

# **MD Thermal Platform Series**

Thermal Controlled Platforms



-60°C to +220°C

The TP platform system is a breakthrough product that introduced the use of refrigerant for active cooling & heating of components with no need of chiller, CDA, or consumable refrigerants such as liquid nitrogen and liquid carbon dioxide. It can be a perfect replacement system in the industry for uncompromising thermal and mechanical performance with a temperature ranging from -60 to 220°C. Each system contains a thermal chuck and a self-contained thermal control unit.

MD Systems provide an open work surface with rapid heating and cooling or holding at temperature. Also known as "hot/cold plates", they are ideal for testing or conditioning low profile items with a flat surface such as RF devices and high density power device testing (IGBTs and MOSFETs).

These hot/cold plates are also used for custom product, Lab/Medical, benchtop, battery cooling, sample cooling, precise and ultra-low temp control applications.

For analytical and production test applications calling for fast temperature change, cooling and heating times become particularly important for component test productivity. Time to temperature and soaking times with TP are considerably faster than conventional thermal systems.

Several sizes or made-to-order thermal plate are available. To allow moisture free probing below ambient temperatures, an environmental enclosure is optional.

Save tens of thousands of dollars on consumable refrigerants per workstation per year.

#### Key features of TP system:

- Industry's lowest soaking time
- Industry's fastest transition times
- Reaching -60°C without LN2, CO2
- Ultra-low noise
- OEM

## **Saving Costs:**

- Replace (LN2), (CO2) or water and air systems.
- Save infrastructure and maintenance costs of LN2, CO2. Chiller and CDA.
- Save consumable material costs.
- Save storage and distribution of expendable refrigerants.



Several sizes or made-to-order thermal plate are available (up to 15"x15")

#### **Features:**

- Temperature range of -60°C to +220°C,
  No LN2 or CO2 required
- No chiller or CDA required
- Temperature stability +/-0.1
- Fully programmable for automation
- Quite & portable
- Maintenance FREE

# **Applications:**

- Low profile devices with flat surface and high density power device testing (IGBTs and MOSFETs...)
- Pre-cooling & pre- heating thermal platforms in SLT and Handlers
- Custom product, Lab/Medical, benchtop, battery cooling, sample cooling

The TP system requires only electrical power to operate, so the system can be rolled to anyplace in the facility that it is needed and simply plugged-in to an AC outlet.

TP controller provides touch-screen and remote interfacing to precisely control and monitor device temperature, set up and transfer thermal profiles, view data and log diagnostics.

#### **Technical Data:**

### **Operating**

Temperature range	-60°C to +220°C
Surface flatness and base parallelism	±50μm
Temperature resolution	0.1°C
Temperature accuracy	±0.1°C
Temperature stability	±0.1°C
Temperature uniformity	-60°C to +200°C ±1°C >200°C ±0.6%
Heating rates	-60°C to +25°C: 2 min 0°C to +25°C: 3 min +25°C to +220°C: 6 min
Cooling rates	+220°C to +25°C: 2 min +25°C to -60°C: 6 min

#### **Mechanical Data**

System size (WxHxL)	577,5mm x 370mm x 753mm
System weight	100 Kg
Controller to chuck length	~2 - 2.5 meter (6.5ft)
Chuck surface plating	Nickel (gold available)

#### **Data Communication**

Ethernet TCP/IP	RJ-45
USB	Туре В
Touch screen display	7" LCD
Temperature sensor	PT100, 4-line wired
Interfaces	Ethernet RJ-45
Control method	PID with Temperature
	Dynamic Control TDC

#### **Facilities**

Power	220V, 50/60Hz, 12A max
Operating temperature	-10°C to 30°C
Plug	Nema L6-20/30

