

engraflexx ESP for custom systems or robots

The engraflexx ESP is a radial-action deburring tool with an integrated electric spindle and a wide range of options and capabilities for an automated, reliable deburring process.

The tool is fitted with a collet chuck for deburring cutters, brushes or polishing tools. As standard, the ESP features a 360° lateral spindle deflection function. The motor is controlled via a frequency converter, which is connected to the robot controller or the higher-level machine controller.

Options for specific applications:

- Two-axis deflection function
- Single-axis deflection function: spindle can be swivelled sideways or forwards and backwards
- Deflection lock function or switchable spindle lock
- With increased lateral preload
- AWE-K Automatic Tool Change and Storage System
- For overhead application
- and much more



Accessories for engraflexx tools

Standard conical deburring cutters – for collets Ø6 mm or 8 mm

When using the deburring tools we manufacture, the choice of the actual cutting tools is of crucial importance due to the swivelling spindle.

For every new application, we offer our customers a complete tool solution: the swivelling deburring tool, together with the ideal cutting tool for your specific application. For most applications, special solid carbide cutters are used – standard products are listed below.

Forward-cutting deburring cutters

Art.-Nr.	Axial WZ	Radial WZ	Ød [mm]	ØD [mm]	Angle W	Sketch	Comments
85.050.06	A / G	-	6	6	90°	1	
85.052.06	A / G / S	-	6	6	90°	1	
85.056.06	A / G / S / I	-	6	6	90°	1	
85.050.00	A / G	G	6	10	90°	2	
85.052.00	A / G / S	A / G	6	10	90°	2	
85.056.00	A / G / S / I	A	6	10	90°	2	
85.050.40	A / G	G	6	10	90°	3	angled tip
85.052.40	A / G / S	A / G	6	10	90°	3	angled tip
85.056.40	A / G / S / I	A	6	10	90°	3	angled tip
85.040.00	-	A / G	6	10	60°	2	
85.042.00	-	A / G	6	10	60°	2	
85.046.00	-	A / G	6	10	60°	2	
85.050.16	A / G	-	6	16	90°	2	
85.052.16	A / G / S	-	6	16	90°	2	
85.056.16	A / G / S / I	-	6	16	90°	2	
85.056.20	A / G / S / I	-	6	20	90°	2	
85.056.28	A / G / S / I	-	8	26	90°	3	angled tip

Double-sided deburring cutters

Item no.	Axial WZ	Radial WZ	Ød [mm]	ØD [mm]	Angle W	Sketch
85.076.05	A / G / S / I	-	6	16	90°	4
85.072.05	A / G / S	A / G	6	16	90°	4
85.061.13	A / G / S / I	A / G	6	13	90°	4
85.072.28	A / G / S	-	8	26.5	90°	4
85.076.28	A / G / S / I	-	8	26.5	90°	4

Note:

This overview shows our most commonly used milling cutters and is by no means exhaustive!

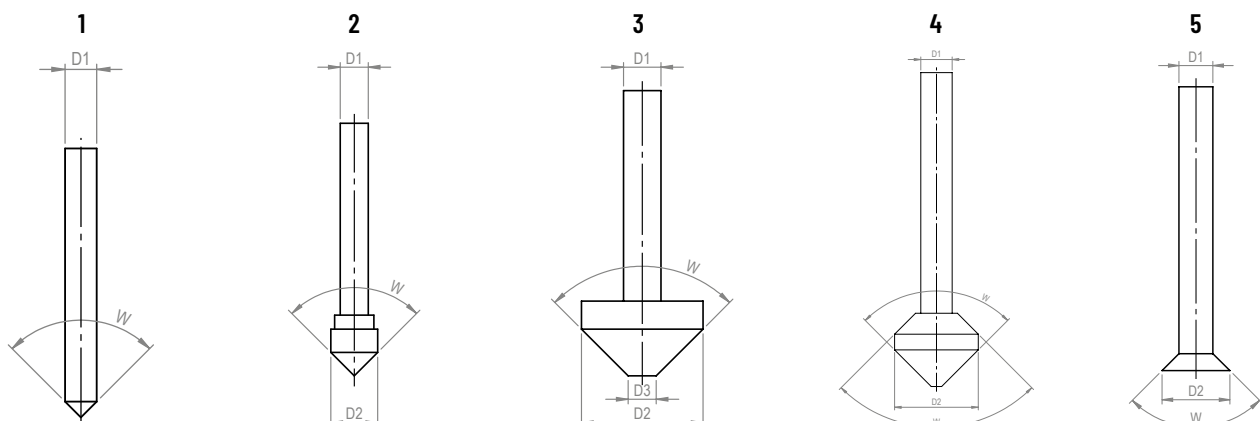
We have over 100 different milling cutters in stock and also manufacture special milling cutters for custom applications. **All our deburring cutters are also available in coated versions.**

Reverse-action deburring cutters

Item no.	Axial WZ	Radial WZ	Ød [mm]	ØD [mm]	Angle W	Sketch
85.063.00	A / G / S / I	-	8	16	90°	5
85.056.05	A / G / S / I	-	3	5	90°	5

Key:

A Aluminium G Cast iron
S Steel I Inconel



Virtually unlimited applications

There is hardly a sector of the manufacturing industry in which our deburring solutions are not already in use. Below is a selection of the most relevant sectors.

Cars



Chassis & Drivetrains



Aerospace



Plant & Mechanical Engineering



Defence industry



Energy & Water



Dental and Medical Technology



Watch industry



The most important wear and spare parts

Although engraflexx deburring tools are designed to be **completely maintenance-free** for mass production, there are process-related wear parts that should be kept in stock to ensure smooth operation on the production line.

- 2-3 deburring cutters per machine (consumables)
- Replacement collets

Maintenance recommendations

- **Cleaning:** Regularly remove swarf and dust from the deflection unit and the collet to ensure that the spindle deflection mechanism operates smoothly.
- **Visual inspection:** Check the deburring cutter for chips, particularly after machining castings containing hard inclusions.

Enquire without obligation

Feasibility assessment and recommendations from an applications engineer.
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