



... In Every Environment

MAFNA Air Technologies Inc



CUSTOM Design ~ Engineering ~ Manufacturing



Corporate Profile and Operation Summary

About MAFNA

MAFNA Air Technologies, Inc. established in the year 1999 as a result of over 22 years of knowledge and experience in innovative design & engineering in the field of Heating, Ventilation and Air-conditioning, business management, marketing and customer relationship. The principals of MAFNA started in the HVAC industry 23 years ago. Driven by their passion for designing innovative equipment and providing highest level of engineering services in the HVAC Industry, it was evident that their technical and entrepreneurial spirit of honesty and integrity would be the foundation for a reliable and dependable company in the long term.

Since its inception MAFNA has demonstrated exemplary growth and is now represented in major local, US and Overseas market through a network of reputable representatives in the respective region. This growth convinced MAFNA that a combination of a team of top professionals and innovative thinking held huge national potential for this local based design, engineering and manufacturing company.

Manufacturing:

MAFNA has developed unique interactive manufacturing program that allows the firm to tap into manufacturing talent and technology of other industries as well. In addition to owning its own plant on a 3 acre land in an Industrial subdivision of the City of Cambridge, ON, Canada, MAFNA has excellent alliances and partnerships with dedicated fabricators and facilities. This alliance provides MAFNA the unique ability to offer enhanced products and services to its customers in Steel, Aluminum or Stainless Steel based custom built manufacturing.

Knowledge:

Delivering an innovative and affordable Air Handling Solution does not happen by chance. It requires a comprehensive understanding of all available technologies that can be delivered by a team of trained and experienced engineering professionals. MAFNA understands this reality and continuously invests in training and development of their engineers with an eye on excellence. All MAFNA Engineers have in-depth experience in all facets of design and engineering within the HVAC field, as is evident in the development of MAFNA's numerous products in Air Handling Solutions.



Customer and Client Partnerships:

Choosing MAFNA as your Air Handling and Custom Built Equipment solution provider is a significant decision that we take very seriously. We believe in developing long lasting relationships with our clients built on repeated success and professionalism. We accomplish this by assuming a complete engineering and design responsibility for solutions that we provide from concept to commissioning.

Innovation & Engineering:

The various US patents awarded to Principals of MAFNA are a testimony to the ingenuity of MAFNA's Engineering team. Each of MAFNA's design and layout of custom-built equipment is premised on significant but proven innovation and creativity, majority of which are patent enabled. This is achieved by strong aptitude and commitment towards incorporating new technologies including computation fluid dynamics and 3D Technologies in critical Engineering and design applications. MAFNA's engineering team has a strong background in the application of aero-acoustics and aero-dynamics principles to Air Handling Solutions.

MAFNA is currently supported by mix of Five (5) full time qualified engineers including two full time professional engineers in addition to three (3) part time / contract professional engineers, PHD scientists for the purpose of ongoing product development and innovation resulting in now three (3) additional patent applications in progress. In addition to engineering staff, MAFNA has at any point of time team of average of ten (10) shop floor personnel under various contract arrangements premised on flexible manufacturing. MAFNA leads the way with an extensive continuous support program. We are committed to assisting our local representatives & engineers with solid design, engineering and manufacturing backup.

MAFNA's Business:

Creative engineering and innovative product design based on principles of aero-acoustic and aerodynamic engineering are two principal offerings of MAFNA Air Technologies. The firm has strength in integrating different technologies to achieve multiple psychrometric process in a single compact and efficient custom design HVAC Equipment. The result is saving in space by **up to 25% and energy by up to 30%.**



What gives us the competitive edge...?

- Location in a city that offers diversified national & international pool of talents in engineering and manufacturing with almost six world's top class universities within 2 hours drive.
- Strong commitment to ongoing technological development.
- Global approach to communication
- Brand name recognition. Proven operation system
- Enormous growth potential. Comprehensive training program
- Marketing program. Low fixed overheads

Business Mix:

MAFNA's business began as design and engineering arm for primary manufacturers with a role for sales, engineering, design and application which grew to 8.0 Million USD by the year 2003. MAFNA has since then repositioned itself and now offers the benefits of innovative design, engineering and manufacturing integrated with intimate knowledge of Heating, Ventilation and Air Conditioning and application of aero-acoustic principles & technologies in Air Handling Applications directly to the customers through reputable representation in respective region.

