



AAK™ 495/595/695 ACTIVE ANGULAR KIT WITH TOOL CHANGER

SYSTEM SOLUTION WITH TAPER TOOL HOLDER
AND 90°-DRIVE FOR FLEXIBLE SURFACE TREATMENT

The AAK 495/595/695 product family is a precisely coordinated system package based on Active Compliant Technology (ACT) and a tool change system optimized for robot use. Sophisticated changeover tools enable rapid job modulations as a plug-and-play system. This integrated complete solution automates industrial surface treatment with individual control of all process parameters: Rotation speed, contact force and feed rate. The end-effector with taper tool holder is available in 3 different power versions, with a fully integrated servo motor providing the powerful drive. They are universally compatible with all common abrasive attachments - so no special or manufacturer-dependent consumables are required. The AAK 495/595/695 product family 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: Radial brushing, angle grinding, cutting, satin finishing, polishing,...
All materials: Steel, aluminum, titanium, magnesium, carbon, plastic, wood, ceramic,...

PATENTED
TECHNOLOGY

FR
FERROBOTICS
perfect feeling

AAK™ 495/595/695

ACTIVE ANGULAR KIT™

WITH 90-DEGREE-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 495/595/695

- 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

Angle grinder with doubled output and 90-degree-drive

Control of the rotation speed

SPECIFICATIONS

Ordercode	AAK/495	AAK/595	AAK/695
Max. force (push/pull) [N]	100	160	250
Stroke [mm]	35.5	35.5	48
Dimensions [mm]	Max. 220 x 194 x 259 Bolt circle ISO 9409-1-80-6-M8 NStandard flange ø 80	Max. 240 x 210 x 280 Bolt circle ISO 9409-1-80-6-M8 Standard flange ø 80	Max. 343 x 299 x 354 Bolt circle ISO 9409-1-80-6-M8 Standard flange ø 80
Dead weight [kg]	~ 7	~ 9	~ 20
Power supply	<ul style="list-style-type: none"> • 24 V DC • 380 - 500 V AC • ø 8 mm air supply, max. 7 bar, 30 µm, ISO 8573-1 Kl.3 (oil- & water free) 		
Max. speed [rpm]	10,000	10,000	8,500
Rated motor power (S1) [W]	597	1,000	3,000
Motor peak power (S2) [W]	785	2,000	5,900
Tool Changing System	Tool Taper Changer for <ul style="list-style-type: none"> • Grinding • Deburring • Cutting • Polishing • Satin finishing • Radial brushing 		<p>Examples</p>
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

