



Maintenance Department

10610 Main Street, Suite 10. - Hayward, WI 54843

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## **Request for Proposal Installation of Air Conditioning in the 2006 Jail Addition**

Sawyer County is accepting bids for the installation of air conditioning into the make-up air unit for the 2006 Jail Addition. The RFP is to include all equipment, material and installation needed per the attached specifications. The air conditioning project is to be fully operational at completion with training provided to Sawyer County personnel on how to operate and maintain the system.

Sawyer County will provide a licensed electrician onsite to complete electrical connections required for equipment startup.

Sealed bids are due in Sawyer County Clerk's office:

**May 29, 2020 –2:00 p.m. (local time)**

**RFP opening May 29, 2020 – 2:15 p.m. (local time) in Sawyer County Clerk's Office. RFP's received after that time will not be accepted.**

The Sawyer County Administrator will award the winning RFP on June 3, 2020.

### **Site Visit:**

A site visit has been scheduled for May 6, 2020 at 9:00 a.m. to allow for a walk thru of the project and to provide an opportunity to ask questions. Please meet at the Sawyer County Maintenance Garage, located at 10866 E 5<sup>th</sup> Street, by 8:55 a.m.

Additional questions can be emailed to Tim Hagberg, Sawyer County Maintenance Director, by 1:00 p.m. May 13, 2020. All questions will be compiled and answered by 2:00 p.m. May 18, 2020. All parties who have been asked to submit an RFP will receive a copy of the questions and answers provided.

Bids should be submitted to:

Sawyer County Clerk  
Attn: Jail Air Conditioning RFP  
10610 Main Street, Suite 10  
Hayward, WI 54843

**\*\*\*MARK SEALED ENVELOPE: SAWYER COUNTY JAIL AIR CONDITIONING RFP\*\*\***

Sawyer County reserves the right to accept or reject any or all RFP's. To waive any technicality or error in any RFP or part therein, and to accept the same or combinations, in whole or in part, whichever is deemed to be in the best interest of Sawyer County in its sole and exclusive discretion.

The bidding shall be on a basis of sealed competitive RFP's, and the contract shall be awarded to the lowest responsible bidder.

**Notes:**

Major Components include:

(1) Daikin RCS Air Cooled Condensing Unit with:

- 208/3/60 Electrical
- Factory mounted disconnect
- Spring isolators (field mounted)
- Hot gas bypass kit (field mounted)
- 1-year parts warranty
- Extended 5-year compressor parts warranty
- 10 kA Unit SCCR
- 4 steps for capacity control

(1) Daikin 5EJ DX Cooling Coil complete with:

- R410A Refrigerant
- Intertwined coil (dual circuits)
- DX coil to fit into future expansion coil section RAHU-1
- Galvanized Steel Casing

- Condensing unit is to be installed on Jail roof, and is to be mounted on condenser support rails. Support rails will be provided by Sawyer County. The winning bidder will coordinate support rail location and installation with Sawyer County's roofing contractor.
- Refrigerant lines are to have flexible connectors at condensing unit.
- Sawyer County will provide 175 amp 208/3/60 power supply and disconnect at unit.

# Technical Data Sheet for RCS 001

Job Information		Technical Data Sheet
Job Name	Sawyer County Jail	
Date	3/30/2020	
Submitted By	Cameron Sigecan	
Software Version	05.70	
Unit Tag	RCS 001	



Unit Overview						
Model Number	Voltage V/Hz/Phase	Total Refrigeration Effect Btu/hr	Total Unit Power kW	EER AHRI Conditions	IEER AHRI Conditions	ASHRAE 90.1
RCS040D	208/60/3	444758	39.2	11.3	14.9	2013 Compliant

Unit		
Model Number:	RCS040D	
Type:	Applied	
Approval:	ETL - USA	
Refrigerant Type:	No. of Refrigerant Circuits	Refrigerant Weight
R410A	2	21.8 lb

Condensing Section				
Temperature		Altitude	Refrigeration Effect	Power
Suction	Ambient			
45.0 °F	95.0 °F	0 ft	444758 Btu/hr	39.2 kW

Compressor			
Quantity	Type	Capacity Control	Compressor Isolation
4	Scroll	4 steps	Resilient
Full Load Current:			
Compressor 1	33.7 A		
Compressor 2	33.7 A		
Compressor 3	33.7 A		
Compressor 4	33.7 A		

