

# COLD CLIMATE SINGLE PACKAGED HEAT PUMP (SPXC) CERTIFIED DRAWING

DWG. NO.  
**SPXC-Series Submittal**  
REV. - 2.2

PROJECT	DATE	11/21/25	BY	JL	REVISIONS	
PURCHASER	P.O. #		QTY	DATE	BY	DESCRIPTION
ARCHITECT	SHIP DATE	ACCESS PANEL				
ENGINEER		WALL PLENUM				
HVAC CONTR.		LOUVER				
GEN. CONTR.		CHASSIS				

DESIGNATION	MODEL NUMBER	QTY	ACCESS PANEL		WALL PLENUM		LOUVER		ELECTRIC HEAT		DIGITAL THERMOSTAT					
			STD	SPCL	STD	SPCL	STD	SPCL			YES	NO	YES	NO	YES	NO
TOTAL																

## UNIT SPECIFICATIONS+

SERIES MODEL #	8SPXC12	8SPXC18	8SPXC24
Cooling Capacity (Btu/hr) <sup>2</sup>	12,900	18,100	28,400
Sensible Capacity (Btu/hr) <sup>2</sup>	10,000	15,000	21,900
Cooling Capacity Range (Btu/hr)	8,900 - 14,500	12,400 - 20,300	18,900 - 32,600
EER <sup>2</sup>	11.1	10.7	10.5
SEER2	14.7	13.8	14.0
Cooling Operating Range	38 F TO 115 F		
Cooling Input (Watts)	1,162	1,692	2,705
Cooling Input (Amps)	5.6	8.1	13.0
Heating Capacity (Btu/hr) <sup>3</sup>	11,800	16,500	23,100
Heating Capacity Range (Btu/hr)	8,100 - 13,300	11,700 - 18,200	16,400 - 25,400
COP <sup>3</sup>	3.5	3.5	3.2
HSPF2	7.6	7.4	7.4
Heating Outdoor Operating Range	-5 F TO 70 F		
Heating Input (Watts)	988	1,382	2,116
Heating Input (Amps)	4.8	6.6	10.2
Voltage	208	208	208
Total Unit FLA (without Electric Heat)	9.8	13.7	22.2
MCA (without Electric Heat)	11.5	16.0	26.2
MOP (without Electric Heat)	15	25	40
Electric Heat (kW) <sup>4</sup>	3.5 5.0	5.0 7.5	5.0 7.5
Electric Heat (A)	16.8 24.0	24.0 36.1	24.0 36.1
Total Unit FLA (with Electric Heat)	18.8 26.0	26.0 38.1	27.6 39.7
MCA (with Electric Heat)	23.0 32.0	32.0 47.1	33.6 48.7
MOP (with Electric Heat)	25 35	35 50	40 50
Airflow (CFM)	450	720	1,000
Max External Static Pressure - ESP (in.wg.)	0.3	0.3	0.3
Weights (lbs.)	220	280	360
LOW AMBIENT PERFORMANCE			
Heating Capacity @ 10 °F	8,500	13,000	19,800
COP @ 10 °F	1.85	1.95	1.90
Heating Capacity @ 5 °F	7,700	12,300	19,400
COP @ 5 °F	1.70	1.85	1.85
Heating Capacity @ -5 °F	6,100	10,900	18,400
COP @ -5 °F	1.40	1.7	1.75

### GENERAL NOTES:

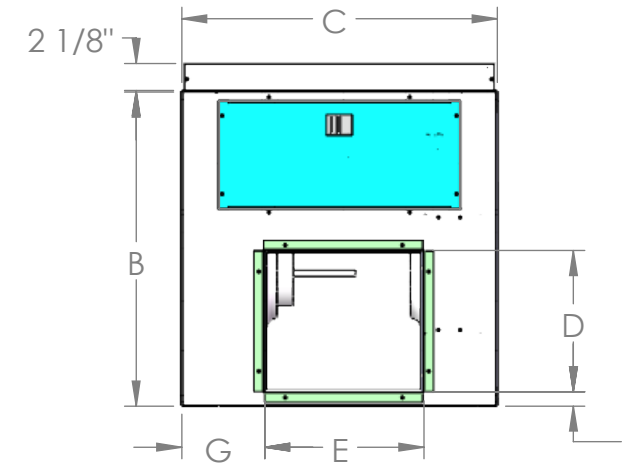
- 1: For use as a complete assembly only.  
For replacement unit applications,  
consult Manufacturer.

### SPECIFICATION NOTES:

1. Performance data according to CAC/HP AHRI 210/240 standard.
2. Rated performances in cooling mode @ 80F/67F DB/WB Indoors and 95F/75F DB/WB Ambient
3. Rated performances in heating mode @ 70F/60F DB/WB Indoors and 47F/43F DB/WB Ambient
4. If the electric heat option is selected, the heat pump operation is disabled and electric heat enabled below -5°F (+/- 3°F).
5. Units without electric heat will operate below -5F with derated performance. Performance below -5F has not been certified.
6. Performance data based on R32 refrigerant.

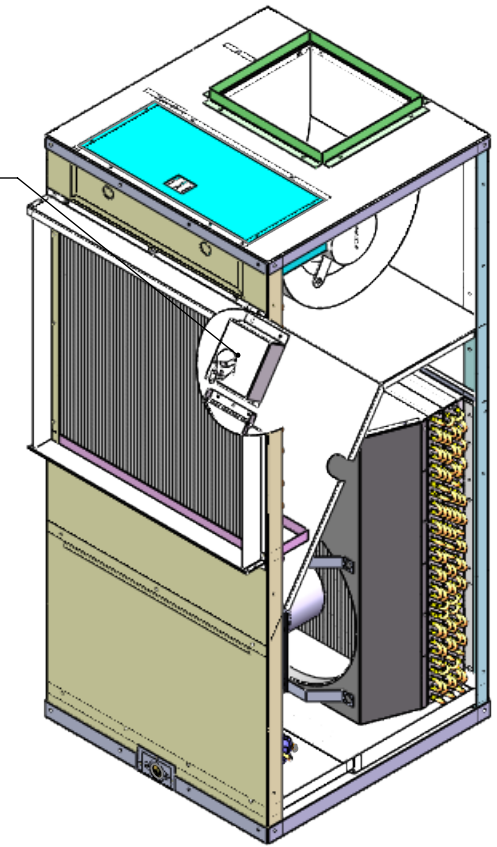
REVISIONS			
REV.	DESCRIPTION	BY	DATE

UNIT SIZE	A	B	C	D	E	F	G	H	J
12	47	23	23	8 1/2	9 1/2	2 1/4	8 1/4	20 1/2	11 1/2
18	52	23	23	10 3/8	11 3/4	2 1/4	4 1/2	28 3/8	6 3/4
24	64	26	28	10 5/8	9 1/2	2 1/4	8	32 1/2	10 1/4

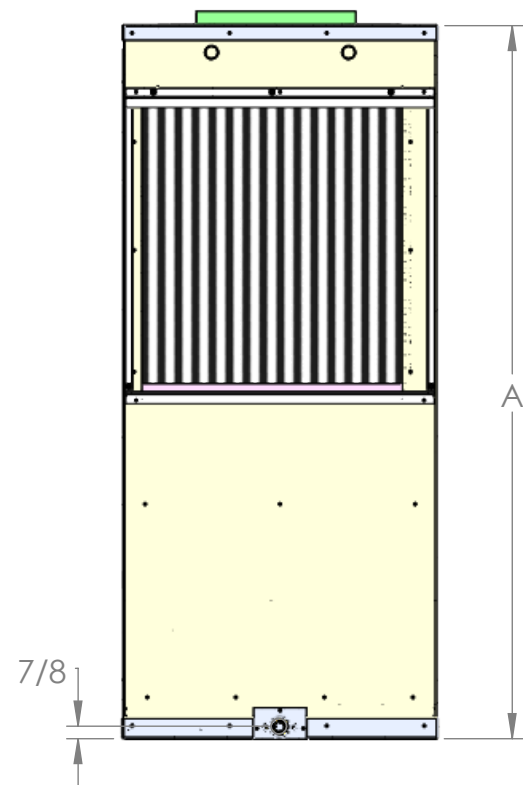


TOP VIEW

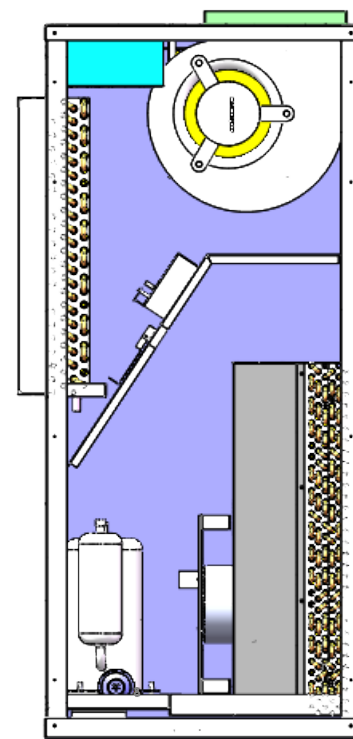
FRESH AIR MODULE (OPTIONAL)



