

FIBERGLASS VENTILATORS



Model AFA



Model AWAB



Model AHAB

MODELS: AFA/AFAB, AWA/AWAB, ASA,
AHA/AHAB, AMA



Overview

**AFA/AFAB | AWA/AWAB |
ASA | AHA/AHAB | AMA**

The Aerovent Fibre-Aire® line of fiberglass fans is ideal for spaces that require a little more chemical resistance than what a typical light commercial fan offers. Both roof and wall fans are available in direct drive or belt driven options with a variety of configurations. In addition, a fiberglass gravity ventilator completes the Fibre-Aire® product offering for low flow, corrosive atmospheres.

The Fibre-Aire® products have a clean, architecturally-pleasing design and are virtually dent, crack and break proof. The fiberglass housing absorbs sound and the molded throat and outlet designs also optimize airflow.

Typical Applications Include

Natatoriums, Aquariums, Swimming Pool Exhaust, Laboratories, Waste Water Treatment Plants, General Exhaust

Configurations

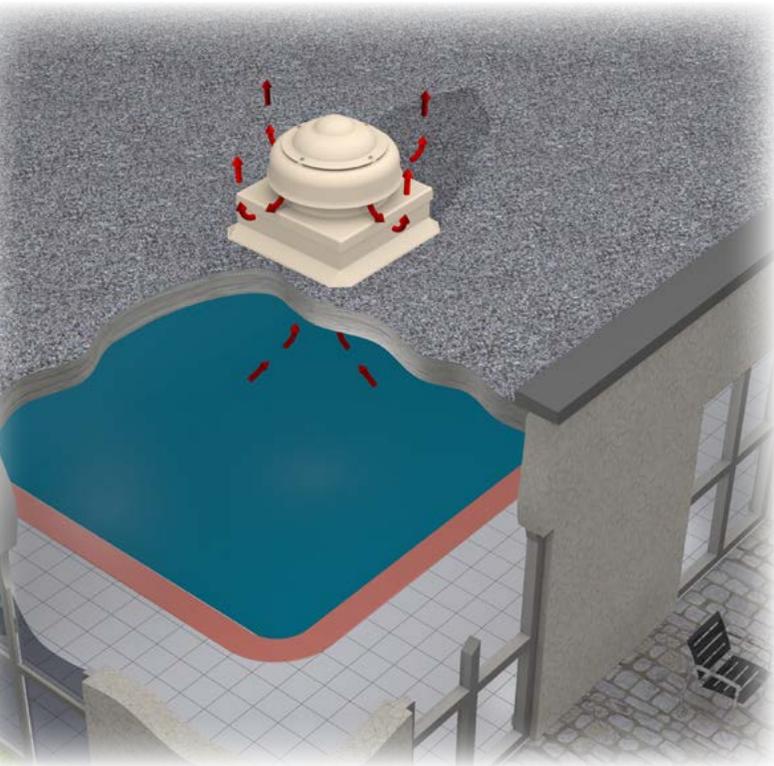
Direct Drive and Belt Driven, Wall Mount, Upblast and Downblast

Impeller Type

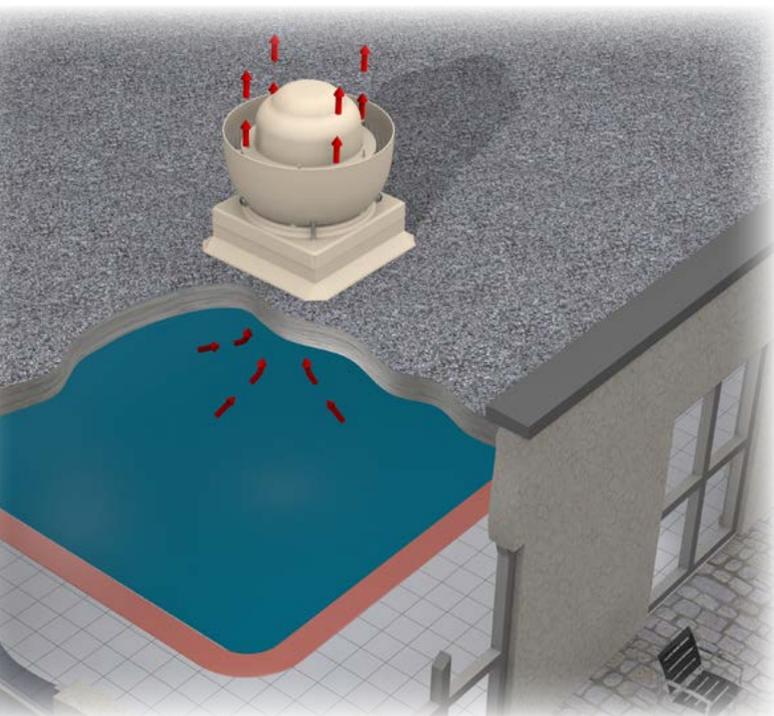
Polypropylene, Backward Inclined

Optional Construction

Corrosion Resistance



Model AFA Installation



Model AWA Installation

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For complete product performance, drawings and available accessories, download our Fan Selector program at aerovent.com.

Overview

**AFA/AFAB | AWA/AWAB |
ASA | AHA/AHAB | AMA**

Models AFA/AFAB

Direct drive sizes 7" to 18"
Belt driven sizes 12" to 20"
Airflow to 19,500 CFM (33,100 m³/hour)
Static pressures to 1³/₄" w.g. (440 Pa)



Models AWA/AWAB

Direct drive sizes 7" to 18"
Belt driven sizes 14" to 40"
Airflow to 21,500 CFM (36,500 m³/hour)
Static pressures to 2" w.g. (500 Pa)



Model ASA

Direct drive sizes 7" to 14"
Airflow to 2,230 CFM (3,800 m³/hour)
Static pressures to 1" w.g. (250 Pa)



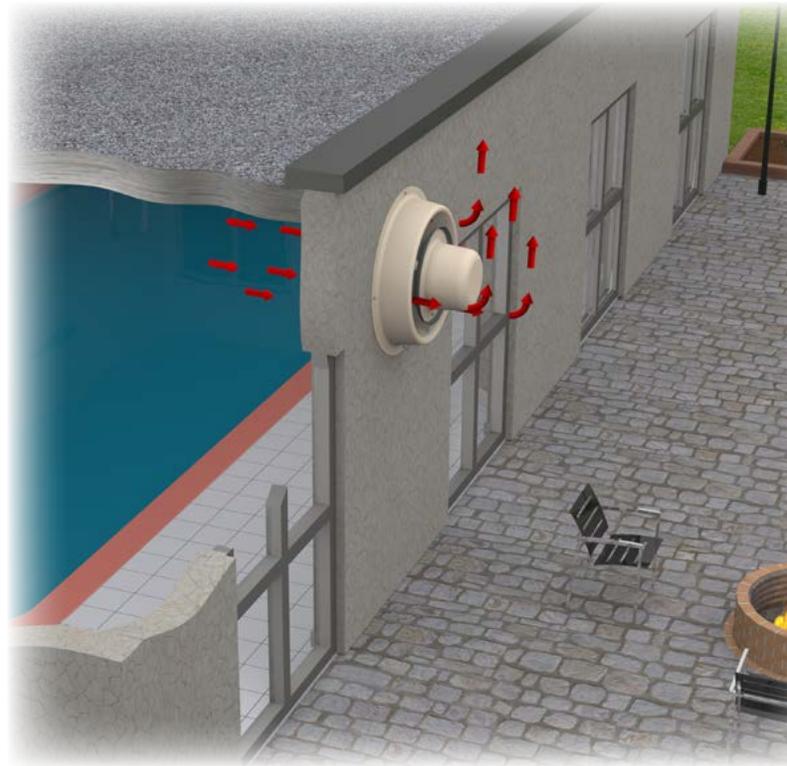
Models AHA/AHAB

Direct drive sizes 7" to 18"
Belt driven sizes 12" to 30"
Airflow to 9,800 CFM (16,700 m³/hour)
Static pressures to 1" w.g. (250 Pa)



Model AMA

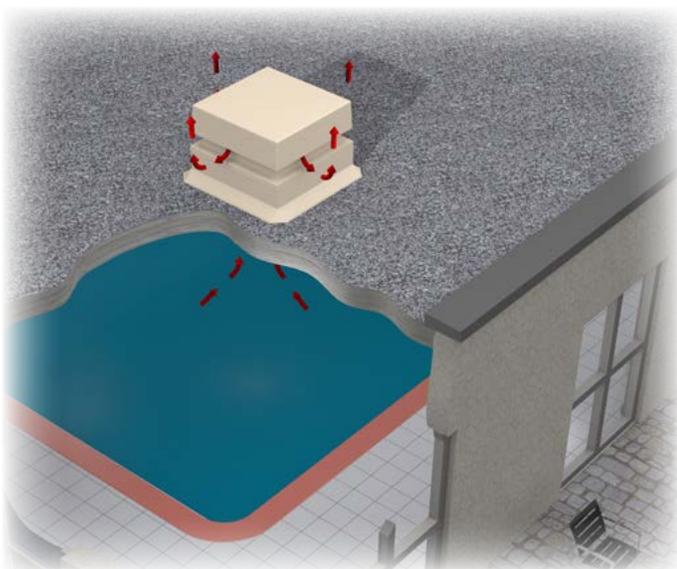
Square throat sizes 6" to 60"
Airflow to 40,000 CFM (68,000 m³/hour)
Static pressures to 1" w.g. (250 Pa)



Model ASA Installation



Model AHA Installation



Model AMA Installation

Fiber-Aire®

AFA | AFAB



Application

The Fiber-Aire® AFA/AFAB fiberglass centrifugal roof ventilator fans are available with direct drive or belt drive for general ventilation requirements where a low noise level exhaust is desired. The fiberglass housing of this fan is virtually dent, crack and break proof and is highly resistant to a wide array of chemicals. The motor is completely separated from the airstream, as are the belts and drive components of the belt driven model.

The fiberglass housing actually absorbs noise and vibration, and the specially molded throat and outlet designs minimize loss from friction and turbulence.

Belt driven fans offer the versatility of changing air capacities by changing the sheaves during or after installation. Both direct drive and belt driven features have easy to remove motor covers for simple inspection and maintenance. Extra low contour makes them inconspicuous from street level.

