



Superior Clamping and Gripping



Product Information

Deburring spindle FDB-AC 180

FDB-AC

Deburring spindle

Compliant. Reliable. Flexible.

Deburring spindle FDB-AC

Flexible deburring spindle for use in robotic applications

Field of application

Standard solution for flexible and robot-guided deburring of all sorts of workpieces



Advantages – Your benefits

Flexible high-frequency spindle for maximum flexibility when deburring

Pneumatically adjustable rigidity of the cutting spindle via compressed air for clean chamfer edges in every installation position

High speeds for high feed rates

Flexible use on the robot arm or as a stationary unit



Sizes
Quantity: 2



Idle speed max.
25000 .. 30000 1/
min

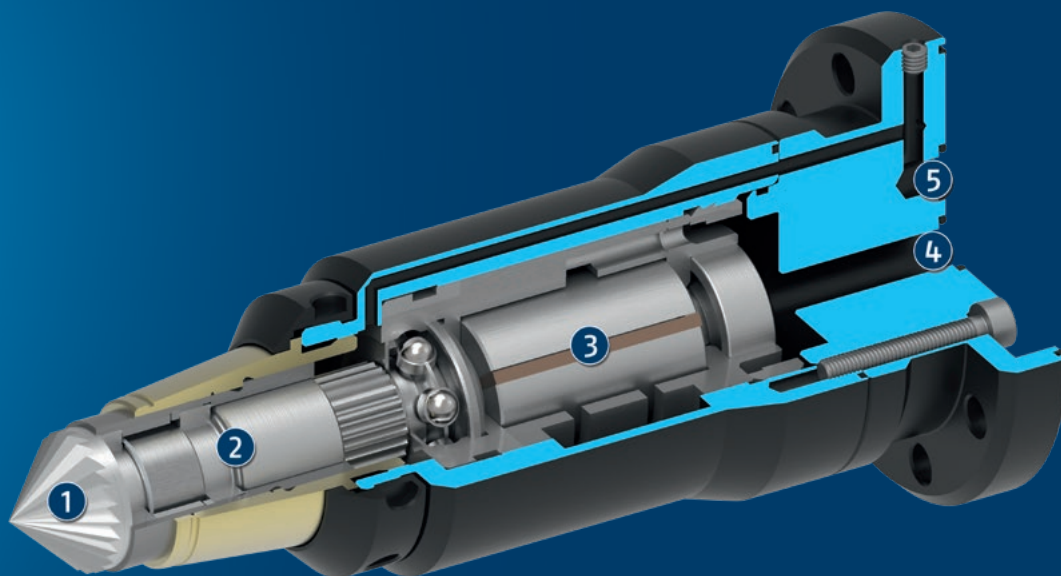


Power
250 W

Functional description

The unit is driven by a pneumatic spindle in straight and 90° version. For being able to follow the tolerances of the machining contour, the spindle is axially seated. The force (rigidity) is needed for moving the spindle

(axially). It is controlled by a second air connection. Depending on the pressure, force is applied on the milling cut surface.



- ① **Milling cutter**
conical 90° for optimal deburring
- ② **Compensation piston**
for adjusting the contact pressure to the workpiece
- ③ **Pneumatic spindle**
High performance spindle with up to 30,000 RPM
- ④ **Pneumatic connection for the spindle**
with large cross-section for compressed air motor
- ⑤ **Pneumatic connection for the compensation**
adjustable rigidity of the spindle via oiled compressed air

