



Stability Test Chamber

Lunaire's Stability Test chambers are available in four convenient workspace sizes of 8, 16, 32, and 58-cubic-feet with a variety of temperature and humidity combinations, these chambers provide the flexibility for a wide range of uses. The CEO Model chambers feature a high volume horizontal type airflow with electric heating and refrigeration systems. Applications include ICH Q1A stability testing, accelerated shelf-life studies, package testing, controlled temperature storage, bio-medical research among many others. Chambers can also be configured as intrinsically safe to allow for hazardous materials testing applications.

► ICH Q1A Pharmaceutical Stability Guidelines

- Long Term: 25°C/60% RH, 25°C/40% RH, 30°C/35% RH or 30°C/65% RH
- Intermediate: 30°C/65% RH
- Accelerated: 40°C/75% RH, 25°C/60% RH

► Features

- All models feature vapor-tight, continuously welded stainless steel interiors
- 2-inch access port is standard on rear
- Temperature and humidity conditions are controlled with the Watlow F4T 1/4 DIN controller
- Data logging and Graphical trend chart for Watlow F4T controller
- Ethernet communication
- USB port
- Horizontal recirculation conditioning system
- Adjustable semi-pierced duct walls
- Stainless steel shelves
- Incoloy-sheathed tubular heaters
- Single stage reciprocating compressor
- Automatic hot gas defrost
- Platinum RTD temperature sensor
- Solid state humidity sensor
- Heavy-duty leveling casters

► Options

- Stacked configuration to maximize footprint and workspace flexibility
 - RS 232 or RS485 communications
 - Data logging and graphical trend chart for Watlow F4T controller
 - 5 gallon water reservoir*
 - Recirculating system for humidity water**
 - Water demineralizer*
 - Reverse osmosis system*
 - Condensate pump*
 - External dryer for obtaining humidity levels as low as 5%*
 - Additional ports
 - Additional stainless steel shelves
 - Stainless steel exterior
 - Heated viewing window
 - Interior lighting
 - Recording Instruments
 - OTP high limit control
 - Interior non-sealed Lexan door
 - Interior vapor proof duplex receptacle
 - NIST Calibration
 - Tenney Environmental offers calibration services accredited to the ISO 17025 standard
- *Humidity models only.



*These pictures may show changes, options, and features that are not included on your unit. These pictures are for reference only.



Tenney Environmental is a brand of Thermal Product Solutions, LLC.

»Blue M »Gruenberg »Lindberg/MPH »Lunaire
»Redline Chambers »Tenney »Wisconsin Oven

www.tenney.com

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CEO Temperature / Humidity Stability Test Chamber Specifications								
Model	CEO 908-2	CEO 908-4	CEO 916-2	CEO 916-4	CEO 932-2	CEO 932-4	CEO 958-2	CEO 958-4
Cubic Feet (Liters)	8 (226)		16 (453)		32 (906)		48 (1642)	
Work Space Inches (mm) (W x D x H)	33" x 28" x 15" 838 mm x 711 mm x 381 mm		33" x 28" x 30" 838 mm x 711 mm x 762 mm		33" x 28" x 60" 838 mm x 711 mm x 1524 mm		60" x 28" x 60" 1524 mm x 711 mm x 1524 mm	
Exterior Inches (mm) (W x D x H)	39" x 32" x 46" 990 mm x 810 mm x 1170mm		39" x 32" 61" 990 mm x 810 mm x 1550 mm		39" x 32" x 91" 990 mm x 810 mm x 2310 mm		70" x 32" x 91" 1780 mm x 810 mm x 2310 mm	
Approx Unit Weight (lbs)	375	400	425	450	524	550	1850	1900
Temperature and Humidity								
Model	CEO 908-2	CEO 908-4	CEO 916-2	CEO 916-4	CEO 932-2	CEO 932-4	CEO 958-2	CEO 958-4
Temperature Range	0°C to 99°C							
Temperature Control	± 0.3°C after stabilization							
Temperature Uniformity	± 1°C in the temperature range of 20°C to 70°C						± 1.5°C at 70°C	
Humidity Range	-4 models only: 20% to 95% in the dry bulb range of 20°C to 85°C as limited by a 5°C dewpoint							
Humidity Control	± 2% RH after stabilization							
Humidity Uniformity	± 5% RH							
General Specifications								
Model	CEO 908-2	CEO 908-4	CEO 916-2	CEO 916-4	CEO 932-2	CEO 932-4	CEO 958-2	CEO 958-4
Standard Shelves Included	1		2		4		8	
Maximum Number of Shelves	4		8		18		36	
Maximum Weight Capacity	100 lbs. total		200 lbs. total		400 lbs. total		600 lbs. total	
Maximum Load per Shelf	100 lbs. evenly distributed							
Air Flow Rate	330 CFM				990 CFM			
Heat Capacity	2 kW				6 kW			
Refrigeration	1.5 kW				3 kW			
Heat of Rejection	6,300 BTUH				9,450 BTUH			
Condenser	Air Cooled							
Condenser Discharge Air	Exits top rear of chamber							
Chamber Spacing Requirement	18" / 458 mm on all sides							
Electrical Requirements								
Model	CEO 908-2	CEO 908-4	CEO 916-2	CEO 916-4	CEO 932-2	CEO 932-4	CEO 958-2	CEO 958-4
Power	208V – 230V 1PH 60HZ							
Amp – Fuse	30	30	30	30	30	30	60	70
Amp – Under Load	20	24	20	24	20	24	43	56

Specifications are subject to change without notice. Performance is based upon an empty chamber operating at 24°C (75°F) ambient air. **On 50Hz or higher than 24°C ambient conditions, performance may be reduced.

► Performance

- Temperature Range: 0 °C to + 99 °C, ± 0.3 °C after stabilization
- Temperature/Humidity Range: 20% to 95% RH in the dry bulb range of +20°C to +85°C, limited by a 5°C dewpoint



TPS Lunaire - CEO Steady-State Stability Chambers 03182024 Rev 13



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