FULLY ELECTRIC
COMPLIANT TECHNOLOGY

eAOK™ 403 DOUBLE HEADER
ELECTRIC ACTIVE ORBITAL KIT

2-IN-1 SANDING/POLISHING PACKAGE SOLUTION FOR AUTOMATED PAINT REPAIR (FINESSE FINISHING)

The fully electric Active Orbital Kit 403 double header is an intelligent system package with patented Active Compliant Technology. A specially designed linear actuator generates motion electrically and wear-free. An integrated servo amplifier @50microsec provides 20,000x/sec of uncompromisingly reliable and responsive force. In addition, continuous validation of the applied contact force is continuously validated in real time, by innovative redundant force monitoring via sensors and a conditioned calculation model. All critical parameters, such as rotation speed, contact and process force as well as feed rate, may be individually controlled, enabling 100% process control. This precise, highly sensitive technology is ideal for paint repair. The end effector combines an electric random orbital sander and polisher, is very light, space-saving and compact. The advantage is the possibility to operate two tools (without changing) quickly and efficiently on one robot flange. Everything is designed to make the structure-free surface finishing of all materials robot-compatible. This integrated, ready-to-use complete solution thus automates the industrial sanding and polishing process in partial paint repair. The enormously resilient end effector is designed for industrial use and delivers twice the power of commercially available equipment, 24/7. The eAOK 403 double header requires little maintenance and is universally compatible with many abrasives.

Surface treatment: Finesse sanding, polishing, cleaning
All materials: Plastic, steel, aluminum, titanium, magnesium, carbon, wood, ceramics,...

PATENTED
TECHNOLOGY

FERROBOTICS
perfect feeling

eAOK™ 403
DOUBLE HEADER
ELECTRIC ACTIVE ORBITAL KIT

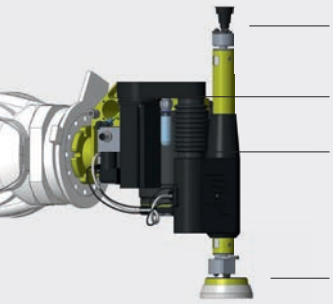
RADICAL INNOVATION

FULLY ELECTRIC 2-IN-1 SANDING-POLISHING-PACKAGE SOLUTION
- User-friendly industrial 4.0 package solution
- Robot-compatible sander/polisher combined with electric ACT system cooperation
- For all industries and materials (also plastic)

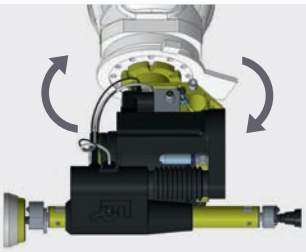
QUICK, FLEXIBLE, SAFE
- High performance and application-optimized system for immediate integration
- Rapid job modulation
- Optimal functionality, productivity and process reliability

CONTROL OF ALL PROCESS PARAMETERS
- Contact force on the surfaces exact and constant in any position
- Active force control with gravity compensation
- Feed rate of the robot
- Rotation speed of the orbital sander/polisher

TOP-QUALITY
- Precisely even surface appearance thanks to a process-optimized package solution
- Specially designed for continuous industrial use
- High repeatability and work at any angle
- The highest quality level 24/7




Sanding applicator with fully electric active contact flange


Fast, axle-accurate tool rotation


Polishing applicator with fully electric active contact flange

SPECIFICATIONS

Ordercode	eAOK/403
Max. force (push/pull) [N]	100 (S2), 80 (S3) - (typical application force 10 - 40)
Stroke [mm]	35
Dimensions [mm]	Max. ~ 422 x 221 x 303 Bolt circle ISO 9409-1-80-6-M8 standard flange ø 80
Dead weight [kg]	~ 12,5
Power supply	24 V DC 400 – 480 V AC
Max. speed [rpm]	10,000 (typical application speed 2,000 - 6,000)
Motor power [W]	785 (S2), 597 (S3)
Excentric stroke [mm]	5 Sanding tool, 14 Polishing tool
Ambient temperature during operation [°C]	+5 ... +45
Protection class	IP65 / if equipped with adequate filters

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