

12 Water Chillers Baths and Chillers

What are Water Circulator Baths and Chillers?

Water circulator baths and chillers are temperature controlled cooling and or heating units that control the temperatures of a fluid or solid. Water circulator baths primarily control temperatures to physical items such as beakers, flasks, test tubes etc. placed in a bath/reservoir, commonly referred to as physical immersion. Chillers have no bath and control temperatures by recirculating fluids via inlet and outlet hoses. While similar looking they are different in technology and used for different processes, below explains the difference.

Water Circulator Baths

Refrigerated Circulator Bath

Water baths are used primarily for controlling the temperature of samples placed in them. This is called direct immersion or the bath function. They are smaller than chillers and cool or heat an object within the bath circulator reservoir. Circulator baths have a smaller footprint, and have more choices of controllers and bath sizes. They have a wider temperature range than chillers, -25°C (-13°F) to 200°C (392°F) and are typically connected to smaller equipment requiring low to moderate cooling/heating capacity.



Water circulating bath for physical immersion temperature control

Chillers

Recirculating Chiller

Recirculator chillers in contrast are usually larger than water circulator baths. Due to their larger size chillers have a much higher cooling capacity, higher pumping volume and pressure than a water circulator bath and provide more heat removal. The chiller provides external liquid temperature controlled circulation via inlet and outlet hose connections and does not have a bath. They connect to larger equipment, provide greater cooling capacities with stronger pumps and can replace tap water cooling especially in vacuum systems that require constant water cooling. They have a more narrow cooling range from -5°C (23°F) to 80°C (176°F) than baths.



Circulator chiller for external circulation cooling

Immersion Bath Chillers

Thermo
SCIENTIFIC

Haake ARCTIC

Refrigerated Immersion Baths

A25/A25B/A40 Primarily Used For:

Controls heating and cooling temperatures of physical items placed inside the bath. They can also circulate for a limited set of refrigeration applications. Temperature Range from -25°C (-13°F) to 200°C (392°F) depending on model.



THE NEW
ARCTICA25-A40
REPLACES
DISCONTINUED
RTE-7, RTE-740,
RTE-10, RTE-11

A40

A25/A25B

Manufacture Warranty

MODELS (115VAC)	TYPE	Thermostat	TEMP RANGE	Cooling	FLOW	Bath Capacity	Weight	THERMO P/N	IDEAL P/N	Price*
A25	Heating & Cooling Circulator Bath	SC150	-25°C(-13°F) to 150°C(302°F)	500W	17 l/min	7 to 12 liters*	36kg/80lb	153-5258	P103297	\$4,904.00
A25	Heating & Cooling Circulator Bath	AC200	-25°C(-13°F) to 200°C(392°F)	500W	20 l/min	7 to 12 liters*	36kg/80lb	156-5258	P103293	\$5,297.00
A40	Heating & Cooling Circulator Bath	SC150	-28°C(-18.4°F) to 150°C(302°F)	900W	17 l/min	7 to 12 liters*	55kg/122lb	153-5408	P103300	\$5,951.00
A40	Heating & Cooling Circulator Bath	AC200	-40°C(-40°F) to 200°C(392°F)	900W	20 l/min	7 to 12 liters*	55kg/122lb	156-5408	P103296	\$6,614.00
A25B	Heating & Cooling Circulator Bath	SC150	-25°C(-13°F) to 150°C(302°F)	500W	17 l/min	13 to 21 liters*	42kg/93lb	153-4258	P103299	\$5,045.00
A25B	Heating & Cooling Circulator Bath	AC200	-25°C(-13°F) to 200°C(392°F)	500W	20 l/min	13 to 21 liters*	42kg/93lb	156-4258	P103295	\$5,699.00

*Bath capacity depends on fluid type, temp range and item inside.