-- End --

DESSICANT DEHUMIDIFICATION, INDIRECT GAS-FIRED AND HEAT PIPE HRU WITH VESTIBULE FOR POOL APPLICATION

PROJECT
 Meadows Recreation
 Centre - Qty:(9) units

CLIENT
 Meadows Recreation
 Centre
 Edmonton, AB

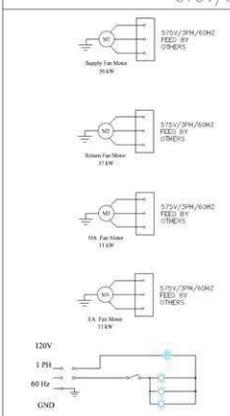
REPRESENTATIVE
 Kehoe Equipment Ltd.
 Edmonton, AB

DATE SHIPPED
 November 23
 2012

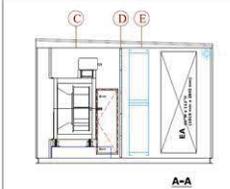


OUTER CASING	18Ga SOLID SATIN COAT - EPOXY PAINTED GREY	BASE	C6 CHANNEL - EPOXY PAINTED	PANEL	2"(51mm) THICK, 3.0 lbs/ft (48 kg/m3) FIBRE GLASS INSULATION
INNER CASING	20Ga SOLID SATIN COAT - EPOXY PAINTED GREY 20Ga ALUMINUM SHEET (Service Corridor Only)	UNDERSIDE FLOOR	20Ga SOLID GALVANIZED	FLOOR	12G CHECKER PLATE - PAINTED

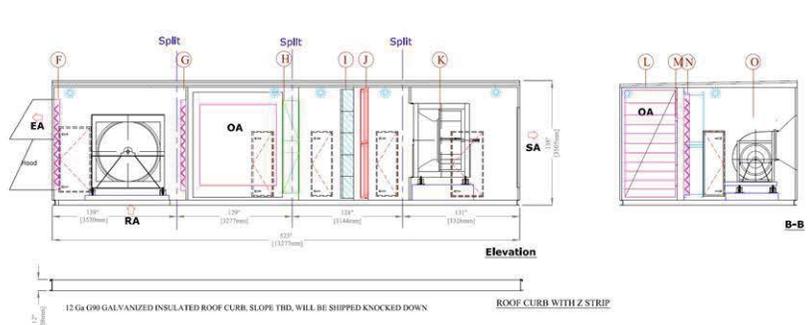
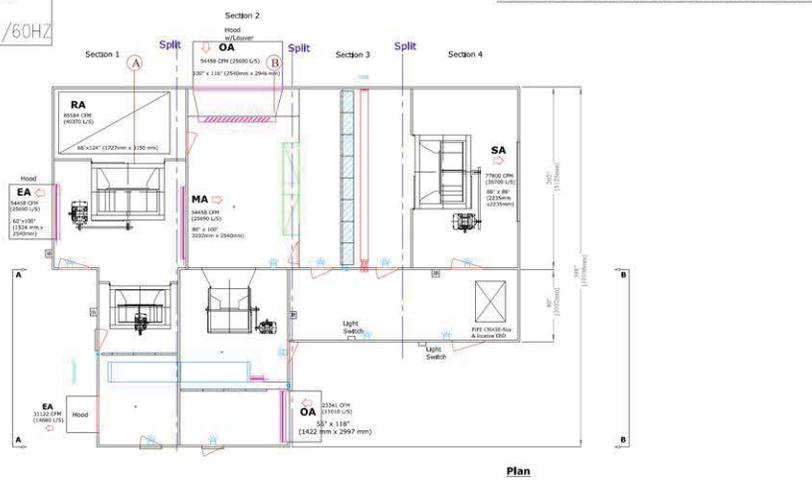
AHU-1 SUBMITTAL DRAWING



