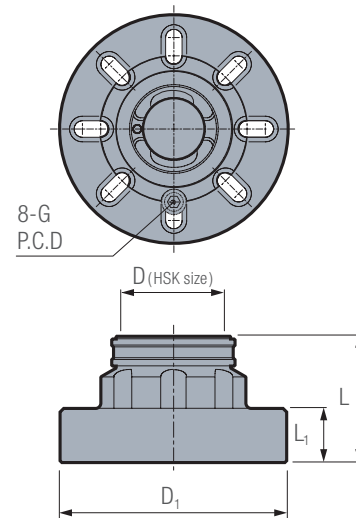


Manual Clamping Head (Manual Exchange)



Part No.	HSK Type	L	ØD	ØD ₁	L ₁	G	PCD	Clamping Force kN	Kg
MHK-A40-50	HSK-A40	50	40	100	25	M6x30	55~85	10	1.7
MHK-A63-70	HSK-A63	70	63	125	30	M8x35	80~100	20	3.8
MHK-A100-110	HSK-A100	110	100	200	50	M12x50	125~160	30	14

Option

- Mounting plate

Standard Accessories

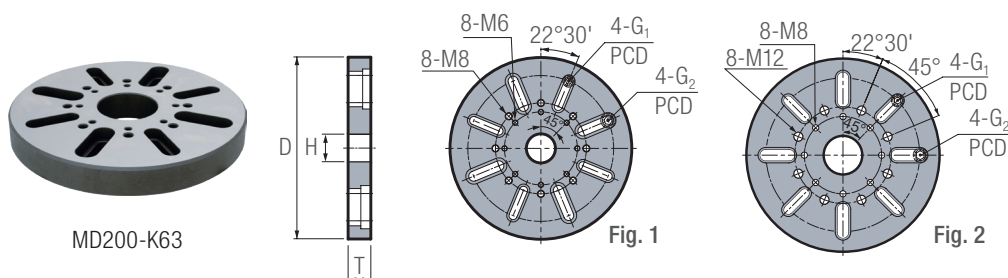
- T-handle wrench
- Mounting bolt×4pcs.

Note

- The manual clamping hole on the work holder is required for mounting.
- When you can't install it directly on the machine table, please use the mounting plate
- Contact us about the custom-made mounting plate for your machine table.

Mounting Plate

In the case where you can't mount the head directly to your machine table, please use this mounting plate. We can supply a blank that is customisable and also manufacture a special mounting plate just for you. For more information, please feel free to contact us.

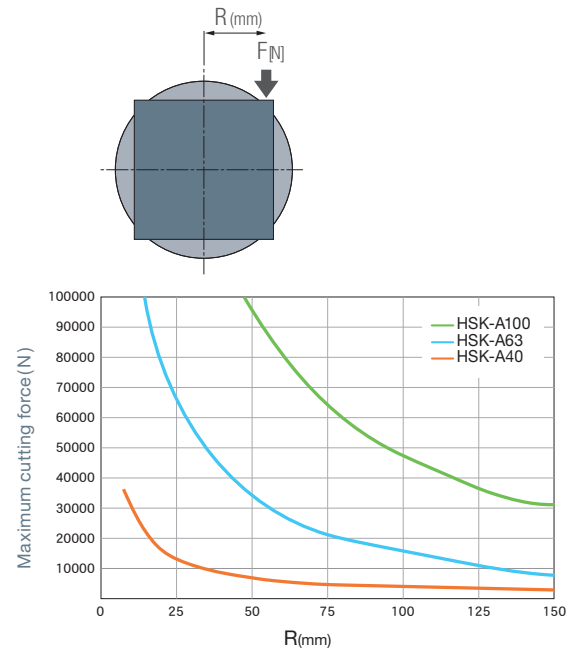
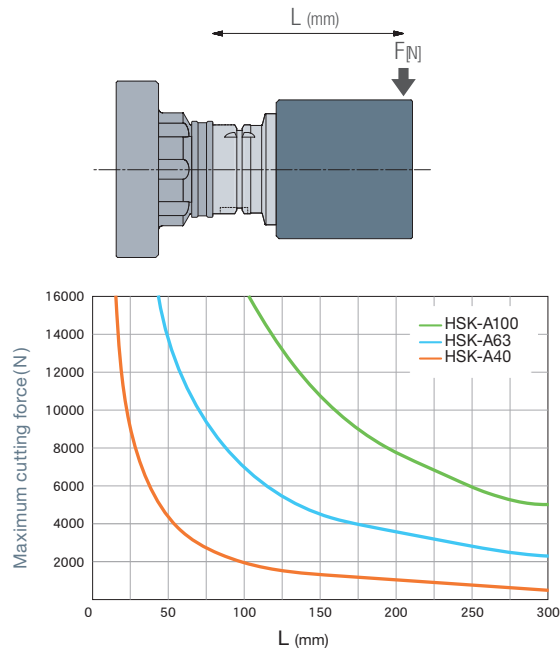