12 Water Chillers

Recirculating Chillers

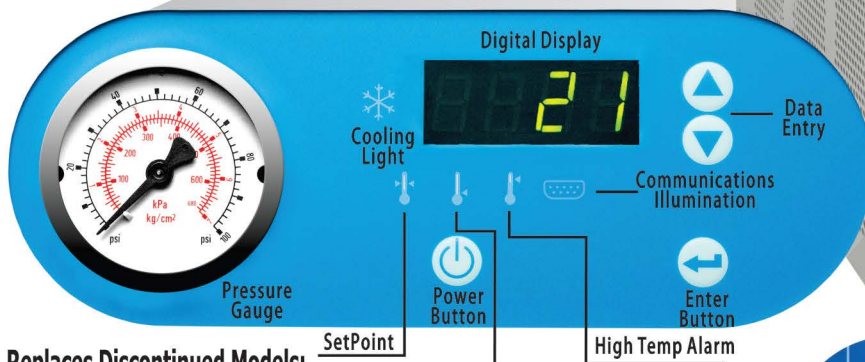
Thermo SCIENTIFIC ThermoChill I · II · III Recirculating CHILLERS

Primarily Used For:

Controlling temperatures for external applications, making the cooling capacity the key spec to consider. Standard Temperature Range from 5°C (41°F) to 30°C (86°F). They have no bath and use inlet/outlet hose connections for recirculating the fluids to the external applications.

- Accessible fill port for easy filling
- Pressure gauge on front panel for easy viewing
- Intuitive digital controller
- Controller indicator lights
- Locking casters
- Communications ports RS232/485 (optional)

For STANDARD Temperature Range: 5°C(41°F) to 30°C(86°F)



Replaces Discontinued Models:

- Thermo Neslab ThermoChill I - Replacement for: Neslab CFT25 CFT-25, 580 Watts Cooling @ 20 Degrees C Neslab Merlin M25 M-25, 750 Watts Cooling @ 20 Degrees C
- Thermo Neslab ThermoChill II - Replacement for: Neslab CFT33 CFT-33, 950 Watts Cooling @ 20 Degrees C Neslab Merlin M33 M-33, 1250 Watts Cooling @ 20 Degrees C
- Thermo Neslab ThermoChill III - Replacement for: Neslab CFT75 CFT-75, 2100 Watts Cooling @ 20 Degrees C Neslab Merlin M75 M-75, 2300 Watts Cooling @ 20 Degrees C

Manufacture Warranty

STANDARD



Neslab NESCom 4.0 Software (CD)

Compatible with ThermoFlex, ThermoChill, RTE/EX, ULT-80,95, and Merlin Chillers. Allows you to use your computer to fully automate temp. and controls. IDEAL P/N P103345 Price* \$489.00

MODELS	VOLTAGE	TYPE	PUMP	TEMP RANGE	Max. Flow Rate	Cooling	Reservoir	Weight	THERMO P/N	IDEAL P/N	Price*
ThermoChill I	110 VAC	Cooling Recirculating	PD-1	5°C(41°F) to 30°C(86°F)	1.4 gpm @60 psid	700W	2.5 gal. / 11.3 L	90 lbs.	196111010000	P106020	\$3,350.00
ThermoChill I (RS232)	110 VAC	Cooling Recirculating	PD-1	5°C(41°F) to 30°C(86°F)	1.4 gpm @60 psid	700W	2.5 gal. / 11.3 L	90 lbs.	196111120000	P106038	\$3,635.00
ThermoChill II	110 VAC	Cooling Recirculating	PD-2	5°C(41°F) to 30°C(86°F)	3.6 gpm @60 psid	700W	2.5 gal. / 11.3 L	90 lbs.	196112010000	P106039	\$3,565.00
ThermoChill II (RS232)	110 VAC	Cooling Recirculating	PD-2	5°C(41°F) to 30°C(86°F)	3.6 gpm @60 psid	700W	2.5 gal. / 11.3 L	90 lbs.	196112120000	P106041	\$3,999.00
ThermoChill III	220 VAC	Cooling Recirculating	PD-1	5°C(41°F) to 30°C(86°F)	1.4 gpm @60 psid	2000W	5 gal. / 19 L	160 lbs.	198131010000	P106046	\$4,600.00
ThermoChill III (RS232)	220 VAC	Cooling Recirculating	PD-1	5°C(41°F) to 30°C(86°F)	1.4 gpm @60 psid	2000W	5 gal. / 19 L	160 lbs.	198131120000	P106047	\$4,950.00
ThermoChill III (RS232)	220 VAC	Cooling Recirculating	PD-2	5°C(41°F) to 30°C(86°F)	3.6 gpm @60 psid	2000W	5 gal. / 19 L	160 lbs.	198132010000	P106037	\$4,900.00
ThermoChill III (RS232)	220 VAC	Cooling Recirculating	PD-2	5°C(41°F) to 30°C(86°F)	3.6 gpm @60 psid	2000W	5 gal. / 19 L	160 lbs.	198132120000	P106048	\$5,100.00

