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ETD ETD-E

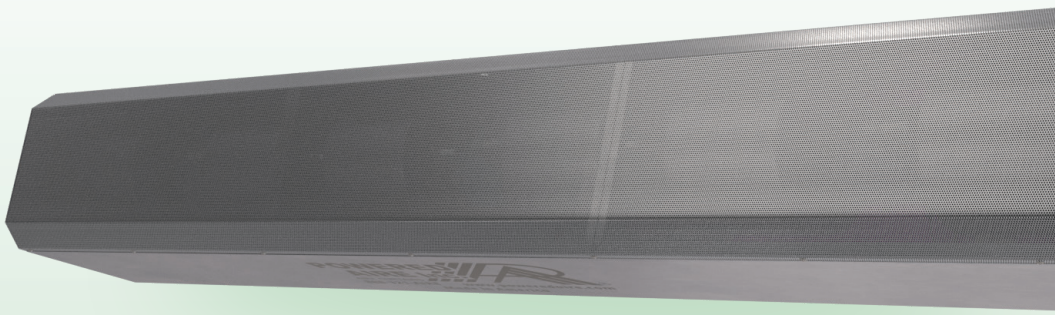
ETD

The ETD is used to stop cold or warm air from entering a climate controlled environment. The ETD is commonly used in correctional facilities, trash compactors (odor control), beer distributors, walk in coolers, airports, and loading dock doors. This commercial line's stainless steel construction, stainless steel intake screen, and 45 degree beveled edges give it a modern, pleasing look.

OPTIONS

HEATING

Electric. . . . . .ETD-E

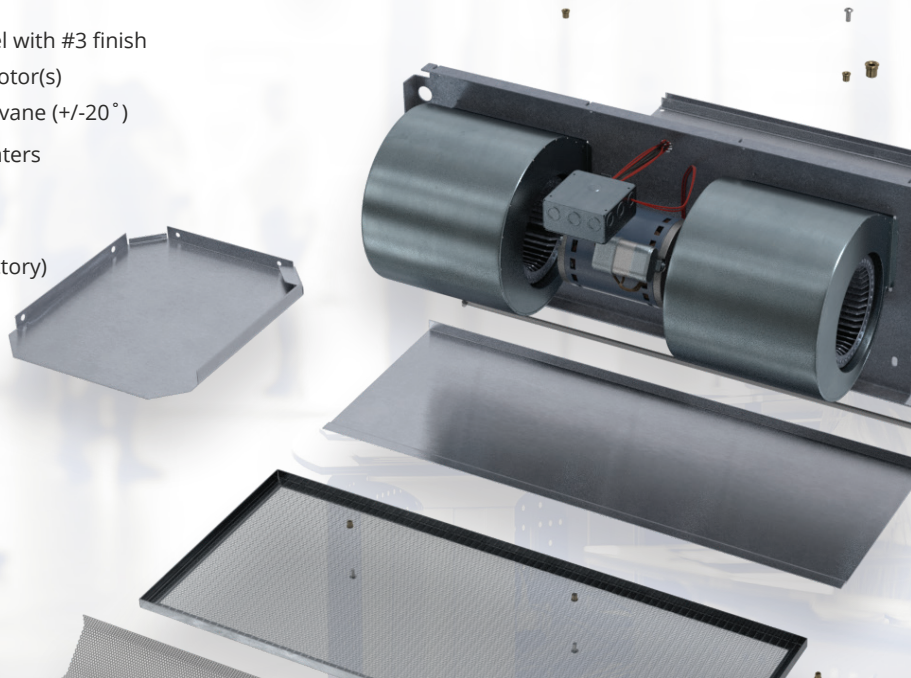


AT A GLANCE

Single Incremental Widths	Max Installation Height	Heavy Duty Motors
3' to 12'	12'	¾ HP

KEY DESIGN FEATURES

- Outer cabinet constructed of 18-gauge 304 stainless steel with #3 finish
- 3/4 HP ODP (Open Drip Proof) direct-drive dual-speed motor(s)
- High-efficiency discharge plenum with adjustable air foil vane (+/-20˚)
- **Electiric Only:** Factory mounted single-stage electric heaters
- **Electiric Only:** Single point power connection available (see electrical table)
- **Electiric Only:** Alternate heater kW available (consult factory)



RECOMMENDED CONTROLS

- Activation by 24V magnetic door switch
- Toggle disconnect switch
- SmartTouch Pro or Lite Controller
- Hand/Off/Auto selector switch
- **Electric Only:** Heat On/Off selector switch
- **Electric Only:** Digital thermostat

