



ABOVE CEILING



The CHA unheated air curtain has been tested in accordance with ANSI/AMCA 220 and meets the criteria for use as an exception to the vestibule requirement in Climate Zones 3 and above. It is specifically designed to be dropped into the ceiling above customer entryways where a standard air curtain is not desired. Multiple color/finish options available.



OPTIONS

HEATING

- Electric.pg 23
- Hot Water.pg 27
- Steampg 27

AT A GLANCE

Single Incremental Widths

3' to 12'

Max Installation Height

14'

Heavy Duty Motors

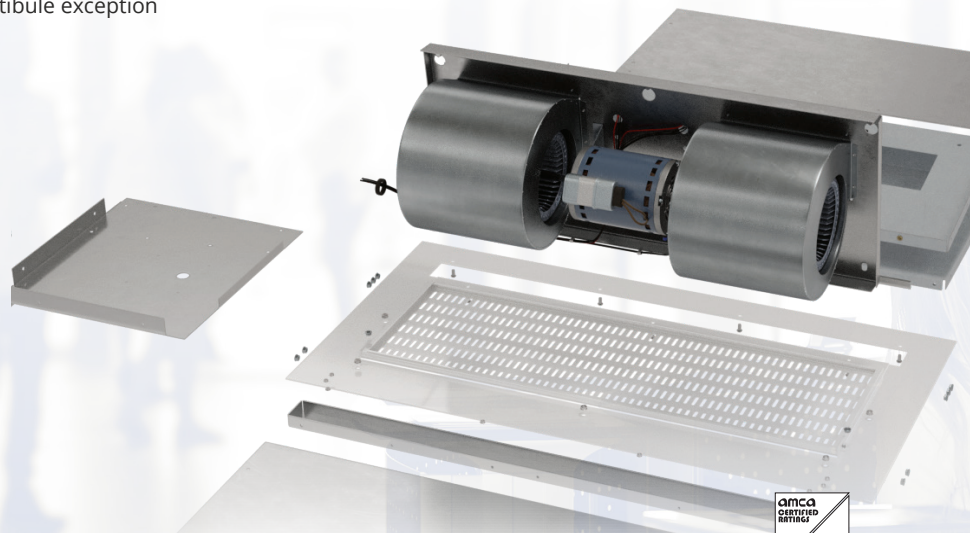
3/4 HP

KEY DESIGN FEATURES

- Meets ASHRAE 90.1 and IECC requirements for vestibule exception
- AMCA tested performance
- White decorative intake grille with hinged access panel (consult factory for custom finishes)
- 3/4 HP ODP (Open Drip Proof) direct-drive dual-speed motor(s)
- High-efficiency discharge plenum with adjustable air foil vane (+/-20°)

RECOMMENDED CONTROLS & ACCESSORIES

- Activation by 24V magnetic door switch
- Toggle disconnect switch
- SmartTouch Lite controller
- Filter (washable)



▶ CHA | PERFORMANCE

CHA | Performance Table

MODEL	Nozzle Width (in.)	Average Outlet Velocity (FPM)	Air Flow Rate (CFM)	Outlet Velocity Uniformity	Power Rating (kW)	Number of Motors	Motor HP	Weight (lbs)
CHA-1-36	36	2757	1268	91%	0.61	1	3/4	179
CHA-1-48	48	2674	1765	91%	0.84	1	3/4	195
CHA-1-60	60	2396	1845	73%	0.87	1	3/4	225
CHA-2-72	72	2757	2356	91%	1.22	2	3/4	358
CHA-2-84	84	2708	3033	91%	1.45	2	3/4	371
CHA-2-96	96	2674	3530	91%	1.68	2	3/4	384
CHA-2-108	108	2520	3610	73%	1.71	3	3/4	397
CHA-3-108	108	2757	3804	91%	1.83	3	3/4	537
CHA-3-120	120	2608	4121	73%	2.06	3	3/4	550
CHA-3-132	132	2696	4798	91%	2.29	3	3/4	563
CHA-4-144	144	2757	5072	91%	2.44	4	3/4	716

CHA1-42 is not AMCA Certified

CHA-1-42	42	2716	1517	91%	0.73	1	3/4	187
----------	----	------	------	-----	------	---	-----	-----

! For a unit over 12 feet long, consult factory.

CHA | Velocity Projection Model

DISTANCE FROM NOZZLE	40"	80"	120"	160"	200"
CHA-1-36 Core Velocity (fpm)	1500	1053	839	722	536
CHA-1-48 Core Velocity (fpm)	1388	908	715	602	556
CHA-1-60 Core Velocity (fpm)	1217	770	603	523	467

CHA | Sound Levels

Normal speed 63 dBA Measured 10 ft. from unit in a free field based on a 1 motor unit

CHA | Amp Draw and Breaker Options

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

The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only. Rated data shown are based on tests of units with heating elements present but not in use.

Powered Aire Inc. certifies that the Model CHA Air Curtain shown herein is licensed to bear the AMCA Seal for Air Performance. 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.

