

Superior Clamping and Gripping



Product Information

Deburring spindle MFT-R

MFT-R

Deburring spindle

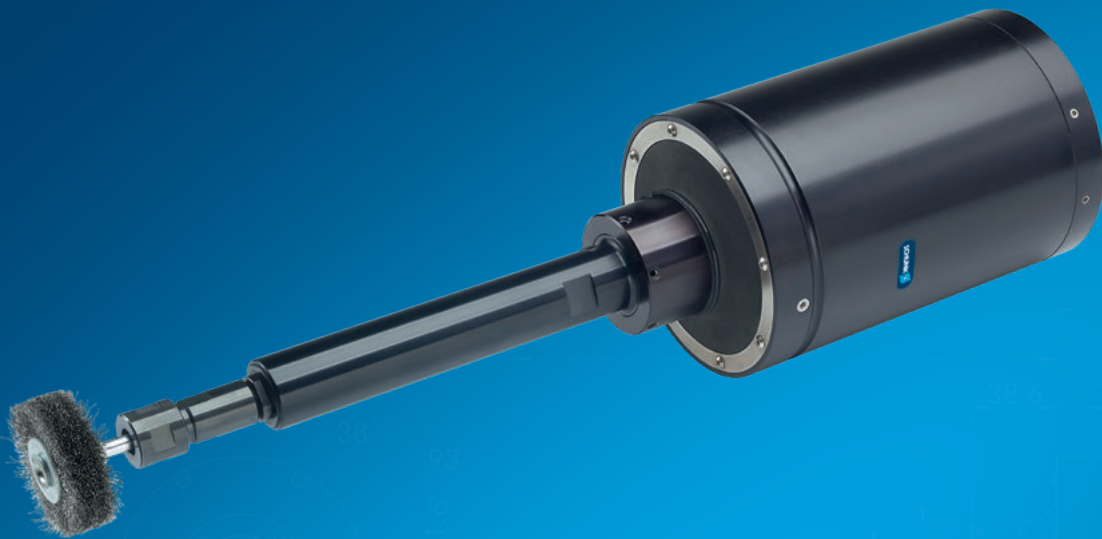
Compliant. Flexible. Robust.

Polishing spindle MFT-R

Radially compliant pneumatic polishing spindle, perfect for polishing and brushing workpieces

Field of application

for automatic brushing and polishing of different workpieces, geometries, and materials in a reproducible quality



Advantages – Your benefits

Adjustable stiffness of the spindle via air pressure for high-quality deburring results in any installation position

Flexible use on the robot arm or as a stationary unit

Rotating piston air engine with high torque for short stopping times and reduced processing times

Radial compliance for machining processes with radial compensation

Gimballed system for a robust set-up with compensation function and reduced programming effort of the robot

Lock function for the Y axis for an oscillating compensation only in the X-axis



Sizes
Quantity: 1



Idle speed max.
5600 1/min



Power
390 W



Compensation angle,
radial
±1.6°

Functional description

The unit is driven by a vane-type air motor. The motor is driven by filtered and oiled air. The spindle is gimbal-mounted to compensate for tolerances on the workpiece contour. The Y-axis can be optionally fixed by axis fixation

set screws. This means that pendulum compensation is only possible in the X axis. The compliance force is controlled via a second air connection. Depending on the pressure setting, a variable pressure force acts on the tool.



- ① **Rotating piston air engine**
for a high torque and a short stopping time
- ② **Gimballed system**
for a robust compensation function
- ③ **Air connection**
for adjusting the compliance force
- ④ **Tool holder**
for DA collets
- ⑤ **Air connection**
for the supply of the motor

MFT-R

Deburring spindle

General notes about the series

Mounting: on the robot arm or as a stationary unit

Actuation: pneumatic, via filtered (< 5 µm, dry) and oiled compressed air (3-4 drops per minute)

Scope of delivery: Spindle with collet.

Warranty: 24 months

Ambient conditions: Please note that the unit is not suitable for use in an area where coolants or cutting fluids are present.

Application example

Robot-guided brushing of a fillet weld on a welded component

- 1 Polishing spindle MFT-R
- 2 Quick-change system SWS
- 3 Workpiece
- 4 TANDEM KSP plus



SCHUNK offers more ...

The following components make the product even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.



Quick change system



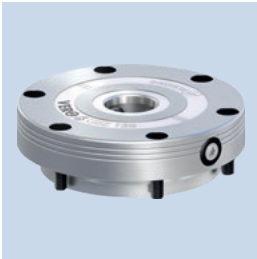
Manual change system



Force/torque sensor



2-finger parallel gripper



Quick-change Pallet System



Clamping force block



2-finger small components gripper



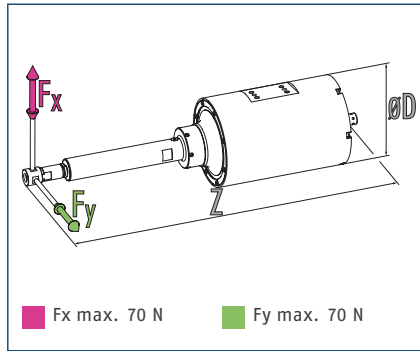
3-Finger Centric Gripper

① For more information on these products can be found on the following product pages or at schunk.com.

