



## Thermal Shock Chambers

Tenney Environmental Thermal Shock Chambers are designed and engineered to operate in accordance with a variety of today's thermal shock testing standards. These chambers provide two opposite extreme temperature environments referred to as a cold and hot zone. Thermal shock testing is achieved by quickly and repeatedly transferring a product between a cold and hot zone by means of a pneumatic carriage transport system. Chambers are available in .25 ft<sup>3</sup>, 1.4 ft<sup>3</sup>, 2 ft<sup>3</sup>, and 8 ft<sup>3</sup> of internal workspace volume. Design meets MIL-STD 202G Method 107G along with a variety of other thermal shock test specifications.

### ► Applications

- Electronics
- Consumer Products
- Military and Defense
- Aerospace
- Telecommunications

*Non-hazardous, non-flammable, & non-volatile materials only*

### ► Features

- Vertical air circulation
- 2" traveling port\*
- Open-air, rapid-responding, low-mass, nichrome wire heating elements
- Two zone types with hot/cold compartment setups
- Synergy Quattro Touch Screen Temperature Controller with RS232 & Ethernet communications, on-board data logging, and graphical trend chart.
- Cascade refrigeration system with TEV control and two semi-hermetic compressors
- Vapor-tight, interior liners made of 100% continuously welded stainless steel
- Vertical configurations\*\*
- Fiberglass and polyurethane insulation ensures minimal thermal transfer
- Double-gasket doors provide additional insulation
- Door switch
- Limit switch
- Dual-carriage transport system with stainless steel, wire mesh basket

\* Not standard on TSJR model

\*\* TSJR model available in horizontal configuration only



TS2

WSP



TSJR

Model	TSJR	WSP-109-VTVQ	TS2-02V-7.5R-W-VTVQ	TS2-08V-15R-W-VTVQ
Carriage Capacity Ft <sup>3</sup>	0.25	1.4	2	8
Carriage Capacity (WxHxD)	10.5" x 6" x 6.125" 266mm x 152mm x 155mm	14" x 14" x 317.5" 355mm x 355mm x 12mm	15" x 15" x 15" 381mm x 381mm x 381mm	25" x 23" x 25" 635mm x 584mm x 635mm
Cooling Type	Air Cooled	N/A	Cascade Water Cooled	Cascade Water Cooled
Refrigeration (HP)	½ + ½ + LN2	LN2 Only	7.5 x 7.5 HP	15 x 15 HP
Heat (kW)	2.5/5	16/4	18/4	21/6
Air Circulation	Vertical Down	Horizontal	Horizontal	Horizontal
Power	208V - 230V 1PH 60HZ	230V 1PH 60HZ	230V 3PH 60HZ or 480V 3PH 60HZ	230V 3PH 60HZ or 480V 3PH 60HZ
Amp - Fuse	30	125	200 (230V 3PH 60HZ) or 125 (480V 3PH 60HZ)	275 (230V 3PH 60HZ) or 150 (480V 3PH 60HZ)
Amp - Load	24	100	145 (230V 3PH 60HZ) or 85 (480V 3PH 60HZ)	210 (230V 3PH 60HZ) or 105 (480V 3PH 60HZ)
Product Load (lbs)	3	30	150*	200*
Exterior Dimensions (WxHxD)	63" x 41" x 22" 1600mm x 1041mm x 558mm	55" x 46" x 91" 1397mm x 1169mm x 2312mm (Height with traveling port fully extended is 114.5" / 2744mm)	56" x 83" x 102" 1422mm x 2109mm x 2591mm (Height with traveling port fully extended is 119" / 3023mm)	76" x 94" x 114" 1422mm x 2109mm x 2896mm (Height with traveling port fully extended is 138" / 3506mm)
Approx Unit Weight (lbs)	900	1750	4000	4500
Cold Chamber				
Operating Temperature Range	-68°C to +40°C	-75°C to 0°C	-73°C to +40°C	-73°C to +40°C
Maximum Temperature	+200°C	0°C	+40°C	+40°C
Hot Chamber				
Operating Temperature Range	+40°C to +200°C	+85°C to +215°C	Ambient to +200°C	Ambient to +200°C
Maximum Temperature	+200°C	+215°C	+200°C	+200°C

\* The load rating is the maximum weight the carriage system can handle. Temperature recovery should be reviewed by the factory.

### ► Options

- Viewing windows with chamber lights
- Available in 230V-3PH-60Hz or 460V-3PH-60Hz
- Additional Wire Mesh Type Basket
- OTP TempGard per chamber
- Dry Air Purge System per chamber
- Main Power Disconnect
- IEEE Communications
- Remote Control and Monitoring Software
- Remote Air Cooled Condenser (TS2 models only)



**Baker Furnace, Blue M, Gruenberg, Lindberg/MPH,  
Lunaire, Tenney, Wisconsin Oven**

Address: 2821 Old Route 15 | New Columbia, PA 17856-9396 | USA  
Phone: (570) 538-7200 | Toll Free: (800) 586-2473 | Fax: (570) 538-7380  
info@thermalproductsolutions.com

Specifications and Product Information are subject to change without notice.