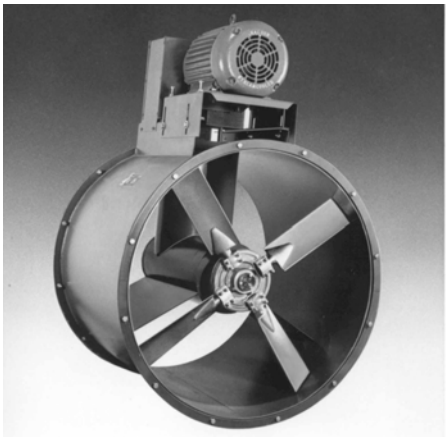
Type TEBC Duct Fans

AMERICAN Coolair®

Type TEBC
Belt Drive Axial Duct Fans
2,600 CFM to 52,000 CFM to 1-1/4" Static Pressure



Application

Type TEBC duct fans are designed to operate reliably in all environments including elevated temperature (up to 250° F) or contaminated air. TEBC units are suggested for many commercial and industrial uses such as make-up air systems, booster fans, or return air fans.

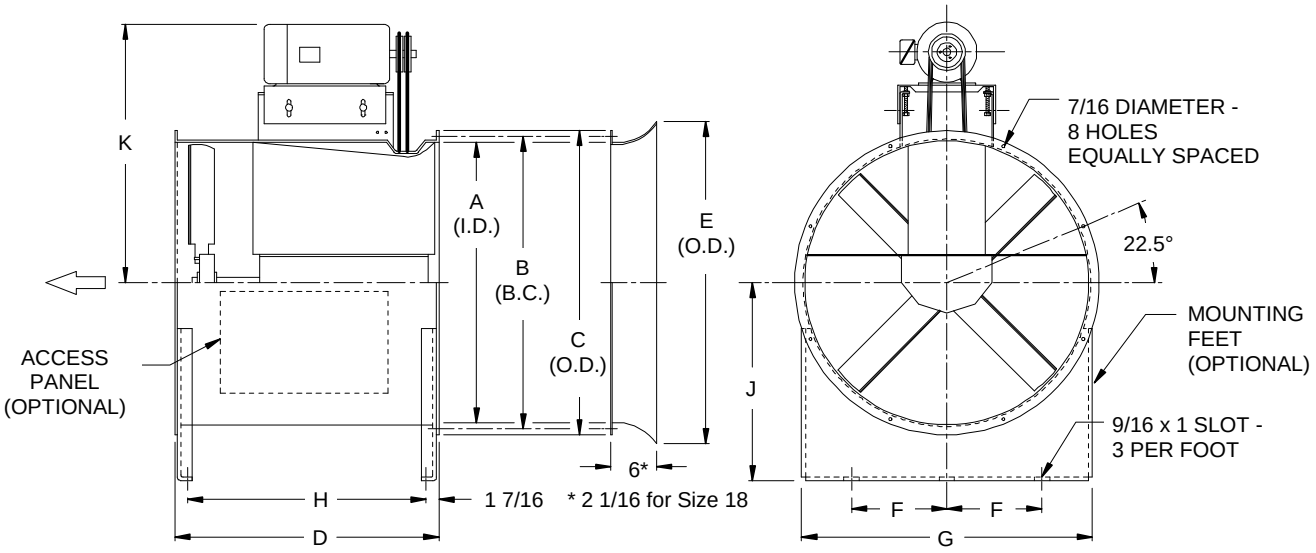
Construction

MATERIALS: The fan housing and motor supports are made of heavy gauge steel for maximum strength and durability.

TEBC models have 4 or 6 high-strength cast aluminum airfoil section blades specifically engineered for optimum efficiency and physical strength. The blades are securely attached to a heavy-duty cast aluminum hub with the blade pitch set for catalog performance. Blade pitch should not be adjusted without first contacting an American Coolair representative. All blade assemblies are dynamically balanced.

Painted parts are coated with a thermosetting epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion, and chemical resistance. Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. For additional protective coating options see the Accessories section.

