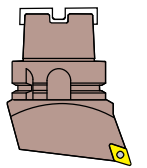


High accuracy cutting edge positioning

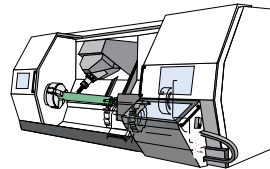
The HSK-T type has a closer tolerance between the spindle key and tool holder keyway than the HSK-A type. This results in higher cutting edge positional accuracies. For milling, the conventional HSK-A type tools can be still used.

Compatible with both multi-task machines and machining centres

HSK-T TOOLS



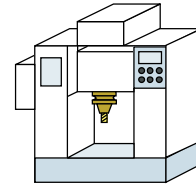
HSK-T
Turning tool holder



HSK-T spindle
Multi-task machines



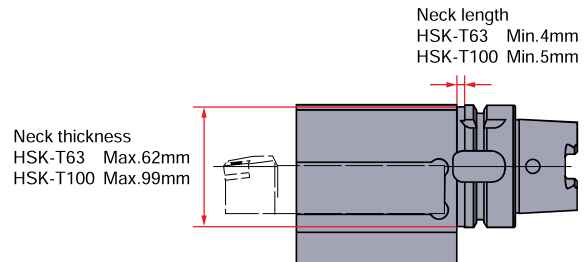
HSK-A
Rotating tool holder



HSK-A spindle
Machining centre

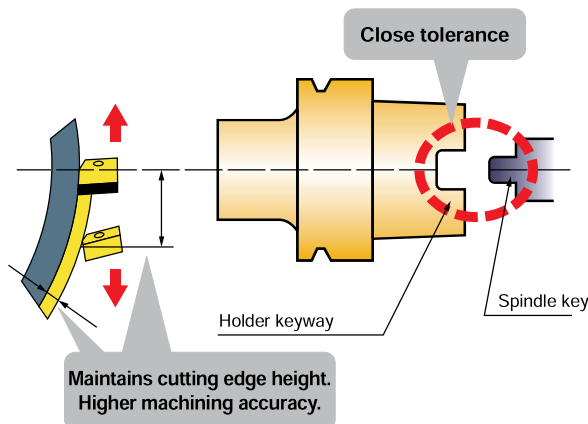
*Note

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) (mm)				
HSK A63	Key tolerance	0.10				
	Minimum clearance	0.15		0.08		
HSK T63	Key tolerance	0.025				
	Minimum clearance	0.015		0.035		

Keyway tolerance: 12.25 to 12.58 (HSK A63), 12.425 to 12.46 (HSK T63)

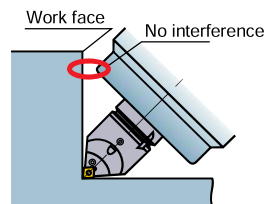
Maximum clearance: 0.33 (HSK A63), 0.075 (HSK T63)

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

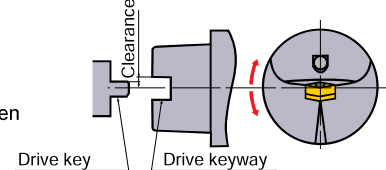
Avoid workpiece interference with improved tool accessibility.

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



Improve centreline height by positioning the cutting edge at the centre of the spindle.

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



New one-action type double clamp series

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



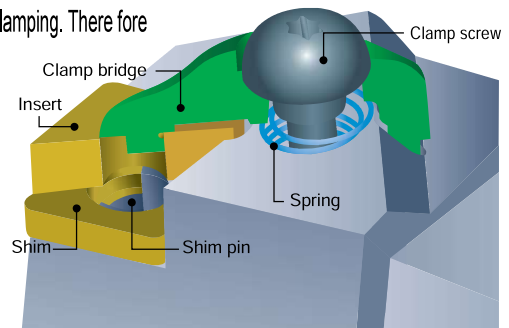
Handed type for turning and facing



Straight type for turning and facing



For turning, facing and boring



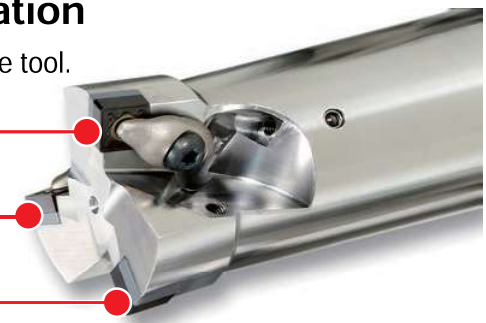
3 on 1 tool for process and tool consolidation

