Automate your helium filling and leak test process with LACO Technologies’ Helium Charge System (HCS). The Helium Charge System is a flexible controller that allows for charging, evacuation, proof testing, and decay testing of products for tracer gas leak testing. The standard controller can be configured for automated hard vacuum, HATS™, sniffing, and accumulation helium leak testing methods.

**FEATURES**

- Includes basic helium charging with part evacuation, air fill, and helium recovery options
- Comprehensive flow and pressure ranges available
- Fully automated testing with four helium leak testing methods: hard vacuum, HATS™, sniffing, and accumulation
- Complete part testing capabilities including system calibration with a calibrated leak standard
- Automated part clamping / sealing
- Up to 100 customized test recipes
- 5.7” color touchscreen
- Tooling, chambers, or software customization

**OPTIONS & ACCESSORIES**

- Customizable to meet customer requirements
- Electronic regulators
- Helium recovery
- Flow / occlusion test
- Control power to evacuate pump
- Bar code reader and ticket printer

**COMMUNICATION & DATA LOGGING**

- Ethernet interface and remote control (RS232)
- Enter test ID data manually or via bar code
- Test summary log or live data stream to .csv file
- 2 GB of test data storage
- Retrieve data by SD card or Ethernet connection

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>CONTROL SYSTEM</td>
<td>Micro controller with 5.7” color touchscreen and illuminated start/stop buttons</td>
</tr>
<tr>
<td>COMMUNICATION</td>
<td>Ethernet, RS232 remote control, optional bar code serial port</td>
</tr>
<tr>
<td>INTEGRATION METHODS</td>
<td>Fill only, hard vacuum, HATS™, sniffing, and accumulation</td>
</tr>
<tr>
<td>TEST PRESSURE</td>
<td>&lt; atmosphere up to 3000 psig</td>
</tr>
<tr>
<td>PNEUMATICS</td>
<td>Compressed air required (70-120 psig)</td>
</tr>
<tr>
<td>DIMENSIONS</td>
<td>11” H x 16” W x 16” D with sloped front</td>
</tr>
<tr>
<td>MOUNTING</td>
<td>Table top box or system frame mount</td>
</tr>
<tr>
<td>ELECTRICAL</td>
<td>90-250 VAC, 50/60 Hz, 500 Watts, IEC C13 connection</td>
</tr>
<tr>
<td>CONTROL OPTIONS</td>
<td>Controller includes spare I/O (digital and analog) to provide customized solution</td>
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The document outlines the PART NUMBER MATRIX and options for the HELIUM CHARGE SYSTEM (HCS).

**PART NUMBER MATRIX**

- **Prefix/Controller**
  - Prefix: HCS-1AXXR
  - Controller: Pre,fi,xx/

- **Helium Fill**
  - A = 0-15 PSIA Medium Flow
  - B = 1-25 PSIG Medium Flow
  - C = 2-125 PSIG Medium Flow
  - D = 5-450 PSIG Medium Flow
  - E = 5-1000 PSIG Medium Flow
  - F = 25-3000 PSIG Medium Flow
  - H = 0-15 PSIA High Flow
  - J = 1-25 PSIG High Flow
  - K = 2-125 PSIG High Flow
  - L = 5-500 PSIG High Flow

- **Manifold**
  - 1 = Single

- **Air Fill**
  - A = 0-15 PSIA Med Flow
  - B = 1-25 PSIG Med Flow
  - C = 2-125 PSIG Med Flow
  - D = 5-450 PSIG Med Flow
  - E = 5-1000 PSIG Med Flow
  - F = 25-3000 PSIG Med Flow
  - H = 0-15 PSIA High Flow
  - J = 1-25 PSIG High Flow
  - K = 2-125 PSIG High Flow
  - L = 5-500 PSIG High Flow

- **Part Evacuation**
  - X = None
  - V = ~75 Torr, Venturi
  - P = <1 Torr, 2-Stage Pump

- **Options**
  - R = Helium Recovery
  - C = Calibrated Leak Evacuation
  - P = Control Power to Evacuate Pump
  - F = Flow Test
  - V = Deep Vacuum Testing/Gauge (Pirani)
  - T = TCM (see below for details)
  - H = HATS Controls
  - L = Hard Vacuum Control
  - P = 2 Part/Tooling Pneumatic Outputs

**HCS ACCESSORIES**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barcode Reader for HCS</td>
<td>TCM-BC</td>
</tr>
<tr>
<td>Pressure Relief Valve to Customer Specified Pressure</td>
<td>Upon Request</td>
</tr>
</tbody>
</table>

**TCM OPTION INCLUDES:**

- Full integration with TitanTest™ helium leak detector
- Bar code reader and ticket printer
- Powerful and configurable data logging capabilities
- Ability to remotely monitor the TitanTest™ leak detector