ETD & ETD-E | PERFORMANCE

ETD & ETD-E | Performance Table

MODEL	Nozzle Width (in.)	Max. FPM at Nozzle	Avg. FPM	Max. CFM	CFM at Nozzle	Outlet Velocity Uniformity	Number of Motors	Motor HP	Weight (lbs) Unheated / Heated
ETD-1-36 (E)	36	**H** 4218 **L** 2837	**H** 3695 **L** 2487	**H** 2899 **L** 1950	**H** 2541 **L** 1710	95%	1	3/4	90 / 95
ETD-1-42 (E)	42	**H** 4218 **L** 2837	**H** 3169 **L** 2133	**H** 3384 **L** 2276	**H** 2532 **L** 1696	93%	1	3/4	97 / 102
ETD-1-48 (E)	48	**H** 4218 **L** 2837	**H** 2771 **L** 1865	**H** 3867 **L** 2601	**H** 2559 **L** 1721	92%	1	3/4	104 / 109
ETD-1-60 (E)	60	**H** 4218 **L** 2837	**H** 2218 **L** 1493	**H** 4374 **L** 2792	**H** 2528 **L** 1703	91%	1	3/4	117 / 121
ETD-2-60 (E)	60	**H** 4218 **L** 2837	**H** 3315 **L** 2231	**H** 5050 **L** 3252	**H** 3812 **L** 2565	94%	2	3/4	147 / 155
ETD-2-72 (E)	72	**H** 4218 **L** 2837	**H** 3696 **L** 2488	**H** 5803 **L** 3903	**H** 5082 **L** 3420	95%	2	3/4	169 / 177
ETD-2-84 (E)	84	**H** 4218 **L** 2837	**H** 3169 **L** 2133	**H** 6766 **L** 4551	**H** 5063 **L** 3382	93%	2	3/4	187 / 195
ETD-2-96 (E)	96	**H** 4218 **L** 2837	**H** 2773 **L** 1866	**H** 7732 **L** 5201	**H** 5081 **L** 3417	92%	2	3/4	203 / 210
ETD-3-108 (E)	108	**H** 4218 **L** 2837	**H** 3702 **L** 2486	**H** 8702 **L** 5853	**H** 7623 **L** 5130	95%	3	3/4	245 / 255
ETD-3-120 (E)	118	**H** 4218 **L** 2837	**H** 3174 **L** 2134	**H** 9668 **L** 6503	**H** 7614 **L** 5127	94%	3	3/4	274 / 284
ETD-3-132 (E)	133	**H** 4218 **L** 2837	**H** 2792 **L** 1885	**H** 10853 **L** 7155	**H** 7589 **L** 5104	94%	3	3/4	290 / 301
ETD-4-144 (E)	145	**H** 4218 **L** 2837	**H** 3696 **L** 2488	**H** 11606 **L** 7806	**H** 10164 **L** 6840	95%	4	3/4	338 / 354

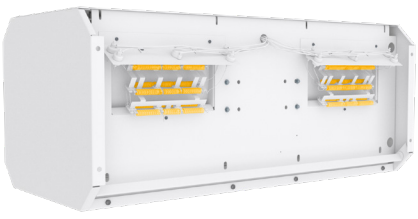
! **For a unit over 12 feet long, or a non-standard electric heater kW, consult factory.**

ETD & ETD-E | Sound Levels

High Speed	63 dBA	**Low Speed**	56 dBA	Measured 10 ft. from unit in a free field based on a 1 motor unit

ETD | Amp Draw and Breaker Options - For three phase motors, consult factory

Model/Number of Motors	**120V** Amp Draw (Breaker size)	**208-230V** Amp Draw (Breaker size)	**480V** Amp Draw (Breaker size)	**575V** Amp Draw (Breaker size)
ETD-1-36, 42, 48, 60	8.0A (15)	3.6A (15)	2.0A (15)	1.5A (15)
ETD-2-72, 84, 96	16.0A (25)	7.2A (15)	4.0A (15)	3.0A (15)
ETD-3-108, 120, 132	24.0A (35)	10.8A (15)	6.0A (15)	4.5A (15)
ETD-4-144	32.0A (45)	14.4A (20)	8.0A (15)	6.0A (15)



Performance Highlight

Heating elements are mounted inside the plenum, on the discharge side of the blowers. Here, heat won't affect motor life and the heaters are protected from dust that would accumulate on them if they were mounted on the air intake.

ETD-E | ELECTRICAL

AMP Draw, Circuits & Breaker Size Table
ALL AMP DRAWS LISTED BELOW INCLUDE TOTAL DRAW (MOTOR AND HEATERS INCLUDED)
*** Single Point Power (SPP) includes branch fusing and may require remote control panel.**
‡ High amp draws may be prohibitive. Reduced and custom kW available. Contact factory.
▶ Orange arrow denotes recommended kW.

