



Model: CSAC-480-D-DP¹-__²-__³-__⁴

Description:

Dual refrigerant circuit / four stage air-cooled portable fluid chiller system. Dual pump model includes one recirculating pump for the chiller circuit and a second pump dedicated for the process circuit. Process pump indicated on table is typical, with options available for different capacity.

CAPACITY		480,000 BTU /HR					
REFRIGERANT CIRCUIT(S) (QTY A/B)		2 (1/1)					
COMPRESSOR(S) / REFRIGERANT		(4) HERMETIC SCROLL / R-410A					
CONDENSER FANS / AIRFLOW		3 / 40,824 CFM					
CONDENSER COILS TYPE		ALUMINUM MICROCHANNEL					
EVAPORATOR TYPE		STAINLESS STEEL / COPPER BRAZED					
FLUID CONNECTIONS		2" MNPT (IN/OUT)					
ELECTRICAL:	V - Ø - HZ	COMP RLA / LRA (ea)	FAN FLA (ea)	(No*) PUMP FLA	MCA	MOCP	
- 5	230 - 3 - 60	A/B 43.6	267	3.6	(1) 8.4 (2) 8.4	238.1	250
- 6	460 - 3 - 60	A/B 20.7	142	3.6	(1) 3.5 (2) 3.5	105.7	125
CHILLER PUMP HP / OUTPUT (1)		3.0 HP / 95 GPM @ 30 PSI					
PROCESS PUMP HP / OUTPUT (2)		3.0 HP / 95 GPM @ 30 PSI					
TANK SIZE / CONSTRUCTION		300 GALLON POLYETHYLENE TANK					
DIMENSIONS		88.8" L x 82.3" W x 91" H					
WEIGHT (APPROX.)		2100 LBS					

STANDARD FEATURES:

- **Controls:** Electronic temperature controller with constant Set Point & Process Value temperature readout. Programmable Logic Controller (PLC) with various temperature and pressure sensors to monitor refrigerant and fluid circuits. Human Machine Interface (HMI) touch panel to provide visual display of system conditions.
- **Refrigeration Components** Efficient scroll compressors, sight glass/moisture indicators, balanced port thermal expansion valves, filter driers, service valves and/or service ports, condenser fan(s) are electronically commutated motors (ECM) with variable speed control of head pressure.
- **Process Fluid Components:** Bronze and/or pvc "Y" strainer with 20 mesh stainless steel screen. Pumps are stainless steel centrifugal. Tanks are insulated with spin on lid, fill port, drain and fluid level sensor. Portable systems will include a bypass flow valve.
- **Safety Controls:** High and low refrigerant pressures, high and low fluid temperatures, evaporator freeze condition, low water flow switch, thermal overloads and current monitors for compressors, and thermal overloads for fan motors, and current/thermal overload motor starter safety for pumps.
- **Construction: Construction:** Welded steel powder coated frame and full metal cabinet, pvc and/or copper piping connections.
- **Warranty:** One-year parts / five-year compressor.

SUITABLE AMBIENT CONDITIONS/FEATURES: (see footnote 3)

- **IND:** Indoor use only.
- **40:** Suitable for outdoor use with an ambient of 40°F ambient.
- **0:** Suitable for outdoor use to 0°F ambient.
- **M20:** Suitable for outdoor use to -20°F

Notes:

- System capacity indicated on table is the approximate BTU/hr based on a leaving fluid temperature of 50°F with an ambient air temperature of 95°F.
- All specifications subject to change without notice. Specify voltage and ambient condition upon ordering.
- MCA: Minimum circuit amps per UL 1995. MOCP: Maximum overcurrent protective device per UL 1995.
- Pump outputs based on specific point on the pump curve which varies depending on system

¹ Flow Design (__=Portable, ST=Stationary, RF=Reverse Flow, EXCH=Extra Heat Exchanger, DP=Dual Pump, DR=Dual Return)

² Leaving Fluid Temperature (__=Standard, LT=Low Temperature-specify lowest temperature in °F)

