ABG

Active Belt Grinder

FER ROBOTICS

patented

Floor-standing unit for robot cell featuring contact intelligence

Robot handcraft®

The easy way to make it feel

If you need a flexible and reliable means of automating your surface finishing processes, look no further than this innovative complete solution for **small and medium-sized workpieces**.
The ABG is an active sensitive belt grinder that provides a custom solution for the automated **high-quality finishing** of fittings, spectacle frames, implants, door handles and small cast parts for the automotive industry, etc.
The floor-standing unit can be easily integrated into a robot cell. Close problematic automation gaps while at the same time improving your product quality – and create processes that are reliable, economical and perfectly reproducible.

Surface finishing processes:
Grinding, deburring, polishing, brushing, etc.

All materials:
Steel, aluminum, titanium, magnesium, carbon, plastic, wood, ceramics, coir, etc.

Passive safety and high-speed control
Mechatronic actuator and sensor element offering high levels of process reliability thanks to the robust mechanical design plus integrated passive safety and high-speed control.

Force-sensitive actuator and mechanically decoupled belt tension
High level of process reliability thanks to the ingenious combination of mechatronic actuator/sensor element, lightweight design, and mechanically decoupled belt tension.

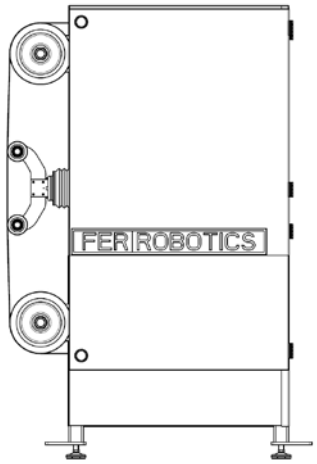
Straightforward system integration and seamless quality control
Amazingly easy to integrate using standard interfaces. The contact situation, position, and force are all fed back continuously, resulting in seamless quality control.

Maximum flexibility and adaptability
Force can be increased in accordance with individual requirements, from 5 N up to a maximum capacity of 250, 500 or 800 N. Maximum power plus individually selectable performance depending on the workpiece.

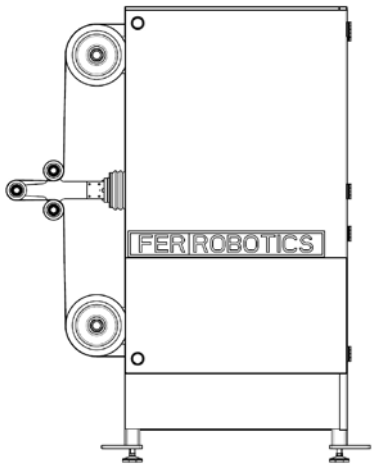
- In-built active tolerance compensation
- Precisely adjustable process forces
- Continuous monitoring of process forces

Highly dynamic

- Prevents grinding marks
- Reduces the number of process steps
- Ensures reproducible quality



ABG with 2-plane head
for bent workpieces



ABG with 3-plane head
for flat workpieces

Spezifikationen

Max. pressing force [N]	5 N to 250 N as standard (optionally: up to 500 N/800 N)
Stroke [mm]	48.0
Weight [kg]	450
Space required L x W x H [mm]	1400 x 850 x 1900
Compressed air supply	Max. 7 bar, 30 µm, ISO 8573-1 Class 3 (water- and oil-free)
Air consumption [l/min] / power [KW]	20 / 4
Power supply	DC 24 V, 4 A AC 380–500 V, 16 A, 50–60 Hz
Ambient temperature during operation [°C]	+5 to +40
Belt speed [m/s]	1 - 25
Interfaces	Standard: Ethernet TCP/IP Optional: Ethernet IP, DeviceNet, Profibus, ProfiNet, analog I/O

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www.ferrobotics.com

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