



# Lennox National Accounts Project Submittal

**Project Name:** Freddy's - Jasper AL  
**Project Number:** 290586  
**Project Altitude:** 500  
**Project Location:**  
Jasper, Alabama US

**Date:** 3/23/2022  
**Quote:** 215740  
**Roof Top Units:** 3  
**Split Systems:** 0

**Customer:** Freddys LLC  
**National Account:** Freddys Frozen Custard & Steakburg

## Table of Contents

Tag	Qty	Model	Description
<u>RTU-1,2</u>	2	LGH092H4M	LGH092H4M-Y 7.5T CONF E=12.5
<u>RTU-3</u>	1	LGH180H4M	LGH180H4M-Y 15T CONF E=12.0

Revit® Building Information Modeling (BIM) - [Click here](#)

AutoCAD® Templates - [Click here](#)



# Lennox National Accounts Project Submittal

**Tag:** RTU-1,2  
**Model:** LGH092H4M - LGH092H4M-Y 7.5T CONF E=12.5

## UNIT OVERVIEW

Voltage	IEER EER	MCA/MOCP (amp)	Gross Cooling Ttl/Sens (MBH)	Net Cooling Ttl/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
208V 3Ph 60Hz	14 12.5	42 / 50	89.0 / 60.5	84.9 / 56.4	2,400	1.00 / 1.33	80.0 / 67.0	55.6 / 54.4

## COOLING

Cooling Performance			Temperatures (DB/WB °F)		
Gross Cooling (Ttl/Sens)	89.0 / 60.5 MBH		Ambient	95.0	
Net Cooling (Ttl/Sens)	84.9 / 56.4 MBH		Entering	80.0	
Coil Moisture Removal	26.84 lb/hr		Leaving - (Coil)	55.6	
System Moisture Removal	26.84 lb/hr		Leaving - (Unit)	57.2	

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	93.0 / 90.0 MBH	Cooling Stages	2	Type	R-410A	Qty	1
ARI Power	7,500 W	Compressor Qty	2	Charge	12 LBS. 13 OZ.	Size	1 in.
		Compressor RLA	26.2 amp			Pipe Thread	npt

## HUMIDITROL - HOT GAS REHEAT

Humiditrol Dehumidification Performance		Temperatures (DB/WB °F)	
Gross Cooling - Stage 1(Ttl/Sens)	65.5 / 39.3 MBH	Ambient	95.0
Moisture Removal - Stage 1	24.7 lb/hr	Entering	80.0
		Leaving - (Stage 1)	64.2
			58.1

## HEATING

Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	104.0 / 67.5 MBH	Entering	70.0	Heat Stages	2
Input (High/Low)	130.0 / 84.5 MBH	Gas Heat - Heat Rise	40.1	Thermal Efficiency	80.0%
		Leaving	110.1	Gas Line Size	0.75 in.
				Gas Pressure	7 in.WC

## VENTILATION

Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	2,400	Nominal Power	2.00 hp	Total	1.33
Outdoor	240	Required Power	1.30 hp	Ext Supply	1.00
		Drive Type	MSAV Belt Drive		
		RPM Range	590 - 890 rpm		
		Required RPM	886 rpm		

## AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.07	0.03	0.08	0.11	0.05			

## ELECTRICAL

Voltage	208V 3Ph / 60Hz	Compressor RLA	26.2 amp
MCA	42 amp	Cooling FLA Total	38.5 amp
MOCP	50 amp	Condenser FLA	4.8 amp
Condenser Power	800 W	Supply Fan FLA	7.5 amp
Oper Range-Nom Volt	+/- 10%		

## ADDITIONAL DATA

Cabinet	101.25 in. x 60.12 in. x 46.88 in.	Total Weight	1,329 lb
Downflow Supply	20.0 in. x 28.0 in.	Base Unit Net Weight	1,098 lb
Downflow Return	24.0 in. x 27.0 in.	OAS/Econ Weight	83 lb
Filters	(4) 20.0 in. x 25.0 in. x 2.0 in.	Humiditrol Weight	20 lb
Sound Rating	88 dBA	Curb Weight	85 lb