General notes about the series

Mounting: on the robot arm or as a stationary unit

Actuation: pneumatic, via oiled compressed air

Scope of delivery: Clamping tool and milling cutters

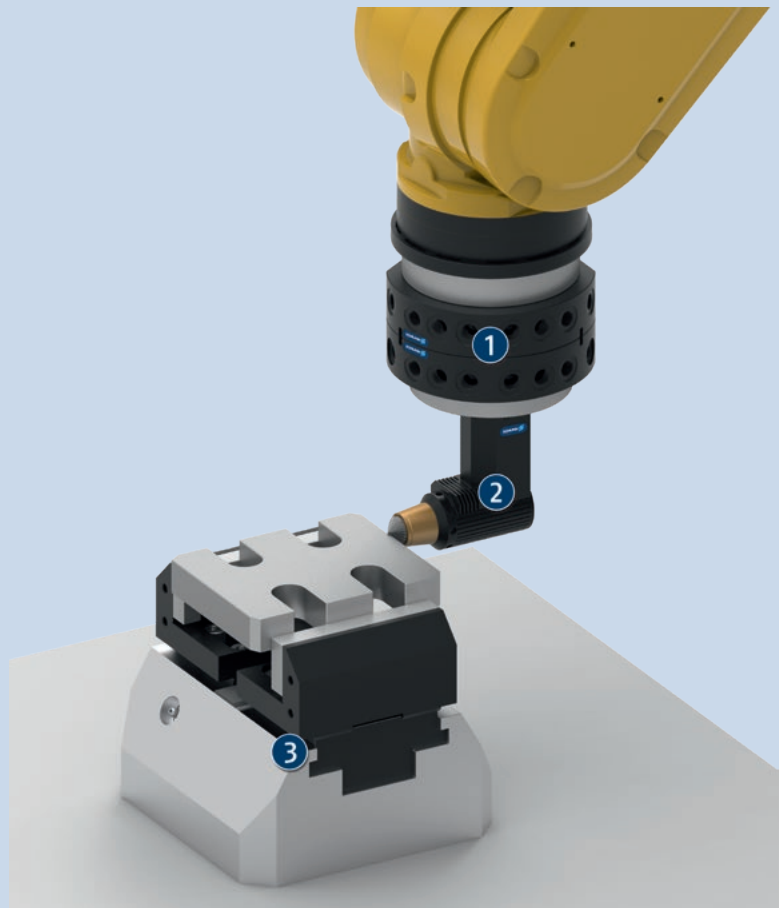
Warranty: 24 months

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 deburring of connecting rod cast parts with changing system for the spindle

- ❶ Quick-change system SWS
- ❷ Flexible deburring spindle FDB-AC
- ❸ 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



Force/torque sensor

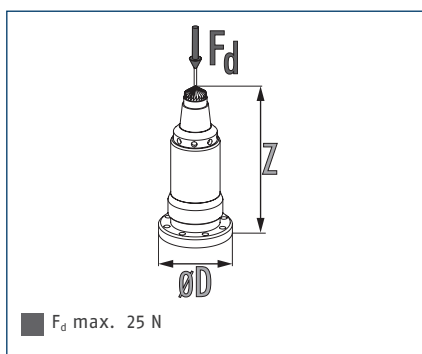
① For more information on these products can be found on the following product pages or at [schunk.com](https://www.schunk.com).

