



CWE/HWE

FLUID CHILLERS AND HEAT PUMPS
3 TO 40 TONS

The CWE/HWE Series is designed specifically to meet industrial and commercial process cooling and heating requirements.

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

The optional hot gas bypass valve provides highly accurate control for temperature-sensitive processes.

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

The CWE Series consists of 19 models with cooling capacities from 3 to 40 tons.⁽¹⁾

All models have a reversible heat pump version (HWE), with heating capacities ranging from 37,000 to 375,000 Btu/h.⁽¹⁾

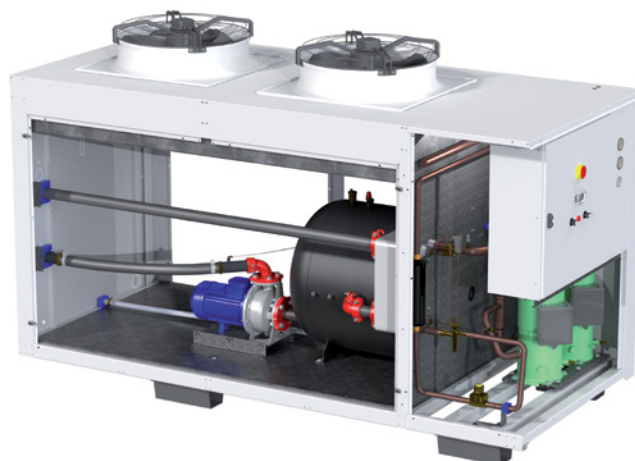
⁽¹⁾ Capacity varies with operating conditions. See technical data table for capacity at standard rating point or contact factory for alternate conditions.

STANDARD FEATURES, OPTIONS, AND ACCESSORIES

FEATURE	MODEL CWE/HWE:	013-068	075-141
Integral Circulation Pump, 45 PSI		S	S
Non-Ferrous Fluid Circuit		S	S
Integral Insulated PVC Unpressurized Tank		S	S
Threaded Fluid Connections		S	O
Grooved Fluid Connections		X	S
Variable-Speed Condenser Fans		S	S
Fluid Level Gauge		S	S
Fluid Pressure Gauge		S	S
Refrigerant Pressure Gauges		S	S
Low Fluid Flow Protection		S	S
Environmentally Friendly R410A Refrigerant		S	S
High-Efficiency Scroll Compressor		S	S
Stainless Steel Brazed Plate Evaporator		S	S
Washable Stainless Steel Condenser Filters		S	S
Mounting Feet		S	S
Alternate Pressure Pump		O	O
Duplex Pumps		O	O
Pressurized Tank (Stainless or Carbon Steel)		O	O
Freeze Protection Heaters		O	O
Condenser Wind Baffles		O	O
Electro-Coated Condenser		O	O
Remote Control Panel		O	O
Adjustable Fluid Bypass		O	O
Multiple Refrigerant Compressors		X	S*
Wheel Kit		O	O
Version with Hot Gas Bypass Valve		O	O

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

*Refer to technical data table for applicable models



FLUID CIRCUIT

- Standard insulated plastic tank (unpressurized)
- Optional pressurized tank
- Tank includes fill port, drain valve, and level sensor
- Insulated, non-ferrous centrifugal pump and fluid circuit
- Adjustable fluid bypass (optional) protects pump from damage if chiller inlet and outlet are closed
- Fluid differential pressure switch protects against low-flow condition
- 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 and low pressure switches
- High and low pressure gauges
- High and low pressure access fittings for maintenance and troubleshooting
- Optional Hot Gas Bypass Valve for highly accurate control of outlet fluid temperature

COMPRESSOR

- Hermetic 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
- Multi-compressor units include discharge check valves
- 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

- Manufactured from plated copper tubes and aluminum fins
- Cleanable, stainless steel air filter
- Variable-speed fan allows operation over a wide ambient temperature range