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Tag: RTU-1,2

## Factory Installed Options

- High Performance Economizer Upgrade Factory Installed
- Single Enthalpy Economizer
- Standard Cap, Std Packaging
- Unit Orientation Downflow
- Supply Fan: Multi-Stage Air Volume Belt
- 208/220/230/240V 3Phase
- 175 Amp Terminal Block Factory Installed
- Supply Motor - 2.0 Hp Std- w/ MSAV
- Supply Drive Kit 1 (590-890 RPM)
- Barometric Relief Damper (Fac)
- 130K A.S. (Dual Stage)
- Hinged Access Doors Factory Installed
- Phase Monitor Factory Installed
- Environ Coil System Factory Installed
- Humiditrol Factory Installed
- 2" Pleat MERV13 - Filter Factory Installed

## Field Installed Accessories

Catalog Number	Qty	Description
11F55	2	14" Downflow - Hybrid Curb Field Installed
17M50	2	Humidity Sensor Kit Field Installed
87N53	2	CO2 Sensors - Wall-mount, off-white plastic cover, no display Field Installed

## Product Features

### Cabinet

- Hinged Access Panels
- Durable Outdoor Enamel Paint Finish
- Totally Enclosed Outdoor Fan Motor
- PVC Coated Fan Guard
- Corrosion-Resistant Removable, Reversible Drain Pan
- Isolated Compressor Compartment

### Cooling System

- Scroll Compressor
- Expansion Valves
- High Capacity Driers
- Crankcase Heater
- System can operate from 0°F to 125°F without any additional controls
- Pre-charged Refrigeration System
- Timed Off Control
- Internal Pressure Relief Valve
- Thermostat Control – 2 Stages of Cooling
- Humiditrol - Hot Gas Reheat Dehumidification System

### Heating System

- Redundant Automatic Gas Valve with Manual Shut-off
- Electronic Flame Sensor
- Direct Spark Ignition
- Aluminized Steel Inshot Burners
- AGA-CGA Certified
- If configured for room sensor control, additional staging may be possible. Refer to performance tables within the EHB

### Control System

- Prodigy 2.0 Control System
- Auto reset high & low pressure switch with strike 3 lockout feature in Prodigy unit controller
- Fan and Limit Controls
- Overload Protection

### Warranty

- Limited warranty on aluminized heat exchanger of 10 years
- Limited warranty on compressor of 5 years
- Limited warranty on Environ Coil System of 3 years
- Limited warranty on Prodigy Unit Controller of 3 years



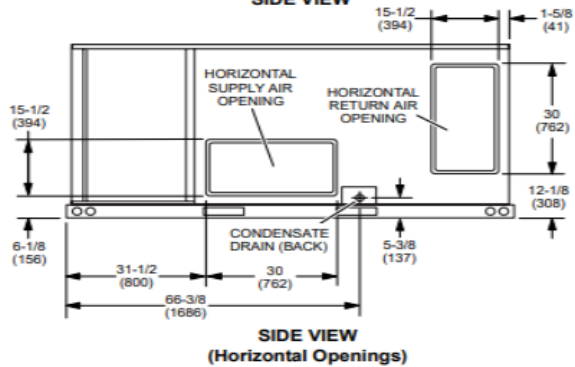
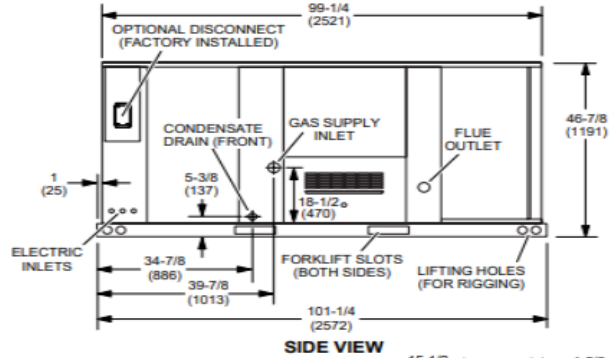
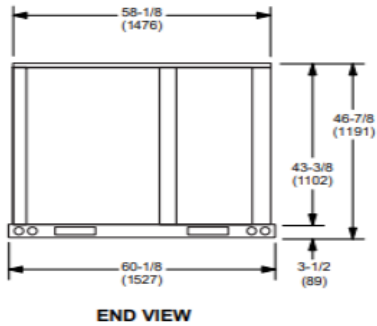
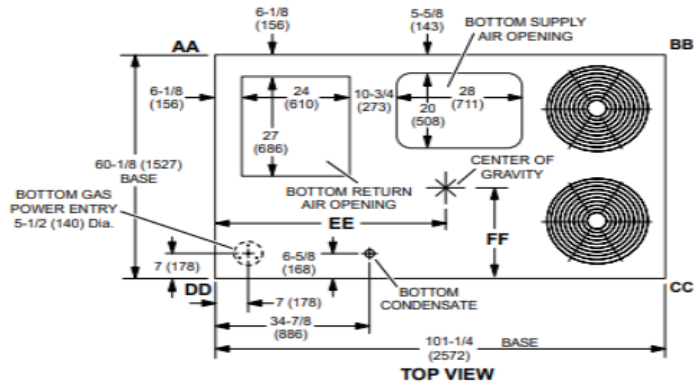
Limited warranty on High Performance Economizer of 5 years  
Limited warranty on all other components of 1 year  
See Limited Warranty Certificate included with unit for details

