Thermo Scientific VersaCool Refrigerated Circulating Bath- Advanced Communications and Remote Control Capabilities

Scott D. Pratt
Application Specialist
Temperature Control

VersaCool Introduction Agenda

- **What is Thermo Scientific™ VersaCool™?**
  - Product Introduction
  - Design Elements
  - Accessories
- **Where Does It Fit?**
  - SmartLab
  - Bio-Tech/Bio-Pharma
- **Q&A**

What is VersaCool?

We lost our head, so you don't lose your cool

Introducing the NEW! Thermo Scientific VersaCool Refrigerated Circulating Bath

VersaCool is a Refrigerated/Heated Bath Circulator with an innovative design that maximizes the bath area while maintaining a compact footprint on the workbench

It accomplishes this by eliminating the control head, heating element and cooling coils from the bath area

But we didn't stop there, VersaCool also has new and extensive communication, control and data collection features

Innovative Customer Focused Design Elements

Touch screen
Glove compatible
Stylus compatible
Intuitive

No Coils
More working area
Operator & Product Safety
Easy to clean

Global Voltage
One part number globally

VersaLid
Tool-less / Reversible
No drip

Headless Design
Lower Height
Operator Safety

Communication
Versatile

Energy efficient
Less expensive to run

Magnetic Drive Pump
Powerful
No leaks

VersaCool Standard Components

Nitrogen Purge Port

Auto-Refill Ready

External Circulation Connections
- Includes adapters for:
- M16 to ¼” MNPT
- M16 to ½” MNPT
- 8mm and 12mm hose barb
- ¼” and ½ ” hose barb

Drywell Temperature Monitoring Port

Global Voltage

5.7” Color Touchscreen
Glove & Stylus Compatible

Communication Connections For:
- RS232
- RS485
- Ethernet
- Remote Sensor
- Analog I/O

Front Access for:
- RS232
- MicroUSB
- USB
- Bluetooth

ThermoFisher SCIENTIFIC

Smart Lab Solutions - Remote Communication & Control

- Controlling a Recirculating Bath remotely enables the user to:
  - **Monitor**
    - Setpoint Temperature
    - Current Temperature
  - **Control**
    - Change Setpoint Temperature
    - Select/start Temperature Profile Program (temperature ramp)
  - **Notify**
    - Receive alerts for any warning or fault conditions
- Standard Methods of Remote Communication & Control Include:
  - Bluetooth
  - Serial Communication
  - Analog I/O

Local Wireless Monitoring and Control Solution

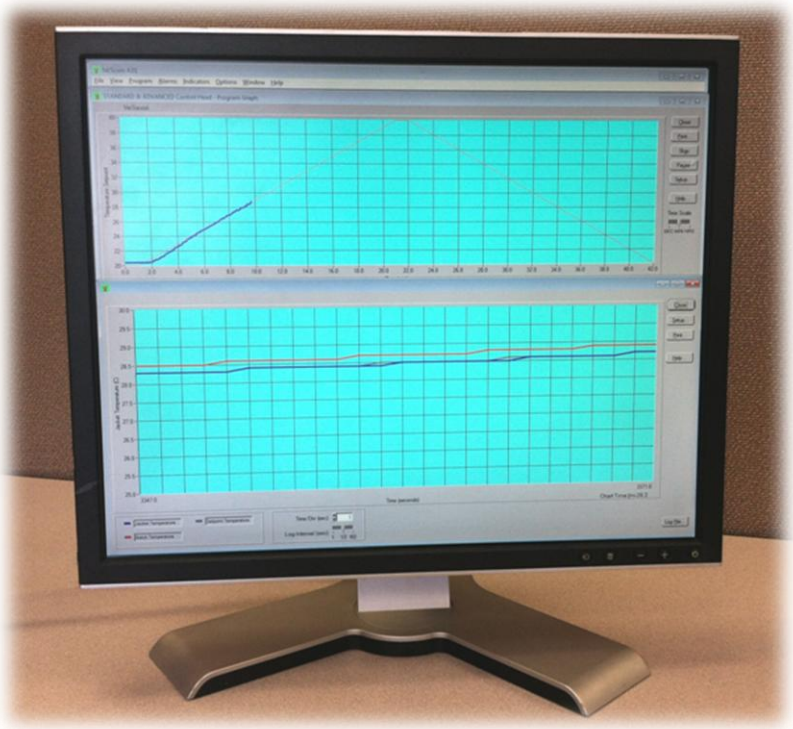
- Bluetooth
  - Via iOS or Android Smartphone & Tablet
  - Multiple baths from one device
  - Up To 100 Meter Range

No IT Involvement Required

ThermoFisher SCIENTIFIC

Local and Global Monitoring and Control Solution

- RS232
- RS485
- USB
- Ethernet



Use NEScom Software with any of these communication standards

Analog I/O Monitoring and Control Solution

- Multi-Function Port
  - Temperature in & out via:
    - 10mV/˚C
    - 0 – 10 V
    - 4 – 20 mA
    - Custom (user defined range using one of the above)
  - Normally open and normally closed Dry Contacts for remote fault detection
  - Remote on/off

