



## AAK™ 515 ACTIVE ANGULAR KIT TOOL CHANGER + 90°-DRIVE

SYSTEM SOLUTION WITH TOOL CHANGER FOR  
FLEXIBLE SURFACE TREATMENT

The AAK 515 is a precisely coordinated system package based on Active Compliant Technology (ACT) and a tool change system optimized for robot use. Sophisticated changeover tools, with straight and 90-degree drive, enable rapid job modulations as a plug-and-play system. This integrated complete solution automates the industrial machining process with individual control of all process parameters: Rotation speed, contact force and feed rate. The end-effector with tool taper holder is equipped with a fully integrated servo motor providing the powerful drive. It is universally compatible with all common abrasive attachments - so no special or manufacturer-dependent consumables are required. The AAK 515 is ideal for many types of surface treatment and offers the highest process quality from one source. The system design is compact and lightweight. The enormously robust end-effector is designed for industrial use, requires little maintenance and delivers performance 24/7.

**Surface treatment:** Axial/radial brushing, angle grinding, deburring, eccentric polishing, cutting, satin finishing,...

**All materials:** Steel, aluminum, titanium, magnesium, carbon, plastic, wood, ceramic,...

**PATENTED  
TECHNOLOGY**

**FR**  
**FERROBOTICS**  
perfect feeling

# AAK™ 515

## ACTIVE ANGULAR KIT

### TOOL CHANGER + 90°-DRIVE



#### DEFINED CONTACT FORCE

Interactive compensation of surface tolerances up to 35.5 mm with guaranteed constant real contact force. No adjustment of robot paths.

#### INTEGRATED GRAVITY COMPENSATION

The defined process force remains constant even with changing orientations. No additional programming effort in the application required.

#### PASSIVE SAFETY AND HIGH-SPEED CONTROL

Mechatronic actuator and sensor element with high process reliability due to robust mechanical design with integrated passive safety and high-speed control.

#### FLEXIBLE AUTOMATION

The versatile and user-friendly tool taper changer with a wide range of tools, is suitable for surface finishing of almost all shapes and materials. The automated tool change (pick-up from tool magazine) is fast, easy and flexible.



### AAK 515

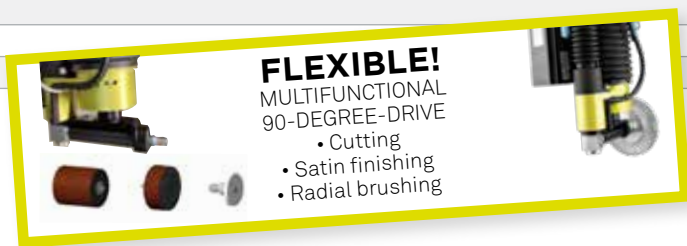
- even contact force
- automated tolerance compensation
- minimal programming effort and almost no start-up time
- automates almost all manual surface treatment tasks



- Control of the feed rate by the robot
- Control of the contact-force on surfaces by ACT
- Control of the rotation speed
- Fast tool change, universally compatible with common abrasive attachments

## SPECIFICATIONS

Ordercode	AAK/515
Max. force (push/pull) [N]	160
Stroke [mm]	35.5
Dimensions [mm]	Max. 240 x 210 x 280 Bolt circle ISO 9409-1-80-6-M8 Standard flange ø 80
Dead weight [kg]	~ 12
Power supply	• 24 V DC (Control circuit) • 400 -480 V AC / 50-60 Hz (Main circuit) • ø 8 mm air supply, max. 7 bar, 30 µm, ISO 8573-1 KL.3 (oil & water free)
Max. speed [rpm]	10,000
Rated motor power (S1) [W]	1,000
Motor peak power (S2) [W]	2,000
Tool Changing System	Tool changer for radial & axial • Grinding • Sanding • Deburring • Polishing • Brushing
Air consumption [l/min]	5 – 10
Ambient temperature during operation [°C]	+5 ... +45
Protection class	IP65 / if equipped with adequate filters



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“ IN PRINCIPLE, EVERY MANUAL SURFACE TREATMENT CAN BE AUTOMATED, SINCE THIS TOOL CHANGER SYSTEM IS MULTIFUNCTIONAL AND THEREFORE SUITABLE FOR ALMOST ALL APPLICATIONS.

Dr. Ronald Naderer, CEO

