

Technical Data Sheet for Size 035 PWS

Job Information		Technical Data Sheet
Job Name	Reedsburg Medical replacement - Sauk P Health	
Date	8/4/2022	
Submitted By	Stu Grendahl	
Software Version	08.20	
Unit Tag	Size 035 PWS	



Unit Overview				
Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI 360 Standard Efficiency	ASHRAE 90.1
RPS035D	460/60/3	402380	10	2016 Compliant

Unit	
Model Number:	RPS035D
Altitude:	0 ft
Heat Type:	Hot Water
Condenser Type:	Air-Cooled
Approval	ETL/MEA-USA unit

Physical				
Unit				
Length	Height	Width	Weight	Estimated Lifting Lugs
469 in	55.5 in	94.0 in	10962 lb	3 per side

Electrical						
Voltage	MCA Circuit #1	MCA Circuit #2	MROPD Circuit #1	MROPD Circuit #2	SCCR Circuit #1	SCCR Circuit #2
460/60/3	75.0 A	37.4 A	100 A	60 A	10 kAIC	10 kAIC
Circuit #1:	Compressors, Condenser Fans					
Circuit #2:	Fans, Controls					
Note 1:	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.					

Return/Outside/Exhaust Air				
Type	Outside Air Option Pressure Drop	Damper Actuator		
California and 90.1 Compliant Economizer	0.45 inH ₂ O	Electric Actuator		
Return Air Location: Bottom				
Fan				
Type	Fan Diameter	Vibration Isolation	Drive Type	Fan Efficiency Index
SWSI AF	40 in	Spring Isolation	Standard Service Factor, Fixed Drive	1.501
Motor				
Horsepower	Type	Full Load Current		
5.0 HP	ODP, Premium Efficiency	6.8 A		
Performance				
Air Flow CFM	External Static Pressure inH ₂ O	Fan Speed rpm	Brake Horsepower HP	
12000	0.5	433	1.38	

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Filter Section

Blender					
Blender Size			Air Pressure Drop		
High CFM			0.21		
Physical					
Type	(Quantity)	Height x Width x Depth	Face Area	Face Velocity	Air Pressure Drop
2 in. Angular rack only, No Filter media	(10)	16 in x 20 in x 2 in	50.0 ft ²	240.0 ft/min	0.00 inH ₂ O
	(10)	16 in x 25 in x 2 in			

DX Cooling Coil

Physical								
Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material	Casing Material		
12	5	27.0 ft ²	444.4 ft/min	0.98 inH ₂ O	Painted Galvanized	Galv. Steel		
Cooling Performance								
Total Capacity Btu/hr	Sensible Btu/hr	Refrigerant Type	Indoor Air Temperature				Ambient Air Temperature	
			Entering		Leaving		Dry Bulb °F	Wet Bulb °F
402380	303236	R410A	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	95.0	75.0
			80.0	67.0	56.9	56.3		

Blank Section

Section Length: 40.0 in
Notes:

Fan Section

Fan			
Type	Fan Wheel Diameter	Fan Isolation	Fan Efficiency Index
AF DWDI	24 in	Spring	1.027
Performance			
Airflow	Total Static Pressure	Fan Speed	Brake Horsepower
12000 CFM	4.99 inH ₂ O	1592 rpm	12.45 HP
Motor			Drive
Type	Horsepower	FLA	Type
ODP, Premium Efficiency	20.0 hp	23.5 A	Standard service factor, Fixed drive

Hot Water Heat Section

Physical						
Fins per Inch	Number of Rows	Face Area	Face Velocity	Air Pressure Drop		
9FPI	1	20.3 ft ²	591.1 ft/min	0.21 inH ₂ O		
Performance						
Total Capacity Btu/hr	Heat Airflow CFM	Temperature				
		Entering		Leaving		
439432	12000	Air Dry Bulb °F	Fluid °F	Air Dry Bulb °F	Fluid °F	
		55.0	180.0	88.5	160.9	
Type		Fluid Flow Rate gpm	Pressure Drop ft H ₂ O			
Water		45.9	8.4			

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Final Filter Section

		Physical		
Type	(Quantity) Height x Width x Depth	Face Area	Face Velocity	Air Pressure Drop
Flat 95% Cartridge (MERV 14)	(4) 24 in x 24 in x 12 in	24.0 ft ²	500.0 ft/min	0.64 inH ₂ O
	(4) 12 in x 24 in x 12 in			

Discharge Plenum

Discharge Location: Bottom

Unit Discharge Conditions

		Air Temperature		
DX coil Configuration:	Draw-thru Coil	Unit Leaving Dry Bulb °F	Unit Leaving Wet Bulb °F	Unit Leaving Dewpoint °F
Motor Heat Btu/hr	Moisture Removal lb/h			
38147	85.3	59.7	57.3	56.0

Condensing Section

		Compressor		
Type	Quantity	Total Power	Capacity Control	Compressor Isolation
Variable And Fixed speed Scroll	3	28.3 kW	Modulating	Resilient

Compressor Amps:

Fixed Speed Compressor 1	14.5 A
Variable Speed Compressor 2	30.1 A
Fixed Speed Compressor 3	14.5 A

Piping Options: Hot gas bypass, circuit 1, Replaceable core filter drier

		Condenser Coil		
Type	Fin Material	Fin Material	Refrigerant Charge	
Aluminum tube MicroChannel	Aluminum	Aluminum	83.0 lb	
Condenser Coil Options: Build in Hail Protection				

Condenser Fan Motors

Number of Motors	Full Load Current (each)
4	2.1 A

AHRI 360 Certified Data at AHRI 360 Standard Conditions

EER	IEER	ASHRAE 90.1
10	14.2	2016 Compliant

Sound

		Sound Power (db)						
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	81	78	76	72	70	65	57	50
Discharge	77	72	67	62	55	45	32	17
Radiated	-	98	93	91	90	86	83	79

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Supply Fan Total Pressure Drop Calculation

External Static Pressure:	2.00 inH ₂ O
Filter:	0.00 inH ₂ O
Blender:	0.21 inH ₂ O
Outside Air:	0.45 inH ₂ O
DX Coil:	0.98 inH ₂ O
Hot Water Heat:	0.21 inH ₂ O
Final Filter:	0.64 inH ₂ O
Dirty Final Filter:	0.50 inH ₂ O
Total Static Pressure:	4.99 inH ₂ O

Return/Exhaust Fan Total Pressure Drop Calculation

External Static Pressure:	0.50 inH ₂ O
Total Static Pressure:	0.50 inH ₂ O

Options

Unit

Unit Exterior:	Prepainted Galvanized Steel
Insulation and Liners:	2", 1 1/2# nominal insulation, full solid liners, perf in fan sections
Fan Shaft Grounding:	Fan motors are provided with shaft grounding rings and class H insulation.

