

**PLATE HEAT EXCHANGER (PHE)**

UNIT NUMBER	DUTY	DESCRIPTION	LIQUID FLOW L/S	EWT °C	LWT °C	WPD KPa	LIQUID FLOW L/S	EWT °C	LWT °C	WPD KPa	HTG CAPACITY Kw
PHE-100	1661 STORAGE ROOMS	BRAZED PLATE 112 WIDE x 313 HIGH x 55 DEEP, ALLOY 316/ S.S. PLATES, 0.25mm THK, 25MM CONNECTIONS	0.428	82.22	60	11.23	0.4725	35	57.22	13.788	38.68

ACCEPTABLE MANUFACTURER OR "APPROVED EQUIVALENT" - ALPHA LAVAL MODEL CB30-18H

**FAN SCHEDULE (F)**

FAN No.	DUTY	DESCRIPTION	AIR FLOW L/S	STATIC PRESSURE Pa.	FAN RPM	ELECTRICAL
F-CRE-1661	1661 VOLATILE STORAGE	CENTRIFUGAL FIBERGLASS EXHAUST AIR FAN, 247mm (9.75in) WHEEL, CURVE BLADE	94	186	1463	187WATT 1PH 120 VOLT, 1750 RPM MOTOR
F-CRE-1662	1662 HAZARDOUS WASTE	CENTRIFUGAL FIBERGLASS EXHAUST AIR FAN, 247mm (9.75in) WHEEL, CURVE BLADE	94	186	1463	187WATT 1PH 120 VOLT, 1750 RPM MOTOR
F-CRE-1663	1663 COMPRESSED GAS	CENTRIFUGAL FIBERGLASS EXHAUST AIR FAN, 247mm (9.75in) WHEEL, CURVE BLADE	94	186	1463	187WATT 1PH 120 VOLT, 1750 RPM MOTOR
F-CRE-1664	1664 ACIDS	CENTRIFUGAL FIBERGLASS EXHAUST AIR FAN, 247mm (9.75in) WHEEL, CURVE BLADE	94	186	1463	187WATT 1PH 120 VOLT, 1750 RPM MOTOR
F-CRE-1665	1665 BATTERY STORAGE	CENTRIFUGAL FIBERGLASS EXHAUST AIR FAN, 247mm (9.75in) WHEEL, CURVE BLADE	94	186	1463	187WATT 1PH 120 VOLT, 1750 RPM MOTOR

ACCEPTABLE MANUFACTURER OR "APPROVED EQUIVALENT" - M.K. PLASTICS MODEL CNW SIZE 160

**FAN NOTES :**

F-CRE-1661, ALL FIBER-REINFORCED PLASTIC (FRP) FAN CONSTRUCTION, WHEEL & HOUSING, UV INHIBITORS FOR OUTDOOR INSTALLATION. SHAFT TO BE 316 STAINLESS STEEL. FAN AND ARE TO BE BAKED POLYESTER COATED, BUILT-IN ACCESS DOOR TO ACCESS MOTOR, DRIVE & ELECTRICAL JUNCTION BOX. FAN TO BE BELT DRIVE, TOP ANGLAR UP DISCHARGE. PROVIDE ROUND SLIP INLET & DISCHARGE CONNECTION, UNDRILLED.

F-CRE-1662, F-CRE-1663, F-CRE-1664, F-CRE-1665

SOUND POWER LEVEL		SOUND PRESSURE LEVEL dB(A)	
1	2	1	2
74	72	78	68
71	74	64	58
69	66	54	48
64	64	44	38
64	75	34	

**FILTER SCHEDULE (FL)**

FILTER NUMBER	DUTY	DESCRIPTION	AIR FLOW L/S	FACE AREA M2	FACE VELOCITY M/S
FL-100	1661 VOLATILE STORAGE	PLEATED PANEL FILTER, MERV 8 RATING, NOMINAL 500W x 300W x 25 THICK	94	0.15 (1.66 FT2)	0.602 (120 FPM)
FL-101	1662 HAZARDOUS WASTE	PLEATED PANEL FILTER, MERV 8 RATING, NOMINAL 500W x 300W x 25 THICK	94	0.15 (1.66 FT2)	0.602 (120 FPM)
FL-102	1663 COMPRESSED GAS	PLEATED PANEL FILTER, MERV 8 RATING, NOMINAL 500W x 300W x 25 THICK	94	0.15 (1.66 FT2)	0.602 (120 FPM)
FL-103	1664 ACIDS	PLEATED PANEL FILTER, MERV 8 RATING, NOMINAL 500W x 300W x 25 THICK	94	0.15 (1.66 FT2)	0.602 (120 FPM)
FL-104	1665 BATTERY STORAGE	PLEATED PANEL FILTER, MERV 8 RATING, NOMINAL 500W x 300W x 25 THICK	94	0.15 (1.66 FT2)	0.602 (120 FPM)