MFT-R 390

Deburring spindle

Dimensions and maximum loads

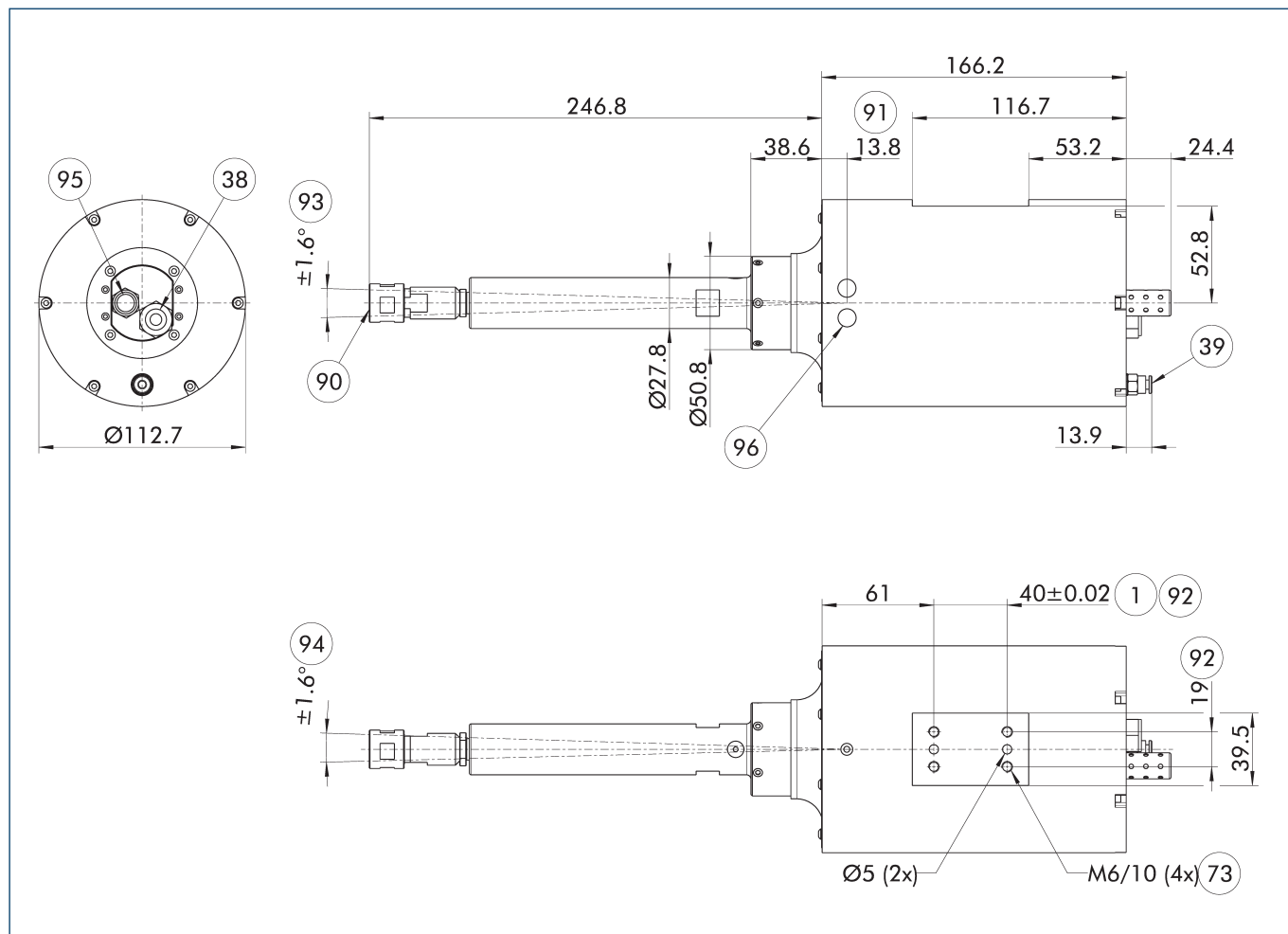


① The indicated torques and forces are static values, apply for each base jaw, and may occur simultaneously.