Electrical

Electrical Connection Option:	Dual Disconnect. Fans & Controls/Balance of unit
GFI 115v Receptacle:	Field powered

Controls

Application:	Variable Volume - Discharge Air Control
Temperature Control:	DAC, BACNet MSTP communication card
Fan Speed Control:	Factory mounted Inverter
Inverter Manufacturer:	Danfoss
Inverter Location:	Inverter(s) in fan section
Airflow Control:	2 duct sensors
Economizer Control:	Outside Air Dry Bulb and Enthalpy Control
Low Ambient:	Speedtrol, operation to 0 deg F (-18 deg C)

Warranty

Parts:	Standard 1 year
Compressor:	Extended 4 year, 5 year total

AHRI Certification

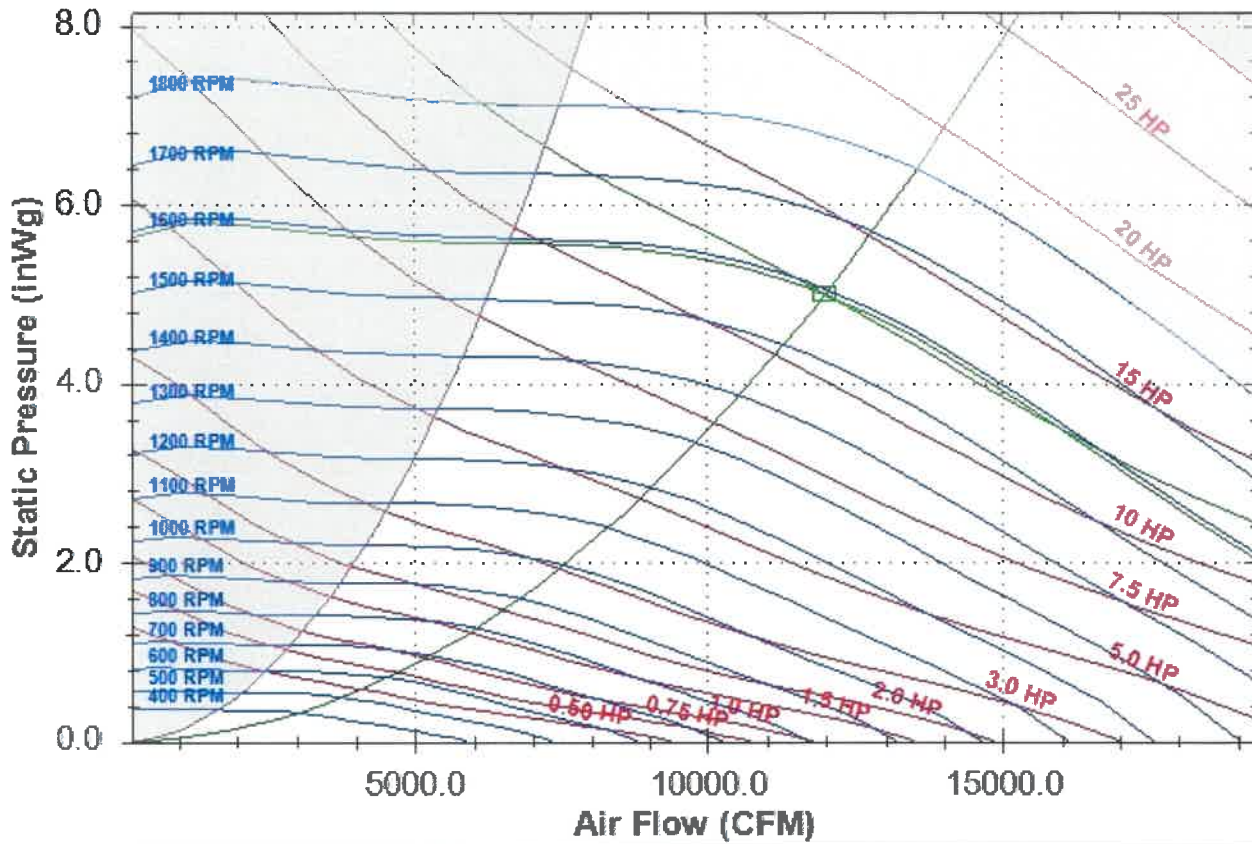


All equipment is rated and certified in accordance with AHRI 360.

