

CIRCUIT 1

CIRCUIT 2

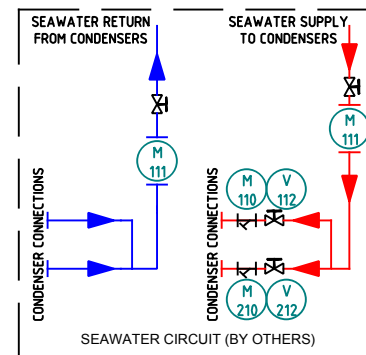
DESIGN NOTES

1. Construction of unit to ASME B31.5 and CSA B52. All pressure vessels comply with ASME Section VIII, Div 1 and CSA B51.
2. Refrigerant high side Design pressure is 400 psig. The pressure limiting device PSH1 is set at 400 psig as per B52-05 7.2.2.
 - * Compressor discharge, 1 1/8" ASTM B280 TYPE L.
 - * Condensate drain 7/8" ASTM B280 TYPE L.
 - * Liquid Line 7/8" ASTM B280 type L.
 - * Factory test & field test (if required) is 500 psig
3. Refrigerant low side Design pressure is 300 psig.
 - * Compressor suction 1 5/8" ASTM B280 type L.
 - * Factory test is 375 psig & field test is 375 psig if required
4. Water side Design pressure is 150 psig.

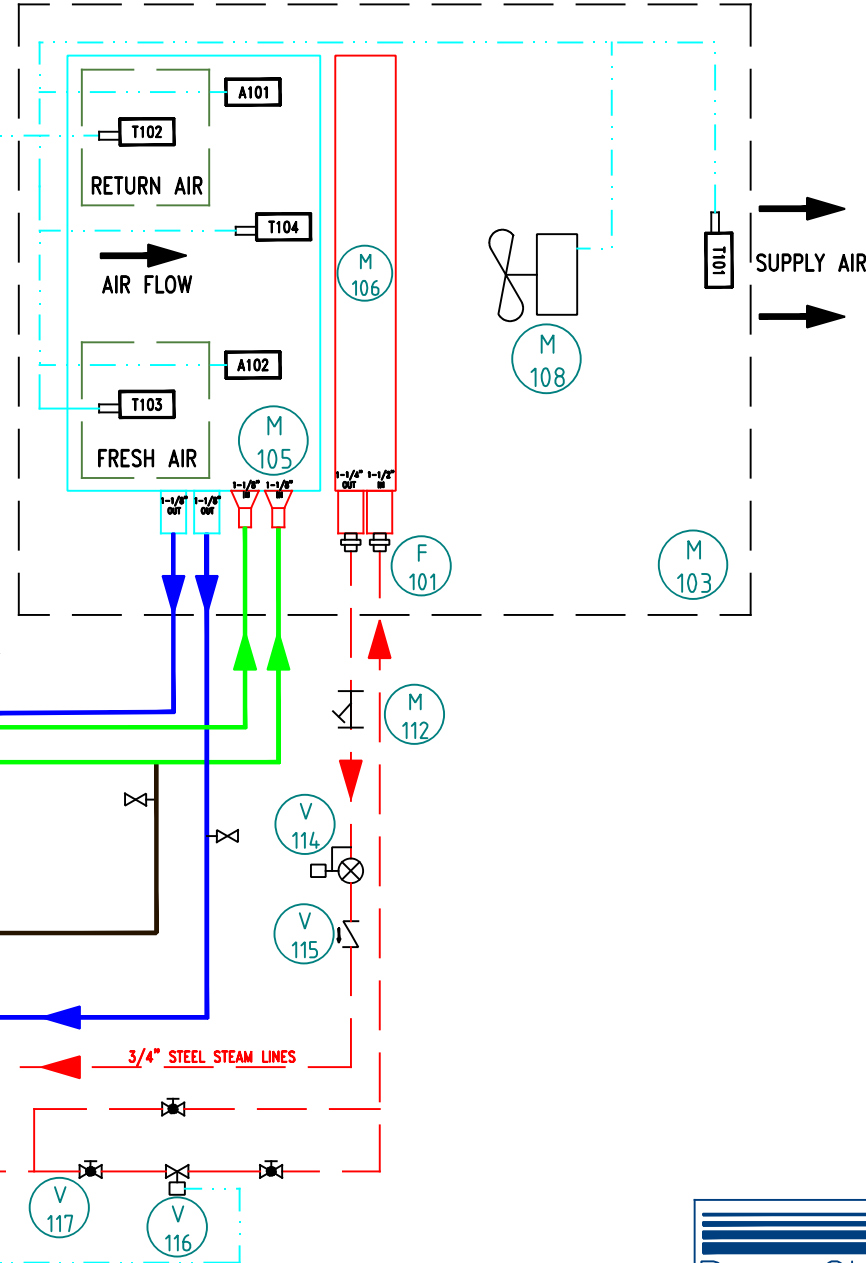
5. Design Working Temperature of the secondary coolant (Water side) is -20°F to 120°F.
7. Water side Test Pressure is 165 psig using nitrogen.
8. Refrigerant is limited to group A1 type 407C.
9. High side safety relief valve to be located on the top of the receiver and set for 400 psig.
10. All joints shall be brazed and comply with ASTM B32, silver brazed joints with 1000°F minimum melting point. Refrigerant piping must be brazed with 15% silver solder in accordance with AWS A5.8, "Specification for brazing metal."
11. All copper fittings to be wrought copper ASTM 16.22 and have CRN'S.
12. All elbows to be Long Radius type.
13. Piping to be supported as per ANSI/MSS SP-58