The Fiber-Aire® series fiberglass centrifugal power roof ventilators are designed for the exhaust of moisture-laden, corrosive or chemically contaminated air frequently associated with aquariums, indoor swimming pools, laboratories, waste water treatment plants, etc.

Sizes and Capacities

- Direct drive sizes 7" to 18"
- Belt driven sizes 12" to 40"
- Airflow to 19,500 CFM
- Static pressures to 1¾" w.g.

Construction Features

- Molded fiberglass housings are virtually impossible to dent, crack or break and resist weather, salt spray and most chemicals. Fiberglass housings also absorb noise and vibration.
- Designed for applications requiring the exhaust of chemical fumes or hazardous matter suspended in the air.
- Easy-to-remove motor covers for easy inspection and maintenance.
- Fan impellers are polypropylene, backward inclined, as standard.
- All structural mild steel components in contact with airstream are epoxy coated for additional corrosion resistance.
- A ½" x ½" PVC coated bird screen is standard on all units to prevent entry of birds and debris.
- Factory mounted and wired disconnect switch is standard on all units, except with EXP motors.
- A conduit chase extending through the curb cap and into the motor compartment is provided as standard on all units for field supply conductors.
- 304 SS fan shaft on belt driven unit.

Maximum Fan RPM

MODEL AFAB	MOTOR HP	MAX FAN RPM
12	1/4	1675
	1/3	1845
	1/2	2115
14	1/4	1470
	1/3	1615
	1/2	1850
18	1/4	905
	1/3	995
	1/2	1140
24	1/4	570
	1/3	625
	1/2	720
	3/4	820
	1	905
30	1/3	440
	1/2	500
	3/4	575
	1	630
	1½	725
2	795	

MODEL AFAB	MOTOR HP	MAX FAN RPM
36	1/2	370
	3/4	425
	1	465
	1½	535
	2	585
40	3	670
	1/2	320
	3/4	370
	1	405
	1½	460
2	510	
3	580	
5	690	

Accessories

- Gravity (PVC) and motor operated (aluminum) backdraft dampers
- Fiberglass roof curbs
- Stainless steel bird screen



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Whirlout®

AWA | AWAB

Application

The Whirlout® Series AWA/AWAB fiberglass upblast centrifugal roof exhausters are especially designed for applications requiring the exhaust of chemical fumes or cooking grease where the removal of exhaust away from the roof line is required.

Fiberglass roof exhausters are available as direct or adjustable capacity belt drive. Each configuration features an isolated motor and drive chamber with a neoprene shaft seal to protect motor and drive components from fumes or hazardous matter suspended in the air. The upblast design makes it ideal for use with ducts, hoods or canopies over interior work areas. Basket type supports eliminate internal air shocks, reduce vibration and increase efficiency.

The fiberglass housing of the unit has excellent resistance to a wide range of chemicals and fumes. The corrosion resistant, backward inclined impeller provides quiet and efficient operation.

Whirlout® Series fiberglass upblast centrifugal roof exhausters are also used in natatoriums, aquariums, indoor swimming pools, laboratories, waste water treatment plants and any other area, where corrosive fumes present a problem.

Sizes and Capacities

- Direct drive sizes 7" to 18"
- Belt driven sizes 14" to 40"
- Airflow to 21,500 CFM
- Static pressures to 2" w.g.

Construction Features

- Molded fiberglass housings are virtually impossible to dent, crack or break and resist weather, salt spray and most chemicals. Fiberglass housings also absorb noise and vibration.
- Designed for applications requiring the exhaust of chemical fumes or contaminated air up and away from the roof.
- Ideal for use with ducts, hoods or canopies over interior work areas.
- Fan impellers are polypropylene, backward inclined, as standard.
- All structural mild steel components in contact with airstream are epoxy coated for additional corrosion resistance.
- A neoprene shaft seal is standard on all belt drive units to protect motor and drives from fumes or hazardous matter suspended in the air.
- A 1/2" x 1/2" PVC coated bird screen is standard on all units to prevent entry of birds and debris.



Maximum Fan RPM

MODEL AWAB	MOTOR HP	MAX FAN RPM
14	1/4	1475
	1/3	1635
	1/2	1870
18	1/4	900
	1/3	990
	1/2	1130
24	1/4	560
	1/3	615
	1/2	705
	3/4	805
30	1	890
	1/3	435
	1/2	500
	3/4	570
	1	630
36	1 1/2	720
	2	790

MODEL AWAB	MOTOR HP	MAX FAN RPM
36	1/2	365
	3/4	415
	1	460
	1 1/2	525
	2	580
40	3	660
	5	785
	1/2	315
	3/4	360
	1	395
	1 1/2	450
	2	495
3	565	
5	675	
7 1/2	765	

Construction Features (cont'd.)

- Factory mounted and wired disconnect switch is standard on all units, except with EXP motors.
- A conduit chase extending through the curb cap and into the motor compartment is provided as standard on all units for field wiring.
- 304 SS fan shaft on belt driven unit.

Accessories

- Gravity (PVC) and motorized (aluminum) backdraft dampers
- Fiberglass roof curbs
- Stainless steel bird screen

AEROVENT 
INDUSTRIAL VENTILATION SYSTEMS

Fiber-Aire®

ASA



Construction Features

- Molded fiberglass housings are virtually impossible to dent, crack or break and resist weather, salt spray and most chemicals. Fiberglass housings also absorb noise and vibration.
- Designed for applications requiring the exhaust of chemical fumes or hazardous matter suspended in the air.
- Fan impellers are polypropylene, backward inclined, as standard.
- All structural mild steel components in contact with airstream are epoxy coated for additional corrosion resistance.
- A PVC coated bird screen is standard on all units.
- Factory mounted and wired disconnect switch is standard on all units, except with EXP motors.
- A conduit chase is provided as standard to allow field electrical wiring from inside the building, through the fiberglass inlet venturi and to the disconnect switch.

Application

The Fiber-Aire® Series ASA fiberglass wall ventilators are ideal for applications where exhausting from the roof is impractical or impossible. Featuring the same high-volume, polypropylene backward inclined impeller as the standard Fiber-Aire®, the wall Fiber-Aire® effectively and efficiently pulls hazardous fumes, dust or corrosive gases from the building interior and exhausts them away from the building and the exterior wall.

The wall Fiber-Aire® Series features the same virtually indestructible fiberglass housing, which is completely weatherproof and isolates the motor from the airstream. Its quiet operation allows the wall Fiber-Aire® to be placed in close proximity to work areas for maximum exhaust benefits and worker comfort. The exterior design and molded-in beige color blend in with most brick and exterior wall colors without detracting from overall building appearance. Wall shutters are available as accessories.

These fiberglass centrifugal ventilators are used in natatoriums, aquariums, indoor swimming pools, laboratories and waste water treatment plants.

Sizes and Capacities

- Direct drive sizes 7" to 14"
- Airflow to 2,230 CFM
- Static pressures to 1" w.g.

Accessories

- Gravity (PVC) and motorized (aluminum) backdraft dampers
- Stainless steel bird screen

Hid-N-Aire®

AHA | AHAB

Application

The Hid-N-Aire® Model AHA/AHAB fiberglass wall mount ventilators provide high performance ventilation without distracting from the architectural lines of a building's exterior. Only the aluminum fixed louver, which fits flush with the building's wall, is visible from the outside of the building. From the interior, the unit presents a clean, molded fiberglass venturi. All fiberglass components come in the standard beige color.

The Hid-N-Aire® fiberglass centrifugal wall ventilators are designed to mount compactly within an exterior wall and satisfy general building exhaust requirements.

Sizes and Capacities

- Direct drive sizes 7" to 18"
- Belt driven sizes 12" to 30"
- Airflow to 9,800 CFM
- Static pressures to 1" w.g.

Construction Features

- Rugged molded fiberglass inlet venturi.
- Rubber isolator motor mounts absorb vibration for quietness.
- Fan impellers are polypropylene, backward inclined, as standard.
- All structural mild steel components in contact with airstream are epoxy coated for additional corrosion resistance.
- Extruded fixed aluminum louver fits flush with the building's wall and is visible only from the exterior.
- Built-in PVC bird screen and fabric backdraft dampers within aluminum louver.
- Simple to install and maintain.
- Motor is prewired with plug and cord assembly (disconnect switch) and provided with a plug-in electrical receptacle mounted inside the motor housing for ease of maintenance and service. (Not included with explosion proof or 2-speed motors.)
- 304 SS fan shaft on belt driven unit.

Accessories

- An attractive grille is available for attachment to fiberglass venturi when ductwork to AHA/AHAB is not present.
- Duct adapter kit for use when AHA/AHAB is used as an inline centrifugal unit.
- Companion angles.



Static Pressure Drop Calculation

Performances shown for fiberglass wall ventilators are the capacities without the exterior wall louver. The following tables give the gross louver areas and the static pressure drop. An example is also shown to help you determine the correct size unit for a specific application.

Example:

Required 825 CFM @ 1/8" S.P. (.125) quiet duty.

1. Select a direct drive unit from the performance data on page 3 with a slightly higher capacity such as 14HA-1 (863 CFM @ 1/8" S.P.)
2. Divide the CFM by the gross louver area (see Table 1) to obtain gross velocity: $863 \div 3.84 = 225$ FPM
3. From Table 2, the static pressure drop is slightly more than .018 (approximately .023).
4. Add the specified static pressure to the static pressure drop through the louver: $.125 + .023 = .148$ in. w.g. total static pressure
5. Checking the capacity table on page 3, we now see that because the static pressure has increased slightly, the capacity has decreased slightly. The 14HA-1 unit will deliver 825 CFM @ .148 static pressure through the exterior flush-mounted louver.

Table 1.

SIZE	GROSS AREA OF LOUVER
07, 072	1.13 sq. ft.
10, 12	2.92 sq. ft.
14	3.84 sq. ft.
18	4.69 sq. ft.
24	9.52 sq. ft.
30	14.71 sq. ft.

