

Job Summary

Job Name Henry A Guerra Branch Library  
 Contractor Dasco  
 Engineer Lizcano Consulting Engineers, Inc.  
 Submitted by: Carrier South Texas

Qty	Model Number	Description	Mark For:
1	39MJ151776JT41N4WS 39MJ2-B11B6C-B1427 39MJ3-QNZ1K2-P745X 39MJ414N224PK-59F 39MJ5-G421Y-5	SIZE 17, 208V/3P BUILT UP AHU	AHU-1
1	39TA-R151380615	"C" NOZZLE, 15T TXV	AHU-1
1	38AKS024-5	20T, 208V/3P CONDENSING UNIT	CU-1
1	32LT-900-301	LOW AMBIENT CONTROL	CU-1
1	30GA-900-111	GAGE PANEL PACKAGE	CU-1
1	30GA-900-161	HOT GAS BYPASS	CU-1
1	39MJ15067GJS41N48R 39MJ2-B11B6C-B1427 39MJ3-QNZ1K2-P745X 39MJ414N233RK-583 39MJ5H7421Y-F	SIZE 06, 208V/3P BUILT UP AHU	AHU-2
1	39TA-R081180410	"E" NOZZLE, 8T TXV	AHU-2
1	38ARZ008-5	7.5T, 208V/3P CONDENSING UNIT	CU-2
1	32LT-900-301	LOW AMBIENT CONTROL	CU-2
1	30GA-900-111	GAGE PANEL PACKAGE	CU-2
1		HOT GAS BYPASS	CU-2
1	39MJ152192X542NBBT 39MJ2-M22DDP-M287 39MJ341YTZW6883RWX 39MJ4HL4KP87XK98-3 39MJ5N4K4H47R-E	SIZE 21, 208V/3P BUILT UP AHU	AHU-3
2	39TA-R081180410	"E" NOZZLE, 8T TXV	AHU-3
1	38AKS028-5	25T, 208V/3P CONDENSING UNIT	CU-3
1	32LT-900-301	LOW AMBIENT CONTROL	CU-3
1	30GA-900-111	GAGE PANEL PACKAGE	CU-3
1	30GA-900-161	HOT GAS BYPASS	CU-3
1	39MJ1512RMLX41N4MC 39MJ2-B1166C-B142E 39MJ3-ZQZ1K2-Y745P 39MJ414NK2E6K-58F 39MJ5WE411Y-M	SIZE 12, 208V/3P BUILT UP AHU	AHU-4
1	39TA-R151380615	"C" NOZZLE, 15T TXV	AHU-4
1	38AKS016-5	15T, 208V/3P CONDENSING UNIT	CU-4
1	32LT-900-301	LOW AMBIENT CONTROL	CU-4
1	30GA-900-111	GAGE PANEL PACKAGE	CU-4
1	30GA-900-161	HOT GAS BYPASS	CU-4
1	FB4ANF024000	2T, 208V/1 FAN COIL UNIT	AHU-5
1	KFCEH1501F15	11.3KW, 208V/1P ELECTRIC HEATER	AHU-5
1	21.5 X 13 X 1	1" THROW AWAY FILTER	AHU-5
1	38CKC018-3	1.5T, 208V/1P CONDENSING UNIT	CU-5

Job Summary

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Contractor Dasco

Engineer Lizcano Consulting Engineers, Inc.

Submitted by: Carrier South Texas

Qty	Model Number	Description	Mark For:
1	KSALA0201R22	LOW AMBIENT KIT	CU-5
1	KAALP0101LPS	LOW PRESSURE SWITCH	CU-5
1	KSAHI0101HPS	HIGH PRESSURE SWITCH	CU-5
1	KAAWS0101AAA	WINTER START CONTROL	CU-5
1	KAACH1001AAA	CRANKCASE HEATET	CU-5

**Carrier AHUBuilder**

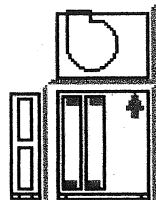
May 7, 2003

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Job Name Henry Guerra Jr. Branch Library

Mark for AHU-1

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**Unit Parameters**

Unit Size: Size 17

Insulation: R-13 Double Wall Sealed Panel

Exterior Finish: Galvanized Pre-painted

Interior Finish: Galvanized Pre-painted

**Flat Filter**

2In. Flat Filter

Field Supplied 2in. Throwaway Filter

Qty (6) 20in. x 20in.

