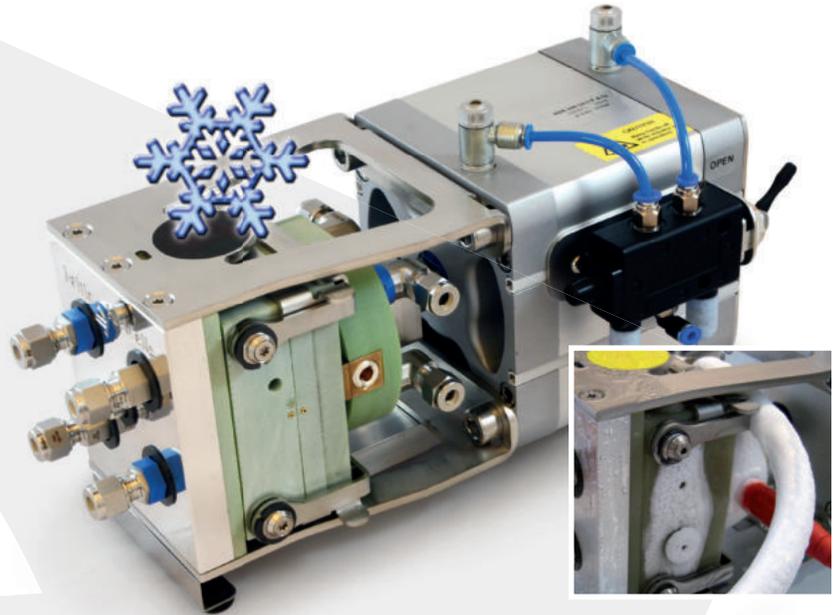


quickCONNECTfixture Liquid Cooling

- ⇒ quality assurance
- ⇒ reproducibility
- ⇒ quick & easy assembly
- ⇒ increased productivity
- ⇒ cold start & deep freeze
- ⇒ extreme temperatures (-20 to 180°C)
- ⇒ for 5, 25 and 50 cm² active area



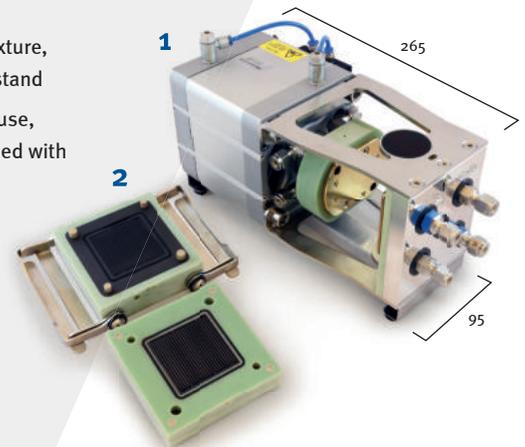
technical data qCf liquid cooling

	qCf FC25/100 V2.0 LC
weight	5.95 kg
piston diameter (actuator)	Ø 100 mm; anti-twist, low friction
liquid cooling	cooling/ heating liquids (external thermostat)
max. operating temp.	-20 to 180 °C (200 °C short term)
max. force (@ 8 bar/116 psi air supply)	6.28 kN / 616 kg / 1412 lbf / 2.5 N/mm ²
air supply device	Ø 4 mm; pneumatic 5/2-way valve
media supply (fuel/air)	Ø 6 mm (Swagelok compatible)
connecting-, heating elements	stainless steel / lapped, gold-plated, Viton seals
delivery includes	qCf, load plugs (Ø 6mm / M6; MultiContact), manual

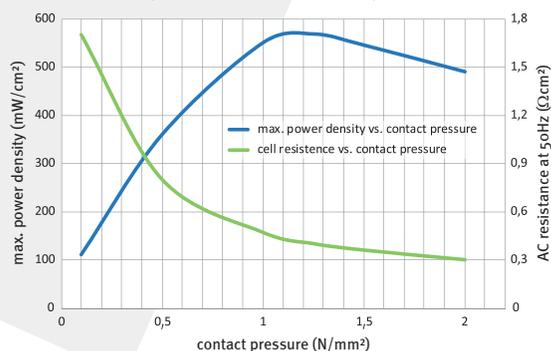
The quickCONNECTfixture (qCf) is an invaluable tool in research and development and strong demands of quality assurance. All kinds of PEM fuel cell internal components, like membranes, electrodes and CCMs, MEAs, GDLs can be checked very easily. Enabling fully reproducible test conditions, the contact pressure on the active fuel cell area (5, 25, 50 cm²) can be regulated directly via pneumatic actuator. Flow fields, both standard designs from balticFuelCells and custom-made, can easily be exchanged. Besides the basic models FC 25/100 and FC 50/125, qCf is also available as customised solution with different active fuel cell areas and other customer specific demands.