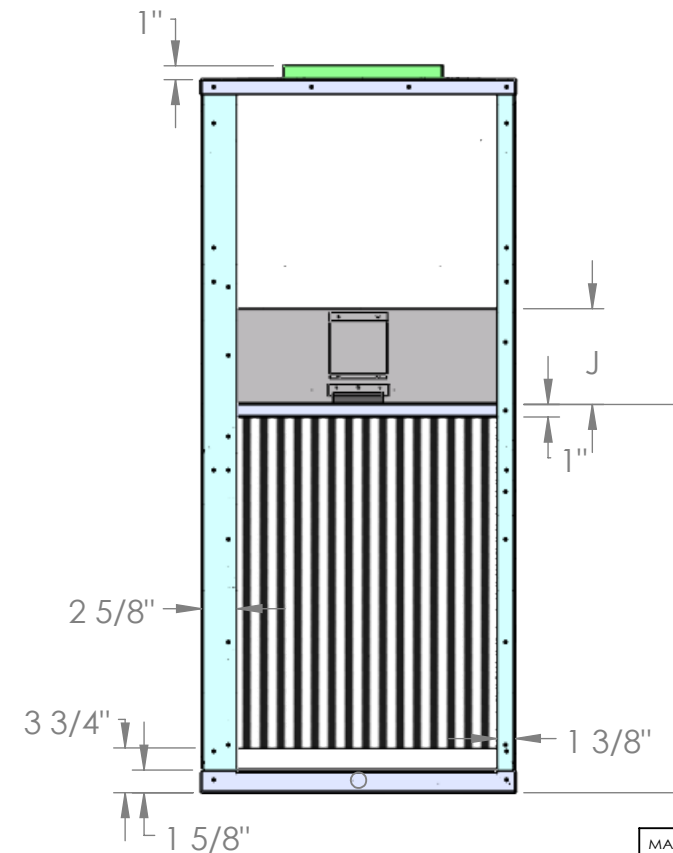
ISOMETRIC VIEW



FRONT VIEW



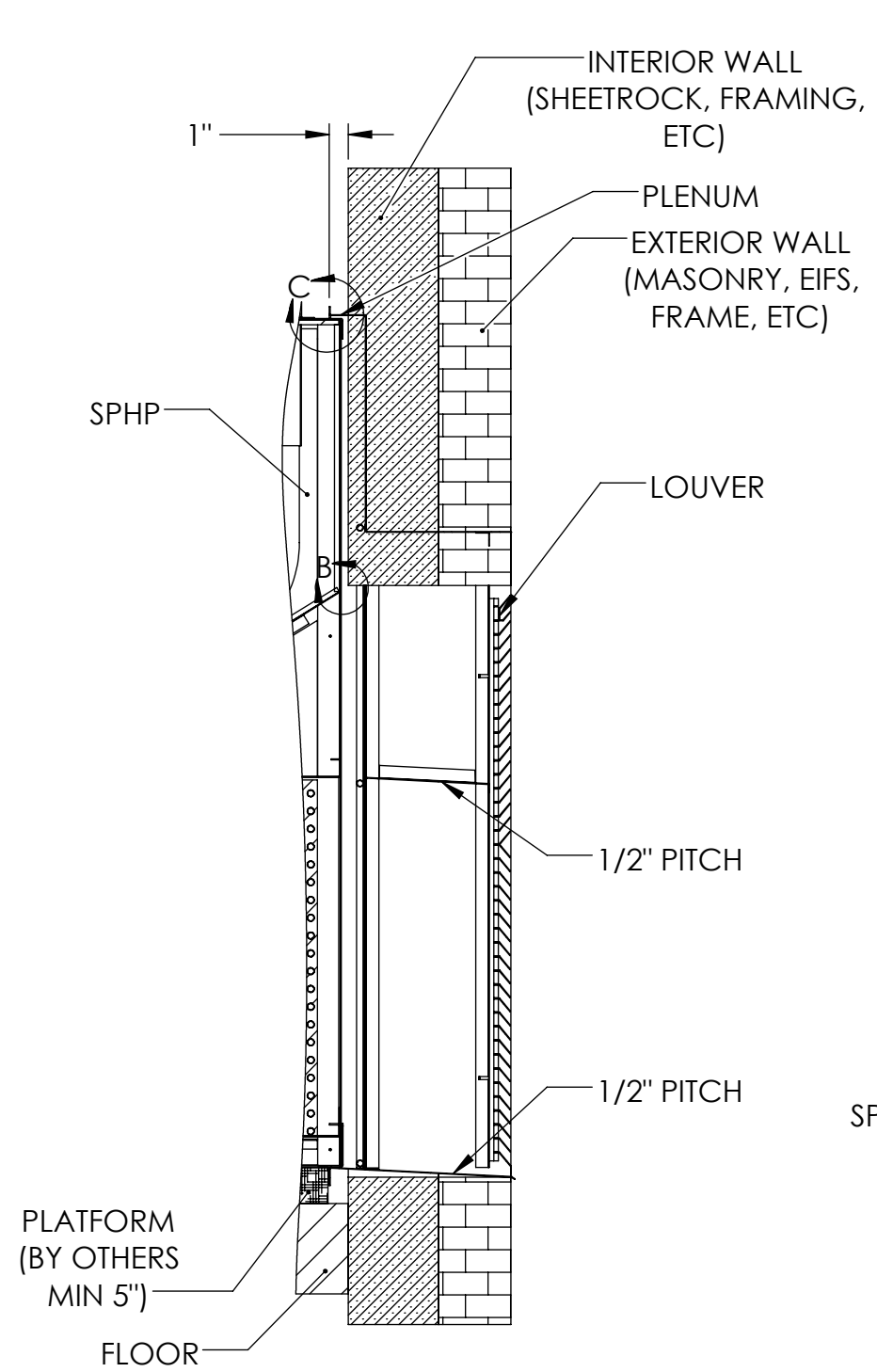
RIGHT VIEW



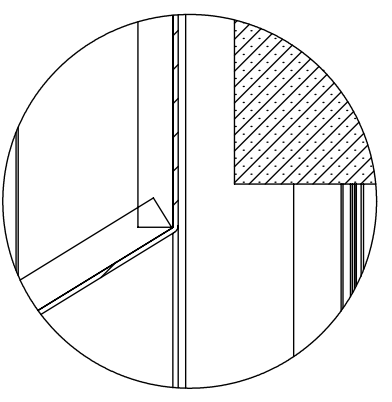
REAR VIEW

MATERIAL:	<b>ICE-AIR LLC.</b> 80 HARTFORD AVENUE MOUNT VERNON, NY 10553		
WEIGHT (LBS): 103144.030			
FINISH: N/A	TITLE: SPXC CHASSIS DWG		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	MODEL BY: VP	DATE: 07/20/18	DWG. NO.
TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	DRAWING BY: JL	DATE: 6/20/21	SAB-10287
Third Angle Projection 	PROPRIETARY AND CONFIDENTIAL This drawing is the intellectual property of Ice Air LLC and consists of confidential data belonging solely to Ice Air, LLC. The sharing of this data with you does not constitute a license to share this data with any third party, which is strictly prohibited without Ice Air's prior written consent.	SIZE <b>B</b>	SCALE: NONE DO NOT SCALE DRAWING
8	7	6	5
4	3	2	1
SHEET 1 OF 1			REV

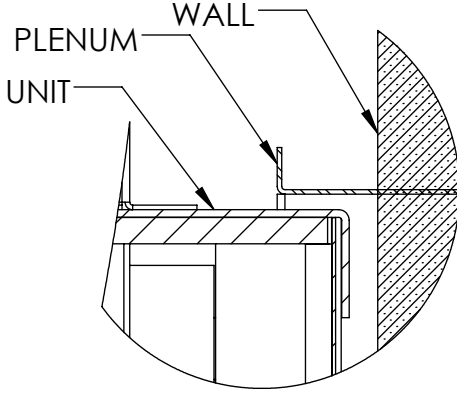
REVISIONS			
REV.	DESCRIPTION	BY	DATE



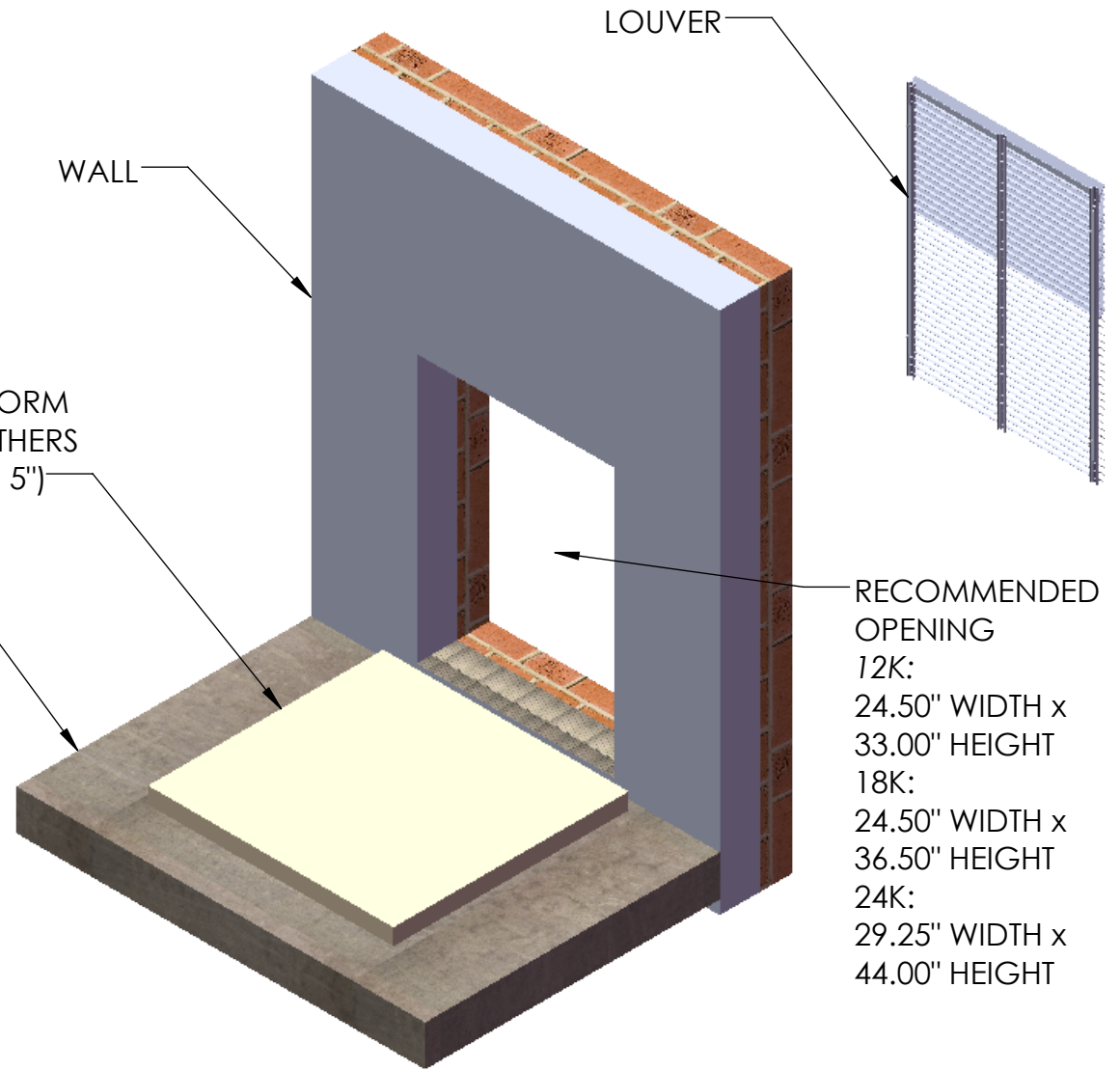
SECTION A-A  
SCALE 1 : 10



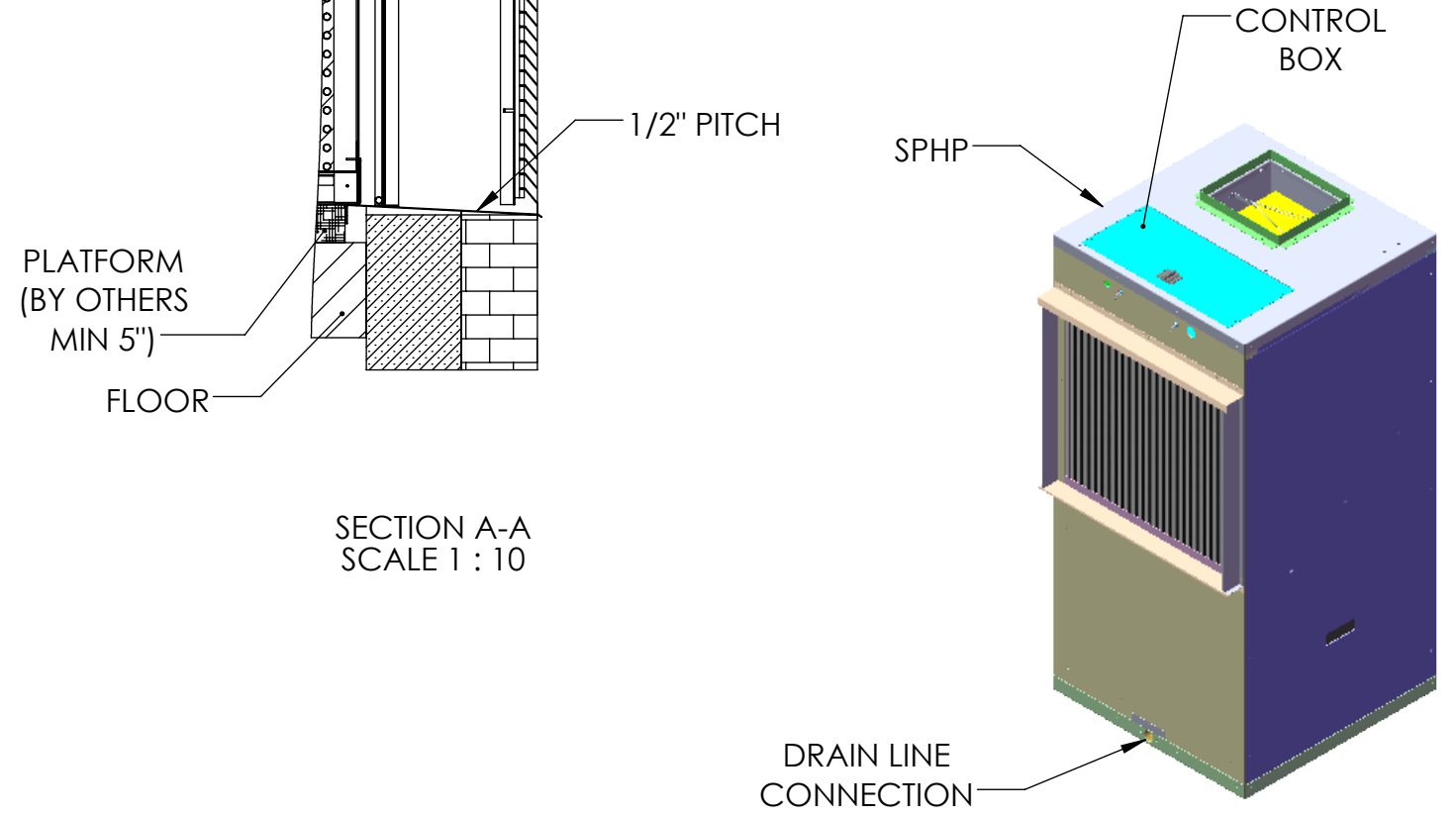
DETAIL B  
SCALE 1 : 1.5



DETAIL C  
SCALE 1 : 2



- RECOMMENDED OPENING
- 12K: 24.50" WIDTH x 33.00" HEIGHT
  - 18K: 24.50" WIDTH x 36.50" HEIGHT
  - 24K: 29.25" WIDTH x 44.00" HEIGHT

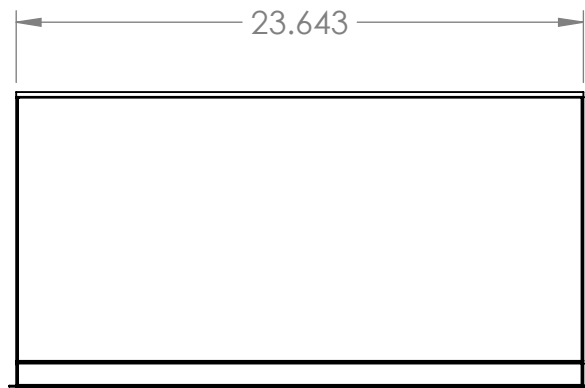


NOTE.  
LOUVER CAN BE INSTALLED AFTER WALL SLEEVE.