NOTES:
 1) ALL CONTROLS, WIRING CO-ORDINATION BY OTHERS
 2) THE # OF LIGHTS TO BE PER THE I.A. DRAWING



ROOF TOP UNIT FOR POOL APPLICATION



- A** Plenum RF, BD, EPF-660 CL2, Arr.3 85584 CFM (40370 L/S)@ 1.8"(450 Pa)TSP, 50HP(37 KW) TEFC Motor;
- B** OA Damper Tamco 9000 SW 86" W x 90" H (2184 mm W x 2286 mm H)
- C** Plenum EF, EPF-490, CL1, Arr. 3HA, 31122CFM (14680L/S)@1.95"(487Pa) TSP, 15HP(11kW)TEFC motor
- D** 2" 30%Pre-Filter 24"x24"(610mm x 610mm)(Qty 15#); 24"x12"(610mm x 305mm)(Qty 5#)
- E** Colmac Heatpipe HPC2-54-78.0-10R-10.0F-WR-E=70.0-6.0F-WR-B
- F** EA Damper Tamco 9000 SW 60" W x 100" H (1524mm W x 2540mm H)
- G** MA Damper Tamco 9000 SW 80" W x 100" H 2032mm W x 2540mm H)
- H** Air Blender-AB102
- I** 2" 30% Pre-Filter 24"x24"(610 mm x610 mm)(Qty40#) 12" 85% Final-Filter 24"x24"(610mm x610mm)(Qty 40#)
- J** Heating Coil 60"(1524mm)FHx187(4750)"FL, Qty 2#
- K** Plenum SF, BD, EPF-660 CL2, Arr. 3, 77,800CFM(36700 L/S)@3.6"(900Pa)TSP 75HP (56 KW) TEFC Motor;
- L** MIN OA Damper Tamco 9000SW 56" W x 118" H (1422 mm W x 2997 mm H)
- M** 2" 30%Pre-Filter 24"x24"(610mm x 610mm) Qty (16#)
- N** Bypass Damper Tamco 9000SW 15" W x 112" H (381 mm W x 2845 mm H)
- O** DWD OA Fan, BAE-DW300, CL1, Arr. 3, 23341CFM (11010L/S)@2.1"(525Pa) TSP, 15HP(11kW)TEFC Motor

- NOTES:
- 1) All dimensions are approximate, subject to change.
 - 2) Unit to ship in 4 sections, with OA & EA hoods ship loose for field installation by others;
 - 3) Est. unit weight 103,000 lbs (47,000 kg); Est. heaviest section weight 25,000 lbs (11,500 kg).
 - 4) Unit roof slope to be approx. 1/4" per foot (1:48)
 - 5) Rain lips on top of doors
 - 6) Roof curb to ship knocked down for field installation by others
 - 7) One feed of 120V/3PH/60Hz for corridor lights; one feed of 120V/3PH/60Hz for unit interior lights.
 - 8) Filters to be in SS frames
 - 9) Heatpipe to ship loose for field installation by others.
 - 10) Concrete inertia base for all fans

NOT INCLUDED:
 -As per Quotation.

PROJECT	2100-MRC-Meadows Recreation Centre	TAG	AHU-1	DRWG.#	2100-MRC-1
ENGINEER	Williams Engineering Canada Inc.	CAPACITY	77800 CFM (36700 L/S) @ 3.6"(900PA)TSP		

**LOW-TEMPERATURE DESICCANT UNIT FOR
 DORMITORY ON MILITARY BASE**

PROJECT	CLIENT	REPRESENTATIVE	DATE SHIPPED
Eglin Air Force Base Eglin, FL ERU-1: 12,100 cfm	Department of Army Savannah, GA	EcoTech Consultants Atlanta, GA	May 31 2012