Notes

Fan Curve - Supply for Size 035 PWS

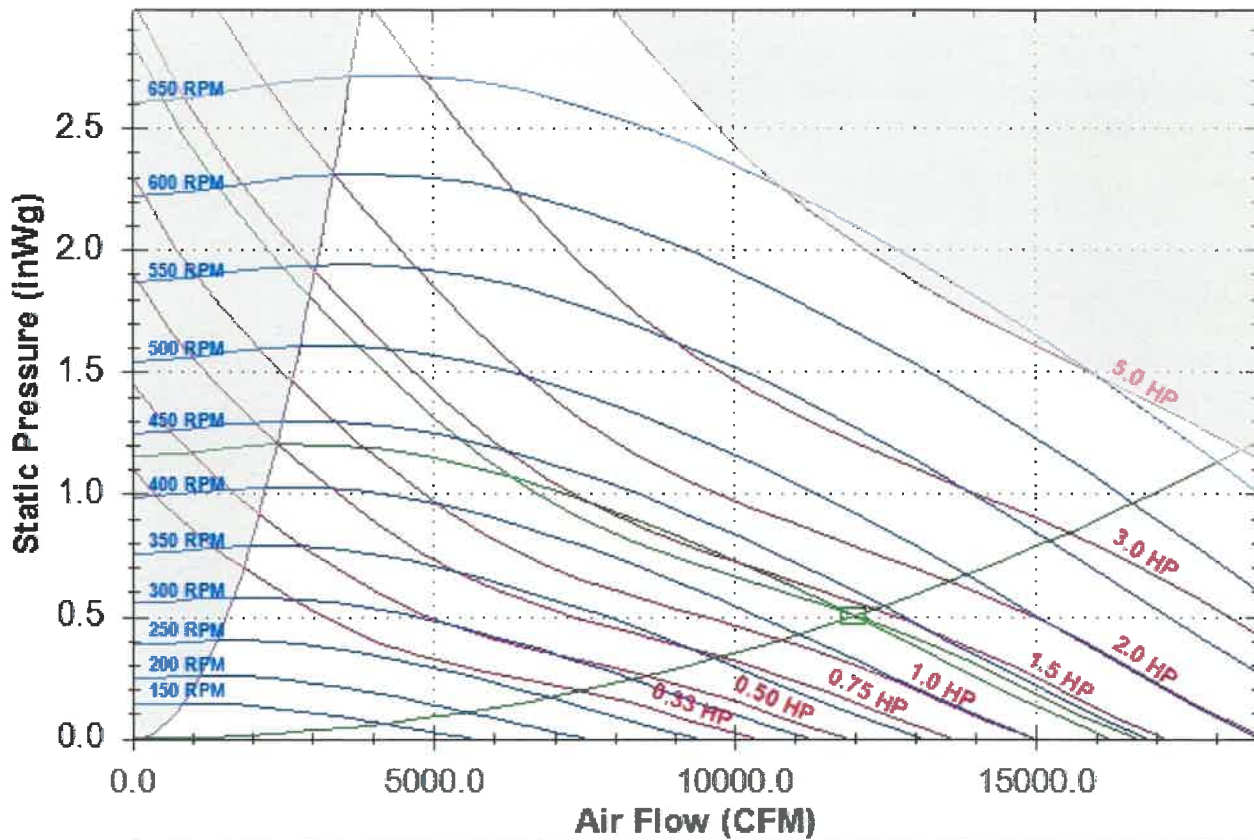
Daikin Rooftop Packaged Fan Selection



24.0 DWDI - Airfoil Supply Fan at Standard Conditions								
Base Tag	Size 035 PWS				Date	Aug-04-2022		
Job Name	Reedsburg Medical replacement - S...				Time	5:11 PM		
Air Volume	12000	CFM		Fan Speed	1592	RPM		
Total Static	4.99	inWg		Max Speed	1800	RPM		
Brake Horsepower	12.45	HP		Efficiency	76	%		
Unit Sound Power	63hz	125hz	250hz	500hz	1000hz	2000hz	4000hz	8000hz
Inlet Sound Power	81	78	76	72	70	65	57	50
Outlet Sound Power	77	72	67	62	55	45	32	17
Radiated Sound Power	0	98	93	91	90	86	83	79



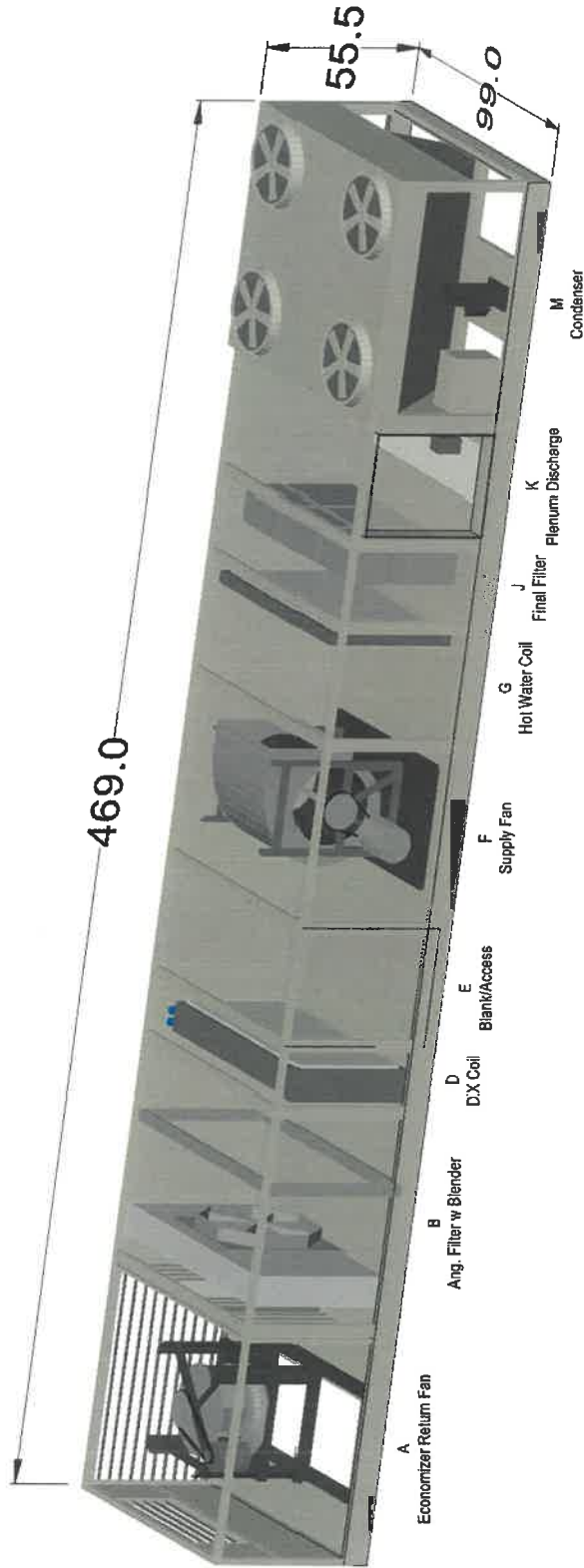
Daikin Rooftop Packaged Fan Selection



40.0 SWSI - Plenum Return Fan at Standard Conditions								
Base Tag	Size 035 PWS				Date	Aug-04-2022		
Job Name	Reedsburg Medical replacement - S...				Time	5:11 PM		
Air Volume	12000	CFM		Fan Speed	433	RPM		
Total Static	0.50	inWg		Max Speed	650	RPM		
Brake Horsepower	1.38	HP		Efficiency	69	%		
Unit Sound Power	63hz	125hz	250hz	500hz	1000hz	2000hz	4000hz	8000hz
Inlet Sound Power	81	78	76	72	70	65	57	50
Outlet Sound Power	77	73	67	62	55	45	32	17
Radiated Sound Power	0	98	93	91	90	86	83	79



