

**Flex TC** - High-performance, reliable, self-contained, compact and extremely economical thermal forcing system.



Flex TC Bench-top

-55°C - 155°C

-40°C @ 21W

**Flex TC's thermal conduction cooling and heating system** stimulates the DUT to the desired temperature by direct contact between the thermal head plunger and the DUT.

This solution is suitable for soldered components or sockets through a variety of interfaces such as adapter plates, boom stands, vacuum applications and pneumatic systems.

# Powerful stand-alone thermal control unit, features:

- Great cooling power -40°C @ 21W.
- Extended temperature ranges easily reaches -40°C and less at Tj.
- Fast time to temperature ratio.
- Very short soak time stabilization.
- Excellent temperature stability 0.2°C.
- Powered by a smart controller accessible via a 7-inch color touchscreen with an extensive menu.
- Remotely controlled via an Ethernet.

## Flex TC is a plug and play unit, requires only:

- 50/60Hz, single phase, 6A wall outlet.
- Cold testing free from condensation.

### Flex TC systems are suitable for testing your devices at:

- Your testing bench.
- ATE's in your lab and integrates in production seamlessly with handlers.
- Flex TC can also be used for testing multi-site DUT's.
- Used as a probe station with a thermal chuck.

### Flex TC with a Clip-On and Z axis integrated:

- Robust and small footprint.
- Setup is convenient and very fast using clip connections.
- Applies precise and consistent force contact and thermal conductivity.
- Accurate actuating force (Kgf) controlled from a touch screen or remotely.
- Simple and quick connection and disconnection of the thermal head.

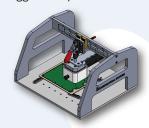
Axial actuator head



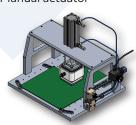
Right angle actuator head



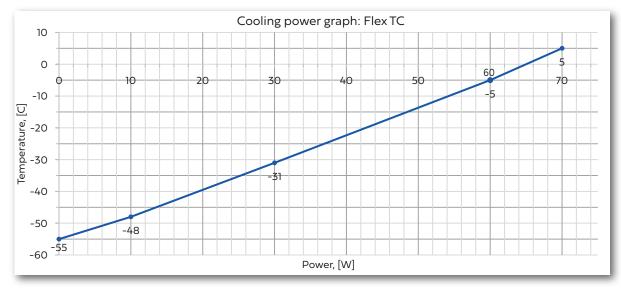
Toggle clamp unit



Manual actuator







#### **Product features:**

- Condensation FREE at cold test
- Maintenance FREE system
- Fully programmable with MATLAB, Lab VIEW, C++, VB, Linux, Python & others
- Cost effective due to low cost and high performance
- Vibration FREE contact
- Magnetic field FREE contact
- PID overshooting control

- Stand-alone plug and play system
- External chiller or compressed air is **not** required
- Software controlled transition rates
- Suitable for testing any socketed or soldered devices
- Environmentally friendly operation
- ESD safe product
- Min and max temperature safety lock
- Can be seamlessly integrated with handlers and ATE

## System general

Temperature range	-55°C to +155°C	
Temperature accuracy	0.1°C	
Temperature stability	±0.2°C	
Typical transition rates	25°C to -40°C in ~<4min 125°C to 25°C in ~<2min	
Temperature sensor	Tcase PT100 thermistor K-type thermocouple	
System indicators and fail-safes	Thermal head over-temperature fan operation, cooling unit operation	
DUT pressure force	2 - 60/80 Kg/Force	
DUT dimensions	From 2 x 2mm up to 40 x 40mm	
DB rating	40 dBA	
MTBF	70,000 hr	



#### Mechanical dimensions

# System requirements

System enclosure mm / inch	(L) 420mm x (W)320mm x (H)220mm (L) 16.5" x (W) 12.5" x (H) 8.5"	Electrical	100/115/120/220/230/240 VAC ±10% 50/60 Hz, single phase, 6A max
System weight	22 Kg	Purge	0.1-0.2[MPa] dry air / dry Nitrogen
Thermal head (mm)	80mm diameter	Operating temperature	5°C to 27°C (40°F to 80°F)
Thermal head hose	2 meter (6.5ft) standard	Ambient humidity	20% to 95% RH