Part No.	HSK Type	Fig.	T	ØD	ØH	G ₁	G ₂	PCD	Kg
MD160-K40	HSK-A40	1	20	160	32	M5x20	M6x20	80~125	2.6
MD200-K40		1	25	200	32	M8x25	M10x25	100~160	5
MD160-K63	HSK-A63	1	20	160	50	M5x20	M6x20	80~125	2.4
MD200-K63		1	25	200	50	M8x25	M10x25	100~160	4.7
MD250-K63		2	30	250	50	M10x30	M12x30	140~200	9.4
MD250-K100	HSK-A100	2	30	250	80	M10x30	M12x30	140~200	8.7

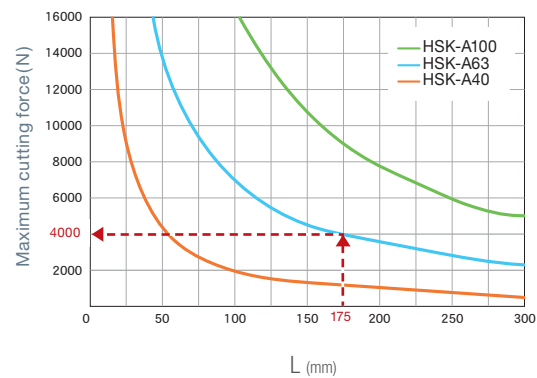
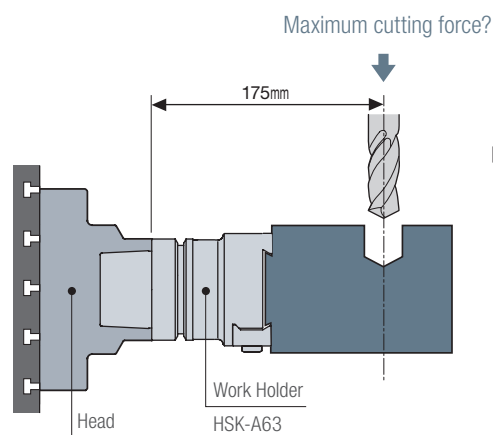
Technical Data

Maximum Cutting Force

Using the charts below, please confirm the machining load limits for your work-piece size (length L and dia R.). When you start machining using the Smart Grip, reduce the machining load 60~80% based upon the chart. Please choose the optimum work holder for your machining conditions.



(ex.) The value of maximum cutting force



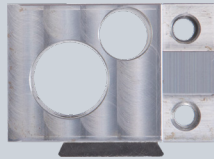
Please confirm the machining load limit value (N) of the HSK-A63 with L=175mm from the chart. Max. 4,000N (please start at 2,400~3,200N)

This work-piece clamping system maximizes the performance of your 5-axis machining center

The HSK interface (between the head and the work-holder) and the dovetail clamping (between the work-holder and the work-piece) create a compact design with less interference and high rigidity for metalworking applications

- The rigid system developed for metalworking applications.
- No interference and superior accessibility.
- Handling the work-piece is easy using a general-purpose robot.