Condenser					
Type	Coil		Fans	Fan Motors	
	Number of Rows	Fins per Inch	Condenser Fan Type	Quantity	Full Load Current
Aluminum tube micro channel	1	18	Standard	4	4.20 A

Sound							
Casing Radiated Sound Power (db)							
63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
0	98	93	91	90	87	83	79

# Technical Data Sheet for RCS 001

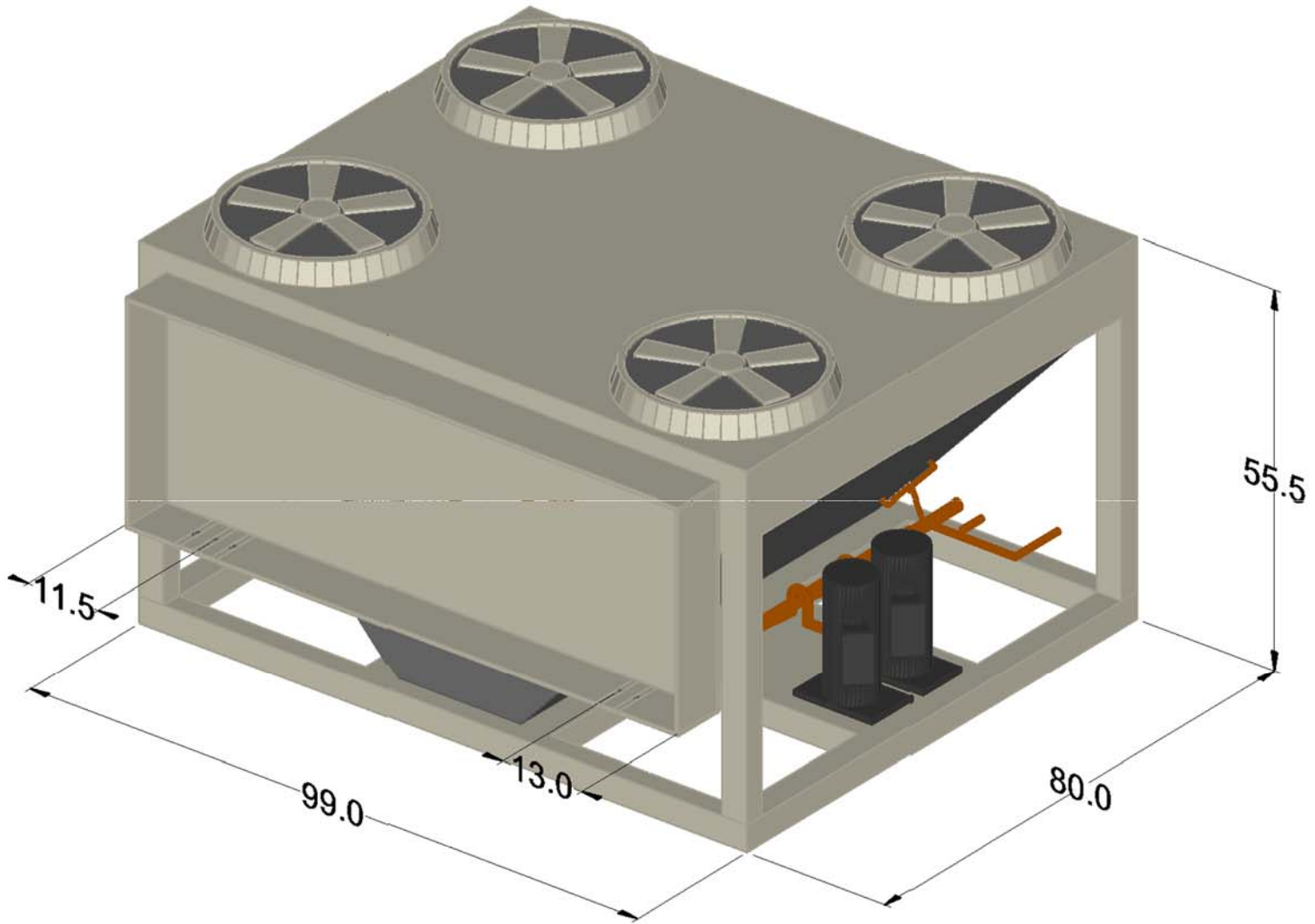
Physical			
Dimensions and Weight			
Length	Height	Width	Operating Weight
80.0 in	55.5 in	99.0 in	2496 lb
Connections			
Connection	Connection Sizes		
Suction Line Circuit	(2) 1.62 in.		
Liquid Line Circuit	(2) 0.88 in.		
Hot Gas Bypass Circuit	(2) 0.88 in.		

