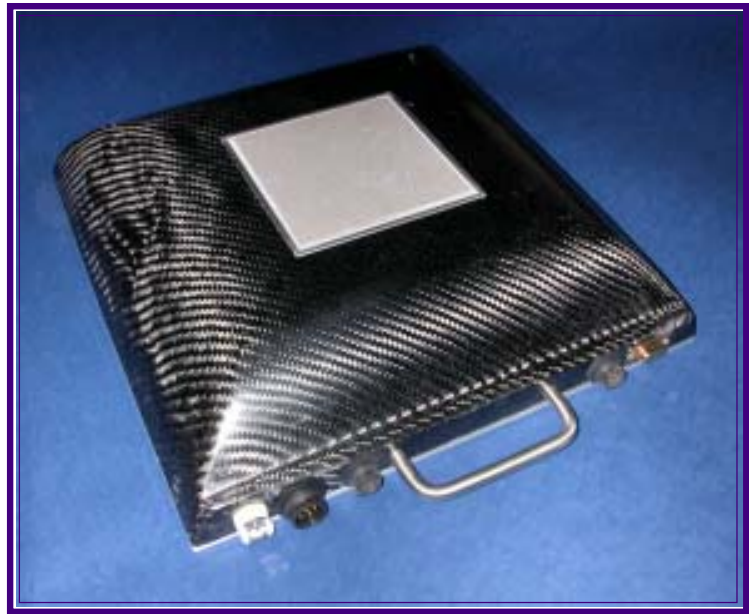


ST-2 Comfort Test System

- 12" x 12" with rounded test surfaces.
- Central measuring zone with embedded porous metal sweating and computerized fluid flow.
- Ultra-stable resistance wire heating provides uniform heat flux.
- Backside isothermal guard with heating and cooling capability.
- Carbon-epoxy composite shell is heated to function as both measuring zone and guard.
- Custom specifications available, including size and location/number of sweating inserts.
- System includes a PC Pentium computer and monitor with exclusive ThermDAC control software. This intuitive, user-friendly, Windows-based application provides full thermal control, fault detection, real-time data display, and data logging capabilities.

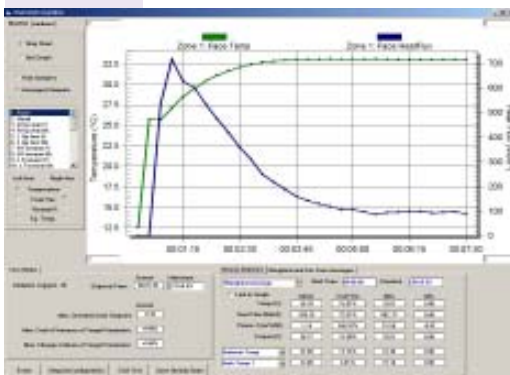


Measurement Technology NW has developed the innovative, single zone ST-2 Comfort Test System to support in-house development of testing procedures and to help evaluate more advanced thermal instrumentation tests.

The ST-2 can be used on seat backs or cushions to quickly evaluate the thermal properties and moisture management characteristics of automobile seat materials. The ST-2 can be easily positioned on different seat regions to evaluate the effects from different coverings or internal seat construction. Ruggedly made, it is designed to support the weight needed to simulate seat compression.

This lightweight, portable, carbon-epoxy unit contains one thermally controlled porous metal sweating insert, two miniature ambient temperature/humidity sensors useful for measuring interface microclimate conditions, and a computer-controlled fluid supply system that simulates metabolic perspiration levels. The ST-2 system is accurate to $\pm 0.1^{\circ}\text{C}$, and includes MTNW's exclusive PC-based ThermDAC control system.

MTNW provides technical support via phone, fax, or e-mail on product operation, data analysis, and equipment maintenance.



Instruments for Textile and Biophysical Testing

ST-2 Comfort Test System

Standard Specifications

Aluminum filled carbon-fiber shell
One computer-controlled sweating zone
Distributed wire and Thermistor sensors - installed
Two temperature controlled guards
Ultra-stable resistance wire heating
Porous metal sweating insert section
Sweat distribution pump, reservoir, and tubing
Pentium PC control computer and monitor
Pre-installed ThermDAC control software
One ambient temperature/humidity sensor
One interface temperature/humidity sensor
One relative humidity sensor
Signal conditioning electronics
Power and control cabling
Operators manual
One year warranty

Environmental

Variable (10°C - 40°C) temperature setpoints
High/Low power control for fast, accurate testing
800 W/m² maximum power output
50-1000 ml/(hr-m²) perspiration rate

System Accuracy

± 0.1°C thermal accuracy
± 1% power measurement accuracy
± 3% relative humidity measurement

Equipment Size and Configuration

12" x 12" square device, suitable for representation of seated anatomical contours. Standard models now available with one or two sweating zones.

Call for a quote on custom sizes and configurations

ThermDAC Control Software

ThermDAC was developed by Measurement Technology Northwest specifically for manikin and hotplate systems. It is a user-friendly, intuitive, Windows-based application providing full device control, fault detection, and data logging capabilities. System configuration and calibration can also be carried out within ThermDAC.

For manikin operation, ThermDAC includes the following special features:

- Color coded manikin pictorial displays, selectable for any manikin variable (temperature, heat flux, resistance, etc.)
- Automatic steady state detection
- User programmable work cycle simulation
- Instantaneous bar graph and time history line graph for any user selectable manikin variable
- Real-time calculation of test statistics over any user defined time interval
- Manikin control modes: temperature regulation, constant heat flux, and comfort equation.



4211- 24th Avenue West
Seattle, WA 98199

Phone/206-634-1308
Fax/206-634-1309

www.mtnw-usa.com