Smart Charge 5

TRACER GAS CHARGING SYSTEM

The Smart Charge 5 is a fully automatic, custom configurable evacuation and tracer gas backfill system with built-in gross leak test. The system is ideally suited for pre-charging of product with tracer gas, such as Helium, Hydrogen or others prior to the leak test processes. It can also be used with any gas charging application that requires evacuation and subsequent pressurization of a test product.

BENEFITS

- → 177.8 MM USER-FRIENDLY DISPLAY TC
- → PORTABLE
- → DATA LOGGING
- → DIGITAL PART PRESSURE WITH 3 SELECTABLE UNITS
- → PASSWORD PROTECTION PREVENTS UNAUTHORIZED ACCESS
- → FLEXIBILITY FOR UP TO 50 RECIPES
- → FULL AUTOMATIC CYCLING

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Performance

- Base unit performs evacuation (-850 mbar),vacuum decay test and tracer gas backfill to 48 bar. Units can be configured to perform evacuation to lower vacuum levels.

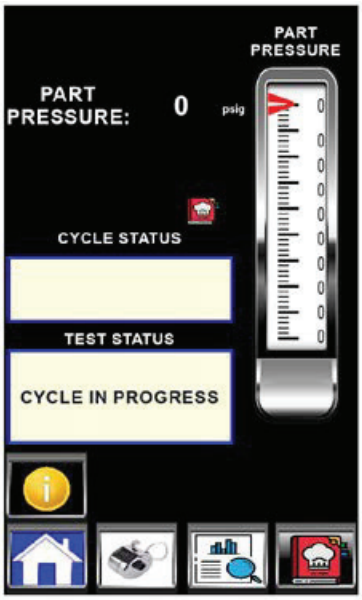
Options

- Low pressure feature, 0-1.4 bar
- Nitrogen charge up to 48 bar
- Barcode scanner feature
- He-490 Paired operation
- Analog
- User I/O
- Printer

Standard Capabilities

- Maximum fill, pressures are up to 48 bar
- Ability to store up to 50-part recipes
- Touch screen 177.8 mm color (HMI) for full system configuration/diagnostics display
- 16-bit analog input resolution on the pressure transducer
- System includes all necessary controls, gauging, valvingand
- 3CFM oilless product evacuation pump
- Allen Bradley MicroLogix 1400 PLC for all control, set- points, and lockout password functions
- Data storage and retrieval from front mounted USB port

Main Monitoring Display



Main Features

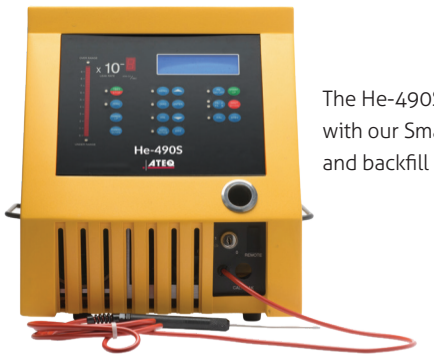
- Recipes to include up to 10 leak locations, with user configurable dwell at each site
- Serial printer output
- Data logging over Ethernet
- Graphical user interface with color touch screen
- 2 inputs; 2 outputs available for external use, such as for future clamping, etc.
- Password protection prevents unauthorized access
- Built-in gross leak test eliminates tracer

Technical Specifications

Dimensions	(W x H x D): 344 x 395 x 618 mm
Power	Universal voltage 110 vac or 220-Volt AC, 50 - 60 Hz, 6.5 Amps nominal
Utility Fittings	1/4" NPT female 1/2" NPT female for Part Evacuation
Pressure Transducer	Accuracy of ± 0.25%.
Valving	Fast acting pull type solenoid featuring epoxy encapsulated design
Manifolding	Seamless tubing with compression fitting interconnects. Helium leak tested to $1x10^{-6}$ mbar.l/s@50 bar
Product Evacuation Pump	Air Driven Venturi Pump Providing vacuum level down to -900 mbar
Electronics	Microprocessor-based programmable logic controller
Gauging	Digital part pressure and leak rate displayed on operator interface

Other Instrument

- He-490S Helium Leak Detector



The He-490S can be fully integrated with our Smart Charge 5 evacuation and backfill station.

Specifications subjects to change without notice, non-contractual photos. February 2025.

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