

# Seal-Connect®

## Testing Capabilities and Specifications



Test Equipment	
Size	Fully integrated one liter (5 in. dia. X 9 in. long/ 12.70 cm dia. X 22.86 cm long) pressure vessel with heating/cooling jacket & programmable controllers featuring closed-loop PID componentry
Proof Pressure	30,000 psi (206.8 MPa)
Temperature	70°F – 650°F (21°C – 343°C)
Pressure/Temp. Max	28,000 psi (193 MPa) @ 500°F (260°C)
Helium Leak Detector	Varian Auto-Test 947
Thermal Cycle Oven	Blue M 650°F (343°C) with programmable controller
Digital Force Gage	Ametek AccuForce III, 0 – 50 lb.
Electrical	Kiethly Micro-ohm Meter—Contact Resistance Meter; Simpson Model 405 Megohmmeter 0 – 5000 VDC; Fluke Model 8062A Digital Multimeter
Evaluation	Sciencescope XLT-V plus microscope with minitron CCD video camera and Hitachi color video monitor

As new products are added, Greene Tweed engineers will determine appropriate testing to qualify the design. However, all new Seal-Connect® products are qualified per a standard testing sequence.

In addition, long-term tests are run to characterize creep tendencies on many designs, and pressure/temperature cycling is used to verify service ratings and estimate life cycles. Consult Greene Tweed Seal-Connect® engineers for other tests and specifications.

Tests	
High Pressure	20,000 psi (137.9 MPa) @ ambient temperature, hold 1 hour
Visual	Inspect thermoplastic surface at 20X magnification to ensure no dimples or cracks indicating the presence of molding voids
High Temperature and Pressure	20,000 psi (137.9 MPa) @ 400°F (204°C) ramp to ultimate temperature and pressure simultaneously, hold 1 hour
Dimensional Stability	Verify and record dimensional changes, if any, during pressure and temperature testing
Hermeticity	Using one atmosphere differential pressure, verify that parts are hermetic; they must resist the passage of helium at a leakage rate less than 1 X 10 <sup>-8</sup> /cc/sec
Insulation Resistance	Verify 20,000 mOhms minimum @ 2500 VDC and ambient temperature; 5000 mOhms minimum @ 2500 VDC and 400°F (204°C)

### Contact Us

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