

TestResources provides users a wide range of capabilities when it comes to environmental chambers and ovens. We offer standard products and engineered solutions for virtually any non-ambient test condition. We can handle all of your environmental testing needs from chambers, to grips, to pull rods (cooled and standard), to extensometers to carts for moving the chambers around. When you partner with TestResources, you can rest assured that you have the best solution for your testing needs at the most cost effective price available. We take the risk and challenges out of testing.

Features and Benefits

Increased Return on Investment

- We don't just offer chambers, we are total system solution providers and full testing system solution integrators
- We deliver turnkey environmental testing solutions, so we know all aspects of the problems and the solutions. (I.E. fitting the chamber and grips into fixed load train dimensions and fixed test space.)
- We know the questions to ask, that you may not be thinking about
- Don't invest in only part of the solution. We can handle all of your environmental testing needs from chambers, to grips, to pull rods (cooled and standard), to extensometers to carts for moving the chambers around

Safe Operation

- Superior insulation, resulting in cooler external temperatures
- Door Interlocks that cut power to the heaters or cooling devices and fan, when opened to limit exposure to the operator
- Rear protection cover
- Fused electronics and dedicated power supply circuit breaker
- Breakaway chamber floor option to reduce the risk of chamber destruction in the case of a collision with a bottom mount hydraulic actuator
- Optional carts for moving the chamber in and out of the load frame when not in use, which eliminates the possibility of operator injuries from lifting heavy equipment

Efficiency & Throughput

- Fast ramping to set point temperatures
- Optional sliding chamber rail option allows for moving the chamber in and out of the load train quickly, when the chamber is or is not needed
- Optional U-Shaped load train ports allow the grips to remain attached to the load train while the chamber is being moved in and out. This is especially useful when sample loading is easier done without the chamber in the way
- Optional viewports and laser Extensometers making strain measurements easy
- Chambers that can go up to 620C° (1150°F), allows for more working space and can eliminate the need of changing to a furnace for moderately high temperatures
- Multi-sample fixturing offered and accommodated within one chamber

User-Friendly

- Internal light makes sample setup and viewing easier
- Simple "set it and forget it" setpoint control
- Easy auto-tune, tuning features
- Low maintenance
- Heated window options for low temperature testing, so you do not have to deal with frost build up on windows
- Generous sized load train ports make for easy sample loading
- Extensometer ports make for easy cable management of extensometers or other equipment that you may need pass-thrus into the chamber
- Sliding rails and U shaped load train port inserts make moving the chamber in and out of the load frame a breeze
- Smart pull rod design eliminates hassles of air line management for pneumatic grips

Benchmark for accuracy, giving you better results

- Proven reliability of K type thermocouples
- Top of the line PID type closed loop controllers minimizing over/under shoot and improving stability
- Simplistic Auto-tuning compensating for variations in heat loads due to sample and or fixturing size
- Forced air convection blower means better thermal homogenization
- Close fit load train port inserts means less thermal losses and better temperature consistency and less thermal gradients
- Temperature compensated load cells, lessening thermal effects on load readings
- Water cooled pull rod options, that limit thermal effects on the load cell

Our environmental chambers are designed to fit any brand of test machine. Our modular design principles allow the environmental chambers to be used on test machines from TestResources, Instron®, MTS®, Tinius Olsen® and almost every other brand of machine.



Specifications

Load Frame Types	Single Column, Dual Column or Biaxial
Temperature Range	-269°C to +620°C (-450°F to 1150°F)
Humidity Range	-40°C to +150°C (-40°F to 300°F), 10 to 90 % Relative Humidity
Interior Width Range	152.4 mm to 1524 mm (6 in to 60 in)
Interior Height Range	254 mm to 2286 mm (10 in to 90 in)
Interior Depth Range	152.4 mm to 1524 mm (6 in to 60 in)