Table 2. Static Pressure Drop For Various Velocities

GROSS VEL. (FPM)	100	200	300	400	500	600	700
S.P. DROP (IN. W.G.)	.005	.018	.041	.073	.114	.164	.224

Fiber-Aire®

AMA



Series AMA

Application

Fiber-Aire® Series AMA (square) relief ventilators are molded of tough, chemical resistant polyester resins and heavy-weave glass cloth. All products are designed for simple installation and maintenance. The resulting products deliver superior performance, with minimal downtime and maintenance and the best full life value of any ventilation product available.

This unit can be used for three different ventilation applications:

- To provide relief for positive pressure.
- To provide gravity exhaust of heat and smoke.
- To provide air intake supply.

The Relief Fiber-Aire® Series MA ventilators are often used in conjunction with air make-up units and unit ventilators, as well as duct weather caps to match other Fiber-Aire® powered units on the roof. The simple, two-piece fiberglass housing is strong and efficient, never needs painting and remains unaffected by weather and most chemicals. The molded-in beige color and low silhouette make it inconspicuous from the street.

Sizes and Capacities

- Square throat sizes 6" to 60"
- Airflow to 40,000 CFM
- Static pressures to 1" w.g.

Construction Features

- Molded fiberglass housings are virtually impossible to dent, crack or break and resist weather, salt spray and most chemicals.
- Simple, two-piece, low-silhouette fiberglass housing for strength and efficiency.
- Housing shock-resistant and sound-absorbing.
- 1/2" x 1/2" PVC coated bird screen is standard on all units.

Accessories

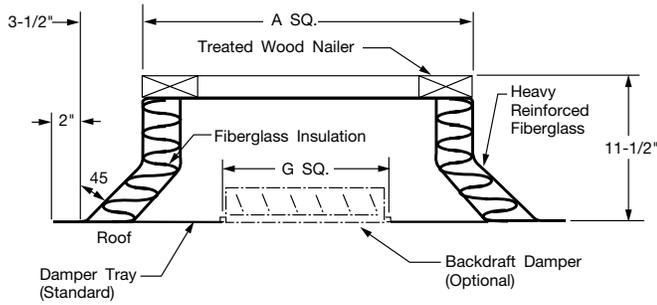
- Gravity and motor operated backdraft dampers
- Fiberglass roof curbs

Pressure Drop Through Damper & Bird Screen

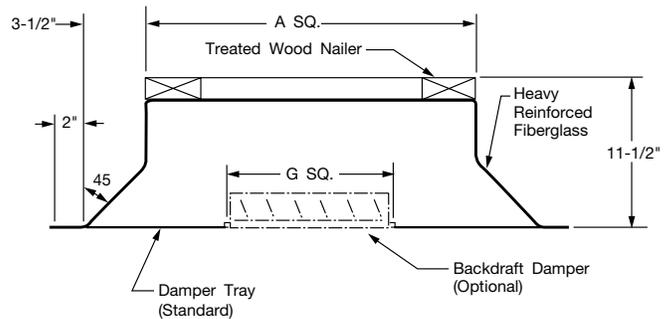
VELOCITY	STATIC PRESSURE DROP THROUGH	
	DAMPER	BIRD SCREEN
300	0.036	0.011
400	0.042	0.014
500	0.048	0.016
600	0.051	0.021
700	0.063	0.025
800	0.072	0.028
900	0.080	0.032
1000	0.089	0.035
1250	0.111	0.045
1500	0.133	0.052

VELOCITY	STATIC PRESSURE DROP THROUGH	
	DAMPER	BIRD SCREEN
1750	0.156	0.022
2000	0.178	0.070
2500	0.222	0.089
3000	0.267	0.106
3400	0.302	0.122

Series EF (w/insulation)



Series E



E12F — A 12" high, beige color, molded fiberglass, reinforced polyester resin, double shell, prefabricated roof curb with a 3½" cant, corner gussets, 2" thick fiberglass insulation and incorporating a treated 1½" x 3½" treated wood nailer and damper tray.

E12 — A 12" high, beige color, molded fiberglass, reinforced polyester resin, single shell, prefabricated roof curb with a 3½" cant, corner gussets and incorporating a treated 1½" x 3½" treated wood nailer and damper tray.

FAN / HOOD			ROOF CURB DIM. A (SQ)	12" HIGH CURB WITH INSULATION		12" HIGH CURB NON-INSULATED		G (SQ)	DAMPER SIZE WHEN REQ'D
MODEL	SIZE	BASE I.D.		PART NUMBER	APPROX. SHIP WT. (LB)	PART NUMBER	APPROX. SHIP WT. (LB)		
AFA	7, 9	22 x 22	20 x 20	15025104	38	15025004	31	10.63	10 x 10
	10, 12, 14	26 x 26	24 x 24	15025105	46	15025005	38	14.63	14 x 14
	18	30 x 30	28 x 28	15025107	53	15025007	44	18.63	18 x 18
AFAB	12, 14	26 x 26	24 x 24	15025105	46	15025005	38	14.63	14 x 14
	18	30 x 30	28 x 28	15025107	53	15025007	44	18.63	18 x 18
	24	37 x 37	36 x 36	15025109	68	15025009	56	24.63	24 x 24
	30	45 x 45	44 x 44	15025112	82	15025012	67	30.63	30 x 30
	36, 40	53 x 53	52 x 52	15025115	99	15025015	80	36.63	36 x 36
AWA	7	17 x 17	16 x 16	15025102	31	15025002	26	6.63	6 x 6
	10, 12	21 x 21	20 x 20	15025104	38	15025004	31	10.63	10 x 10
	14	24.8 x 24.8	24 x 24	15025105	46	15025005	38	14.63	14 x 14
	18	29 x 29	28 x 28	15025107	53	15025007	44	18.63	18 x 18
AWAB	14	24.8 x 24.8	24 x 24	15025105	46	15025005	38	14.63	14 x 14
	18	29 x 29	28 x 28	15025107	53	15025007	44	18.63	18 x 18
	24	37.5 x 37.5	36 x 36	15025109	68	15025009	56	24.63	24 x 24
	30	45.5 x 45.5	44 x 44	15025112	82	15025012	67	30.63	30 x 30
AMA	36, 40	53 x 53	52 x 52	15025115	99	15025015	80	36.63	36 x 36
	6	15 x 15	14 x 14	15025101	28	15025001	24	4.63	4 x 4
	8	17 x 17	16 x 16	15025102	31	15025002	26	6.63	6 x 6
	10	19 x 19	18 x 18	15025103	34	15025003	28	8.63	8 x 8
	12	21 x 21	20 x 20	15025104	38	15025004	31	10.63	10 x 10
	15	24.3 x 24.3	24 x 24	15025105	46	15025005	38	14.63	14 x 14
	18	27 x 27	26 x 26	15025106	49	15025006	41	16.63	16 x 16
	20	29 x 29	28 x 28	15025107	53	15025007	44	18.63	18 x 18
	24	33 x 33	32 x 32	15025108	60	15025008	49	22.63	22 x 22
	30	39 x 39	38 x 38	15025110	72	15025010	59	28.63	28 x 28
	34	43 x 43	42 x 42	15025111	76	15025011	63	32.63	32 x 32
	36	45.5 x 45.5	44 x 44	15025112	82	15025012	67	34.63	34 x 34
	38	47.5 x 47.5	46 x 46	15025113	86	15025013	71	36.63	36 x 36
	42	51.5 x 51.5	50 x 50	15025114	92	15025014	75	40.63	40 x 40
	48	57.5 x 57.5	56 x 56	15025116	108	15025016	88	46.63	46 x 46
54	63.5 x 63.5	62 x 62	15025117	119	15025017	96	52.63	52 x 52	
60	69.5 x 69.5	68 x 68	15025118	130	15025018	105	58.63	58 x 58	

NOTE: Damper to be flanged.

Dimensions are not to be used for construction.

Models AHA | AHAB

Model AHA – Direct Drive

MODEL AHA	HP	PEAK BHP	FAN RPM	CFM VERSUS STATIC PRESSURE								SOUND POWER REFERENCE 10 ⁻¹² WATTS								SONES AT 0" SP	
				0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	OCTAVE BAND CENTER FREQUENCIES									
												63	125	250	500	1000	2000	4000	8000		
07	1/15	0.02	1550	180	160	130	75	—	—	—	—	—	—	—	—	—	—	—	—	—	3.4
	072	1/15	0.03	1550	350	325	280	135	—	—	—	—	—	—	—	—	—	—	—	—	—
10	1/8	0.05	1140	700	595	455	255	—	—	—	—	—	—	—	—	—	—	—	—	—	4.5
	1/6	0.18	1725	1060	990	910	830	745	645	520	110	—	—	—	—	—	—	—	—	—	—
12	1/12	0.03	860	617	463	222	—	—	—	—	—	73	63	57	58	58	60	45	49	—	6.5
	1/8	0.07	1140	819	711	579	412	—	—	—	—	79	69	63	64	64	66	51	55	—	9.5
	1/4	0.24	1725	1239	1170	1098	1018	930	834	728	456	88	78	72	73	73	75	60	64	—	16.6
14	1/12	0.05	860	1038	863	631	—	—	—	—	—	70	68	65	62	63	63	54	50	—	8.2
	1/8	0.11	1140	1376	1250	1108	938	729	400	—	—	76	74	71	68	69	69	60	56	—	11.9
	1/2	0.40	1725	2082	2001	1916	1828	1733	1633	1523	1271	85	83	80	77	78	78	69	65	—	21.0
18	1/4	0.18	860	1982	1763	1510	1211	817	—	—	—	74	74	72	68	77	68	61	55	—	13.7
	1/2	0.43	1140	2627	2467	2295	2107	1898	1671	1416	—	80	80	78	74	83	74	67	61	—	19.7

1. Performance shown is for installation Type A: free inlet, free outlet.
2. The sound ratings shown are loudness values in fan sones at 5 ft. in a hemispherical free field calculated per AMCA Standard 301-90. Values shown are for installation Type A: free inlet fan sone levels.
3. Performance ratings do not include the effects of appurtenances in the airstream.

