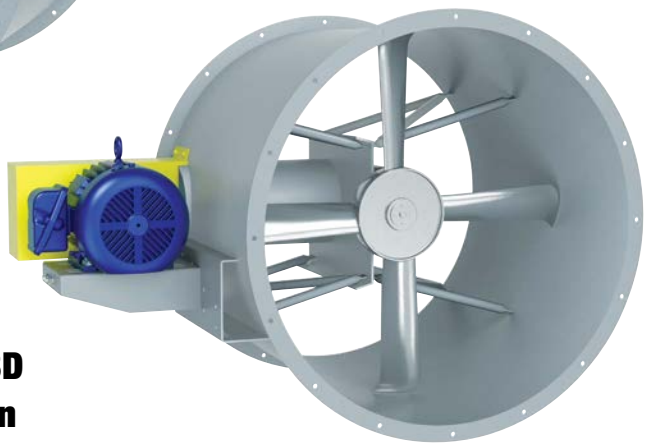
Aerovent®

The Industrial Choice.

Model TA
Direct Drive



Model TABD
Belt Driven

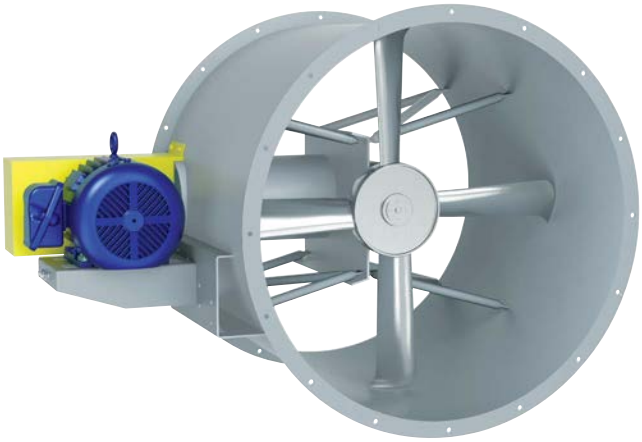
TUBEAXIAL FANS

Macheta® Airfoil Design
Direct Drive & Belt Driven
Sizes 12" through 96"
Models TA / TABD

CATALOG 157 August 2014

Tubeaxial Fans

Model TA
Direct Drive



Model TABD
Belt Driven

Models

TA | TABD

TA Direct Drive

Aerovent's direct drive tubeaxial fan is designed for use in all general applications to move relatively clean, non-corrosive air while operating within standard motor temperature limits. The highly efficient Macheta® tipped propeller, available in sizes 12" through 96", delivers performances ranging from 900 to 132,000 CFM as shown in the performance tables on pages 8 through 10. The tables show a representative sample of the wide range of propellers available.

The motor base assembly provides maximum strength while minimizing resistance to airflow. Fan casings are flanged steel and can easily be connected to duct work. Protective coatings and aluminum, hot-dipped galvanized or stainless steel construction are available upon specification. Motor leads are wired to an external conduit box and extended grease leads are standard when applicable.

TABD Belt Driven

Aerovent's belt driven tubeaxial fan is recommended for all general applications and is particularly useful in handling corrosive fumes, smoke, and hot or moist air when specified with special coatings, stainless steel, hot dipped galvanized, or aluminum construction. Fans are furnished with the Macheta® tipped propeller in sizes from 12" through 96" to deliver performances ranging from 1,500 to 131,000 CFM as shown in the performance tables on pages 11 through 13. The tables show a representative sample of the wide range of propellers available.

Belts and bearings are enclosed in an air-insulated housing for protection from contamination and to keep them cool to prolong service life under severe operating conditions. The standard fan can operate at temperatures to 275°F and can be specified with a special alloy propeller to operate up to 600°F. Adjustable sheaves are standard through 5 HP, for convenience in changing fan speeds. All fans are furnished with a belt guard for personnel safety and bearing grease leads will be brought to the casing exterior for ease of lubrication.

Aerovent certifies that the Direct Drive and Belt Driven Tubeaxial 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 comply with the requirements of the AMCA Certified Ratings Program.

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Propeller Design

Aerovent's trademark Macheta® propeller design is the result of many years of research on, and development of, cast aluminum airfoil propellers. Through this research, Aerovent developed the Macheta® tip on the trailing edge of each blade to increase the fan performance.

Aerovent's trademark propeller designs are suitable for a wide variety of applications. Each propeller is manufactured to withstand the punishing loads and high rotational speeds characteristic of fan operation.

All propellers and hubs are cast from 319 aluminum as standard. Propeller sizes 12" through 72" are cast solid. Sizes 84" and larger are adjustable pitch with individual blades and hub. For specific applications such as high temperature environments (600°F maximum), cast solid propellers are available in A240 aluminum alloy and, for corrosive environments, propellers are available in Dura-Metal (aluminum bronze, 500°F maximum) alloy.

Type M

Available in a six-blade design on size 12". The Type M propeller is the original Macheta® design, with narrow blades and the patented Macheta® tip on the trailing edge. This design offers quiet operation for small fans running at higher RPM levels, e.g., 1,750 and 3,450 RPM.

Type L

Available in a two-blade design on sizes 24" through 96" and in a four-blade design on sizes 14" through 96". The Type L propeller was designed from the Type M Macheta® propeller, but features wider blades to meet high volumes and low noise requirements at reduced speeds.

For a specified horsepower, the two-blade and four-blade designs have similar performance characteristics. Both the two-blade and four-blade designs offer quiet operation. However, the four-blade design is slightly quieter and should be used in applications where sound is critical. The two-blade configuration should be used where first cost is important.

Type S7

Available in a seven-blade design on sizes 14" through 72". The Type S7 propeller design increases the static pressure capabilities up to 1.50", yet maintains low brake horsepower requirements. The Type S7 wheel is recommended for applications requiring 0.75" static pressure and higher.

Type M

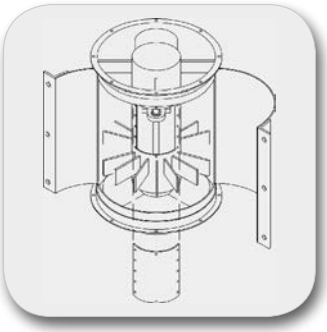
Type L

Type S7

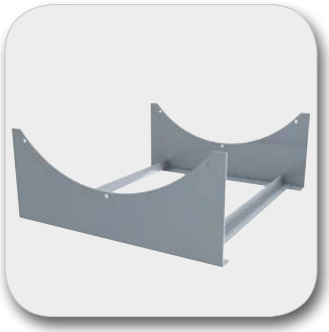
Accessories

Propeller Access Section

Swingout Construction



Clamshell Construction



Horizontal Support Legs

Horizontal Mounting Clips

Vertical Support

Spring & RIS Type Isolators

Bolted Inspection Door

Propeller Access Section

The propeller access section is a short duct section that bolts to the fan inlet or outlet and includes a hinged inspection door. Half the access section can be removed or the hinged inspection door can be opened to permit inspection or cleaning of the fan propeller.

Swingout Construction

This construction allows the entire direct drive or belt driven fan assembly to swing freely out from existing ductwork. This feature allows easy access and servicing of 48" and smaller fans.

Clamshell Construction

This construction offers a convenient method for cleaning the propeller or servicing the bearings of either direct drive or belt driven fans. This feature is limited to 48" and smaller fans.

Support Legs

Support legs are available for standard platform or floor mounting. The support legs are bolted to the inlet and outlet flange.

Horizontal Ceiling Clips

Clips are recommended to permit easy installation and when using vibration isolators. Horizontal ceiling clips are welded to the fan housing.

Vertical Support Section

The vertical support section is a separate duct section with vertical mounting clips. This section bolts to the fan inlet or outlet and is needed when vertical mounting clips cannot be welded to the fan. (See “Mounting Arrangements.”)

All sizes for Model TABD require a vertical mounting section for all vertical discharges when vertical mounting clips are needed. The vertical mounting arrangements are designated by adding an “S” to the mounting arrangement. (A1, A2, A3 and A4 become SA1, SA2, SA3, and SA4.)