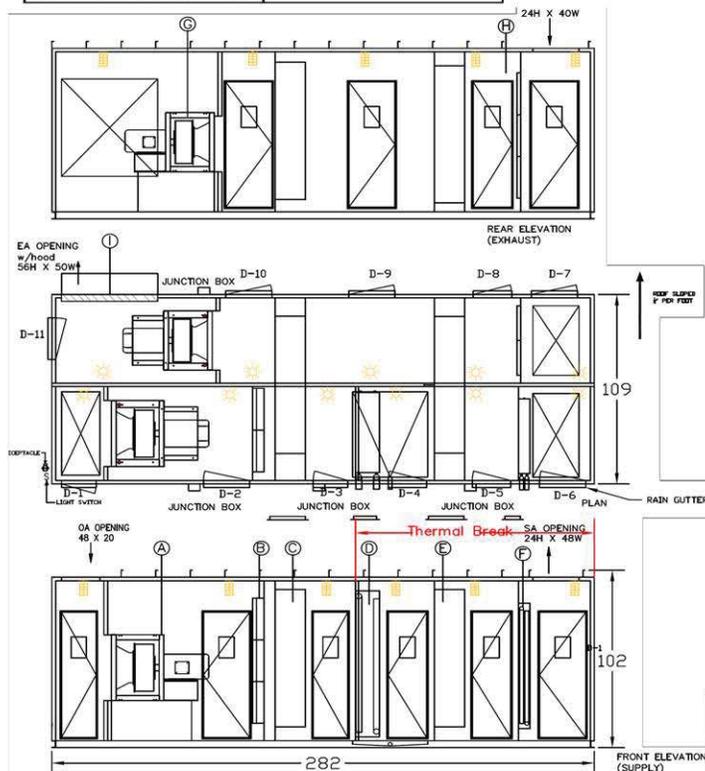


OUTER CASING	18 Ga--SATIN COATED PAINTED	BASE	C5 - STRUCTURAL CHANNEL	PANEL	2" THICK, 3.5 lbs/cft MINERAL WOOL INSULATION
INNER CASING	20Ga--G90--SOLID	UNDERSIDE FLOOR	20Ga G90 SOLID, 4" FIBERGLASS INSULATION	UNIT FLOOR	14Ga--G90--SOLID

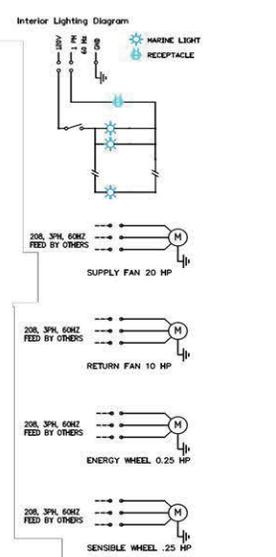
**SUBMITTAL DRAWING
 OUTDOOR UNIT**

DOOR OPENING:	
1. DOOR-1 : 18"x72" N/L	7. DOOR-7 : 24"x72" N/R
2. DOOR-2 : 24"x72" P/R	8. DOOR-8 : 20"x72" N/R
3. DOOR-3 : 18"x72" P/R	9. DOOR-9 : 24"x72" N/R
4. DOOR-4 : 20"x72" P/R	10. DOOR-10 : 24"x72" N/R
5. DOOR-5 : 20"x72" P/R	11. DOOR-11 : 24"x72" P/R
6. DOOR-6 : 24"x72" P/R	

(A)	TWIN CITY PLENUM SUPPLY FAN, EPON 270 12100 CFM, 6.80" TSP 20 HP 208/3/60 ODP
(B)	2" DEEP MERV 8 PREFILTER BANK 72"H X 48"W 4" DEEP MERV 13 FILTER BANK 72"H X 48"W
(C)	ENERGY HEAT WHEEL- KLINGENBURG 74" DIA MODEL RRC-N1-D17-2000/2000-1880
(D)	CHILLED WATER COIL, 81"FH X 43.5"FL, 8 ROW, 11FPI HEATCRAFT 5WH108A
(E)	SENSIBLE HEAT WHEEL- KLINGENBURG 74" DIA MODEL RRC-PT-D17-2000/2000/1880
(F)	WATER HEATING COIL, 69"FH X 43"FL, 1 ROW, 12 FPI HEATCRAFT 5M1201C
(G)	PLENUM RETURN FAN, TWIN CITY EPFN 245 9600 CFM, 4.25" TSP 10 HP 208/3/60 ODP
(H)	2" DEEP MERV 8 PREFILTER BANK 72"H X 40"W
(I)	EA LOUVRE GREENHECK ESD-403 56"H X 50"W