Model AHAB – Belt Driven

MODEL AHAB	HP	PEAK BHP	FAN RPM	CFM VERSUS STATIC PRESSURE								SOUND POWER REFERENCE 10 ⁻¹² WATTS								SONES AT 0" SP	
				0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	OCTAVE BAND CENTER FREQUENCIES									
												63	125	250	500	1000	2000	4000	8000		
12	1/4	0.12	1380	991	904	806	692	559	390	—	—	84	74	68	69	69	71	56	60	—	12.9
	1/4	0.16	1518	1090	1012	926	829	720	594	439	480	86	76	70	71	71	73	58	62	—	14.7
	1/4	0.25	1738	1248	1180	1108	1030	943	848	743	—	89	79	73	74	74	76	61	65	—	17.6
14	1/4	0.12	1165	1406	1283	1145	982	784	508	—	—	77	75	72	69	70	70	61	57	—	12.6
	1/4	0.16	1283	1549	1438	1317	1180	1021	832	581	—	79	77	74	71	72	72	63	59	—	14.2
	1/4	0.25	1468	1772	1676	1573	1463	1342	1203	1048	620	82	80	77	74	75	75	66	62	—	17.1
	1/3	0.33	1615	1950	1863	1771	1675	1571	1457	1331	1036	84	82	79	76	77	77	68	64	—	19.3
18	1/2	0.50	1849	2232	2157	2078	1997	1911	1821	1725	1508	87	85	82	79	80	80	71	67	—	23.0
	1/4	0.16	826	1903	1675	1405	1081	595	—	—	—	73	73	71	67	76	67	60	54	—	12.9
	1/4	0.25	945	2178	1981	1761	1507	1213	817	—	—	76	76	74	70	79	70	63	57	—	15.5
	1/3	0.33	1040	2397	2220	2027	1810	1565	1288	921	—	78	78	76	72	81	72	65	59	—	17.5
	1/2	0.50	1191	2745	2592	2429	2252	2058	1848	1617	1003	81	81	79	75	84	75	68	62	—	21.0
24	3/4	0.75	1363	3141	3009	2869	2722	2567	2397	2218	1821	84	84	82	78	87	78	71	65	—	25.0
	1/4	0.25	575	3418	2953	2398	1656	—	—	—	—	75	77	74	71	68	67	62	57	—	11.9
	1/3	0.33	633	3763	3345	2871	2287	1505	—	—	—	77	79	76	73	70	69	64	59	—	13.5
	1/2	0.	725	4310	3949	3557	3111	2579	1926	700	—	80	82	79	76	73	72	67	62	—	16.3
	3/4	0.75	830	4934	4621	4291	3934	3535	3076	2544	—	83	85	82	79	76	75	70	65	—	19.6
30	1	1.00	913	5427	5143	4849	4537	4198	3825	3409	2375	85	87	84	81	78	77	72	67	—	22.0
	1/3	0.33	436	5399	4594	3611	2177	—	—	—	—	80	78	74	70	65	59	54	50	—	10.1
	1/2	0.50	500	6192	5503	4724	3744	2399	—	—	—	83	78	77	73	68	62	57	53	—	12.2
	3/4	0.75	572	7084	6487	5841	5113	4206	3077	—	—	86	81	80	76	71	65	60	56	—	14.7
	1	1.00	630	7802	7264	6689	6068	5358	4498	3462	—	88	83	82	78	73	67	62	58	—	16.7
	1 1/2	1.50	721	8929	8461	7973	7457	6906	6292	5587	3823	91	86	85	81	76	70	65	61	—	20.0
2	2.00	793	9820	9395	8959	8501	8021	7511	6951	5601	93	88	87	83	78	72	67	63	—	23.0	

1. Performance shown is for installation Type A: free inlet, free outlet.
2. The sound ratings shown are loudness values in fan sones at 5 ft. in a hemispherical free field calculated per AMCA Standard 301-90. Values shown are for installation Type A: free inlet fan sone levels.
3. Power rating (BHP) does not include drive losses.
4. Performance ratings do not include the effects of appurtenances in the airstream.

Models AMA | ASA

Model AMA – Square

MODEL AMA	SIZE (IN.)	AREA (FT.)	STATIC PRESSURE LOSS (IN. H ₂ O)																												
			500 CFM		1000 CFM		1500 CFM		2000 CFM		3000 CFM		4000 CFM		5000 CFM		6000 CFM		7000 CFM		8000 CFM		9000 CFM		10000 CFM		12000 CFM		15000 CFM		
			VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL
6	6 x 6	0.250	2000	0.435																											
8	8 x 8	0.444	1125	0.137	2250	0.550																									
10	10 x 10	0.694	720	0.056	1440	0.225	2160	0.5070																							
12	12 x 12	1.000	500	0.027	1000	0.109	1500	0.2450	2000	0.435																					
15	15 x 15	1.560	320	0.011	640	0.045	960	0.1000	1280	0.178	1920	0.401	2560	0.712																	
18	18 x 18	2.250			445	0.021	667	0.0480	890	0.086	1333	0.193	1780	0.342	2220	0.536	2666	0.772													
20	20 x 20	2.780			360	0.014	540	0.0317	720	0.056	1080	0.127	1440	0.225	1800	0.352	2160	0.507	2520	0.690	2880	0.901									
24	24 x 24	4.000					375	0.0150	500	0.027	750	0.061	1000	0.109	1250	0.170	1500	0.245	1750	0.333	2000	0.435	2250	0.550	2500	0.680	3000	0.980	3750	0.153	

MODEL AMA	SIZE (IN.)	AREA (FT.)	STATIC PRESSURE LOSS (IN. H ₂ O)																												
			2000 CFM		3000 CFM		4000 CFM		5000 CFM		6000 CFM		8000 CFM		10000 CFM		12000 CFM		15000 CFM		20000 CFM		25000 CFM		30000 CFM		35000 CFM		40000 CFM		
			VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL	SP	VEL
30	30 x 30	6.250	320	0.011	480	0.025	640	0.045	800	0.070	960	0.100	1280	0.178	1600	0.278	1920	0.400	2400	0.626											
34	34 x 34	8.027			372	0.015	498	0.027	622	0.042	748	0.061	996	0.108	1245	0.170	1495	0.243	1868	0.379	2490	0.675									
36	36 x 36	9.000			333	0.012	444	0.021	555	0.033	666	0.048	888	0.086	1111	0.135	1333	0.193	1666	0.302	2222	0.536	2777	0.837							
38	38 x 38	10.050			300	0.010	400	0.017	500	0.027	600	0.039	800	0.070	1000	0.109	1200	0.157	1500	0.245	2000	0.435	2500	0.680	3000	0.980					
42	42 x 42	12.250					326	0.011	412	0.018	490	0.026	652	0.046	815	0.072	980	0.104	1225	0.163	1633	0.290	2040	0.452	2450	0.652	2855	0.886			
48	48 x 48	16.000							375	0.015	500	0.027	625	0.042	750	0.061	940	0.096	1250	0.170	1562	0.265	1875	0.382	2190	0.522	2500	0.680			
54	54 x 54	20.250									296	0.009	395	0.017	494	0.026	593	0.038	742	0.060	980	0.104	1235	0.166	1482	0.239	1730	0.325	1975	0.424	
60	60 x 60	25.000											320	0.011	400	0.017	480	0.025	600	0.039	800	0.070	1000	0.109	1200	0.157	1400	0.213	1600	0.278	

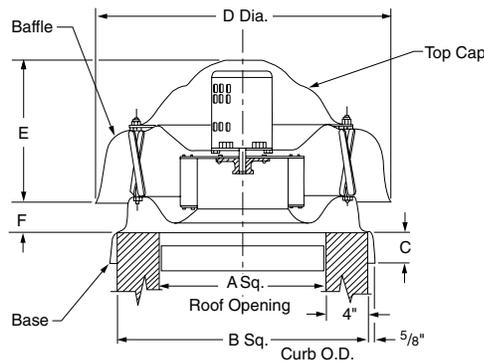
Model ASA – Direct Drive

MODEL ASA	HP	PEAK BHP	FAN RPM	CFM VERSUS STATIC PRESSURE								SOUND POWER REFERENCE 10 ⁻¹² WATTS								SONES AT 0" SP												
				0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	OCTAVE BAND CENTER FREQUENCIES																				
												63	125	250	500	1000	2000	4000	6000													
071	1/15	0.02	1550	235	180	120																										4.6
072	1/15	0.03	1550	360	290	190																										6.1
12	1/12	0.03	860	652	502	296																										5.7
	1/8	0.06	1140	864	756	634	497																									8.9
	1/4	0.20	1725	1308	1238	1165	1090	1009	923	837	603																					17.6
14	1/12	0.06	860	1112	960	754	438																									7.9
	1/8	0.15	1140	1474	1365	1241	1090	906	668	295																						14.0
	1/2	0.51	1725	2230	2161	2087	2010	1929	1840	1742	1517																					27.0

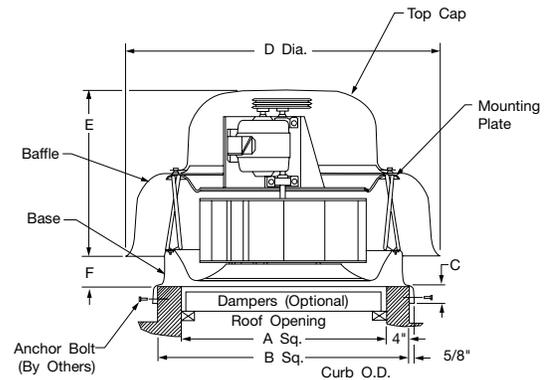
1. Performance shown is for installation Type A: free inlet, free outlet.
2. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi sound power levels for installation Type A: free inlet, free outlet. Ratings do not include the effects of duct end correction for inlet and outlet ducts.
3. Performance ratings do not include the effects of appurtenances in the airstream.