Models	AMP DRAW (Breaker Size)							
	kW	Temp Rise (˚F)	208 / 1 / 60			240 / 1 / 60		
			Circuit 1	Circuit 2	SPP	Circuit 1	Circuit 2	SPP
ETD-1-36E / 42E / 48E / 60E	14.0	18	-	-	-	32.8A (45)	29.2A (40)	61.9A (80)
	12.0	15	-	-	-	28.6A (40)	25.0A (35)	53.6A (70)
	▶ 10.0	13	27.6A (35)	24.0A (35)	51.7A (70)	45.3A (60)	-	-
ETD-2-60E	21.0	18	-	-	-	‡	‡	94.7A (125)
	18.0	15	-	-	-	‡	‡	82.2A (110)
	▶ 15.0	13	‡	‡	79.3A (100)	41.7A (60)	28.0A (40)	69.7A (90)
ETD-2-72E / 84E / 96E	28.0	18	-	-	-	‡	‡	‡
	24.0	15	-	-	-	‡	‡	‡
	▶ 20.0	13	‡	‡	‡	‡	‡	‡
ETD-3-108E / 120E / 132E	42.0	18	-	-	-	‡	‡	‡
	36.0	15	-	-	-	‡	‡	‡
	▶ 30.0	13	‡	‡	‡	‡	‡	‡
ETD-4-144E	56.0	18	-	-	-	‡	‡	‡
	48.0	15	-	-	-	‡	‡	‡
	▶ 40.0	13	‡	‡	‡	‡	‡	‡

Models	AMP DRAW (Breaker Size)							
	kW	Temp Rise (˚F)	208 / 3 / 60			240 / 3 / 60		
			Circuit 1	Circuit 2	SPP	Circuit 1	Circuit 2	SPP
ETD-1-36E / 42E / 48E / 60E	14.0	18	42.5A (60)	-	-	37.3A (50)	-	-
	12.0	15	36.9A (50)	-	-	32.5A (45)	-	-
	▶ 10.0	13	31.4A (40)	-	-	27.7A (35)	-	-
ETD-2-60E	21.0	18	-	-	-	40.9A (60)	16.8A (25)	57.7A (80)
	18.0	15	-	-	-	28.9A (40)	21.6A (30)	50.5A (70)
	▶ 15.0	13	41.6A (60)	7.2A (15)	48.8A (70)	43.3A (60)	-	-
ETD-2-72E / 84E / 96E	28.0	18	46.1A (60)	38.9A (50)	84.9A (110)	40.9A (60)	33.7A (45)	74.6A (100)
	24.0	15	40.5A (60)	33.3A (45)	73.8A (100)	36.1A (50)	28.9A (40)	64.9A (90)
	▶ 20.0	13	35.0A (45)	27.8A (35)	62.7A (80)	31.3A (40)	24.1A (35)	55.3A (70)
ETD-3-108E / 120E / 132E	42.0	18	‡	‡	‡	‡	‡	‡
	36.0	15	‡	‡	‡	‡	‡	‡
	▶ 30.0	13	‡	‡	‡	46.9A (60)	36.1A (50)	83.0A (110)
ETD-4-144E	56.0	18	‡	‡	‡	‡	‡	‡
	48.0	15	‡	‡	‡	‡	‡	‡
	▶ 40.0	13	‡	‡	‡	‡	‡	‡