No Filters

Hinged Panel Right Side

Skid (factory)

**Dual Coil**

Stainless Steel Drain Pan Right Side Drain

Hot Water 16.93 sq.ft 1 Row 8 FPI Half Circuit

Coil Connection Right Side

1/2 in. Tube Diameter

AL fins Galv. Casing

Steel Header

No Coating

**Heating Performance Ratings**

Altitude, ft	0	Fluid Vel., ft/s	1.1
Face Area, sqft	16.93	EWT, °F	180.00
Face Vel., fpm	476.3	LWT, °F	138.5
Site Airflow, CFM	8064	Drop, °F	41.5
Std. Airflow, CFM	8064	Cv Rating	4.4
Heating Cap., MBH	203.25	EAT, °F	65.60
Flow Rate, gpm	9.8	LAT, °F	88.65
Fluid PD, ft wg	0.3	Air Friction, in wg	0.18

**Cooling Performance Ratings**

Face Vel., fpm	476.3	LWT, °F	0.00
Site Airflow, CFM	8064	Rise, °F	0.0

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**Carrier AHUBuilder**  
 May 7, 2003  
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Job Name Henry Guerra Jr. Branch Library  
 Mark for AHU-1

Std. Airflow, CFM	8064	Cv Rating	0.0
Total Clg. Cap, MBH	215.59	EADB, °F	76.12
Sen. Clg. Cap, MBH	182.40	EAWB, °F	63.19
Flow Rate, gpm	0.0	LADB, °F	55.43
Fluid PD, ft wg	0.0	LAWB, °F	54.09
Fluid Vel., ft/s	0.0	Bypass Factor	0.1140
EWT, °F	45.00	Air Friction, in wg	0.67

Note:

Direct Expansion 16.93 sq.ft 6 Row 8 FPI Row Split Half Circuit  
 Coil Connection Right Side  
 1/2 in. Tube Diameter  
 AL fins Galv. Casing  
 No Coating

CONDENSING UNIT  
 MCA 93.4  
 MOCP 150

**Cooling Performance Ratings**

Type:	1/2 inch Tube	Tons/Circuit	1.24
Altitude, ft	0	Compressor, kW	22.6
Face Vel., fpm	476.3	EADB, °F	76.12
Site Airflow, CFM	8064	EAWB, °F	63.19
Std. Airflow, CFM	8064	Ent. Enthalpy, BTU/lb	28.55
Total Clg. Cap, MBH	222.91	LADB, °F	55.09
Sen. Clg. Cap, MBH	185.45	LAWB, °F	53.75
Bypass Factor	0.1140	Lvg. Enthalpy, BTU/lb	22.41
Air Friction, in wg	0.67	Condensing Unit	38AKS024
Cond. EAT, °F	100.0	Nozzle Size	C15
Suction Loss, °F	2.7	Number of TXV's	1
SST, °F	44.1	TXV Tonnage	15
SCT, °F	136.3		

Note: Nozzle Factory Supplied and Installed.