METHODS: The steel belt and bearing tubes within the fan's casing isolate the fan's critical drive components from the exhaust airstream. The fan motor is also located out of the airstream to insure long motor life. The fan casing is constructed with flanged ends to form a complete fan-duct section.



Fan Size	Dimensions in Inches										Access Panel (Optional)	Outlet Area (sq. ft.)
	A	B	C	D	E	F	G	H	J	K		
18	18 1/8	20	21 1/4	17 1/2	24	8 3/4	19 1/2	15 5/8	13 3/8	20 1/16	8 x 10	1.79
24	25 7/8	25 3/4	27 1/4	19 1/2	30 1/2	8 3/4	19 1/2	17 5/8	16 3/8	24 7/8	10 x 10	3.17
30	31 3/16	32 7/8	34 1/16	21 1/8	36 1/4	12	32 11/16	18 1/4	21 5/8	31 3/4	10 x 10	5.31
36	37 1/4	38 15/16	40 1/8	31 1/8	42 1/4	16	38 7/8	28 1/4	26 5/8	35 1/4	12 x 15	7.57
42	43 1/4	44 15/16	46 1/8	31 1/8	48 1/4	18	44 1/2	28 1/4	29 5/8	39 3/4	16 x 18	10.2
48	49 1/4	50 15/16	52 1/8	31 1/8	54 5/8	19	49 7/8	28 1/4	32 5/8	42 3/4	16 x 18	13.23
54	55 1/4	56 15/16	58 1/8	31 1/8	59 1/2	22	55 1/2	28 1/4	36 1/8	45 1/2	16 x 18	16.65
60	61 3/8	63 1/16	64 1/4	31 1/8	65 5/8	25	61 5/8	28 1/4	39 5/8	48 1/2	16 x 18	20.55

Performance Ratings

American Coolair Corporation certifies that the Type TEBC fans 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

Duct fans shall be American Coolair Type TEBC as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan housing to be of heavy gauge steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of heavy duty pillow-block type. Fans shall be licensed to bear the AMCA Certified Ratings Seal for air and sound performance. (Specify for each Fan model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as safety disconnect switch, mounting feet and special protective coating, etc.)

