

HSK-T Tooling Systems for Turning Mill

Set screw holders for Round shank

For through-spindle coolant
CC type



For nozzle-coolant
CN type



➔ P. 69

**World
standard
ISO**

for Turning Mill

HSK
TOOLING SYSTEM

Insert holders for Square-shank

For external turning and cutting off
SV type



For external / face turning
SA type



For external / face turning
SB type



For external / face turning
SC type



For external / face turning
SN type



For face turning
SH type



➔ P. 70

BLANK TOOL

CHECKING ARBOR



➔ P. 72



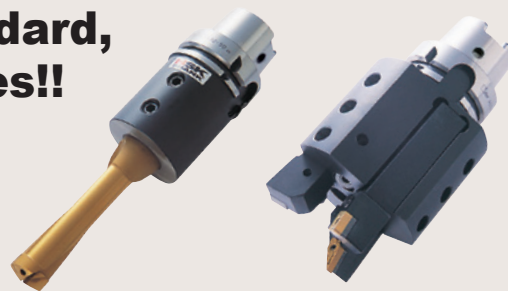
➔ P. 72



HSK-T TOOLING SYSTEMS for TURNING MILL

The obvious choice for ISO standard, HSK-T specs turning mill spindles!!

- ▷ A full range of milling tool holders, covering 70% of multi-tasking machine applications!
- ▷ Compatible with machining center holders!
- ▷ Supplied by tool holder manufacturer world wide!
- ▷ Extensive line-up and reasonable price!



Standardized by many machine tool manufacturers!

OKUMA

- MULTUS SERIES
- MACTURN SERIES etc

MATSUURA MACHINERY CORPORATION

- CUBLEX Series

DMG MORI

- NT (NTX) Series
- FD Series
- CTX Series

HERMLE

- MT Series

Nakamura-tome

- Precision Industry
- Super NTJX Series
- Super NTMX Series etc

HORKOS

- NS70 Version

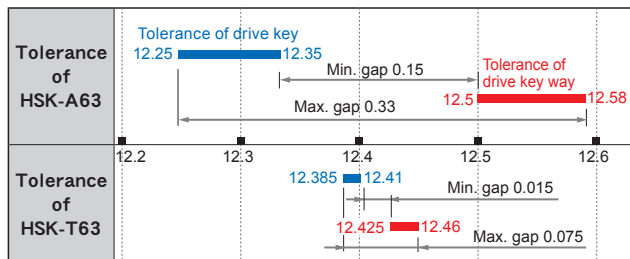
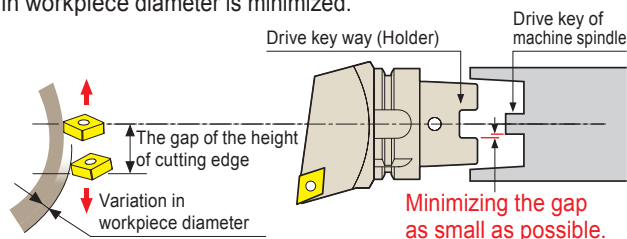
YAMAZAKI MAZAK

- INTEGREX
- i Series
- J Series
- e Series etc

Turning tools (HSK-T standard)

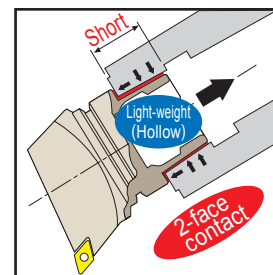
Maintains high precision during turning operation

By using an ICTM tool holder, which minimizes the gap between the machine spindle drive key and tool holder drive key way, the height of the cutting edge is maintained precisely and variation in workpiece diameter is minimized.



High bending rigidity

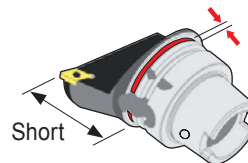
During turning, the cutting force of a spindle axis becomes very large. Therefore, a rigid, two-face-contact clamping system performs very well.



Designed to shorten undercut area

We made an undercut area thicker and as short as possible in order to increase the holder rigidity.

Improved rigidity!