**Draw-Thru Supply Fan**

Vertical

Bottom Inlet

**Performance Ratings**

Site Airflow, CFM	8064	Htg. Coil Static, in wg	0.18
Altitude, ft	0	Other Losses, in wg	0.00
Std. Airflow, CFM	8064	Accessories Static, in wg	0.50
Upstream Ext. Static, in wg	0.00	Total Static, in wg	3.11
DownStream Ext. Static, in wg	1.75	Calculated Fan Speed, rpm	1099
Clg. Coil Static, in wg	0.68	Calculated Motor BHP	8.0

**Acoustic Data:**

Freq.	Disch. Inlet	Casing	1000 hz	89	83	77	
63 hz	91	88	84	2000 hz	85	80	74
125 hz	91	88	83	4000 hz	82	77	71
250 hz	89	83	77	8000 hz	77	72	67
500 hz	89	83	79				

Fan Sled

1099 FanRPM Class I

**Carrier AHUBuilder**

May 7, 2003

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Job Name Henry Guerra Jr. Branch Library

Mark for AHU-1

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Forward Curve Standard Wheel FCA18\_18A

UpBlast Rear Discharge

Right Side Fan Shaft

Spring Fan Isolation

External Lube Lines

10 HP High Efficiency ODP 200/230/460 3Ph 60Hz 1800 RPM

1.5 Service Factor

Variable Pitch Drive

Hinged Panel Right Side

**Weights and Dimensions \*\***

(LxWxH in ft in) 5' 0" x 6' 7" x 8' 8" \*\*

Operating 2387 LB \*\*

**Accessory Part Number(s)**

Qty 1 15-TON TXV, 'C' NOZZLE SIZES 6-15

**Ordering Information**

39MJ151776JT41N4WS	Qty 1
39MJ2-B11B6C-B1427	Qty 1
39MJ3-QNZ1K2-P745X	Qty 1
39MJ414N224PK--59F	Qty 1
39MJ5-G421Y-----5	Qty 1
39TA-R151380615	Qty 1

\*\* Weights and Dimensions are approximate. Weights include base unit weight, coils (wet & dry), fans and fan motors, and other components, but does not include filters, drives and skids. Approximate dimensions are provided primarily for shipping purposes, for exact dimensions, refer to submittal drawings. Shipping skids are not included.

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# AHU Selection Program Performance Summary (Supply Fan)

Project Name: Henry Guerra Jr. Branch Library

5/7/2003  
8:37:02 AM

**Air Handler Unit: 39M**

**Tag Name: AHU-1**

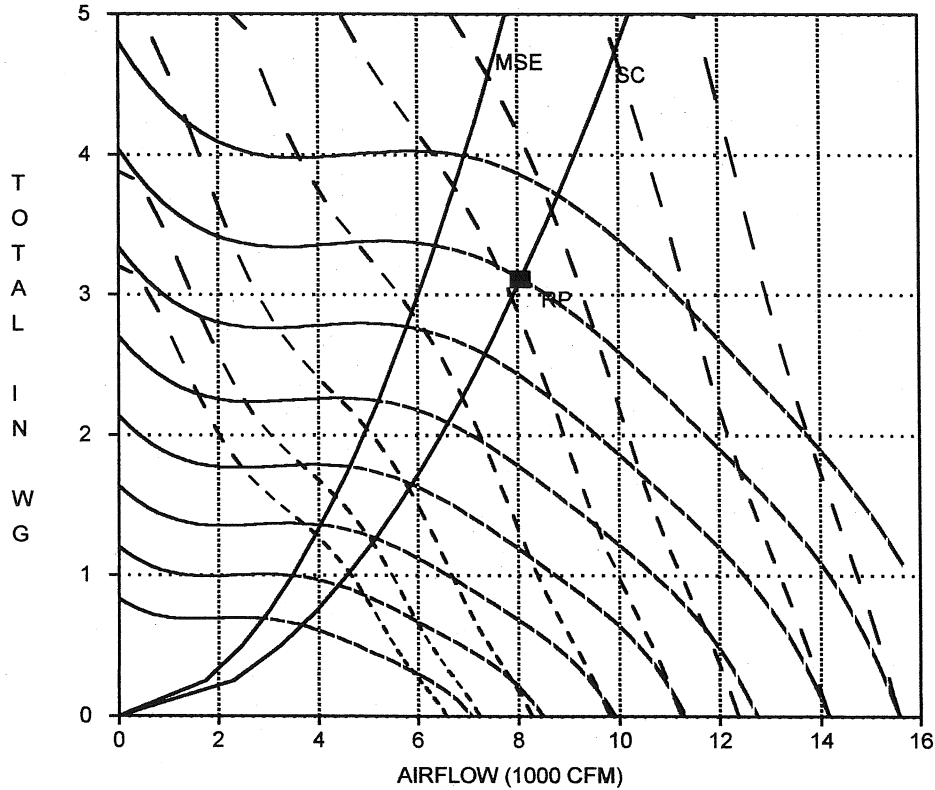
Unit Size	17
Fan Type	FORWARD CURVED
Fan Wheel Diameter	STANDARD
Fan Class	I
Fan Application	Draw Thru
Orientation	Vertical
Actual Airflow, CFM	8064
Site Altitude, ft	0
Upstream Ext. Static, in wg	0.00
Downstream Ext. Static, in wg	1.75
Cooling Coil Static, in wg	0.68
Heating Coil Static, in wg	0.18
Other Losses, in wg	0.00
Total Accessory Static, in wg	0.50
Total Static Pressure, in wg	3.11
Calculated Fan RPM / Motor RPM	1099 / 1800
Class I Max. RPM	1155
Fan BHP / Motor HP	8.0 / 10.0

