

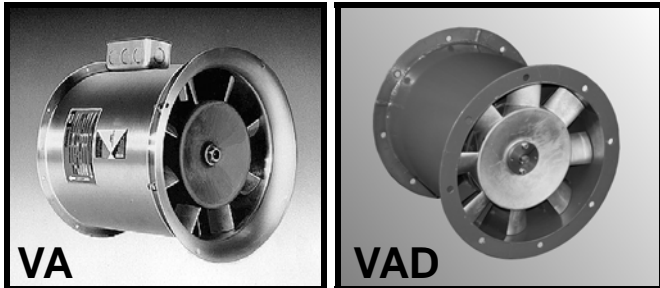
# Type VA Vanax Fans



# Type VA

## Models VA and VAD

**DIRECT DRIVE — 207 to 7,278 CFM**  
**STATIC PRESSURES UP TO 2-1/2"**



### Construction

Model VA fans feature a spun aluminum casing and a sturdy cast aluminum vane section. Model VAD fans feature a rolled steel casing with a formed steel vane section. Both the steel casing and vane section are coated with a protective epoxy paint finish.

The vane section for both the VA and VAD also serves as the motor mount for the fan, and the cast aluminum rotor is mounted directly to the motor shaft. This direct drive arrangement provides years of maintenance-free service.

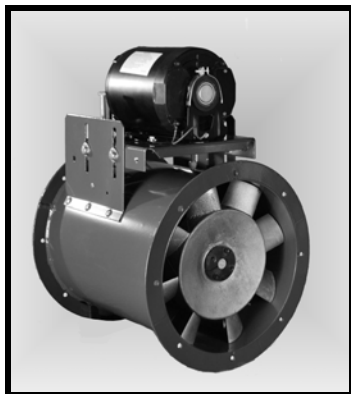
## Model VAB

**BELT DRIVE — 1,004 to 6,486 CFM**  
**STATIC PRESSURES UP TO 2-1/2"**

### Construction

Model VAB fans feature a rolled steel casing with a formed steel vane section. Both the steel casing and vane section are coated with a protective epoxy paint finish.

Motors for the VAB are mounted such that they are isolated from the airstream. A steel enclosure protects the drive components from the airstream, lengthening both bearing and belt life. Variable pitch motor pulleys provide a wide adjustment of fan speed. This allows the performance of a VAB unit to be precisely matched to the system in which it operates.



### Application

American Coolair *Vanax* fans are true vane axial fans designed for a wide range of commercial and industrial applications. High pressure efficiency permits the fans to be installed anywhere in the system — in any position. The fans can be used for either supply or exhaust by simply turning the entire unit to move air in the desired direction.

*Vanax* fans are extremely compact and well suited to locations where space is limited, and can often be easily mounted directly to the ductwork. As a result of very close tolerances and carefully matched vanes and rotors, *Vanax* fans offer exceptional performance across its size range.

### Motors

Totally enclosed motors are standard. Several alternatives are available to fit your specific needs, such as explosion proof.

Only nationally recognized brand motors with nationwide service facilities are used.

Motor availability is limited on certain fan models. Contact your American Coolair representative for more information.

Totally enclosed type, single phase motors have built-in overload protection, other motors require separate overload protection.

### Finish

VAD and VAB parts requiring painting are processed through the advanced American Coolair multi-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. These parts are then powder coated with epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance.

### Listings



UL705 – E39944

Type VA, VAD, and VAB ventilators are listed by Underwriters Laboratory, Inc. to U.S. and Canadian safety standards.

Certified ratings licensed by AMCA (Air Movement and Control Association International, Inc.), for both air and sound performance, are available for all *Vanax* fans.

# Performance Ratings



American Coolair Corporation certifies that the Type VA, VAD, and VAB fan models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

# Typical Specifications

Vane axial fans shall be American Coolair Type VA, VAD, and VAB as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan housing shall be made of aluminum with cast aluminum vane section (VA) or epoxy paint coated steel with formed steel vane section (VAD and VAB). Fan rotor shall be cast aluminum. Direct drive motors shall be totally-enclosed and have permanently lubricated ball bearings. Belt drive motors shall be located out of the airstream, and the motor pulleys shall be variable pitch. Fans shall be licensed to bear the AMCA Certified Ratings Seal for Sound and Air Performance. (Specify for each fan model in schedule the required CFM and static pressure; motor enclosure, phase and voltage. List accessories — as described on the back cover — as required.)

