



CWT

FLUID CHILLERS
2 TO 35 TONS

The CWT Series is designed specifically to meet industrial and commercial process cooling requirements.

These units provide reliable control of the chilled fluid temperature while delivering exceptional energy savings.

All air-cooled models are equipped with variable-speed fans and are suitable for outdoor installation.

The CWT Series consists of 14 models with cooling capacities from 2 to 35 tons.⁽¹⁾

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

STANDARD FEATURES, OPTIONS, AND ACCESSORIES

FEATURE	MODEL CWT:	010-020	030	038-130
Integral Circulation Pump, 45 PSI		S	S	S
Insulated Carbon Steel Pressurized Tank		S	S	S
Threaded Fluid Connections		S	S	S
Variable-Speed Condenser Fans		S	S	S
Fluid Pressure Gauge		S	S	S
Refrigerant Pressure Gauges		S	S	S
Low Fluid Flow Protection		S	S	S
Environmentally Friendly R410A Refrigerant		S	S	S
High-Efficiency Refrigerant Compressor		S	S	S
Compressor Crankcase Heaters		S	S	S
Multiple Refrigerant Compressors		X	S	S
Stainless Steel Brazed Plate Evaporator		S	S	S
Washable Stainless Steel Condenser Filters		S	S	S
Condenser Wind Baffles		0	0	0
Electro-Coated Condenser		0	0	0
Non-Ferrous Fluid Circuit		0	0	0
Alternate Pressure Pump		0	0	0
Duplex Pumps		X	X	0
Unpressurized Tank (Stainless or Carbon Steel)		0	0	0
Adjustable Fluid Bypass		0	0	0
Mounting Feet		0	0	0
Wheel Kit		0	0	0
Remote Control Panel		0	0	0

Key: S = Standard, 0 = Optional, X = Not available



FLUID CIRCUIT

- Standard carbon steel (pressurized) tank is thermally insulated
- Tank equipped with expansion vessel, safety valve, automatic vent valve, and drain valve
- Optional atmospheric (unpressurized) tank
- Stainless steel, thermally insulated pump
- Optional automatic bypass protects pump from damage if fluid circuit is blocked
- Fluid differential pressure switch protects against low-flow condition
- Inlet Y strainer
- Fluid pressure gauge (pump discharge)
- Ability to use glycol mixtures up to 50%

REFRIGERATION CIRCUIT

- Manufactured with high-quality materials following rigorous brazing procedures and conforming to international standards (PED 97/23/EC)
- Environmentally friendly R410A refrigerant
- Refrigerant sight glass with moisture indicator and filter-dryer
- Externally equalized thermostatic expansion valve
- High pressure switch and low pressure transducer
- High and low pressure gauges
- High and low pressure access fittings for maintenance and troubleshooting
- Multi-compressor units include discharge check valves

COMPRESSOR

- Multiple compressors (CWT030 & up) for energy efficiency and low starting current
- Rotary (CWT010) and scroll compressors chosen for reliability and efficiency
- Mounted on rubber isolators for noise reduction
- Scroll compressors are especially quiet and can handle liquid return without damage
- Protected against reverse rotation by an electronic phase monitor
- Crankcase heater prevents liquid slugging on start-up

EVAPORATOR

- Stainless steel, brazed plate evaporators are compact and highly efficient
- Evaporators are protected against freezing by the microprocessor controller

CONDENSER

- Microchannel design is compact and highly efficient
- All-aluminum construction eliminates the risk of galvanic corrosion
- Cleanable, stainless steel air filter
- Optional epoxy-coating for corrosion resistance, even in aggressive environments
- Condenser fan motor includes internal, self-resetting thermal protector
- Variable-speed fan allows operation over a wide ambient temperature range

