

Milling spindle

Tool holder SK40
and with quick-change tooling system



Tool holder HSK-C63
for manuel tool changing



Our milling spindle finds versatile applications in mechanical engineering and is suitable for the machining of materials of all kinds.

Equipment Standard:

- Execution spindle bearing with angular contact ball bearings
- Motor on the tool side mounted above the spindle (see figure: standard version)
- The mounting flange on the spindle, with integrated pin holes, allowing the cultivation of angular and multi-spindle drill heads of all kinds.
- The tool is clamped by a threaded pull bar.
- Air purge connection.

Designs selectable:

- The motor can be mounted tool side above the spindle (U-Form) or backside (Z-Form). However, a modification is possible without any problems at any time.
- The belt case can be rotated to any position in 90 ° increments as needed.
- Replaceable poly-V-belt pulleys: max. Ratio $i = 0.6$; max. Reduction $i = 2.1$

Optional at surcharge:

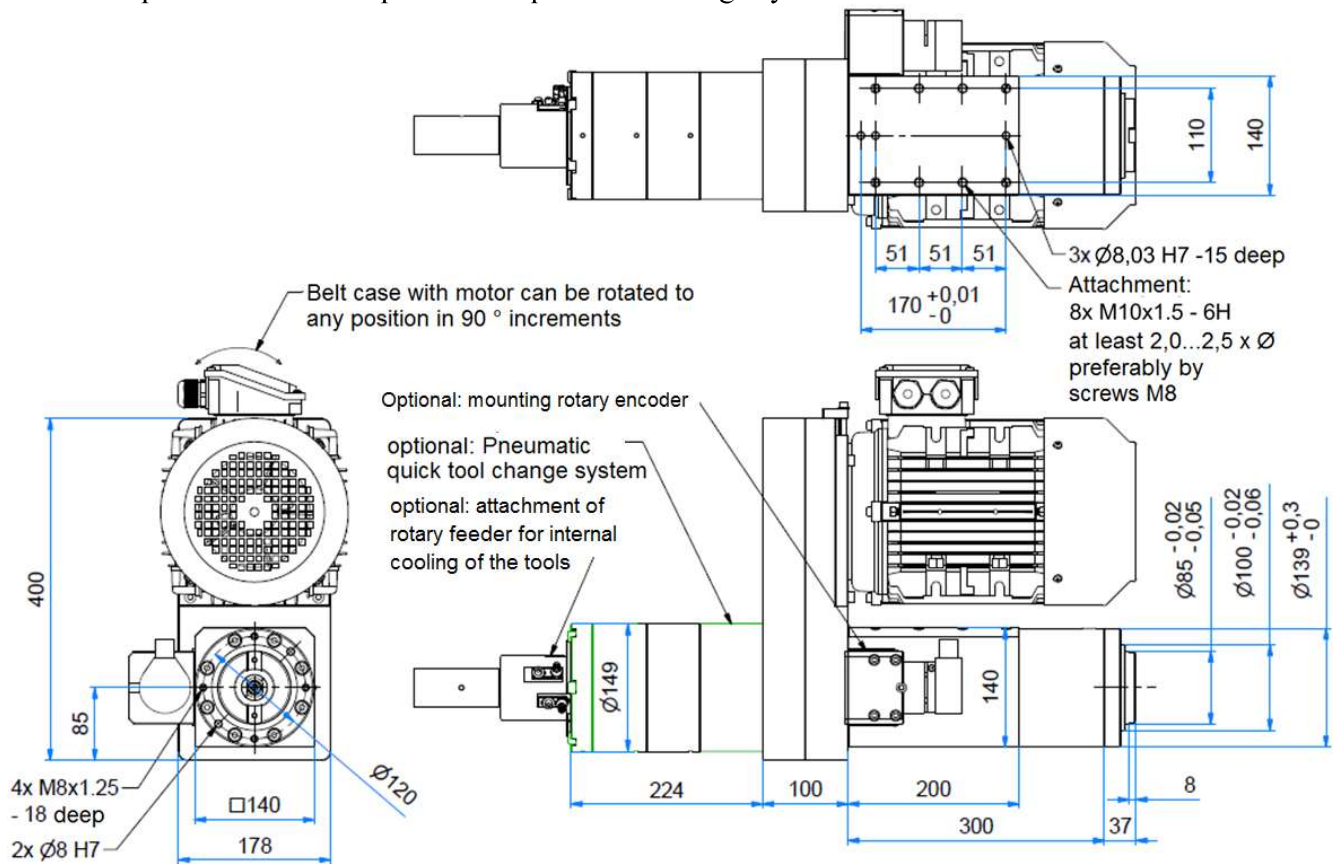
- Execution with spindle bearing spindle bearings
- Internal cooling of tools (*SK40 only in connection with quick-change tooling system*)

Only available with the SK40 tool holder:

- Mounting a rotary encoder
- Pneumatic quick tool change system:
Tool fixing through a clamping system with disc springs. Insertion force: 5 kN.
The tool change carried out via a pneumatic cylinder with 18.9 kN at 6 bar.