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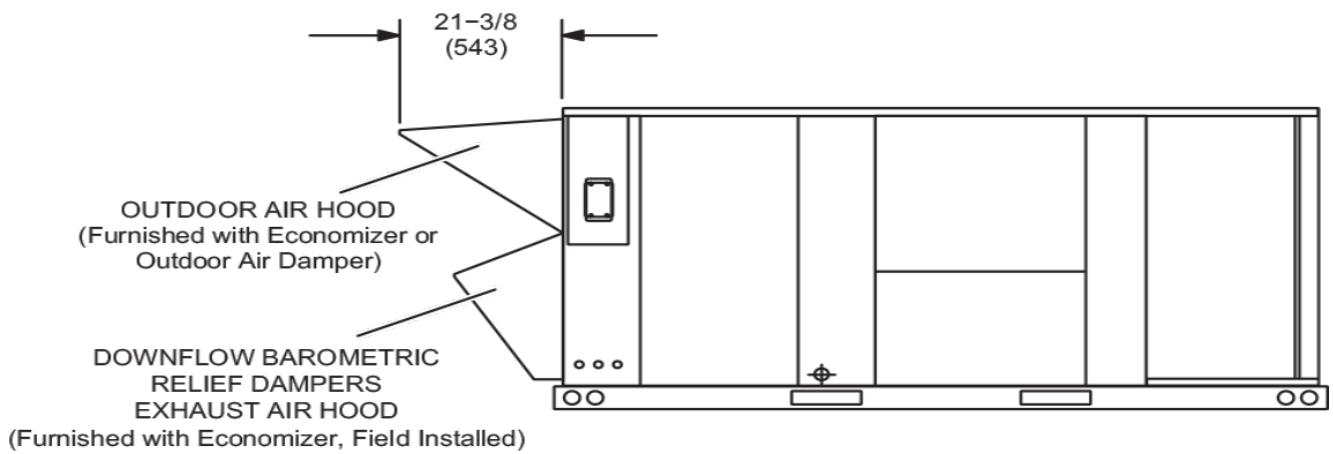
Corner Weights (lb)						Center of Gravity (in.)					
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
293	338	263	295	286	316	326	370	46.50	45.50	24.50	25.50