Vibration Isolators

Rubber-in-shear and spring type isolators are available for floor or ceiling mounting, as follows:
RIS Floor — Rubber-in-shear, for floor mounting
RIS Ceiling — Rubber-in-shear, for ceiling mounting
Spring Floor — Spring type, for floor mounting
Spring Ceiling — Spring type, for ceiling mounting

Bolted Inspection Door

The bolted inspection door allows limited access to inspect the internal parts of the fan. If access for cleaning is required, use the “Propeller Access Section,” “Swingout Construction” or “Clamshell Construction” accessory.

Accessories

Companion Flanges
Companion flanges are rolled angle rings that match the fan inlet and outlet flanges to provide easy attachment for slip duct connections.

OSHA Inlet and Outlet Guards
Inlet and outlet guards are offered to protect personnel from the moving parts. Recommended for use when no ductwork is attached to the inlet and/or outlet. Fan sizes 12" through 72" are supplied with spiral wire type PMS guards and size 84" is supplied with a wire mesh guard Type WM.

Shaft Seal
An Elastomeric Rotary Shaft Seal is recommended to protect the shaft and bearings when the fan is used for handling dirty, wet or corrosive air. It is suitable for operation to 300°F. This seal rides against a heavy Teflon wear plate. **Note:** The shaft seal does not make the fan gas tight and is not for use in high temperature applications.

Motor Cover
Motor covers are available for belt driven fans to protect the motor and drive parts from the weather. The motor cover is designed with vents to dissipate motor heat. It is important to specify the fan discharge arrangement to ensure the correct location of the vents

Stack Cap
Stack caps are designed for roof mounted fans with vertical discharge. Stack caps include backdraft dampers that protect the interior of the building from precipitation when the fan is shut off. A motorized stack cap is also available as an option. (Check with factory for available sizes.) Using a stack cap and curb base on the Model TA or TABD vaneaxial fan converts the unit into a roof ventilator. As an option, stack caps and curb bases can be furnished with protective coatings or special metals for handling corrosive fumes.

Curb Base
Curb bases are designed for mounting vertical fans on roof curbs. Using a stack cap and curb base on the Model TA or TABD vaneaxial fan converts the unit into a roof ventilator. As an option, stack caps and curb bases can be furnished with protective coatings or special metals for handling corrosive fumes.

Inlet Bell
An inlet bell (not shown) is recommended on the inlet side of the fan to minimize entrance losses for installations where the fan inlet is not attached to a duct system.

Companion Flange

Inlet/Outlet Guard

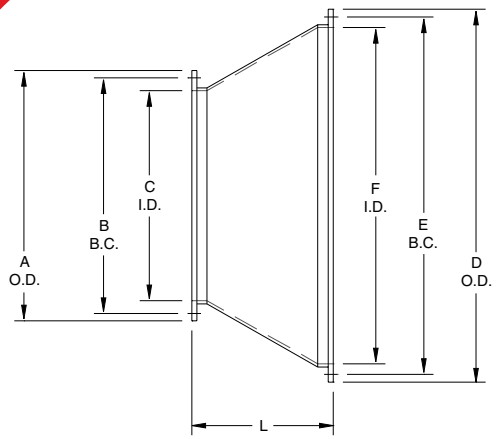
Shaft Seal

Motor Cover

Stack Cap

Curb Base

Accessories



FAN OUTLET VELOCITY (FPM)	STATIC PRESSURE REGAIN (INCHES W.G.)
1000	0.025
1400	0.042
1800	0.078
2200	0.113
2600	0.151
3000	0.216
3400	0.273
3800	0.341
4200	0.419
4600	0.494
5000	0.576

NOM. FAN SIZE	SMALL RING DIMEN.			L	LARGE RING DIMEN.		
	A	B	C		D	E	F
12	14 7/8	13 3/8	12 3/8	10	16 7/8	15 7/8	14 3/8
14	16 7/8	15 7/8	14 3/8	10	18 7/8	17 7/8	16 3/8
16	18 7/8	17 7/8	16 3/8	10	20 7/8	19 7/8	18 3/8
18	20 7/8	19 7/8	18 3/8	15	24	22 7/8	21 1/2
21	24	22 7/8	21 1/2	15	27	25 7/8	24 1/2
24	27	25 7/8	24 1/2	24	33	32	30 1/2
30	33	32	30 1/2	26	39 1/2	38 3/8	37
36	39 1/2	38 3/8	37	32	46	44 5/8	43
42	46	44 5/8	43	32	52	50 5/8	49
48	52	50 5/8	49	32	59	57 1/4	55
54	59	57 1/4	55	32	65	63 1/4	61
60	65	63 1/4	61	48	77	75 1/4	73
66	71	69 1/4	67	32	77	75 1/4	73
72	77	75 1/4	73	48	91	88 1/4	85
84	91	88 1/4	85	48	103	100 1/4	97
96	103	100 1/4	97	48	115 3/4	112 1/2	108 3/4

Dimensions are not to be used for construction.

Inlet and Outlet Cones

Inlet and outlet cones offer a round-to-round transition from the fan inlet and/or outlet to the specific duct diameter of the system.

If a standard outlet cone is used, the static pressure regain can be added to the fan static pressure. The approximate additional static pressure capability is shown in the following chart. Add the amount shown to the fan static pressure and then use the performance tables to select the fan.

Optional Construction

High Temperature Construction

Belt driven fans can be furnished to operate in a temperature ranging from 275°F to 600°F. For this construction, the fan is supplied with an A240 aluminum, cast solid propeller and high-temperature bearing lubrication. Note that the fan must be energized during high-temperature operation to keep the bearings cool.

Corrosion Resistant Construction

For handling corrosive fumes, etc. Fan casings can be constructed of hot dipped galvanized steel, stainless steel, aluminum, fiberglass, or protected with a wide variety of suitable protective coatings such as Plasite, Heresite, Eisenheiss, etc.

Spark Resistant Construction

Model TABD belt driven fans can be furnished with spark resistant construction in the following AMCA classifications:

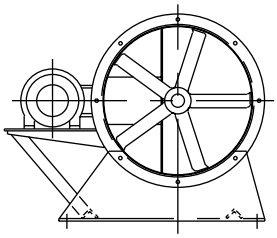
Type A — All parts of the fan in contact with the airstream shall be constructed of nonferrous material (generally aluminum). 275°F maximum.

Type B — Fan shall have a nonferrous impeller and closure plate about the shaft opening. 275°F maximum.

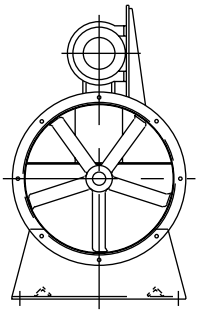
Note: All fans: bearings shall be out of the airstream and the user shall ground all fan parts.

Belt Driven Fans

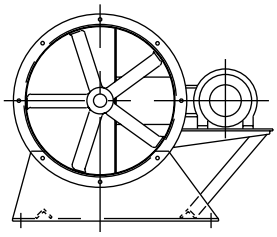
Horizontal Floor Mounted



Opposite Std. (Optional Std.)
Requires F-2 Motor

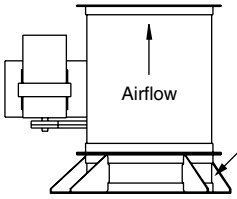


Top

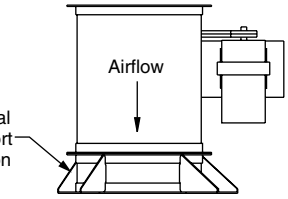


Standard (Std.)