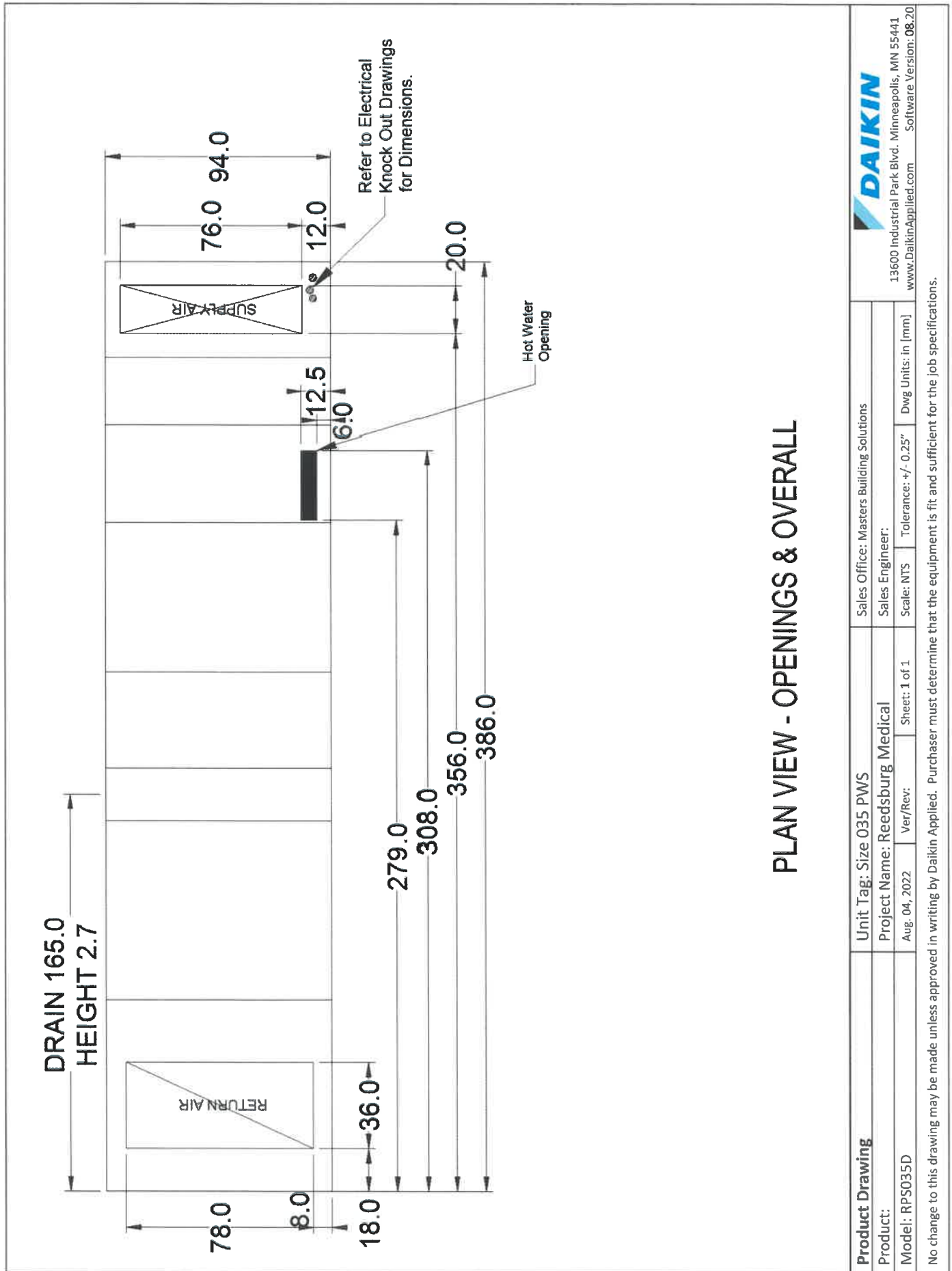
Drawings(1) for Size 035 PWS



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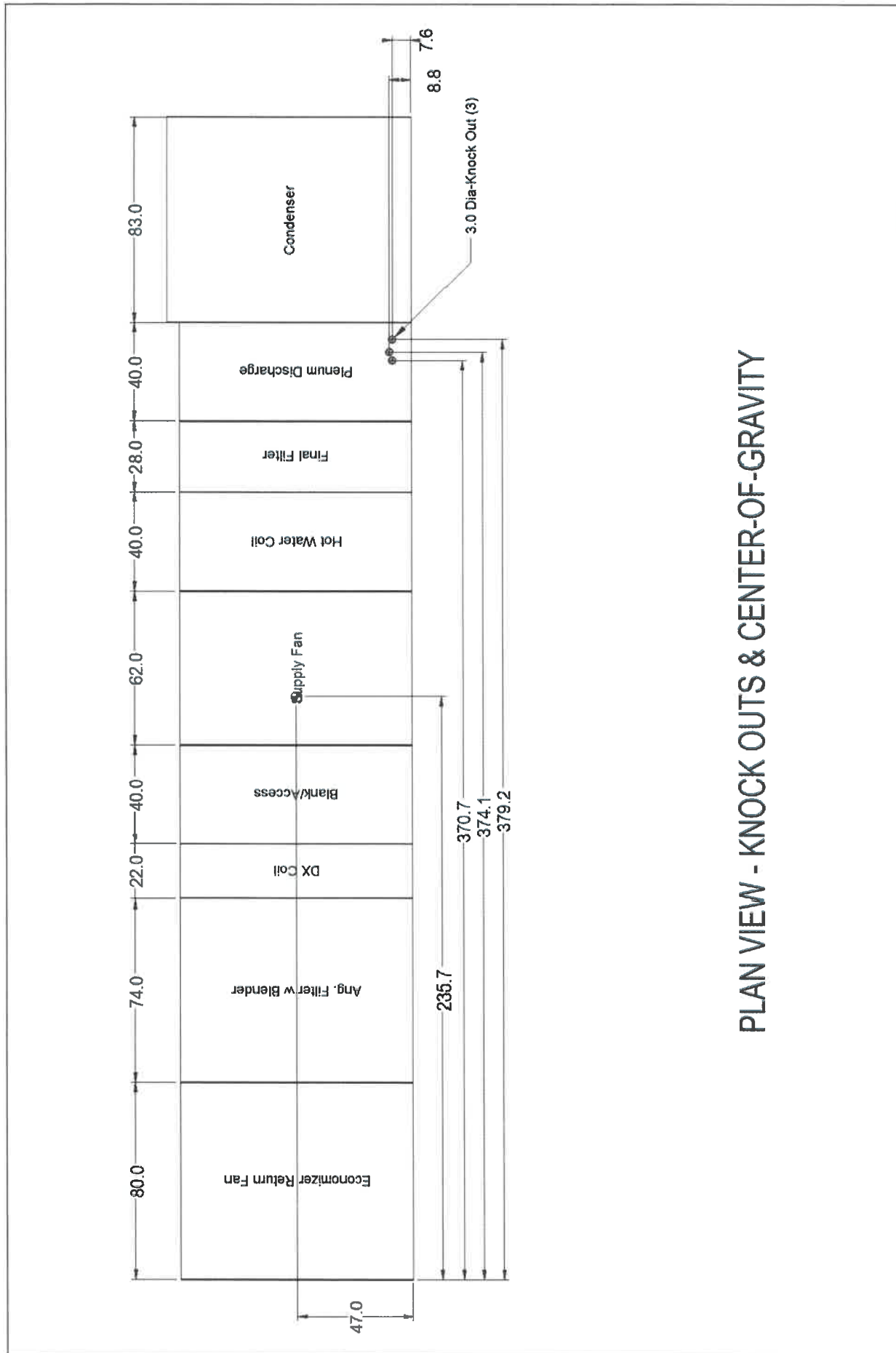
Product Drawing	Unit Tag: Size 035 PWS			Sales Office: Masters Building Solutions		
Product:	Project Name: Reedsburg Medical			Sales Engineer:		
Model: RPS035D	Aug. 04, 2022	Ver/Rev:	sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]

