

AUTOMOTIVE FUEL CELL

Stack Test Station





- » Precision instrumentation for reliability and repeatability
- » Comprehensive safety features
- » HyWARE II™ control and automation software
- » Data monitoring of CVM and all process parameters
- Easily expandable for additional I/O and diagnostic tools
- » Fully automated for unattended operation
- Two-piece design for ease of installation
- » Steam or contact humidification technologies available
- » Resistive or regenerative loads available
- » Available CE certificate of conformity



G700 Features

- » Optimized footprint
- » Integrated Lexan safety enclosure
- » Automatic N₂ purge on shutdown
- » Integrated fume hood with H₂ sensor
- » Liquid stack cooling capability
- » Optional regenerative load bank
- » 17" LCD monitor and PC
- » Ample 19" rack space
- » Water balance capability
- » Optional humidifier gas by-pass
- » Generous workspace for the test article with Dri-Dek® work surface

The G700 is the most sophisticated large-stack test station in the world. It is the full stack test unit of choice for the world's automotive OEMs and high power fuel cell developers.

HyWARE II™: Our control and automation software offers exceptional functionality with a user-friendly graphical interface. Enhanced with our proprietary HyAL™ automation language and load following technology, HyWARE II comprehensively manages the full range of test station parameters with a simple user-friendly interface that permits even novices to assemble automation scripts in minutes. HyAL is exponentially more powerful than look-up table automation systems, and computer programming skills are not required to create even complex automation scripts. Greenlight even offers optional pre-written scripts to help you start testing right away.

Specifications

PERFORMANCE COMMITMENT:

At Greenlight, we pride ourselves on making the world's best battery testing equipment. We are committed to your satisfaction and we will do whatever it takes to meet or exceed your expectations.

Includes 3 levels of safety:

- 1. Hard-wired interlocks
- 2. Factory software interlocks
- User-configurable software interlocks (warning high/low alarms and shut-down high/low alarms)
 - » N₂ purge
 - » H₂ sensor
 - » Manual emergency stop
 - » Optional stack enclosure

POWER RANGE	10 - 100 kW; available to 250 kW
GAS FLOWS	(custom ranges available)
Standard anode flow range	10 - 2000 nlpm; available to 3000 nlpm
Standard cathode flow range	25 - 5000 nlpm; available to 7500 nlpm
GAS MIXING	
Anode and cathode inlets	up to 8 gases available
GAS HUMIDIFICATION	steam injection or contact available
Dew point control	up to 90°C † (194°F)† higher temperatures available
Gas temperature	up to 110°C [†] (230°F) [†] higher temperatures available
STACK COOLING	
Temperature control (facility provided fluid)	up to 95°C (203°F) [†]
STACK PRESSURE CONTROL	
Back pressure control	up to 300 kPa [†] (45psi) [†] higher pressures available
PROGRAMMABLE LOAD BANK	optional: resistive or regenerative available
CELL VOLTAGE MONITORING	
Standard number of channels	64 channels in base model; up to 800 additional channels available (average accuracy +/- 1mV)
DIMENSIONS (L x H x W) (approximate)	3500 x 2300 x 1600 mm (137 x 90 x 63 in)

 $\ \, \text{1 Dependent on actual operating conditions - higher temperature, pressure options available}$

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