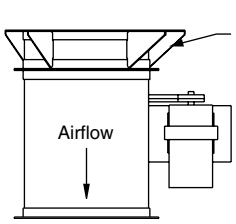
Vertical Floor & Ceiling Mounted



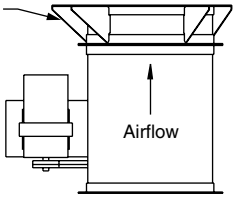
Floor Up Discharge
SA1



Floor Down Discharge
SA2

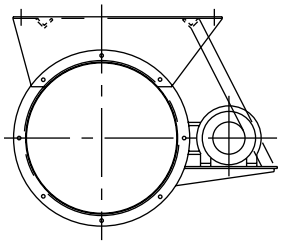


Ceiling Down Discharge
SA3

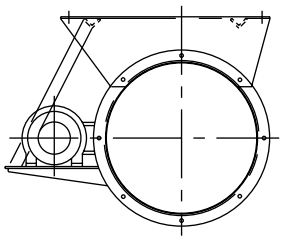


Ceiling Up Discharge
SA4

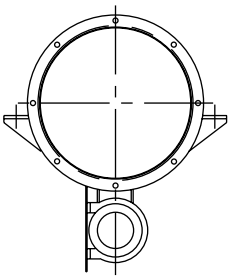
Horizontal Ceiling Mounted



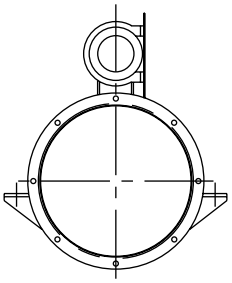
Right Hand (A9)



Left Hand (A10)
Requires F-2 Motor



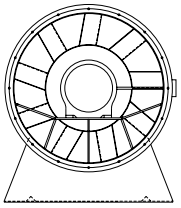
Bottom (A11)



Top (A12)

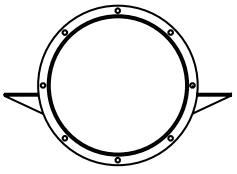
Direct Drive Fans

Horizontal Floor



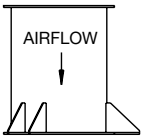
Support Legs (HBM)

Ceiling Horizontal Discharge

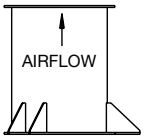


A13

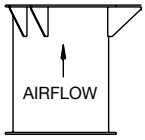
Vertical Floor & Ceiling Mounted



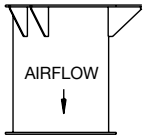
Floor
Down
Discharge
(A5)



Floor
Up
Discharge
(A6)



Ceiling
Up
Discharge
(A7)



Ceiling
Down
Discharge
(A8)

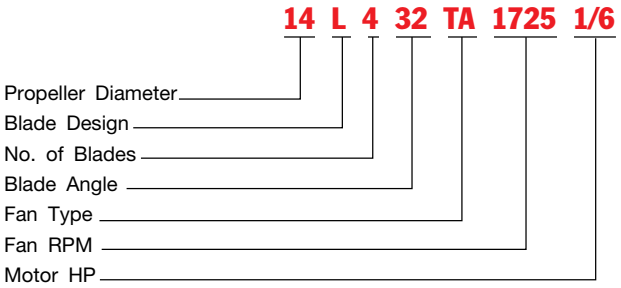
To identify a specific fan for ordering or engineering specification, it is necessary to show the complete catalog number as shown at the right. All performance data is available in curve form upon request.

All capacities shown in the performance tables that follow are for standard air conditions: 70°F at sea level (0.075 lbs./cu.ft. air density).

The tables show a representative sample of the wide range of propellers available.

Performance for belt driven fans begins on page 11.

Catalog Number System



Model TA

TA | Size 12

Outlet Area: 0.820 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE														FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP		
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
12M617	TA	1725	1/12	923	.051	761	.055	396	.056													N/A
12M622	TA	3450	1/2	2156	.380	2102	398	2044	.416	1980	.433	1908	.451	1714	.482							

TA | Size 14

Outlet Area: 1.108 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE														FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP		
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
14L432	TA	1725	1/6	1980	.123	1732	.135	1396	.144													FEG63
14L420	TA	3450	1/2	2808	.493	2720	.51	2624	.524	2520	.534	2403	.537	2101	.534	1478	.534					N/A
14L426	TA	3450	3/4	3484	.739	3364	.734	3241	.735	3115	.74	2990	.755	2706	.783	2238	.786					

TA | Size 16

Outlet Area: 1.418 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE														FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP		
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
16L432	TA	1160	1/8	1988	.073	1530	.083															FEG63
16L432	TA	1725	1/4	2957	.240	2677	.259	2359	.270	1817	.266											
16L420	TA	3450	1	4192	.961	4092	.987	3987	1.01	3874	1.03	3753	1.04	3471	1.04	3100	1.04	2490	1.04			FEG67

TA | Size 18

Outlet Area: 1.792 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE														FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP		
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
18L432	TA	1160	1/8	2777	.109	2270	.120															N/A
18L420	TA	1725	1/6	2962	.139	2620	.156	2206	.179	1468	.177											
18L426	TA	1725	1/4	3629	.241	3282	.256	2905	.277	2398	.273											
18L430	TA	1725	1/3	3886	.313	3576	.334	3239	.350	2749	.359											
18L432	TA	1725	1/2	4130	.359	3806	.381	3457	.392	2987	.401											

TA | Size 21

Outlet Area: 2.463 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE														FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP		
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
21L432	TA	1160	1/4	4410	.236	3833	.256	2998	.262													N/A
21L424	TA	1725	1/2	5435	.433	5072	.472	4643	.506	4124	.524	3470	.521									
21L430	TA	1725	3/4	6172	.677	5814	.712	5432	.741	5021	.762	4428	.776									
21L432	TA	1725	1	6558	.777	6183	.812	4397	.838	5365	.851	4802	.865									
21S720	TA	1725	1/2	4959	.383	4696	.440	4397	.487	4043	.520	3623	.547									
21S724	TA	1725	3/4	6117	.631	5831	.693	5514	.743	5156	.777	4726	.797									

Performance shown is for installation type D: Ducted inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances in the airstream.

Model TA

TA | Size 24

Outlet Area: 3.207 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
24L422	TA	1160	1/3	5591	.298	4970	.329	4267	.349	3291	.361											FEG71
24L428	TA	1160	1/2	6604	.457	5966	.483	5258	.497	4271	.502											
24L432	TA	1160	3/4	7238	.584	6596	.614	5896	.631	4909	.630											
24L420	TA	1160	1	7808	.863	7410	.913	7001	.957	6589	.991	6136	1.02	4927	1.04							FEG75
24L426	TA	1160	1½	9464	1.35	9065	1.40	8634	1.44	8161	1.46	7635	1.47	6399	1.50							
24L432	TA	1160	2	10920	2.00	10920	2.05	10072	2.10	9625	2.13	9166	2.16	8043	2.17							FEG71
24S720	TA	1160	1/3	5077	.248	4618	.300	4062	.332	3169	.357											
24S720	TA	1160	1	7660	0.852	7369	.937	7057	1.01	6722	1.07	6355	1.12									

TA | Size 30

Outlet Area: 4.991 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
30L418	TA	870	1/3	7001	.281	5985	.320	4734	.331													FEG71
30L424	TA	870	1/2	8789	.456	7713	.498	6419	.515													
30L432	TA	870	3/4	10604	.752	9525	.794	8304	.815													
30L422	TA	1160	1	10920	.910	10154	.973	9357	1.02	8465	1.06	7322	1.08									
30L428	TA	1160	1½	12898	1.40	12114	1.45	11287	1.49	10396	1.51	9225	1.51									
30L432	TA	1160	2	14138	1.78	13346	1.84	12512	1.89	11634	1.92	10562	1.93									
30L420	TA	1750	3	15251	2.63	14756	2.73	14252	2.83	13740	2.91	13226	2.98	12136	3.10	10795	3.17	9038	3.17			
30L428	TA	1750	5	19458	4.79	18947	4.88	18423	4.96	17885	5.03	17334	5.09	16200	5.17	14837	5.21	13159	5.22			
30S720	TA	1160	1	10381	.814	9691	.901	8968	.973	8181	1.03	7183	1.08									
30S723	TA	1750	5	17089	3.50	16710	3.67	16312	3.84	15891	3.99	15444	4.14	14437	4.38	13239	4.55					FEG67