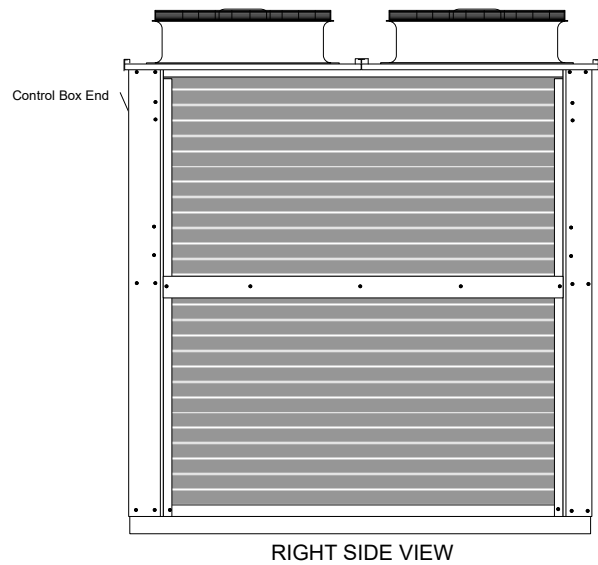
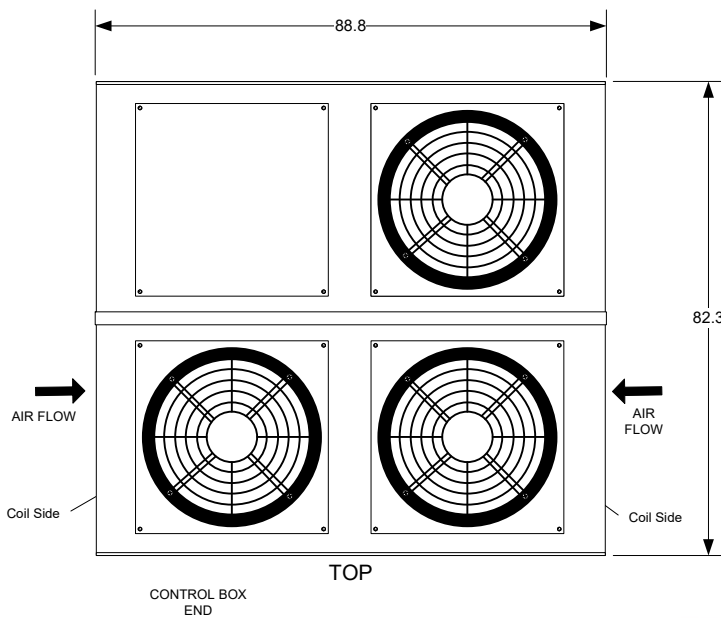
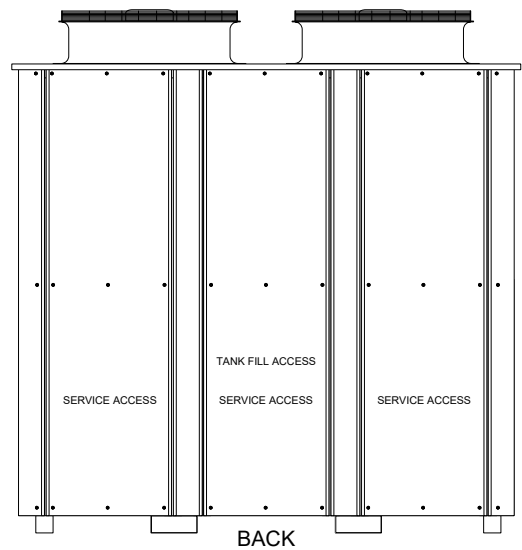
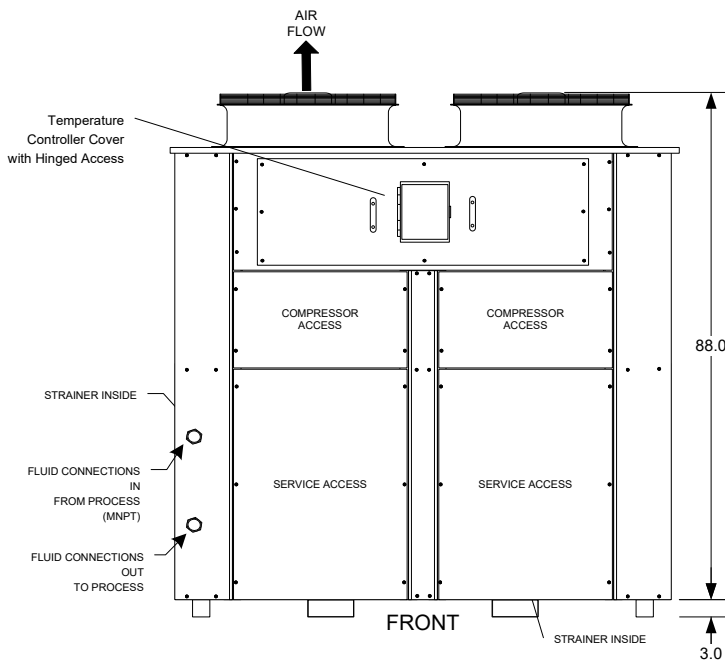
³ Ambient Temperature Conditions (see above)