Electrical					
Voltage	MROPD	Field Power Connection	MCA	SCCR	Field Outlet Connection
208/60/3 V/Hz/Phase	175 A	Thru-the-door disconnect switch	162.8 A	10 kAIC	115V, 20 amp service
Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.				

Options	
Unit	
Hot Gas Bypass:	HGBP Tee (See Accessory Tab)
Condenser Coil Options:	Condenser with built in hail protection, vandal grd
Electrical	
Field Connection	Thru-the-door disconnect switch
Wiring Options	Sealtite conduit
GFI Receptacle	Field powered
Unit Control	
Temperature Controls:	No temp control, 115 V transformer
Low Ambient Control:	Fantrol, Low ambient control to 45 degrees

Warranty	
Parts:	Standard one year parts
Compressor:	Extended four year compressor, five year total

Accessories	
Optional	
Part Number	Description
403650993	Spring Isolation Kit - RCS040D
193330721	Hot gas bypass kit, one circuit




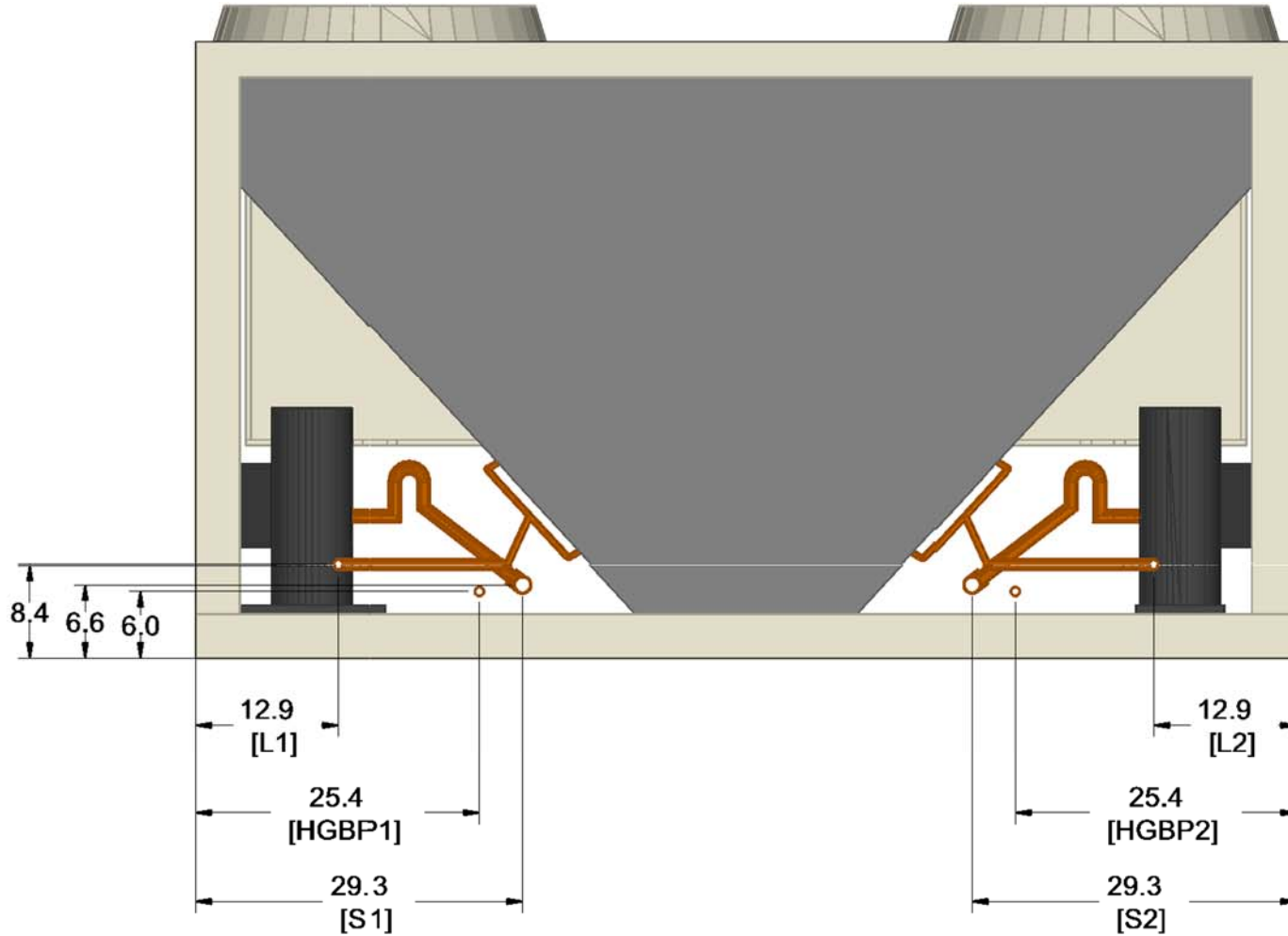
Job Number: LYJPKA  
Job Name: Sawyer County Jail