TA | Size 36

Outlet Area: 7.304 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
36L418	TA	870	3/4	12647	.688	11404	.775	10090	.823	8168	.843											FEG75
36L422	TA	870	1	14728	.938	13486	1.02	12086	1.08	10428	1.12											
36L428	TA	870	1½	16937	1.44	15670	1.52	14198	1.58	12377	1.62											FEG71
36L418	TA	1160	2	16863	1.63	15941	1.76	14994	1.86	14038	1.92	12935	1.97	9290	1.94							FEG75
36L424	TA	1160	3	20196	2.53	19236	2.63	18252	2.74	17261	2.83	16209	2.91	13361	3.00							FEG71
36L432	TA	1160	5	24554	4.32	23578	4.46	22550	4.58	21464	4.66	20309	4.70	17557	4.73							FEG67
36L420	TA	1750	7½	27305	6.65	26730	6.79	26142	6.93	25541	7.06	24924	7.19	23652	7.42	22301	7.62	20761	7.80	18912	7.93	FEG75
36L424	TA	1750	10	30468	8.67	29836	8.84	29197	9.00	28552	9.16	27899	9.31	26584	9.59	25248	9.85	23766	10.08	22079	10.27	FEG71
36S715	TA	1750	5	21298	3.76	20727	3.98	20150	4.19	19565	4.39	18974	4.58	17782	4.92	16488	5.22	15022	5.47	13160	5.69	FEG67
36S719	TA	1750	7½	25823	5.61	25233	5.89	24633	6.15	24024	6.41	23405	6.64	22144	7.07	20820	7.44	19362	7.74	17671	7.99	
36S724	TA	1750	10	29900	8.70	29437	8.91	28957	9.11	28461	9.31	27944	9.51	26842	9.90	25612	10.28	24225	10.64	22679	11.02	FEG71

TA | Size 42

Outlet Area: 9.968 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
42L420	TA	870	2	21524	1.76	20145	1.87	18669	1.96	17038	2.04	14989	2.10									FEG75
42L426	TA	870	3	25420	2.67	23944	2.84	22405	2.97	20804	3.05	18785	3.12									FEG71
42L420	TA	1160	5	28698	4.18	27679	4.32	26620	4.46	25518	4.59	24380	4.71	21784	4.90	18084	4.98					FEG75
42L428	TA	1160	7½	35808	7.35	34741	7.53	33617	7.69	32426	7.84	31154	7.99	28283	8.21	24682	8.27					FEG71
42L418	TA	1750	15	40338	12.07	39632	12.40	38920	12.70	38201	12.99	37476	13.25	36006	13.71	34543	14.05	33018	14.31	31294	14.55	FEG75
42S715	TA	870	1½	16788	.995	15434	1.16	14040	1.30	12485	1.41	10453	1.50									FEG67
42S719	TA	870	2	20355	1.49	18950	1.70	17481	1.87	15892	2.01	14002	2.11									
42S715	TA	1160	3	22385	2.36	21377	2.59	20349	2.80	19308	2.99	18235	3.16	15753	3.44							
42S719	TA	1160	5	27141	3.52	26097	3.81	25025	4.08	23926	4.31	22804	4.52	20316	4.86	17034	5.12					
42S724	TA	1160	7½	31427	5.46	30602	5.68	29727	5.89	28792	6.10	27780	6.30	25429	6.68	22512	7.08					FEG71

Performance shown is for installation type D: Ducted inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances in the airstream.

Model TA

TA | Size 48

Outlet Area: 12.896 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
48L420	TA	695	2	25638	1.75	23651	1.88	21496	1.98	18917	2.07	14790	2.05									FEG75
48L426	TA	695	3	30278	2.65	28158	2.85	25945	2.99	23419	3.07	19786	3.10									FEG71
48L424	TA	870	5	35810	4.47	34105	4.66	32358	4.84	30597	5.00	28728	5.15	23649	5.30							FEG75
48L418	TA	1160	7½	39868	6.84	38647	7.16	37407	7.44	36146	7.68	34882	7.87	32262	8.14	29025	8.35	24190	8.33			
48L422	TA	1160	10	46428	9.33	45231	9.60	43995	9.86	42715	10.10	41386	10.32	38560	10.69	35453	11.01	31731	11.21			
48S719	TA	870	5	30351	2.89	28753	3.21	27096	3.49	25389	3.73	23531	3.93	18638	4.22							FEG67
48S719	TA	1160	10	40468	6.86	39280	7.29	38067	7.70	36828	8.08	35568	8.42	32957	9.02	30029	9.49	26392	9.89			
48S724	TA	1160	15	46858	10.63	45922	10.95	44944	11.27	43918	11.58	42836	11.89	40448	12.49	37664	13.06	34422	13.67	28634	13.72	FEG71

TA | Size 54

Outlet Area: 16.275 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
54L418	TA	695	3	33981	2.65	31667	2.90	29297	3.07	26727	3.18	23347	3.25									FEG75
54L426	TA	695	5	43073	4.76	40702	5.06	38231	5.29	35690	5.43	32611	5.56									FEG71
54L416	TA	870	5	38923	4.45	36952	4.53	34974	4.65	33035	4.83	30977	5.03	25560	5.31							FEG71
54L420	TA	870	7½	45656	6.17	43907	6.40	42084	6.62	40184	6.82	38207	7.00	33544	7.30	25869	7.18					FEG75
54L426	TA	870	10	53919	9.34	52039	9.73	50108	10.07	48124	10.35	46131	10.55	41561	10.86	34934	10.91					FEG71
54S715	TA	870	5	35611	3.49	33882	3.85	32116	4.18	30331	4.48	28454	4.74	23951	5.16	17575	5.47					FEG67
54S719	TA	870	7½	43177	5.21	41388	5.66	39546	6.08	37656	6.45	35711	6.77	31296	7.27	24662	7.59					
54S724	TA	870	10	49995	8.07	48579	8.41	47070	8.75	45445	9.08	43667	9.40	39484	10.01	33712	10.54					FEG71

TA | Size 60

Outlet Area: 20.046 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
60L418	TA	580	3	38873	2.60	35784	2.88	32614	3.06	28849	3.17	22835	3.15									FEG75
60L426	TA	580	5	49274	4.68	46107	5.02	42805	5.26	39224	5.40	34380	5.50									FEG71
60L418	TA	695	5	46580	4.48	44019	4.83	41387	5.10	38729	5.28	35654	5.42	25355	5.30							FEG75
60L424	TA	695	7½	55786	6.94	53120	7.24	50387	7.52	47632	7.77	44704	7.99	36693	8.22							
60L414	TA	870	7½	48819	6.52	46797	6.77	44727	7.02	42629	7.26	40496	7.50	35099	7.83	27085	7.58					FEG67
60L418	TA	870	10	58309	8.79	56273	9.24	54201	9.64	52091	9.97	49992	10.22	45347	10.58	39018	10.78	26228	9.93			FEG75
60L424	TA	870	15	69833	13.61	67712	13.99	65558	14.35	63370	14.70	61169	15.02	56627	15.60	51270	16.08	42350	15.90			
60L428	TA	870	20	78088	18.38	76064	18.75	73948	19.12	71725	19.46	69377	19.78	64205	20.35	58130	20.64	50276	20.66			FEG71
60L416	TA	1160	20	71140	17.84	69500	17.96	67856	18.11	66210	18.31	64562	18.54	61317	19.14	58014	19.87	54270	20.65	49911	21.34	
60S716	TA	870	10	50206	7.19	48092	7.61	45971	8.03	43851	8.45	41730	8.88	37342	9.68	32167	10.31					FEG60
60S715	TA	1160	20	65086	13.97	63655	14.65	62210	15.30	60750	15.93	59275	16.53	56306	17.65	53259	18.65	49936	19.53	46254	20.27	FEG67