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,5]									Fan	Motor	Fan	Sone	MAX	Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	Fan Model[2]	Size	HP	RPM	Rating[3]	BHP[4,5]	Sh. Wt.
1	2,918	2,587	---	---	---	---	---	---	TEBC18H	18	1/3	1253	16.9	0.31	120
2	3,463	3,209	2,859	---	---	---	---	---	TEBC18J		1/2	1487	24	0.48	120
3	3,977	3,772	3,484	3,150	---	---	---	---	TEBC18K		3/4	1708	31	0.70	125
4	4,501	4,327	4,091	3,825	---	---	---	---	TEBC18L		1	1933	36	0.97	130
5	5,198	5,052	4,871	4,648	4,416	---	---	---	TEBC18M		1 1/2	2232	45	1.44	135
6	7,738	7,398	6,753	6,088	---	---	---	---	TEBC24L	24	1	1198	28	0.93	220
7	9,056	8,795	8,322	7,768	7,198	---	---	---	TEBC24M		1 1/2	1402	38	1.47	225
8	9,934	9,706	9,346	8,812	8,336	7,032	---	---	TEBC24N		2	1538	44	1.92	230
9	11,277	11,084	10,824	10,415	9,946	9,071	---	---	TEBC24P		3	1746	53	2.77	245
10	11,760	11,070	10,316	9,568	8,686	---	---	---	TEBC30M	30	1 1/2	1150	36	1.46	265
11	12,700	12,067	11,375	10,680	9,968	7,087	---	---	TEBC30N		2	1242	41	1.83	270
12	14,643	14,101	13,517	12,907	12,306	10,991	---	---	TEBC30P		3	1432	54	2.77	285
13	17,476	17,026	16,553	16,054	15,543	14,535	13,469	11,810	TEBC30Q		5	1709	77	4.67	300
14	16,906	15,925	14,856	13,648	12,488	---	---	---	TEBC36N	36	2	1063	37	1.96	400
15	19,053	18,190	17,273	16,255	15,191	12,698	---	---	TEBC36P		3	1198	47	2.80	415
16	22,727	22,009	21,262	20,480	19,634	17,863	15,928	12,005	TEBC36Q		5	1429	68	4.73	430
17	22,737	21,407	20,112	18,659	16,775	---	---	---	TEBC42P	42	3	820	35	2.88	545
18	26,813	25,679	24,578	23,469	22,238	18,915	---	---	TEBC42Q		5	967	47	4.68	560
19	31,028	30,044	29,082	28,138	27,175	24,955	21,951	16,844	TEBC42R		7 1/2	1119	62	7.22	600
20	34,189	33,294	32,416	31,554	30,697	28,870	26,638	23,701	TEBC42S		10	1233	76	9.62	610
21	26,449	24,532	22,615	20,536	17,634	---	---	---	TEBC48P	48	3	718	33	2.91	575
22	31,533	29,904	28,355	26,686	24,951	19,989	---	---	TEBC48Q		5	856	44	4.92	590
23	36,174	34,744	33,378	32,020	30,535	27,450	22,632	---	TEBC48R		7 1/2	982	58	7.39	635
24	39,821	38,517	37,261	36,041	34,772	32,028	28,952	24,107	TEBC48S		10	1081	72	9.85	645
25	29,630	26,935	24,412	21,481	17,703	---	---	---	TEBC54P	54	3	626	35	2.89	1015
26	35,404	33,114	30,971	28,858	26,454	19,782	---	---	TEBC54Q		5	748	48	4.90	1040
27	40,752	38,745	36,845	35,012	33,170	28,735	22,534		TEBC54R		7 1/2	861	63	7.43	1075
28	42,577	41,075	39,601	38,157	36,749	33,774	29,801	25,799	TEBC54S		10	1073	94	10.00	1085
29	37,228	33,210	29,329	23,490	---	---	---	---	TEBC60P	60	3	526	35	2.91	1045
30	44,376	41,030	37,879	34,270	29,393	---	---	---	TEBC60Q		5	627	47	4.92	1070
31	48,010	45,426	43,337	41,264	38,607	33,016	26,033	---	TEBC60R		7 1/2	866	74	7.76	1105
32	52,112	49,686	47,694	45,854	43,735	38,626	33,126	---	TEBC60S		10	940	87	9.92	1115

1 — Performance shown is for Installation Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

2 — The first four letters of the model number identify **fan type, drive configuration** and **style.** The next two numbers indicate **fan size,** the next letter identifies **motor horsepower.** Example: Model TEBC24N is Type "TE", belt drive, Style "C", 24" size, 2 H.P.

3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (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. Bearing losses are included. 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^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m^3/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Accessories

MOUNTING FEET: When necessary to support the fan weight from floor or ceiling, mounting feet should be specified.

Applications which involve wall mounting should be referred to your American Coolair representative for recommended fan mounts. Type of support to which fan will be mounted and location relative to motor (or access panel) should be clearly stated.

SPARK RESISTANT CONSTRUCTION: For hazardous locations, any Type TEBC fan can be ordered with an explosion-proof motor. Motors only qualify for Class I Group D and Class II Groups F & G hazards.

PROTECTIVE COATING: For most applications, the American Coolair powder coating system will provide the necessary surface protection for painted parts. This system includes a thermosetting epoxy powder coating to a thickness of 3 mils and baked at 400°F for hardness, impact resistance, adhesion, and chemical resistance.

For applications that require more specialized surface protection, American Coolair offers alternatives: 6 mil epoxy, hot dipped galvanizing, and others. For more information about special protective coatings, contact your American Coolair representative.

SAFETY DISCONNECT SWITCH: This switch can be mounted near fan and serve as a safety disconnect from the power supply.

COMPANION FLANGE: It is identical to the fan flange and may be welded to the adjoining duct to simplify fan installation.

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 the date of shipment from the 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 the 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 modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as 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.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

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:

AMERICAN COOLAIR CORPORATION
P.O. BOX 2300 ~ Jacksonville, Florida 32203
Phone: (904) 389-3646
Fax: (904) 387-3449 or (904) 381-7560
E-mail: info@coolair.com

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