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Prepared Date:

www.DaikinApplied.com 3/30/2020

<b>Product Drawing</b>	Unit Tag: RCS 001			Sales Office: Schwab-Vollhaber-Lubratt, Inc. (St. Paul)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 05.70
Product:	Project Name: Sawyer County Jail			Sales Engineer:			
Model: RCS040D	Mar. 30, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	
No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.							



### ELEVATION VIEW - PIPE CONNECTION DETAILS

<b>Product Drawing</b>	Unit Tag: RCS 001	Sales Office: Schwab-Vollhaber-Lubratt, Inc. (St. Paul)				 13600 Industrial Park Blvd. Minneapolis, MN 55441 <a href="http://www.DaikinApplied.com">www.DaikinApplied.com</a> Software Version: 05.70
Product:	Project Name: Sawyer County Jail	Sales Engineer:				
Model: RCS040D	Mar. 30, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	

No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.

# Technical Data Sheet for Coils 001

Job Information		Technical Data Sheet	
Job Name	Sawyer County Jail		
Date	3/30/2020		
Submitted By	Cameron Sigecan		
Software Version	07.20	Coil DLL Version	07.20
Unit Tag	Coils 001		



Coil Overview					
Model Number	Application	Total Capacity Btu/hr	Air Flow CFM	Fin Height in	Fin Length in
5EJ0806C	DX coil	444655	10860	48	73.00

Coil	
Model Number:	5EJ0806C
Application:	DX coil
Type	5EJ - Interlaced
Crating:	Standard Crate
Approval:	AHRI
Refrigerant:	R410A

Physical (Per Coil)					
Depth	Height	Length	Weight		
9.63 in	50.00 in	88.75 in	Shipping	Operating	Dry
			688 lb	491 lb	413 lb
Material					
Tube Diameter	Fin	Tube	Case		
0.625 in	0.0075 in Aluminum	0.020 in Copper nominal	Galvanized steel		
Geometry					
Fin Design	Fins per Inch	Number of Rows	Fin Height	Fin Length	Tube Spacing
Corrugated	8	6	48 in	73.00 in	1.50 X 1.299
Connection			Flange Dimensions		
Type	Size	Hand	Length	Header	Side
Copper tube (O.D. sweat)	0.000 in	Left Hand	7.50 in	1.00 in	1.00 in
Number of Circuits	Liquid Connection		Suction Connection		
	Quantity	Size	Quantity	Size	
2	2	1.38 in	2	1.63	

Performance							
Air Flow CFM	Altitude ft	Face Area ft <sup>2</sup>	Face Velocity ft/min	DX Coil Refrigerant Weight lb			
10860	0	24.3	446.3	76.9			
Capacity		Suction Temperature °F	Air Temperature				Air Pressure Drop inH <sub>2</sub> O
Total Btu/hr	Sensible Btu/hr		Entering		Leaving		
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F		
444655	296462	45.0	80.0	67.0	55.0	53.7	0.99

Replacement Coil		
Type	Serial Number	Order Number
Vision/Skyline Airhandler		

# Technical Data Sheet for Coils 001

## AHRI Certification



Coil is NOT certified by AHRI.