TA | Size 72

Outlet Area: 28.767 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
72L418	TA	580	7½	67102	6.47	63421	6.97	59639	7.37	55818	7.62	51405	7.82	36701	7.66							FEG75
72L412	TA	695	7½	61402	7.28	58246	7.59	54947	7.87	51519	8.11	47749	8.29	38428	8.32	25337	7.67					FEG63
72L414	TA	695	10	67320	8.25	64280	8.60	61161	8.94	58015	9.28	54722	9.59	45864	9.93	31944	9.27					FEG67
72L420	TA	695	15	86303	13.22	83393	13.66	80375	14.08	77239	14.47	74009	14.82	66791	15.43	57156	15.79					FEG75
72L424	TA	695	20	96298	17.23	93112	17.76	89871	18.26	86573	18.72	83275	19.16	76233	19.94	67457	20.48					
72L412	TA	870	15	76863	14.28	74361	14.68	71790	15.05	69143	15.39	66438	15.70	60628	16.21	53747	16.44	45544	16.21	34952	15.32	FEG63
72L414	TA	870	20	84272	16.19	81854	16.62	79398	17.05	76899	17.48	74378	17.90	69245	18.72	62957	19.33	54525	19.38	43732	18.55	FEG67

TA | Size 84

Outlet Area: 39.059 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
84L412	TA	580	10	80948	9.07	76538	9.48	71918	9.84	67092	10.14	61677	10.36	48179	10.30							FEG63
84L414	TA	695	20	106347	17.68	102818	18.23	99223	18.77	95556	19.30	91900	19.84	83956	20.80	73345	21.28	58710	20.55			FEG67

TA | Size 96

Outlet Area: 50.922 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
96L412	TA	580	20	120831	17.68	115818	18.30	110624	18.86	105258	19.37	99678	19.81	86681	20.33	70508	20.01	48251	18.53			FEG63
96L414	TA	580	25	132478	20.04	127641	20.72	122703	21.39	117672	22.05	112658	22.72	101059	23.82	84424	23.93	61006	22.37			FEG67

Performance shown is for installation type D: Ducted inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances in the airstream.

Model TABD

TABD | Size 12

Outlet Area: 0.818 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
12M624	TABD	3125	1/2	1950	.519	1877	.534	1801	.544	1723	.551	1642	.551	1462	.549							FEG53
12M624	TABD	3550	3/4	2215	.761	2151	.778	2085	.792	2017	.802	1948	.808	1804	.806	1638	.805					
12M624	TABD	3900	1	2434	1.01	2376	1.03	2316	1.04	2255	1.06	2193	1.07	2065	1.07	1926	1.07	1769	1.07			

TABD | Size 14

Outlet Area: 1.108 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
14L428	TABD	2775	1/2	2381	.534	2247	.549	2101	.557	1940	.557	1743	.540									N/A
14L428	TABD	3175	3/4	2724	.800	2608	.818	2484	.830	2353	.836	2209	.834	1808	.798							
14L428	TABD	3500	1	3003	1.07	2898	1.09	2788	1.11	2672	1.12	2549	1.12	2261	1.10							
14S728	TABD	2435	1/5	2265	.476	2146	.512	2016	.537	1870	.547	1685	.549									
14S728	TABD	2775	3/4	2581	.705	2478	.747	2367	.780	2248	.802	2117	.810	1725	.813							
14S728	TABD	3070	1	2855	.955	2763	1.00	2665	1.04	2561	1.07	2450	1.09	2185	1.10							

TABD | Size 16

Outlet Area: 1.418 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
16L428	TABD	2225	1/2	2850	.537	2656	.554	2443	.554	2194	.553	1806	.536									N/A
16L428	TABD	2550	3/4	3267	.808	3100	.829	2920	.841	2726	.844	2500	.830									
16L428	TABD	2800	1	3587	1.07	3436	1.09	3275	1.11	3105	1.12	2920	1.12	2418	1.07							
16L428	TABD	3210	1½	4112	1.61	3981	1.64	3844	1.66	3700	1.68	3550	1.68	3213	1.67	2732	1.61					
16L428	TABD	3535	2	4528	2.15	4409	2.18	4286	2.21	4159	2.23	4026	2.24	3744	2.25	3409	2.20	2905	2.15			
16S728	TABD	1935	1/2	2686	.466	2514	.507	2321	.531	2087	.538	1668	.539									
16S728	TABD	2228	3/4	3092	.712	2945	.760	2785	.797	2609	.815	2398	.821									
16S728	TABD	2440	1	3387	.935	3253	.989	3110	1.03	2955	1.06	2786	1.07	2288	1.08							
16S728	TABD	2792	1½	3875	1.40	3759	1.46	3637	1.52	3508	1.56	3371	1.59	3057	1.61	2563	1.62					

TABD | Size 18

Outlet Area: 1.792 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
18L428	TABD	1909	1/2	3799	.452	3528	.467	3208	.485	2786	.505											FEG53
18L428	TABD	2185	3/4	4348	.678	4116	.695	3854	.714	3548	.736	3157	.759									
18L428	TABD	2405	1	4786	.904	4577	.922	4348	.942	4090	.965	3789	.990									
18L428	TABD	2753	1½	5478	1.36	5298	1.38	5105	1.40	4895	1.42	4665	1.45	4100	1.51							
18L428	TABD	3030	2	6030	1.81	5867	1.83	5695	1.85	5511	1.88	5314	1.91	4864	1.97	4273	2.03					
18L428	TABD	3468	3	6901	2.71	6760	2.74	6612	2.76	6458	2.79	6296	2.82	5943	2.89	5536	2.96	5033	3.03	4358	3.00	
18S728	TABD	1779	1/2	3636	.495	3370	.526	3062	.547	2663	.551											N/A
18S728	TABD	2036	3/4	4162	.743	3932	.779	3678	.808	3388	.825	3016	.824									
18S728	TABD	2241	1	4581	.990	4374	1.03	4150	1.07	3903	1.09	3617	1.10									
18S728	TABD	2565	1½	5243	1.49	5064	1.53	4874	1.57	4670	1.61	4451	1.64	3918	1.65							
18S728	TABD	2823	2	5770	1.98	5609	2.03	5439	2.08	5260	2.12	5070	2.16	4642	2.20	4073	2.19					

TABD | Size 21

Outlet Area: 2.463 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
21L428	TABD	1476	1/2	4664	.452	4248	.470	3723	.494	2893	.498											FEG53
21L428	TABD	1690	3/4	5340	.678	4985	.699	4571	.724	4046	.752	3221	.742									
21L428	TABD	1860	1	5878	.904	5559	.926	5199	.952	4776	.983	4232	1.01									
21L428	TABD	2129	1½	6728	1.36	6453	1.38	6153	1.41	5820	1.44	5439	1.48	4368	1.51							
21L428	TABD	2344	2	7407	1.81	7159	1.84	6894	1.87	6606	1.90	6289	1.94	5506	2.02							
21L428	TABD	2683	3	8478	2.71	8263	2.74	8037	2.78	7798	2.81	7542	2.85	6968	2.94	6244	3.03	5188	2.98			
21S724	TABD	1440	1/2	4788	.461	4437	.497	4044	.530	3584	.554											FEG60
21S724	TABD	1649	3/4	5483	.692	5180	.734	4851	.773	4488	.807	4075	.832									
21S724	TABD	1813	1	6028	.920	5755	.966	5462	1.01	5148	1.05	4800	1.08									
21S724	TABD	2079	1½	6913	1.39	6676	1.44	6428	1.49	6165	1.54	5887	1.59	5262	1.66							
21S724	TABD	2286	2	7601	1.84	7387	1.90	7164	1.96	6931	2.02	6687	2.07	6156	2.16	5543	2.22					
21S724	TABD	2616	3	8698	2.76	8512	2.83	8320	2.90	8122	2.96	7917	3.02	7484	3.14	7009	3.24	6484	3.32	5673	3.32	

Performance shown is for installation type D: Ducted inlet, ducted outlet.
Power ratings (BHP) includes drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

