

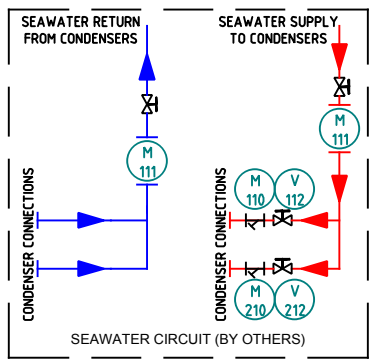
CIRCUIT 1

CIRCUIT 2

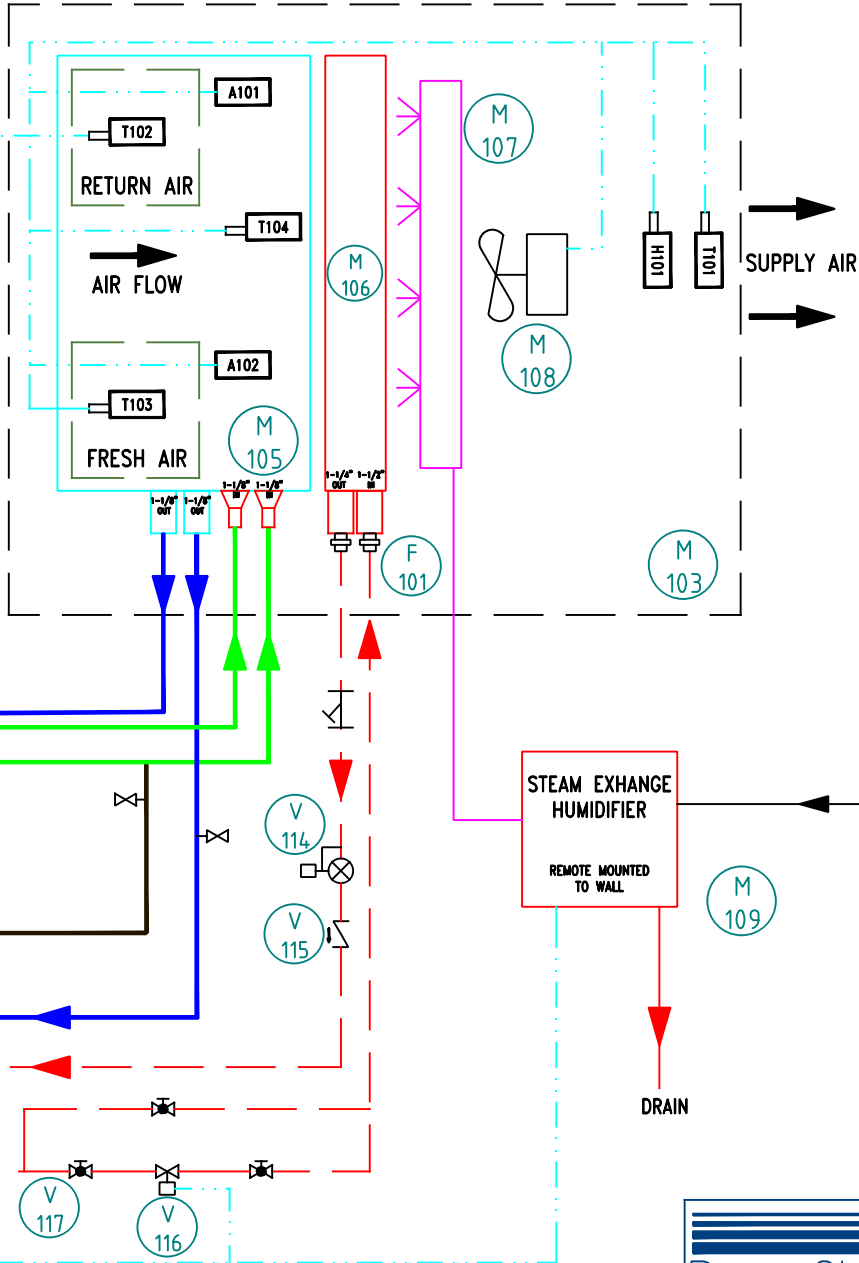
DESIGN NOTES

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, 7/8" ASTM B280 TYPE L.
 - * Condensate drain 1/2" ASTM B280 type L.
 - * Liquid Line 5/8" ASTM B280 type L.
3. Refrigerant low side Design pressure is 300 psig.
 - * Compressor suction 1 1/8" 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.
6. Water side Test Pressure is 165 psig using nitrogen.
7. Refrigerant is limited to group A1 type 407C.
8. High side safety relief valve to be located on the top of the receiver and set for 400 psig.
9. 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."
10. All copper fittings to be wrought copper ASTM 16.22 and have CRN'S.
11. All elbows to be Long Radius type.
12. Piping to be supported as per ANSI/MSS SP-58



AIR HANDLING UNIT



REF	PART NO.	DESCRIPTION	QTY
HM100	HM168B23S	PANEL HMI SCREEN	1
PLC100	TM168B23S	PLC CONTROLLER	1
C1, C2	ZR125KCE-TFD	COMPRESSOR SCROLL 10HP	2
M101,201	STC015XB-XXX	CONDENSER	2
M102,202	C-485-G	FILTER DRIER	2
M103,203	B1125 UNIT #4	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	TBD	Y-STRAINER 2", RAW WATER	2
M111	FPF-40-14-S6-CRN	FLEX CONNECTION, RAW WATER	4
V101,201	104066	BALL VALVE, 5/8"	4