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.




PLAN VIEW - OPENINGS & OVERALL

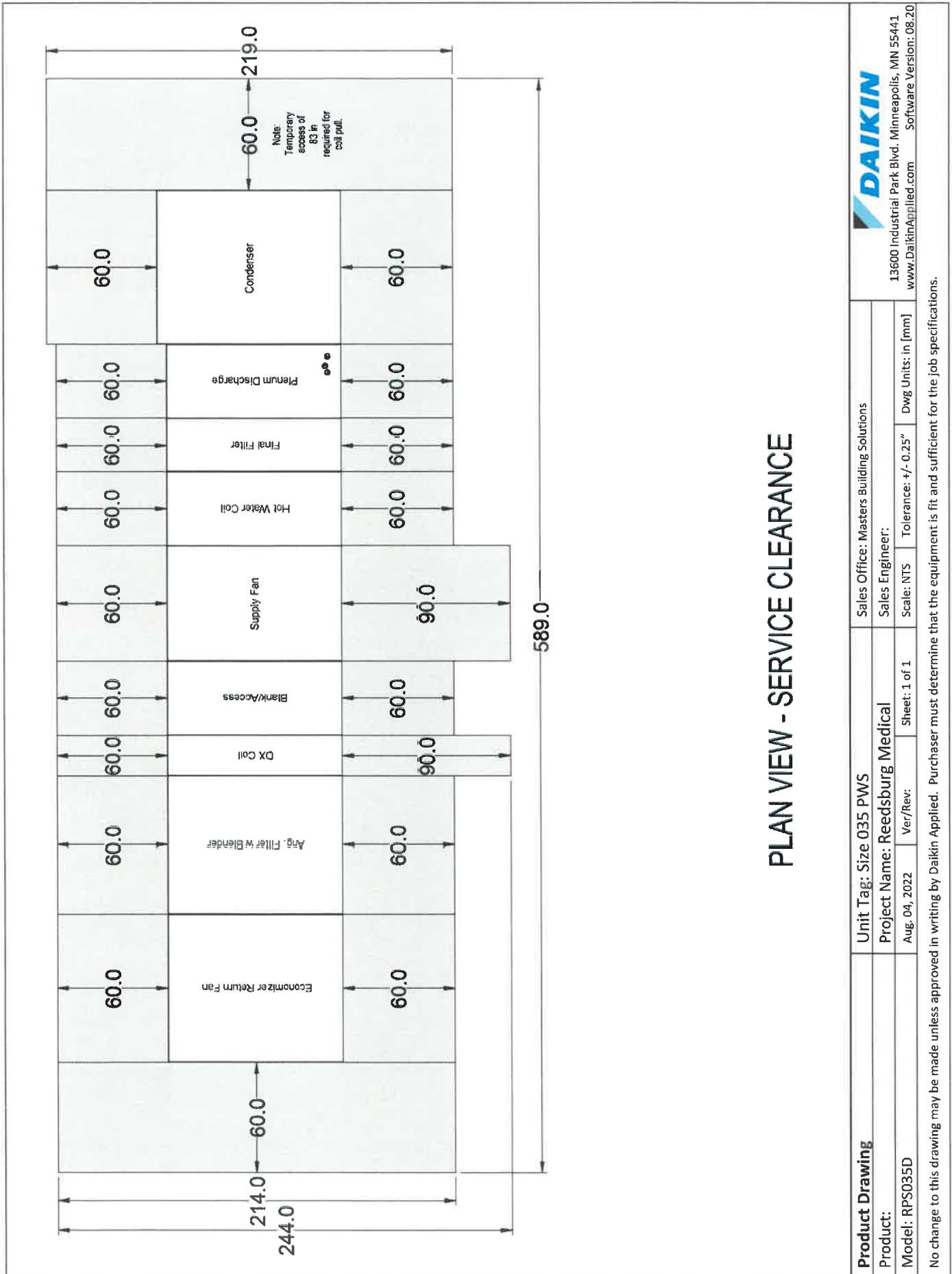
Product Drawing	Unit Tag: Size 035 PWS	Sales Office: Masters Building Solutions	
Product:	Project Name: Reedsburg Medical	Sales Engineer:	13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: RPS035D	Aug. 04, 2022 Ver/Rev:	Scale: NTS	www.DaikinApplied.com Software Version: 08.20
Sheet: 1 of 1		Tolerance: +/- 0.25"	Dwg Units: in [mm]
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PLAN VIEW - KNOCK OUTS & CENTER-OF-GRAVITY

Product Drawing	Unit Tag: Size 035 PWS		Sales Office: Masters Building Solutions	
Product:	Project Name: Reedsburg Medical		Sales Engineer:	
Model: RPS035D	Aug. 04, 2022	Ver/Rev:	Sheet: 1 of 1	Scale: NTS
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.				
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Drawings(4) for Size 035 PWS