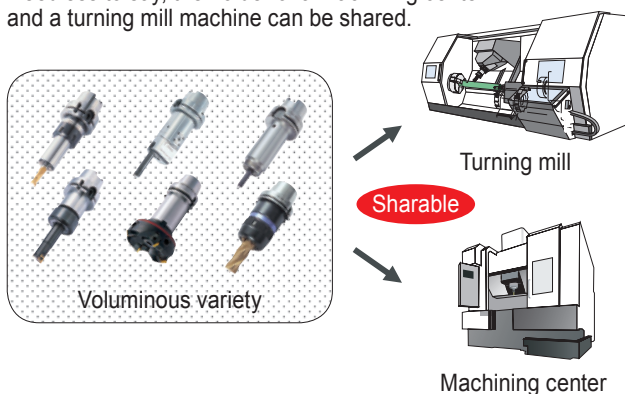


Undercut area
Width 4 mm
Depth 0.5 mm

Rotating tools (HSK-A standard)

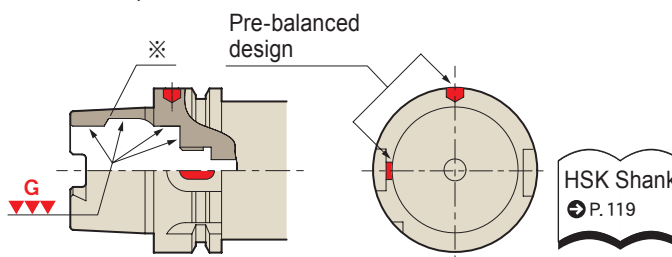
Compatible with machining center

Needless to say, the holder of a machining center and a turning mill machine can be shared.



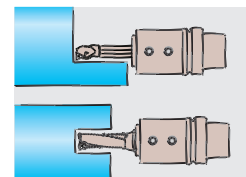
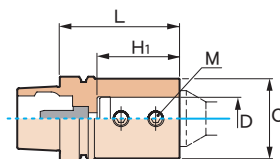
Pre-balanced design

The HSK-A-type shank is unbalanced in its standard form, but at MST we have applied our original pre-balancing to make the tool holders applicable for high-speed machining. According to DIN standards, only the area marked with ※ in the hollow shank needs to be finished. However, MST provides perfect finishing for all areas after heat treatment in order to improve balance.



Set screw holders for Round shank

CC type for through-spindle coolant



CODE	L	φD	φC	H ₁	M	Kg
T40 -CC32- 90	90	32	58	62	M12	1.2
T50 -CC32- 85	85	32	62	62	M12	1.4
T63 -CC32- 90	90	32	62	62	M12	1.6
-CC40-100	100	40	68	72		2
T100-CC40-105	105	40	82	72	M12	4.5
-CC50-115	115	50	92	82	M14	5.3

■Option

- Sleeve for set screw holder (SS)

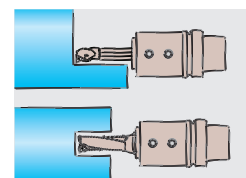
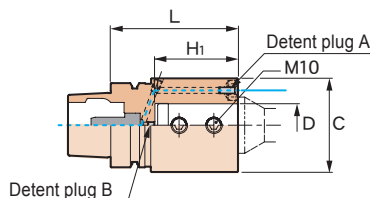
■Std. Access.

- Coolant duct→P.104

■Note

- Available for both boring bar and indexable drill.

CN type for nozzle-coolant



CODE	L	φD	φC	H ₁	M	Kg
T40 -CN32- 95	95	32	70	62	M12	2
T50 -CN32-100	100	32	70	62	M12	2.1
T63 -CN32- 95	95	32	70	62	M12	2.2
-CN40-105	105	40	78	71		2.7
T100-CN40-115	115	40	82	72	M12	4.9
-CN50-125	125	50	92	82	M14	5.8

■Option

- Sleeve for set screw holder (SS)

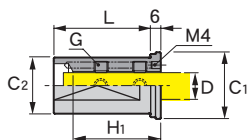
■Std. Access.

- Coolant duct→P.104
- Detent plug for a nozzle A = Set screw (M5-12L)
- Detent plug for Center through B = Set screw (M5-5L)

■Note

- The coolant nozzle direction is adjustable.
- Nozzle-coolant type is available for through-spindle coolant.
- Available for both boring bar and indexable drill.