* Catalog Pricing Subject to Change

Water Chillers 12

Recirculating Chillers

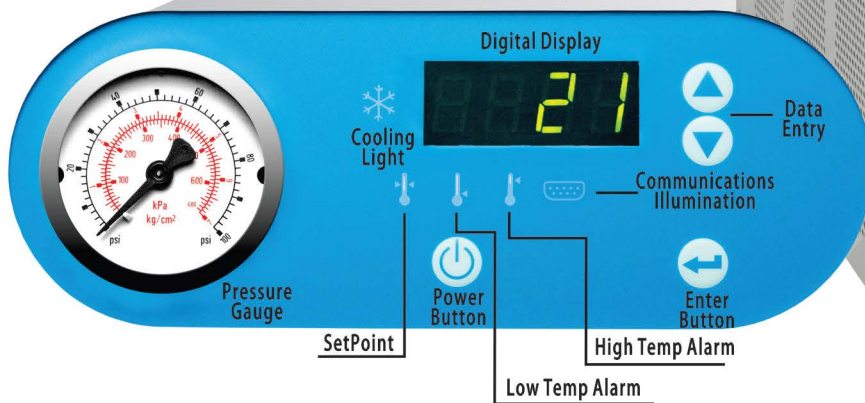
Thermo SCIENTIFIC ThermoChill I · II · III Recirculating CHILLERS

Primarily Used For:

Controlling temperatures for external applications, making the cooling capacity the key spec to consider. LOW Temperature Range from -10°C (14°F) to 30°C (86°F). They have no bath and use inlet/outlet hose connections for recirculating the fluids to the external applications.

- Accessible fill port for easy filling
- Pressure gauge on front panel for easy viewing
- Intuitive digital controller
- Controller indicator lights
- Locking casters
- Communications ports RS232/485 (optional)

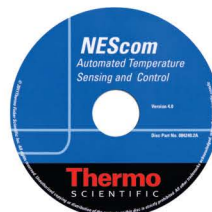
For LOW Temperature Range: -10°C(14°F) to 30°C(86°F)



Replaces Discontinued Models:

Thermo Neslab ThermoChill I - Replacement for:
 Neslab CFT25 CFT-25, 580 Watts Cooling @ 20 Degrees C
 Neslab Merlin M25 M-25, 750 Watts Cooling @ 20 Degrees C
Thermo Neslab ThermoChill II - Replacement for:
 Neslab CFT33 CFT-33, 950 Watts Cooling @ 20 Degrees C
 Neslab Merlin M33 M-33, 1250 Watts Cooling @ 20 Degrees C
Thermo Neslab ThermoChill III - Replacement for:
 Neslab CFT75 CFT-75, 2100 Watts Cooling @ 20 Degrees C
 Neslab Merlin M75 M-75, 2300 Watts Cooling @ 20 Degrees C

Manufacture Warranty



Neslab NESCom 4.0 Software (CD)