Technical data

Description		MFT-R 390
ID		1451627
Power	[W]	390
Idle speed	[1/min]	5600
Nominal speed	[1/min]	2600
Max. compensation angle X	[°]	±1.6
Max. compensation X	[mm]	±7.1
Max. compensation angle Y	[°]	±1.6
Max. compensation Y	[mm]	±7.1
Axis fixation		integrated
Recommended compensation path	[mm]	±3.6
Min./max. compensation force	[N]	9.4/70
Min./max. compensation pressure	[bar]	1/4.1
Operating pressure	[bar]	6.2
Nominal torque	[Nm]	1.4
Standstill torque	[Nm]	2.7
Noise emission	[dB(A)]	50
maximum air consumption	[l/s]	9
Tool holder		Collet DA 6 mm and 8 mm
Air connection spindle		G1/4"
Compensation air connection		4 mm
Weight	[kg]	4.42
Min./max. ambient temperature	[°C]	5/35
Dimensions Ø D x Z	[mm]	112.7 x 413

Main view



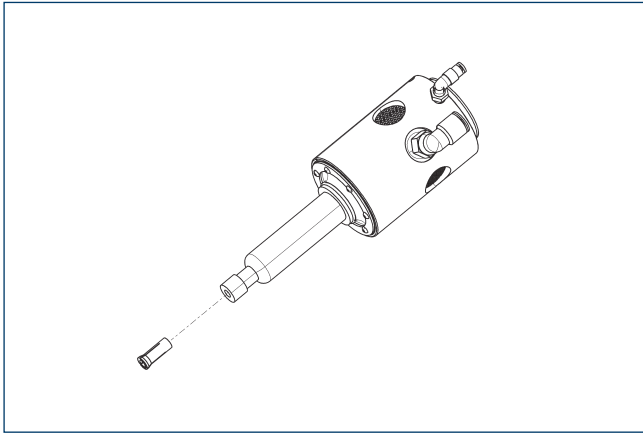
The drawing shows the unit in the basic version.

- | | |
|--------------------------------|--|
| ① Robot-side connection | ⑨2 radial mounting option |
| ③8 Air connection spindle | ⑨3 max. radial compensation (x axis) |
| ③9 Compensation air connection | ⑨4 max. radial compensation (y axis, lockable) |
| ⑦3 Fit for centering pins | ⑨5 Exhaust air silencer |
| ⑨0 Tool holder | ⑨6 Locking function for Y axis |
| ⑨1 Pivot | |

MFT-R 390

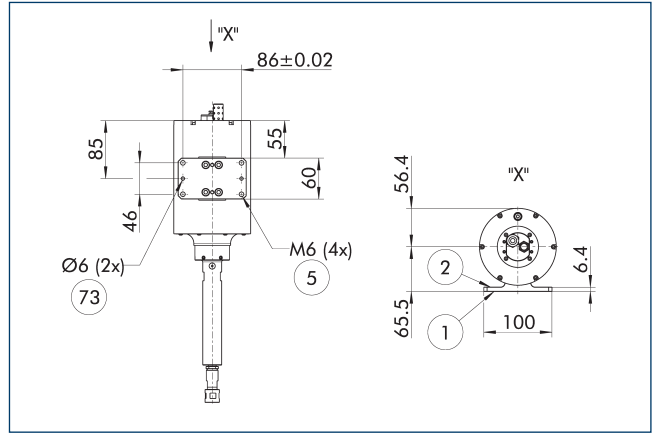
Deburring spindle

Collets



Description	ID	Diameter
Collet Chuck Mounting		
MFT-C-DA200-6mm	1368254	6 mm
MFT-C-DA200-8mm	1310407	8 mm

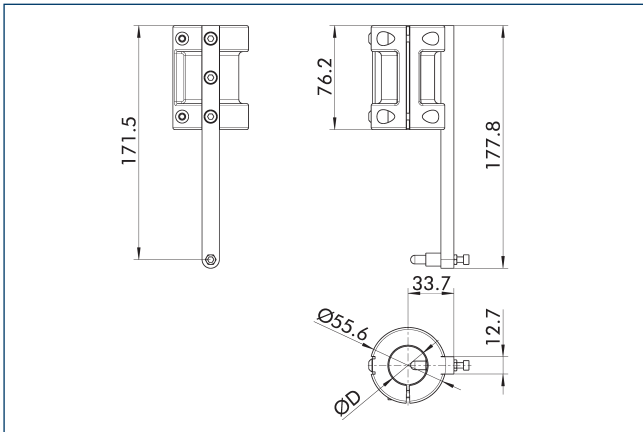
Adapter plates, radial



- ① Robot-side connection
- ② Tool-side connection
- ⑤ Through hole for connection with screws
- ⑦3 Fit for centering pins

Description	ID	
Adapter plate		
A-FDB-660-1040/MFT-R-Radial	0322214	

Profile follower



Profile follower for adjustably limiting the depth of cut along a surface

Description	ID	Diameter D
		[mm]
Profile follower		
RC-PF2-27,8mm	1453520	27.8



SCHUNK GmbH & Co. KG
Spann- und Greiftechnik

Bahnhofstr. 106 - 134
D-74348 Lauffen/Neckar
Tel. +49-7133-103-0
Fax +49-7133-103-2399
info@de.schunk.com
schunk.com

Folgen Sie uns | *Follow us*