**Acoustic Data:**

	Discharge	Inlet	Casing
63 Hz	91	88	84
125 Hz	91	88	83
250 Hz	89	83	77
500 Hz	89	83	79
1000 Hz	89	83	77
2000 Hz	85	80	74
4000 Hz	82	77	71
8000 Hz	77	72	67

**Accessories:**

(1) Flat Filter 2 inch Throwaway, Dirty [0.50]



Legend: (Shaded Area - Recommended Operating Range)

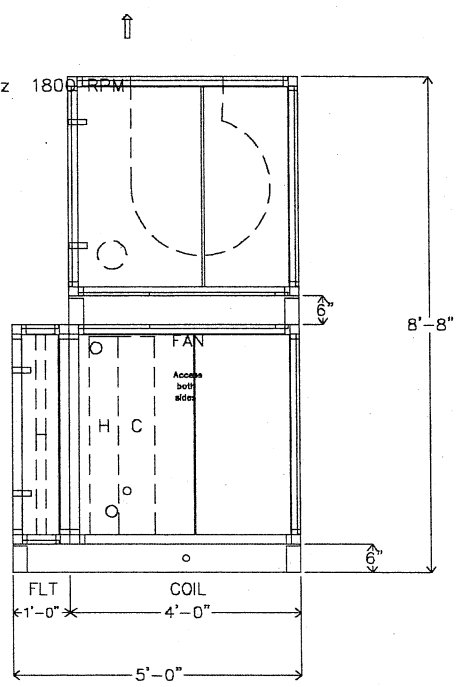
- RPM     
  - BHP     
 MSE - Max. Static Eff.     
 SC - System Curve     
 RP - Rated Point

CLASS I MAX. RPM = 1155

RPM's (x 100, Top to Bottom): 12 11 10 9 8 7 6 5

BHP's (Left to Right): 1.5 2 3 5 7.5 10 15 20

Unit width: 6'-7" (plus lifting lugs)  
 2In. Flat Filter  
 Qty (6) 20in. x 20in.  
 Hot Water 1 row 8 fpi half-circuit  
 Direct Expansion 6 rows 8 fpi row-split half-circuit  
 1.375" diameter distributor  
 Draw-Thru Supply Fan  
 10 HP High Efficiency ODP 200/230/460 3Ph 60Hz 1800 RPM  
 Operating weight: 2388.0 lbs.