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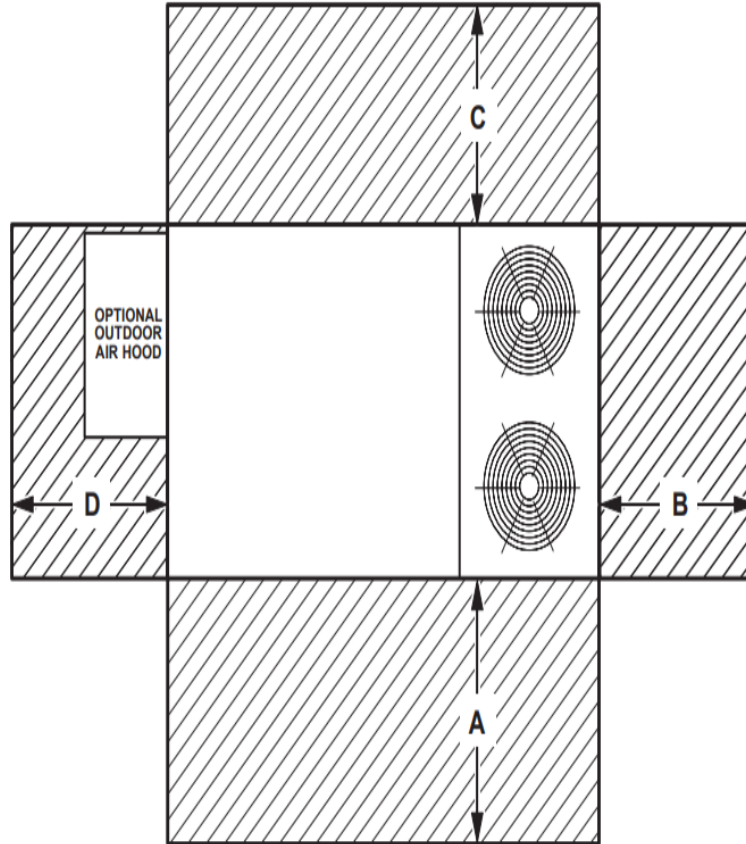
## OUTDOOR AIR HOOD DETAIL







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¹ Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
<b>Service Clearance</b>	60	1524	36	914	36	934	60	1524	Unobstructed
<b>Clearance to Combustibles</b>	36	914	1	25	1	25	1	25	
<b>Minimum Operation Clearance</b>	36	914	36	914	36	914	36	914	

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

¹ Service Clearance - Required for removal of serviceable parts.

Clearance to Combustibles - Required clearance to combustible material.

Minimum Operation Clearance - Required clearance for proper unit operation.



# Lennox National Accounts Project Submittal

**Tag:** RTU-3  
**Model:** LGH180H4M - LGH180H4M-Y 15T CONF E=12.0

## UNIT OVERVIEW

Voltage	IEER EER	MCA/MOCP (amp)	Gross Cooling Ttl/Sens (MBH)	Net Cooling Ttl/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
208V 3Ph 60Hz	13.7 12	64 / 70	175.3 / 126.0	170.2 / 120.9	5,000	0.50 / 0.65	80.0 / 67.0	55.6 / 55.2

## COOLING

Cooling Performance			Temperatures (DB/WB °F)		
Gross Cooling (Ttl/Sens)	175.3 / 126.0 MBH		Ambient	95.0	
Net Cooling (Ttl/Sens)	170.2 / 120.9 MBH		Entering	80.0	
Coil Moisture Removal	46.55 lb/hr		Leaving - (Coil)	55.6	
System Moisture Removal	46.55 lb/hr		Leaving - (Unit)	55.6	

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	176.0 / 172.0 MBH	Cooling Stages	2	Type	R-410A	Qty	1
ARI Power	14,300 W	Compressor Qty	3	Charge	18 LBS. 13 OZ.	Size	1 in.
		Compressor RLA	40.5 amp			Pipe Thread	FPT

## HUMIDITROL - HOT GAS REHEAT

Humiditrol Dehumidification Performance			Temperatures (DB/WB °F)		
Gross Cooling - Stage 1 (Ttl/Sens)	63.8 / 30.2 MBH		Ambient	95.0	
Gross Cooling - Stage 2 (Ttl/Sens)	123.0 / 75.2 MBH		Entering	80.0	
Moisture Removal - Stage 1	31.7 lb/hr		Leaving - (Stage 1)	74.2	
Moisture Removal - Stage 2	45.0 lb/hr		Leaving - (Stage 2)	65.5	

