



# ARCHITECTURAL ELITE 10

## Hot Water Heated Air Curtain

### Data Sheet

For Mounting Heights To 10' (environmental separation)

#### STANDARD CONSTRUCTION

- 14 1/2" high x 28 1/4" deep
- 1/2 hp EC motor(s)
- Intelliswitch™ digital controller - ten speeds
- Berner AIR™ (smart controller & app) includes BACnet
- Cabinet: Brushed Stainless Steel, Grade 304 or better
- Bottom Panel: Clear satin anodized aluminum (Optional: White Aluminum, Custom Color or Stainless)
- Wall or Top Mounting
- High efficiency, low noise, articulating Pro-V Nozzle
- Filter (washable)
- Factory installed coil
- Optional: Rear cover for top mounting to conceal fasteners

Energy Codes ASHRAE 90.1-2019, IECC 2018, and ASHRAE 189.1 vestibule exception validated by AMCA certification.

Refer to Velocity Projection Chart below for information.



2 Year  
Limited  
Warranty



Berner International certifies that the air curtains shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program. Rated data shown is for base (unheated) units. The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only.

MODEL	Nozzle Width (in)	Max Vel. at Nozzle (fpm)	Avg. Outlet Vel. (fpm)	Air Volume (cfm)	Outlet Vel. Uniformity	Power Rating (kW)	Motor(s) @ hp	Coil Output (MBH)	Entering / Leaving Water Temp. (°F)	Water Flow (GPM)	Fluid Pressure Drop (FT. WG.)	Air Temp. Rise (°F)	Net Wt. (lbs)
AE10-E-1036W	36.00	3,372	2,154	1,481	87%	0.62	1 @ 1/2	36.7	180°/165°	5.0	0.7	23	125
AE10-E-1042W	42.00	3,498	1,686	1,352	87%	0.53	1 @ 1/2	36.6	180°/161°	4.0	0.5	25	140
AE10-E-1048W	48.00	3,576	1,535	1,407	76%	0.63	1 @ 1/2	40.0	180°/159°	4.0	0.5	26	156
AE10-E-2060W	60.00	3,275	1,786	2,047	80%	0.82	2 @ 1/2	59.3	180°/163°	7.0	1.6	26	205
AE10-E-2072W	72.00	3,372	2,154	2,962	87%	1.24	2 @ 1/2	78.1	180°/160°	8.0	2.1	24	239
AE10-E-2084W	84.00	3,498	1,686	2,704	87%	1.06	2 @ 1/2	80.9	180°/159°	8.0	2.2	27	270
AE10-E-2096W	96.00	3,576	1,535	2,814	76%	1.26	2 @ 1/2	87.4	180°/158°	8.0	2.3	28	302
AE10-E-3096W	96.00	3,372	1,924	3,528	80%	1.44	3 @ 1/2	101.0	180°/159°	10.0	3.6	26	320
AE10-E-3108W	108.00	3,372	2,154	4,443	87%	1.86	3 @ 1/2	119.9	180°/158°	11.0	4.5	25	351
AE10-E-3120W	117.00	3,576	1,955	4,369	76%	1.87	3 @ 1/2	125.7	180°/159°	12.0	5.5	26	374
AE10-E-3132W	132.00	3,576	1,704	4,295	76%	1.88	3 @ 1/2	133.5	180°/159°	13.0	6.7	28	416
AE10-E-3144W	144.00	3,576	1,535	4,221	76%	1.89	3 @ 1/2	137.4	180°/158°	13.0	6.9	30	447
AE10-E-4144W	144.00	3,372	2,154	5,924	87%	2.48	4 @ 1/2	168.1	180°/160°	17.0	11.6	26	465

See sheet EP-236E for amp draws/total load requirements.

600/3/60 & 277/1/60 power supplies include extended cabinet, See drawings AE10-E-HW-TR1 & AE10-E-HW-TR2.

#### NOTES:

1. Standard connection top, same end supply/return.
2. Coil should be field supplied with a solenoid valve that energizes only when air curtain is energized. Consideration must be taken for freeze protection when necessary.
3. Coil performance based on 65°F entering air temperature.
4. Maximum leaving air temperature shall not exceed 120°F.
5. Consult factory for alternate entering air & water temperatures or GPM's.