Model TABD

TABD | Size 24

Outlet Area: 3.207 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
24L422	TABD	1258	1/2	5611	.486	5091	.506	4529	.534	3809	.544											FEG56
24L422	TABD	1440	3/4	6422	.729	5972	.751	5498	.781	4971	.810	4306	.815									
24L422	TABD	1585	1	7069	.972	6662	.995	6236	1.03	5789	1.06	5273	1.09									
24L422	TABD	1814	1½	8090	1.46	7737	1.48	7370	1.51	6992	1.55	6596	1.60	5632	1.64							
24L422	TABD	1997	2	8907	1.94	8587	1.97	8257	2.00	7917	2.04	7571	2.09	6796	2.17	5791	2.16					
24L422	TABD	2286	3	10196	2.91	9917	2.95	9632	2.98	9341	3.02	9042	3.07	8427	3.18	7728	3.25	6876	3.26	5651	3.11	
24S728	TABD	1282	3/4	6780	.702	6279	.759	5754	.802	5158	.828											FEG60
24S728	TABD	1411	1	7463	.935	7009	1.00	6536	1.05	6037	1.09	5443	1.11									
24S728	TABD	1615	1½	8542	1.40	8148	1.48	7739	1.54	7322	1.60	6877	1.64									
24S728	TABD	1777	2	9399	1.87	9042	1.95	8674	2.03	8297	2.09	7914	2.14	7036	2.21							
24S728	TABD	2034	3	10758	2.80	10447	2.90	10129	2.99	9804	3.07	9474	3.14	8790	3.25	7992	3.32					

TABD | Size 30

Outlet Area: 4.991 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
30L422	TABD	867	1/2	7552	.485	6598	.515	5461	.545													FEG56
30L422	TABD	993	3/4	8650	.729	7826	.760	6929	.804	5759	.815											
30L422	TABD	1093	1	9521	.972	8778	1.01	7989	1.05	7073	1.09	5811	1.07									
30L422	TABD	1251	1½	10897	1.46	10253	1.49	9577	1.54	8864	1.60	8032	1.63									
30L422	TABD	1377	2	11995	1.94	11412	1.98	10805	2.03	10178	2.09	9497	2.15	7736	2.16							
30L422	TABD	1576	3	13729	2.91	13222	2.96	12699	3.01	12160	3.07	11609	3.14	10365	3.26	8713	3.23					
30L422	TABD	1869	5	16281	4.86	15855	4.91	15420	4.97	14976	5.03	14521	5.10	13588	5.27	12544	5.41	11302	5.46	9647	5.30	
30S720	TABD	1127	1	9575	.812	8967	.905	8297	.983	7529	1.04	6522	1.09									FEG63
30S720	TABD	1283	1½	10900	1.20	10372	1.31	9803	1.40	9188	1.48	8486	1.55	6296	1.59							
30S720	TABD	1421	2	12073	1.63	11599	1.75	11096	1.86	10561	1.95	9986	2.03	8558	2.18							
30S720	TABD	1625	3	13806	2.43	13394	2.57	12964	2.70	12513	2.82	12041	2.93	10995	3.11	9667	3.27					
30S720	TABD	1929	5	16389	4.07	16044	4.24	15689	4.40	15322	4.55	14942	4.69	14143	4.94	13268	5.15	12248	5.36	10951	5.50	

TABD | Size 36

Outlet Area: 7.366 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
36L422	TABD	841	1	13166	.967	11984	1.04	10513	1.10	8424	1.11											FEG63
36L422	TABD	963	1½	15076	1.45	14066	1.54	12892	1.61	11460	1.66	9473	1.67									
36L422	TABD	1060	2	16594	1.94	15688	2.04	14670	2.12	13483	2.18	12054	2.23									
36L422	TABD	1213	3	18990	2.90	18208	3.02	17358	3.12	16415	3.21	15348	3.28	12597	3.35							
36L422	TABD	1439	5	22528	4.84	21876	4.98	21186	5.11	20451	5.23	19659	5.34	17847	5.50	15566	5.59					
36L422	TABD	1647	7½	25784	7.26	25218	7.42	24628	7.57	24010	7.72	23360	7.85	21937	8.08	20304	8.25	18362	8.37	15693	8.30	
36L422	TABD	1813	10	28383	9.69	27871	9.86	27341	10.03	26791	10.20	26219	10.35	24996	10.63	23634	10.85	22105	11.04	20330	11.16	
36S720	TABD	1093	2	16416	1.60	15532	1.73	14567	1.86	13496	2.00	12282	2.12	8671	2.18							FEG67
36S720	TABD	1251	3	18789	2.40	18024	2.55	17209	2.70	16332	2.85	15378	3.01	13131	3.25							
36S720	TABD	1483	5	22273	3.99	21633	4.17	20965	4.35	20265	4.53	19526	4.71	17906	5.07	16029	5.37	13567	5.49			
36S720	TABD	1698	7½	25502	5.99	24946	6.20	24372	6.40	23778	6.61	23161	6.82	21846	7.24	20400	7.64	18785	7.99	16848	8.21	
36S720	TABD	1869	10	28071	7.99	27567	8.22	27050	8.44	26518	8.67	25970	8.90	24820	9.35	23583	9.82	22241	10.25	20767	10.64	

TABD | Size 42

Outlet Area: 9.968 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
42L422	TABD	745	1½	18493	1.45	16947	1.56	15058	1.63	12518	1.67											FEG63
42L422	TABD	820	2	20355	1.93	18971	2.05	17357	2.15	15380	2.21	12575	2.21									
42L422	TABD	939	3	23309	2.90	22120	3.04	20796	3.16	19275	3.26	17482	3.33									
42L422	TABD	1113	5	27628	4.83	26639	5.00	25577	5.16	24422	5.29	23140	5.40	20062	5.56							
42L422	TABD	1274	7½	31625	7.25	30768	7.44	29864	7.63	28906	7.80	27881	7.95	25561	8.19	22744	8.35	18375	8.16			
42L422	TABD	1402	10	34802	9.66	34027	9.87	33217	10.08	32370	10.27	31477	10.45	29517	10.76	27264	10.99	24561	11.13	20686	10.97	
42S720	TABD	968	3	23052	2.39	21891	2.58	20633	2.77	19248	2.96	17696	3.13	13466	3.29							FEG67
42S720	TABD	1148	5	27338	3.99	26370	4.21	25348	4.43	24261	4.66	23096	4.88	20455	5.29	16974	5.49					
42S720	TABD	1314	7½	31292	5.99	30451	6.24	29576	6.49	28661	6.74	27701	7.00	25612	7.51	23235	7.96	20287	8.22			
42S720	TABD	1447	10	34459	7.99	33698	8.27	32912	8.55	32098	8.83	31253	9.11	29449	9.68	27461	10.22	25233	10.69	22537	10.96	
42S720	TABD	1656	15	39436	11.98	38774	12.30	38095	12.62	37399	12.94	36683	13.26	35185	13.90	33585	14.55	31860	15.18	29988	15.74	

Performance shown is for installation type D: Ducted inlet, ducted outlet.
Power ratings (BHP) includes drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

Model TABD

TABD | Size 48

Outlet Area: 12.896 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
48L422	TABD	656	2	24280	1.93	22276	2.07	19836	2.17	16581	2.22											FEG63
48L422	TABD	751	3	27796	2.89	26081	3.05	24115	3.19	21765	3.29	18739	3.33									
48L422	TABD	891	5	32978	4.82	31557	5.02	30006	5.20	28274	5.35	26301	5.47	21012	5.55							
48L422	TABD	1020	7½	37752	7.24	36524	7.47	35213	7.68	33802	7.88	32257	8.04	28644	8.28	23600	8.31					
48L422	TABD	1122	10	41527	9.63	40416	9.89	39246	10.13	38005	10.35	36679	10.56	33685	10.87	30071	11.09	24824	10.96			
48L422	TABD	1285	15	47560	14.47	46596	14.77	45593	15.05	44548	15.32	43454	15.57	41081	16.01	38393	16.35	35298	16.62	31437	16.69	
48S718	TABD	936	5	30443	4.11	29235	4.37	27946	4.62	26558	4.85	25043	5.06	21391	5.39							
48S718	TABD	1072	7½	34867	6.17	33820	6.47	32722	6.76	31563	7.04	30335	7.30	27597	7.76	24254	8.11	19579	8.26			
48S718	TABD	1180	10	38380	8.23	37432	8.56	36447	8.88	35420	9.19	34344	9.49	32017	10.04	29357	10.51	26154	10.87	21866	11.02	
48S718	TABD	1350	15	43909	12.32	43085	12.70	42236	13.08	41360	13.44	40455	13.79	38545	14.46	36470	15.08	34170	15.62	31547	16.08	

