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engraflexx ESP / VA175

A core element of the engraflexx ESP is the laterally deflecting, electric spindle with infinitely variable speed adjustment. This consists of an air-cooled high frequency motor with integrated collet chuck for tool clamping. Thanks to the tried and tested electric drive, efficiency and process-safety are among the special characteristics of the spindle.
The spindle (start/stop command, speed specification etc.) is actuated via the frequency converter that is connected to the robot and the higher-order machine controller.

This tool system is used for deburring work or part reworking on robots or special systems. Anywhere where workpiece areas that are difficult to access (for example recessed lying in housings etc.) are being machined on workpieces whose dimensional or position differences have to be compensated for automatically and with maximum process-safety.

Field of application

Deburring and reworking of workpiece areas that are difficult to access with different or undefined edges.

General information

- Universal use in robots and special systems
- Driven by an integrated electrical high-frequency spindle
- Compact, stable construction

Tool specifications

- Integrated, lateral deflection function up to 25 mm
  - unchanged deflection force even with larger spindle deflection
- Collet chuck for holding the processing tools
  - standard diameter 6 mm (further diameters on request)
- Lateral spindle deflection with adjustable deflection force
  - mechanically, preloaded via spring package
  - stepless adjustment via adjusting knob
  - setting readable on engraved scale
- Driven by an electrical high-frequency spindle motor
  - power consumption 380 W
  - speed is infinitely adjustable via frequency converter (speed 1’000-24’000 rpm)
  - different monitoring functions such as speed stability etc.
- Total weight of the spindle unit: 13.5 kg
- Various options:
  - pneumatically adjustable, lateral pre-tension pressure
  - deflection blocking function
  - automatic tool change unit