PLAN VIEW - SERVICE CLEARANCE



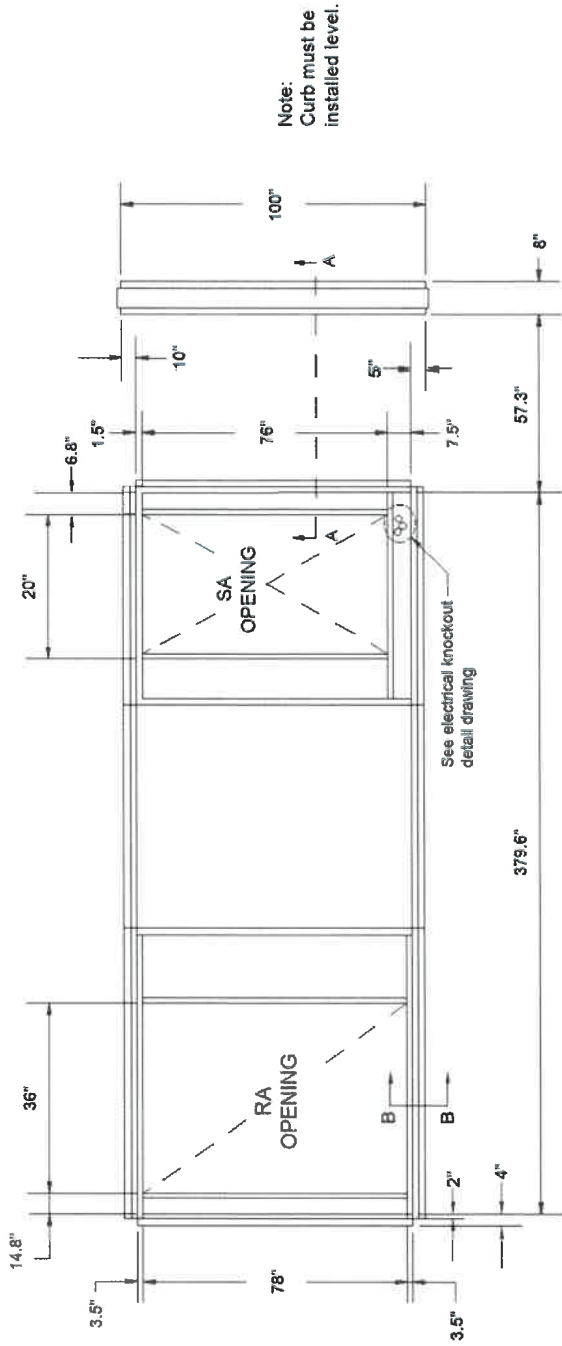
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Product Drawing	Unit Tag: Size 035 PWS	Sales Office: Masters Building Solutions
Product:	Project Name: Reedsburg Medical	Sales Engineer:
Model: RPS035D	Aug. 04, 2022 Ver/Rev: Sheet: 1 of 1	Scale: NTS Tolerance: +/- 0.25" Dwg Units: in [mm]

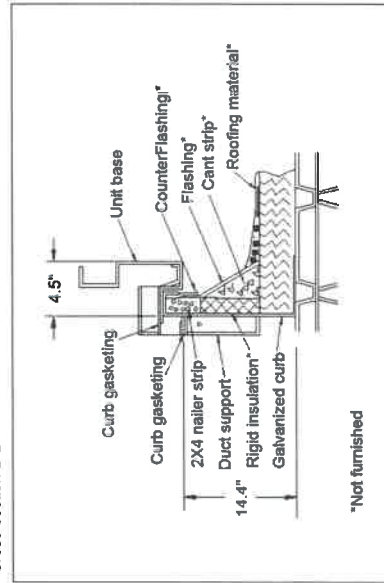
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Drawings(5) for Size 035 PWS

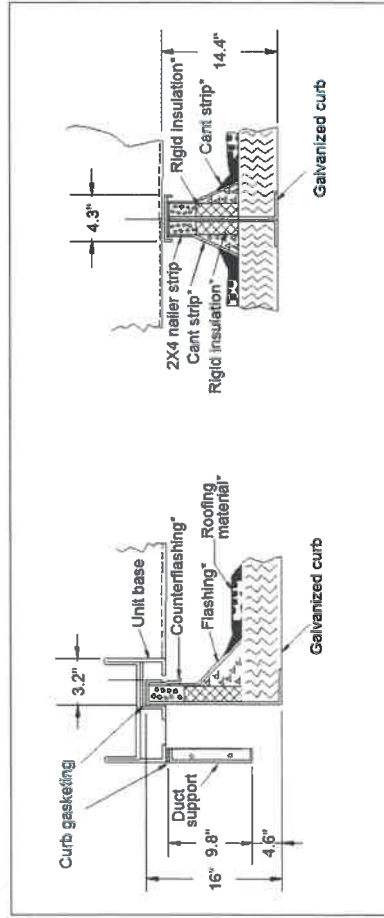
Curb Weight: 896.08 lbs.