Models AFA | AFAB

Model AFA - Direct Drive



Model AFAB - Belt Drive



Model AFA - Direct Drive

MODEL AFA	HP	RPM	WEIGHT (LBS.)	DIMENSIONS (INCHES)						BACKDRAFT DAMPER
				A	B	C	D	E	F	
07	1/15	1550	23	12	20	2	21 ³ / ₈	10	3 ⁷ / ₁₆	10 x 10
072	1/15	1550	20	12	20	2	21 ³ / ₈	10	2 ⁷ / ₁₆	10 x 10
09	1/15	1550	24	12	20	2	21 ³ / ₈	10	2 ¹ / ₂	10 x 10
10	1/8	1140	43	16	24	2 ³ / ₄	28 ¹ / ₄	15 ¹ / ₂	3 ¹ / ₄	14 x 14
12	1/6	1725	39	16	24	2 ³ / ₄	28 ¹ / ₄	15 ¹ / ₂	3 ¹ / ₄	14 x 14
	1/12	860	43						2 ¹ / ₈	
14	1/8	1140	45	16	24	2 ³ / ₄	28 ¹ / ₄	15 ¹ / ₂	4 ⁵ / ₈	14 x 14
	1/4	1725	49						4 ⁵ / ₈	
18	1/2	1140	50	16	24	2 ³ / ₄	28 ¹ / ₄	15 ¹ / ₂	4 ⁵ / ₈	14 x 14
	1/4	860	78						4 ³ / ₄	
	1/2	1140	83	20	28	3 ¹ / ₈	35 ¹ / ₈	21 ³ / ₄	4 ³ / ₄	18 x 18

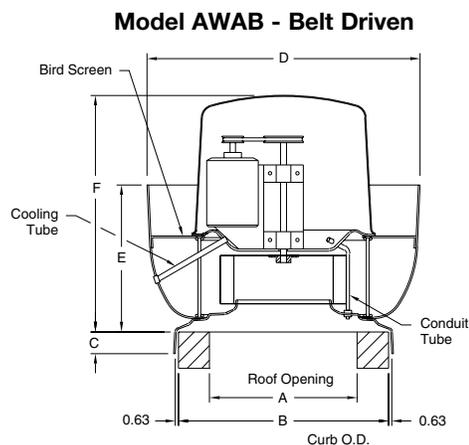
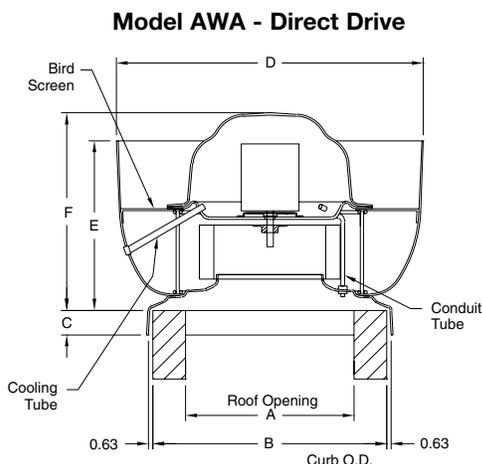
D-3200-1

Model AFAB - Belt Driven

MODEL AFAB	HP	WEIGHT (LBS.)	DIMENSIONS (INCHES)						BACKDRAFT DAMPER
			A	B	C	D	E	F	
12	1/4	42	16	24	2 ³ / ₄	28 ¹ / ₄	23 ³ / ₈	2 ¹ / ₈	14 x 14
	1/4	42							
	1/4	42							
	1/3	44							
14	1/2	49	16	24	2 ³ / ₄	28 ¹ / ₄	23 ³ / ₈	4 ⁵ / ₈	14 x 14
	1/4	44							
	1/4	44							
	1/4	47							
18	1/3	46	20	28	3 ¹ / ₈	35 ¹ / ₈	25 ³ / ₄	4 ³ / ₄	18 x 18
	1/2	51							
	1/4	69							
	1/4	70							
24	1/3	70	28	36	3	42 ¹ / ₁₆	26	5 ¹ / ₄	24 x 24
	1/2	148							
	3/4	154							
	1	176							
	1/3	188							
30	1/2	193	36	44	3	53 ⁵ / ₁₆	31 ¹ / ₂	6	30 x 30
	3/4	202							
	1	210							
	1 ¹ / ₂	235							
	2	236							
36	1/2	258	44	52	3	62 ¹ / ₂	34 ³ / ₄	8 ¹ / ₂	36 x 36
	3/4	261							
	1	285							
	1 ¹ / ₂	296							
	2	297							
40	3	329	44	52	3	62 ¹ / ₂	34 ³ / ₄	8 ¹ / ₂	36 x 36
	1/2	353							
	3/4	356							
	1	370							
	1 ¹ / ₂	379							
40	2	380	44	52	3	62 ¹ / ₂	34 ³ / ₄	8 ¹ / ₂	36 x 36
	3	405							
	5	454							
	5	454							

D-3200-2

Models AWA | AWAB



Model AWA - Direct Drive

MODEL AWA	HP	RPM	WEIGHT (LBS.)	DIMENSIONS (INCHES)						BACKDRAFT DAMPER
				A	B	C	D	E	F	
07	1/15	1550	18	8	16	2	17 ¹ / ₄	8	11 ¹ / ₁₆	6 x 6
	1/12	860	50	12	20	3	25 ¹ / ₄	12 ¹ / ₈	18 ⁵ / ₈	10 x 10
10	1/8	1140	43	12	20	3	25 ¹ / ₄	12 ¹ / ₈	18 ⁵ / ₈	10 x 10
	1/6	1725	44	12	20	3	25 ¹ / ₄	12 ¹ / ₈	19 ³ / ₈	10 x 10
12	1/12	860	50	12	20	3	25 ¹ / ₄	12 ¹ / ₈	19 ³ / ₈	10 x 10
	1/8	1140	43	16	24	3	28 ⁷ / ₈	17 ¹ / ₂	28 ¹ / ₁₆	14 x 14
14	1/8	1140	67	16	24	3	28 ⁷ / ₈	17 ¹ / ₂	28 ¹ / ₁₆	14 x 14
	1/2	1725	73	20	28	3	36 ³ / ₄	25	32 ³ / ₈	18 x 18
18	1/4	860	118	20	28	3	36 ³ / ₄	25	32 ³ / ₈	18 x 18
	1/2	1140	130							

D-3300-1C

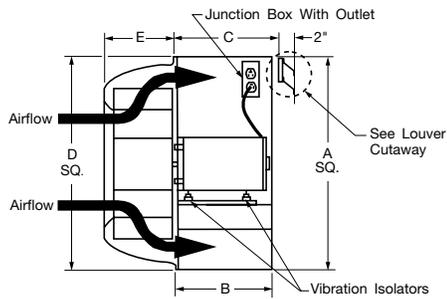
Model AWAB - Belt Driven

MODEL AWAB	HP	WEIGHT (LBS.)	DIMENSIONS (INCHES)						BACKDRAFT DAMPER
			A	B	C	D	E	F	
14	1/4	72	16	24	3	28 ⁷ / ₈	17 ¹ / ₂	28 ¹ / ₁₆	14 x 14
	1/4	73							
	1/4	75							
	1/3	74							
	1/2	76							
18	1/4	123	20	28	3	36 ³ / ₄	25	32 ³ / ₈	18 x 18
	1/4	125							
	1/3	129							
	1/2	133							
24	1/4	185	28	36	3	45 ³ / ₄	31	34 ¹ / ₁₆	24 x 24
	1/4	187							
	1/3	192							
	1/2	195							
	3/4	202							
30	1	205	36	44	3	59	34 ¹ / ₂	39 ³ / ₈	30 x 30
	1/3	265							
	1/2	269							
	3/4	287							
	1	291							
	1 ¹ / ₂	295							
36	2	307	44	52	3	69 ¹ / ₂	45	46 ¹ / ₁₆	36 x 36
	1/2	572							
	3/4	591							
	1	595							
	1 ¹ / ₂	599							
	2	611							
40	3	615	44	52	3	69 ¹ / ₂	45	46 ¹ / ₁₆	36 x 36
	5	625							
	1/2	632							
	3/4	658							
	1	675							
	1 ¹ / ₂	671							
	2	677							
3	681								
5	730								
7 ¹ / ₂	750								

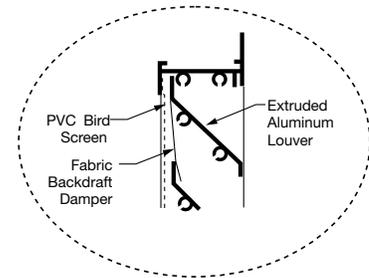
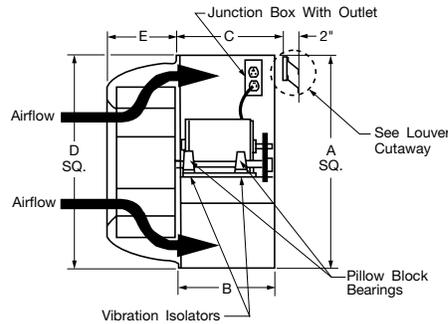
D-3300-2C

Models AHA | AHAB

Model AHA - Direct Drive



Model AHAB - Belt Drive



Louver Cutaway

Model AHA - Direct Drive

MODEL AHA	HP	RPM	WEIGHT (LBS.)	DIMENSIONS (INCHES)					
				A SQ.	B	C MAX.		D SQ.	E
						STD. MOTOR	SPECIAL MOTOR		
07	1/15	1550	30						
072	1/15	1550	30	12 ³ / ₄	6 ¹ / ₈	6 ¹ / ₂	NA	13	3 ⁷ / ₈
10	1/8	1140	70	20 ¹ / ₂	11 ³ / ₄	12 ¹ / ₈	13 ³ / ₄	20 ³ / ₄	6
	1/6	1725	75						
12	1/12	860	75	20 ¹ / ₂	11 ³ / ₄	12 ¹ / ₈	13 ³ / ₄	20 ³ / ₄	6
	1/8	1140	80						
	1/4	1725	75						
14	1/12	860	90	23 ¹ / ₂	13	13 ³ / ₈	14 ¹ / ₄	23 ³ / ₄	7 ⁷ / ₈
	1/8	1140	90						
	1/2	1725	105						
18	1/4	860	115	26	14	14 ³ / ₈	14 ³ / ₄	26 ¹ / ₄	8 ³ / ₄
	1/2	1140	115						

D-3100-1B

Dimension 'A' is the outside of the housing and the louver. Dimension 'D' is the outside of the trim angle.