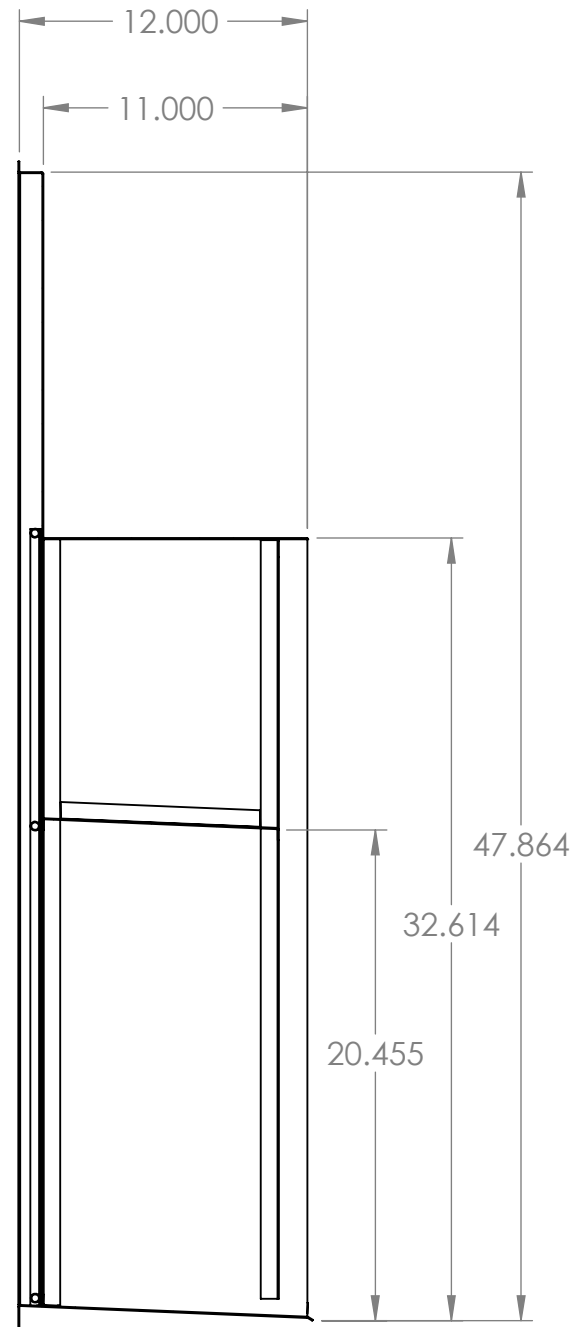
MATERIAL:	<b>ICE-AIR LLC.</b> 80 HARTFORD AVENUE MOUNT VERNON, NY 10553			
WEIGHT (LBS): 1423.40				
FINISH: N/A	TITLE: SPXC DESIGN STRAIGHT UNIT LAYOUT FOR THRU WALL SLEEVE	MODEL BY: VP	DATE: 06/20/19	DWG. NO.
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	DRAWING BY: -	DATE: -	CH UNIT	
Third Angle Projection 	PROPRIETARY AND CONFIDENTIAL This drawing is the intellectual property of Ice Air, LLC and consists of confidential data belonging solely to Ice Air, LLC. The sharing of this data with you does not constitute a license to share this data with any third party, which is strictly prohibited without Ice Air's prior written consent.	SIZE <b>B</b>	SCALE: NONE DO NOT SCALE DRAWING	SHEET 1 OF 1

WMSPXC11A-12K

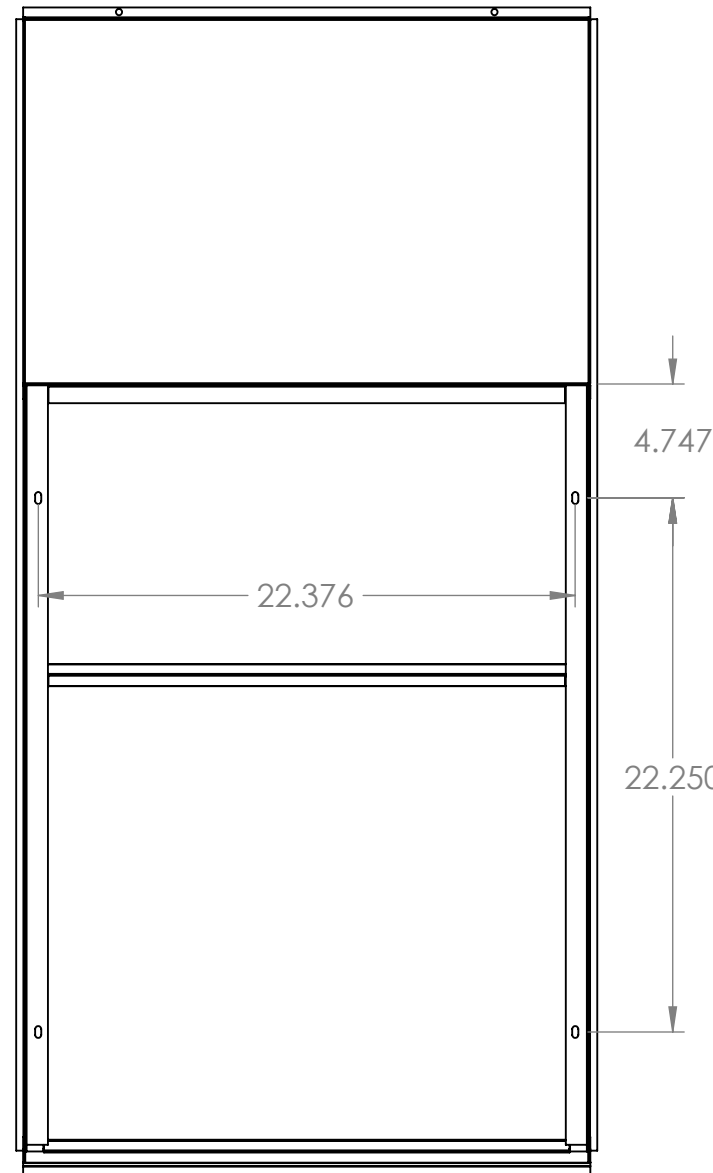
REVISIONS			
REV.	DESCRIPTION	BY	DATE



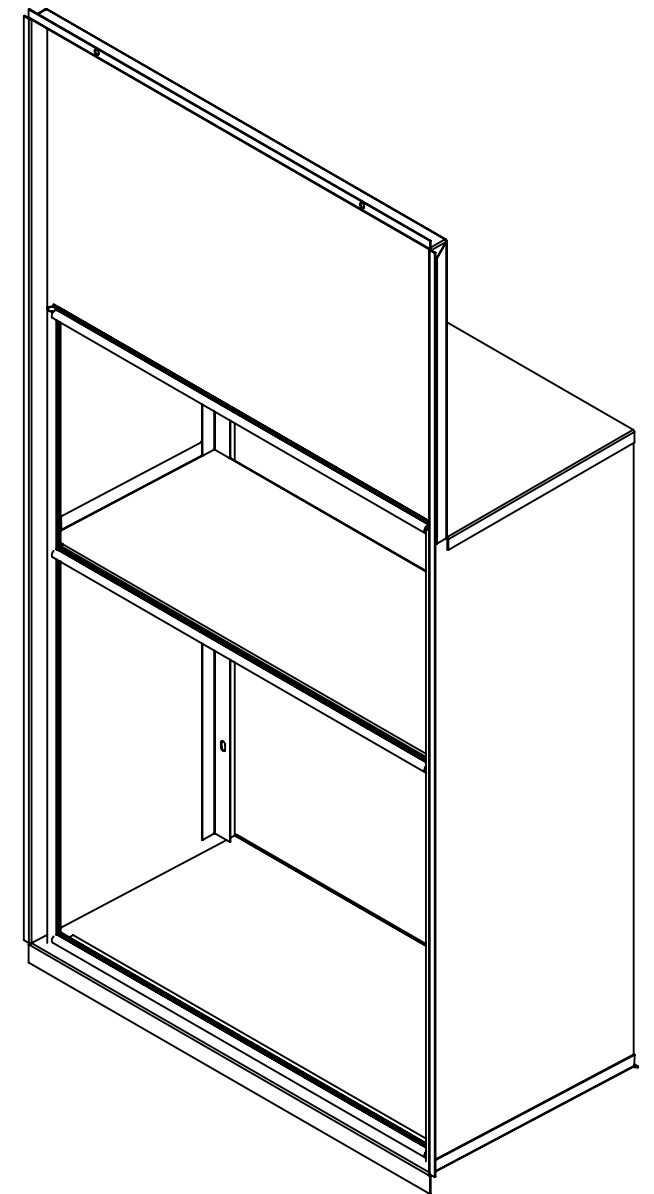
TOP VIEW



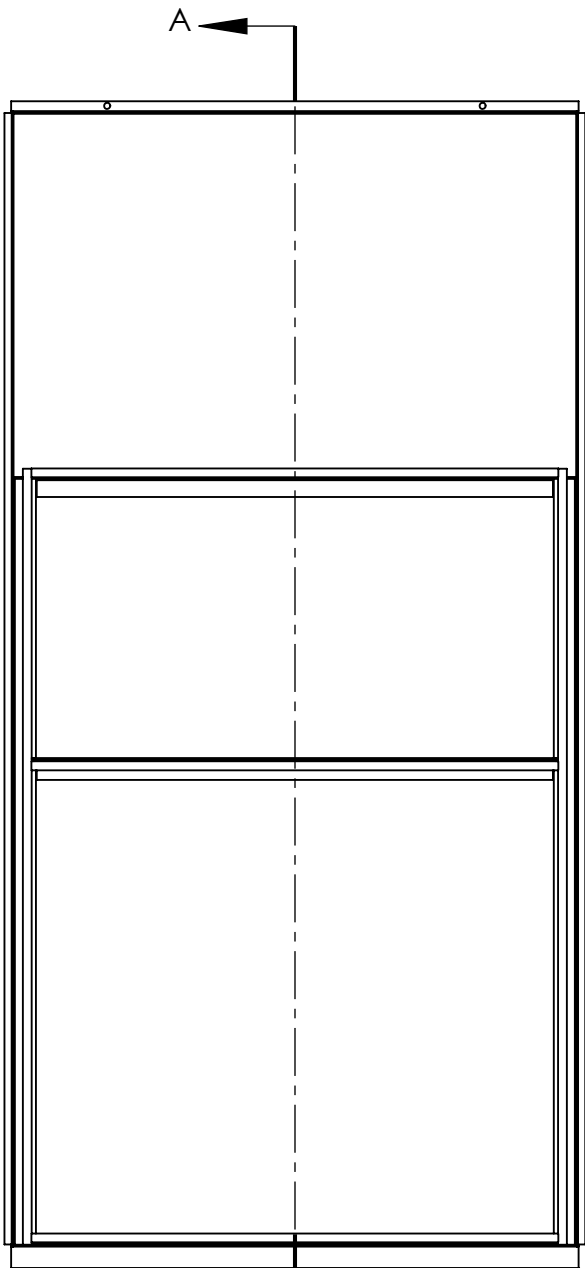
SECTION A-A  
SCALE 1 : 8



REAR VIEW



ISOMETRIC VIEW



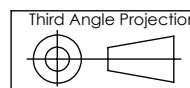
FRONT VIEW

NOTES.

