

CIRCUIT 1

CIRCUIT 2

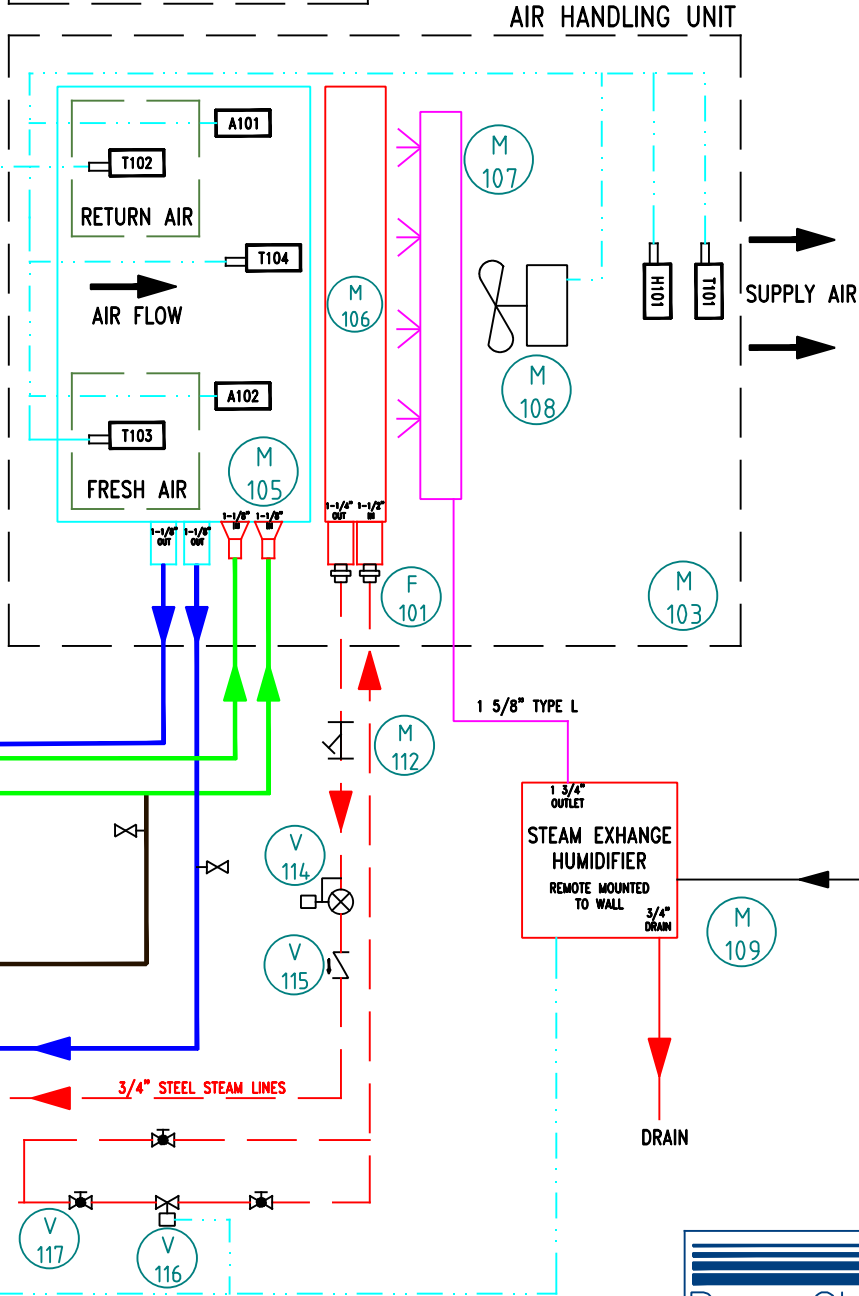
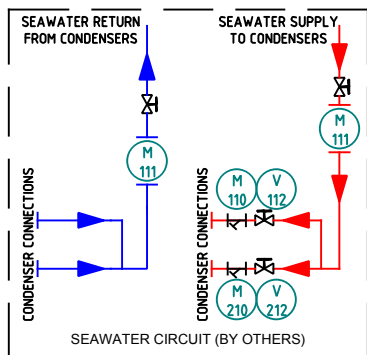
DESIGN NOTES

- Construction of unit to ASME B31.5 and CSA B52. All pressure vessels comply with ASME Section VIII, Div 1 and CSA B51.
- 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.
- 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.
- Water side Design pressure is 150 psig.

- Design Working Temperature of the secondary coolant (Water side) is -20°F to 120°F.
- Water side Test Pressure is 165 psig using nitrogen.
- Refrigerant is limited to group A1 type 407C.
- High side safety relief valve to be located on the top of the receiver and set for 400 psig.
- 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."
- All copper fittings to be wrought copper ASTM 16.22 and have CRN'S.
- All elbows to be Long Radius type.
- 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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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
M109	NH-EL 075	HUMIDIFIER, NORTEC	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	A-17260	COMP. BALL VALVE (7/8" + 1 3/8")	4
V105,205	E9S230	BALL VALVE, 3/8"	2
V106,206	3155W-D + 3020-400	OIL RETURN SOLENOID VALVE	2
V107,207	A-11031	RELIEF VALVE ASSEMBLY	2
V108,208	M902P250FL23W	SHUT OFF VALVE	2
V109,209	ME19S250-2	WATER REGULATING VALVE	2
V110,210	ADPPE-3	HOTGAS BYPASS SOLENOID VALVE	2
V111,211	ACK6	HOTGAS BYPASS REGULATING VALVE	2
V112,212	EX-5 KIT	VALVE, BALL, 2"	2
V113,213	118180	VALVE, CHECK, 3/8"	2
V114	118180	ELECTRONIC TX VALVE, LIQUID LINE	2
V115	3/4 CTD600	STEAM TRAP, THERMODYNAMIC	1
V116	IF24-SR(-S) US w/ B220H1731	VALVE, CHECK, 3/4", STEAM	1
V117	118181	STEAM ACTUATOR, BELIMO	1
HT101,201	018-0091-02	VALVE, GLOBE, 3/4"	3
PT101,201	018-0091-02	HEATER, CRANKCASE, 90W 120V	2
PT102,202	XMLP040BD29	PRESS. TRANS., 40 BAR, 4-20mA	2
PT102,202	XMLP040BD29	PRESS. TRANS., -14.5 to 300 PSI	2
PSH101,201	P700A-1C	HIGH PRESSURE SAFETY SWITCH	2
SG101,201	SA-175	SIGHTGLASS	2
H101	118149	SA-175	2
T101,102 T103,104	10K2P45FEP16	HUMIDITY SENSOR	1
A101,102	TBD	TEMPERATURE SENSOR	4
F101	DUCF34	ACTUATOR, DAMPER CONTROL	2
		UNION, DIELECTRIC, 3/4"	2

BERG

Berg Chilling Systems Inc.

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DRAWN BY: RM

DATE: 2016-03-04/CHK'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 #3

DWG. NO.: S03051CP1

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