#### MODEL NUMBER CONFIGURATION

**AE10-E-1 036 W A-EC-WCA -TB-LL-SA**

Series	Version	# of Motors	Opening Width	Heat	Voltage	Motor Type	Control	Opt. Display	Supply/Return	Material/Finish	
AE10	E	1, 2, 3, 4	036" - 144"	W=Hot Water Heated	A = 120/1/60* B = 208/1/60 J = 240/1/60 V = 220/1/50 W = 277/1/60 † A-XI = 600/3/60 †	EC Motor	WCA= Berner AIR™ smart control	Remote Touchscreen	LL=Left Hand RR=Right Hand	Cabinet S=Stainless (std) A=Anod Alum W=White Alum C=Custom Color	Bottom Panel A=Anod Alum (std) W=White Alum S=Stainless C=Custom Color

\*Suitable for 50 Hz  
† Add 12" to cabinet width for transformer

Sound level measured 10' (3m) from the unit in free field:

- 1 motor: Min./Max. Speed: 52/55 dBA  
2 motors: Min./Max. Speed: 55/58 dBA  
3 motors: Min./Max. Speed: 57/60 dBA  
4 motors: Min./Max. Speed: 58/61 dBA

Sound data is not AMCA certified.

VELOCITY PROJECTION: Model AE10-E-1036W				
Distance from Nozzle (in)	40	80	120	160
Core Velocity (fpm)	1509	1130	1013	906
Uniformity (%)	88	87	93	95

ASHRAE 90.1-2019 vestibule exception requires, "a jet velocity of not less than 6.6 feet per second (2.0 m/s; 400 fpm) at 6.0 in (15 cm) above the floor."

Berner reserves the right to alter specifications without prior notice.

www.berner.com Berner International 800.245.4455  
111 Progress Ave. / New Castle / PA / 16101 / USA

DS-236E  
December, 2020



# ARCHITECTURAL ELITE 10

## Hot Water Heated Air Curtain

### Electrical Performance Sheet

120/1/60 (voltage code A) MOTOR AMP DRAW = 6.6 each				208/1/60 (voltage code B) MOTOR AMP DRAW = 4.1 each			240/1/60 (voltage code J) or 220/1/50 (voltage code V) MOTOR AMP DRAW = 4.1 each		
MODEL	# CKTS	AMPS PER CIRCUIT	BREAKER RATING PER CIRCUIT	# CKTS	AMPS PER CIRCUIT	BREAKER RATING PER CIRCUIT	# CKTS	AMPS PER CIRCUIT	BREAKER RATING PER CIRCUIT
AE10-E-1036W AE10-E-1042W AE10-E-1048W	1	6.6	15	1	4.1	15	1	4.1	15
AE10-E-2060W AE10-E-2072W AE10-E-2084W AE10-E-2096W	1	13.2	20	1	8.2	15	1	8.2	15
AE10-E-3096W AE10-E-3108W AE10-E-3120W AE10-E-3132W AE10-E-3144W	1	19.8	25	1	12.3	20	1	12.3	20
AE10-E-4144W	1	26.4	35	1	16.4	25	1	16.4	25

277/1/60 (voltage code W) MOTOR AMP DRAW = 3.6 each				600/3/60 (voltage code A-XI) XFMR 600/120 1 kVA per MTR @ 1.7 each MOTOR AMP DRAW= 6.6 each @ 120V		
MODEL	# CKTS	AMPS PER CIRCUIT	BREAKER RATING PER CIRCUIT	# CKTS	AMPS PER CIRCUIT	BREAKER RATING PER CIRCUIT
AE10-E-1036W AE10-E-1042W AE10-E-1048W	1	3.6	15	1	1.7	15
AE10-E-2060W AE10-E-2072W AE10-E-2084W AE10-E-2096W	1	7.2	15	1	3.3	15
AE10-E-3096W AE10-E-3108W AE10-E-3120W AE10-E-3132W AE10-E-3144W	1	10.8	15	1	5.0	15
AE10-E-4144W	1	14.4	20	1	6.7	15