FDB-AC 180

Deburring spindle



Dimensions and maximum loads

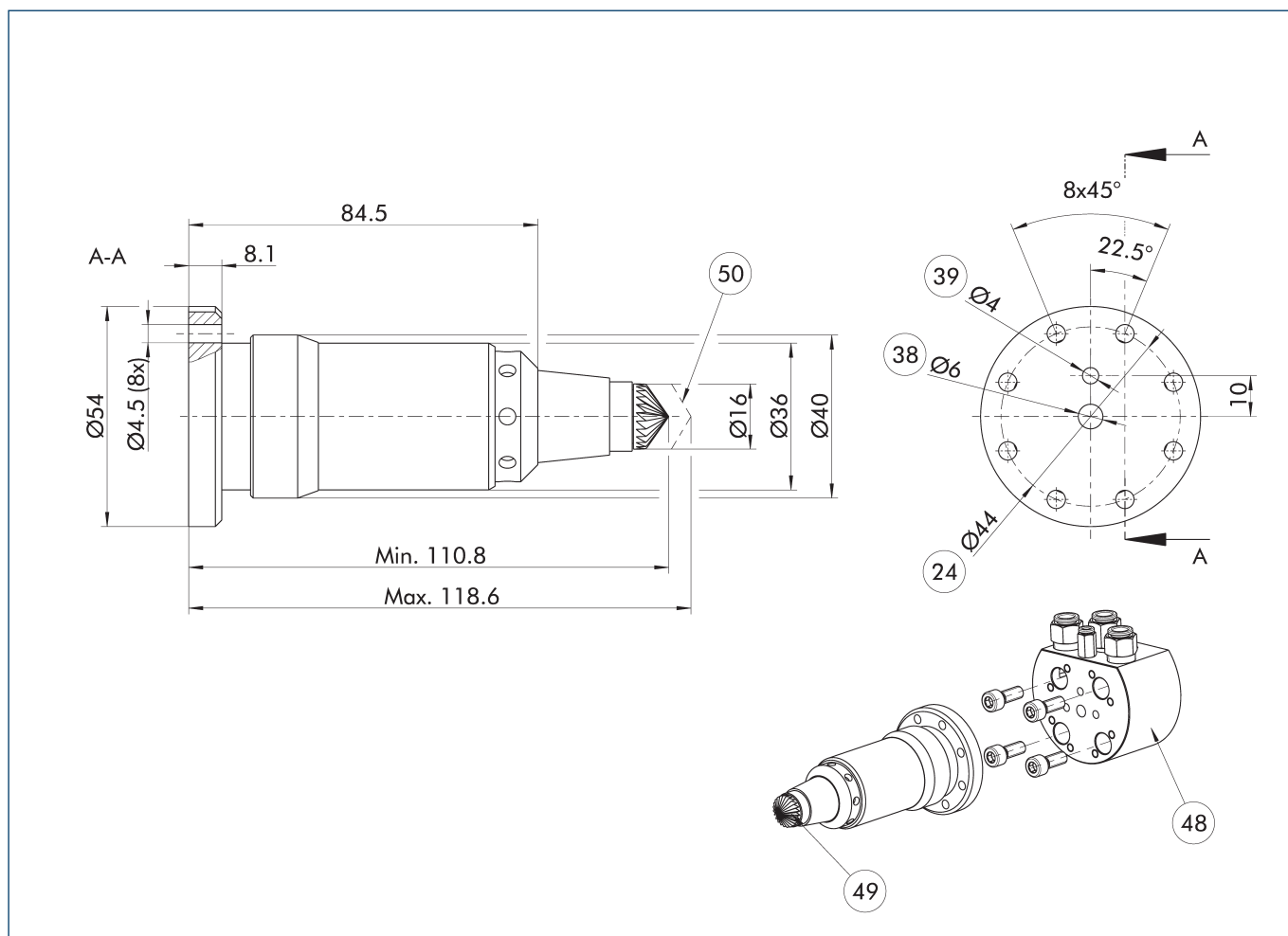


① The indicated forces show the maximum payload.

Technical data

Description		FDB-AC-180
ID		0322207
Power	[W]	250
Max. compensation path	[mm]	±4.1
Recommended compensation path	[mm]	±2
Min. compensation force	[N]	1
Max. compensation force	[N]	25
Min. compensating pressure	[bar]	1
Max. compensation pressure	[bar]	3
Idle speed	[1/min]	30000
Operating pressure	[bar]	6.2
Noise emission	[dB(A)]	<87
Idle air consumption	[l/min]	396
Weight	[kg]	0.51
Min./max. ambient temperature	[°C]	5/60
Dimensions Ø D x Z	[mm]	54 x 118.6

Main view



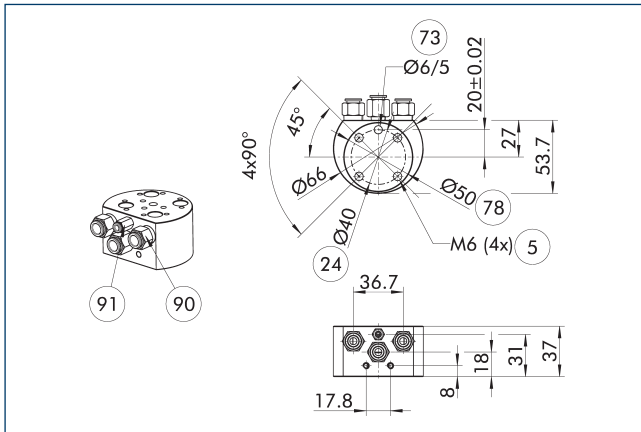
The main view shows the unit in its basic version.

- | | |
|--------------------------------|-----------------------|
| ②④ Bolt circle | ④⑧ Adapter |
| ③⑧ Air connection spindle | ④⑨ Milling cutter |
| ③⑨ Compensation air connection | ⑤⑩ Axial compensation |

FDB-AC 180

Deburring spindle

Adapter plate

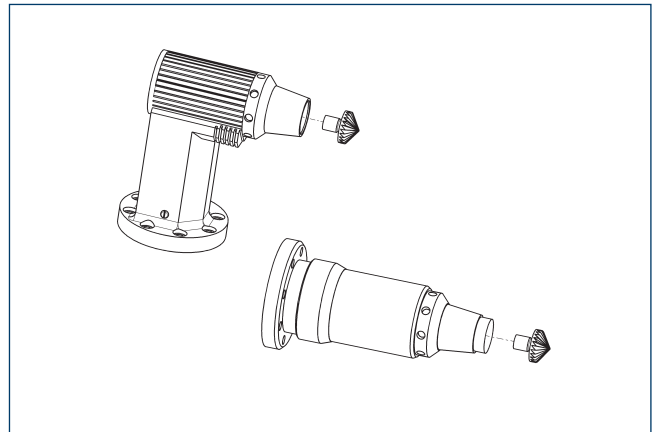


- | | |
|---|-----------------------------------|
| ⑤ Through hole for connection with screws | ⑦8 Fit for centering |
| ②4 Bolt circle | ⑨0 Pneumatic hose connection 8 mm |
| ⑦3 Fit for centering pins | ⑨1 Pneumatic hose connection 4 mm |

Description	ID	Height
		[mm]
Robot side		
A-FDB-AC	9951358	37

① All pneumatic screw connections are included in the scope of delivery.

Cutters for replacements



Description	ID	Application	Angle
			[°]
Cutters for Deburring Spindle			
FDB-AC-DT-4579-C2	9951359	Hard metal	90
FDB-AC-DT-4579-C5	9951360	Steel	90



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