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 A United Technologies Company

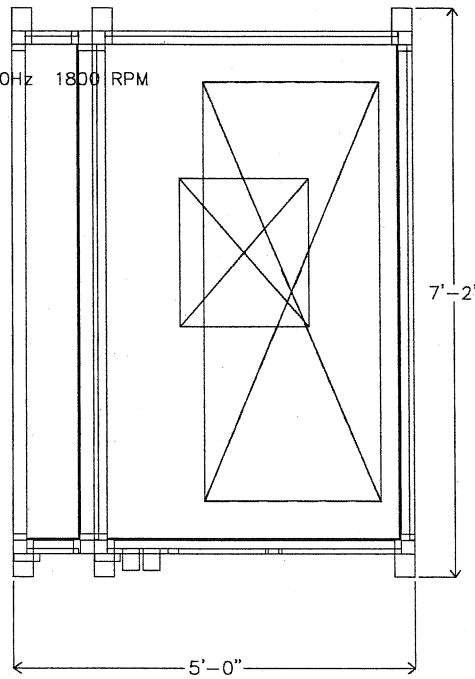
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**39MN**

DATE 5/7/2003	Configurator Ver. v5.11 2/28/2003	39M Central Station Air-Handler, Size: 17 Henry Guerra Jr. Branch Library: AHU-1 ASSEMBLY DRAWING	REVISION Side View
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Unit height: 8'-8"  
 2In. Flat Filter  
 Qty (6) 20in. x 20in.  
 Hot Water 1 row 8 fpi half-circuit  
 Direct Expansion 6 rows 8 fpi row-split half-circuit  
 1.375" diameter distributor  
 Draw-Thru Supply Fan  
 10 HP High Efficiency ODP 200/230/460 3Ph 60Hz 1800 RPM  
 Operating weight: 2388.0 lbs.



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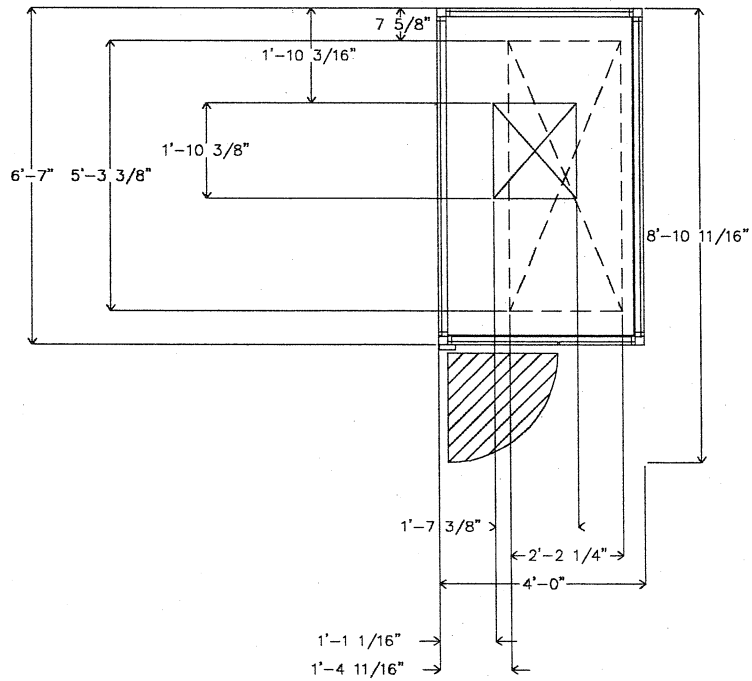
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39MMN

DATE 5/7/2003	Configurator Ver. v5.11 2/28/2003	39M Central Station Air-Handler, Size: 17 Henry Guerra Jr. Branch Library: AHU-1 ASSEMBLY DRAWING	REVISION Top View
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Draw-Thru Supply Fan  
 10 HP High Efficiency ODP 200/230/460 3Ph 60Hz 1800 RPM



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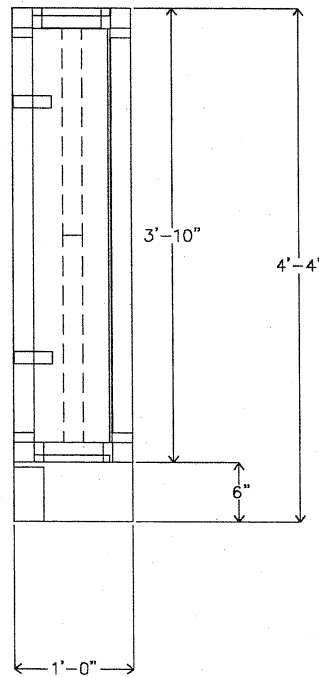
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39MN

DATE 5/7/2003	Configurator Ver. v5.11 2/28/2003	39M Central Station Air-Handler, Size: 17 Henry Guerra Jr. Branch Library: AHU-1 Draw-Thru Supply Fan	REVISION Top View
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2In. Flat Filter  
Qty (6) 20in. x 20in.