SPECIAL FEATURES:
 1) ENTIRE COILS INCLUDING CASING HAVE ELECTROFIN COATING.
 2) COIL RACKS CONSTRUCTED FROM 304 SS. BLANK--OFFS TO BE 304 SS.
DRAWING NOTES:
 1) UNIT TO BE CONSTRUCTED PER MAFNA STANDARD OUTDOOR CONSTRUCTION
 2) UNIT TO SHIP IN ONE (1) SECTION WITH NO SPLITS. APPROXIMATE UNIT WEIGHT IS 15,000 LB.
 3) THE UNIT WILL BE CONSTRUCTED TO HOLD OVERALL UNIT OUTER LENGTH, WIDTH AND HEIGHT DIMENSION WITHIN A TOLERANCE OF 1/2". ALL THE OTHER DIMENSION ARE FOR INFORMATION PURPOSE ONLY AND MAY CHANGE BASED ON CONSTRUCTION REQUIREMENT.
 4) ALL VIBRATION ISOLATORS TO HAVE 1" DEFLECTION
 5) FOUR FEEDS OF 208 / 3 / 60 AND ONE FEED OF 120 / 1 / 60 REQUIRED.



MAFNA	MAFNA AIR TECHNOLOGIES INC. 175 Sheldon Dr, Cambridge, Ont, Canada, N1T 2B7 Tel: 519.674.4622 (6') 519.674.9854	DESIGNED BY	AL	DWG #	GA208Y-ED
PROJECT	EGLIN AFB SCHOOL DORM	CHECKED BY	SP	TAG	ERU-1
Representative	ECOTECH CONSULTANTS INC.	DWG. DATE	JUNE 06,2011	REV	
ENGINEER	U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT	CAPACITY	12,100 CFM @ 6.80" TSP		

ROOF TOP POOL DEHUMIDIFICATION AHU

PROJECT
Gold's Gym
PDU-1: 20,000cfm

CLIENT
Gold's Gym
Atlanta, GA

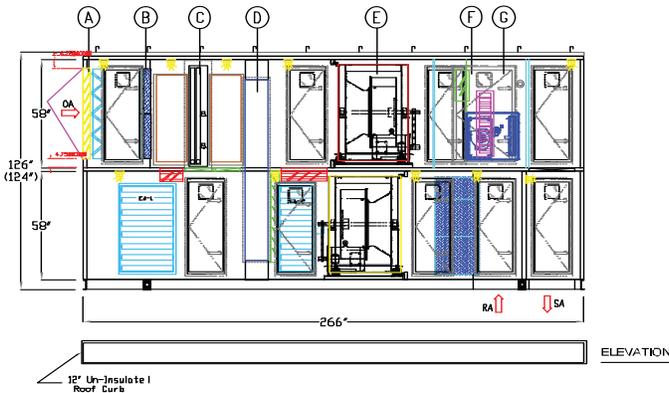
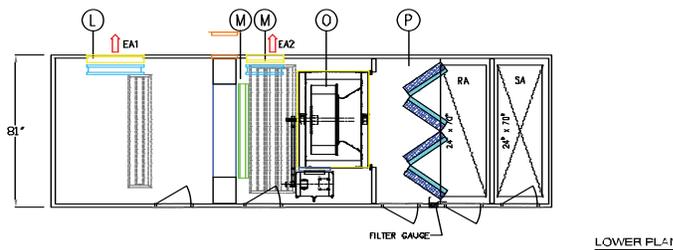
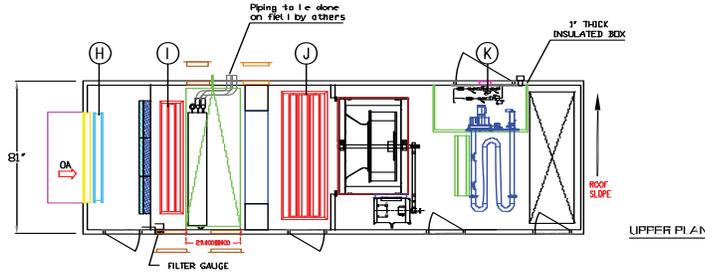
REPRESENTATIVE
EcoTech Consultants
Atlanta, GA

DATE SHIPPED
December 28
2007



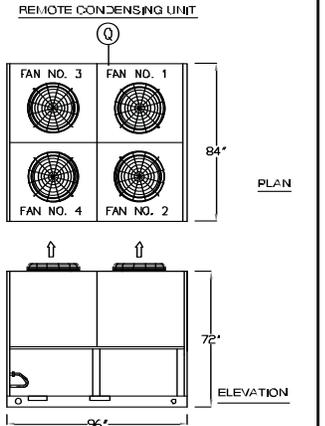
OUTER CASING	18G SOLID SATIN COAT - PAINTED	BASE	C5 X 6.70 CHANNEL - EPOXY PAINTED	PANEL	2" THICK, 3.0 lbs/ft ACOUSTIC INSULATION
INNER CASING	20C ALUMINUM PERF IN FAN SECTION	UNDERSIDE FLOOR	20G SOLID GALVANIZED	FLOOR	12G ALUMINUM CHECKER PLATE - 3.0 lbs/ft INSULATION