Sleeve for set screw holders



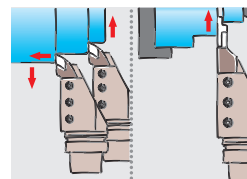
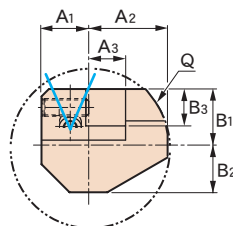
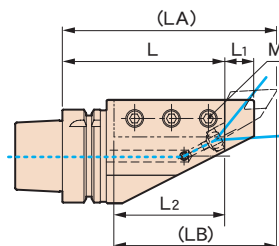
CODE	L	φD	φC ₁	φC ₂	H ₁	G
SS32- 8	55	8	38	32	35	M 6
-10		10			40	M 8
-12		12			45	
-16		16			50	
-20		20				
-25		25			58	※
SS40- 8	60	8	46	40	35	M 6
-10		10			40	M 8
-12		12			45	
-16		16			50	
-20		20				M10
-25		25			58	
-32		32			62	※

■Note

- Items marked with ※ in the G section of the list means they are screw-tightening type.
- Available for both boring bar and indexable drill.

Insert holders for Square-shank

SV type for external turning and cutting off



CODE	L	L ₁	L ₂	(LA)	(LB)	A ₁	A ₂	A ₃	B ₁	B ₂	B ₃	M	Q													
T40 -SV2020R- 90	90	15	60	120	90	24.5	39	20	25	22	20	M10	78	1.5												
-SV2020L- 90																										
T50 -SV2020R- 95	95	15	60	125	90	25	43.5	20	25	25	20	M10	87	1.9												
-SV2020L- 95																										
T63 -SV2020R-105	105	20	70	135	100	32	45	20	33	32	20	M12	90	2.7												
-SV2020L-105															53.5	25	38	25	108	3.1						
-SV2525R-105※							45	28	90	2.7																
-SV2525L-105※											105		135	53.5	38	108	3.3									
-SV2525R-105D	115	145	37	59	25	48	43	25	M12	118		9.1														
-SV2525L-105D											25		100	195	145	40	68.5	32	47	32	M14	137	9.3			
-SV2525R-115	150	20	70	190	150	37	59	25	48	43		25												M12	118	9.1
-SV2525L-115											25		100	195	145	40	68.5	32	47	32	M14	137	9.3			
T100 -SV2525R-150	150	20	70	190	150	37	59	25	48	43		25												M12	118	9.1
-SV2525L-150											25		100	195	145	40	68.5	32	47	32	M14	137	9.3			
-SV3232R-150																										
-SV3232L-150																										

■ Std. Access.

- Coolant duct→P.104

■ Note

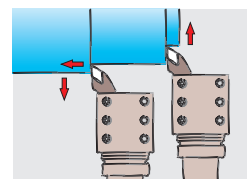
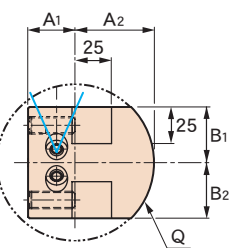
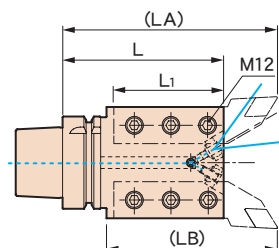
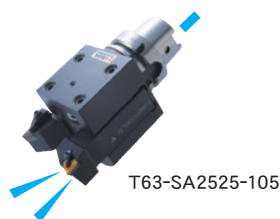
- The coolant nozzle direction is adjustable.

■ Caution

- The maximum coolant pressure for the nozzle on the holder is 1.5MPa.
- The holder marked with ※ in the chart cannot be installed on the Mazak INTEGREX I and J series.

SA type for external / face turning

The multi-inserts type holder reduces using holders quantity, it saves A.T.C. magazine pot.



CODE	L	L ₁	(LA)	(LB)	A ₁	A ₂	B ₁	B ₂	Q	Kg
T63 -SA2525-105※	105	70	135	100	32	54	38	38	108	3.7
-115	115		145							
T100 -SA2525-150	150	70	185	105	37	59	48	48	118	9.3

■ Std. Access.

- Coolant duct→P.104
- Detent plug for a nozzle=Set screw(M5-12L) (Ex.) When using only right-hand, plug the nozzle on the left-hand side.

■ Note

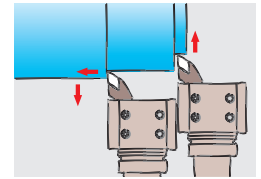
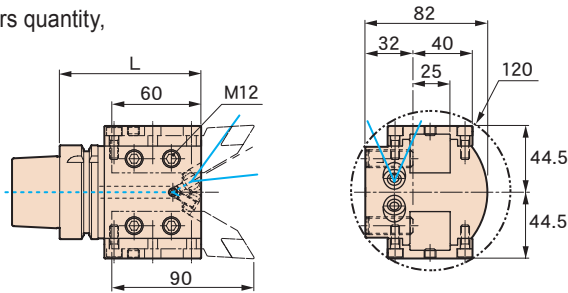
- The coolant nozzle direction is adjustable.