CHILLER TECHNICAL DATA	Model	CWE 013	CWE 021	CWE 026	CWE 036	CWE 041	CWE 046	CWE 053	CWE 068
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]	3.0	4.5	5.2	6.9	8.7	9.3	11.2	13.3
Fluid Flow Rate	[gal/min]	7	11	12	17	21	22	27	32
P3 Pump (Standard Pressure)	[psig]	48	45	45	48	46	56	56	55
P5 Pump (High Pressure)	[psig]	67	63	62	67	64	88	86	85
P2 Pump (Low Pressure)	[psig]	31	28	28	30	28	24	24	23
Refrigerant Type	---	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
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	---	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin
Electrical Enclosure Rating ⁽²⁾	---	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54
Sound Pressure Level ⁽³⁾	[dB(A)]	49	49	50	51	54	54	54	54
Tank Capacity	[gal]	29	29	29	53	53	53	53	53
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 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Width	[inch]	26.8	26.8	26.8	36.4	36.4	36.4	36.4	36.4
Depth	[inch]	61.0	61.0	61.0	74.4	74.4	74.4	74.4	74.4
Height	[inch]	55.3	55.3	55.3	62.2	62.2	62.2	62.2	62.2
Weight (with empty tank)	[lb]	551	595	650	838	838	882	926	981
Weight (with full tank)	[lb]	794	838	893	1278	1278	1322	1367	1422

HEAT PUMP TECHNICAL DATA	Model	HWE 013	HWE 021	HWE 026	HWE 036	HWE 041	HWE 046	HWE 053	HWE 068
Heating Capacity ⁽¹⁾	[Btu/h]	37,000	58,000	65,000	88,000	118,000	124,000	143,000	163,000
Fluid Flow Rate	[gal/min]	7	11	12	16	22	23	27	31
P3 Pump (Standard Pressure)	[psig]	48	45	45	48	45	55	55	55
P5 Pump (High Pressure)	[psig]	66	60	60	65	59	85	84	83
P2 Pump (Low Pressure)	[psig]	30	25	26	28	25	22	22	22

(1) Rating point (Cooling): 95°F Ambient, 55°F Fluid inlet, 45°F Fluid outlet, 0% Glycol. Rating point (Heating): 45°F Ambient, 105°F Fluid inlet, 115°F Fluid outlet, 0% Glycol. Contact factory for capacity at alternate operating
(2) IP40: Indoor, IP44/IP54: Outdoor.
(3) Measured at 10 m (33 ft) in free field.

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
- Protected by a watertight cover
- Displays key operating parameters and the following alarm conditions:
 - High and low refrigerant pressure
 - High refrigerant discharge temperature
 - Low fluid differential pressure
 - Low fluid level
 - Incorrect phase sequence
 - Compressor, pump, or fan motor protector tripped
 - Temperature probe or pressure sensor 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 IP54 standard on all models; suitable for outdoor installation
- Wheel kits are available for all models
- Designed for ease of operation and maintenance

FACTORY TESTING OF EVERY CWE/HWE UNIT

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

CWE 075	CWE 085	CWE 100	CWE 110	CWE 125	CWE 140	CWE 076	CWE 086	CWE 111	CWE 126	CWE 141
460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60
13.9	17.3	20.1	22.7	25.7	28.4	14.0	16.7	21.6	28.0	29.6
33	41	48	54	62	68	34	40	52	67	71
57	53	52	73	61	59	57	54	75	60	58
86	81	78	102	---	---	86	82	105	---	---
25	21	21	48	27	25	25	22	50	25	24
R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
2	2	2	2	2	2	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1
Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate
Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin
IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54
51	55	55	55	55	55	54	55	54	53	54
106	106	106	106	106	106	106	106	106	106	106
Grooved	Grooved	Grooved	Grooved	Grooved	Grooved	Grooved	Grooved	Grooved	Grooved	Grooved
2	2	2	2	2	2	2	2	2	2	2
54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3
102.0	102.0	102.0	102.0	121.7	121.7	102.0	102.0	102.0	121.7	121.7
77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
1433	1477	1543	1609	1808	1874	1433	1477	1609	1808	1874
2314	2358	2425	2491	2689	2755	2314	2358	2491	2689	2755
HWE 075	HWE 085	HWE 100	HWE 110	HWE 125	HWE 140	HWE 076	HWE 086	HWE 111	HWE 126	HWE 141
175,000	219,000	250,000	281,000	314,000	351,000	173,000	212,000	276,000	350,000	375,000
32	40	47	53	59	66	32	39	50	65	68
57	54	53	74	62	60	57	55	76	60	59
84	77	74	96	---	---	84	78	98	---	---
23	19	19	45	26	24	24	20	46	24	22

conditions. Specifications subject to change without notice.

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ADDITIONAL PRODUCTS AND SERVICES FROM CHASE COOLING SYSTEMS

QBE

FLUID CHILLERS
0.6 TO 7 TONS



CWT

FLUID CHILLERS
2 TO 35 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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