



ECE-HW



ECE-ST

ECE-HW/ST



Powered Aire's ECo-Motor™ models are designed to maximize employee/customer comfort while helping to reduce energy costs through the use of an advanced motor that optimizes performance. ECE-HW/ST features electrically commutated (EC) motors that are significantly more energy efficient than traditional PSC motors. The motors are specifically designed for air curtain applications, with the time between motor activation and maximum speed less than 1 second.

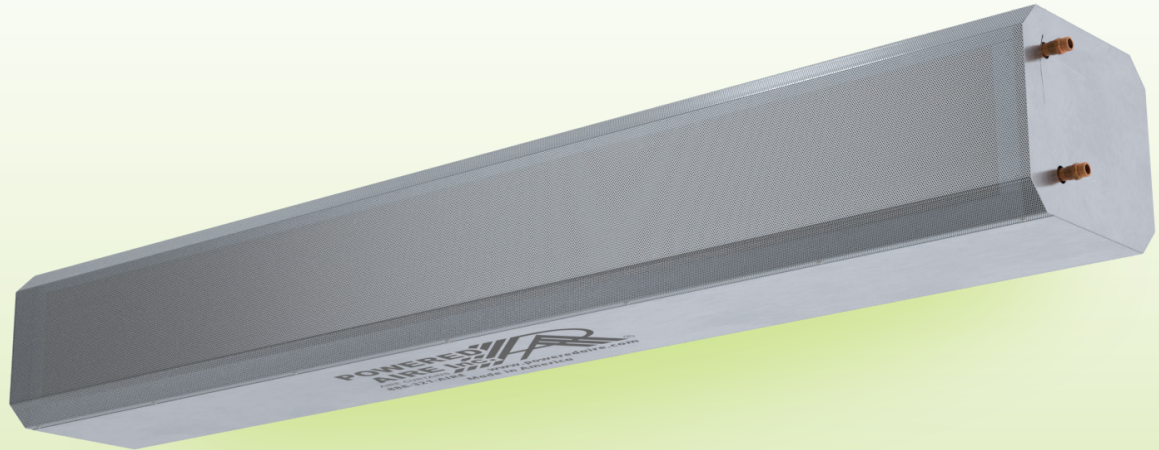
OPTIONS

HEATING

Hot WaterECE-HW
SteamECE-ST
Unheatedpg 43
Electric.pg 43

FILTER

1" Cleanable



AT A GLANCE

Single Incremental Widths

3' to 12'

Max Installation Height

14'

Heavy Duty Motors

¾ HP

KEY DESIGN FEATURES

- Outer cabinet constructed of 18-gauge 304 stainless steel with #3 finish
- 1/2 HP ODP (Open Drip Proof) direct-drive dual-speed motor(s)
- High-efficiency discharge plenum with adjustable air foil vane (+/-20°)
- NEMA 12 control panel
- Coil made to AHRI Standard 410
- Hot water coil comprised of galvanized steel casing, 5/8" copper tube, aluminum fins, and same end supply/return connections
- Leak tested at 450 psi
- Single length steam coils up to 10 ft
- Custom coil selections available (consult factory)

RECOMMENDED CONTROLS & ACCESSORIES

- Activation by 24V magnetic door switch
- Toggle disconnect switch
- SmartTouch Pro controller
- Hot water or steam control valve with actuator
- Filter (washable)

► ECE-HW/ST | PERFORMANCE

ECE-HW/ST | 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	Hot Water mbtu / Hour	Temp. Rise (°F)	Steam mbtu / Hour	Temp. Rise (°F)	Weight (lbs)
ECE-1-36HW/ST	36	4218	3695	2899	2541	95%	1	3/4	97	35	108	39	113
ECE-1-48HW/ST	48	4218	2771	3867	2559	92%	1	3/4	102	37	108	39	145
ECE-1-60HW/ST	60	4218	2218	4374	2528	91%	1	3/4	100	36	114	41	180
ECE-2-72HW/ST	72.07	4218	3696	5803	5082	95%	2	3/4	194	35	202	36	249
ECE-2-84HW/ST	84.07	4218	3169	6766	5063	93%	2	3/4	205	37	210	38	281
ECE-2-96HW/ST	96.07	4218	2773	7732	5081	92%	2	3/4	194	35	215	39	306
ECE-2-108HW/ST	108.07	4218	2472	8216	5090	91%	2	3/4	192	35	198	36	329
ECE-3-108HW/ST	108.15	4218	3702	8702	7623	95%	3	3/4	283	34	292	35	365
ECE-3-120HW/ST	120.15	4218	3174	9668	7614	95%	3	3/4	307	37	305	37	406
ECE-3-132HW/ST	132.15	4218	2792	10177	7589	95%	3	3/4	307	37	326	39	470
ECE-4-144HW/ST	144.22	4218	3696	11606	10164	95%	4	3/4	388	35	390	35	491