1. USE SPOT WELD TO JOIN ALL PARTS.
2. MAX WALL DEPTH 11.000".
3. RECOMMENDED OPENING IN THE WALL FOR THE PLENUM 24.500"W x 33.000"H.
4. WALL PLENUM SHOULD BE INSTALLED A MIN 5" OFF OF THE FINISHED FLOOR.

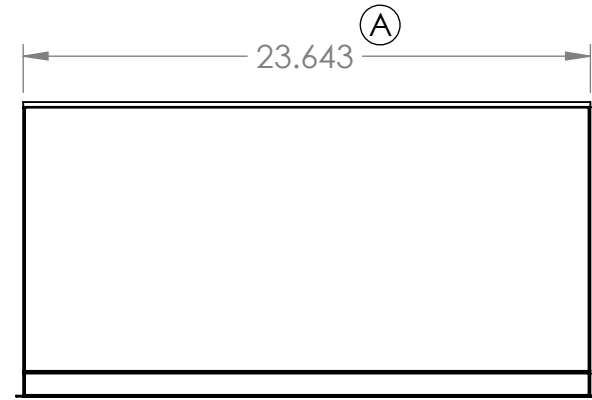
MATERIAL:		<b>ICE-AIR LLC.</b> 80 HARTFORD AVENUE MOUNT VERNON, NY 10553		
WEIGHT (LBS): 31.40				
FINISH: POWDER COATED BLACK IN AND OUT		TITLE: SPXC STRAIGHT UNIT 12K MASONRY WALL PLENUM WITH PITCH 1/2", 11.000" DEEP, WITH 1" RECESS FOR UNIT		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015		MODEL BY: VP DRAWING BY: TL	DATE: 10/14/25 DATE: 10/28/25	DWG. NO. WMSPXC11A-12K
SIZE <b>B</b>	SCALE: NONE DO NOT SCALE DRAWING	SHEET 1 OF 1	REV	

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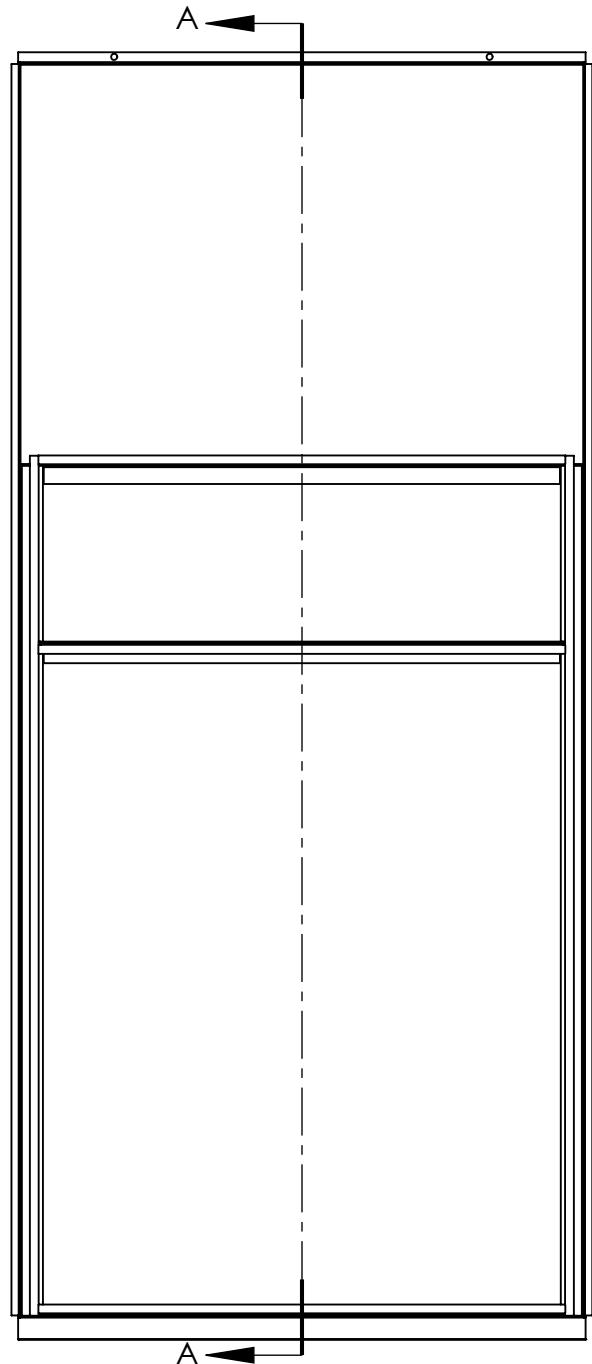


WMSPXC11A-18K

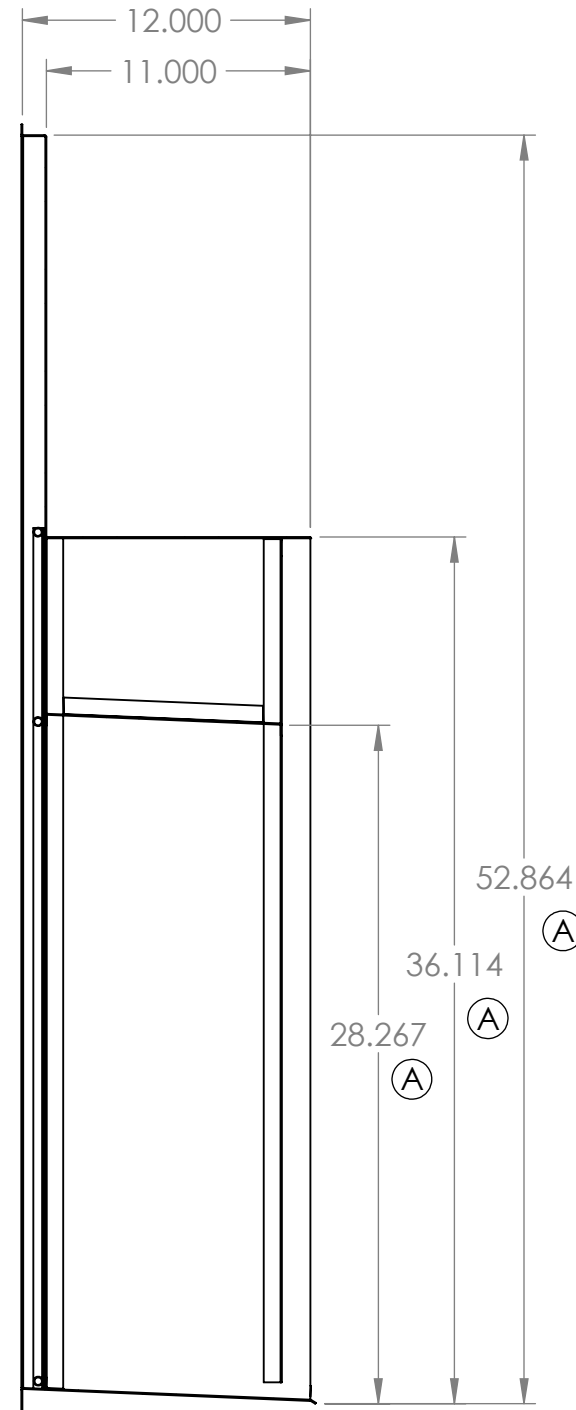
REVISIONS			
REV.	DESCRIPTION	BY	DATE
A	RESIZED FOR LATEST SPXC DIMENSIONS	TL	10/28/2025



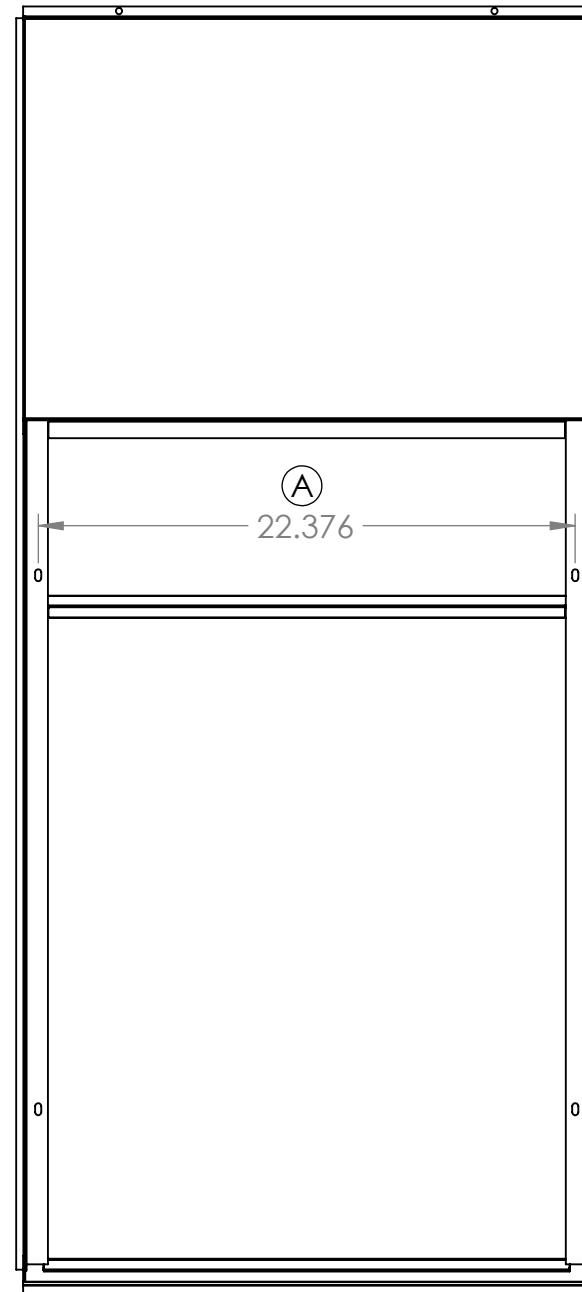
TOP VIEW



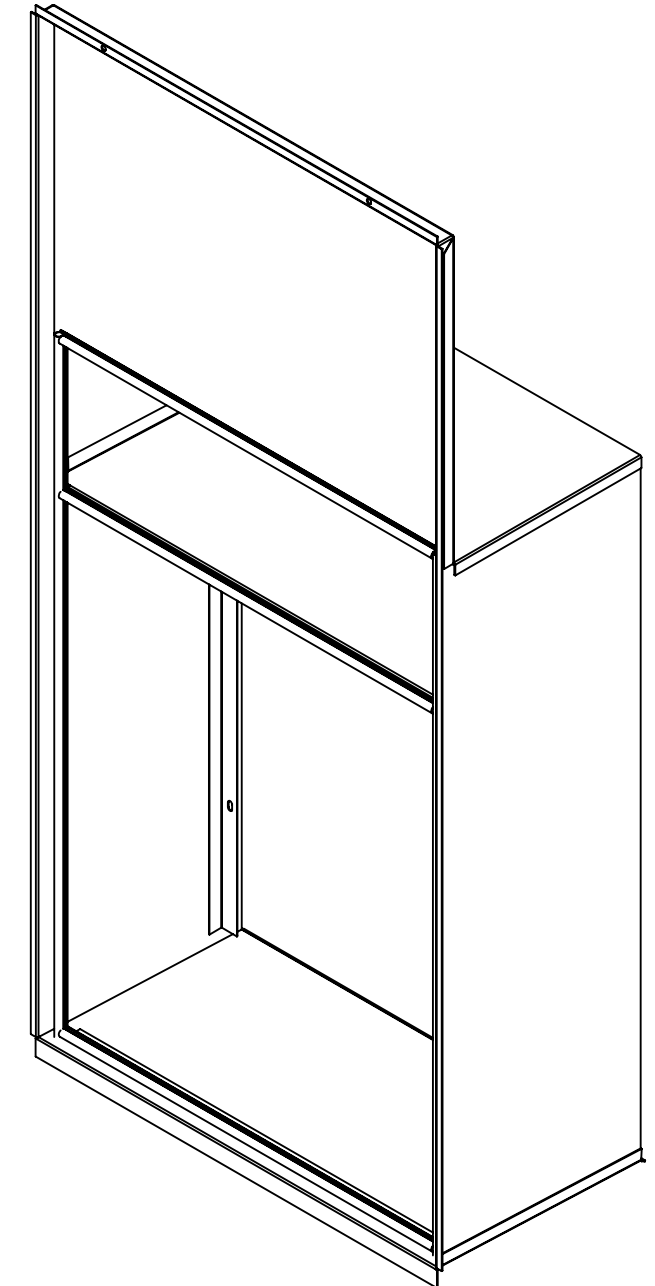
FRONT VIEW



SECTION A-A  
SCALE 1 : 8



REAR VIEW

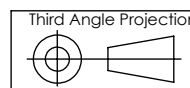


ISOMETRIC VIEW

NOTES.