Submittal Drawing
460V/3Ph/60Hz



- (A) OA Louver (48"Wx48"H) with OA Hood
- (B) 2" 30/30 Prefilter: 24"x20"(6#) & 4" Secondary Filter: 24"x20"(6#)
- (C) DX Coil: FH=51", FL=57"
- (D) Heat Pipe: FH=48.25", FL=48", Rows #5 - HPT
- (E) Plenum SA Fan-20,000CFM@4.2" TSP - EPF365, Class 1, 2DHP Motor
- (F) IN-Direct Gas Fired Heater: 350NBH Output - HWA35D
- (G) Bypass Damper (30"Wx16"H)
- (H) OA Damper (48"Wx48"H)
- (I) RA Damper (60"Wx12"H)
- (J) Recirculate Damper (68"Wx24"H)
- (K) Louver (20"Wx16"H)
- (L) EA-1 Damper and Louver (30"Wx48"H)
- (M) Face Damper (30"Wx48"H)
- (N) EA-2 Damper and Louver (20"Wx48"H)
- (O) Plenum RA Fan-21,000CFM@3.0" TSP - EPF365, Class 2, 2DHP Motor
- (P) 2" 30/30 Prefilter: 24"x20"(8#), 24"x12"(4#)
4" Secondary Filter: 24"x20"(8#), 24"x12"(4#)
- (Q) Remote Air-Cooled Condensing Unit (48R) - Carrier - 38AH-044

- NOTES:**
- CU to be shipped loose directly to the site (All the Ref. piping and the electrical work to be done on field by others)
 - Est. Weight of AHU is 12000lbs and CU is 2500lbs.
 - NOT INCLUDED: VFD, Controls and Motor Starters
- 3DORS OPENING**
- Ø 30" DIA. PIER# 0940-1 PCS
 - Ø 24" DIA. PIER# 0940-2 PCS
 - Ø 18" DIA. PIER# 0940-3 PCS
 - Ø 12" DIA. PIER# 0940-4 PCS
 - Ø 8" DIA. PIER# 0940-5 PCS
- LEGEND:**
- Encountered Lighting Fixture
 - Lighting Service
 - Lighting Pole
 - Reinforced Deck



DESICCANT DEHUMIDIFICATION UNIT FOR RAREBOOK LIBRARY

PROJECT
St. Bonaventure University
Bogoni Rare Books Building
AHU-1: 3,500 cfm

CLIENT
St. Bonaventure University
Friedman Library,
St. Bonaventure, NY

REPRESENTATIVE
R.L. Kistler Inc.
Blasdell, NY

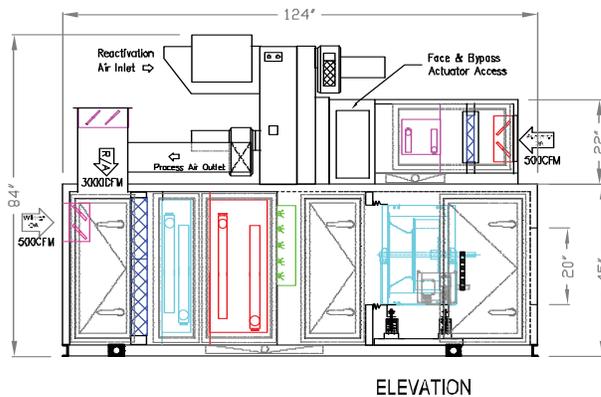
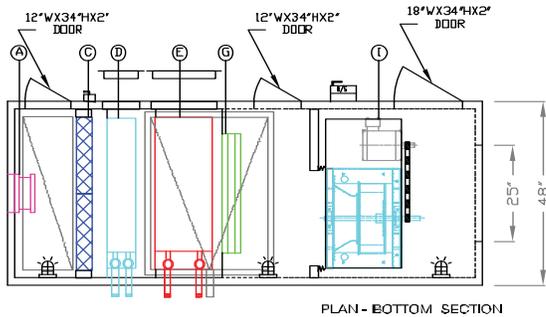
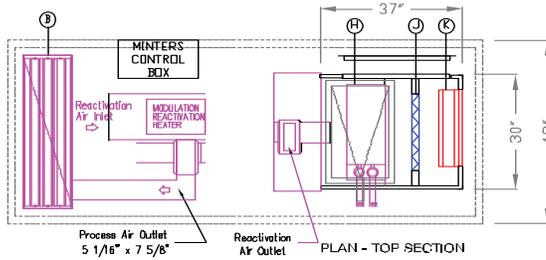
DATE SHIPPED
November 13
2007



OUTER CASING	18C SOLID -PAINTED- SATIN COAT	BASE	C3 x 5.00 CHANNEL - EPOXY PAINTED	PANEL	2" THICK, 3.0 lbs/ft ² INSULATION
INNER CASING	20G PERF. GALVANIZED G90 (SOLID IN COIL SECTION)	UNDERSIDE FLOOR	20G SOLID GALVANIZED G90	FLOOR	14G -G90 Plate

SUBMITTAL DRAWING

3,500 CFM @ 3.00" TSP (1.0" ESP)
208V / 3Ph / 6Hz



(A)	Winter OA Damper 10"Wx10"H
(B)	RA Plenum/ RA Damper 40"Wx13"H
(C)	Farr 4" Filter (65%) - 20"x20" (2#), 20"x16" (2#)
(D)	Heatcraft HW Heating Coil - 2 Row, FL=32", FH=31.5" 5MS0702B
(E)	Heatcraft CHW Cooling Coil - 10 Rows, FL=32", FH=31.5" 5MS0910E
(F)	Dehumidifier - Model HGD 600-EA (500 CFM) + Face & Bypass Damper
(G)	Dri Steam Humidifier
(H)	Heatcraft Pre Cooling Coil - 6 Rows, FL=18", FH=9" 5WH1006B
(I)	TC Plenum Fan, EPF-182, Class 1, 3500CFM @ 3.00" TSP 5 HP Motor - 208/3/60
(J)	Farr 2" Pre Filter (30%) - 20"x12" (1#)
(K)	Summer OA/Process Air Damper 20"Wx12"H

NOTE:

- Unit shipped as one (1) section.
- DDC Panel field mounted and field wired to factory installed controls & sensors (by others).
- DDC Control Panel - Supply, install & wiring to factory mounted Sensors/Actuators by others (Not in MAFNA scope)
- Not Included: Controls & Hydraulics

DOORS OPENING:
14 1/2" WX 36 1/2" H X 2" T (N/L)-2 Pcs
20 1/2" WX 36 1/2" H X 2" T (N/L)-1PC

PIPES:
1.5" S/S PIPE 6" LONG
1.5" S/S PIPE 7'-8" LONG

LEGEND:
Incandescent Lighting Fixture
Lighting Switch
Removable Panel
Disconnect Switch
Lifting Lug

PROJECT	ST. BONAVENTURE UNIVERSITY RAREBOOKS BOGONI LIBRARY	CAPACITY	3,500CFM @ 3.00" TSP	AHU-1	DWG.#	1077
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Design and Engineering
Smart Air Solutions