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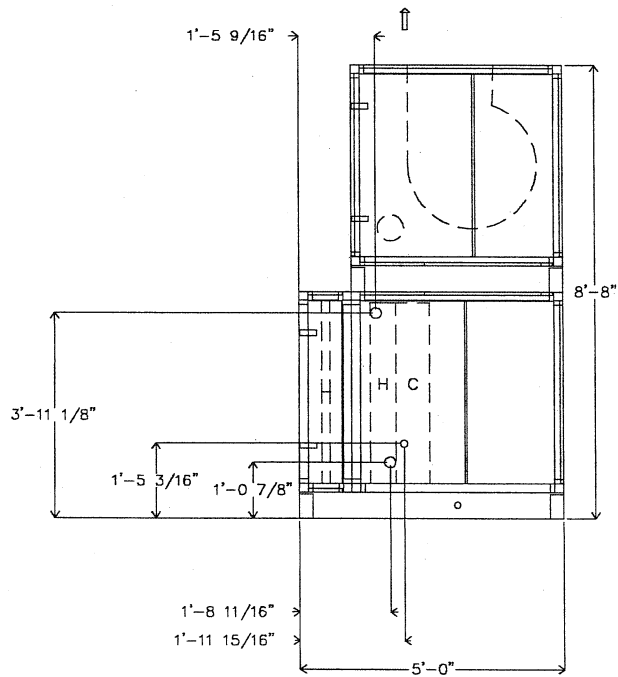
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39MN

DATE 5/7/2003	Configurator Ver. v5.11 2/28/2003	39M Central Station Air-Handler, Size: 17 Henry Guerra Jr. Branch Library: AHU-1 Flat Filter	REVISION Side View
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Hot Water 1 row 8 fpi half-circuit  
 Direct Expansion 6 rows 8 fpi row-split half-circuit  
 1.375" diameter distributor



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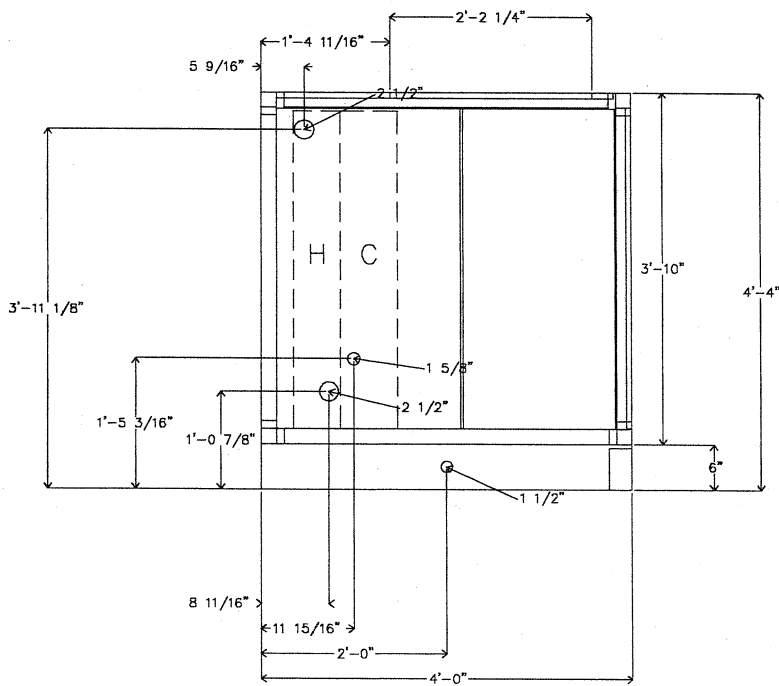
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39MN