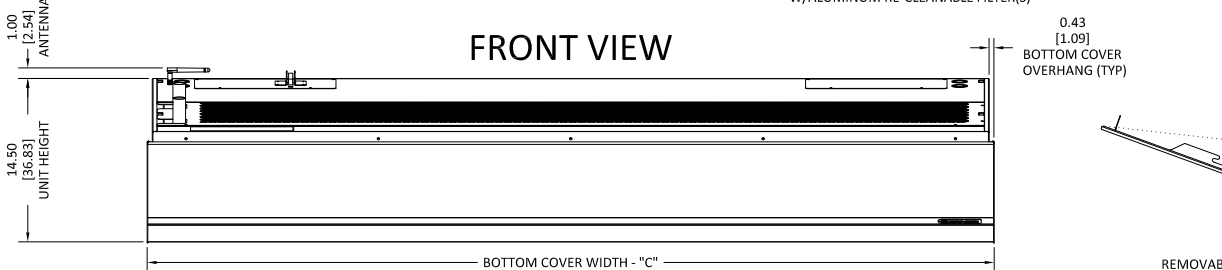
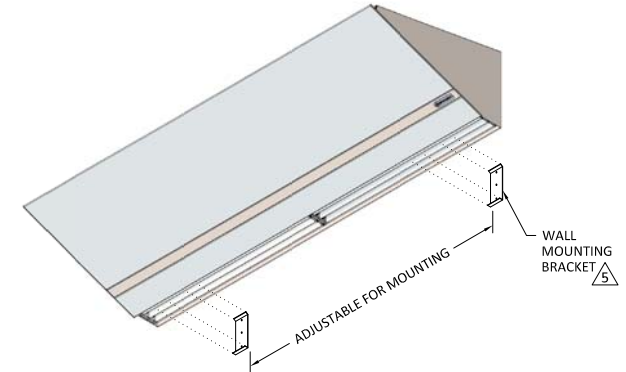
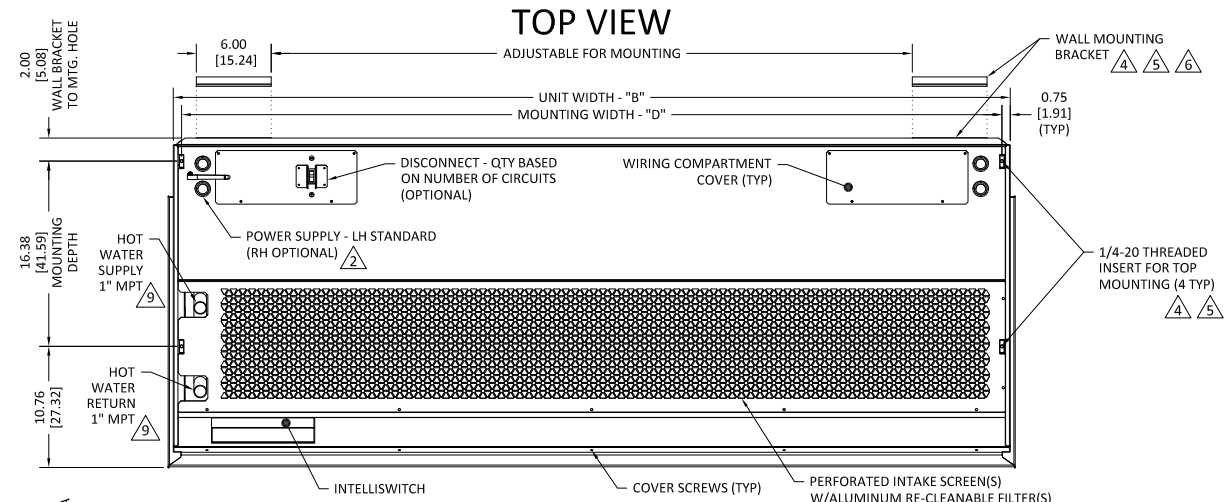
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111 Progress Ave. / New Castle / PA / 16101 / USA