## HEATING

Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	208.0 / 135.2 MBH	Entering	70.0	Heat Stages	2
Input (High/Low)	260.0 / 169.0 MBH	Gas Heat - Heat Rise	38.5	Thermal Efficiency	80.0%
		Leaving	108.5	Gas Line Size	1 in.
				Gas Pressure	7 in.WC

## VENTILATION

Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	5,000	Nominal Power	3.00 hp	Total	0.65
Outdoor	500	Required Power	1.69 hp	Ext Supply	0.50
		Drive Type	MSAV Belt Drive		
		RPM Range	535 - 725 rpm		
		Required RPM	690 rpm		

## AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.02	0.02	0.05		0.06			

## ELECTRICAL

Voltage	208V 3Ph / 60Hz	Compressor RLA	40.5 amp
MCA	64 amp	Cooling FLA Total	60.7 amp
MOCP	70 amp	Condenser FLA	9.6 amp
Condenser Power	1500 W	Supply Fan FLA	10.6 amp
Oper Range-Nom Volt	+/- 10%		

## ADDITIONAL DATA

Cabinet	132.62 in. x 91.12 in. x 54.25 in.	Total Weight	2,591 lb
Downflow Supply	20.0 in. x 28.0 in.	Base Unit Net Weight	2,115 lb
Downflow Return	15.0 in. x 60.5 in.	OAS/Econ Weight	167 lb
Filters	(6) 24.0 in. x 24.0 in. x 2.0 in.	Humiditrol Weight	50 lb
Sound Rating	93 dBA	Curb Weight	164 lb



# Lennox National Accounts Project Submittal

Tag: RTU-3

## Factory Installed Options

- High Performance Economizer Upgrade Factory Installed
- Single Enthalpy Economizer
- Standard Cap, Std Packaging
- Unit Orientation Downflow
- Supply Fan: Multi-Stage Air Volume Belt
- 208/220/230/240V 3Phase
- 175 Amp Terminal Block Factory Installed
- Supply Motor - 3.0 Hp Std- w/ MSAV
- Supply Drive Kit 1 (535-725 RPM)
- Barometric Relief Damper (Fac)
- 260K A.S. (Dual Stage)
- Hinged Access Doors Factory Installed
- Phase Monitor Factory Installed
- Environ Coil System Factory Installed
- Humiditrol Factory Installed
- 2" Pleat MERV13 - Filter Factory Installed

## Field Installed Accessories

Catalog Number	Qty	Description
11F59	1	14" Downflow - Hybrid Curb Field Installed
15T93	1	Combination Coil/Hail Guards Field Installed
17M50	1	Humidity Sensor Kit Field Installed

## Product Features

### Cabinet

- Hinged Access Panels
- Durable Outdoor Enamel Paint Finish
- Totally Enclosed Outdoor Fan Motor
- PVC Coated Fan Guard
- Corrosion-Resistant Drain Pan
- Isolated Compressor Compartment

### Cooling System

- Scroll Compressor
- Expansion Valves
- High Capacity Driers
- Crankcase Heater
- System can operate from 0°F to 125°F without any additional controls
- Pre-charged Refrigeration System
- Timed Off Control
- Internal Pressure Relief Valve
- Thermostat Control – 2 Stages of Cooling
- Building Automation Integrated Control - Up to 3 Stages of Cooling
- Humiditrol - Hot Gas Reheat Dehumidification System

### Heating System

- Redundant Automatic Gas Valve with Manual Shut-off
- Electronic Flame Sensor
- Direct Spark Ignition
- Aluminized Steel Inshot Burners
- AGA-CGA Certified
- If configured for room sensor control, additional staging may be possible. Refer to performance tables within the EHB

### Control System

- Prodigy 2.0 Control System
- Auto reset high & low pressure switch with strike 3 lockout feature in Prodigy unit controller
- Fan and Limit Controls
- Overload Protection

### Warranty

- Limited warranty on aluminized heat exchanger of 10 years
- Limited warranty on compressor of 5 years
- Limited warranty on Environ Coil System of 3 years