Compatible with ThermoFlex, ThermoChill, RTE/EX, ULT-80,95, and Merlin Chillers. Allows you to use your computer to fully automate temp. and controls.
 IDEAL P/N P103345 Price* \$489.00

MODELS	VOLTAGE	TYPE	PUMP	TEMP RANGE	Max. Flow Rate	Cooling	Reservoir	Weight	THERMO P/N	IDEAL P/N	Price*
ThermoChill I (RS232)	110 VAC	Cooling Recirculating	PD-1	-10°C(14°F) to 30°C(86°F)	1.4 gpm @60 psid	700W	2.5 gal. / 11.3 L	90 lbs.	196211120000	P106049	\$4,002.00
ThermoChill II	110 VAC	Cooling Recirculating	PD-1	-10°C(14°F) to 30°C(86°F)	1.4 gpm @60 psid	1000W	2.5 gal. / 11.3 L	90 lbs.	197211010000	P106050	\$3,850.00
ThermoChill II (RS232)	110 VAC	Cooling Recirculating	PD-1	-10°C(14°F) to 30°C(86°F)	1.4 gpm @60 psid	1000W	2.5 gal. / 11.3 L	90 lbs.	197211120000	P106051	\$4,580.00
ThermoChill II (RS232)	110 VAC	Cooling Recirculating	PD-2	-10°C(14°F) to 30°C(86°F)	3.6 gpm @60 psid	1000W	2.5 gal. / 11.3 L	90 lbs.	197212120000	P106052	\$4,880.00
ThermoChill II (RS232)	110 VAC	Cooling Recirculating	MD	-10°C(14°F) to 30°C(86°F)	2.0 gpm @10 psid	1000W	2.5 gal. / 11.3 L	90 lbs.	197213120000	P106054	\$4,580.00
ThermoChill II	110 VAC	Cooling Recirculating	MD	-10°C(14°F) to 30°C(86°F)	2.0 gpm @10 psid	1000W	2.5 gal. / 11.3 L	90 lbs.	197213010000	P106053	\$4,565.00
ThermoChill III	220 VAC	Cooling Recirculating	PD-1	-10°C(14°F) to 30°C(86°F)	1.4 gpm @60 psid	2000W	5 gal. / 19 L	160 lbs.	198231010000	P106055	\$5,040.00
ThermoChill III (RS232)	220 VAC	Cooling Recirculating	PD-1	-10°C(14°F) to 30°C(86°F)	1.4 gpm @60 psid	2000W	5 gal. / 19 L	160 lbs.	198231120000	P106056	\$5,226.00
ThermoChill III	220 VAC	Cooling Recirculating	PD-2	-10°C(14°F) to 30°C(86°F)	3.6 gpm @60 psid	2000W	5 gal. / 19 L	160 lbs.	198232010000	P106057	\$5,194.00
ThermoChill III (RS232)	220 VAC	Cooling Recirculating	PD-2	-10°C(14°F) to 30°C(86°F)	3.6 gpm @60 psid	2000W	5 gal. / 19 L	160 lbs.	198232120000	P106058	\$5,512.00

* Catalog Pricing
 Subject to Change

12 Water Chillers

Recirculating Chillers

NESLAB ThermoFlex
Cooling
CHILLERS



2500
900/1400
ThermoFlex

Thermo
SCIENTIFIC

Polar Series Accel
Cooling and Heating
CHILLERS



250LC/500LT
Accel

Primarily Used For:

Controlling temperatures for external applications, making the cooling capacity the key spec to consider. Temp Range from 5°C (23°F) to 80°C (176°F) depending on model. They have no bath and use inlet/outlet hose connections for recirculating the fluids to the external applications.