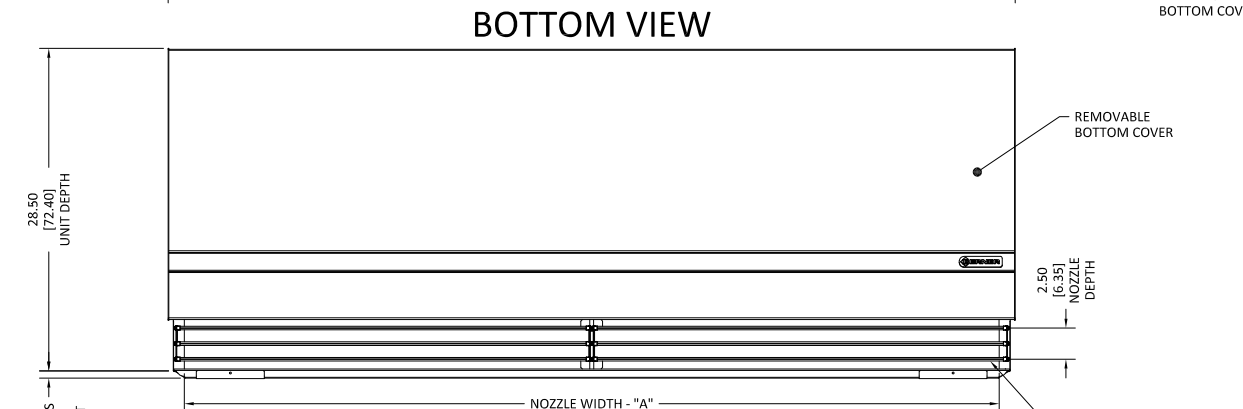
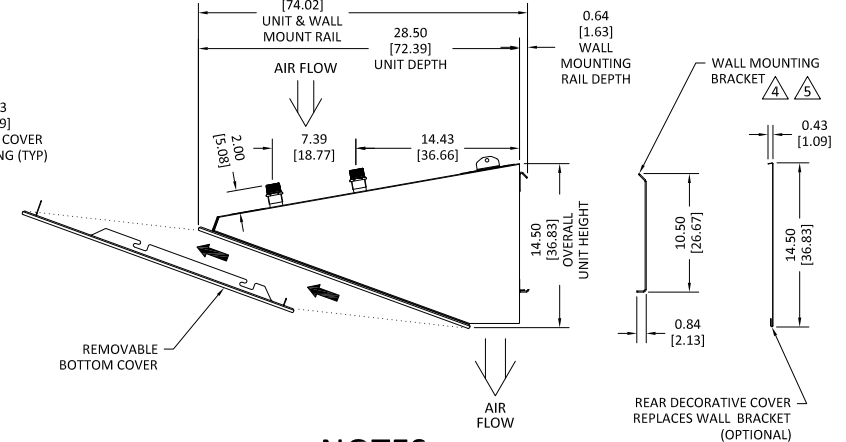
EP-236E  
August, 2020

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# AE10-E HOT WATER HEATED SYSTEM: 120 - 240V & 380V



## END VIEW



## NOTES:

- 1 AIR CURTAIN MUST BE INSTALLED SO AIR STREAM IS NOT OBSTRUCTED WHEN DEFLECTED 20° TO EITHER SIDE OF  $\phi$ .
- 2 ELECTRICAL CONNECTIONS TO BE FLEXIBLE.
- 3 FIELD VERIFY DIMENSIONS.
- 4 ANCHORS TO SUPPORTING STRUCTURE BY OTHERS.
- 5 ADEQUACY OF SUPPORTING STRUCTURE IS TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
- 6 WALL MOUNTING RAIL TO UNIT HARDWARE INCLUDED, WALL MOUNTING BRACKET HARDWARE BY OTHERS.
- 7 THE LAST CHARACTER IN THE MODEL NUMBER - "W" DESIGNATES HOT WATER HEATED UNIT.
- 8 DIMENSIONS IN INCHES [CENTIMETERS].
- 9 COIL CONNECTIONS LH STANDARD (AS SHOWN), OPTIONAL RH.