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

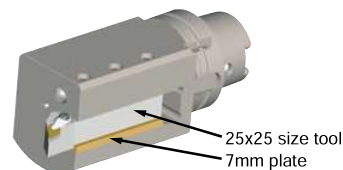


Sleeve




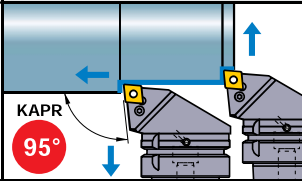

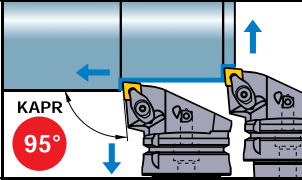

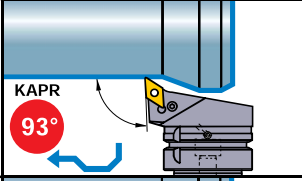

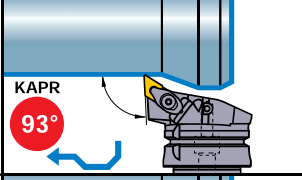

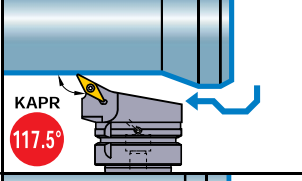

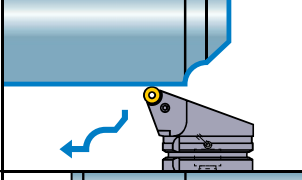

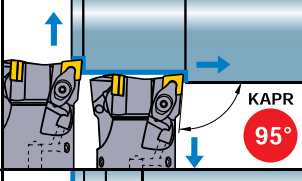

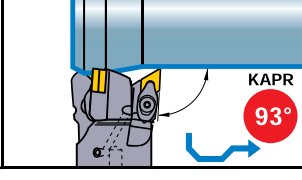
A single tool can be used with different sized tool holders.


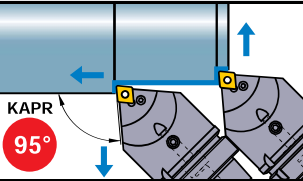

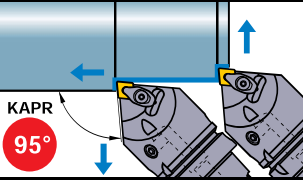

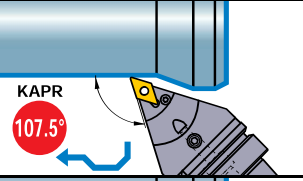

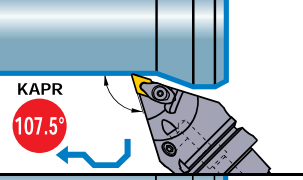

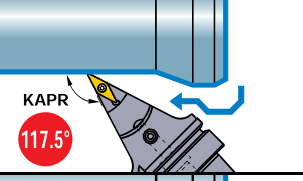

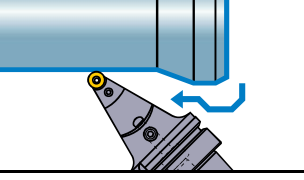
- Available for use with JIS B4126 (ISO 5610) 32x32 and 32x25 tools.
- Possible to fit a 25x25 tool by using a 7mm plate.
- *Please prepare a plate on your own.




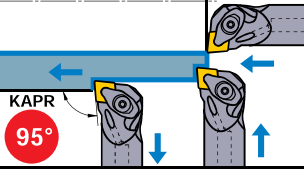
CLASSIFICATION OF HSK-T TOOLS

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 95°
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 95°


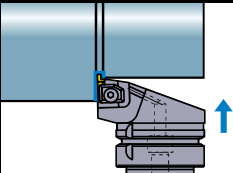

EXTERNAL TURNING • FACING • BORING

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


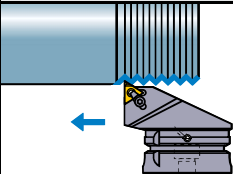


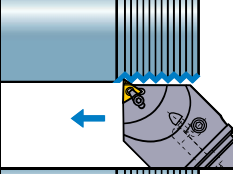


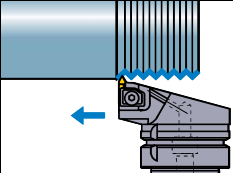

H

HSK-T TOOLS




GROOVING

Order Number	Cutting Mode
H63TH-MGHR/L-DX43   	






THREADING

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

BORING BAR HOLDERS

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

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

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

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

H

HSK-T TOOLS