Cross-section B-B



Cross-Section A-A

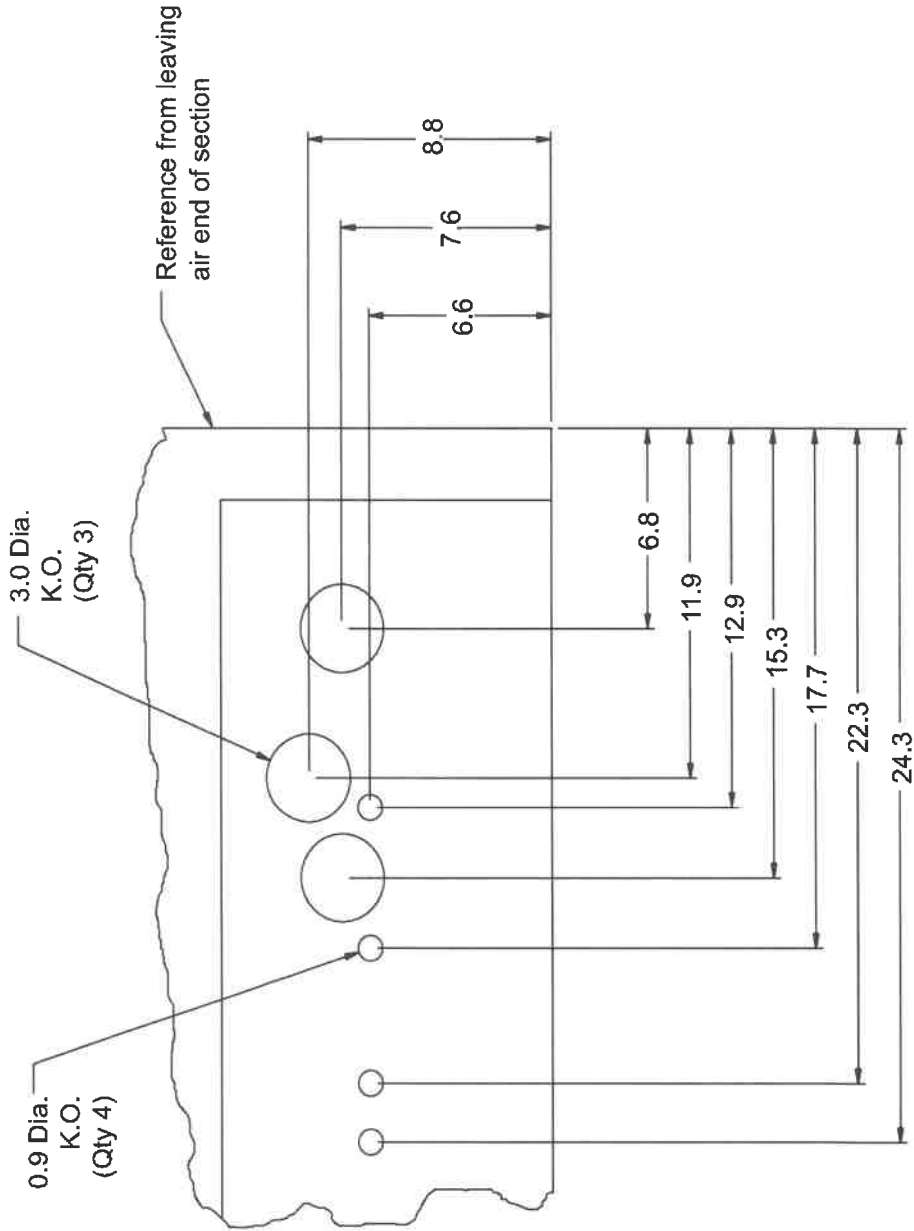


Product Drawing		Unit Tag: Size 035 PWS		Sales Office: Masters Building Solutions	
Product:		Project Name: Reedsburg Medical		Sales Engineer:	
Model: RPS035D		Aug. 04, 2022 Ver/Rev:		Scale: NTS Tolerance: +/- 0.25" Dwg Units: in [mm]	
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Unit Knockout, Small Box for Size 035 PWS



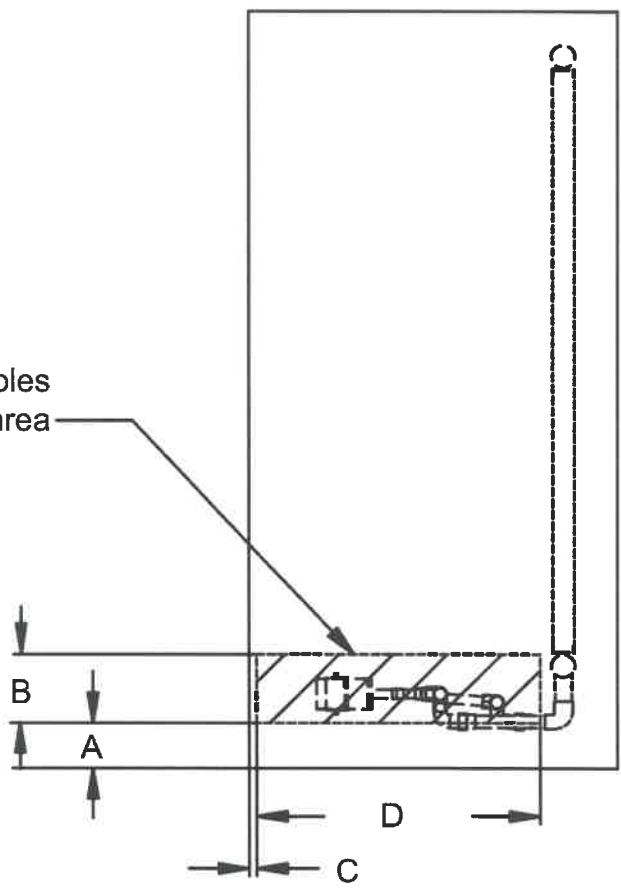
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Product Drawing	Sales Office: Masters Building Solutions	
Product:	Sales Engineer:	
Model: RPS035D	Scale: NTS	Dwg Units: in [mm]
	Sheet: 1 of 1	Tolerance: +/- 0.25"


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Unit Knockout, Steam_Hotwater Heat, Small box for Size 035 PWS

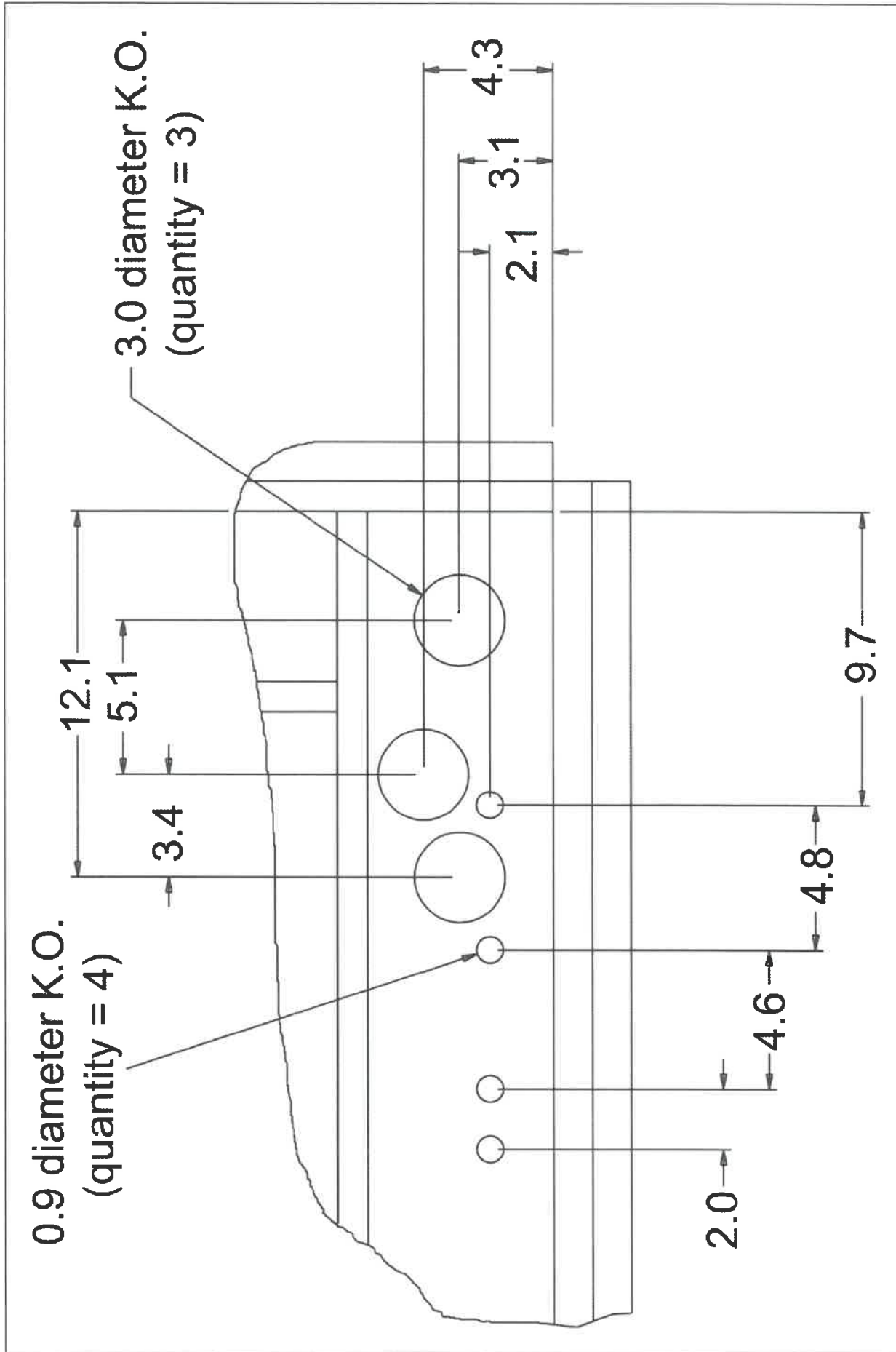
All piping entrance holes should fall within this area