AHRI Performance Criteria	
Sub-cooled Refrigerant Liquid Temperature:	110 °F
Suction Vapor Superheat at Coil outlet:	8 °F
Design Saturated Condensing Temperature:	110 °F
Minimum Fin Surface Temperature:	32 °F
Minimum Tube Wall Surface Temperature:	32 °F







**Sawyer County**

PROJECT NAME

ENGINEER

**KBK Services**

CONTRACTOR

**McQuay**

EQUIPMENT

**Jon E. Krapu**

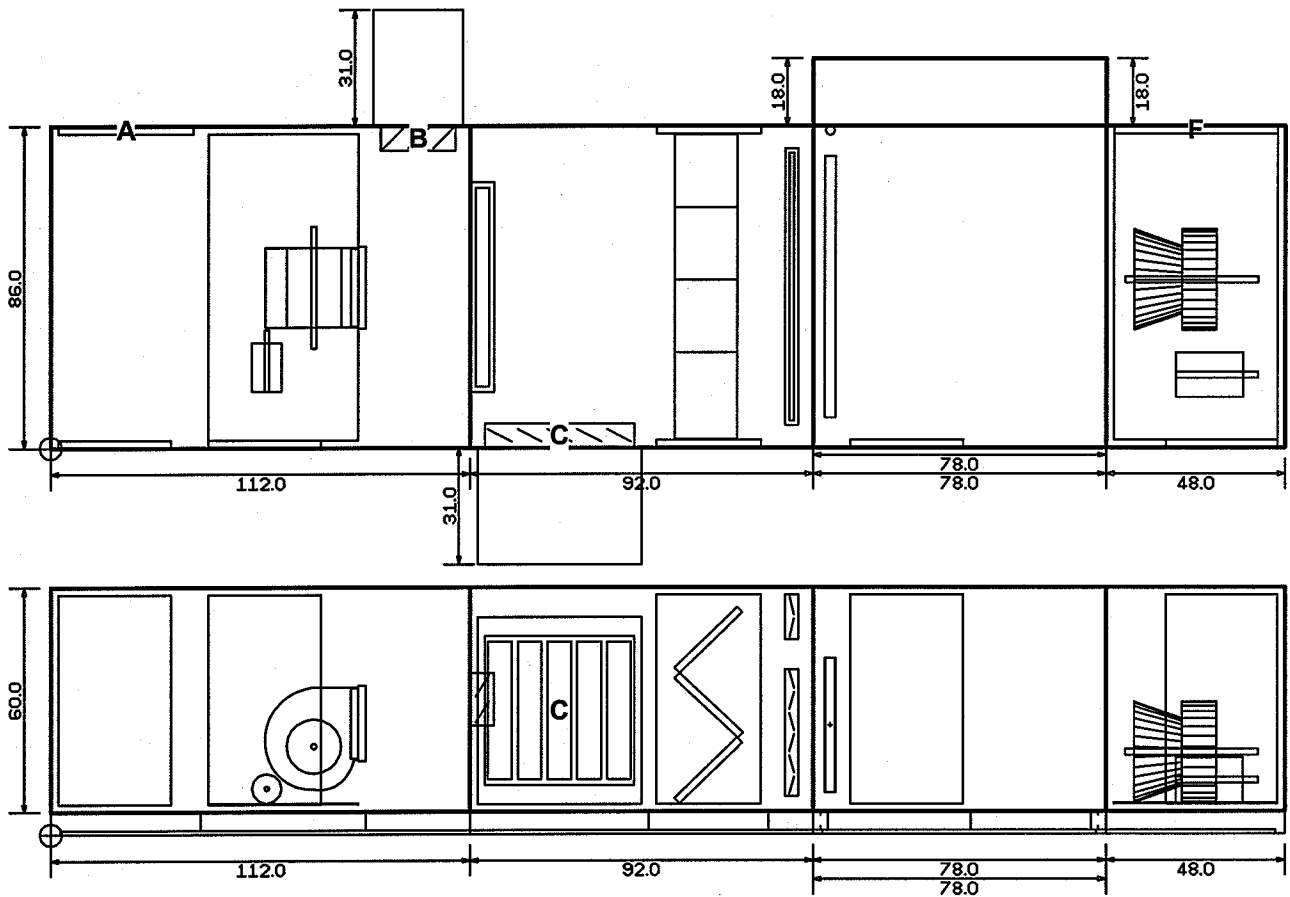
**8/24/2005**

SALESPERSON/DATE

Goods will conform to approved/reviewed submittals

Opening	X	Y	Z	W(Width)	H(Height)
A Exhaust inlet	2.00	86.00	8.00	36.00	56.00
B Damper	90.00	86.00	18.00	24.00	50.00
C Damper	114.00	0.00	8.00	44.00	50.00
D Hot water outlet	208.57	93.00	45.31	2.50ins. MPS	-
E Hot water inlet	208.57	93.00	12.66	2.50ins. MPS	-
F Supply outlet	284.00	86.00	28.00	44.00	36.00