## VA and VAD — Direct Drive

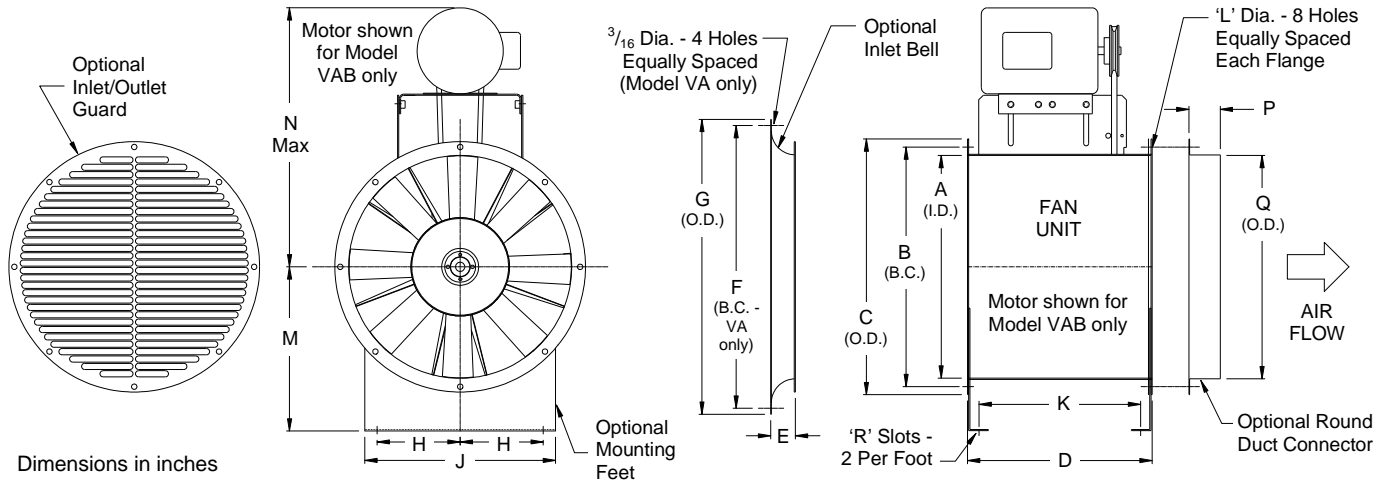
Item No.	Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,5</sup>									Fan Model <sup>2</sup>	Fan Size	Motor HP	Fan RPM	Sone Rating <sup>3</sup>	MAX BHP <sup>4,5</sup>	Approx. Ship Wt.
	0"	1/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"							
1	292	249	207	---	---	---	---	---	---	VA6D34	6	1/12	3400	7.6	0.04	9
2	511	456	391	---	---	---	---	---	---	VA7D32	7	1/12	3225	8.6	0.07	12
3	758	711	659	603	540	---	---	---	---	VA8H35	8	1/3	3550	14.8	0.21	21
4	994	948	895	834	757	674	---	---	---	VA85H35	85	1/3	3525	15.6	0.27	22
5	1,291	1,235	1,171	1,096	1,001	891	---	---	---	VA9H35	9	1/3	3500	17.1	0.33	23
6	1,502	1,434	1,357	1,268	1,164	1,049	918	---	---	VA95H34	95	1/3	3475	18.1	0.39	24
7	1,811	1,730	1,644	1,551	1,439	1,289	1,142	---	---	VA10H34	10	1/3	3450	21	0.50	25
8	1,095	955	---	---	---	---	---	---	---	VAD12H17	12	1/3	1790	11.5	0.10	56
9	2,156	2,085	2,014	1,943	1,872	1,796	1,708	---	---	VAD12K35	12	3/4	3525	30	0.77	58
10	1,822	1,608	---	---	---	---	---	---	---	VAD14H17	14	1/3	1780	12.1	0.18	61
11	3,608	3,507	3,401	3,290	3,174	3,049	2,906	2,542	2,149	VAD14M35	14	1 1/2	3525	31	1.43	73
12	2,648	2,368	1,958	---	---	---	---	---	---	VAD16H17	16	1/3	1770	17.8	0.30	65
13	5,274	5,153	5,021	4,875	4,710	4,520	4,311	3,885	3,470	VAD16N35	16	2	3525	37	2.41	79
14	3,634	3,276	2,800	---	---	---	---	---	---	VAD18H17	18	1/3	1760	19.2	0.42	69
15	7,278	7,119	6,948	6,764	6,563	6,342	6,103	5,613	5,090	VAD18P35	18	3	3525	54	3.37	85