Manufacture Warranty

MODELS	VOLTAGE	TYPE	PUMP	TEMP RANGE	Cooling	FLOW	Reservoir	Weight	THERMO P/N	IDEAL P/N	Price*
ThermoFlex 900	110 VAC	Cooling Recirculating	P1	5°C(41°F) to 40°C(104°F)	900W	7.9 l/min	7.2 liters	59kg/131lb	1011010500200100	P103629	\$4,514.90
ThermoFlex 900	110 VAC	Cooling Recirculating	P2	5°C(41°F) to 40°C(104°F)	900W	15.1 l/min	7.2 liters	59kg/131lb	1011110500200100	P103298	\$5,012.85
ThermoFlex 900	110 VAC	Cooling Recirculating	T1	5°C(41°F) to 40°C(104°F)	900W	13.2 l/min	7.2 liters	59kg/131lb	1011C10500200100	P103294	\$5,171.55
ThermoFlex 1400	110 VAC	Cooling Recirculating	P1	5°C(41°F) to 40°C(104°F)	1400W	7.9 l/min	7.2 liters	59kg/131lb	1111010500200100	P105588	\$5,016.30
ThermoFlex 1400	110 VAC	Cooling Recirculating	P2	5°C(41°F) to 40°C(104°F)	1400W	15.1 l/min	7.2 liters	59kg/131lb	1111010500200100	P105589	\$5,514.25
ThermoFlex 1400	110 VAC	Cooling Recirculating	T1	5°C(41°F) to 40°C(104°F)	1400W	13.2 l/min	7.2 liters	59kg/131lb	1111110500200100	P105590	\$5,672.95
ThermoFlex 1400	220 VAC	Cooling Recirculating	P1	5°C(41°F) to 40°C(104°F)	1400W	7.9 l/min	7.2 liters	59kg/131lb	1133010500200200	P105591	\$5,016.30
ThermoFlex 1400	220 VAC	Cooling Recirculating	P2	5°C(41°F) to 40°C(104°F)	1400W	15.1 l/min	7.2 liters	59kg/131lb	1133110500200200	P105592	\$5,514.25
ThermoFlex 1400	220 VAC	Cooling Recirculating	T1	5°C(41°F) to 40°C(104°F)	1400W	13.2 l/min	7.2 liters	59kg/131lb	1133C10500200200	P105593	\$5,672.95
ThermoFlex 2500	220 VAC	Cooling Recirculating	P1	5°C(41°F) to 40°C(104°F)	2500W	7.9 l/min	7.2 liters	80kg/176lb	1213010500200200	P105594	\$5,852.35
ThermoFlex 2500	220 VAC	Cooling Recirculating	P2	5°C(41°F) to 40°C(104°F)	2500W	15.1 l/min	7.2 liters	80kg/176lb	1213110500200200	P105595	\$6,404.35
ThermoFlex 2500	220 VAC	Cooling Recirculating	T1	5°C(41°F) to 40°C(104°F)	2500W	13.2 l/min	7.2 liters	80kg/176lb	1213C10500200200	P105351	\$6,510.15
ThermoFlex 2500	220 VAC	Cooling Recirculating	P1	5°C(41°F) to 40°C(104°F)	2500W	7.9 l/min	7.2 liters	80kg/176lb	1233010500200200	P105596	\$5,852.35
ThermoFlex 2500	220 VAC	Cooling Recirculating	P2	5°C(41°F) to 40°C(104°F)	2500W	15.1 l/min	7.2 liters	80kg/176lb	1233110500200200	P105597	\$6,404.35
ThermoFlex 2500	220 VAC	Cooling Recirculating	T1	5°C(41°F) to 40°C(104°F)	2500W	13.2 l/min	7.2 liters	80kg/176lb	1233C10500200200	P105352	\$6,510.15
Accel 250LC	110 VAC	Cooling/Heating Recirculating	/	-10°C(14°F) to 80°C(176°F)	250W*	15 l/min	2.8 liters	30kg/66lb	221412800	P105598	\$3,344.00
Accel 500LC	110 VAC	Cooling/Heating Recirculating	/	-10°C(14°F) to 80°C(176°F)	500W*	15 l/min	2.8 liters	30kg/66lb	221422800	P105599	\$4,074.00
Accel 500LT	110 VAC	Cooling/Heating Recirculating	/	-10°C(14°F) to 80°C(176°F)	500W*	15 l/min	2.8 liters	30kg/66lb	223432800	P105600	\$4,772.50
Accel 500LT	220 VAC	Cooling/Heating Recirculating	/	-10°C(14°F) to 80°C(176°F)	500W*	15 l/min	2.8 liters	30kg/66lb	223432900	P105601	\$4,772.50