DATE 5/7/2003	Configurator Ver. v5.11 2/28/2003	39M Central Station Air-Handler, Size: 17 Henry Guerra Jr. Branch Library: AHU-1 ASSEMBLY DRAWING	REVISION Side View
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Hot Water 1 row 8 fpi half-circuit  
 Direct Expansion 6 rows 8 fpi row-split half-circuit  
 1.375" diameter distributor



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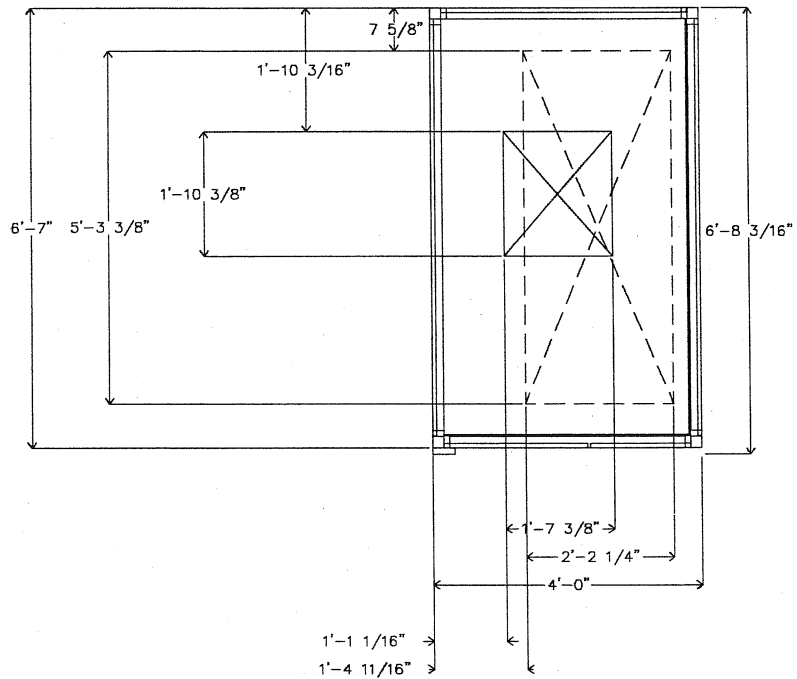
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39MM

DATE 5/7/2003	Configurator Ver. v5.11 2/28/2003	39M Central Station Air-Handler, Size: 17 Henry Guerra Jr. Branch Library: AHU-1 Dual Coil	REVISION Side View
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Draw-Thru Supply Fan  
 10 HP High Efficiency ODP 200/230/460 3Ph 60Hz 1800 RPM