**2-Face Clamping
Work-Piece**



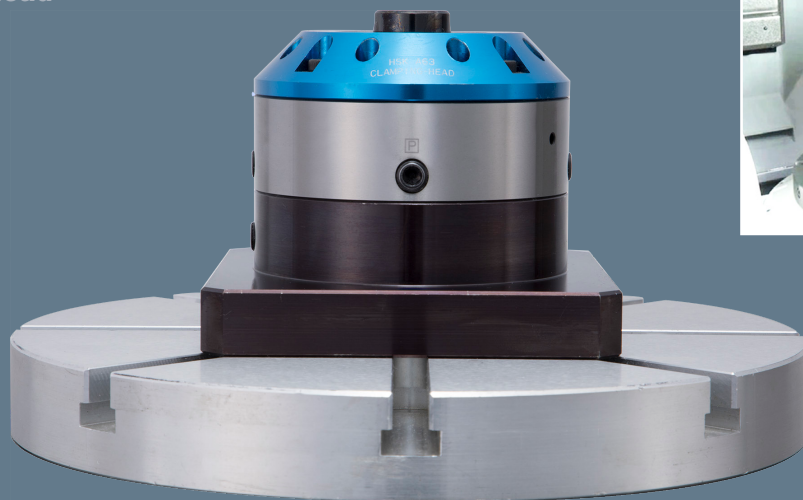
**Dovetail Clamping
Work-Holder**



**Supports Various
Work-Piece Shapes**



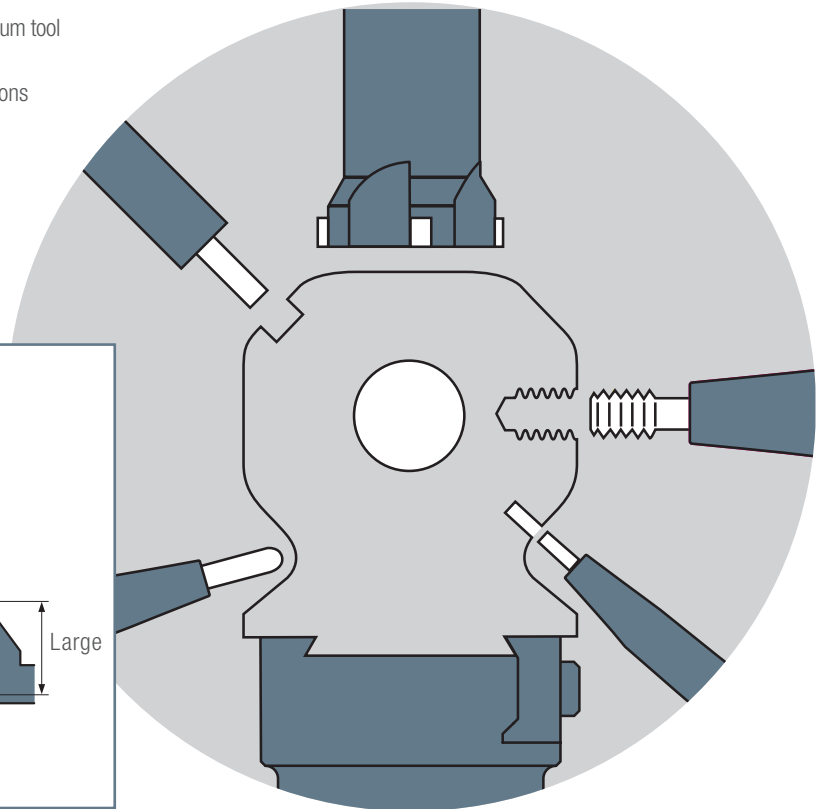
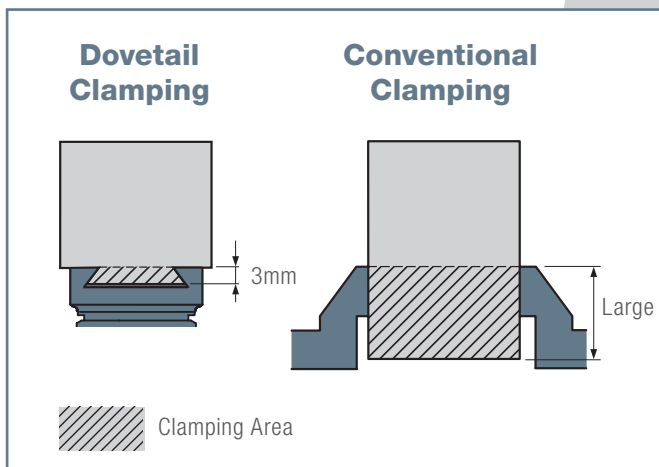
**HSK Interface
Head**