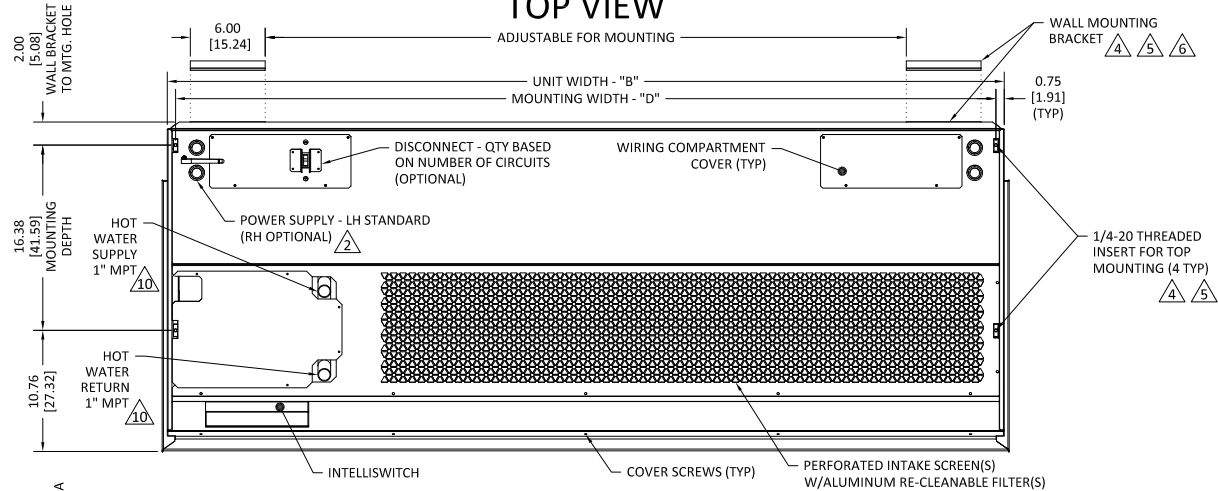
MODEL (1)	NOZZLE WIDTH "A"	UNIT WIDTH "B"	BOTTOM COVER WIDTH "C"	MOUNTING WIDTH "D"
AE10-E-1036W	36.00 [91.44]	38.00 [96.52]	38.85 [98.68]	36.50 [92.71]
AE10-E-1042W	42.00 [106.68]	44.00 [111.76]	44.85 [113.92]	42.50 [107.95]
AE10-E-1048W	48.00 [121.92]	50.00 [127.00]	50.85 [129.16]	48.50 [123.19]
AE10-E-2060W	60.00 [152.40]	62.00 [157.48]	62.85 [159.64]	60.50 [153.67]
AE10-E-2072W	72.00 [182.88]	74.00 [187.96]	74.85 [190.12]	72.50 [184.15]
AE10-E-2084W	84.00 [213.36]	86.00 [218.44]	86.85 [220.60]	84.50 [214.63]
AE10-E-2096W/3096W	96.00 [243.84]	98.00 [248.92]	98.85 [251.08]	96.50 [245.11]
AE10-E-3108W	108.00 [274.32]	110.00 [279.40]	110.85 [281.56]	108.50 [275.59]
AE10-E-3120W	117.00 [297.18]	119.00 [302.26]	119.85 [304.42]	117.50 [298.45]
AE10-E-3132W	132.00 [335.28]	134.00 [340.36]	134.85 [342.52]	132.50 [336.55]
AE10-E-3144W/4144W	144.00 [365.76]	146.00 [370.84]	146.85 [373.00]	144.50 [367.03]

SHEET 1 OF 1

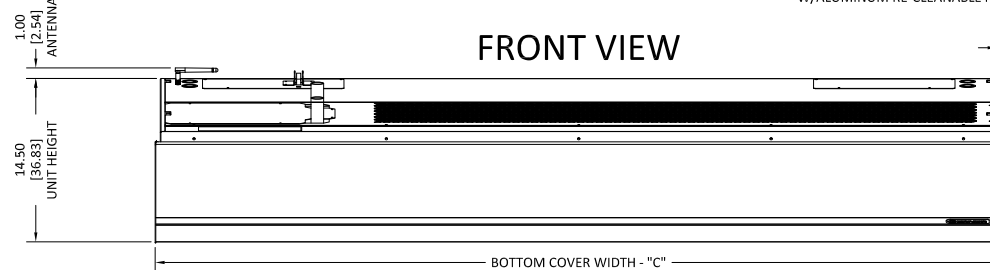
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LOCATION		MODEL AE10-E AIR CURTAIN 120 - 240V & 380V	
ARCHITECT		HOT WATER HEATED SYSTEM	
ENGINEER		BERNER INTERNATIONAL CORP.	
DWG. NO.	AE10-E-HW	NEW CASTLE, PA.	
DATE	17SEP2020		
BY	S. Beil		
REPLACES	30JUL2020		
BY	S. Beil		