May 2020
PAAC-303

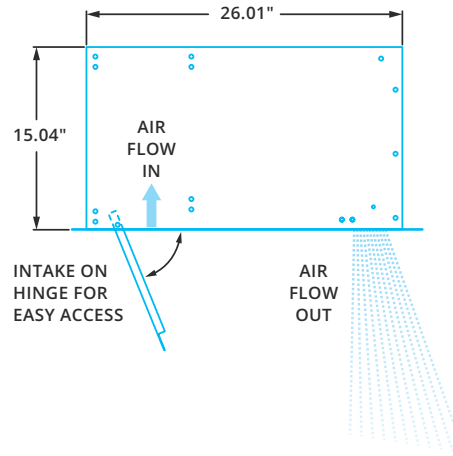


► CHA & CHA-E | MECHANICAL DETAILS & DRAWINGS

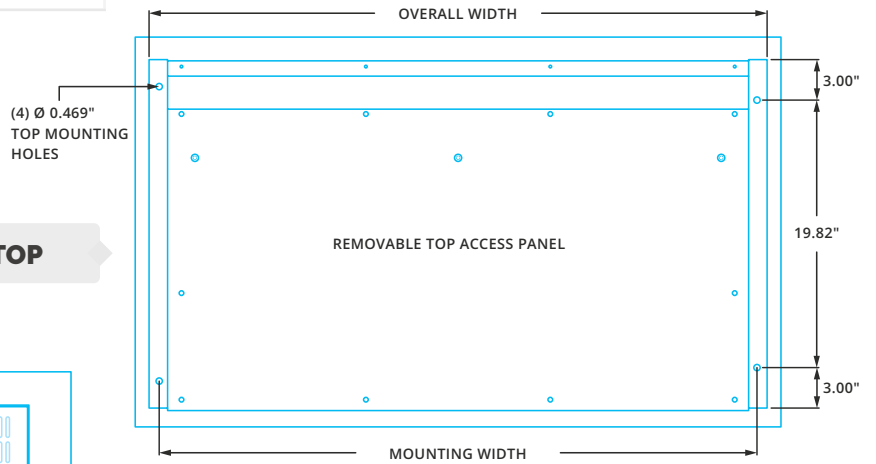
CHA & CHA-E | Mechanical Information Table

MODEL	Overall Width (in.)	Nozzle Width (in.)	Mounting Width (in.)
CHA-1-36 (E)	39.8	36	38.3
CHA-1-42 (E)	44.7	42	43.2
CHA-1-48 (E)	51.8	48	50.3
CHA-1-60 (E)	63.8	60	62.3
CHA-2-72 (E)	75.8	72.07	74.3
CHA-2-84 (E)	87.8	84.04	86.3
CHA-2-96 (E)	100.6	96.07	99.1
CHA-2-108 (E)	112.6	108.07	111.1
CHA-3-108 (E)	112.6	108.15	111.1
CHA-3-120 (E)	124.6	120.15	123.1
CHA-3-132 (E)	136.6	132.15	135.1
CHA-4-144 (E)	148.6	144.22	147.1

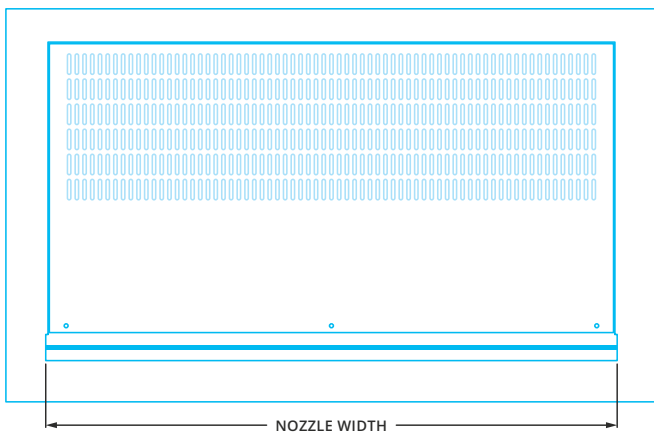
SIDE



TOP



BOTTOM



FRONT



▶ CHA, CHA-E, CHA-HW/ST | INSTALLATION

! IMPORTANT

- ✓ Trained and experienced mechanic / electrician required.
- ✓ **WARNING:**
Risk of electrical shock, can cause injury or death: Disconnect all remote electrical supplies before servicing.
- ✓ Units must be field wired in accordance with all applicable local, state, provincial and national codes, including wire size and materials.

✍ NOTE

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.

Unit has four 15/32 inch holes for installing one end of 7/16" threaded rods. The other ends of the threaded rods can be attached to the ceiling. Washers and lock washers or locknuts are recommended. Mounting structure should be of sufficient strength to hold air curtain, and hardware (supplied by others) should be of sufficient strength and quality to support the unit safely.



STEP 1

Remove intake/discharge grille from bottom of air curtain. If ceiling is already in place, determine where air curtain location will be and cut a rectangular hole in the ceiling. The hole will be 1 inch longer and wider than the bottom length and width of the air curtain without the intake/discharge grille.



STEP 2

Suspend air curtain using threaded rods so that the bottom of the unit is centered within the cut out in the ceiling. There will be a 1/2 inch gap around the air curtain. Mount the unit so that the bottom is flush with the ceiling.



STEP 3

Attach the intake/discharge grille to the bottom of the air curtain. The grille is larger than the air curtain to cover the gaps between the air curtain and ceiling.