Dovetail Clamping System

Strong Clamping with Small Clamping Area

- By minimizing the clamping surface of the work-piece, optimum tool holder accessibility is possible.
- It allows stable and heavy machining from various directions without the work-piece rising.



HSK Interface

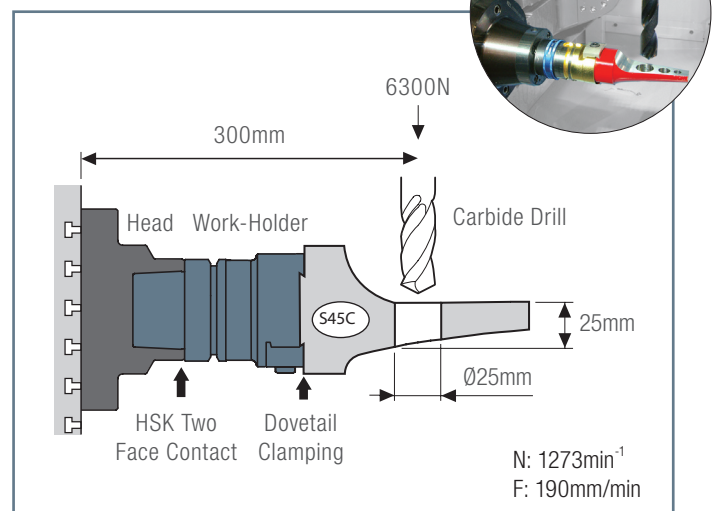
Strong Clamping

- Uses the HSK-A type, time-proven tool holder shank to connect the head and the work-piece holder.

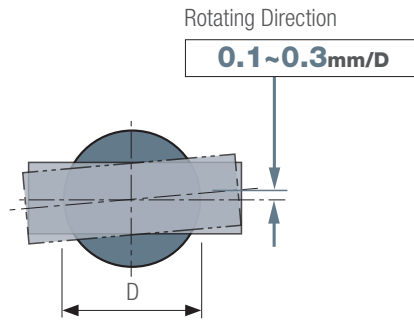
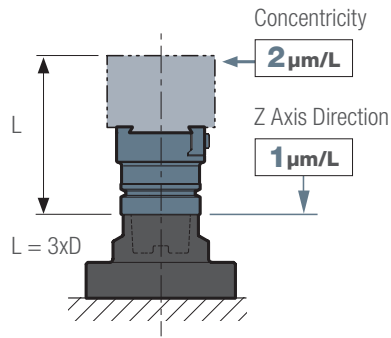


Superior Bending Rigidity

- The dovetail clamping work-holder with the HSK head works with heavy-duty milling.



