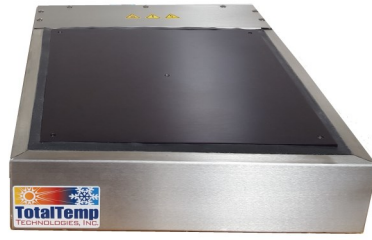




PRODUCT DATA SHEET

SD144



THERMAL PLATFORM USED FOR PRECISION TEMPERATURE TEST

DESCRIPTION

The SD144 is a standard size testing surface. Most popular Thermal Platform used for RF/MW and other high power items such as TWTs and amplifiers with microwave integrated circuits or multiple Hybrid / MMICs.

PRODUCT INFORMATION

Surface Dimensions / Area	12 x 12 inch (30.5 x 30.5 cm)	144 Sq. Inches (929 Sq.cm)
Surface Material / Finish	6061 Aluminum	Black Anodize or custom specification
External Dimensions	17.6 x 14.3 x 3.9 Inch NS	(44.7 x 36.3 x 9.9 Cm NS)
Chassis Material / Finish	304 Stainless Steel 18 Gauge	None
Approximate Weight	27.5 lbs. (12.4 kg)	Not Packed
Temperature Range	-148°F to 392°F (-100 to +200°C)	Extended Range and Hot Only available
Heating Rate	20°C/Min 240 VAC 15 Amp 3.3 KW	Wattage can be specified
Cooling Rate	30°C/Min Using HP Liquid Nitrogen	Coolant can be specified
Controller (Two Choices)	<u>Synergy Nano</u> Color Touchscreen	<u>Watlow PM6</u> 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

SCC144 Thermal Platform Models that are Cooled using Mechanically Refrigeration. For more information:

<https://www.totaltemptech.com/mechanically-refrigerated-thermal-platforms/>

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TotalTempTech.com
Sales@TotalTempTech.com
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San Diego, CA 92110

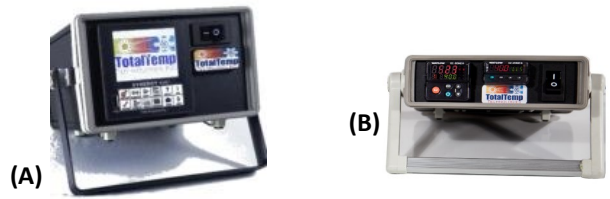
Revision 3 January 14th, 2021

OPTIONS AND ACCESSORIES: <https://www.totaltemptech.com/thermal-platforms-coldplates-options-and-accessories/>

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

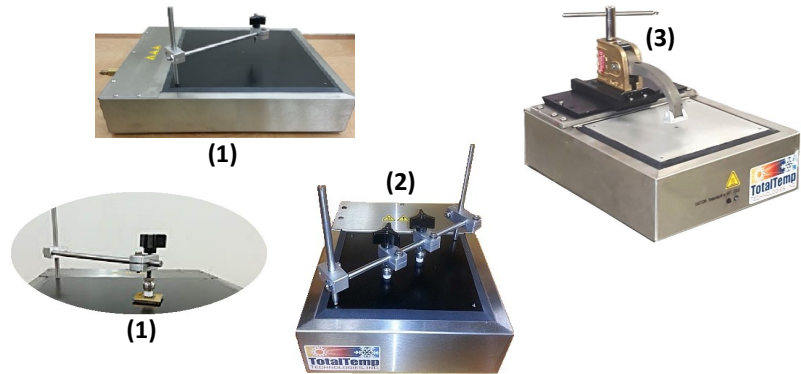
Probing Covers, especially when used with purge systems keeps condensation and frost from accumulating on the surfaces of the DUT (Device Under Test) at cold temperatures. Purging is also used to prevent oxidation of metals surfaces at high temperatures. Lastly the cover greatly reduces the gradient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



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 the platform by using the standard hole pattern.



Coolant Delivery Hoses & Exhaust

Liquid Nitrogen and Liquid Carbon Dioxide require different hose configurations. We offer many options for L-N₂ & L-CO₂ 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

[New Leaders in Thermal Test Products. We offers many ways to improve your testing and help choose the best equipment](#)

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