



Superior Clamping and Gripping



## Product Information

Polishing spindle MFT

# MFT

Polishing spindle

**Productive. Compliant. Robust.**

## Polishing spindle MFT

Compliant polishing spindle for use on a robot

### Field of application

Standard solution for flexible and robot guided polishing of various workpieces and for different surfaces



### Advantages – Your benefits

**Flexible high-frequency spindle** for maximum flexibility when polishing

**Adjustable stiffness of the spindle via air pressure** for smooth surfaces in every application

**High speeds** for high feed rates

**Sensor system** Optional for retracted/extended stroke and speed monitoring



Sizes  
Quantity: 1



Idle speed max.  
5600 1/min

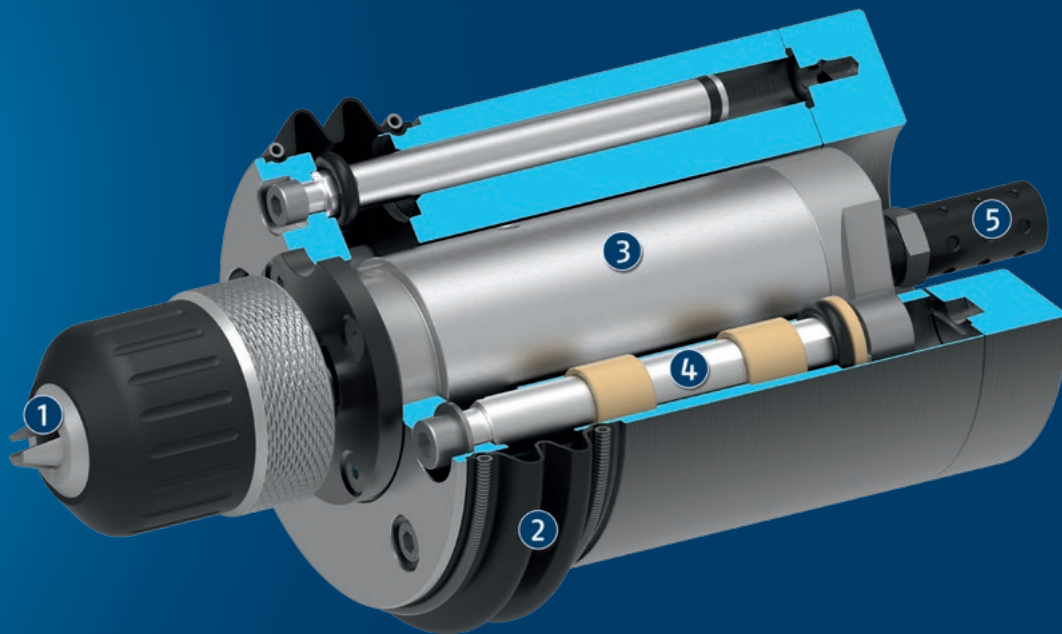


Power  
390 W

## Functional description

The tool holding of the MFT is used for clamping steel brushes, grinding and cup wheels, polishing brushes, deburring cutters and similar tools for surface finishing. The contact pressure against the tool is regulated by the air pressure.

The axis can yield in the axial direction, so a uniform contact pressure is ensured, even on uneven surfaces. This special type of force control ensures high rigidity perpendicular to the surface and the desired flexibility in the machining direction.



- ① **Tool holder**  
for different tool diameters
- ② **Dust cover**  
protects the bearings from contamination
- ③ **Pneumatic spindle**  
high performance spindle with up to 5600 1/min
- ④ **Bearing**  
for compensation of the pneumatic spindle
- ⑤ **Silencer**  
for exhaust

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## General notes about the series

**Mounting:** on the robot arm or as a stationary unit

**Actuation:** pneumatically, via dried, filtered and preferably oiled compressed air

**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 polishing with changing system for spindles

- 1 Polishing spindle MFT
- 2 Quick-change system SWS
- 3 Clamping force block



## 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



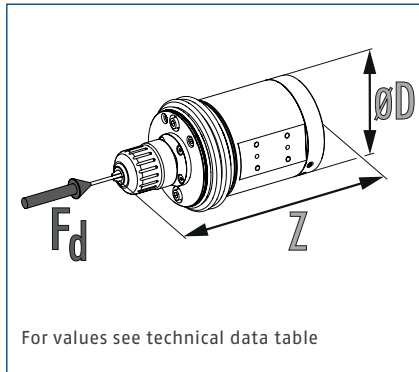
Manual change system

① For more information on these products can be found on the following product pages or at [schunk.com](http://schunk.com).