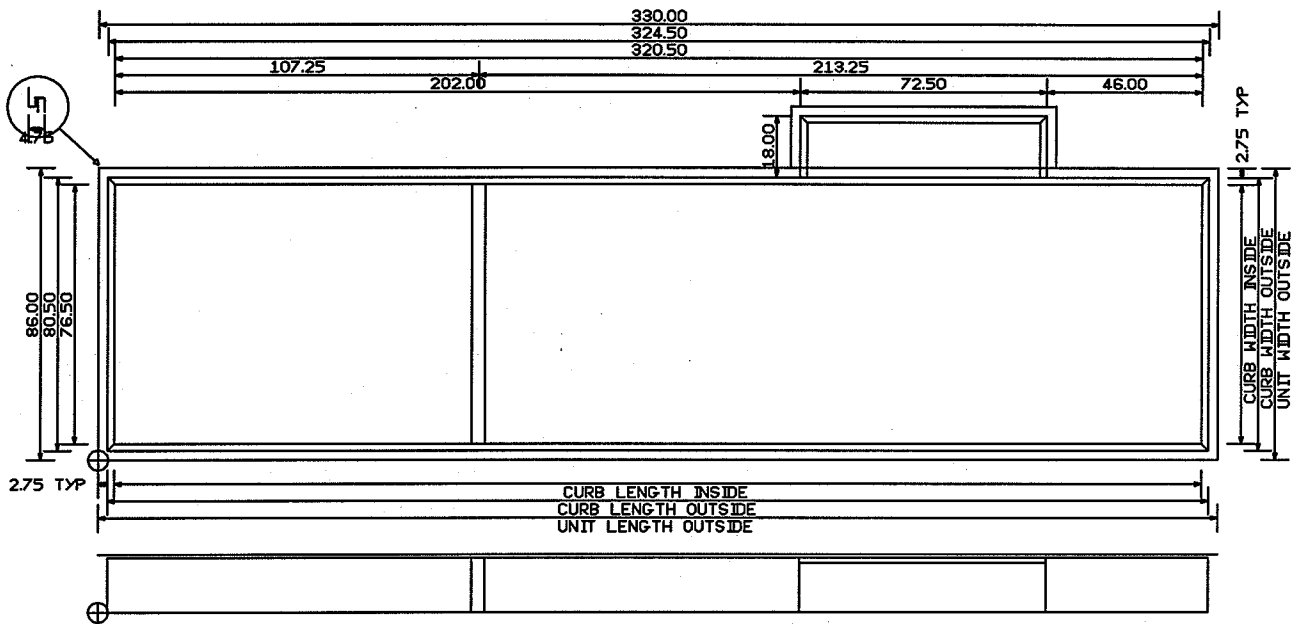
Dimensions measured from ⊕



NOTE: Base 6.00ins deep, Cross members extend 4ins on each side of the unit.  
 NOTE: Field fitting of hoods are required.

VIEW: General Arrangement No Ends  
 DRAWN: July-27-2005 (14:30)  
 JOB NAME: Sawyer County Jail  
 UNIT TAGGING: RAHU-1  
 MODEL: OAH025GHDC





NOTE: Base 6.00ins deep, Cross members extend 4ins on each side of the unit.  
 NOTE: Field fitting of hoods are required.

VIEW: General Arrangement No Ends  
 DRAWN: July-27-2005 (14:30)  
 JOB NAME: Sawyer County Jail  
 UNIT TAGGING: RAHU-1  
 MODEL: OAH025GHDC



**SKYLINE AIR HANDLING UNIT TECHNICAL DATA** Date Saved : 27/07/2005 14:30:00

<b>JOB NAME</b>	4Z29Y2(YY.000)	<b>REP. OFFICE</b>	Schwab Vollhaber Lubratt, Inc.
<b>JOB DESCRIPTION</b>	Sawyer County Jail	<b>SALESPERSON</b>	JAK
<b>MODEL NUMBER</b>	OAH025GHDC	<b>ENGINEER</b>	
<b>UNIT TAGGING</b>	RAHU-1	<b>VERSION</b>	8.00