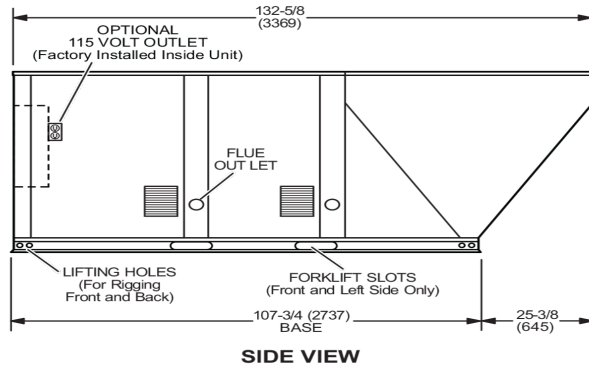
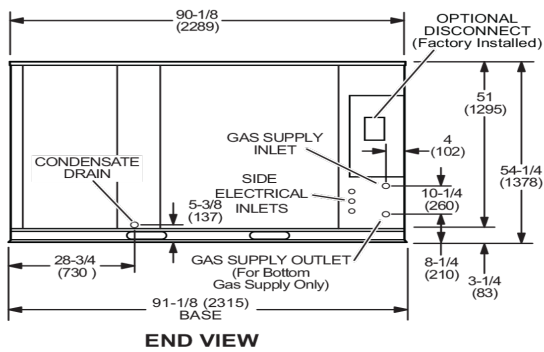
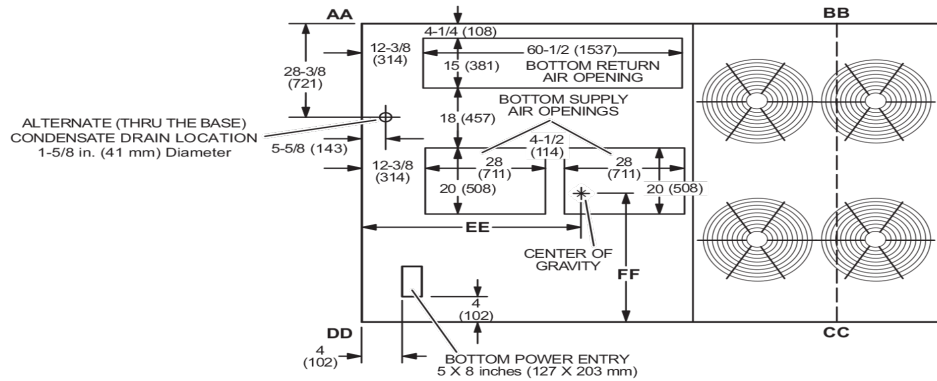
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Limited warranty on Prodigy Unit Controller of 3 years  
Limited warranty on High Performance Economizer of 5 years  
Limited warranty on all other components of 1 year  
See Limited Warranty Certificate included with unit for details



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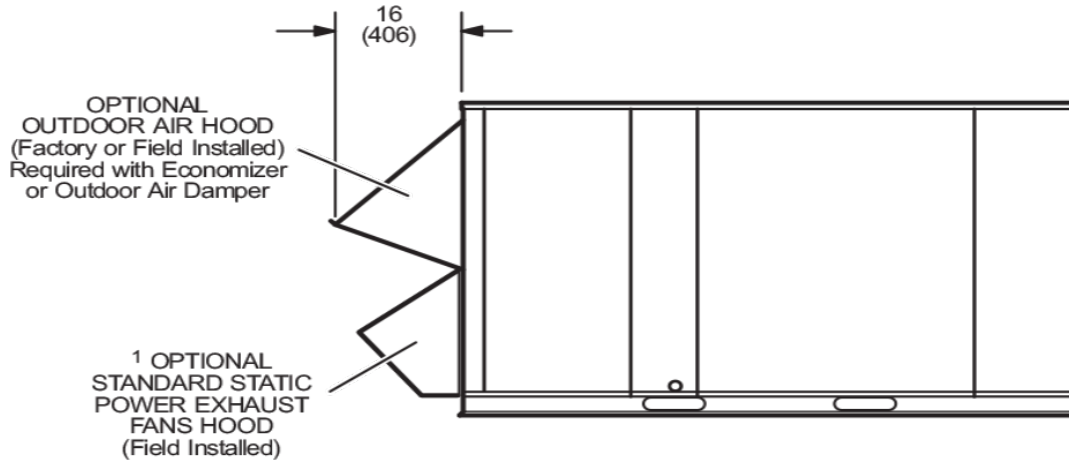
Corner Weights (lb)						Center of Gravity (in.)					
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
487	597	423	505	569	599	636	699	50.75	49.75	39.25	42.00