Model AHAB - Belt Driven

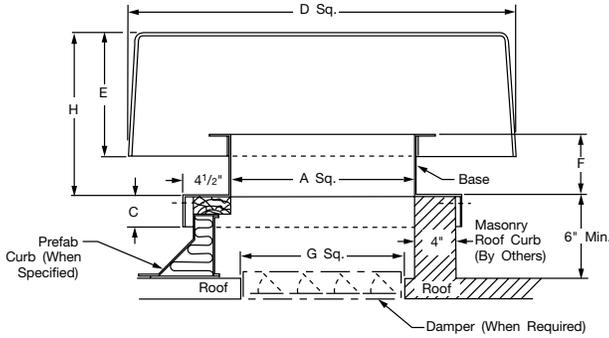
MODEL AHAB	HP	WEIGHT (LBS.)	DIMENSIONS (INCHES)					
			A SQ.	B	C MAX.		D SQ.	E
					STD. MOTOR	SPECIAL MOTOR		
12	1/4	75	20 ¹ / ₂	11 ³ / ₄	12 ¹ / ₈	16 ¹ / ₈	20 ³ / ₄	6
	1/4	80						
	1/4	80						
14	1/4	90	23 ¹ / ₂	13	13 ³ / ₈	18 ³ / ₈	23 ³ / ₄	7 ⁷ / ₈
	1/4	90						
	1/4	90						
	1/3	90						
	1/2	105						
18	1/4	105	26	14	14 ³ / ₈	17 ⁷ / ₈	26 ¹ / ₄	8 ³ / ₄
	1/4	115						
	1/3	115						
	1/2	115						
	3/4	120						
24	1/4	155	37	14 ¹ / ₂	14 ⁷ / ₈	17 ³ / ₈	37 ¹ / ₄	11 ¹¹ / ₁₆
	1/3	160						
	1/2	160						
	3/4	180						
	1	180						
30	1/3	250	46	16 ¹ / ₄	16 ⁵ / ₈	20 ⁵ / ₈	46 ¹ / ₄	15 ¹ / ₈
	1/2	255						
	3/4	255						
	1	260						
	1 ¹ / ₂	260						
	2	300						

D-3100-2B

Dimension 'A' is the outside of the housing and the louver. Dimension 'D' is the outside of the trim angle.

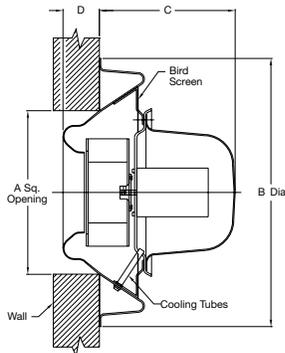
Models AMA | ASA

Model AMA - Square



MODEL AMA	DIMENSIONS (IN.)						DAMPER (IN. x IN.)	CURB SQ. O.D.
	A	C	D	E	F	H		
6	6	2	12 1/2	5	3	4 1/4 x 4 1/4	4 x 4	14
8	8	2	12 1/2	5	3	6 1/4 x 6 1/4	6 x 6	16
10	10	2	17 1/2	8	4	8 1/4 x 8 1/4	8 x 8	18
12	12	2	22	8	4	10 1/4 x 10 1/4	10 x 10	20
15	15	3	24	8	4	14 1/4 x 14 1/4	14 x 14	24
18	18	3	30	8	4	16 1/4 x 16 1/4	16 x 16	26
20	20	3	31 1/2	12	6	18 1/4 x 18 1/4	18 x 18	28
24	24	3	38	12	6	22 1/4 x 22 1/4	22 x 22	32
30	30	3	47 1/2	14 11/16	6	28 1/4 x 28 1/4	28 x 28	38
34	34	3	54	14 11/16	6	32 1/4 x 32 1/4	32 x 32	42
36	36	3	57	15	7	34 1/4 x 34 1/4	34 x 34	44
38	38	3	64 1/2	15	7	36 1/4 x 36 1/4	36 x 36	46
42	42	3	66	15	7	40 1/4 x 40 1/4	40 x 40	50
48	48	3	75	18	8	46 1/4 x 46 1/4	46 x 46	56
54	54	3	85	20	13	52 1/4 x 52 1/4	52 x 52	62
60	60	3	85	20	13	58 1/4 x 58 1/4	58 x 58	68

D-3500-2A



Model ASA - Direct Drive

MODEL ASA	HP	FAN RPM	DIMENSIONS (INCHES)				NET WT. (LBS.)	BACKDRAFT DAMPER*
			A	B	C	D		
071	1/15	1550	10	19 1/2	9 3/4	1 1/2	15	10 x 10
072	1/15	1550	10	19 1/2	9 3/4	1 1/2	15	
12	1/12	860	17	28	15	3 1/2	45	17 x 17
	1/8	1140	17	28	15	3 1/2	43	
	1/4	1725	17	28	15	3 1/2	45	
14	1/12	860	24	36 1/2	18 1/2	5	78	24 x 24
	1/8	1140	24	36 1/2	18 1/2	5	78	
	1/2	1725	24	36 1/2	18 1/2	5	80	

D-3400

* PVC damper to have 7/8" flanges. Aluminum damper to have 1 3/8" flanges.



Model

AFA

Fiberglass centrifugal roof ventilators shall be Fiber-Aire® downblast Model AFA direct drive as manufactured by Aerovent, Minneapolis, MN. Ventilators shall be specifically designed for the exhaust of moisture-laden, corrosive or chemically contaminated air where process temperatures will not exceed 150°F. Fiberglass, non-powered roof ventilators shall be molded with aerodynamically shaped venturi to provide minimum system resistance within gravity or positive pressure systems.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels.

CONSTRUCTION — Fan housings including aerodynamically shaped inlet venturi, windband skirt and motor cover shall be molded of high quality, beige-colored, fiberglass reinforced plastic resulting in assemblies that are virtually impossible to dent, crack, or break and are highly resistant to the effects of weather, salt spray and most chemicals. Polyester resin with properties equal or similar to Koppers Dion 6693 shall be used to provide high strength with ultraviolet light and chemical resistance. The resin shall have antimony trioxide added to provide fire retardancy with a flame spread rating of 25 or less when tested per ASTM-E84. Further, all component plastic surfaces are to be gel coated to provide the utmost in added corrosion protection. All fan housings shall have PVC encapsulated ½" x ½" mesh screens or guards fitted to the ventilator to keep out birds, leaves or other debris and maintain a high level of corrosion resistance.

After fabrication, the assembled fan impeller and all structural metal components in contact with the exhaust airstream shall be black epoxy coated (2 mils DFT minimum) for additional chemical resistance.

IMPELLERS — Fan impellers shall be of the airfoil centrifugal type (sizes 14 and 18) or the flat bladed, backward inclined type (sizes 07, 072, 09, 10 and 12), non-overloading design to couple non-overloading power limiting characteristics with performance of the highest efficiency and lowest noise generation. Airfoil blades on sizes 14 and 18 shall be extruded from aluminum and welded to the front and backplate of the impeller using jigs and fixtures to insure exact location and thus insure optimum fan performance. Airfoil impellers shall be epoxy coated. Flat bladed, backward inclined impellers on sizes 07, 072, 9, 10 and 12 shall be of polypropylene construction, securely fixed to a cast aluminum hub. A polypropylene option for sizes 14 and 18 shall be available.

The fan impeller shall be secured to the motor or fan shaft with knurled cup point setscrews. All recommended lubrication and maintenance shall be accomplished without removal and disassembly of the fan impeller.

MOTORS — All fan motors shall be located outside of the exhaust airstream, covered and protected from the weather by the fiberglass fan motor cover, and cooled by fresh air separate from the exhaust. Fan motors shall be manufactured in accordance with current applicable standards of IEEE, NEC and NEMA. They shall be heavy duty ball bearing open drip-proof type with a 1.15 service factor and closely matched to the fan load. All motors shall be UL and/or CSA listed.

Electrical wire leads of the motor shall be extended by the factory through an airtight vinyl coated flexible metal conduit and be wired to a properly sized non-fused disconnect switch contained within a terminal junction box mounted under the fan motor cover. To simplify installation, a conduit chase constructed of airtight vinyl coated flexible metal conduit shall be provided through fiberglass curb cap to the motor compartment for field supply conductors.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at the specified operating speed or maximum RPM allowed for the particular construction type. Each impeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its fiberglass ventilators for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



Model

AFAB

Fiberglass centrifugal roof and wall ventilators shall be Fiber-Aire® downblast Model AFAB belt driven as manufactured by Aerovent, Minneapolis, MN. Ventilators shall be specifically designed for the exhaust of moisture-laden, corrosive or chemically contaminated air where process temperatures will not exceed 150°F. Fiberglass, non-powered roof ventilators shall be molded with aerodynamically shaped venturi to provide minimum system resistance within gravity or positive pressure systems.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels.

CONSTRUCTION — Fan housings including aerodynamically shaped inlet venturi, windband skirt and motor cover shall be molded of high quality, beige-colored, fiberglass reinforced plastic resulting in assemblies that are virtually impossible to dent, crack, or break and are highly resistant to the effects of weather, salt spray and most chemicals. Polyester resin with properties equal or similar to Koppers Dion 6693 shall be used to provide high strength with ultraviolet light and chemical resistance. The resin shall have antimony trioxide added to provide fire retardancy with a flame spread rating of 25 or less when tested per ASTM-E84. Further, all component plastic surfaces are to be gel coated to provide the utmost in added corrosion protection. All fan housings shall have PVC encapsulated ½" x ½" mesh screens or guards fitted to the ventilator to keep out birds, leaves or other debris and maintain a high level of corrosion resistance.

After fabrication, the assembled fan impeller and all structural metal components in contact with the exhaust airstream shall be black epoxy coated (2 mils DFT minimum) for additional chemical resistance.

IMPELLERS — Fan impellers shall be of the airfoil centrifugal type (sizes 14 through 36) or the flat bladed, backward inclined type (sizes 07, 072, 9, 10, 12 and 40), non-overloading design to couple non-overloading power limiting characteristics with performance of the highest efficiency and lowest noise generation. Airfoil blades on sizes 14 through 36 shall be extruded from aluminum and welded to the front and backplate of the impeller using jigs and fixtures to insure exact location and thus insure optimum fan performance. Airfoil impellers shall be epoxy coated. Flat bladed, backward inclined impellers sizes on 07, 072, 9, 10, 12 and 40 shall be of polypropylene construction, securely fixed to a cast aluminum hub. A polypropylene option for sizes 14 through 36 shall be available. The fan impeller shall be secured to the motor or fan shaft with knurled cup point setscrews. All recommended lubrication and maintenance shall be accomplished without removal and disassembly of the fan impeller.