ECE-HW/ST | 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
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ECE-HW/ST | Amp Draw and (Breaker Options)

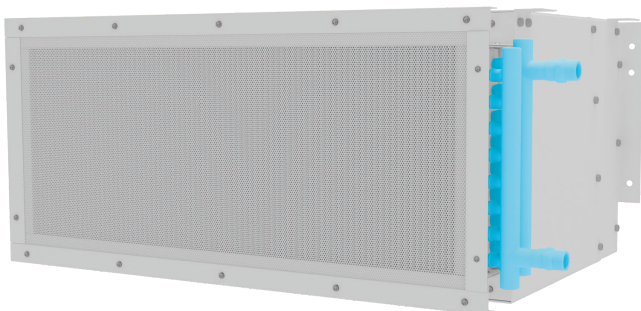
Motors	120V (MOP)	208-230V (MOP)	277 (MOP)	480V (MOP)	575V (MOP)
ECE-HWST-1-36, 42, 48, 60	9.6A (15)	5.8A (15)	5.0A (15)	*	**
ECE-HWST-2-72, 84, 96	19.2A (25)	11.6A (15)	10.0A (15)	*	**
ECE-HWST-3-108, 120, 132	28.8A (40)	17.4A (25)	15.0A (20)	*	**
ECE-HWST-4-144, 156, 168	38.4A (50)	23.2A (30)	20.0A (30)	*	**



NOTE

When requesting a quote for a Hot Water/Steam heated air curtain, please provide:

- Specifics of water/steam entering and exiting the air curtain
- Location for water/steam supplies and returns (both on one side or one each side)



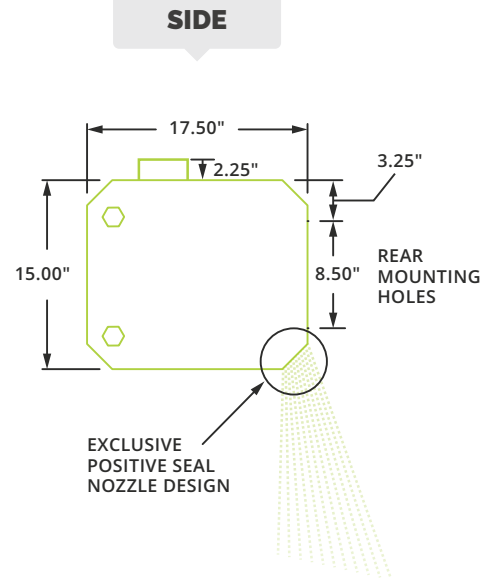
Performance Highlight

Made-to-order steam or hot water coil mounted to intake of air curtain. Coil consists of 5/8 in. O.D. copper tubes and aluminum fins. Coils certified to ARI standard 410.

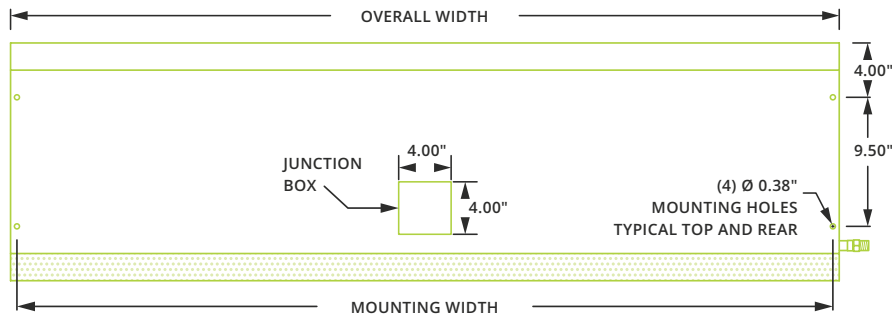
► ECE-HW/ST | MECHANICAL DETAILS & DRAWINGS