NOTE:
EX VALVE SHIPPED LOOSE
AND INSTALLED ON SHIP
PIPING RUN BETWEEN VALVE
OUTLET AND EVAPORATOR
COIL INLET SHOULD BE NO
MORE THAN 2FT OF
STRAIGHT PIPE

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AIR HANDLING UNIT



REF	PART NO.	DESCRIPTION	QTY
HM100	HM100	PANEL HMI SCREEN	1
PLC100	TM168B23S	PLC CONTROLLER	1
C1, C2	ZR144KCE-TFD	COMPRESSOR SCROLL 10HP	2
M101,201	STC015XB-XXX	CONDENSER	2
M102,202	C-967-G	FILTER DRIER	2
M103,203	B1125 UNIT #2	AIRWISE AIR HANDLING UNIT	1
M104,204	60760	OIL SEPARATOR	2
M105	TBD	DX COOLING COIL (2 CIRCUITS)	1
M106	TBD	STEAM HEATING COIL (2 CIRCUITS)	1
M107	TBD	STEAM DISTRIBUTOR	1
M108	TBD	FAN	1
M110,210	113907	Y-STRAINER 2", RAW WATER	2
M111	FPF-40-14-S6-CRN	FLEX CONNECTION, RAW WATER	2
M112	105069	Y-STRAINER, 3/4", STEAM	1
V101,201	115343	BALL VALVE, 7/8"	2
V103,203	5526-400	RUPTURE DISC	4
V104,204		COMP. BALL VALVE (7/8" + 1 3/8")	4
V105,205	A-17260	BALL VALVE, 3/8"	2
V106,206	E9S230	OIL RETURN SOLENOID VALVE	2
V107,207	3155W-D + 3020-400	RELIEF VALVE ASSEMBLY	2
V108,208	A-11031	SHUT OFF VALVE	2
V109,209	M902P250FL23W	WATER REGULATING VALVE	2
V110,210	ME19S250-2	HOTGAS BYPASS SOLENOID VALVE	2
V111,211	ADRPE-3	HOTGAS BYPASS REGULATING VALVE	2
V112,212	TBD	VALVE, BALL, 2"	2
V113,213	ACK6	VALVE, CHECK, 3/8"	2
V113,213	EX-5 KIT	ELECTRONIC TX VALVE, LIQUID LINE	2
V114	3/4 CTD600	STEAM TRAP, THERMODYNAMIC	1
V115	118180	VALVE, CHECK, 3/4", STEAM	1
V116	IF24-SR(-S) US w/ B220H1731	STEAM ACTUATOR, BELIMO	1
V117	118181	VALVE, GLOBE, 3/4"	3
HT101,201	018-0091-02	HEATER, CRANKCASE, 90W 120V	2
PT101,201	XMLP040BD29	PRESS. TRANS., 40 BAR, 4-20mA	2
PT102,202	XMLPM3CPD29	PRESS. TRANS., -14.5 to 300 PSI	2
PSH101,201	P700A-1C	HIGH PRESSURE SAFETY SWITCH	2
SG101,201	SA-17S	SIGHTGLASS	2
T101,102 T103,104	10K2P45FEP16	TEMPERATURE SENSOR	4
A101,102	TBD	ACTUATOR, DAMPER CONTROL	2
F101	DUCF34	UNION, DIELECTRIC, 3/4"	2

BERG

Berg Chilling Systems Inc.

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DRAWN BY: RM

DATE: 2016-03-04CHK'D BY:

DATE:

SCALE: N.T.S.

MODEL NO.

WCZ-30-2/0

CUSTOMER REF.

PWGCS
CCGS PIERRE RADISSON

DESCRIPTION

P&I DIAGRAM
HVAC UNIT #5

DWG. NO.: S03051EP1

SHEET: 1 OF: 1

1	RM	AS BUILT	04/12/16
0	RM	RELEASE FOR MANUFACTURING	03/04/16
REV	BY	DESCRIPTION	MM/DD/YY