



# Supporting your BioProcessing systems with Optimal thermal stability



**Thermo Scientific  
ThermoChill  
Recirculating Chiller**

**Thermo Scientific  
ThermoFlex  
Recirculating Chiller**

## Focus on advancing life science research and drug production

We understand environmental conditions of a bioreactor need to be closely monitored and controlled in order to provide optimal growth conditions. One of the most important conditions - temperature - must be tightly regulated to ensure reliable and consistent data is obtained across your processes.

Thermo Scientific™ ThermoFlex™ and Thermo Scientific™ ThermoChill™ recirculating chillers help meet both endothermic (heating) and exothermic (cooling) reaction requirements. We support 10 L to 2000+ L bioreactors by providing the following advantages:

- Global Voltage Capability
- Configurable product platforms Flexibility
- Customizable Solutions & Logistics
- World Class Manufacturing & Testing
- Global Service Footprint
- Global Compliance including;
  - CE
  - CSA/UL
  - RoHS/WEEE

**Thermo**  
SCIENTIFIC



## Thermo Scientific Recirculating Chiller Specifications

	ThermoChill I	ThermoChill II	ThermoChill III	ThermoFlex 2500	ThermoFlex 5000	ThermoFlex 10000	ThermoFlex 24000
Cooling Capacity 60 Hz *1	700 Watts	1,000 Watts	2,000 Watts	2,500 Watts	5,000 Watts	10,000 Watts	24,000 Watts
Cooling Capacity 50 Hz *1	600 Watts	900 Watts	1,900 Watts	2,200 Watts	4,400 Watts	8,500 Watts	21,000 Watts
Heater Capacity	—	—	—	2.8 kW @ 230 V	2.8 kW @ 230 V	6.1 kW @ 460 V	22.5 kW @ 460 V
Temperature Range	-10° to 30° C	-10° to 30° C	-10° to 30° C	-5° to 50° C	-5° to 50° C	-5° to 50° C	-5° to 50° C
Temperature Stability	+/- 0.1° C	+/- 0.1° C	+/- 0.5° C	+/- 0.1° C	+/- 0.1° C	+/- 0.1° C	+/- 0.1° C
Air Cooled Condensor	Y	Y	Y	Y	Y	Y	NA
Water Cooled Condensor	NA	NA	NA	Y	Y	Y	Y
Anti Drainback	NA	NA	NA	Y	Y	Y	Y
Auto Refill	NA	NA	NA	Y	Y	Y	Y
Flow Control with Flow Readout	NA	NA	NA	Y	Y	Y	Y
Pump Performance 60 Hz *2	1.4 gpm @ 60 PSID	3.6 gpm @ 60 PSID	1.4 gpm @ 60 PSID	3.5gpm @ 60 PSID	10 gpm @ 32 PSID	10 gpm @ 32PSID	20 gpm @ 60 PSID
Pump Performance 50 Hz *2	4.5 lpm @ 4.1 bar	9.4 lpm @ 4.1 bar	9.4 lpm @ 4.1 bar	9.5 lpm @ 4.1 bar	37.9 lpm @ 1.4 bar	37.9 lpm @ 1.4 bar	75.7 lpm @ 1.4 bar
Communications	RS232	RS232	RS232	Analog & Digital	Analog & Digital	Analog & Digital	Analog & Digital
Power Options	Multiple	Multiple	Multiple	Global Voltage	Global Voltage	50/60 Hz, 3Ph	50/60 Hz, 3Ph

\*1 Capacity at 20° C

\*2 Positive displacement and magnetically coupled centrifugal pump options are available



### Protect your investment.

Your process depends on consistent performance through dependable

products. From startup and inspection to full refurbishment, we provide complete global service solutions to match your needs, backed by factory certified repairs and maintenance.

### Thermo Fisher Scientific Temperature Control Global Footprint

Providing a global service network of Direct and Authorized Service professionals to support our customers worldwide with:

- Regional Call Centers
- Regional Service Centers
- Regional Dealer Networks



© 2014 Thermo Fisher Scientific Inc. All rights reserved. All other trademarks are the property of Thermo Fisher Scientific Inc. and its subsidiaries. Results may vary under different operating conditions. Specifications, terms and pricing are subject to change. Not all products are available in all countries. Please consult your local sales representative for details.

North America: USA/Canada tollfree: +1 (800) 258-0830; USA: +1 (603) 436-9444 or [info.tc.us@thermofisher.com](mailto:info.tc.us@thermofisher.com)  
 Europe: Benelux: +31 (0) 76 579 55 55 or [info.tc.nl@thermofisher.com](mailto:info.tc.nl@thermofisher.com); France: +33 (0) 1 60 92 48 00 or [info.tc.fr@thermofisher.com](mailto:info.tc.fr@thermofisher.com);  
 Germany: +49 (0) 721 4 09 44 44 or [info.tc.de@thermofisher.com](mailto:info.tc.de@thermofisher.com); United Kingdom: +44 (0) 8706 099 254  
 Asia: China: +81 3 5826 1616 or [info.tc.china@thermofisher.com](mailto:info.tc.china@thermofisher.com); India: +91 (22) 27 78 11 01 or [contact.lpg.in@thermofisher.com](mailto:contact.lpg.in@thermofisher.com);  
 Japan: +81-3-5826-1616 or [info.lpg.jp@thermofisher.com](mailto:info.lpg.jp@thermofisher.com)

[thermoscientific.com/tc](http://thermoscientific.com/tc)

PFTCBIOPROCESS 0914

**Thermo**  
SCIENTIFIC

A Thermo Fisher Scientific Brand