

Standard and Custom Thermal Chambers

Sigma Systems employs over 50 years of designing temperature chambers that are optimized for the application. We offer a wide range of chamber shapes, sizes, and configurations that accommodate the needs for test access, cable routing, test visibility, wide temperature ranges, and rapid temperature transitions.

Features and Options

- ▶ -185° to +500°C with transition rates up to 100°C/minute
- ▶ Chamber sizes: height, depth, and width configured for your test setup
- ▶ Test access: cable notches, access ports, pull-off doors, shelves, windows, all sized and located to test setup
- ▶ Control and communications: Touch-screen controller, IEEE-488 GPIB, RS232 Serial, Ethernet, Telnet, web server



Precision control, multiple I/Os, and diagnostics

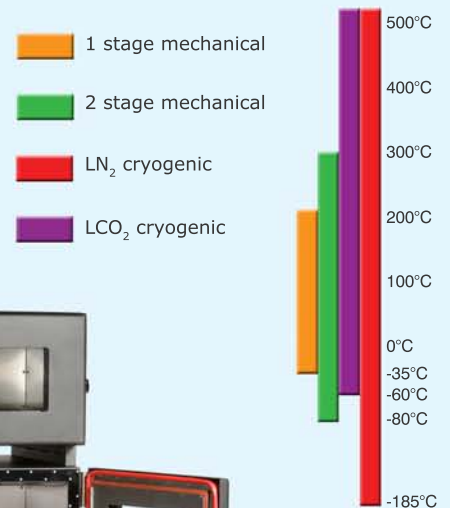
- ▶ Castered stands, bench top, rack mount configurations
- ▶ ISO 9001:2008, RoHS, CE, UL61010

Cryogenic vs. Mechanical

Cryogenic cooling systems use Liquid Nitrogen (LN₂) or Liquid Carbon Dioxide (LCO₂) for rapid transitions and wide temperature ranges. They typically have a lower initial cost but require replacement of expendable coolants.

Mechanical cooling systems use compressors and conventional refrigerants in a closed-loop cooling system. They typically have a higher initial cost but are less expensive to operate.

Temperature Ranges



Standard and Custom Thermal Chambers

Sigma Thermal Chambers for a variety of industries and applications



guidance telemetry systems



avionics systems production



PCB batch production



LED production



telecom components



industrial components



materials tensile



industrial sensors