CHILLER TECHNICAL DATA	Model	CWT 010	CWT 015	CWT 018	CWT 020	CWT 030	CWT 038	CWT 040	CWT 045
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]	1.7	2.7	3.6	4.3	5.3	7.4	8.9	8.4
Fluid Flow Rate	[gal/min]	4	7	9	10	13	18	21	20
P3 Pump (Standard Pressure)	[psig]	65	58	65	64	62	65	64	57
P5 Pump (High Pressure)	[psig]	99	88	100	97	94	100	97	89
P2 Pump (Low Pressure)	[psig]	---	---	---	---	---	---	---	---
Refrigerant Type	---	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Compressor Type	---	Rotary	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number of Compressors	---	1	1	1	1	2	2	2	3
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	---	Microchannel	Microchannel	Microchannel	Microchannel	Microchannel	Microchannel	Microchannel	Microchannel
Electrical Enclosure Rating ⁽²⁾	---	IP44	IP44	IP44	IP44	IP44	IP44	IP44	IP44
Sound Pressure Level ⁽³⁾	[dbA]	43	43	50	50	50	53	53	53
Tank Capacity	[gal]	25	25	25	25	25	36	36	36
Fluid Connection Type	---	NPT(F)	NPT(F)	NPT(F)	NPT(F)	NPT(F)	NPT(F)	NPT(F)	NPT(F)
Fluid Connection Size	[inch]	1	1	1	1	1	1 1/2	1 1/2	1 1/2
Width	[inch]	26.1	26.1	26.1	26.1	26.1	29.6	29.6	32.8
Depth ⁽⁴⁾	[inch]	39.2	39.2	51.4	51.4	51.4	64.4	64.4	72.8
Height	[inch]	52.6	52.6	56.2	56.2	56.2	60.4	60.4	66.9
Weight (with empty tank)	[lb]	474	573	584	606	717	882	904	1102
Weight (with full tank)	[lb]	683	783	794	816	926	1179	1201	1400

⁽¹⁾ Rating point: 95°F Ambient, 55°F Fluid inlet, 45°F Fluid outlet, 0% Glycol. Contact factory for capacity at alternate operating conditions.

⁽²⁾ IP40: Indoor, IP44: Outdoor

⁽³⁾ Measured at 10 m [33 ft] in free field.

⁽⁴⁾ For Models CWT 010 to CWT 065, add 11.8-inch to Depth if equipped with optional Atmospheric Tank.

ELECTRICAL PANEL

- Manufactured in compliance with international standards (EN 60204) using UL-recognized components
- Electrical cabinet constructed of powder-coated galvanized steel
- Disconnect switch with door lock prevents access to panel when energized

MICROPROCESSOR CONTROLLER

- Optimizes unit performance and maintains fluid temperature
- Controls and displays the fluid temperature
- Turns the compressor(s) on and off while protecting against short cycling
- Turns the pump(s) on and off; equalizes pump operating times (double pump models)
- Regulates condenser fan speed
- Implements emergency capacity control (for multi-compressor units) if ambient or fluid temperature exceeds operating limits
- Protected by a watertight cover
- Displays key operating parameters and the following alarm conditions
 - High and low refrigerant pressure
 - Low fluid differential pressure
 - Incorrect phase sequence
 - Compressor, pump, or fan motor protector tripped
 - Temperature or pressure probe failure
 - High fluid temperature
 - Evaporator anti-freeze
- Optional remote control panel

UNIT CONSTRUCTION AND MAINTENANCE

- Cabinet frame and panels are powder-coated and suitable for outdoor installation
- Panels are easily removed, providing convenient access for maintenance and repair
- All fasteners are stainless or zinc-plated steel for corrosion resistance
- Protection to IP44 standard on all models; suitable for outdoor installation
- Wheel kits and feet are available for all models
- Designed for ease of operation and maintenance

FACTORY TESTING OF EVERY CWT UNIT

- Pressurization and helium leak detection of refrigeration circuit
- Pressurization and leak testing of fluid circuit
- Chiller performance and power consumption at full load
- Proper operation of all controls, safety devices, and alarms
- Electrical tests according to international standards (EN 60204)

CWT 055	CWT 065	CWT 075	CWT 090	CWT 110	CWT 130
460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60
10.6	12.6	14.3	17.5	21.6	26.1
25	30	34	42	52	63
56	56	55	53	63	63
87	86	84	80	---	---
---	---	---	---	---	---
R410A	R410A	R410A	R410A	R410A	R410A
Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
3	3	4	4	4	6
1	1	2	2	2	2
Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate
Microchannel	Microchannel	Microchannel	Microchannel	Microchannel	Microchannel
IP44	IP44	IP44	IP44	IP44	IP44
50	50	59	59	52	52
36	36	54	54	54	54
NPT(F)	NPT(F)	NPT(F)	NPT(F)	NPT(F)	NPT(F)
1 1/2	1 1/2	2	2	2	2
32.8	32.8	43.7	43.7	47.6	47.6
72.8	72.8	79.7	79.7	87.8	87.8
66.9	66.9	74.8	74.8	88.8	88.8
1102	1135	1587	1698	2161	2205
1400	1433	2039	2149	2612	2656



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



CWB

FLUID CHILLERS
28 TO 150 TONS



REMOTE MONITORING



DRY COOLERS



PUMPS & PUMP SKIDS



HEAT TRANSFER FLUIDS & CHEMICALS



FILTERS & STRAINERS



HEAT EXCHANGERS



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