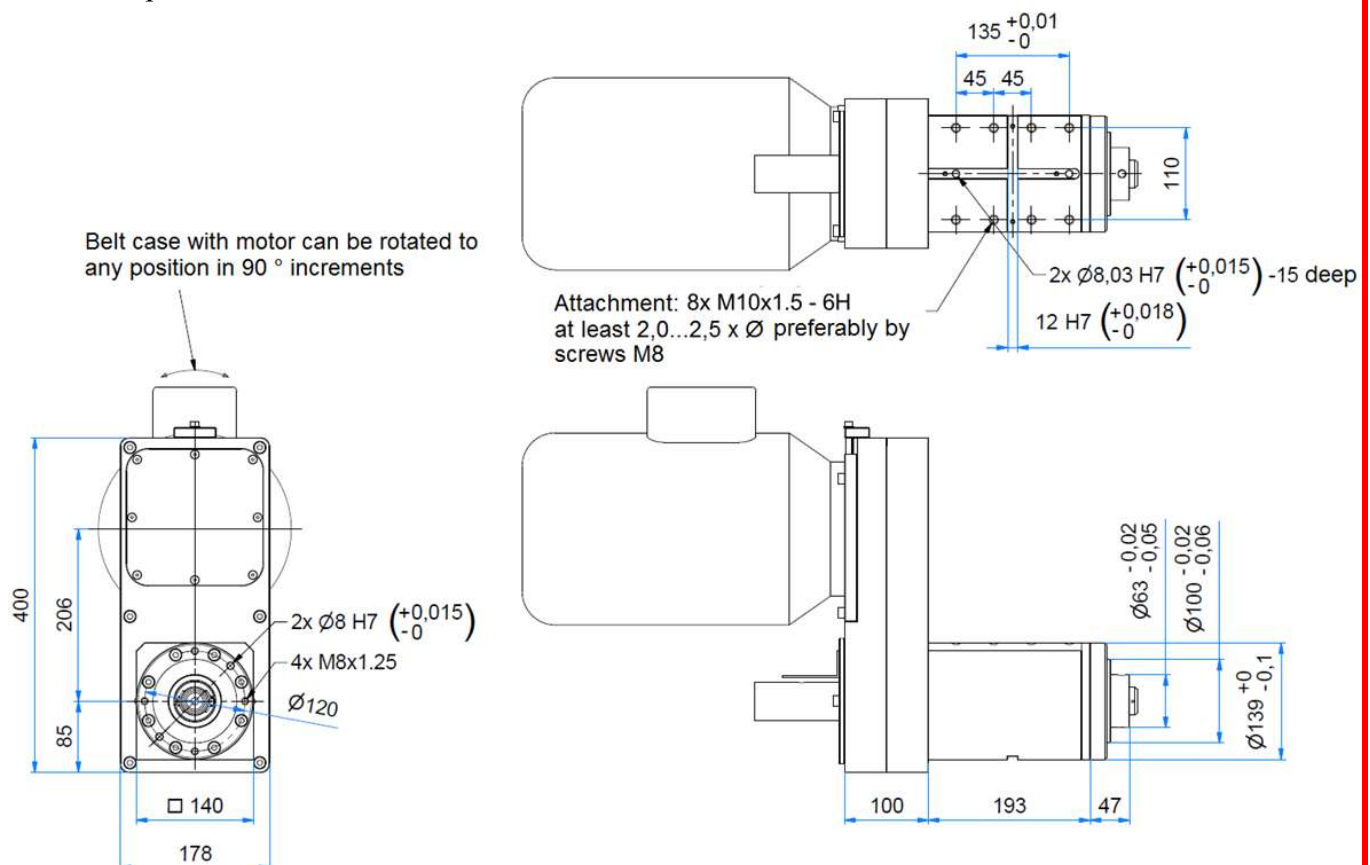
Milling spindle with tool holder SK40

U-shaped structure with pneumatic quick tool change system



Milling spindle with tool holder HSK-C63

Z- shaped structure



Torque on the spindle during respective power of the engine:

The max. Rotational speed, however, is dependent on the spindle bearing

Motor 2-pole: 2.800 rpm 1,5 - 5,5 kW			
Rotational speed Spindle		1,5 kW	5,5 kW
Min.	1.330 Rpm	10,8 Nm	39,5 Nm
Max	4.700 Rpm	3,0 Nm	11,2 Nm

Motor 4- pole: 1.400 Rpm 1,5 - 5,5 kW			
Rotational speed Spindle		1,5 kW	5,5 kW
Min.	660 Rpm	21,7 Nm	79,6 Nm
Max	2.380 Rpm	6,0 Nm	22,1 Nm

Motor 6- pole: 950 Rpm 1,1 - 2,2 kW			
Rotational speed Spindle		1,1 kW	2,2 kW
Min.	450 Rpm	23,3 Nm	46,7 Nm
Max	1.600 Rpm	6,6 Nm	13,1 Nm

Motor 8- pole: 700 Rpm 0,75 - 1,5 kW			
Rotational speed Spindle		0,75 kW	1,5 kW
Min.	330 Rpm	21,7 Nm	43,4 Nm
Max	1.190 Rpm	6,0 Nm	12,0 Nm

For others min. Speeds (than that shown in the table) is a frequency required or on request, if available, a geared motor.

Max. Drilling capacity:	Ø 40 mm in St. 50
Spindle speed:	with angular contact ball bearings 4.000 rpm
(depending on the engine power)	with spindle bearings 7.000 rpm
Drive:	ISO standard motors IP55 / 0,75 - 7,5 kW / 230 - 460V available in size 100 and 132 (Polzahlen 2 - 8)
Tool holder:	SK40 / HSK-C63
Rotational accuracy:	with angular contact ball bearings 0,01 mm with spindle bearings 0,005 mm
Weight:	SK40 approx. 79 kg (including. Motor BG112/ 5,5 kW) HSK-C63 approx. 52 kg (including Motor BG90/ 1,5 kW)