V103,203	5526-400	RUPTURE DISC	4
V104,204	998-5100-27	ROTOLOCK VALVE KIT	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	ME10S250	HOTGAS BYPASS SOLENOID VALVE	2
V111,211	ADRPE-3	HOTGAS BYPASS REGULATING VALVE	2
V113,213	EX-6 KIT	ELECTRONIC TX VALVE, LIQUID LINE	2
V114	TD52	STEAM TRAP, THERMODYNAMIC	1
V115		CHECK VALVE, STEAM	1
V116	LP24-SR(-S) US w/ B220HT731	STEAM ACTUATOR, BELIMO	1
V117		GLOBE VALVE	3
HT101,201	018-0091-02	HEATER, CRANKCASE, 90W 460V/480V	2
PT101,201	XMLPM3CPD29	PRESS. TRANS., -14.5 to 300 PSI	2
PT102,202	XMLP040BD29	PRESS. TRANS., 40 BAR, 4-20mA	2
PSH101,201	P700A-1C	PRESSURE SWITCH	2
SG101,201	SA-15S	SIGHTGLASS	1
H101	118149	HUMIDITY SENSOR	1
T101,102 T103,104	10K2P45FEP16	TEMPERATURE SENSOR	4
A101,102	TBD	ACTUATOR, DAMPER CONTROL	2
F101		UNION, DIELECTRIC	2

BERG

Berg Chilling Systems Inc.

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DRAWN BY: RM

DATE: 2015-09-17

CHK'D BY: GS

DATE: 2015-10-27

SCALE: N.T.S.

WCZ-20-2/0

P&I DIAGRAM
HVAC UNIT#4

CUSTOMER REF.

PWGCS
CCGS PIERRE RADISSON

DWG. NO.: W03014AP1

SHEET: 1 OF: 1

5	RM	UPDATED R/W BYPASS LINE	01/20/16
4	RM	UPDATED R/W BYPASS LINE	12/04/15
3	RM	UPDATED STEAM ARRANGEMENT	11/12/15
2	RM	FIRST RELEASE	10/26/15
1	RM	FOR REVIEW	10/21/15
0	RM	PRELIMINARY	09/25/15
REV	BY	DESCRIPTION	MM/DD/YY