*Heating Capacity 1.2kw

Water Circulated Baths and Chillers

External Pressure Regulator Kit

IDEAL P/N
P106026
THERMO P/N
19600000000

Price* \$399.00



Fits: ThermoChill I & II Recirculating Chillers

External Pressure Regulator Kit

IDEAL P/N
P106027
THERMO P/N
19600000001

Price* \$399.00



Fits: ThermoChill III Recirculating Chillers

Plumbing Package - 5 ft.

IDEAL P/N
P106028
THERMO P/N
1600147

Price* \$325.00



Fits: Artic, AC200 A25, AC200 A40, Accel 500LT

Plumbing Package - 25 ft.

IDEAL P/N
P106029
THERMO P/N
611000000004

Price* \$400.00




Fits: Artic, AC200 A25, AC200 A40, Accel 500LT

Ethylene Glycol - 5 Gallon - H3F1R0

IDEAL P/N
P106030
THERMO P/N
610000000001

Price* \$334.40



Used with chilled water baths and recirculating chillers

460-TSS200 Treated Water Solution

IDEAL P/N
P106031
THERMO P/N
610000000007

Price* \$360.00



5 gallons of premixed CCL5, biocide/corrosion inhibitor. Used with chilled water baths and recirculating chillers

RS232/RS485 Serial Cable - 5 ft.

IDEAL P/N
P105934
THERMO P/N
1600034

Price* \$100.00



RS232/RS485 cable for ThermoFlex 900, 1400 & 2500 Chillers.

USB Interface Cable - 1.8 m.

IDEAL P/N
P106021
THERMO P/N
1600033

Price* \$100.00



For Thermo ARTIC AC200 series controllers with Thermo Chillers.

Thermo Scientific Tubing Kit

IDEAL P/N
P106022

Price* \$100.00



These Thermo Scientific Neslab tubing connection kits are designed to work with the Accel 500 series chillers. 3/8 & 1/2 inches(8 & 12mm) OD barb.

Thermo Scientific Tubing Kit

IDEAL P/N
P106023
THERMO P/N
1600030

Price* \$100.00



These Thermo Scientific Neslab tubing connection kits are designed to work with the ARTIC AC200 chillers. 3/8 & 1/2 inches(8 & 12mm) OD barb.

Remote Temperature Sensor

IDEAL P/N
P106024
THERMO P/N
3330429

Price* \$820.00



For Thermo Haake ARTIC AC200 Bath Circulators with A25 or A40 Controllers.

Thermo NEScom Software CD

IDEAL P/N
P103345
THERMO P/N
422000000004

Price* \$489.00



CD Software compatible with ThermoFlex, RTE/EX, ULT-80, 95 and Merlin Chillers with RS232 Comm. Will need USB to serial port adapter for use.

Trolley Assy. for Haake Bath

IDEAL P/N
P106032
THERMO P/N
1600070

Price* \$334.40



Trolley Assembly for Thermo Scientific Haake ARTIC A40 Bath.

Trolley Assy. for Haake Bath

IDEAL P/N
P106033
THERMO P/N
1600071

Price* \$334.40



Trolley Assembly for Thermo Scientific Haake ARTIC A25 A28 Bath.

Replacement Filter Bag

IDEAL P/N
P106034
THERMO P/N
598000000002

Price* \$140.75



The Thermo Scientific Bag Filter is designed to prevent the introduction of particulates into the system in ThermoFlex Thermo Chillers. Never fill the unit without the reservoir bag filter in place. For 900-5000 series chillers. (2 bags)

* Catalog Pricing
Subject to Change