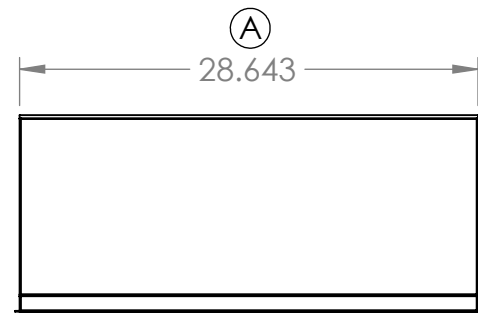
1. USE SPOT WELD TO JOIN ALL PARTS.
2. MAX WALL DEPTH 11.000".
3. RECOMMENDED OPENING IN THE WALL FOR THE PLENUM 24.500"W x 36.500"H.
4. WALL PLENUM SHOULD BE INSTALLED A MIN 5" OFF OF THE FINISHED FLOOR.

MATERIAL:		<b>ICE-AIR LLC.</b> 80 HARTFORD AVENUE MOUNT VERNON, NY 10553		
WEIGHT (LBS): 33.37				
FINISH: POWDER COATED BLACK IN AND OUT		TITLE: SPXC STRAIGHT UNIT 18K MASONRY WALL PLENUM WITH PITCH 1/2" 11.000" DEEP WITH 1" RECESS FOR UNIT		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015		MODEL BY: TL	DATE: 10/28/25	DWG. NO.
		DRAWING BY: TL	DATE: 10/28/25	WMSPXC11A-18K
<b>SIZE B</b>		SCALE: NONE DO NOT SCALE DRAWING		SHEET 1 OF 1
				REV <b>A</b>



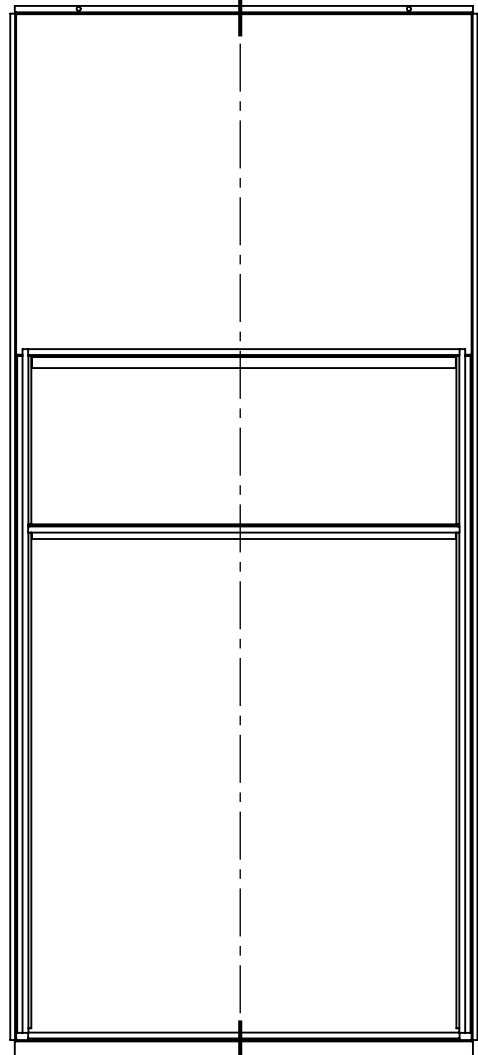
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REVISIONS			
REV.	DESCRIPTION	BY	DATE
A	RESIZED FOR LATEST SPXC DIMENSIONS	TL	10/28/2025

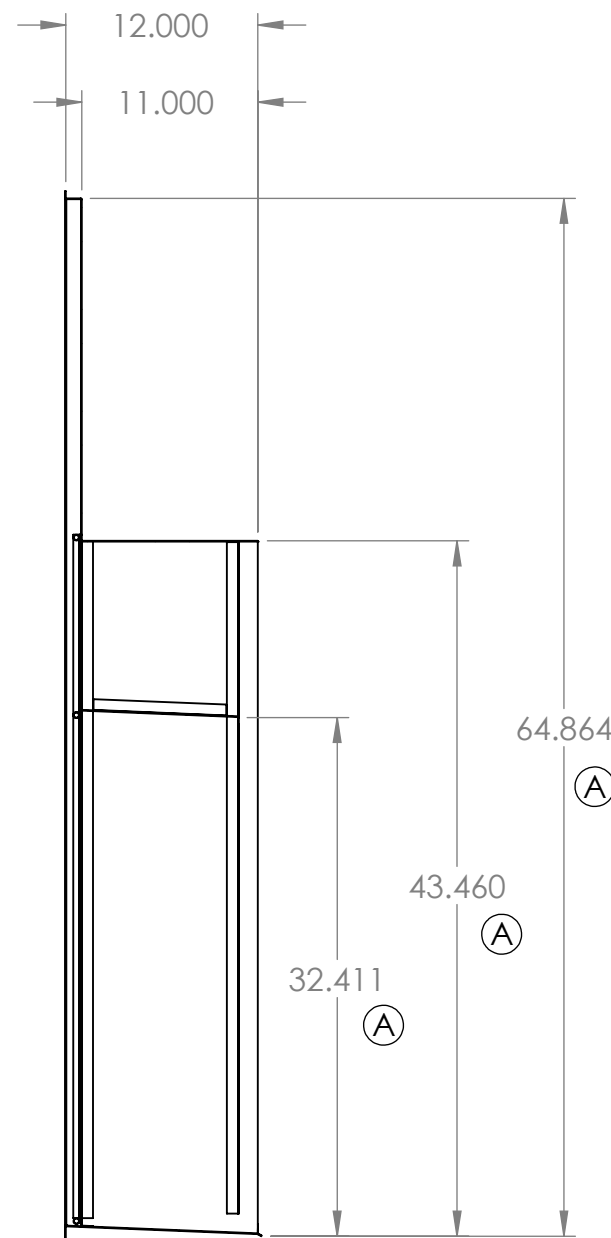


TOP VIEW

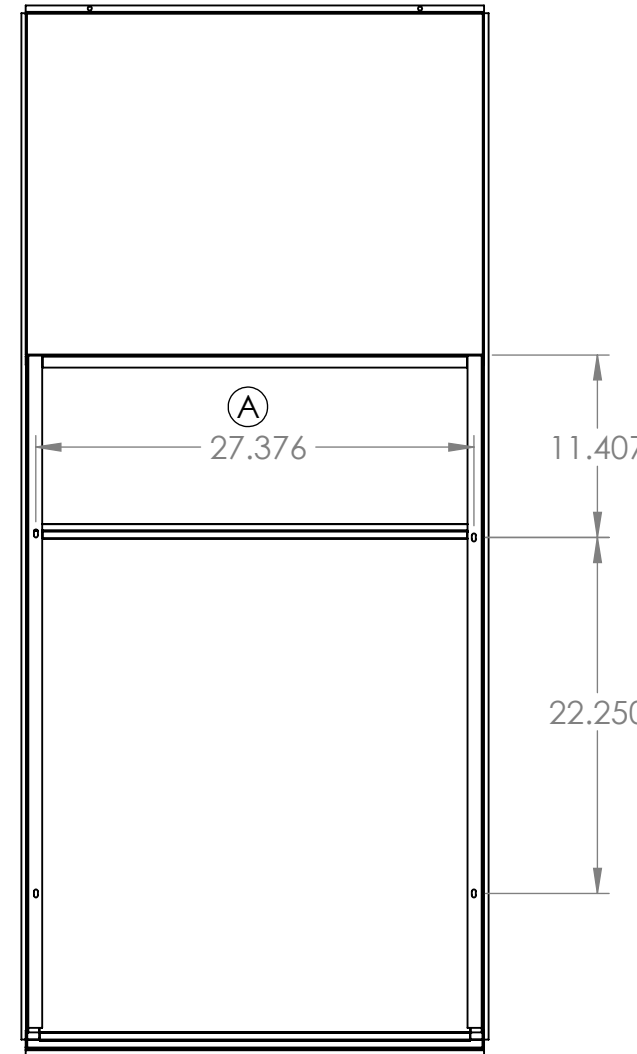
A ←



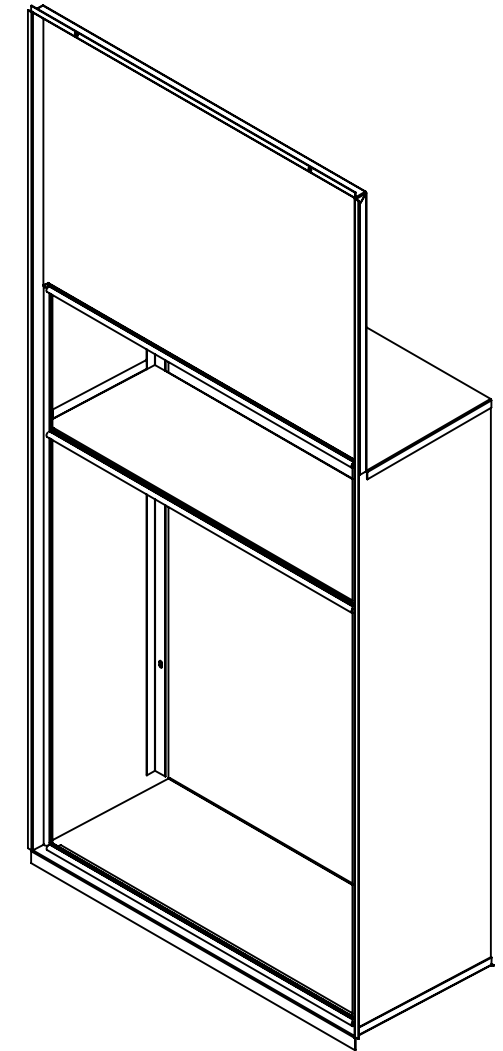
FRONT VIEW



SECTION A-A



REAR VIEW

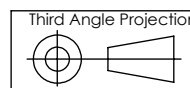


ISOMETRIC VIEW

NOTES.