# MFT 390

Polishing spindle

## Dimensions and maximum loads

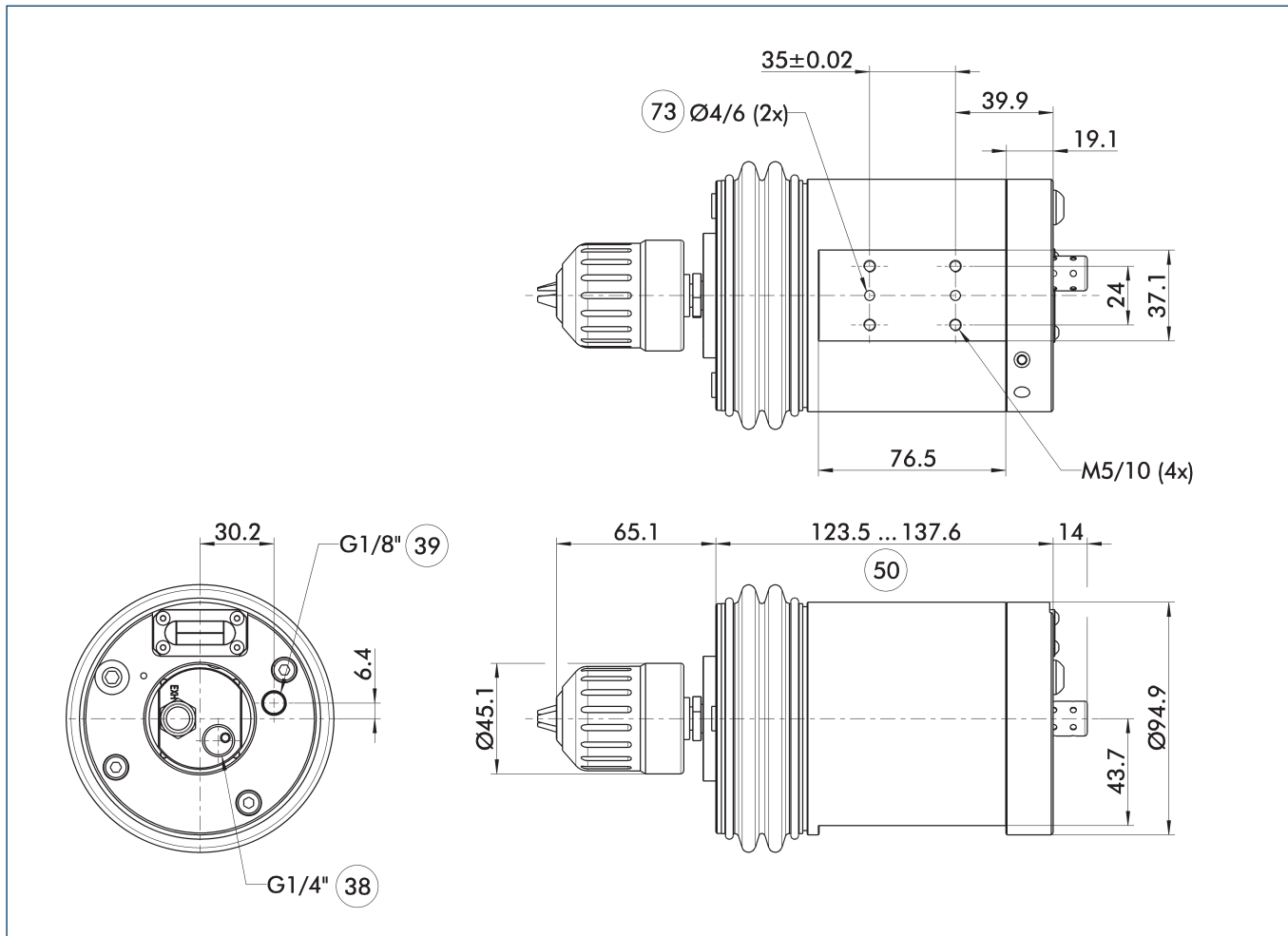


ⓘ The indicated forces show the maximum payload.

## Technical data

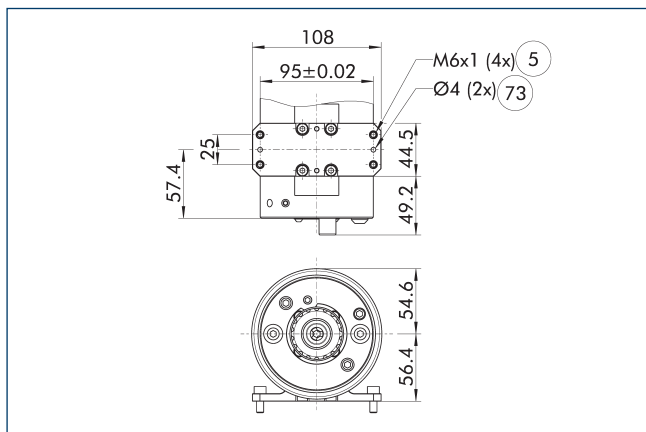
| Description                   |         | MFT-390-F-0-0 | MFT-390-F-R-0 |
|-------------------------------|---------|---------------|---------------|
| ID                            |         | 0322250       | 0322251       |
| Forward sensor                |         | yes           | yes           |
| Retract sensor                |         | no            | yes           |
| Tachometer sensor             |         | no            | no            |
| Recommended compensation path | [mm]    | ±7.5          | ±7.5          |
| Max. compensation path        | [mm]    | 15            | 15            |
| Weight                        | [kg]    | 3.3           | 3.3           |
| Compliance force at 0.35 bar  | [N]     | 14            | 14            |
| Compliance force at 4.1 bar   | [N]     | 74            | 74            |
| Idle speed                    | [1/min] | 5600          | 5600          |
| Noise emission                | [dB(A)] | <75           | <75           |
| Speed under load              | [1/min] | 2600          | 2600          |
| Power at 2600 RPM             | [W]     | 390           | 390           |
| Nominal torque                | [Nm]    | 1.4           | 1.4           |
| Standstill torque             | [Nm]    | 2.7           | 2.7           |
| Operating pressure            | [bar]   | 6.2           | 6.2           |
| Idle air consumption          | [l/s]   | 9             | 9             |
| Clamping diameter             |         | 3/8"          | 3/8"          |
| Dimensions Ø D x Z            | [mm]    | 94.9 x 202.7  | 94.9 x 202.7  |

## Main view



- 38 Air connection spindle
- 39 Compensation air connection
- 50 Axial compensation
- 73 Fit for centering pins

## Adapter plates, radial



- 5 Through hole for connection with screws
- 73 Fit for centering pins

| Description          | ID      |
|----------------------|---------|
| Adapter plate        |         |
| A-FDB-3xx/MFT-Radial | 0322213 |



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