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39MN

DATE 5/7/2003	Configurator Ver. v5.11 2/28/2003	39M Central Station Air-Handler, Size: 17 Henry Guerra Jr. Branch Library: AHU-1 Draw-Thru Supply Fan	REVISION Top View
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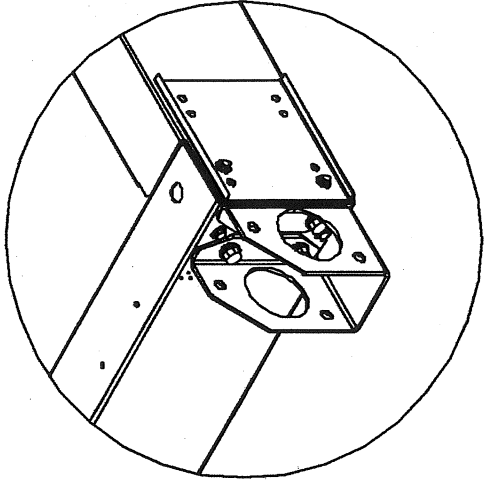
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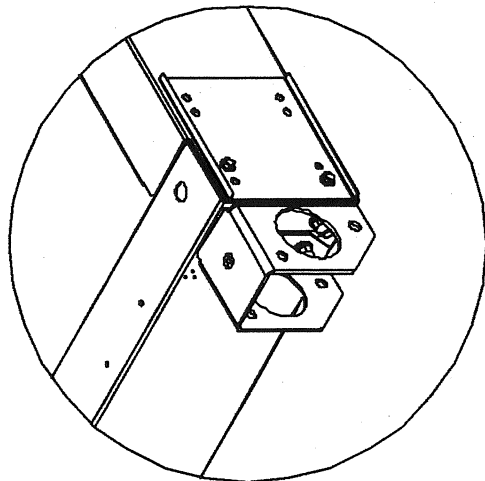
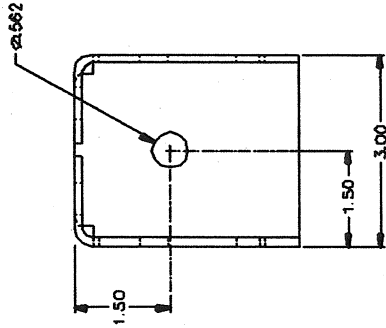
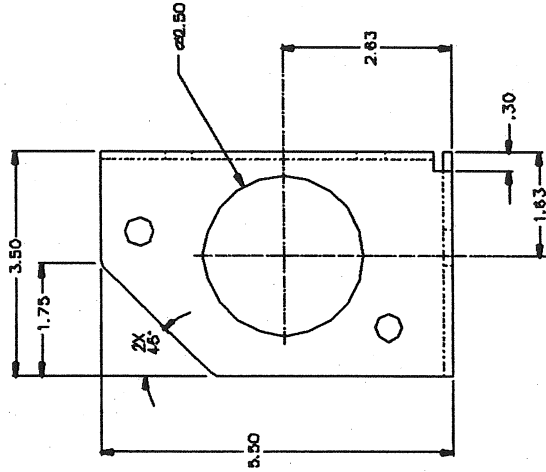
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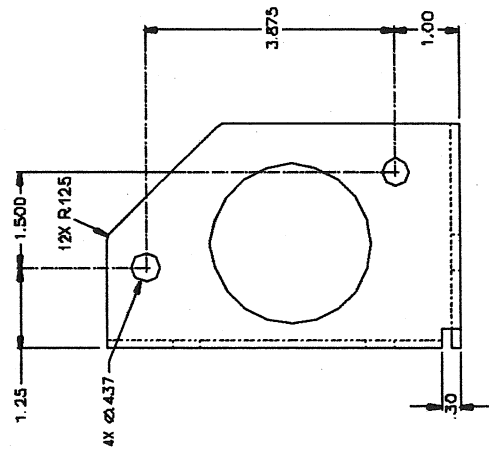
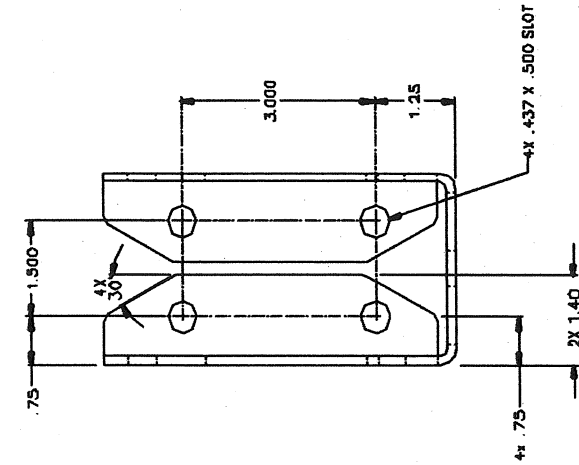
39MN



Lifting Lug Detail for pad mounted unit with or without isolation (shipping position)



Lifting Lug Detail for hung unit with or without isolation (lifting lug reversed)



REVISION

39M Central Station Air-Handler, Size: 03 - 30  
Baseraill and Lifting Lug Detail