Unit configuration	Inline horizontal		
Drive (hanging) location	Right		
	<b>SUPPLY</b>		<b>RETURN / EXHAUST</b>
Air volume	10860	5740	s cfm
Altitude	0	0	ft
Turning loss	0.00	0.00	in WC.
External static	2.00	1.00	in WC.
Total static	4.04	1.09	in WC.
External H x W	60 x 86	60 x 86 (Not including base rails)	ins

<b>CASING DETAILS</b>	
Outer panel	Standard G90 galv steel
Liner	Galvanized steel (Unless noted per section)
Insulation	R-13 Injected Foam (Unless noted per section)
Frame	2 ins
Base	Curb ready
Sound baffles	None (unless noted per section)
Roof curb kit	16.00 ins
Tread Plate floor liner	None (unless noted per section)

<b>1 PLENUM SECTION(40 ins)</b>	<b>SECTION 1</b>		
Drain pan	None	Drain side	-
Opening location	Non-drive side	Opening size	56.00 x 36.00 ins

<b>DOOR DATA</b>			
Door location	Drive side	Window size	None
Door width	30 ins	Light	None
Door opening	Outward		

2 RETURN/EXHAUST FAN SECTION(44 ins)				SECTION	1
Air volume	5740	cfm	Motor power	5.0	HP
External static pressure	1.00	ins WC	Motor type	ODP	
Total static pressure	1.09	ins WC	Frame size	184 T frame	
Type	-		Electrical supply	200/60/3	
Blade type/Class	Airfoil / 1		Motor efficiency	Premium	
Fan wheel diameter	14.56	ins	Motor speed	1750	rpm
Brake horsepower	4.02	HP	Motor pole	4	
Operating/Max speed	2707 / 3000	rpm	Full load current	15.7	A
Orientation	Top horizontal		Lock rotor current	110	A
Air modulation	None		Motor supplier	Generic	
Drain pan	None		Actual drive service fac.	1.58	
Drain pan side	-		Bearing type	Standard - L50 (200K)	
Wheel guard	None		Outlet velocity	1993	ft/m
Belt guard	None		Inlet screen	None	
Inspection port	None		Outlet screen	None	

DRIVES			
Fan sheave	2AK39H	Motor sheave	2AK59H
Number of belts	2	Belt	A39

ANTI-VIBRATION MOUNTS / SPRINGS	
Type	Spring
Seismic restraint	None

DOOR DATA			
Door location	Drive side	Window size	None
Door width	30	ins	Light
Door opening	Outward		None

3 ECONOMIZER(76 ins)			SECTION	1 & 2
Drain pan	None	Drain side	-	
OUTSIDE AIR		RETURN AIR	EXHAUST AIR	
Length x Width	44.00 x 50.00	18.00 x 66.00	24.00 x 50.00	ins
Location	Right	Internal	Left	
Dampers	UltraSeal Low Leak	UltraSeal Low Leak	UltraSeal Low Leak	
Actuation	-	-	-	
Hoods	Fitted	N/A	Fitted	
10860	5740	5740		cfm
0.08	0.08	0.08		in WC

DOOR DATA			
Door location	Removable panels	Window size	None
Door width	44	ins	Light
Door opening	Outward		None

4 PANEL FILTER(32 ins)			SECTION	2
Type	Pleated (MERV 6)	Clean air press. drop	0.06	ins WC
Efficiency	30	%	Mean air press. drop	0.53
Face velocity	274	fpm	Dirty air press. drop	1.00
Face area	39.7	ft2	Access	Side

BANK ARRANGEMENT		
No. of Filters	Size H x W x D	
3	24.00 x 24.00 x 2.00	ins
9	24.00 x 20.00 x 2.00	

DOOR DATA			
Door location	Both sides	Window size	None
Drive side door width	28	ins	Light
Opp drv side door width	28	ins	None
Door opening	Outward		

**5 INTERNAL FACE AND BYPASS(12 ins) SECTION 2**

Damper type Opposed blade - low leak  
 Air pressure drop (face) 0.03 Air pressure drop (bypass) 0.39 ins WC  
 Note: Cabinet height for bypass extended 0.00 inches above 'External cabinet height' referenced above.