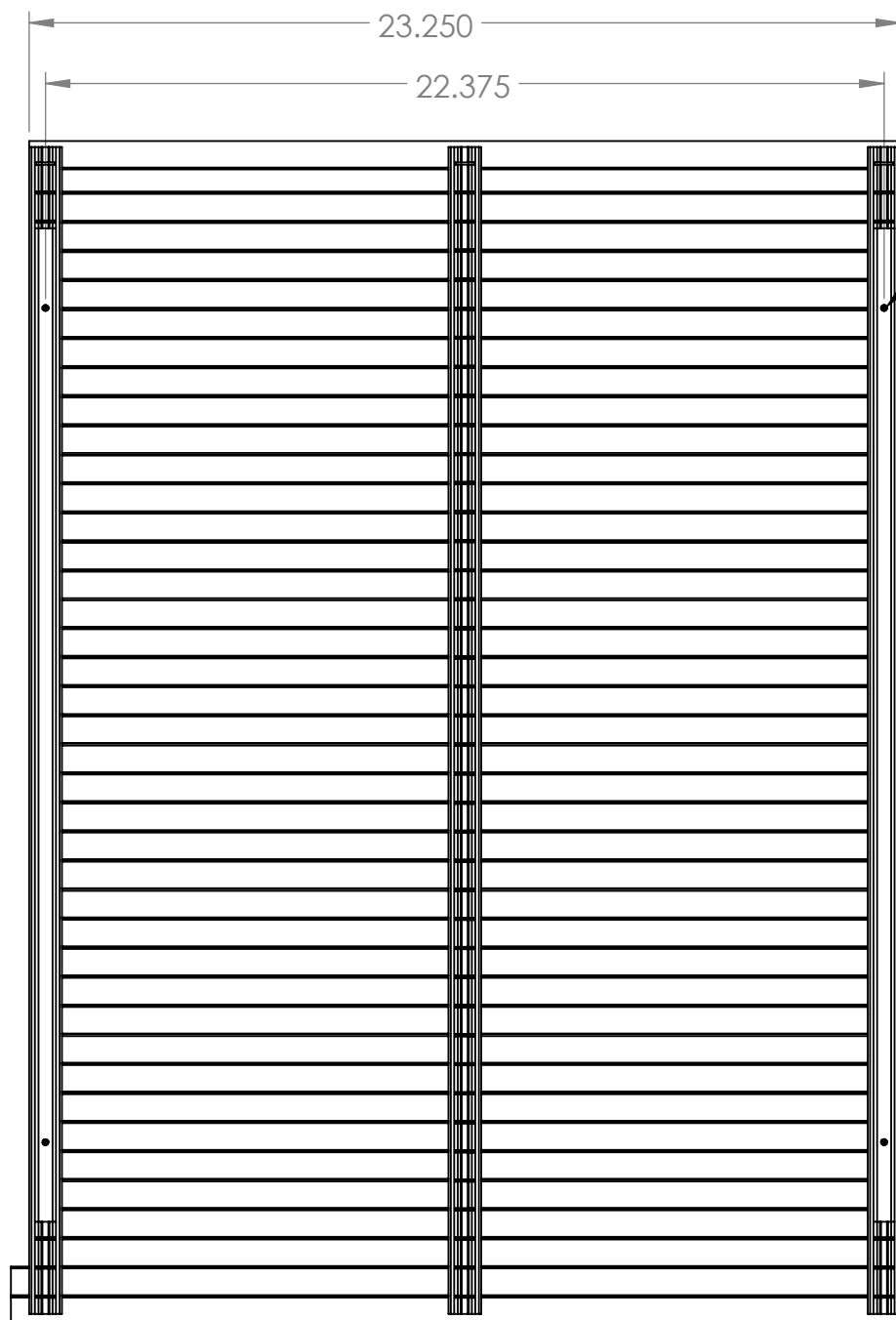
1. USE SPOT WELD TO JOIN ALL PARTS.
2. MAX WALL DEPTH 11.000".
3. RECOMMENDED OPENING IN THE WALL FOR THE PLENUM 29.250"W x 44.000"H.
4. WALL PLENUM SHOULD BE INSTALLED A MIN 5" OFF OF THE FINISHED FLOOR.

MATERIAL:		<b>ICE-AIR LLC.</b> 80 HARTFORD AVENUE MOUNT VERNON, NY 10553		
WEIGHT (LBS): 31.89				
FINISH: POWDER COATED BLACK IN AND OUT		TITLE: SPXC STRAIGHT UNIT 24K MASONRY WALL PLENUM WITH PITCH 1/2" 11.000" DEEP WITH 1" RECESS FOR UNIT		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015		MODEL BY: TL	DATE: 10/24/25	DWG. NO.
		DRAWING BY: TL	DATE: 10/28/25	WMSPXC11A-24K
SIZE <b>B</b>	SCALE: NONE DO NOT SCALE DRAWING	SHEET 1 OF 1	REV <b>A</b>	

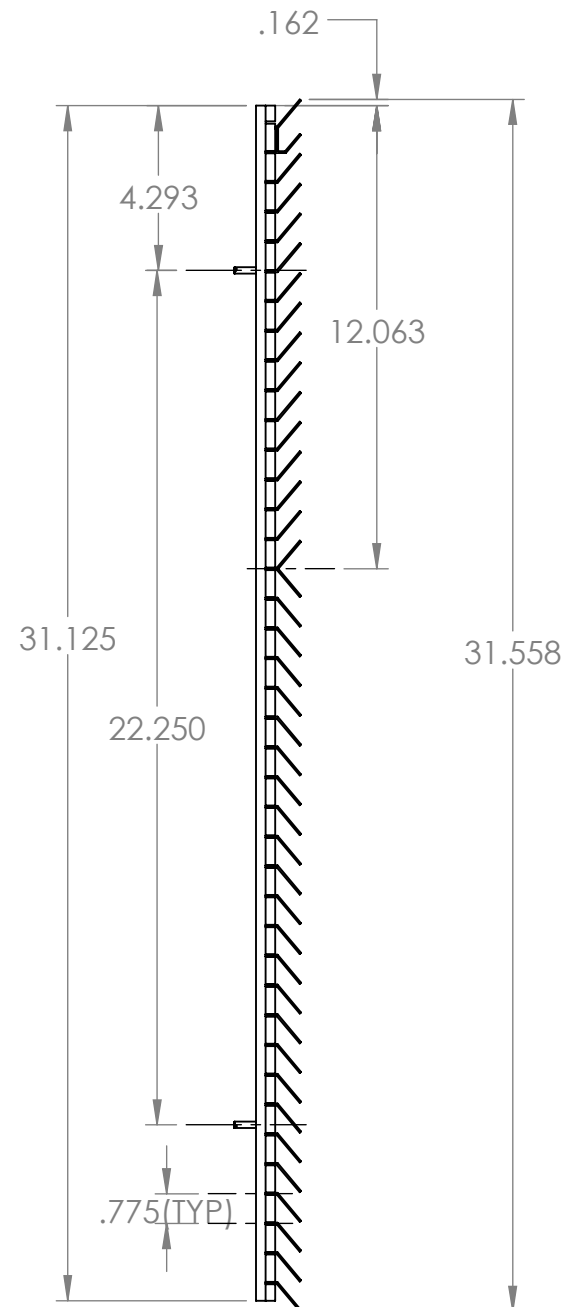


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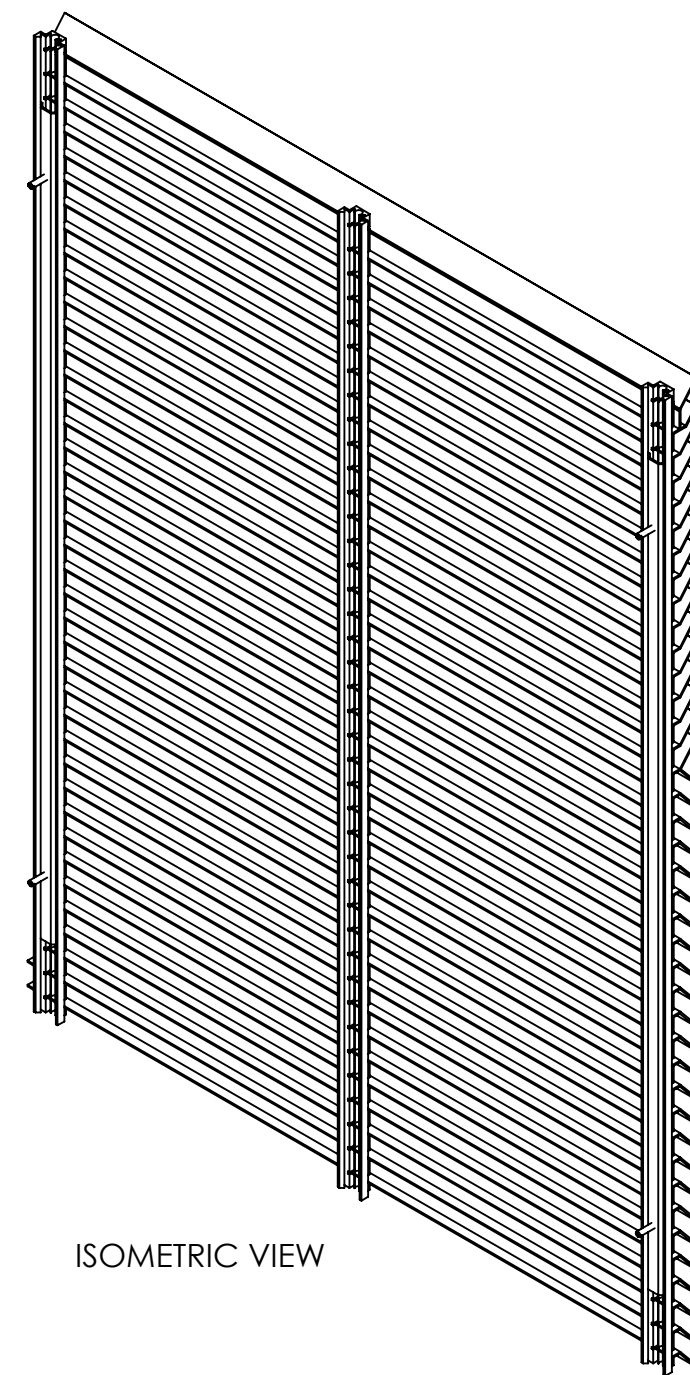
REVISIONS			
REV.	DESCRIPTION	BY	DATE
01			9/19/2019



