

## RANSCO THERMAL SHOCK CHAMBERS

RTS 7000 SERIES- SINGLE OR DOUBLE LOAD CAPACITY

### Put Ransco to the Test

RANSCO, a product group of Despatch Industries, has been *the* innovator in thermal shock testing for 30+ years.

- **Accelerated life cycle testing**
- **Climatic operating / storage testing**
- **Single or double load capacity**
- **Burn-in**
- **Temperature cycling**
- **Performs to MIL STD 883C**
- **Performs to JESD22**
- **Remote access**
- **Touch screen controls**
- **24/7 reliability**
- **World-side service & support**

*Our chambers are engineered for today's demands with maximum throughput, pinpoint analysis, cost effective design, quality construction, versatility and a sleek professional appearance.*



### FEATURES:

#### **Microprocessor Control -**

User friendly touch screen controls allow even inexperienced operators to initiate & monitor test conditions. Set points, number of cycles, part temp. recovery/soak and dwell times can be easily adjusted from touch screen.

#### **Precision Adjustable Overtemperature**

Adjustable high-limit controller in hot zones for test load protection.

#### **Guaranteed Part Temp Recovery/Soak**

Worse case part temperature is monitored to ensure desired temperature is monitored to ensure desired temperature is reached prior to continuation of test.

#### **GN2 Purge in Cold Zone**

Minimizes condensation and frost build-up in cold chamber.

#### **Temperature Chart Recorder**

24-hour recording of product temp in each compartment.

#### **Transfer Jam Alarm**

Energizes a beeping audible alarm and displays "elevator jammed" on the display when elevator jam interrupts a test.

#### **Semi-Automatic Defrost System**

Sensing system, audible alarm and control panel display alerts operator that defrost on the cold zone is required.

#### **Automatic Defrost System**

Preset the number of cycles before defrosting. The chamber will automatically recondition once defrost is completed.

Ransco's vertical design and one piece construction conserves valuable floor space without sacrificing ease of operation. Product is moved from cold to hot zone chambers by a pneumatically operated elevator with adjustable transfer speeds. For safety the fan, elevator and conditioning systems shut off automatically when the door is opened.

Uniform horizontal airflow insures proper heat transfer, excellent thermal gradient and the rapid temperature recovery rates critical for maximum throughput and proper test performance. All of Ransco's systems are equipped with high-efficiency, water-cooled mechanical

**Added Features:**

- RS 232 interface
- Factory set over-temperature thermostat
- Interlocked chamber doors for added safety
- Mechanical elevator lock
- Compact vertical transfer design
- Nichrome wire heaters in hot zones
- Heaters shielded to prevent direct radiation into test area
- Semi-hermetic refrigeration compressors
- Overload protection and pressure limit switches on refrigeration compressors
- Stainless steel, heliarc welded chamber liners
- Thermal breaks between inner liners and outer skin
- Sealed insulation areas
- Non-settling fiberglass insulation
- Multiple, adjustable shelves in each specimen compartment
- All electrical circuits separately fused and in compliance with NEC and NEMA codes for system protection and serviceability

General Specifications					
RTS Models:		RTS 7102	RTS 7107	RTS 7110	RTS 7168
Single or Double Loads		Single load Double load <sup>1</sup>			Double load only
Exterior Dimensions	mm in	2388x1981x1575 94 x 78 x 62	2388x2235x1575 94 x 88 x 62	3845x2565x1854 112 x 101 x 73	2845x2438x1854 112x96x73
Test Load <sup>2</sup>	kg	14 single 28 double	16 single 32 double	45 single 90 double	Please speak to a sales representative
Zone Dimensions	mm in	381 x 381 x 381 15 x 15 x 15	381 x 635 x 381 15 x 25 x 15	584 x 762 x 635 23 x 30 x 25	584x635x381 23x25x15
Zone Volume	L	55	92	283	141
Total Test Volume	L	55.3 single 110.6 double	92.2 single 184.4 double	282.7 single 565.4 double	282.7 double
Cold Zone Refrig. <sup>3</sup>	hp	7.5 x 7.5	10 x 10	30 x 30	15 x 15
Hot Zone Heat <sup>4</sup>	KW	12		36	21
Full Load <sup>5</sup>	Amp	60	61	170	118
Condensing Water	L/ min GPM	49.2 13	83.3 22	283.9 75	106 28
Approx. Weight	KG Lbs	1134 single 1497double 2500 single 3300 double	1814 single 1497 double 4000 single 3300 double	2858 single 3311 double 6300 single 7300 double	Please speak to a sales representative

1 Utilize two (2) product testing compartments  
2 Re-rate by 0.83 for 50 Hz operation  
3 Models with LN<sub>2</sub> cooling available

4 Rated at nameplate voltage  
5 Shown for 480/3/60 power—Multiply by 2 for 230/3/60.

**OPTIONS:**

**Thermal Energy Storage System (TESS™)**

Optimizes system performance, maximizes energy utilization, minimizes thermal gradients, eliminates temperature overshoot.

**Noise Reduction Package**

Sound insulation on interior equipment section walls, baffled air vents and an equipment section forced air ventilation system.

**Remote Air-Cooled Condenser**

For rooftop or outside area mounting.

**Hot Zone GN<sub>2</sub> Purge**

Timed purging of hot zone after product transfer.

**Precision Under-temperature Protection**

Low limit controller to shut down cooling system in out-of-tolerance condition.

**LN<sub>2</sub> Boost or Back-up**

Works with mechanical refrigeration system to achieve faster cooling rates during peak demands. May also be used as primary refrigeration system.