TABD | Size 54

Outlet Area: 16.275 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
54L422	TABD	617	3	32487	2.88	30113	3.07	27302	3.22	23773	3.32											FEG63
54L422	TABD	732	5	38542	4.81	36583	5.05	34403	5.25	31898	5.40	28949	5.52									
54L422	TABD	838	7½	44123	7.22	42432	7.49	40605	7.74	38600	7.95	36355	8.12	30798	8.33							
54L422	TABD	922	10	48546	9.62	47019	9.92	45394	10.19	43649	10.45	41748	10.66	37335	10.98	31418	11.00					
54L422	TABD	1056	15	55602	14.45	54278	14.80	52891	15.12	51432	15.43	49889	15.71	46468	16.17	42482	16.52	37495	16.67			
54S716	TABD	856	5	34689	3.25	32994	3.78	31228	4.23	29409	4.56	27423	4.82	22287	5.23							FEG67
54S716	TABD	980	7½	39714	4.87	38240	5.49	36721	6.04	35156	6.51	33558	6.86	29902	7.43	25148	7.88					
54S716	TABD	1079	10	43726	6.50	42391	7.19	41022	7.82	39617	8.37	38185	8.84	35162	9.54	31508	10.09	26941	10.58	21990	10.82	
54S716	TABD	1235	15	50048	9.75	48885	10.55	47700	11.29	46491	11.98	45258	12.60	42744	13.59	40044	14.36	36894	15.00	33187	15.57	

TABD | Size 60

Outlet Area: 20.046 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
60L422	TABD	614	5	44316	4.81	41702	5.07	38729	5.29	35209	5.45	30802	5.54									FEG63
60L422	TABD	703	7½	50740	7.21	48488	7.52	46021	7.79	43253	8.02	40085	8.19	31275	8.26							
60L422	TABD	774	10	55864	9.63	53834	9.97	51650	10.28	49270	10.56	46626	10.78	40235	11.09							
60L422	TABD	886	15	63948	14.44	62189	14.83	60333	15.20	58362	15.55	56249	15.85	51457	16.33	45597	16.64	35060	15.88			
60L422	TABD	975	20	70372	19.24	68781	19.68	67119	20.09	65376	20.48	63538	20.85	59496	21.45	54835	21.92	49192	22.19	40040	21.48	
60S715	TABD	738	5	38907	3.75	36434	4.13	34000	4.44	31590	4.69	28979	4.98	23589	5.47	16806	5.45					
60S715	TABD	845	7½	44548	5.63	42385	6.07	40241	6.46	38142	6.78	36025	7.06	31395	7.72	26704	8.22	21150	8.20			
60S715	TABD	930	10	49030	7.50	47063	8.00	45110	8.44	43179	8.83	41284	9.15	37270	9.83	32989	10.53	28780	10.99	23668	10.94	
60S715	TABD	1065	15	56147	11.27	54428	11.84	52718	12.37	51018	12.86	49338	13.28	46010	14.00	42435	14.81	38697	15.63	34951	16.31	
60S715	TABD	1172	20	61788	15.02	60225	15.65	58670	16.25	57121	16.80	55579	17.32	52558	18.17	49482	18.96	46170	19.89	42772	20.78	

TABD | Size 72

Outlet Area: 28.767 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
72L422	TABD	453	5	56440	4.79	52117	5.12	46944	5.37	40317	5.52											FEG63
72L422	TABD	519	7½	64663	7.21	60959	7.60	56766	7.92	51833	8.16	45758	8.31									
72L422	TABD	571	10	71141	9.60	67807	10.03	64133	10.41	59974	10.71	55167	10.95	38437	10.50							
72L422	TABD	654	15	81483	14.42	78603	14.92	75513	15.38	72156	15.79	68440	16.12	59550	16.59							
72L422	TABD	719	20	89581	19.17	86977	19.72	84221	20.23	81281	20.71	78110	21.12	70853	21.76	61690	22.11					

TABD | Size 84

Outlet Area: 39.059 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
84L422	TABD	442	10	86994	9.54	81924	10.06	76168	10.50	69373	10.81	60924	11.00									FEG63
84L422	TABD	506	15	99590	14.31	95221	14.92	90439	15.46	85087	15.90	78971	16.25	62235	16.43							
84L422	TABD	556	20	109431	18.99	105484	19.66	101241	20.27	96620	20.81	91491	21.25	79131	21.86							

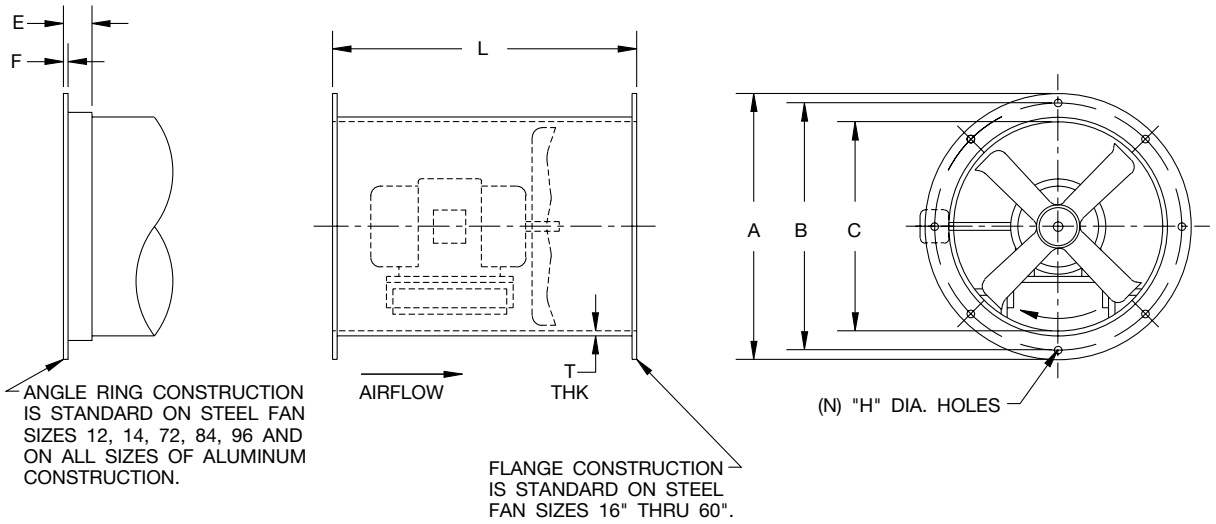
TABD | Size 96

Outlet Area: 50.922 ft²

CATALOG NUMBER				CUBIC FEET PER MINUTE & HORSEPOWER AT STATIC PRESSURE																FAN EFFICIENCY GRADE
PROP	FAN TYPE	RPM	HP	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
96L422	TABD	353	10	103709	9.48	96366	10.09	87729	10.56	77006	10.88	59601	10.62									FEG63
96L422	TABD	404	15	118693	14.20	112384	14.92	105319	15.53	97134	15.99	87367	16.33									
96L422	TABD	444	20	130445	18.85	124755	19.65	118533	20.35	111575	20.94	103630	21.39	82046	21.66							

Performance shown is for installation type D: Ducted inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances in the airstream.
Power ratings (BHP) includes drive losses.