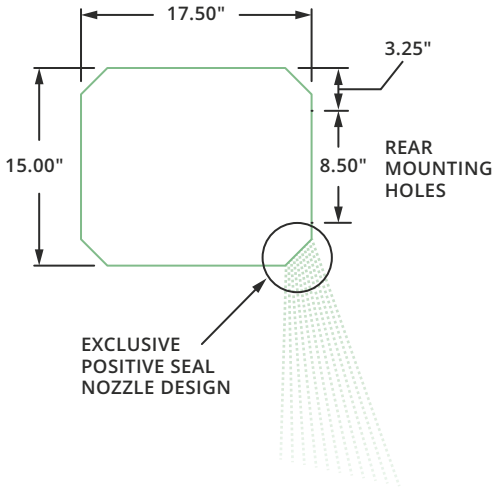
Models	AMP DRAW (Breaker Size)					
	kW	Temp Rise (˚F)	480 / 3 / 60			575 / 3 / 60
			Circuit 1	Circuit 2	SPP	Circuit
ETD-1-36E / 42E / 48E / 60E	14.0	18	18.8A (25)	-	-	-
	12.0	15	16.4A (25)	-	-	-
	▶ 10.0	13	14.0A (20)	-	-	11.5A (15)
ETD-2-60E	21.0	18	-	-	-	-
	18.0	15	-	-	-	21.1A (30)
	▶ 15.0	13	22.0A (30)	-	-	18.1A (25)
ETD-2-72E / 84E / 96E	28.0	18	37.7A (50)	-	-	-
	24.0	15	32.9A (45)	-	-	-
	▶ 20.0	13	28.1A (40)	-	-	23.1A (30)
ETD-3-108E / 120E / 132E	42.0	18	31.3A (40)	25.3A (35)	56.5A (80)	-
	36.0	15	27.7A (35)	21.7A (30)	49.3A (70)	40.6A (60)
	▶ 30.0	13	42.1A (60)	-	-	34.6A (45)
ETD-4-144E	56.0	18	41.7A (60)	33.7A (45)	75.4A (100)	-
	48.0	15	36.9A (50)	28.9A (40)	65.7A (90)	-
	▶ 40.0	13	32.1A (45)	24.1A (35)	56.1A (80)	46.2A (60)

ETD & ETD-E | MECHANICAL DETAILS & DRAWINGS

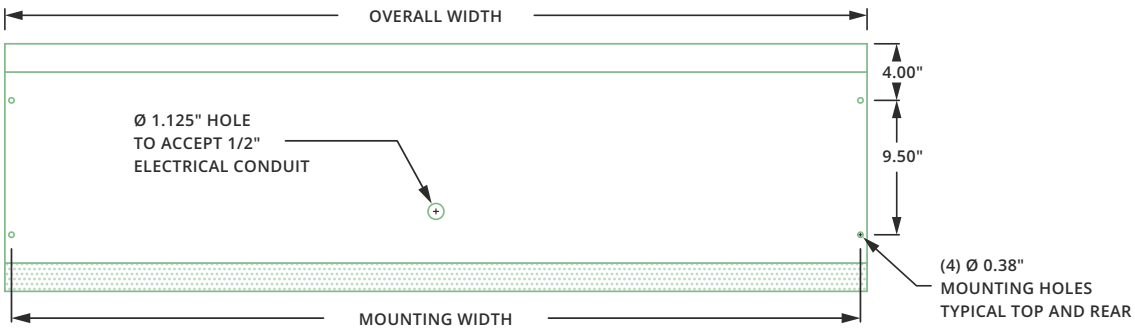
ETD & ETD-E | Mechanical Information Table

MODEL	Overall Width (in.)	Nozzle Width (in.)	Mounting Width (in.)
ETD-1-36 (E)	37	36	36.06
ETD-1-42 (E)	43	42	42.06
ETD-1-48 (E)	49	48	48.06
ETD-1-60 (E)	61	60	60.06
ETD-2-60 (E)	61	60	60.06
ETD-2-72 (E)	73	72	72.06
ETD-2-84 (E)	85	84	84.06
ETD-2-96 (E)	97	96	96.06
ETD-3-108 (E)	109	108	108.06
ETD-3-120 (E)	119	118	118.06
ETD-3-132 (E)	134	133	133.06
ETD-4-144 (E)	146	145	145.06

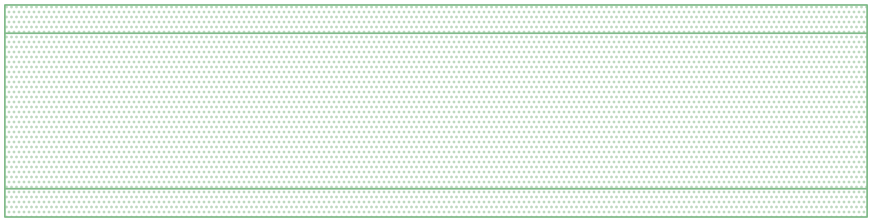
SIDE



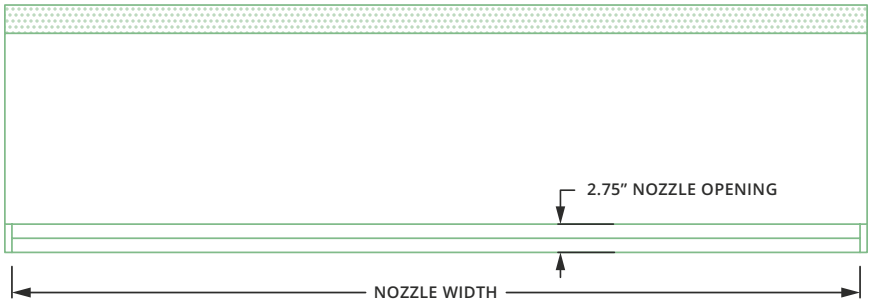
TOP



FRONT



BOTTOM



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ETD & ETD-E | INSTALLATION

NOTE: The air curtain should be mounted as close to the door header/opening as possible for maximum performance. For every one inch the bottom of the air curtain is mounted above the door header, the back side of the air curtain should be moved away from the wall ¼ inch.

