

# Tenney

ENVIRONMENTAL

## Lunaire

ENVIRONMENTAL

*A Comprehensive Line of  
Environmental Test Chambers and Rooms*



[www.tenney.com](http://www.tenney.com)

Our company is the oldest manufacturer of environmental equipment in the USA. In 1932 when Tenney was founded, environmental testing was in its infancy. Throughout its history Tenney Environmental, Inc. has been a leader in the industry. We are a global engineering-designer, manufacturer, and service provider of standard and custom environmental product testing equipment serving the defense, aerospace, electronics, biotech, medical, pharmaceutical, energy, transportation, communications, and materials-processing industries. With a full line of Tenney standard and custom environmental-temperature-cycling and our Lunaire stability-test chambers and our custom products we can accommodate a comprehensive range of applications and configurations to meet your product testing needs.

Tenney Environmental, Inc. continues to utilize our expertise, experience and resources to support and serve our customers. We look forward to providing you with quality equipment to meet your requirements.



### TJR/TUJR (Reach in Temperature Cycling Chamber)

TEMP	POWER	SIZE	CONTROL	ENVIRONMENTS
-68°C to +180°C	120V	1.2 cu.ft.	Watlow F4T	Temperature Only



### T2 (Reach in Temperature Cycling Chamber)

TEMP	RH	SIZE	CONTROL	ENVIRONMENTS
-68°C to +180°C	20% to 95%	2 cu.ft.	Watlow F4T	Temp or Temp / Humidity



### Benchmaster/Upright (Reach in Temperature Cycling Chamber)

TEMP	RH	SIZE	CONTROL	ENVIRONMENTS
-68°C to +180°C	20% to 95%	5 cu.ft.	Watlow F4T	Temp or Temp / Humidity



### CEO (Reach in Stability Chamber)

TEMP	RH	SIZE	CONTROL	ENVIRONMENTS
0°C to +99°C	20% to 95%	8 to 58 cu.ft.	Watlow F4T	Temp or Temp / Humidity



### SS (Reach in Stability Chamber)

TEMP	RH	SIZE	CONTROL	ENVIRONMENTS
-20°C to +180°C	20% to 95% ICH Q1A Stability Testing	10 to 30 cu.ft.	Watlow F4T	Temp or Temp / Humidity



### TC (Reach in Temperature Cycling Chamber)

TEMP	RH	SIZE	CONTROL	ENVIRONMENTS
-68°C to +180°C	20% to 95%	10 to 64 cu.ft.	Watlow F4T	Temp or Temp / Humidity



### C-EVO (Reach in Temperature Cycling Chamber)

TEMP	RH	SIZE	CONTROL	ENVIRONMENTS
-68°C to +180°C	20% to 95%	10 to 64 cu.ft.	Smart One 1.1	Temp or Temp / Humidity



### FCR (Fast Change Rate Chamber 5C/Min or Greater Transition)

TEMP	RH	SIZE	CONTROL	ENVIRONMENTS
-68°C to +180°C	20% to 95%	8 to 62 cu.ft.	Quattro	Temp or Temp / Humidity



### Walk In (Panelized and Solid Construction)

TEMP	RH	SIZE	CONTROL	ENVIRONMENTS
-68°C to +200°C	20% to 95%	316 cu.ft. and up	Watlow F4T	Temp or Temp / Humidity



### Thermal Shock (Vertical or Horizontal, 2 Zone)

TEMP	BASKET SIZE	CONTROL	ENVIRONMENTS
-73°C to +200°C	.22 to 8.32 cu.ft.	Quattro	Temperature Only



### Vacuum Drying (Including Solvents)

TEMP	SIZE	CONTROL	VACUUM LEVEL
Ambient to +200°C	8 to 64 cu.ft.	Quattro	To 1Torr



### Vacuum Altitude Testing

TEMP	RH	SIZE	CONTROL	ENVIRONMENTS
-68°C to +177°C	20% to 98%	5 to 136 cu.ft.	Quattro	Temp or Temp / Humidity



### Space Simulation Chamber

TEMP	VACUUM	SIZE
-150°C to +150°C	Up to 1X10 <sup>-7</sup> Torr	1ft diameter to 12 ft diameter by any length



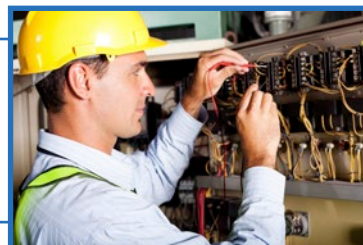
The main features of the 7" Windows based PLC Smart 1.1™ are the high resolution graphical touch screen, Smart 1.1™ graphical user interface, 800MHz Cortex A9 central processing unit with graphic processor, 4GB (SD Card) flash storage, capable of storing up to 100 profiles with 100 steps each. Test data retrieval and profile data transfer/sharing is accomplished through a local FTP server via Ethernet connection. Individual PID control loops allow for precise process control.

**Other Features of the Smart.1.1™ Controller Include:**

- Real-time and historical color graph displays for temperature and humidity as well as set point values
- System can run in Single set point or Programmed modes
- Alarm, Program, and Datalog files can be easily transferred to and from controller via Ethernet connection
- Built-in TCP/IP networking via Ethernet 10/100 communication port
- Ethernet communications are standard. RS485, RS232 and IEE GPIB are all available as options
- Optional Analog signal re-transmit out to peripheral devices such as optional chart recorders, etc.
- Remote access via Smartphone, iPad, etc. with internet connection and VNC phone App's
- Dynamic expandable zoom
- 850:1 Contrast Ration
- Windows CE 7.0 Operating System
- 16 million display colors
- Projective Capacitive Touch Screen
- TFT LCD Anti-Glare Display

## International

- All models available in 50 & 60 Hertz configurations
- CE, CUL, & UL-508A available
- Authorized reps / servicers in most countries



## Aftermarket Service

- Installation Supervision
- Start-up & Training
- Turn-key Installation
- Preventative Maintenance
- Temperature Uniformity
- Instrument Calibration
- GAMP Documentation
- Water Quality Analysis

**Optimize. Revitalize. Maximize.**

From installation, parts and global support to servicing, testing and yearly maintenance, we're here to ensure your TPS product achieves its maximum performance.

GAMP Documentation includes FRS, HDS, SDS, FAT, SAT, and IQ/OQ

**Instrument Calibration includes A2LA and ISO17025 Calibration Certificates**



## TPS MAX Program



The **TPS MAX Program** allows the customer to purchase future service and/or parts without the need to have a purchase order approved and released when parts or service are needed. These funds are available to be used on parts or service in the future, saving you and your company costly down-time. Enrollment also entitles you to the many advantages listed below. Enrollment in the TPS MAX Program requires a minimum purchase of \$5,000.00. Amounts above \$5,000.00 will be accepted. Funds do not expire.

**10% Off:**

- Service labor (including: training, installation, preventive maintenance)
- Travel time
- Calibration
- Parts

**Also included:**

- Free ground shipping on parts
- No overtime charges billed for work/travel performed Monday through Friday
- Mileage is free



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

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