Unit Size	A	B	C	D
015D-042D	6.0"	6.5"	1.0"	29.0"

Product Drawing		Unit Tag: Size 035 PWS		 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 08.20		
Product:		Project Name: Reedsburg Medical				
Model: RPS035D		Sales Office: Masters Building Solutions		Scale: NTS Tolerance: +/-0.25" Dwg Units: in [mm]		
Sales Engineer:		Aug. 04, 2022	Ver/Rev:	Sheet 1 of 1		
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Roofcurb Knockout small box for Size 035 PWS



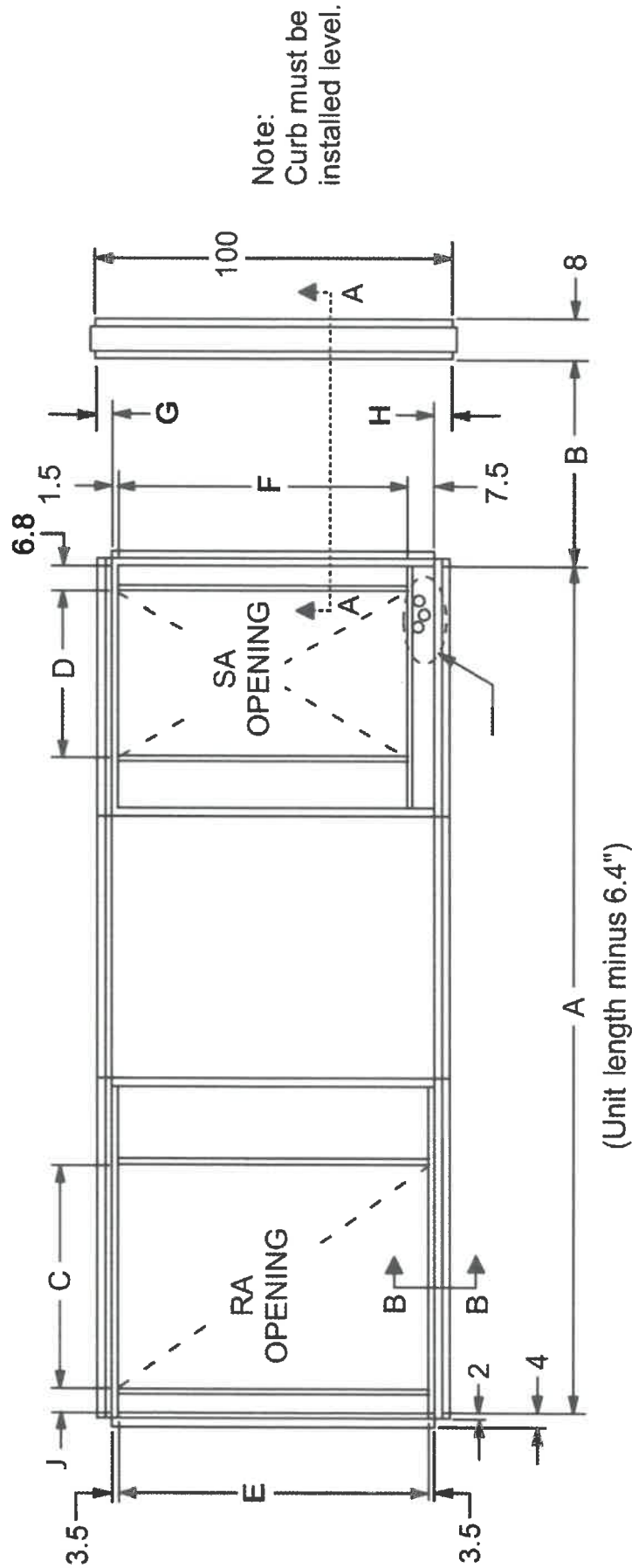
Product Drawing	Unit Tag: Size 035 PWS	Sales Office: Masters Building Solutions
Product:	Project Name: Reedsburg Medical	Sales Engineer:
Model: RPS035D	Aug. 04, 2022 Ver/Rev:	Scale: NTS
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		Dwg Units: in [mm]



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Roofcurb_Dimensions_40inAF for Size 035 PWS

Dimensions		
Description	Letter	Dimensions (in)
Curb Length	A	379.6
Condenser Rail	B	57.3
Return Air Opening Length	C	36.0
Supply Air Opening Length	D	20.0
Return Air Opening Width	E	78.0
Supply Air Opening Width	F	76.0
Condenser Rail Overhang	G	10.0
Return Air Opening Overhang	H	5.0
Return Air Opening Location	J	14.8



Product Drawing		Sales Office: Masters Building Solutions	
Product: Unit Tag: Size 035 PWS		Sales Engineer:	
Model: RPS035D		Scale: NTS	Dwg Units: (in)
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