DRIVES & BEARINGS — All motors and drives for belt driven fans shall be located outside of the exhaust airstream, covered and protected from the weather by the fiberglass fan top cap, and cooled by fresh air separate from the exhaust. Belt driven fan drives shall be sized for a minimum of 150% of driven horsepower. Belt driven fans shall be provided with machined, cast iron motor sheaves that shall be adjustable for final system balance. Fan shafts shall be precision ground and polished 304 SS. Shafts shall have a first critical speed of at least 125% of the fan's maximum operating speed. Bearings for belt driven fans shall be of the one-piece, cast iron, pillow block type with relubricable zerk fittings. Bearings shall be designed for service with a minimum L-10 life as defined by AFBMA in excess of 40,000 hours (200,000 hours L-50 average life) at the maximum cataloged operating speed.

MOTORS — All fan motors shall be located outside of the exhaust airstream, covered and protected from the weather by the fiberglass fan motor cover, and cooled by fresh air separate from the exhaust. Fan motors shall be manufactured in accordance with current applicable standards of IEEE, NEC and NEMA. They shall be heavy duty ball bearing open drip-proof type with a 1.15 service factor and closely matched to the fan load. All motors shall be UL and/or CSA listed.

Electrical wire leads of the motor shall be extended by the factory through an airtight vinyl coated flexible metal conduit and be wired to a properly sized non-used disconnect switch contained within a terminal junction box mounted under the fan motor cover. To simplify installation, a conduit chase constructed of airtight vinyl coated flexible metal conduit shall be provided through fiberglass curb cap to the motor compartment for field supply conductors.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at the specified operating speed or maximum RPM allowed for the particular construction type. Each impeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its fiberglass ventilators for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



Model

AWA

Fiberglass centrifugal roof ventilators shall be Whirlout® upblast Model AWA direct drive as manufactured by Aerovent, Minneapolis, MN. Ventilators shall be specifically designed for the exhaust of moisture-laden, corrosive or chemically contaminated air where process temperatures will not exceed 150°F. Fiberglass, non-powered roof ventilators shall be molded with aerodynamically shaped venturi to provide minimum system resistance within gravity or positive pressure systems.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels.

CONSTRUCTION — Fan housings including aerodynamically shaped inlet venturi, windband skirt and motor cover shall be molded of high quality, beige-colored, fiberglass reinforced plastic resulting in assemblies that are virtually impossible to dent, crack, or break and are highly resistant to the effects of weather, salt spray and most chemicals. Polyester resin with properties equal or similar to Koppers Dion 6693 shall be used to provide high strength with ultraviolet light and chemical resistance. The resin shall have antimony trioxide added to provide fire retardancy with a flame spread rating of 25 or less when tested per ASTM-E84. Further, all component plastic surfaces are to be gel coated to provide the utmost in added corrosion protection. All fan housings shall have PVC encapsulated ½" x ½" mesh screens or guards fitted to the airflow guides and basket supports to keep out birds, leaves or other debris and maintain a high level of corrosion resistance.

After fabrication, the assembled fan impeller and all structural metal components in contact with the exhaust airstream shall be black epoxy coated (2 mils DFT minimum) for additional chemical resistance.

IMPELLERS — Fan impellers shall be of the airfoil centrifugal type (sizes 14 and 18) or the flat bladed, backward inclined type (sizes 07, 10 and 12), non-overloading design to couple non-overloading power limiting characteristics with performance of the highest efficiency and lowest noise generation. Airfoil blades on sizes 14 and 18 shall be extruded from aluminum and welded to the front and backplate of the impeller using jigs and fixtures to insure exact location and thus insure optimum fan performance. Airfoil impellers shall be epoxy coated. Flat bladed, backward inclined impellers on sizes 07, 10 and 12 shall be of polypropylene construction, securely fixed to a cast aluminum hub. A polypropylene option for sizes 14 through 18 shall be available.

The fan impeller shall be secured to the motor or fan shaft with knurled cup point setscrews. All recommended lubrication and maintenance shall be accomplished without removal and disassembly of the fan impeller.

MOTORS — All fan motors shall be located outside of the exhaust airstream, covered and protected from the weather by the fiberglass fan motor cover, and cooled by fresh air separate from the exhaust. Fan motors shall be manufactured in accordance with current applicable standards of IEEE, NEC and NEMA. They shall be heavy duty ball bearing open drip-proof type with a 1.15 service factor and closely matched to the fan load. All motors shall be UL and/or CSA listed.

Electrical wire leads of the motor shall be extended by the factory through an airtight vinyl coated flexible metal conduit and be wired to a properly sized non-fused disconnect switch contained within a terminal junction box mounted under the fan motor cover. To simplify installation, a conduit chase constructed of airtight vinyl coated flexible metal conduit shall be provided through fiberglass curb cap to the motor compartment for field supply conductors.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at the specified operating speed or maximum RPM allowed for the particular construction type. Each impeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its fiberglass ventilators for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



Model

AWAB

Fiberglass centrifugal roof ventilators shall be Whirlout® upblast Model AWAB belt driven as manufactured by Aerovent, Minneapolis, MN. Ventilators shall be specifically designed for the exhaust of moisture-laden, corrosive or chemically contaminated air where process temperatures will not exceed 150°F. Fiberglass, non-powered roof ventilators shall be molded with aerodynamically shaped venturi to provide minimum system resistance within gravity or positive pressure systems.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels.

CONSTRUCTION — Fan housings including aerodynamically shaped inlet venturi, windband skirt and motor cover shall be molded of high quality, beige-colored, fiberglass reinforced plastic resulting in assemblies that are virtually impossible to dent, crack, or break and are highly resistant to the effects of weather, salt spray and most chemicals. Polyester resin with properties equal or similar to Koppers Dion 6693 shall be used to provide high strength with ultraviolet light and chemical resistance. The resin shall have antimony trioxide added to provide fire retardancy with a flame spread rating of 25 or less when tested per ASTM-E84. Further, all component plastic surfaces are to be gel coated to provide the utmost in added corrosion protection. All fan housings shall have PVC encapsulated 1/2" x 1/2" mesh screens or guards fitted to the airflow guides and basket supports to keep out birds, leaves or other debris and maintain a high level of corrosion resistance.

After fabrication, the assembled fan impeller and all structural metal components in contact with the exhaust airstream shall be black epoxy coated (2 mils DFT minimum) for additional chemical resistance.

IMPELLERS — Fan impellers shall be of the airfoil centrifugal type (sizes 14 through 36) or the flat bladed, backward inclined type (sizes 07, 10 and 12), non-overloading design to couple non-overloading power limiting characteristics with performance of the highest efficiency and lowest noise generation. Airfoil blades on sizes 14 through 36 shall be extruded from aluminum and welded to the front and backplate of the impeller using jigs and fixtures to insure exact location and thus insure optimum fan performance. Airfoil impellers shall be epoxy coated. Flat bladed, backward inclined impellers on sizes 07, 10 and 12 shall be of polypropylene construction, securely fixed to a cast aluminum hub. A polypropylene option for sizes 14 through 36 shall be available.

The fan impeller shall be secured to the motor or fan shaft with knurled cup point setscrews. All recommended lubrication and maintenance shall be accomplished without removal and disassembly of the fan impeller.

DRIVES & BEARINGS — All motors and drives for belt driven fans shall be located outside of the exhaust airstream, covered and protected from the weather by the fiberglass fan top cap, and cooled by fresh air separate from the exhaust. Belt driven fan drives shall be sized for a minimum of 150% of driven horsepower. Belt driven fans shall be provided with machined, cast iron motor sheaves that shall be adjustable for final system balance. Fan shafts shall be precision ground and polished 304 SS. Shafts shall have a first critical speed of at least 125% of the fan's maximum operating speed. Bearings for belt driven fans shall be of the one-piece, cast iron, pillow block type with relubricable zerk fittings. Bearings shall be designed for service with a minimum L-10 life as defined by AFBMA in excess of 40,000 hours (200,000 hours L-50 average life) at the maximum cataloged operating speed.

MOTORS — All fan motors shall be located outside of the exhaust airstream, covered and protected from the weather by the fiberglass fan motor cover, and cooled by fresh air separate from the exhaust. Fan motors shall be manufactured in accordance with current applicable standards of IEEE, NEC and NEMA. They shall be heavy duty ball bearing open drip-proof type with a 1.15 service factor and closely matched to the fan load. All motors shall be UL and/or CSA listed.

Electrical wire leads of the motor shall be extended by the factory through an airtight vinyl coated flexible metal conduit and be wired to a properly sized non-fused disconnect switch contained within a terminal junction box mounted under the fan motor cover. To simplify installation, a conduit chase constructed of airtight vinyl coated flexible metal conduit shall be provided through fiberglass curb cap to the motor compartment for field supply conductors.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at the specified operating speed or maximum RPM allowed for the particular construction type. Each impeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its fiberglass ventilators for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



Model AHA

Fiberglass centrifugal wall ventilators shall be Hid-N-Aire® wall flush mounted Model AHA direct drive as manufactured by Aerovent, Minneapolis, MN. Ventilators shall be specifically designed for the exhaust of moisture-laden, corrosive or chemically contaminated air where process temperatures will not exceed 150°F. Fiberglass, non-powered roof ventilators shall be molded with aerodynamically shaped venturi to provide minimum system resistance within gravity or positive pressure systems.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels.

CONSTRUCTION — Fan housings including aerodynamically shaped inlet venturi, and windband skirt shall be molded of high quality, beige-colored, fiberglass reinforced plastic resulting in assemblies that are virtually impossible to dent, crack, or break and are highly resistant to the effects of weather, salt spray and most chemicals. Polyester resin with properties equal or similar to Koppers Dion 6693 shall be used to provide high strength with ultra-violet light and chemical resistance. The resin shall have antimony trioxide added to provide fire retardancy with a flame spread rating of 25 or less when tested per ASTM-E84. Further, all component plastic surfaces are to be gel coated to provide the utmost in added corrosion protection.

