quickCONNECTfixture
battery testing solution

- quality assurance
- reproducibility
- quick & easy assembly
- increased productivity
- **testing separator membranes/electrolytes**
- **testing catalysts/electrodes and backings**
- for 25 cm² active area (50cm² on demand)

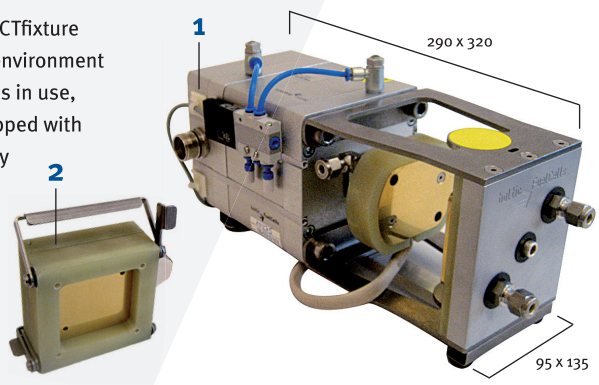
technical data qCf battery testing

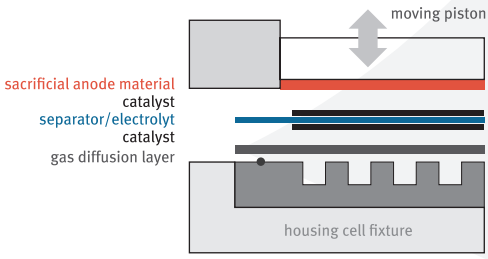
	qCf BT25/100 V1.1 (BT50/125)
weight	5,95 kg
piston diameter (actuator)	⌀ 100 mm; anti-twist, low friction
flowfield material (air)	graphit compound (other on demand)
sacrificial anode material	zinc, lithium, aluminium (or other oxidizing materials)
sacrificial anode thickness	0,01 to 1,5 mm (oxidizing material)
operating temperature	RT to 180°C (200°C short term)
max. force (@ 8bar/116 psi air supply)	6,28 kN / 616 kg / 1412 lbf/ 2.5 N/mm²
air supply device	⌀ 4 mm; electrical 5/2-way valve
oxidant supply (air)	Ø 6 mm Swagelok fitting
connecting-, heating elements	stainless steel / lapped , gold-plated, Viton sealents
delivery includes	qCf, load plugs (Ø 6mm / M6; MultiContact), manual, sense contact
optional equipment	temperature control unit (TCU), backings

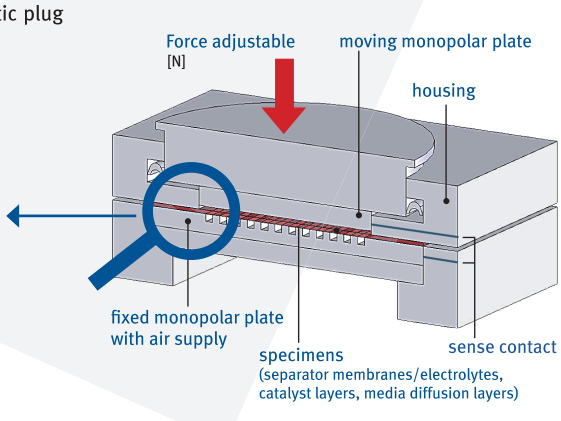
- maximum power density by determination of optimum contact pressure on active area
- continuously adjustable contact pressure assures full reproducibility of test conditions
- quick and easy clamping/assembly of cellFixture without tools and precise exchange of cell internal components
- time saving assembly due to quick release and automatic plug connections

The quickCONNECTfixture qCf is an invaluable tool in research and development and strong demands of quality assurance. All kinds of air-based battery internal components, like sacrificial anodes, catalysts, separators/electrolyts or GDLs can be checked very easily. Enabling fully reproducible test conditions, the contact pressure on the active anode area (25, 50 cm²) can be regulated directly via pneumatic actuator. The flowfield, as standard design from balticFuelCells and custom-made, can easily be exchanged. Besides the basic models BT 25/100 and BT 50/125, qCf is also available as customised solution with different active areas and other customer specific demands.

1 qCf – quickCONNECTfixture – connected to test environment
2 cellFixture – first is in use, another can be equipped with specimens separately







qCf innovative cell concept (patented)

The cross-section of a cellFixture helps to understand the principle of a qCf. The pressure impact of the pneumatic actuator is applied directly to the active fuel cell area in the cellFixture.

Patent: PCT/DE2005/002149
WO 2006/056195

baltic FuelCells

pioneering fuel cell characterisation

balticFuelCells GmbH
web: www.balticfuelcells.de
e-mail: sales@balticfuelcells.de
Hagenower Str. 73
D-19061 Schwerin
+49 (0)385 3993-210