High Positioning Accuracy



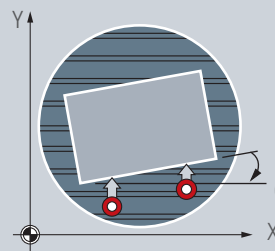
	D
HSK-A40	40
HSK-A63	63
HSK-A100	100

Offsetting the work-piece position in the rotating direction using a touch probe

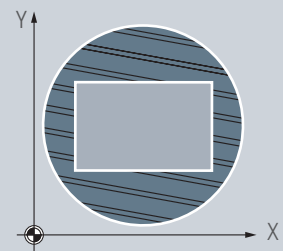
- Measuring two locations along the work-piece side face using a touch probe enables you to offset the machine table angle easily.



BLUM high accuracy touch probe



Correcting angle



Quick Work-piece Changing (Manual Clamping Head)

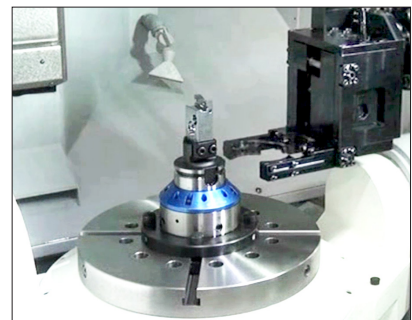
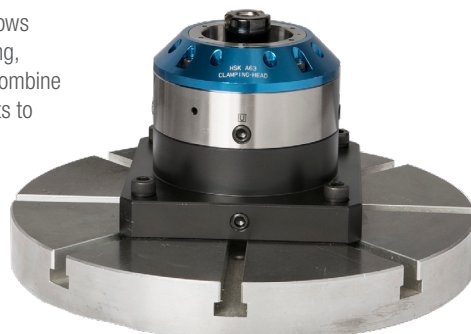
Off-line setup in advance allows quick work-piece changing, minimizing machine downtime.



For Automation (Hydraulic Automatic Clamping Head)

The hydraulic clamping design allows for automated work-piece changing, and makes it possible for you to combine your machining centers with robots to create a fully-automated system.

Hydraulic Automatic Clamping Head



Work-piece Clamping & Mounting Options

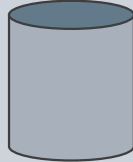
The Swift Klamp System:

Workpiece Options

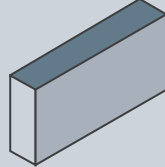
Dovetail
(max. □ 200mm)



Large Diameters
(max. 200mm)



Rectangular
(max. depth 30mm)



Square
(max. 40mm)



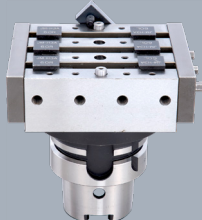
Small diameters
(max. 25mm)



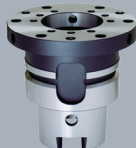
Workholder Options



Dovetail Clamping
Page 9



Dovetail Vise
Pages 9-10



Flange Clamping
Pages 14-15



Side Clamp A
Page 16

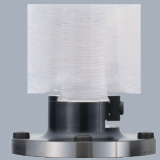


Side Clamp B
Page 16

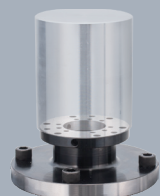


Collet Holder

Direct Clamping



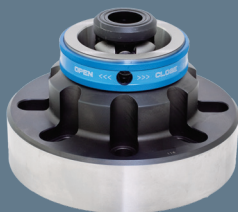
Dovetail Clamping
Page 19



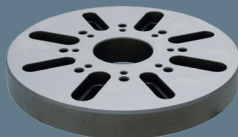
Flange Clamping
Page 19

Head Options

Manual Clamping



Manual Clamping Head
Page 8



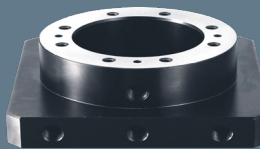
Mounting Plate

HSK-A40
HSK-A63
HSK-A100

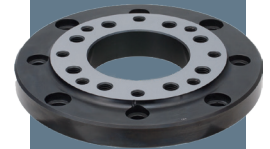
Automatic Clamping



Hydraulic Automatic Clamping Head
Pages 17-18



Mounting Plate



Mounting Plate

Machine Table