After fabrication, the assembled fan impeller and all structural metal components in contact with the exhaust airstream (including the wall box on model HA) shall be black epoxy coated (2 mils DFT minimum) for additional chemical resistance.

The Hid-N-Aire® ventilator shall consist of a fiberglass inlet venturi panel bolted to a wall box that contains a belt driven impeller assembly prewired with a plug and cord, a plug-in electrical receptacle mounted to the inside of the wall box and an extruded aluminum exterior louver with integral PVC bird screen and automatic fabric backdraft damper. The entire power assembly including the motor, mounting plate on vibration isolation, fan shaft and bearings and impeller assembly shall be easily removable from the interior or exterior of the building by removing the exterior louver or the inlet fiberglass venturi panel. Only four bolts must be removed to easily slide out from the power assembly from the wall box.

IMPELLERS — Fan impellers shall be of the airfoil centrifugal type (sizes 14 and 18) or the flat bladed, backward inclined type (sizes 07, 072, 10 and 12), non-overloading design to couple non-overloading power limiting characteristics with performance of the highest efficiency and lowest noise generation. Airfoil blades on sizes 14 and 18 shall be extruded from aluminum and welded to the front and backplate of the impeller using jigs and fixtures to insure exact location and thus insure optimum fan performance. Airfoil impellers shall be epoxy coated. Flat bladed, backward inclined impellers on sizes 07, 072, 10 and 12 shall be of polypropylene construction, securely fixed to a cast aluminum hub. A polypropylene option for sizes 14 and 18 shall be available.

The fan impeller shall be secured to the motor or fan shaft with knurled cup point setscrews. All recommended lubrication and maintenance shall be accomplished without removal and disassembly of the fan impeller.

MOTORS — All fan motors shall be located outside of the exhaust airstream, covered and protected from the weather by the fiberglass fan motor cover, and cooled by fresh air separate from the exhaust. Fan motors shall be manufactured in accordance with current applicable standards of IEEE, NEC and NEMA. They shall be heavy duty ball bearing open drip-proof type with a 1.15 service factor and closely matched to the fan load. All motors shall be UL and/or CSA listed.

Motors shall be prewired with a plug and cord for insertion into a properly sized terminal junction box mounted inside the wall box.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at the specified operating speed or maximum RPM allowed for the particular construction type. Each impeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its fiberglass ventilators for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



Model

AHAB

Fiberglass centrifugal roof and wall ventilators shall be Hid-N-Aire® wall flush mounted Model AHAB belt driven as manufactured by Aerovent, Minneapolis, MN. Ventilators shall be specifically designed for the exhaust of moisture-laden, corrosive or chemically contaminated air where process temperatures will not exceed 150°F. Fiberglass, non-powered roof ventilators shall be molded with aerodynamically shaped venturi to provide minimum system resistance within gravity or positive pressure systems.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels.

CONSTRUCTION — Fan housings including aerodynamically shaped inlet venturi, and windband skirt shall be molded of high quality, beige-colored, fiberglass reinforced plastic resulting in assemblies that are virtually impossible to dent, crack or break and are highly resistant to the effects of weather, salt spray and most chemicals. Polyester resin with properties equal or similar to Koppers Dion 6693 shall be used to provide high strength with ultra-violet light and chemical resistance. The resin shall have antimony trioxide added to provide fire retardancy with a flame spread rating of 25 or less when tested per ASTM-E84. Further, all component plastic surfaces are to be gel coated to provide the utmost in added corrosion protection.

After fabrication, the assembled fan impeller and all structural metal components in contact with the exhaust airstream (including the wall box on model HAB) shall be black epoxy coated (2 mils DFT minimum) for additional chemical resistance.

The Hid-N-Aire® ventilator shall consist of a fiberglass inlet venturi panel bolted to a wall box that contains a belt driven impeller assembly prewired with a plug and cord, a plug-in electrical receptacle mounted to the inside of the wall box and an extruded aluminum exterior louver with integral PVC bird screen and automatic fabric backdraft damper. The entire power assembly including the motor, mounting plate on vibration isolation, fan shaft and bearings and impeller assembly shall be easily removable from the interior or exterior of the building by removing the exterior louver or the inlet fiberglass venturi panel. Only four bolts must be removed to easily slide out from the power assembly from the wall box.

IMPELLERS — Fan impellers shall be of the airfoil centrifugal type (sizes 14 through 30) or the flat bladed, backward inclined type (sizes 07, 072, 10 and 12), non-overloading design to couple non-overloading power limiting characteristics with performance of the highest efficiency and lowest noise generation. Airfoil blades on sizes 14 through 30 shall be extruded from aluminum and welded to the front and backplate of the impeller using jigs and fixtures to insure exact location and thus insure optimum fan performance. Airfoil impellers shall be epoxy coated. Flat bladed, backward inclined impellers on sizes 07, 072, 10 and 12 shall be of polypropylene construction, securely fixed to a cast aluminum hub. A polypropylene option for sizes 14 through 30 shall be available.

The fan impeller shall be secured to the motor or fan shaft with knurled cup point setscrews. All recommended lubrication and maintenance shall be accomplished without removal and disassembly of the fan impeller.

DRIVES & BEARINGS — All motors and drives for belt driven fans shall be located outside of the exhaust airstream, covered and protected from the weather by the fiberglass fan top cap, and cooled by fresh air separate from the exhaust. Belt driven fan drives shall be sized for a minimum of 150% of driven horsepower. Belt driven fans shall be provided with machined, cast iron motor sheaves that shall be adjustable for final system balance. Fan shafts shall be precision ground and polished 304 SS. Shafts shall have a first critical speed of at least 125% of the fan's maximum operating speed. Bearings for belt driven fans shall be of the one-piece, cast iron, pillow block type with relubricable zerk fittings. Bearings shall be designed for service with a minimum L-10 life as defined by AFBMA in excess of 40,000 hours (200,000 hours L-50 average life) at the maximum cataloged operating speed.

MOTORS — All fan motors shall be located outside of the exhaust airstream, covered and protected from the weather by the fiberglass fan motor cover, and cooled by fresh air separate from the exhaust. Fan motors shall be manufactured in accordance with current applicable standards of IEEE, NEC and NEMA. They shall be heavy duty ball bearing open drip-proof type with a 1.15 service factor and closely matched to the fan load. All motors shall be UL and/or CSA listed.

Motors shall be prewired with a plug and cord for insertion into a properly sized terminal junction box mounted inside the wall box.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at the specified operating speed or maximum RPM allowed for the particular construction type. Each impeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its fiberglass ventilators for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



Model

ASA

Fiberglass centrifugal wall ventilators shall be Fiber-Aire® wall Model ASA direct drive as manufactured by Aerovent, Minneapolis, MN. Ventilators shall be specifically designed for the exhaust of moisture-laden, corrosive or chemically contaminated air where process temperatures will not exceed 150°F. Fiberglass, non-powered roof ventilators shall be molded with aerodynamically shaped venturi to provide minimum system resistance within gravity or positive pressure systems.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels.

CONSTRUCTION — Fan housings including aerodynamically shaped inlet venturi, windband skirt, and motor cover shall be molded of high quality, beige-colored, fiberglass reinforced plastic resulting in assemblies that are virtually impossible to dent, crack, or break and are highly resistant to the effects of weather, salt spray and most chemicals. Polyester resin with properties equal or similar to Koppers Dion 6693 shall be used to provide high strength with ultraviolet light and chemical resistance. The resin shall have antimony trioxide added to provide fire retardancy with a flame spread rating of 25 or less when tested per ASTM-E84. Further, all component plastic surfaces are to be gel coated to provide the utmost in added corrosion protection. All fan housings shall have PVC encapsulated 1/2" x 1/2" mesh screens or guards fitted to the ventilator to keep out birds, leaves or other debris and maintain a high level of corrosion resistance.

After fabrication, the assembled fan impeller and all structural metal components in contact with the exhaust airstream shall be black epoxy coated (2 mils DFT minimum) for additional chemical resistance.

IMPELLERS — Fan impellers shall be of the airfoil centrifugal type (size 14) or the flat bladed, backward inclined type (sizes 07, 072 and 12), non-overloading design to couple non-overloading power limiting characteristics with performance of the highest efficiency and lowest noise generation. Airfoil blades on size 14 shall be extruded from aluminum and welded to the front and backplate of the impeller using jigs and fixtures to insure exact location and thus insure optimum fan performance. Airfoil impellers shall be epoxy coated. Flat bladed, backward inclined impellers on sizes 07, 072 and 12 shall be of polypropylene construction, securely fixed to a cast aluminum hub. A polypropylene option for size 14 shall be available.

The fan impeller shall be secured to the motor or fan shaft with knurled cup point setscrews. All recommended lubrication and maintenance shall be accomplished without removal and disassembly of the fan impeller.

MOTORS — All fan motors shall be located outside of the exhaust airstream, covered and protected from the weather by the fiberglass fan motor cover and cooled by fresh air separate from the exhaust. Fan motors shall be manufactured in accordance with current applicable standards of IEEE, NEC and NEMA. They shall be heavy duty ball bearing open drip-proof type with a 1.15 service factor and closely matched to the fan load. All motors shall be UL and/or CSA listed.

Electrical wire leads of the motor shall be extended by the factory through an airtight vinyl coated flexible metal conduit and be wired to a properly sized non-fused disconnect switch contained within a terminal junction box mounted under the fan motor cover. To simplify installation, a conduit chase constructed of airtight vinyl coated flexible metal conduit shall be provided through fiberglass inlet venturi to the motor compartment for field supply conductors.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at the specified operating speed or maximum RPM allowed for the particular construction type. Each impeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its fiberglass ventilators for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



Model

AMA

Fiberglass relief and gravity roof ventilators shall be Module-Aire® Model AMA (square) as manufactured by Aerovent, Minneapolis, MN. Ventilators shall be specifically designed for the exhaust of moisture-laden, corrosive or chemically contaminated air where process temperatures will not exceed 150°F. Fiberglass, non-powered roof ventilators shall be molded with aerodynamically shaped venturi to provide minimum system resistance within gravity or positive pressure systems.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels.

CONSTRUCTION — Ventilators shall be a simple two-piece assembly that includes a curb cap base and top cap and ½" x ½" PVC bird screen.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its fiberglass ventilators for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.

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