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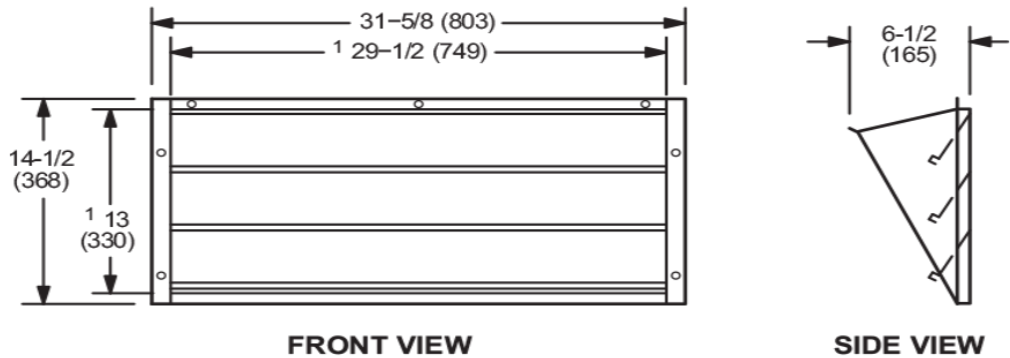
## OPTIONAL OUTDOOR AIR HOOD DETAIL WITH STANDARD STATIC POWER EXHAUST FANS



1 Field Installed in Return Air Duct for Horizontal Applications.

## HORIZONTAL BAROMETRIC RELIEF DAMPERS

(Field installed in horizontal return air duct adjacent to unit)



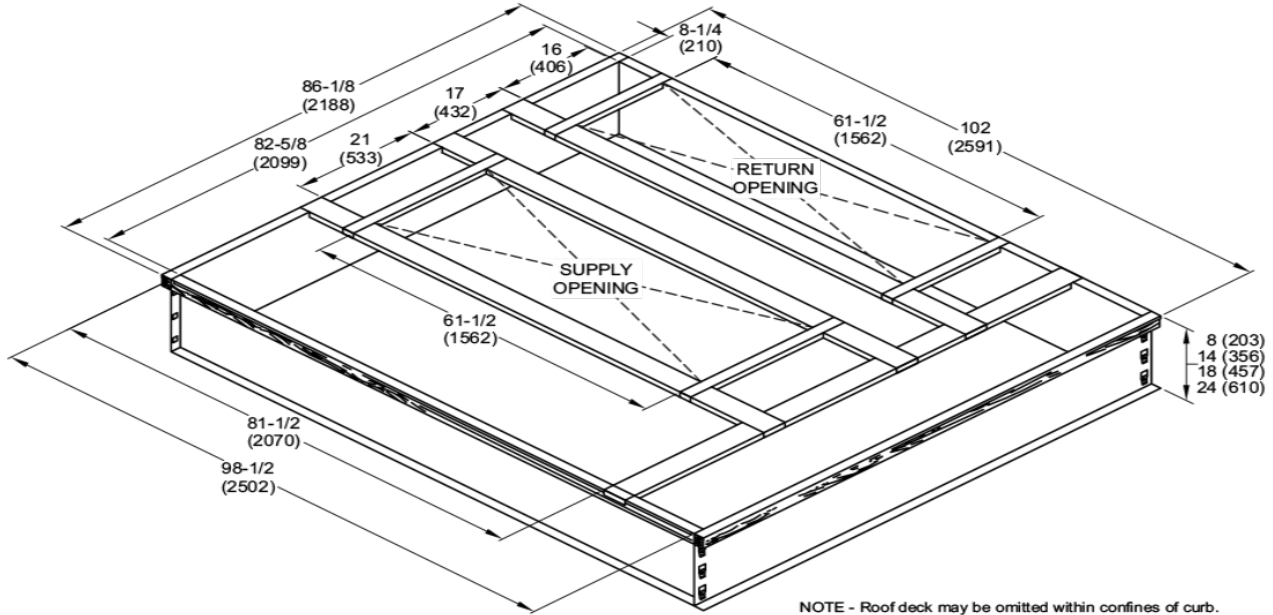
NOTE - Two furnished per order no.