FRONT VIEW



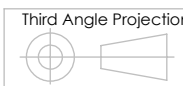
RIGHT VIEW



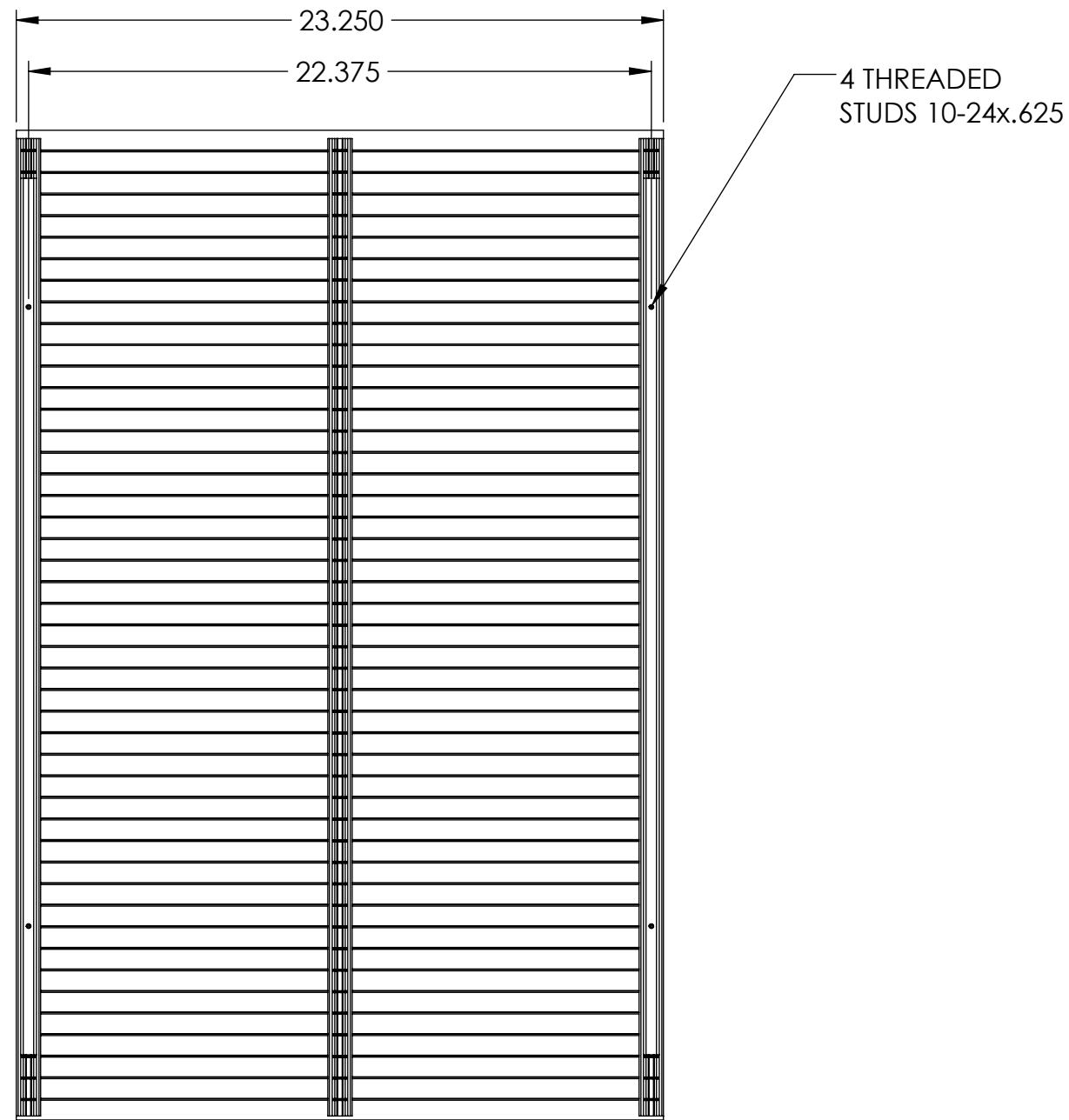
ISOMETRIC VIEW

MATERIAL: Anodized Aluminum	<b>ICE-AIR LLC.</b> 80 HARTFORD AVENUE MOUNT VERNON, NY 10553		
WEIGHT (LBS): 2.68			
FINISH: AS REQ. ON P.O.	TITLE: SPXC NEW DESIGN LOUVER WITH SPLIT AIR FLOW FOR 12K		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	MODEL BY: VP	DATE 09/19/19	DWG. NO.
TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1°	DRAWING BY:	DATE:	AHB-10518
TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	SIZE <b>B</b>	SCALE: NONE DO NOT SCALE DRAWING	SHEET 1 OF 1
			REV 01

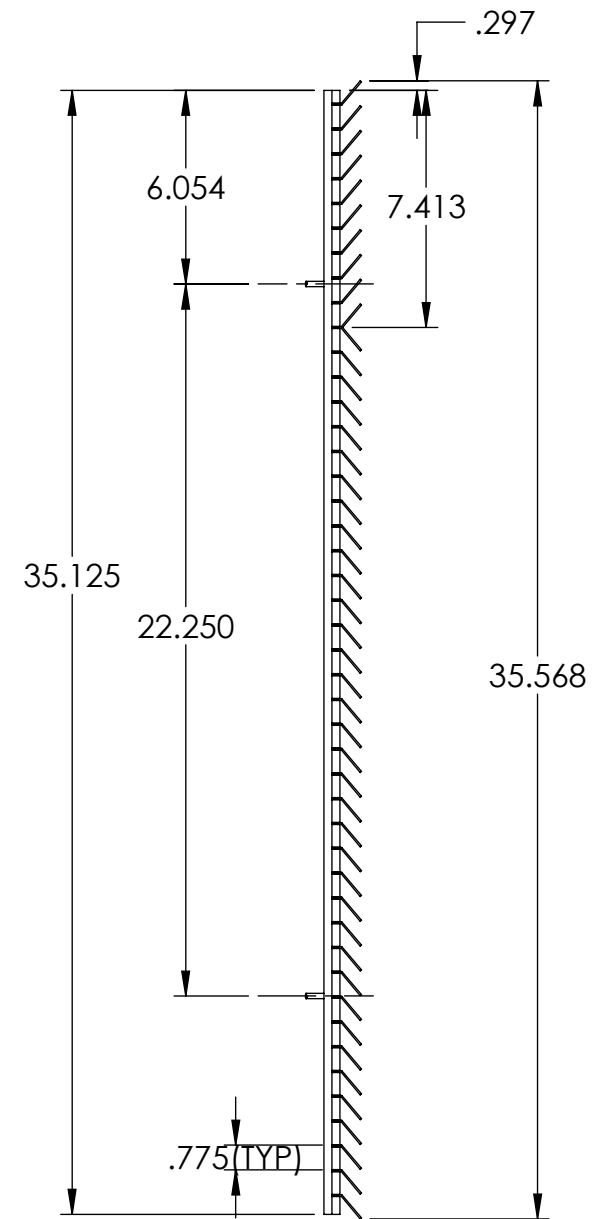
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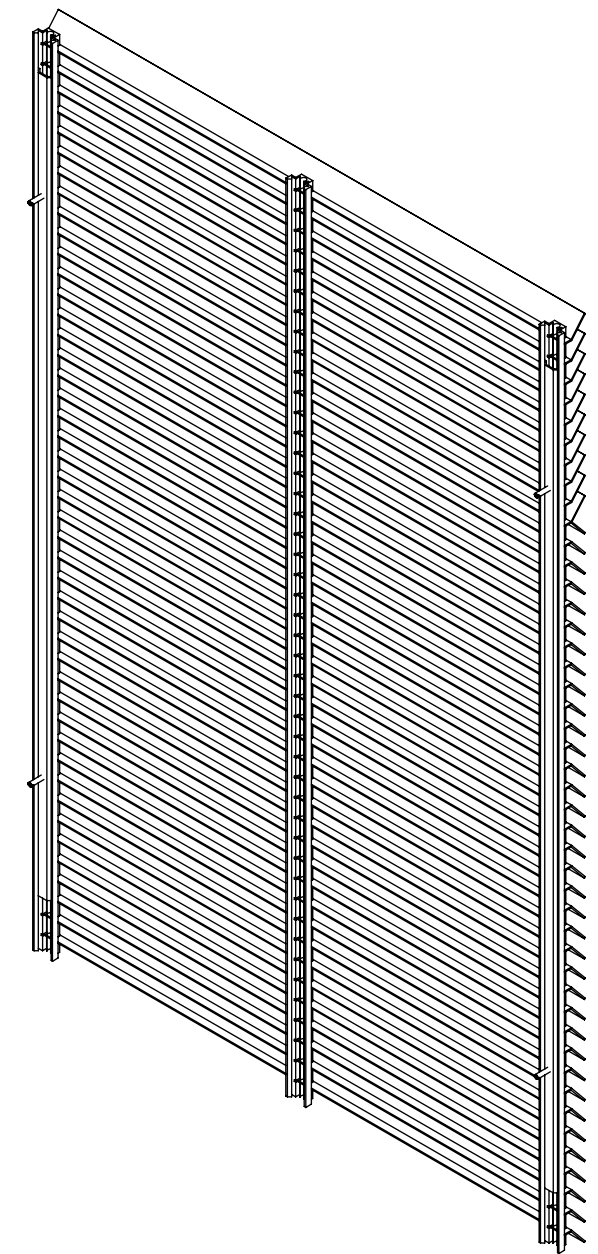
REVISIONS			
REV.	DESCRIPTION	BY	DATE
A			4/26/2021



FRONT VIEW



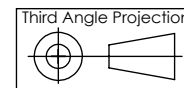
RIGHT VIEW



ISOMETRIC VIEW

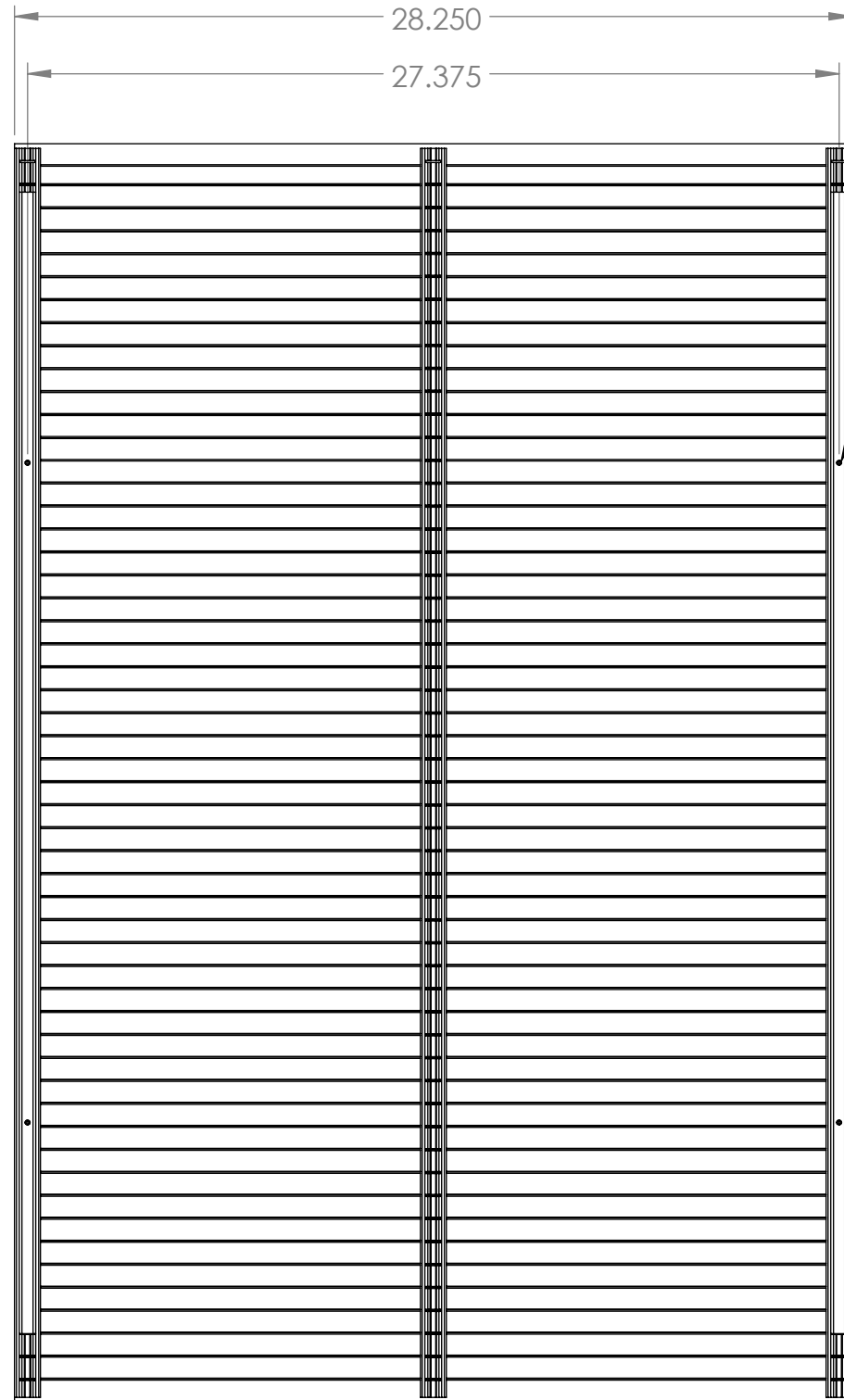
MATERIAL: Anodized Aluminum		<b>ICE-AIR LLC.</b> 80 HARTFORD AVENUE MOUNT VERNON, NY 10553	
WEIGHT (LBS): 3.01			
FINISH: AS REQ. ON P.O.		TITLE: SPAC 18K NEW DESIGN LOUVER WITH SPLIT AIR FLOW	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		MODEL BY: VP	DATE: 02/19/21
TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1°		DRAWING BY: -	DATE: -
THREE PLACE DECIMAL ± .015		DWG. NO. <b>AHB-10809</b>	
SIZE <b>B</b>	SCALE: NONE DO NOT SCALE DRAWING	SHEET 1 OF 1	REV <b>A</b>