- ⇒ maximum power density by determination of optimum contact pressure on active area
- ⇒ continuously adjustable contact pressure assures full reproducibility of test conditions
- ⇒ independence of thickness of internal fuel cell components by self adjusting piston and special sealing concept
- ⇒ no hose coupling and electrical wiring for replacement of cellFixture required
- ⇒ highly comfortable operation and easy assembly of cellFixture into quickCONNECT fixture qCf – 1st is running, 2nd can be fitted with new components
- ⇒ time saving assembly due to quick release and automatic plug connections
- ⇒ quick and easy clamping/assembly of cellFixture without tools and precise exchange of cell internal components
- ⇒ designed for strong demands in the area of quality assurance and lab environments

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



cell performance vs. contact pressure

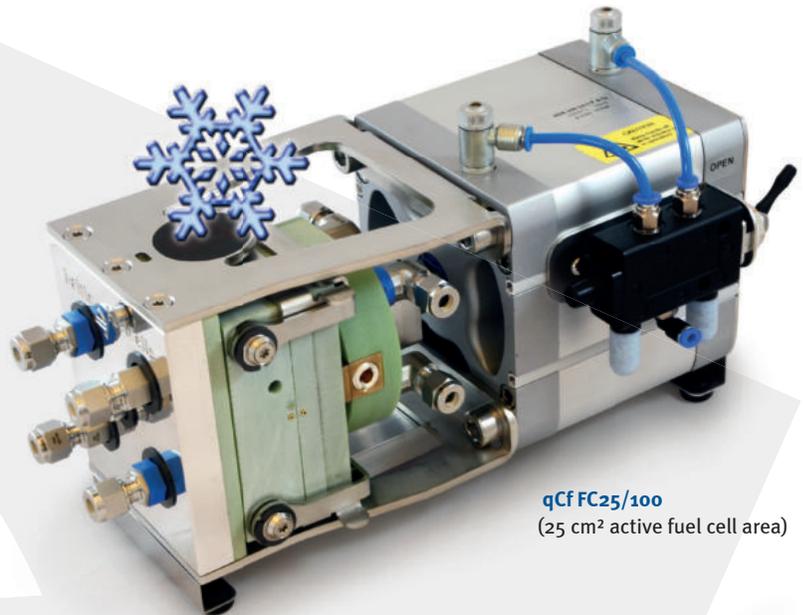


Performance of a balticFuelCells PEFC-CCM (nobel metal load 0.4 mg/cm² each anode and cathode) with different contact pressure impact.

quickCONNECTfixture qCf

testing equipment for fuel cells & batteries

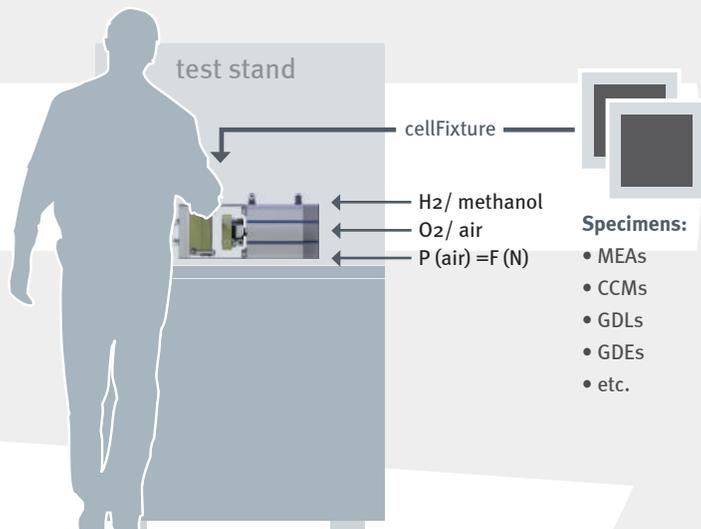
- ⇒ testing of cell components
- ⇒ quality assurance
- ⇒ high reproducibility
- ⇒ quick & easy assembly
- ⇒ increased productivity



qCf FC25/100
(25 cm² active fuel cell area)

fuel cell test equipment

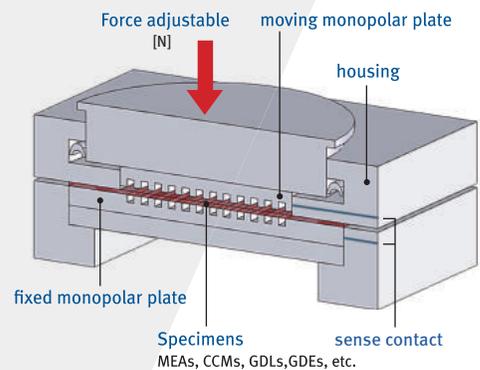
for laboratory & industrial environment



patented concept

qCf consists of a supporting frame and a cellFixture. The supporting frame works as a pneumatic actuator on the cell fixture. A moving monopolar plate in the cell fixture enables to control the compression force on the cell internal specimens.

Patent: EP 1 839 364 38, US 2007/0275287 A1, WO 2006/056195 A1



Easy & quick exchange of specimens/ internal fuel cell components:

