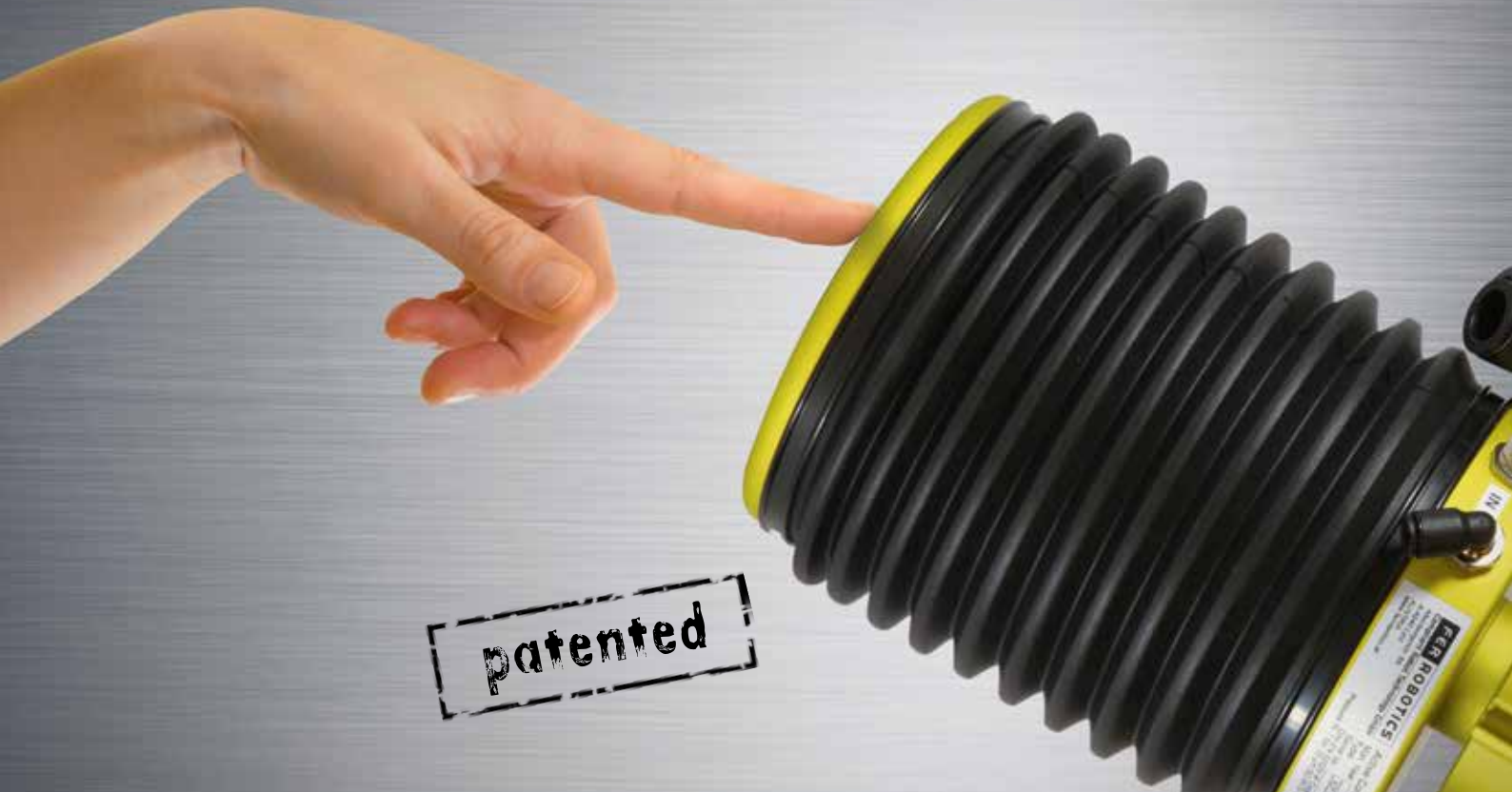


ACF

Active Contact Flange

FER ROBOTICS

Compliant Robot Technology GmbH



Equipment for every robot

Robot handcraft®

The easy way to make it feel

Our patented technology instantly automates jobs with a high demand for sensitivity and flexibility. It guarantees extremely short cycle times and radical economic ROI, even with delicate applications. The ACF automates problematic handcraft and guarantees high standards of quality. It controls every robot. This even makes retrofitting unbelievably easy and persuasive.

Surface treatment:

Sand, polish, clean, laminate, strip, brush, remove burrs, iron, laminate

All materials:

Steel, aluminium, titanium, magnesium, carbon, plastic, wood, ceramic, coconut fibres, ...

Contact-sensitive handling:

Pick & place, insert, tape, join, pack, assembly, glue, component-testing, quality inspection

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Defined contact force

Interactive compensation for surface tolerances up to 100 mm with guaranteed consistent contact force. No adaptation of the robot tracks.

Integrated gravitation compensation

The process force remains constant even with changing orientations. No additional application programming required.

Passive security and high-speed control

Mechatronic actuator and sensor element with a high degree of process security using a robust mechanical construction with integrated passive security and high-speed control.

Simple system integration – highest quality standards

Cleverly simple integration using standard interfaces. The constant feedback on the contact situation, position and actual force is performed smoothly by the quality inspection.

Newest innovation ACF HD

- Shorter payback time
- 6 times higher load capacity
- Larger removal rate
- Low weight
- Size unchanged



ACF XS

- Designed for small robots
- 60 % less weight
- For work spaces within 1000 mm
- Ideal for bonding, joining, pressing, insertion, marking, ironing, lamination,...



Specifications

Produkt	ACF/ 110/01 XS	ACF/ 111/ 01XSHD	ACF/ 110/04	ACF/ 110/10	ACF/ 111/04HD	ACF/ 111/05HD	ACF/ 111/10HD	ACF/ 121/05HD	ACF/ 121/10HD	ACF/ 131/05HD	ACF/ 131/10HD
Max. Force (push/pull) [N]	100	100	100	100	200	250	250	500	500	800	800
Hub [mm]	11,5	11,5	35,5	98	35,5	48	98	48	98	48	98
Dead weight [kg]	1,2	1,4	3,2	3,5	3,5	4,9	6,1	5,1	6,3	5,3	6,5
Max. overturning moment [Nm]	25	25	40	40	250	350	350	350	350	350	350
Max. torsional moment [Nm]	35	35	30	30	250	350	350	350	350	350	350
Height at stroke = 0 mm [mm]	143,7	160,7	190,5	253	200,5	236,7	286,7	236,7	286,7	236,7	286,7
Cross-section area	90 x 75	90 x 75	ø 128	ø 128	ø 128	ø 160	ø 160	ø 160	ø 160	ø 160	ø 160
Bolt circle ISO 9409-1 standard flange [mm]	ø 50	ø 50	ø 50	ø 50	ø 80	ø 80	ø 80	ø 80	ø 80	ø 80	ø 80
Protection class	IP 40	IP 65									
Operating medium		Max. 7 bar, 30 µm, ISO 8573-1 Kl.3 (oil & waterfree)									
Air consumption		5-10 l/min									
Communication interface		Standard: Ethernet TCP/IP Optional: Ethernet IP, DeviceNet, Profibus, ProfiNet, CANopen, Analog I/O,...									
Ambient temperature		+5 ... +45 °C									
Power supply		Standard: DC 24 V / 2 A					Optional Service: 24 V / 4 A				



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