ACCEPTABLE MANUFACTURER OR "APPROVED EQUIVALENT" - CAMFIL MODEL 30/30

PROVIDE FOR EACH FILTER NOTED 2 SETS OF SIDE SLIDEOUT FRAMES, AND HINGED ACCESS PANEL SUCH THAT FILTERS MAY BE ALTERNATED BETWEEN SUMMER AND WINTER USE (SUMMER UPSTREAM OF HEATING COIL, WINTER DOWNSTREAM OF HEATING COIL)

PROVIDE SET OF FILTERS FOR SYSTEM STARTUP, AND ONE SET OF FILTERS UPON

**HEATING COIL SCHEDULE (GHC/HC)**

COIL NUMBER	DUTY	DESCRIPTION	AIR FLOW L/S	FACE AREA M2	FACE VELOCITY M/S	APD Pa.	EAT °C	LAT °C	LIQUID FLOW L/S	EWT °C	LWT °C	WPD KPa	HTG CAPACITY Kw
GHC-100	1661 VOLATILE STORAGE	4 ROW, 14 FINS/IN, NOMINAL 400W x 300W 50/50 GLYCOL/WATER MIX	94	0.120 (1.3 FT2)	0.75 (150 FPM)	18	-40	30	0.0945	57.22	34.72	29.8	7.61
GHC-101	1662 HAZARDOUS WASTE	4 ROW, 14 FINS/IN, NOMINAL 400W x 300W 50/50 GLYCOL/WATER MIX	94	0.120 (1.3 FT2)	0.75 (150 FPM)	18	-40	30	0.0945	57.22	34.72	29.8	7.61
GHC-102	1663 COMPRESSED GAS	4 ROW, 14 FINS/IN, NOMINAL 400W x 300W 50/50 GLYCOL/WATER MIX	94	0.120 (1.3 FT2)	0.75 (150 FPM)	18	-40	30	0.0945	57.22	34.72	29.8	7.61
GHC-103	1664 ACIDS	4 ROW, 14 FINS/IN, NOMINAL 400W x 300W 50/50 GLYCOL/WATER MIX	94	0.120 (1.3 FT2)	0.75 (150 FPM)	18	-40	30	0.0945	57.22	34.72	29.8	7.61
GHC-104	1665 BATTERY STORAGE	4 ROW, 14 FINS/IN, NOMINAL 400W x 300W 50/50 GLYCOL/WATER MIX	94	0.120 (1.3 FT2)	0.75 (150 FPM)	18	-40	30	0.0945	57.22	34.72	29.8	7.61

ACCEPTABLE MANUFACTURER OR "APPROVED EQUIVALENT" - DAIKIN McQUAY MODEL 5WH1404B, HORIZONTAL MOUNTED

**PUMP SCHEDULE (P)**

FILTER NUMBER	DUTY	DESCRIPTION	FLOW L/S	HEAD KPa.	ELECTRICAL	NOTE
P-CSR-106, P-CSR-106	GLYCOL HEATING SYSTEM CIRC	INLINE BOOSTER PUMP, 3IN IMPELLER, 50/50 WATER/ETHYLENE GLYCOL SOLUTION	0.4725	83.66	186.5 W 1 PH 120 VOLTS 3300 MOTOR RPM, PUMPS ON E/POWER	1 PUMP TO OPERATE (1 PUMP ON STANDBY), CONTROL FROM B.A.S.
P-CSR-107	GLYCOL SYSTEM FILL	PACKAGED MAKE-UP WATER ASSEMBLY WITH PUMP, BARREL, LID	0.06	345 KPA	0.7 AMP W 1 PH 120 VOLTS, PLUG-IN POWER CONNECTION	SELF CONTAINED UNIT

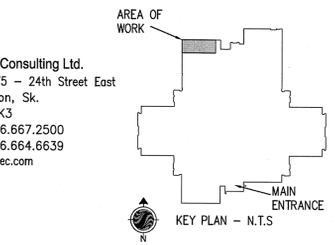
ACCEPTABLE MANUFACTURER OR "APPROVED EQUIVALENT" : BELL & GOSSETT MODEL PL-36

ACCEPTABLE MANUFACTURER OR "APPROVED EQUIVALENT" : AXIOM INDUSTRIES SF-100

ASSOCIATION OF PROFESSIONAL ENGINEERS OF SASKATCHEWAN  
CERTIFICATE OF AUTHORIZATION  
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Stantec  
STANTEC JOB N.O. 113300648



10_06_2013	TENDER	Drawn/Dessine	JBA	Date/Date	2013.04.10
24_05_2013	100%_REVIEW	DWG. Title/Titre Dessin	MECHANICAL SCHEDULES	Scale/Echelle	NONE
10_05_2013	50%_REVIEW	DATE	REVISION		

Environment Canada  
Property Management District 2  
Environnement Canada  
Gestion de l'immobilier District 2  
#11 INNOVATION BLVD SASKATOON, SK. S7N 3H5

DWG # / DESSIN #  
M4