1 NOTE - Opening size required in return air duct.

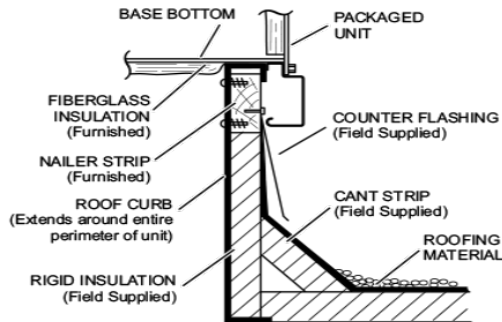


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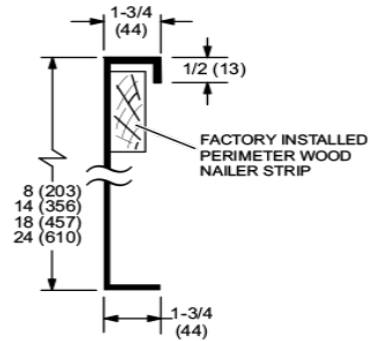
## HYBRID ROOF CURBS - DOUBLE DUCT OPENING



### TYPICAL FLASHING DETAIL FOR ROOF CURB

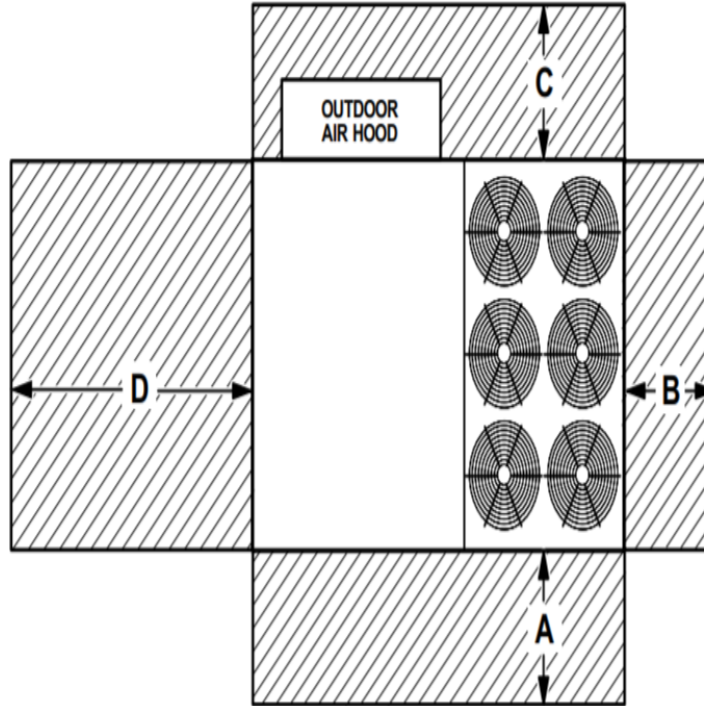


### DETAIL ROOF CURB



## UNIT CLEARANCES

### Unit With Economizer



<sup>1</sup> Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
<b>Service Clearance</b>	60	1524	36	914	36	934	66	1676	Unobstructed
<b>Clearance to Combustibles</b>	36	914	1	25	1	25	1	25	
<b>Minimum Operation Clearance</b>	45	1143	36	914	36	914	41	1041	

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

<sup>1</sup> **Service Clearance** - Required for removal of serviceable parts.

**Clearance to Combustibles** - Required clearance to combustible material.

**Minimum Operation Clearance** - Required clearance for proper unit operation.