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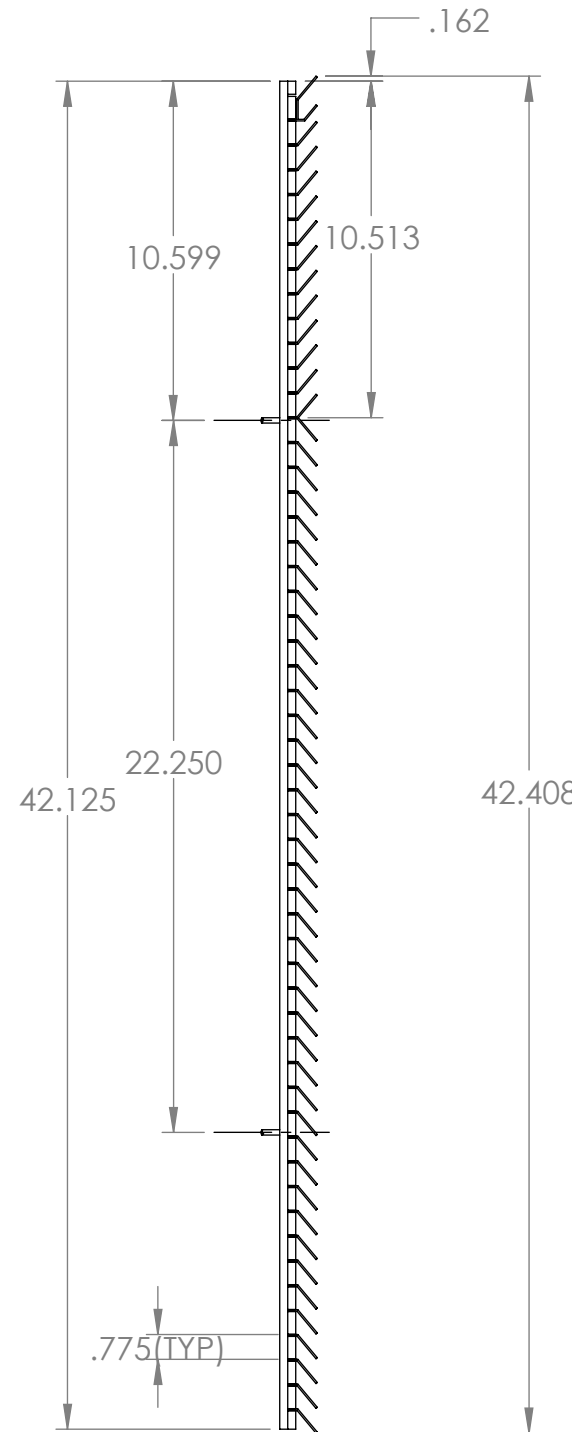
AHB-10810-BRKF

REVISIONS			
REV.	DESCRIPTION	BY	DATE
01			3/23/2021

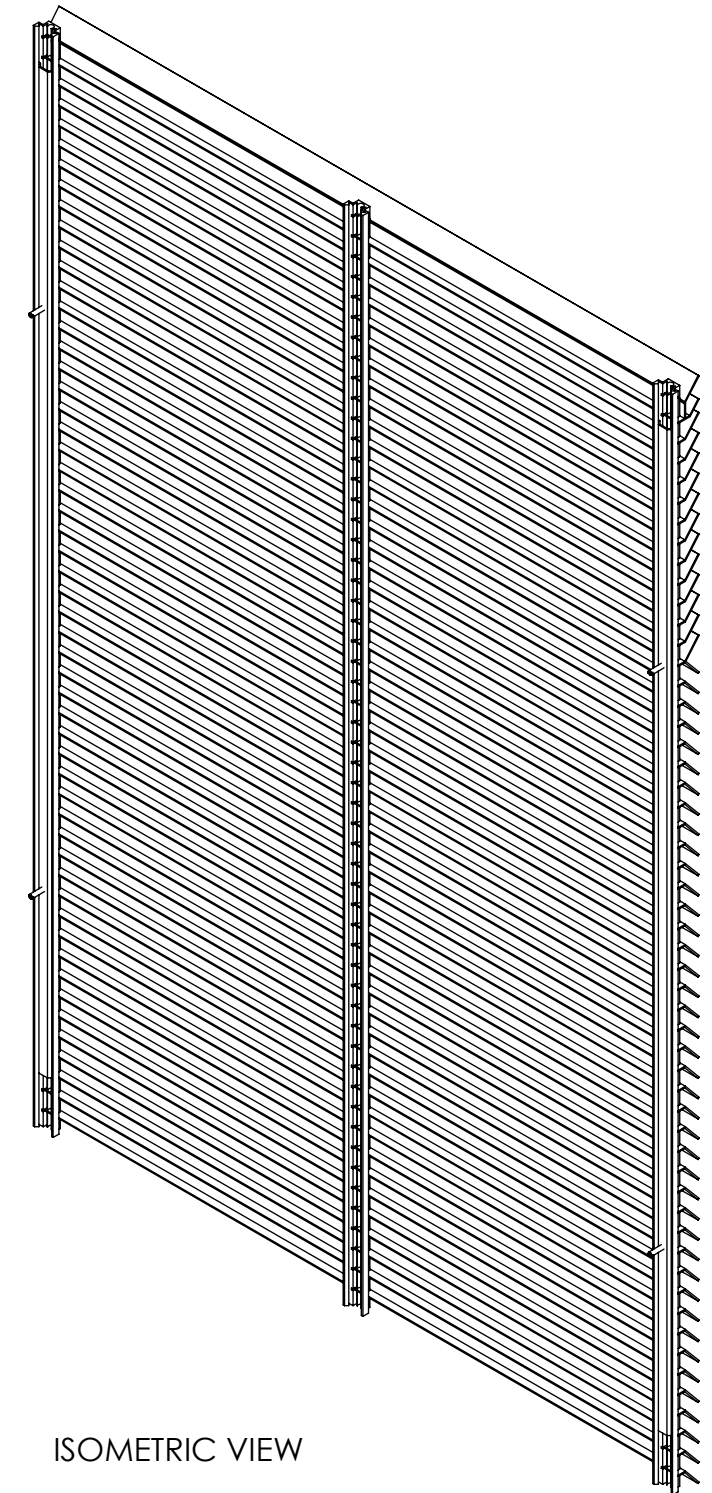


FRONT VIEW

4 THREADED STUDS 10-24x.625



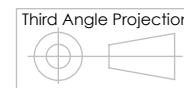
RIGHT VIEW



ISOMETRIC VIEW

MATERIAL: Anodized Aluminum		<b>ICE-AIR LLC.</b> 80 HARTFORD AVENUE MOUNT VERNON, NY 10553	
WEIGHT (LBS): 4.22			
FINISH: AS REQ. ON P.O.		TITLE: SPXC 24K NEW DESIGN LOUVER WITH SPLIT AIR FLOW	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		MODEL BY: VP	DATE: 02/19/21
TOLERANCES:		DRAWING BY: -	DATE: -
FRACTIONAL ± 1/32		DWG. NO. AHB-10810-BRKF	
ANGULAR: MACH ± ° BEND ± 1 °		SIZE <b>B</b>	SCALE: NONE DO NOT SCALE DRAWING
TWO PLACE DECIMAL ± .03		SHEET 1 OF 1	
THREE PLACE DECIMAL ± .015		REV 01	

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PRODUCT SPECIFICATIONS  
SINGLE PACKAGED HEAT PUMP (SPHP)

ICE AIR HI SPEC™ UNITS  
'SPXC' SERIES UNITS

1. Equipment: Provide "SPXC" Series Single Packaged Heat pump (SPHP), as manufactured by Ice Air, LLC.
2. Components: Heat Pump to consist of wall plenum, exterior louver, cooling/heating chassis and front panel. Units to operate at 208 / 230-volt, single phase, 60 hertz circuits.
3. Wall Plenum: Wall plenum exterior dimensions to be 32.625" high x 23.625" wide, 36.625" high x 23.625" wide or 43.50" high x 28.625" wide to comply with US DOE requirements for new construction SPACs. Smaller dimension wall plenums are not acceptable under DOE regulations. Wall plenum to be factory fabricated of 18 gauge galvanized steel and to be shipped with a mechanically-attached temporary coated cardboard filler panel at the exterior for weather protection. Cardboard filler panel to be removed prior to chassis and louver installation. Wall plenum to have built-in pitch of at least 1/2" and to be fabricated with an angled rain lip for proper drainage to the exterior of the building. Wall plenums for masonry locations to be factory fabricated to match the full wall depth at each location; wall plenums with field-installed extension pieces are not acceptable.
4. Louvers (Optional): Exterior louver to be horizontal, extruded aluminum blade-type construction with clear anodized (painted Duranar) finish. Louver to be supplied with stainless steel fastening hardware and must be capable of being installed from within the wall plenum, supplied for all through wall locations
5. Chassis: Cooling chassis to be a self-contained, assembly consisting of a sealed refrigerant system, evaporator and condenser sections with separate Electronically Commutated (EC) motors (single motor units are not acceptable), motorized outside fresh air damper, (optional) remote mounted thermostats and (optional) a non-fused disconnect. Provide throwaway filter with each unit.
- 5a. Refrigeration System: Sealed refrigerant system to consist of enhanced vapor injection (EVI) variable speed compressor, copper tube / aluminum fin evaporator and condenser coils, refrigeration metering device consisting of a capillary tube expansion system, a reversing valve and interconnecting tubing. System to be factory charged and sealed and capable of operating in the cooling mode to an outdoor ambient temperature of 38 °F. All units to be manufactured with R32 refrigerant; units containing R22, R407C or R410a refrigerant are not acceptable.

- 5b. Heat Pump System: Heat Pump operation using reverse heating cycle. System to be factory charged and sealed and capable of operating in the heat pump mode until an outdoor ambient temperature of -5 °F. Electric heating element will automatically energize (manual activation switch available).
- 5c. Evaporator Section: Evaporator motor and blower wheel to be mounted behind the evaporator coil. Blower wheel to be fabricated from aluminum and to be directly driven by a multi-speed EC motor with built-in thermal overload protector. Evaporator section to contain an integral stamped and powder coated steel drain pan, draining into one 3/4" O.D. drain hose.
- 5d. Condenser Section: Condenser section to contain a separate EC motor and plastic or metal propeller fan with an integral slinger ring. Condenser motor to cycle with compressor and to run during the cooling and heating cycle.
- 5e. Condensate Disposal (Cooling): Condensate to drain from the indoor base pan into the lower galvanized steel condenser base pan through one 3/4" O.D. drain hose. Condensate disposal to be accomplished by the entrainment of water particles in the condenser air stream and evaporation upon the hot condenser coil. Building condensate drain lines may be required.
- 5f. Condensate Disposal (Heating): Condensate to drain from the indoor base pan into the lower galvanized steel condenser base pan through one 3/4" O.D. drain hose. At extreme cold conditions, outdoor ambient temperature of 37F and below, a drain pan heater will be energized periodically to ensure condensate water does not freeze and allow for proper drainage.
- 5g. Chassis Sheet Metal: Chassis sheet metal parts to be manufactured entirely of 18 gauge and 20 gauge galvanized steel. Chassis base pan to be powder coated inside and out to prevent corrosion of sheet metal pan. Chassis will slide into the wall plenum interior flanges and creates a positive weather seal using crushable pressure-sensitive foam tape, thereby preventing air and water infiltration. Chassis seal must be an integral part of unit construction, use of attached sealing angles or channels is not acceptable.
- 5h. Unit Controls (Optional): Unit controls to include a wall-mounted digital controller with integral electronic thermostat. Controller to be seven-day programmable type. Interior room temperature, and Freezestat to be mounted on the evaporator coil only (condenser mounted freezestats are unacceptable) to provide true temperature readings.
- 5i. Outside Air: Provide manual outside air damper with chassis mounted actuator. (Optional) motorized damper could also be supplied by special request.

6. Front access panel (Optional): Front access panel to be fabricated from 20 gauge galvanized steel. Panel to be finished in (Antique White) (Arctic White) baked powder coat finish. Front access panel to mount to closet jam.
  
7. Warranty and Code Compliance: Unit to be guaranteed free of defects in material and workmanship for one year from date of delivery. Units to be ETL listed for safety in the United States and Canada, to have New York City MEA and BEC approvals, to be in compliance with all local, state and federal energy efficiency and building codes and to be tested in accordance with current ARI standards.