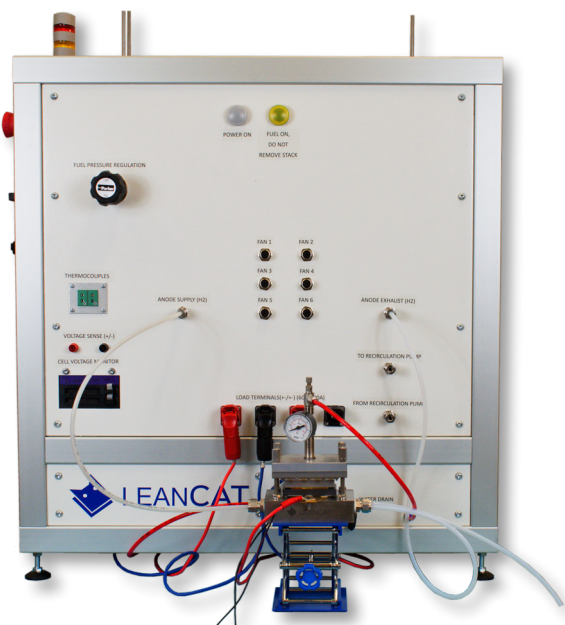


# Fuel Cell Test Station PBT



LEANCAT  
FUEL CELL TECHNOLOGY



## Key features

- Suitable for low-temperature **PEM fuel cells**
- Available configurations for testing single cells with active area up to **25 cm<sup>2</sup>** or **50 cm<sup>2</sup>**
- Current range **up to 120 A**
- Optional potentiostat with **integrated EIS**
- Safety features for **fully-automated** operation
- CE certificate of conformity

## Gas supply specification

	Value
MFC anode gas flow (fuel)	0.04 - 2 slpm
MFC cathode gas flow (oxidant)	0.1 - 5 slpm
MFC additional gas flow (CO, ...)	optional
N <sub>2</sub> purge	automatic

## Pressure control and measurement

Backpressure controller	up to 3 bar
Cell inlet pressure sensor	anode and cathode
Pressure sensors at gas inlets	

## Humidification

Humidifiers	micro-bubbling system
Dew-point range	up to 90 °C
Humidifier by-pass	automatic control
Water reservoir refilling	automatic with low water level warning
Over-temperature shutdown	programmable

## Load bank options

	Value
Electronic load with zero-volt supply	60 V   60 A (max. 25 cm <sup>2</sup> cells)
Potentiostat with EIS	60 V   120 A (max. 50 cm <sup>2</sup> cells) ±5 V   ±20 A (max. 5 cm <sup>2</sup> cells) ±5 V   ±100 A (max. 50 cm <sup>2</sup> cells)

## Cell connectivity

Inlet hoses	heated & thermally insulated
Gas pre-heating	up to 90 °C
Cell heater power supply	2x 24 V
Cell temperature monitoring	3x thermocouple interface
Cell temperature control	integrated PID
Pressurized-air output for testing cell	manually regulated

## Software control and security

Process control	industrial PLC
Data logging	SQL database
Client SW for Windows	

## Safety systems

Features	safety shutdown with N <sub>2</sub> purging emergency stop button hydrogen sensors (1 inside and 1 ambient) alarm system and history
Closed exhaust system	incl. water separator

## Dimensions and weight

Design	bench-top
Size (W x D x H)	600 x 800 x 1000 mm
Weight	100 kg

## Accessories: AirCell (air-pressed test cell)

Variants	1 cm <sup>2</sup> , 5 cm <sup>2</sup> , 25 cm <sup>2</sup> , or 50 cm <sup>2</sup>
Base from anodized aluminum	with electric or water heating
Current collectors	gold-coated
Graphite end plates (optional)	serpentine flow field



AirCell



LEANCAT s.r.o.  
U Pergamenky 1145/12  
170 00 Prague, Czech Republic  
info@lean-cat.com  
[www.lean-cat.com](http://www.lean-cat.com)



TS100W