A WALL MOUNT

Back side of air curtain has 4 mounting holes capable of accepting four 3/8 mounting bolts or lags, with washers (use these holes only for mounting). Mark and pre-drill mounting surface accurately. A long extension and ratchet will negate the need to remove the motor-blower plate when installing.

Mounting bolts or lags of sufficient size and strength should be installed and tightened through the four 7/8 inch holes in motor/blower plate.

If motor/blower plate has to be removed, the junction box inside the unit must be removed along with any electrical switches that may be in the way.

The electrical switches have a lever that slides in one direction to release the switch contacts from the switch body. All wires will then stay intact for easy installation when replacing the blower plate.

Remove 7/16 whizlock nuts holding plate in place, and slide plate out, rotating top portion of plate so it comes out first. Remember when installing plate to put bottom of plate in first and rotate top in last.

B BRACKETS

Mounting brackets (also called knee, angle or L-brackets) can be flush to the wall or constructed to account for a projection from the wall. For proper size brackets measure standoff distance from wall to back of where air curtain will be.

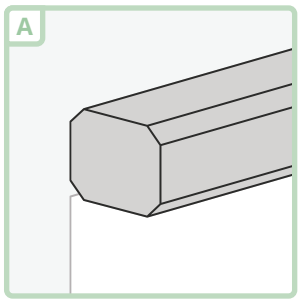
C TOP MOUNT

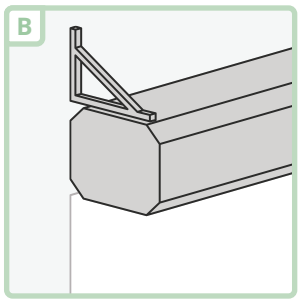
Unit has four 3/8- 16 threaded inserts for installing one end of threaded rods. The other ends of the threaded rods can be attached to the ceiling. Threaded rod should not extend more than 3/4 inch into air curtain.

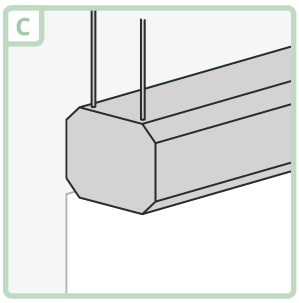
Powered Aire does not supply threaded rods.

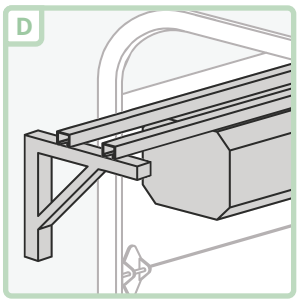
D BRACKETS WITH UNISTRUT

The air curtain is supplied with two pieces of unistrut attached to the top, typically one foot longer at each end, to reach brackets that are mounted on surface outside of the door tracks. Please supply the standoff distance from wall to back of where the air curtain will be.







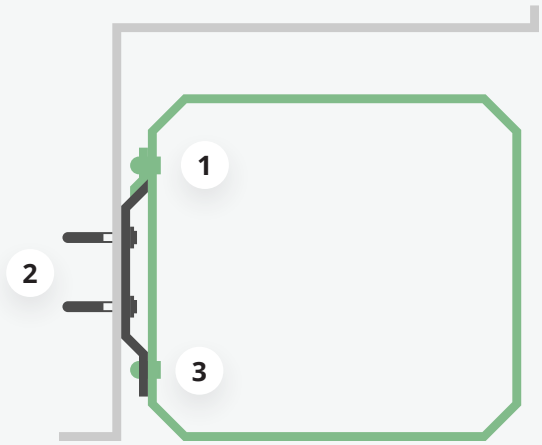


MB123 QUICK MOUNTING PLATE

Optional Installation (See page 240 for more detail)

Step 1
Attach top mounting bracket to back of air curtain using the upper mounting holes on back of unit.

Step 2
Attach the mounting bracket to the wall. Make sure there is sufficient room between mounting plate and ceiling to mount air curtain.

Step 3
Place air curtain over mounting bracket. The top and bottom brackets will lock into place supporting the weight of the air curtain. Attach the bottom bracket to the air curtain using the lower mounting holes.

! When mounted, bottom of air curtain is to be flush with bottom of the door header.