# AE10-E HOT WATER HEATED SYSTEM: 277V & 600V

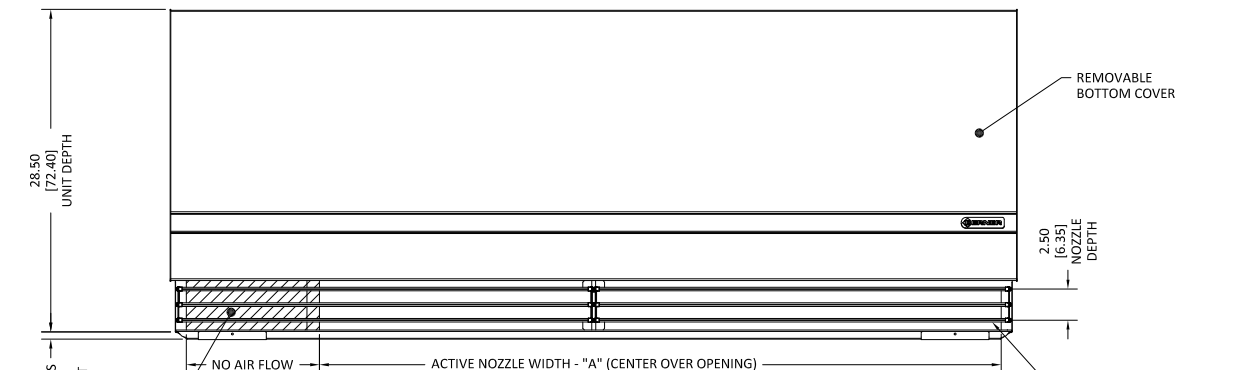
## TOP VIEW



## FRONT VIEW



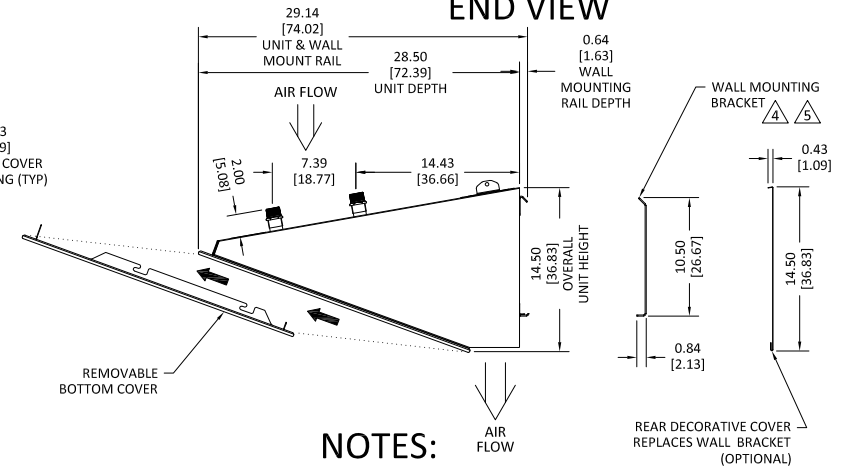
## BOTTOM VIEW



INACTIVE NOZZLE AREA FOR TRANSFORMER ENCLOSURE. CENTER ACTIVE NOZZLE WIDTH DIMENSION "A" OVER THE OPENING (9)

MODEL (7)	NOZZLE WIDTH "A"	UNIT WIDTH "B"	BOTTOM COVER WIDTH "C"	MOUNTING WIDTH "D"
AE10-E-1036W	36.00 [91.44]	50.00 [127.00]	50.85 [129.16]	48.50 [123.19]
AE10-E-1042W	42.00 [106.68]	56.00 [142.24]	56.85 [144.40]	54.50 [138.43]
AE10-E-1048W	48.00 [121.92]	62.00 [157.48]	62.85 [159.64]	60.50 [153.67]
AE10-E-2060W	60.00 [152.40]	74.00 [187.96]	74.85 [190.12]	72.50 [184.15]
AE10-E-2072W	72.00 [182.88]	86.00 [218.44]	86.85 [220.60]	84.50 [214.63]
AE10-E-2084W	84.00 [213.36]	98.00 [248.92]	98.85 [251.08]	96.50 [245.11]
AE10-E-2096W/3096W	96.00 [243.84]	110.00 [279.40]	110.85 [281.56]	108.50 [275.59]
AE10-E-3108W	108.00 [274.32]	119.00 [302.68]	119.85 [304.42]	117.50 [298.45]
AE10-E-3120W	117.00 [297.18]	134.00 [340.36]	134.85 [342.52]	132.50 [336.55]
AE10-E-3132W	132.00 [335.28]	146.00 [370.84]	146.85 [373.00]	144.50 [367.03]
AE10-E-3144W	144.00 [365.76]	158.00 [401.32]	158.85 [403.481]	156.50 [397.51]

