

ACF

Active Contact Flange

FER ROBOTICS

Compliant Robot Technology GmbH



Equipment for every robot

Robot handcraft®

The easy way to make it feel

Our ACF 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

All materials:

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

Contact-sensitive handling:

Place, insert, tape, join, pack, 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

Product	new					new		
	ACF 110-01 XS	ACF 110-04	ACF 110-10	ACF 120-05	ACF 120-10	ACF 111-04 HD	ACF 121-05 HD	ACF 131-05 HD
Max. force (push/pull) [N]	100	100	100	500	500	200	500	800
Stroke [mm]	11.5	35	100	50	100	35	50	50
Max. overturning moment [Nm]	25	40	40	65	65	250	350	350
Max. torsional moment [Nm]	35	30	30	60	60	250	350	350
Height at stroke = 0 [mm]	143.7	190.5	253	236.5	286.5	190.5	236.5	236.5
cross-section area [mm]	90 x 75	ø 128	ø 128	ø 160	ø 160	ø 128	ø 160	ø 160
Bolt circle ISO 9409-1 standard flange [mm]	ø 50	ø 50	ø 50	ø 80	ø 80	ø 80	ø 80	ø 80
Dead weight [kg]	1.2	3.2	3.5	5.4	5.9	3.5	4.3	4.5
Operating medium	Max. 7 bar, 30 µm, ISO 8573-1 Kl.3 (oil & water free)							
air consumption	5-10 l/min							
Protection class	IP 40	IP 65						
Communication interface	Ethernet TCP/IP (standard), optional: Profibus, CANopen, Analog I/O, XML,...							
Ambient temperature	+5 ... +45 °C							



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