**6 HOT WATER COIL(42 ins) SECTION 3**

Coil model	5WH1202B		Number of coils	1	
Capacity	889290	Btu/h	Number of rows	2	
			Fins per inch	12	
Entering db	27.5	F	Entering water	190.0	F
Leaving db	102.4	F	Leaving water	160.4	F
Finned height x length	36 x 70	ins	Water flow rate	60.00	gpm
Face area	17.50	ft2	Water pressure drop	9.70	ftHD
Face velocity	621	ft/m	Water velocity	5.30	ft/s
Coil air pressure drop	0.31	ins WC	Piping vestibule	18	ins
Connection type	Threaded		Fin material	Aluminum (.0075)	
Connection Qty x size	2 x 2.50	ins	Tube material	Copper (.020)	
Connection location	Opp drive side		Header material	Copper	
Glycol type (%)	- (0 %)		Case material	Galvanized track	
			Drain pan	None	
			Drain pan side	-	
			Turbospirals	None	
Coil code	5WH1202B		Electro-fin coat	None	

**DOOR DATA**

Door location	Drive side		Window size	None
Door width	30	ins	Light	None
Door opening	Outward			

**7 FUTURE DIRECT EXPANSION COIL(36 ins) SECTION 3**

Coil model	Future coil (Not supplied)				
Finned height x length	48 x 73	ins	Number of coils	1	
Face area	24.33	ft2	Max. number of rows	6	
Face velocity	446	ft/m	Drain pan	Microbial resistant coated	
				galvanized	
Coil air pressure drop	1.00	ins WC	Drain pan side	Drive side	
Connection location	Opp drive side				
Future coil type	Direct expansion				

**DOOR DATA**

Door location	Removable panels		Window size	None
Door width	20	ins	Light	None
Door opening	Outward			



<b>8 SUPPLY FAN SECTION(48 ins)</b>	<b>SECTION 4</b>
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Air volume	10860	cfm	Motor power	15.0	HP
External static pressure	2.00	ins WC	Motor type	ODP	
Total static pressure	4.04	ins WC	Frame size	254 T frame	
Type	Plenum		Electrical supply	200/60/3	
Blade type/Class	AirFoil / 2		Motor efficiency	Premium	
Fan wheel diameter	27.00	ins	Motor speed	1750	rpm
Brake horsepower	10.34	HP	Motor pole	4	
Operating/Max speed	1524 / 1928	rpm	Full load current	43.4	A
Discharge	Opposite drive side, single opening		Lock rotor current	271	A
Air modulation	None		Motor supplier	Generic	
Drain pan	None		Actual drive service fac.	1.52	
Drain pan side	-		Bearing type	Standard - L50 (200K)	
Wheel guard	None		Outlet velocity	-	ft/m
Belt guard	None		Inlet screen	None	
Inspection port	None		Outlet screen	None	

<b>DRIVES</b>			
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Fan sheave	3B5V62	Motor sheave	3B5V54
Number of belts	3	Belt	B81

<b>ANTI-VIBRATION MOUNTS / SPRINGS</b>	
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Type	Spring
Seismic restraint	None

<b>DOOR DATA</b>			
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Door location	Drive side	Window size	None
Door width	30 ins	Light	None
Door opening	Outward		

<b>NOTES</b>	
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Plenum (plug) fan applications are outside the scope of ARI Standard 430. The ASHRAE 90.1 - 1999 fan cfm/bhp calculations have been bypassed. By electing to disable this process the user accepts responsibility for any local ASHRAE requirements. As a standalone component, unit meets or exceeds requirements of ASHRAE 90.1 - 1999. The approving authority is responsible for compliance of multi-component building systems. Piping vestibule shipping section length(s) not included in the total unit shipping section length. Vestibules are not listed as separate sections, although vestibule weight is included in the total unit weight.

<b>SHIPPING SECTION DETAILS</b>			
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	Length (inches)	Weight (lb)	
Section 1	112	2031	
Section 2	92	1600	
Section 3	78	1252	
Section 4	48	1578	
<b>TOTALS</b>	<b>330.00 (Lower level total)</b>	<b>6920 (Entire unit weight)</b>	

<b>UNIT SOUND</b>	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Radiated	73	72	69	64	57	47	39	33
Unit discharge	88	90	92	87	83	81	75	70
Unit return	89	91	89	90	84	78	74	66