## END VIEW



## NOTES:

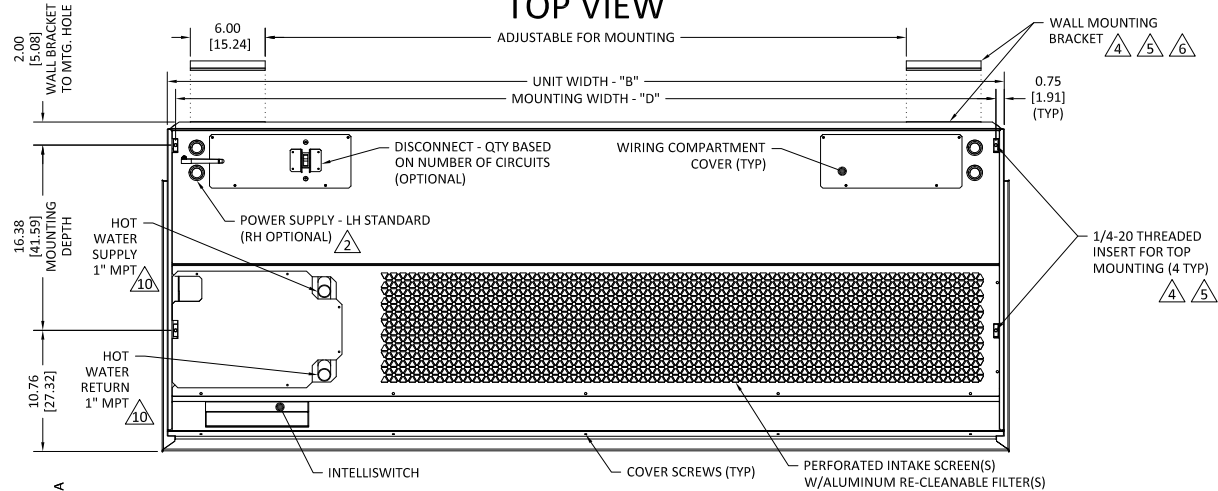
- 1 AIR CURTAIN MUST BE INSTALLED SO AIR STREAM IS NOT OBSTRUCTED WHEN DEFLECTED 20° TO EITHER SIDE OF  $\phi_c$
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- 10 COIL CONNECTIONS LH STANDARD (AS SHOWN), OPTIONAL RH.

SHEET 1 OF 2

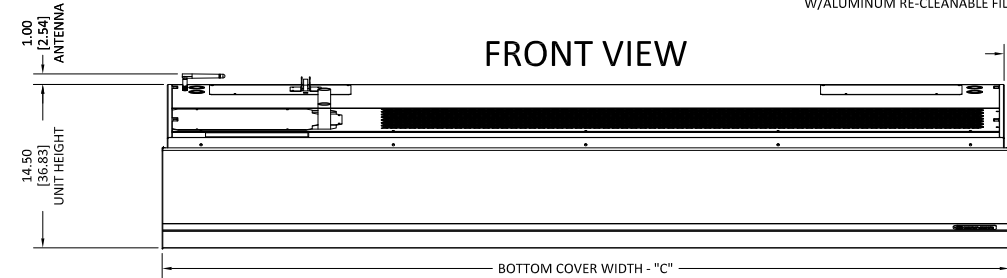
PROJECT		TITLE:	<b>BERNER</b>
LOCATION		DATE	17SEP2020
ARCHITECT		BY	S. Beil
ENGINEER		REPLACES	30JUL2020
		BY	S. Beil
		MODEL AE10-E AIR CURTAIN 277V & 600V HOT WATER HEATED SYSTEM	
		BERNER INTERNATIONAL CORP. NEW CASTLE, PA.	