■ Caution

- The maximum coolant pressure for the nozzle on the holder is 1.5MPa.
- The holder marked with ※ in the chart cannot be installed on the Mazak INTEGREX I and J series.

SB type for external / face turning

The multi-inserts type holder reduces using holders quantity, it saves A.T.C. magazine pot.



CODE	L	Kg
T63-SB2525- 95※	95	3.2
-105	105	

■ Std. Access.

- Coolant duct→P.104
- Detent plug for a nozzle=Set screw (M5-12L)
(Ex.) When using only right-hand, plug the nozzle on the left-hand side.

■ Note

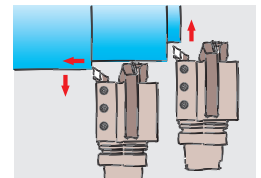
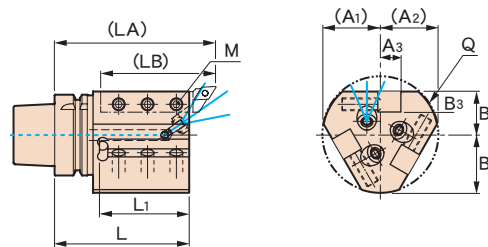
- The coolant nozzle direction is adjustable.

■ Caution

- The maximum coolant pressure for the nozzle on the holder is 1.5MPa.
- The holder marked with ※ in the chart cannot be installed on the Mazak INTEGREX I and J series.

SC type for external / face turning

The multi-inserts type holder reduces using holders quantity, it saves A.T.C. magazine pot.



CODE	L	L ₁	(LA)	(LB)	(A ₁)	(A ₂)	A ₃	B ₁	B ₂	B ₃	M	Q	Kg
T40 -SC1616R- 90	90	60	110	80	38	38	16	30	38.5	16	M10	77	1.7
T50 -SC2020R- 95	95	60	125	90	44.5	44.5	20	35	45	20	M10	90	2.4
T63 -SC2020R-105	105	70	140	105	44.5	44.5	20	35	45	20	M12	90	3.0
T100-SC2525R-150	150	70	185	105	59	59	25	48	59	25	M12	108	9.7

■ Std. Access.

- Coolant duct→P.104
- Detent plug for a nozzle=Set screw(M5-12L)

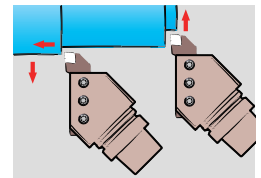
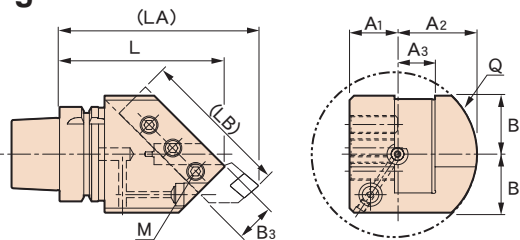
■ Note

- The coolant nozzle direction is adjustable.

■ Caution

- The maximum coolant pressure for the nozzle on the holder is 1.5MPa.

SN type for external / face turning



CODE	L	(LA)	(LB)	A ₁	A ₂	A ₃	B ₁	B ₂	B ₃	M	Q	Kg
T40 -SN2020R-100	100	125	80	25	40	20	32	32	20	M10	80	1.7
T50 -SN2020R-110	110	135	85	25	45	20	35	35	20	M10	90	2.2
T63 -SN2020R-110	110	135	85	25	45	20	35	35	20	M10	90	2.5
-SN2020L-110												
-SN2525R-110		140	105	32	53	25	39	39	25	M12	106	3.2
-SN2525L-110												
T100-SN2525R-135	135	165	105	32	54	25	43	43	25	M12	108	6.1
-SN2525L-135												
-SN3232R-135		175	120	37	68.5	32	48		32	M14	137	7.2
-SN3232L-135												

■ Std. Access.