⁴ Electrical Power Code (see above)



TECHNICAL SPECIFICATION

WWW.WATERCHILLERS.COM



NOTES

- Unit should be installed with at least 4' clearance on all sides and unrestricted above the unit.
- Dimensions are approximate. (inches)
- All specifications subject to change without notice.

COLD SHOT CHILLERS

DRAWN ENGINEERING

ISSUED 4/28/2023

SIZE

A

DIMENSION NOTES

Dimensions are in inches
Unless otherwise specified. +1/4"

SCALE

NONE

DWG NO

INSTALLATION DRAWING
CSAC-040-

DWG-INST_040_0423.vsd

SHEET

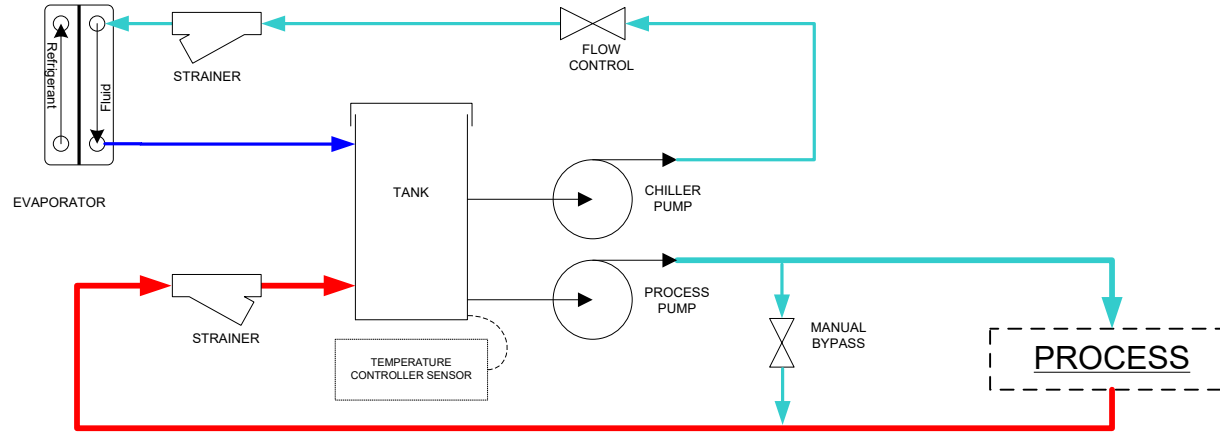
1 / Front-Back-Side-Top View

REV

1



DUAL PUMP (DP)



Line Guide

- COLD CHILLED FLUID
- HOT FLUID
- COLD FLUID
- WARM FLUID

NOTES

- All designs are subject to change without notice.
- The diagrams are to be used as a basic flow diagram only.
- Color Code is for relative temperature comparison.
- Additional components may be included.
- Evaporator may be located in tank.

COLD SHOT CHILLERS

DRAWN ENGINEERING

SIZE A

DESCRIPTION
Typical FLOW OPTIONS for Chiller Circuits

REV 1

ISSUED 5/2020

SCALE NONE

DWG-CKT_ChillerCircuitFlowOptions-Typical_(0520).vsd

SHEET 6 / Dual Pump (DP)