# AE10-E HOT WATER HEATED SYSTEM: 277V & 600V

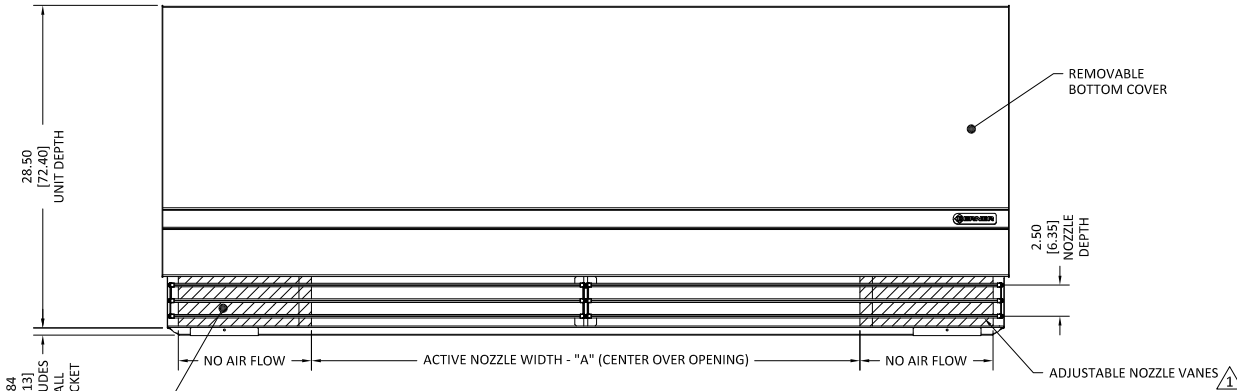
## TOP VIEW



## FRONT VIEW

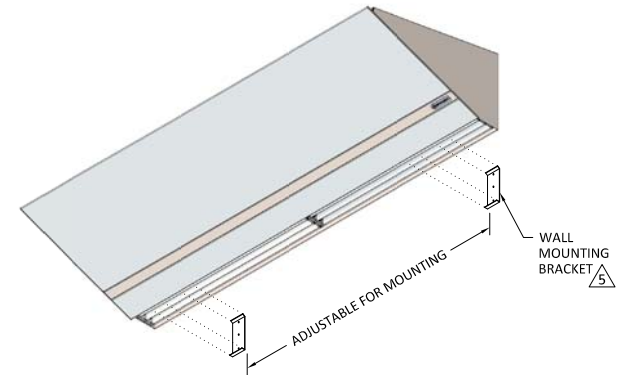


## BOTTOM VIEW

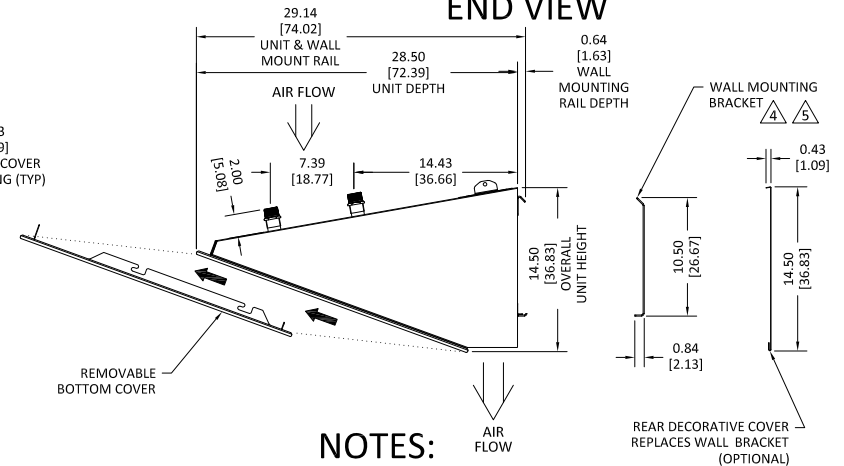


INACTIVE NOZZLE AREA FOR TRANSFORMER ENCLOSURE. CENTER ACTIVE NOZZLE WIDTH DIMENSION "A" OVER THE OPENING (TYP) (9)

MODEL (7)	NOZZLE WIDTH "A"	UNIT WIDTH "B"	BOTTOM COVER WIDTH "C"	MOUNTING WIDTH "D"
AE10-E-4144W	144.00 [365.76]	158.85 [401.32]	158.85 [403.481]	156.50 [397.51]



## END VIEW



## NOTES:

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SHEET 2 OF 2

PROJECT		TITLE:	<b>BERNER</b>
LOCATION		DATE	17SEP2020
ARCHITECT		BY	S. Beil
ENGINEER		REPLACES	31JAN2020
		BY	S. Beil
		MODEL AE10-E AIR CURTAIN 277V & 600V HOT WATER HEATED SYSTEM	
		BERNER INTERNATIONAL CORP. NEW CASTLE, PA.	