- Coolant duct→P.104

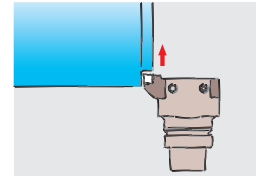
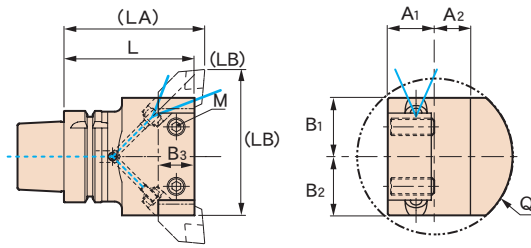
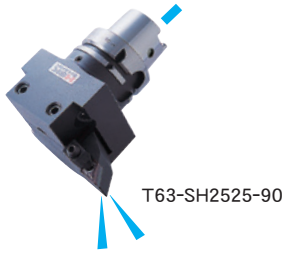
■ Note

- The coolant nozzle direction is adjustable.

■ Caution

- The maximum coolant pressure for the nozzle on the holder is 1.5MPa.

SH type for face turning



CODE	L	(LA)	(LB)	A ₁	A ₂	B ₁	B ₂	B ₃	M	Q	Kg
T40 -SH2020- 75	75	79	70	25	20	25	25	20	M12	80	1.2
-120	120	124									1.6
T50 -SH2020- 90	90	94	75	25	20	27.5	27.5	20	M12	90	1.8
-120	120	124									2.3
T63 -SH2020- 90	90	94	80	32	20	30	30	20	M12	90	2.5
-SH2525- 90		97	100		25	40.5	40.5	25			2.9
-120		127									3.6
T100 -SH2525-105	105	112	120	32	25	48	48	25	M12	118	6.1
-150	150	157									8.8
-SH3232-105	105	113									7.7

■ Std. Access.

- Coolant duct → P.104
- Detent plug for a nozzle = Set screw (M5-12L)
(Ex.) When using only right-hand, plug the nozzle on the left-hand side.

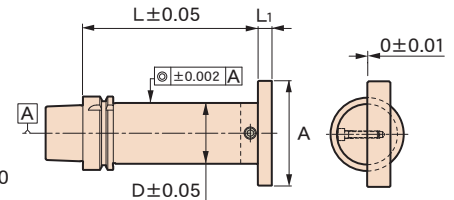
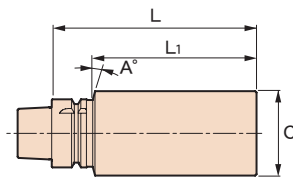
■ Note

- The coolant nozzle direction is adjustable.

■ Caution

- The maximum coolant pressure for the nozzle on the holder is 1.5MPa.

BLANK TOOL (For additional machining)



CODE	L	L ₁	φC	A°	Kg
T40 -BL 32- 35	35	15	32	0	0.3
-BL 48-120	120	97	48	15	1.6
-BL 95- 75	75	52	95		2.9
T50 -BL 40- 42	42	16	40	0	0.6
-BL 62-150	150	120	62	15	3.3
-BL105- 90	90	60	105		4.3
T63 -BL 52- 45	45	19	52	0	1.0
-BL 75-200	200	168	75	15	6.6
-BL115- 90	90	58	115		5.5
T100 -BL 87- 45	45	16	87	0	2.8
-BL100-200	200	166	100		12.6
-BL118-120	120	86	118	15	9.7

■ Std. Access.

- Coolant duct → P.104

■ Note

- Material: SNCM439, Heat treatment hardness : 43HRC±2
- Hardening depth indicates depth to the center.

■ Caution

- If heat treatment is applied again to a holder produced from a blank tool, the original taper area may be deformed. Therefore, please do not apply heat treatment.

CHECKING ARBOR

CODE	L	L ₁	φD	A	Kg
T40 -CAAX32-150	150	10	32	60	1.1
T50 -CAAX40-150	150	10	40	70	1.7
T63 -CAAX52-150	150	10	52	90	2.9
T100 -CAAX60-250	250	12	60	110	7.2

■ Std. Access.

- Coolant duct → P.104
- Special case

■ Usage

1. Measure the concentricity of the spindle using cylinder area.
2. When using a flat surface, adjustment of the insert position can be verified.
3. Confirm and adjust the absolute dimension in the X direction.
4. Measure the bending of the spindle using flange surface area.
5. Can be used with tool presetter.

■ Note

- ATC repeatability can be observed.
- Flatness of square test bar for the datum A is within ±0.01mm.