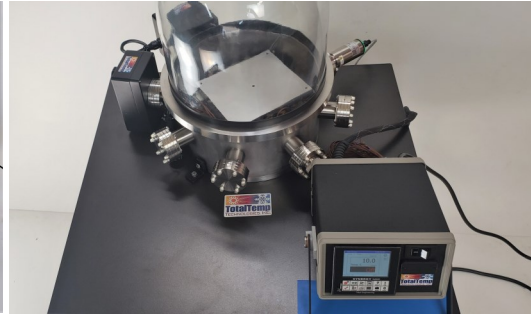
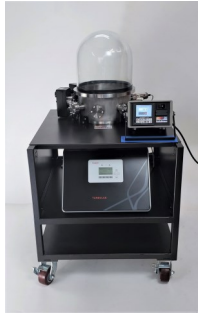




# PRODUCT DATA SHEET

## VmSD49-N



THERMAL PLATFORM VACUUM CHAMBER USED FOR PRECISION TEST (TVAC System)

INCLUDES: Complete Turbo Cart with vacuum release valve and 5 User Ports

### DESCRIPTION

TVAC systems increase understanding of how components and materials respond in a space simulated environments

### PRODUCT INFORMATION

<b>Surface Dimensions / Area</b>	6.5 x .7.5 inch (16.5 x 19 cm)	49 Sq. Inches (315 Sq.cm)
<b>Surface Material / Finish</b>	6061 Aluminum	No Finish or coating
<b>External Dimensions / Max. Height</b>	Cart 30 x 28 x 30 Inches (L x W x H)	With Bell Jar Approx. 49 Inches overall
<b>Chassis Material / Finish</b>	Steel Cart / Stainless Steel Chamber	Powder Coat / Mechanically Polished
<b>Approximate Weight</b>	350 lbs. (159kg)	Packed with a <u>Synergy Nano</u> on Pallet
<b>Ultimate Pressure</b>	1x10-6 Torr	Pump Speed 290 Liters Per Second
<b>Temperature Range</b>	-65 to 175°C	Extended Range and Hot Only available
<b>Heating Rate</b>	6 - 30 °C/Min Wattages Varies	Wattage can be specified
<b>Cooling Rate</b>	8 - 30°C/Min	Coolant can be specified
<b>Temperature Controller Options</b>	<u>Synergy Nano</u> Color Touchscreen	<u>Watlow PM6</u> Alternate Economy Model

### FACILITY REQUIREMENT

Power requirements may vary. Most common heater arrangement requires a dedicated 120 Volt 15 Amp circuit.

Coolant: Cryogenic gas suppliers in your area can supply either Nitrogen and Carbon Dioxide to your facility.

**High Pressure (HP) L-N2 75-125 psi is the Standard Coolant**

Low Pressure (LP) L-N2 Pressure below 30 PSI Available Upon Request for improved performance on bulk systems

High Pressure L-CO2 Pressure 900 PSI Available Upon Request recommended for infrequent cooling requirements

Low Pressure L-CO2 Pressure below 300 PSI Available Upon Request for improved performance on bulk systems or Dewars

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[TotalTempTech.com](http://TotalTempTech.com)  
[Sales@TotalTempTech.com](mailto:Sales@TotalTempTech.com)  
Phone: 888.712.2228



**TotalTemp Technologies, Inc.**

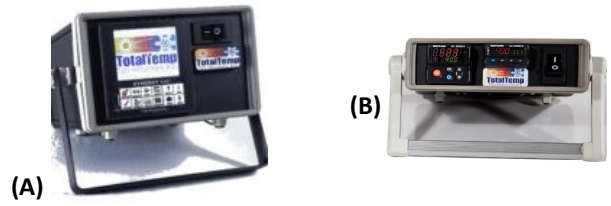
3630 Hancock Ste. A  
San Diego, CA 92110

Revision 0 August 9th, 2023

**Controller Options and Accessories**

The (A) Synergy Nano Benchtop Controller has a Color LCD touch screen – Easy to use, easy to read with graphing capability, logging, multi sensor, multi conditional outputs, comm ready, GPIB Upgradeable and free drivers. [More on the Synergy Nano](#)

The (B) Watlow PM6 is a very robust, economical controller



**Dry Nitrogen Purge**

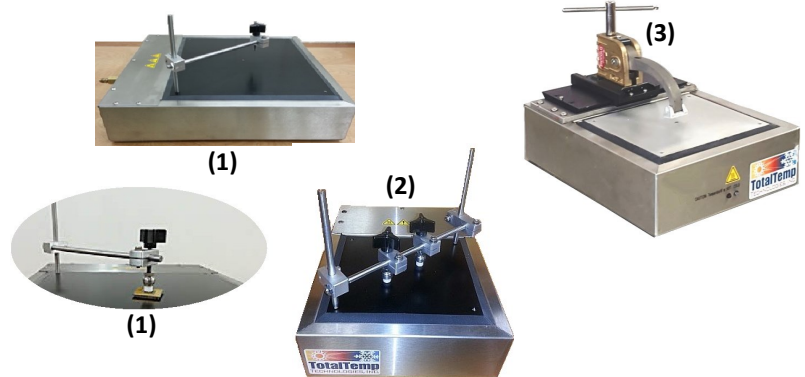
Probing Covers, especially when used with purge systems keeps condensation and frost from accumulating on the surfaces of the DUT (Device Under Test) at cold temperatures. Purging is also used to prevent oxidation of metals surfaces at high temperatures. Lastly the cover greatly reduces the gradient effects caused by room temperature. Low ESD and



**Dry Nitrogen Purge Regulator with Flowmeter**

**Clamps & Adapter Plates**

We supply (1)light, (2)medium and (3)heavy duty clamping systems to increase thermal conductivity by applying downward force. Lower wattages and less extreme temperature do not require heavy clamping forces. The more wattage and temperature differential, the more clamping force is required. Platforms can also be directly drilled in many locations or an adapter plate can be secured on top of



**Coolant Delivery Hoses & Exhaust**

Liquid Nitrogen and Liquid Carbon Dioxide require different hose configurations. We offer many options for L-N<sub>2</sub> & L-CO<sub>2</sub> applications. Exhaust options the SQM and flexible hoses for venting are also available.



**14-0010 Super Quiet Muffler (SQM)**

Greatly reduces the noise level of coolant being spent by a Thermal Platform

**Temperature Sensors & Loggers**

RTDs & Thermocouples

Sensors are available for extended temperature ranges or for Space Simulation Applications



28-00101 Data logger

16-Channel Temperature Monitor

Thermocouples, daisy chain up to four of these 16-Channel monitors together and

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