

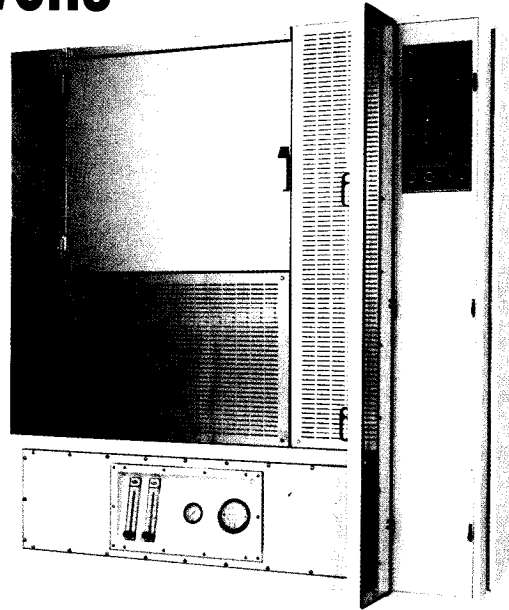
Ultra-Temp[®] clean room ovens

Designed with construction features tailored to high temperature operation in Class 10 (M2.5) processing environments

- ◆ **Number Eight "Mirror" polished stainless steel exterior and interior**
 - including heat shields for safety
 - minimize room convection currents
- ◆ **All exterior panels fasten with low particle shedding ACME thread screws with Teflon[®] inserts**
- ◆ **All bearing surfaces bushed with Teflon[®]**
 - to minimize particle generation
- ◆ **Welded chamber housing**
 - eliminates insulation leakage into facility
- ◆ **Exterior painted surfaces coated with POLANE[™] high gloss polyurethane paint**
 - for easy cleaning and near zero particle generation.
- ◆ **Electronics enclosure meets NEMA 12 requirements**
 - eliminates leaking of contaminated air into clean room
- ◆ **Electrical enclosures equipped for exhausting outside of clean room**
- ◆ **Clean room assembly/ triple bagged for shipment, standard**
 - minimizes clean room qualification time.
- ◆ **Silicone free seals**
 - Teflon[®] inner chamber seals
 - Viton[®] door seals
 - water jacketed door seals to maintain seal integrity
- ◆ **Optional rear "chaseway"**
 - for easy access to filters and cooling coils

High temperature Class 10 (M2.5) clean processing to minimize defects

- ◆ **Fully removable and cleanable inner chamber side walls and plenums**
- ◆ **Five sealed thermocouple ports, standard**
 - for product monitoring
- ◆ **Particle sampling port**
 - to assure process control
- ◆ **Exclusive Blue M high temperature recirculating air filtration system**
 - laminar air flow for temperature control
 - easily removable Class 10 ULPA filter
 - all recirculated air continuously filtered
 - no use of clean room air
 - sealed from environment eliminating the risk of facility contamination
 - ULPA filter is cooled for protection against particle shedding
 - filter overtemperature protection
- ◆ **Removable stainless steel cooling coil and fittings**
- ◆ **Easily accessible heating element package**



DCC8-500G Clean Room Oven

- ◆ **Horizontal air flow**
 - assures uniform thermal performance under all loading conditions
- ◆ **Inconel[®] sheathed heating elements**
 - for low particulate generation
- ◆ **Magnehelic[®] pressure gauge**
 - to measure filter loading
- ◆ **Chamber pressure gauge**
 - assures positive chamber pressure
- ◆ **Exclusive Blue M gas delivery system**
 - gas introduced at the blower shaft insures proper mixing and eliminates the possibility of air being drawn into the chamber
 - electro polished stainless blower wheel to minimize contamination
 - purge and run flow meters for accurate and complete chamber inerting
 - suitable for inert gases and non-flammable forming gas (Max. 8% hydrogen)
- ◆ **Direct drive blower**
 - multi-blade centrifugal blower with matched helical scroll
 - high volume air delivery
 - dynamically balanced for minimum noise and maximum reliability
 - lifetime lubricated motor

Blue M Clean Room Oven Alarms and Safety Devices

- ◆ **Pressure relief valve**
 - installed in oven exhaust port
- ◆ **Filter overtemperature protection**
 - separate control and alarm protects ULPA filter from exposure to high temperature damage
- ◆ **Main circuit breaker**
 - provides short circuit and ground fault protection
 - interlocked to prevent control enclosure from being opened when circuit breaker is in "ON" position
- ◆ **Water Inlet flow sensor**
 - sensor detects presence of cooling water

Optional:

- ◆ **Three emergency power off pushbuttons**
 - two on oven front (clean room area)
 - front face of chamber and control compartment
 - one at the backside of oven (service area)

Operating characteristics

Temperature range: 15° C above ambient to +500° C (+932° F)
 Uniformity: ± 2% of setpoint
 Control accuracy: ±0.5° C
 Resolution: ± 0.1° C or 1° F

Empty chamber performance at rated voltage

Ultra-Temp Clean Room Oven Options

- Rear door for "pass through" processing
- Low nitrogen pressure interlock
- Pro 600 programmable temperature controller.
 - full 200 step/99 program with standard RS-232 communications. Also available with RS-422/485 or IEEE 488 communications
- Emergency power off circuit with 3 push buttons
- SCR power controller in lieu of solid state relays
- Variable speed, high output blower system
- Flanged for through-the-wall mounting

Condensed specifications

Model	500
Interior volume	7.8 cu.ft. (220.0 liter)
width	22.0 in. (59.9 cm)
depth	24.5 in. (62.2 cm)
height	25.0 in. (63.5 cm)
Exterior Overall	
width	80.0 in. (203.0 cm)
depth	40.0 in. (101.0 cm)
height	68.0 in. (172.0 cm)
machine footprint	22.2 sq.ft. (205.0 sq.m)
Electrical Service	
240 VAC 3 ph. - 60 Hz	
Heater Capacity	56 KW
Line current (per phase)	140 Amps
480 VAC 3 ph. - 60 Hz	
Heater capacity	56 KW
Line current (per phase)	70 Amps