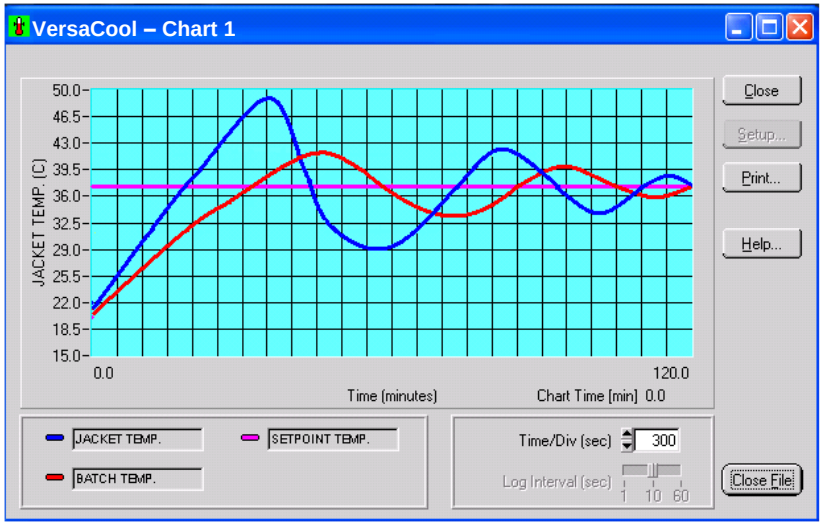
Local and Global Wireless Monitoring Solution

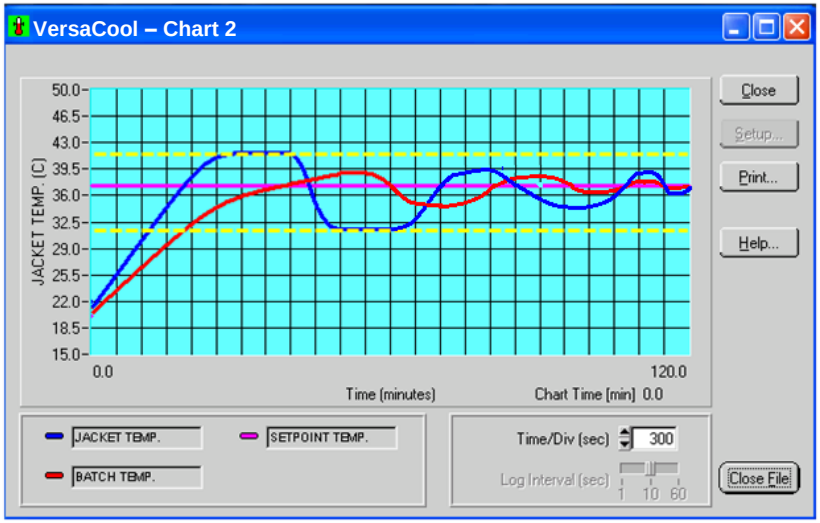
- **Thermo Scientific Smart-Vue**
  - **Non-stop, 24/7/365 real-time wireless monitoring of critical parameters-** whether across the street, or across the globe.
  - **Flexible Operation**- user-defined measurement and transfer periods
  - **Precise Monitoring**- accurately safeguards high/low set points
  - **Data Traceability & Security**- secure, customized levels of user access and audit trail traceability, helping you meet compliance and regulatory requirements
  - **Numerous Configuration Capabilities**- combines RF and TCP/IP network technologies
  - **Two Methods of Data Collection & Monitoring**
    - Remote Sensor (PT100 or RTD) – independent Temperature verification
    - 4 – 20 mA Signal uses the internal sensor for Data Collection & Monitoring

Alert options; telephone, email, SMS text, fax, audio, visual and printed reports

Bio-Tech/Bio-Pharma Temperature Control Solution

- **Bio-Reactors for cell growth & Jacketed Reactor Vessels**
- **New remote sensor temperature control feature ensures your samples are not compromised by limiting excessive Temperature over & under shoot**
  - During a temperature ramping program the jacket temperature has user adjustable limits to both ensure the over & under shoot does not vary too far from the target temperature and to protect the batch from excessively hot or cold wall temperatures

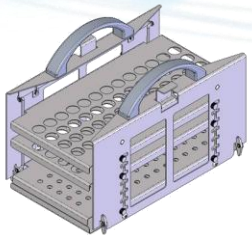




Optimize batch yield and reduce the time to stable temperature

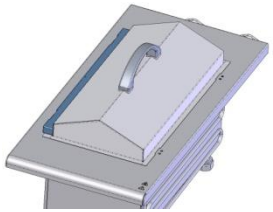
ThermoFisher SCIENTIFIC

VersaCool - Accessories



VersaRack

- Tool-less height adjustment
- Drip-less, rests over bath



Gable Cover

- Left-handed hinge, right-handed hinge, or hinge-less
- Tool-less
- Drip-less

Auto-refill

- Integrated auto-refill mount
- User controlled flow rate via needle valve

Smart-Vue™

- Wireless monitoring and data collection for traceability
- Integrated probe port

Thank you for your time - Questions?