## VAB — Belt Drive

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,5</sup>									Fan Model <sup>2</sup>	Fan Size	Motor HP	Fan RPM	Sone Rating <sup>3</sup>	MAX BHP <sup>4,5</sup>	Approx. Ship Wt.
	0"	1/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"							
1	1,244	1,133	1,004	---	---	---	---	---	---	VAB12G	12	1/4	2186	12.9	0.25	73
2	1,369	1,270	1,159	1,014	---	---	---	---	---	VAB12H	12	1/3	2406	15.2	0.33	73
3	1,571	1,485	1,392	1,289	1,155	---	---	---	---	VAB12J	12	1/2	2760	19.0	0.50	79
4	1,797	1,722	1,644	1,560	1,468	1,353	---	---	---	VAB12K	12	3/4	3157	23	0.75	88
5	1,790	1,583	1,319	---	---	---	---	---	---	VAB14G	14	1/4	1869	13.4	0.25	77
6	1,968	1,785	1,551	---	---	---	---	---	---	VAB14H	14	1/3	2054	15.4	0.33	77
7	2,262	2,108	1,918	1,707	---	---	---	---	---	VAB14J	14	1/2	2361	19.0	0.50	84
8	2,586	2,454	2,301	2,121	1,937	---	---	---	---	VAB14K	14	3/4	2699	23	0.75	87
9	2,844	2,726	2,593	2,439	2,271	2,103	---	---	---	VAB14L	14	1	2969	27	1.00	90
10	2,590	2,338	---	---	---	---	---	---	---	VAB16H	16	1/3	1814	15.7	0.33	84
11	2,963	2,751	2,476	---	---	---	---	---	---	VAB16J	16	1/2	2075	19.4	0.50	90
12	3,390	3,209	2,993	2,721	---	---	---	---	---	VAB16K	16	3/4	2374	24	0.75	94
13	3,731	3,569	3,383	3,160	2,891	2,574	---	---	---	VAB16L	16	1	2613	28	1.00	100
14	4,275	4,136	3,982	3,809	3,608	3,376	3,111	---	---	VAB16M <sup>6</sup>	16	1 1/2	2994	34	1.50	94
15	4,701	4,575	4,439	4,290	4,123	3,935	3,722	3,226	---	VAB16N <sup>6</sup>	16	2	3292	41	2.00	97
16	4,503	4,226	3,930	3,606	3,235	2,815	---	---	---	VAB18L	18	1	2290	27	1.00	105
17	5,149	4,907	4,654	4,387	4,098	3,776	3,424	---	---	VAB18M <sup>6</sup>	18	1 1/2	2618	33	1.50	98
18	5,666	5,447	5,221	4,984	4,735	4,466	4,172	3,509	---	VAB18N <sup>6</sup>	18	2	2881	39	2.00	101
19	6,486	6,296	6,100	5,899	5,691	5,474	5,246	4,739	4,171	VAB18P <sup>6</sup>	18	3	3298	49	3.00	123

- 1 — Performance certified is for Installation Type B: free inlet, ducted outlet. Performance includes the effects of an inlet bell.
- 2 — The first two or three letters of the model number identify fan type. The next two numbers indicate fan size, the next letter identifies motor horsepower. For direct drive fans, the last two numbers indicate fan speed. Example: Model VAD14M35 is Type "VAD" (direct drive) 14" size, 1-1/2 H.P., 3525 RPM.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type B: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) does not include transmission losses. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points, contact your American Coolair representative.
- 5 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m<sup>3</sup>/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).
- 6 — These models use a 3450 RPM motor with a maximum 145T frame size.

# Ventilator and Accessory Dimensions



Dimensions in inches

Fan Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	Outlet Area, ft <sup>2</sup>
6	6	7	7 1/2	6 3/4	1	7 3/4	8 1/4	2 1/4	7	5 9/16	7/32	4 5/8	5 5/8	4	6	9/32 x 1 1/4	0.20
7	7	8	8 1/2	6 3/4	1	8 3/4	9 1/4	2 3/4	8	5 9/16	7/32	5 1/8	6 1/8	4	7	9/32 x 1 1/4	0.27
8	8	9	9 1/2	10 1/4	1	9 3/4	10 1/4	3 1/4	9	9	7/32	5 5/8	6 5/8	4	8	9/32 x 1 1/4	0.35
85	8 1/2	9 1/2	10	10 1/4	1	10 1/4	10 3/4	3 1/2	9 1/2	9	7/32	5 7/8	6 7/8	4	8 1/2	9/32 x 1 1/4	0.39
9	9	10	10 1/2	10 1/4	1	10 3/4	11 1/4	3 3/4	10	9	7/32	6 1/8	7 1/8	4	9	9/32 x 1 1/4	0.44
95	9 1/2	10 1/2	11	10 1/4	1	11 1/4	11 3/4	4	10 1/2	9	7/32	6 3/8	7 3/8	4	9 1/2	9/32 x 1 1/4	0.49
10	10	11	11 1/2	10 1/4	1	11 3/4	12 1/4	4 1/4	11	9	7/32	6 5/8	7 5/8	4	10	9/32 x 1 1/4	0.54
12	12 1/8	13 1/8	14 13/16	15	2 1/16	—	18	4 3/4	11 1/2	13 3/16	3/8	9 5/16	17	1 1/4	12 3/16	13/32 x 1	0.80
14	14 1/8	15 3/8	16 13/16	15	2 1/16	—	20	5 1/4	12 1/2	13 3/16	3/8	10 5/16	19 1/2	1 1/4	14 3/16	13/32 x 1	1.09
16	16 1/8	17 3/8	18 13/16	15	2 1/16	—	22	5 15/16	13 7/8	13 3/16	3/8	11 5/16	20	1 3/8	16 3/16	13/32 x 1	1.42
18	18 1/8	19 1/2	20 13/16	15	2 1/16	—	24	6 3/4	15 1/2	13 1/8	3/8	13 5/16	21	1 1/4	18 3/16	13/32 x 1	1.79

## Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from date of shipment from factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

### WARNING

### CAUTION



**DO NOT** INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.



REPRESENTED BY: