



TGR SERIES

THERMOCHILLERS
2 to 17 tons (8 to 60 kW)

An eco-friendly solution for injection molding and beyond! The TGR Series thermochiller allows for precise thermal control of the cooling process.

This water-cooled thermochiller has integrated free-cooling and single or dual zone configurations, allowing for customizable P4 or P6 high flow pump rates.

With a 3-way mixing valve feature and heating resistor, the unit can intercept and mix heat transfer fluids from the heating and cooling hydronic systems. This valve can be used to either mix or divert the flow.

These units allow for precise thermal control, +/- 0.4 °F during the cooling process.

Each unit uses environmentally friendly R513A refrigerant and is engineered with integrated free-cooling to achieve the maximum energy savings.

The TGR Series consists of 8 different models with cooling capacities from 2 to 17 tons (8 to 60 kW).⁽¹⁾

APPLICATIONS FOR:

- Plastic and rubber injection
- Blowing and extrusion of plastic materials
- Bottling
- Chemical and pharmaceutical processes
- Metal injection

⁽¹⁾ Capacity varies with operating conditions. See Technical data table for capacity at standard rating point or contact factory for alternate conditions.

REFRIGERATION CIRCUIT

- Vapor compression cycle
- Evaporator: Stainless Steel brazed plate
- Compressor: Single hermetic scroll
- Condenser: Stainless Steel brazed plate
- Electronic expansion valve
- Electronic hot gas bypass valve: highly accurate control of outlet fluid temperature
- Refrigerant: low GWP, ozone friendly R513A

ELECTRICAL PANEL

- Manufactured in compliance with international standards (EN 60204-1) using UL compliant components
- Door-lock disconnecter prevents any access to the panel when energized
- Watertight door to access the electronic controls
- Phase sequence relay
- Circuit breaker protection for compressor, fans, pumps, and tank heater
- Remote ON/OFF operation in the terminal strip and remote alarm indication
- Electrical cabinet constructed of powder-coated galvanized steel

ELECTRONIC CONTROLLER

- Multiple controller parameters access levels (User / Service / Manufacturer)
- Automatic management of cooling, heating, and free-cooling functions
- Integrated display with clear icons for real-time monitoring of the TGR operations and any alarm status, recording up to the last 20 faults
- Includes RS485 MODBUS RTU communication port
- Manages operation of the compressor and pumps, and controls the condenser fan speed
- Displays fluid temperature, key operating parameters, alarm conditions, and all unit configuration parameters

FACTORY TESTING OF EVERY TGR SERIES UNIT WITH FULL LOAD

- Tests completed for correct components assembly
- Pressurization and leak detection of refrigeration circuit
- Pressurization and leak testing of fluid circuits
- Electrical safety tests in compliance with European standards
- Proper operation of controls, safety devices, and alarms
- Check correct functioning of the electronic controller
- Thermal performance and electric quantities measurement
- Final sniffer leak detection

CHILLER TECHNICAL DATA	Model	TGR 008	TGR 012	TGR 017	TGR 021	TGR 030	TGR 035	TGR 048	TGR 060
Power Supply	[V/Ph/Hz]	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60
Cooling Capacity ⁽¹⁾	[Tons]	2.11	3.09	4.46	6.05	7.28	9.68	11.60	15.56
Cooling Capacity ⁽¹⁾	[kW]	8.04	11.42	15.38	21.91	28.53	32.95	44.67	57.07
Total Water Flow ⁽²⁾	[gal/min]	12.83	16.68	23.88	36.05	45.78	53.98	82.37	98.98
Pump Pressure P4 P6 ⁽³⁾	[psig]	50.8 94.9	46.0 85.4	48.1 75.5	54.1 78.6	52.7 90.1	53.6 85.5	67.9 106.0	60.1 92.8
Heating Power ⁽⁴⁾	[kW]	6	6	6	12	12	12	18	18
P4 Pump Power – Single Zone	[kW]	1.2	1.2	2.2	2.2	3.0	3.0	4.4	4.4
P6 Pump Power – Single Zone	[kW]	1.7	1.7	2.2	2.2	2.9	2.9	5.8	5.8
P4 Pump Power (each) – Dual Zone	[kW]	0.8	0.8	1.2	1.2	2.2	2.2	3.0	3.0
P6 Pump Power (each) – Dual Zone	[kW]	1.3	1.3	1.7	1.7	2.2	2.2	2.9	2.9
Refrigerant Type	---	R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A
Compressor Type	---	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number of Compressors	---	1	1	1	1	1	1	1	1
Number of Refrigerant Circuits	---	1	1	1	1	1	1	1	1
Evaporator Type	---	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate
Condenser Type	---	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate
Electrical Enclosure Rating	---	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54
Tank Capacity	[gal]	10.6	10.6	15.9	15.9	15.9	15.9	15.9	15.9
Fluid Connection Size ⁽⁵⁾	[inch]	1	1	1-1/2	1-1/2	2	2	2-1/2	2-1/2
Width	[inch]	24.1	24.1	24.1	24.1	28.0	28.0	28.0	28.0
Depth	[inch]	47.5	47.5	47.5	47.5	63.2	63.2	63.2	63.2
Height	[inch]	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7
Weight ⁽⁶⁾	[lbs.]	628.3	628.3	687.8	687.8	870.8	870.8	892.9	963.4

(1) Rating point: 50°F Water Temperature, Delta 35°F; Condenser Water Temperature 86/95°F. Contact factory for capacity at alternate operating conditions.

(2) Data refers to total water flow for single zone version, P4. In each circuit of the dual zone version, the water flow rate is approximately half of the total.

(3) Data refers to single zone version; dual zone versions may be slightly less.

(4) Data refers to heating power for each circuit.

(5) Data refers to single zone version.

(6) Data refers to single zone P4 version.

ADDITIONAL PRODUCTS AND SERVICES FROM CHASE COOLING SYSTEMS

QBE

FLUID CHILLERS
0.6 TO 7 TONS



CWE/HWE

FLUID CHILLERS AND HEAT PUMPS
3 TO 40 TONS



CWT

FLUID CHILLERS
2 TO 35 TONS



CWB

FLUID CHILLERS
28 TO 150 TONS



CWV

SCREW CHILLERS
75 TO 350 TONS



CDC

DRYCOOLER
UP TO 250 TONS



PUMPS & PUMP SKIDS



FILTERS & STRAINERS



HEAT TRANSFER FLUIDS & CHEMICALS



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