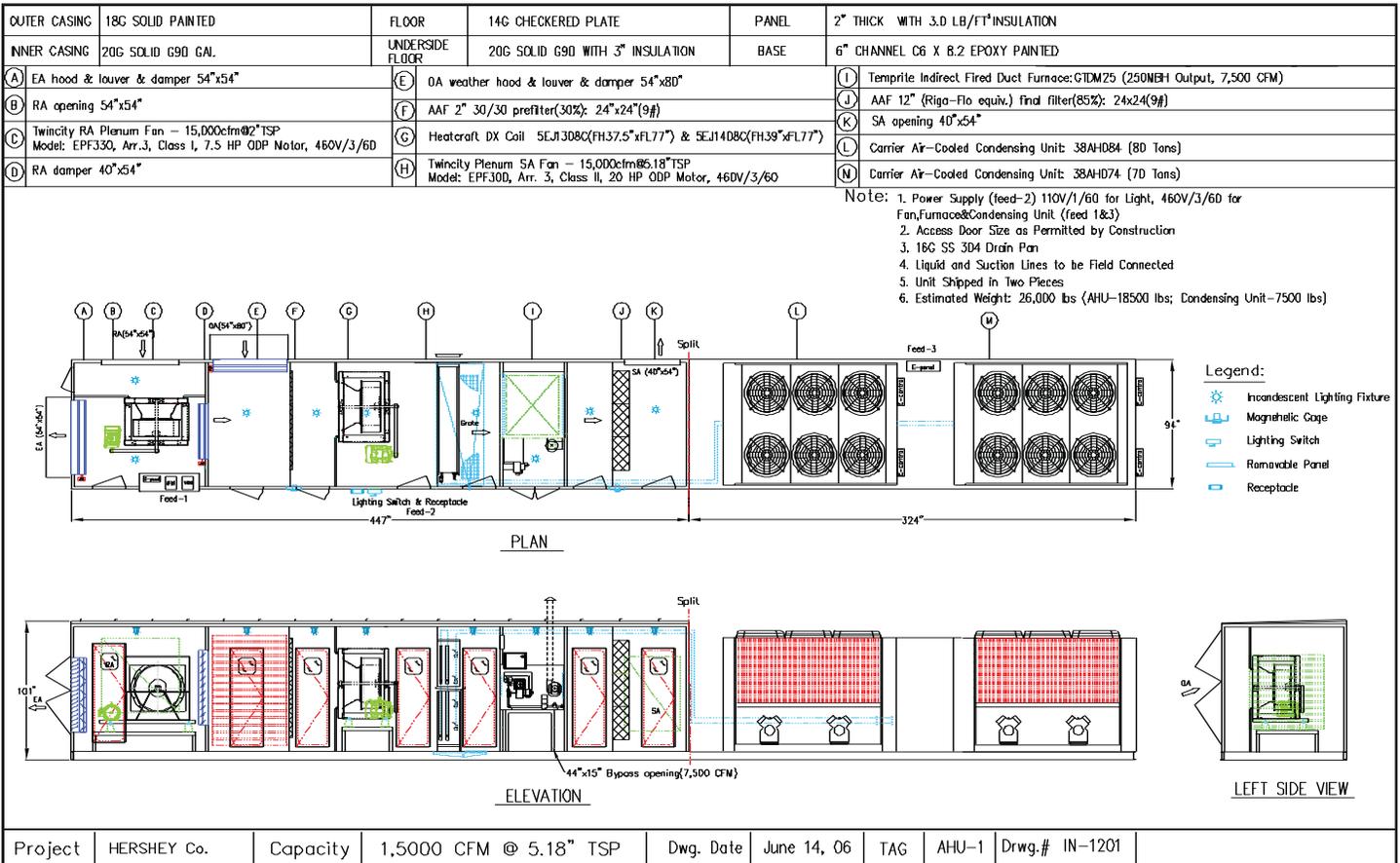
150TR DX-GAS FIRED DEHUMIDIFICATION UNIT

PROJECT
Hershey Project Wenona, IL
Indirect Fired 15,000 CFM
Outdoor AHU

CLIENT
Hershey Inc
Hershey, PA

REPRESENTATIVE
Heat Transfer Tech. Inc.
Abington, PA

DATE SHIPPED
June 14
2006





... In Every Environment

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Mafna customers include:

American Airlines
Bay Regional Medical Center
Bell Canada
Bombardier
Brock University
Cape Cod Hospital
City of New York
City of Toronto
Clarkson University
Cornell University
Corning Inc
DeBeers Diamond Inc.
Dow Chemical
ENI Petroleum
Georgia State University
Glaxo Smith Kline
GO Transit
Gold's Gym
Hamilton Health Sciences Center
Lakehead University
Memorial Sloan-Kettering Cancer Center
New York Methodist Hospital
Peel District School Board
Queens University
Royal Bank of Canada
Sofina Foods
State of Alaska
State of Massachusetts
State University of New York
Sunnybrook Hospital
University of Illinois
University of Michigan
University of Rochester
US Department of Army
US Department of Navy
Washington State University
Women's College Hospital
Xerox Corporation
York University