ECE-HW/ST | Mechanical Information Table

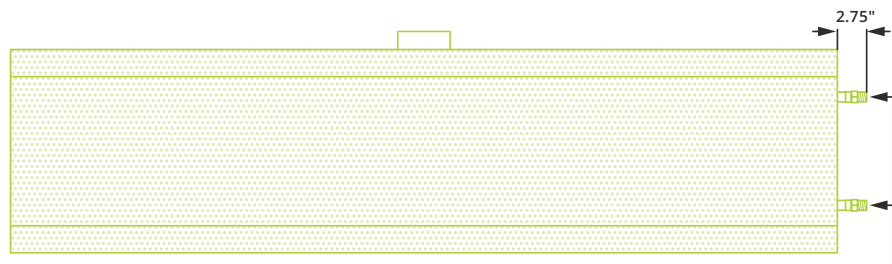
MODEL	Overall Width (in.)	Nozzle Width (in.)	Mounting Width (in.)
ECE-1-36HW/ST	37	36	36.06
ECE-1-42HW/ST	43	42	42.06
ECE-1-48HW/ST	49	48	48.06
ECE-1-60HW/ST	61	60	60.06
ECE-2-72HW/ST	73	72	72.06
ECE-2-84HW/ST	85	84	84.06
ECE-2-96HW/ST	97	96	96.06
ECE-3-108HW/ST	109	108	108.06
ECE-3-120HW/ST	119	118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



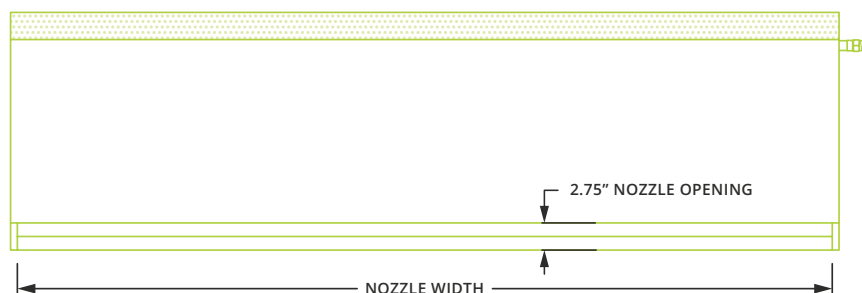
TOP



FRONT



BOTTOM



► ECE-HW/ST | 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 WALL MOUNT EXTENSION PLATES

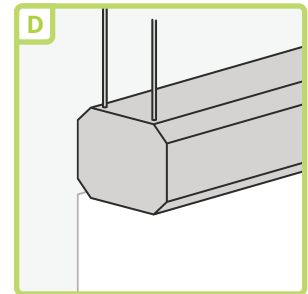
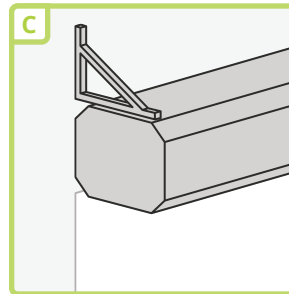
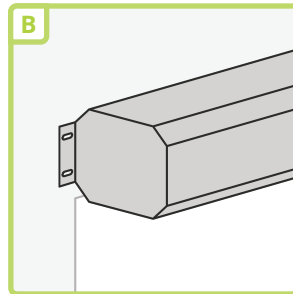
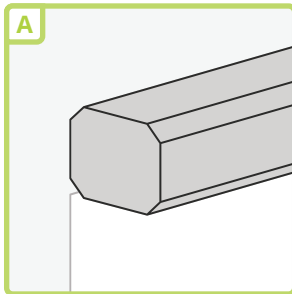
Extension plates bolt onto the back of the unit, utilizing the 4 original mounting holes. Brackets have elongated mounting slots that extend the mounting width by 2-1/2 to 3-1/2 inches.

C 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.

D 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.



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.