Model TA | Direct Drive

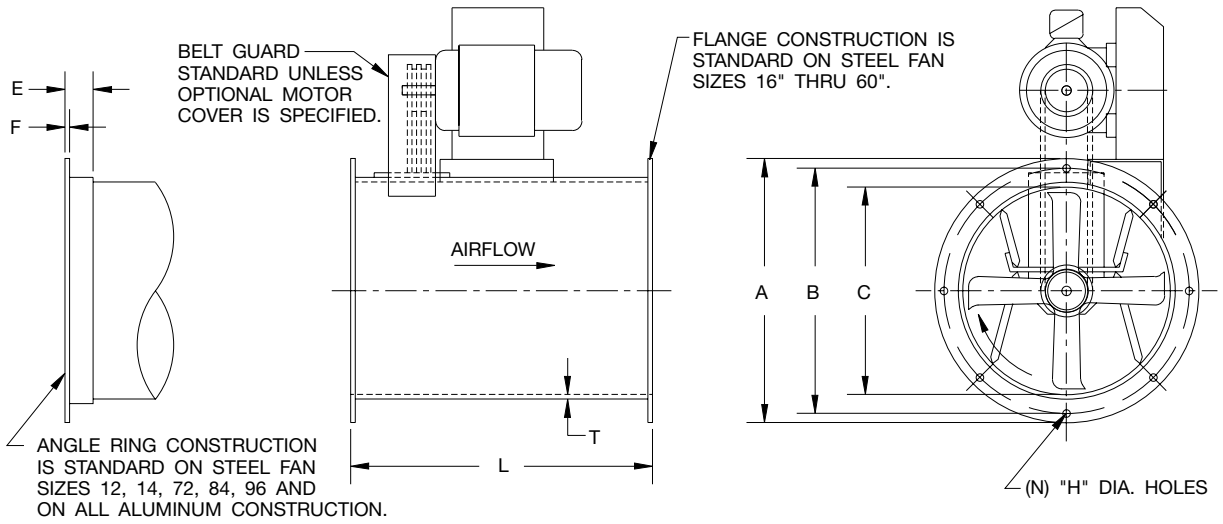


SIZE	A	B	C	H	L	N	STEEL			STAINLESS STEEL			ALUMINUM			MIN. MTR. FRAME SIZE	MAX. MTR. FRAME SIZE
							E	F	T	E	F	T	E	F	T		
12	14 7/8	13 7/8	12 1/4	11/32	22	8	1 1/4	1/8	.075	1 1/4	1/8	.075	1 1/4	1/8	.125	48	56
14	16 7/8	15 7/8	14 1/4	11/32	22	8	1 1/4	1/8	.075	1 1/4	1/8	.075	1 1/4	1/8	.125	48	56
16	19	17 7/8	16 1/4	11/32	24	8	FLANGED		.105	FLANGED		.105	1 1/4	1/8	.160	48	145T/U
18	21	19 7/8	18 1/4	11/32	24	8	FLANGED		.105	FLANGED		.105	1 1/4	1/8	.160	48	145T/U
21	24	22 7/8	21 1/4	7/16	24	8	FLANGED		.105	FLANGED		.105	1 1/4	1/8	.160	48	184T/U
24	27	25 7/8	24 1/4	7/16	24	8	FLANGED		.105	FLANGED		.105	1 1/4	1/8	.160	48	184T/U
30	33 5/8	32	30 3/8	7/16	27	8	FLANGED		.105	FLANGED		.105	1 1/2	3/16	.160	56	215T/U
36	39 13/16	38 3/8	36 1/2	7/16	34	16	FLANGED		.135	FLANGED		.135	1 1/2	3/16	.160	182T/U	256T/U
42	45 13/16	44 5/8	42 1/2	9/16	34	16	FLANGED		.135	FLANGED		.135	1 1/2	3/16	.160	182T/U	286T/U
48	52	50 5/8	48 5/8	9/16	36	16	FLANGED		.179	FLANGED		.179	1 1/2	3/16	.190	182T/U	286T/U
54	59	57 1/4	54 5/8	5/8	36	16	FLANGED		.179	FLANGED		.179	2	1/4	.190	213T/U	286T/U
60	65	63 1/4	60 5/8	5/8	38	16	FLANGED		.179	FLANGED		.179	2	1/4	.190	254T/U	326T/U
72	77	75 1/4	72 5/8	11/16	38	16	2	1/4	.179	2	1/4	.179	2	1/4	1/4	254T/U	365T/U
84	91	88 1/4	84 5/8	11/16	42	16	3	5/16	.179	3	5/16	.179	3	5/16	1/4	324T/U	365T/U
96	103	100 1/4	96 5/8	11/16	48	16	3	5/16	.179	3	5/16	.179	3	5/16	5/16	365T/U	404T/U

R23135D

Dimensions shown are in inches unless otherwise indicated.
Dimensions are not to be used for construction.

Model TABD | Belt Driven



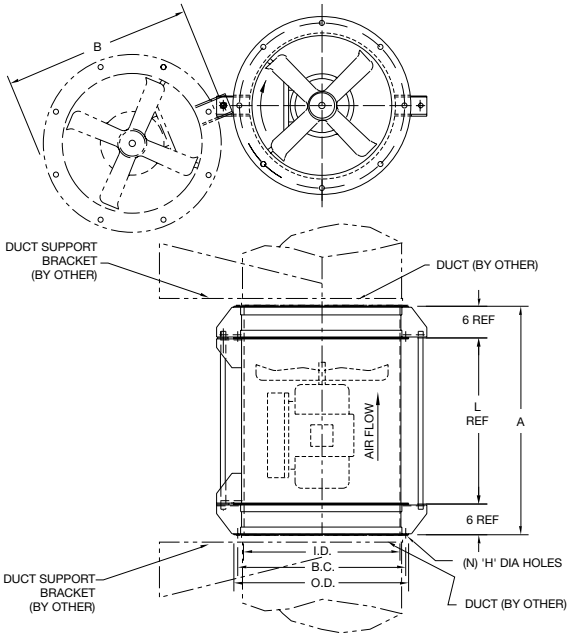
SIZE	A	B	C	H	L	N	STEEL			STAINLESS STEEL			ALUMINUM			MIN. MTR. FRAME SIZE	MAX. MTR. FRAME SIZE	SHAFT SIZE
							E	F	T	E	F	T	E	F	T			
12	14 7/8	13 7/8	12 1/4	11/32	22	8	1 1/4	1/8	.075	1 1/4	1/8	.075	1 1/4	1/8	.125	48	145T/U	5/8
14	16 7/8	15 7/8	14 1/4	11/32	22	8	1 1/4	1/8	.075	1 1/4	1/8	.075	1 1/4	1/8	.125	48	145T/U	3/4
16	19	17 7/8	16 1/8	11/32	24	8	FLANGED		.105	FLANGED		.105	1 1/4	1/8	.160	48	184T/U	3/4
18	21	19 7/8	18 1/8	11/32	24	8	FLANGED		.105	FLANGED		.105	1 1/4	1/8	.160	48	184T/U	3/4
21	24	22 7/8	21 1/4	7/16	24	8	FLANGED		.105	FLANGED		.105	1 1/4	1/8	.160	48	215T/U	3/4
24	27	25 7/8	24 1/4	7/16	24	8	FLANGED		.105	FLANGED		.105	1 1/4	1/8	.160	48	215T/U	3/4
30	33 5/8	32	30 3/8	7/16	27	8	FLANGED		.105	FLANGED		.105	1 1/2	3/16	.160	48	215T/U	1
36	39 13/16	38 3/8	36 1/2	7/16	34	16	FLANGED		.135	FLANGED		.135	1 1/2	3/16	.160	56	215T/U	1 3/16
42	45 13/16	44 5/8	42 1/2	9/16	34	16	FLANGED		.135	FLANGED		.135	1 1/2	3/16	.160	143T/U	256T/U	1 1/2
48	52	50 5/8	48 5/8	9/16	36	16	FLANGED		.179	FLANGED		.179	1 1/2	3/16	.190	143T/U	256T/U	1 1/2
54	59	57 1/4	54 5/8	5/8	48	16	FLANGED		.179	FLANGED		.179	2	1/4	.190	143T/U	286T/U	1 1/2
60	65	63 1/4	60 5/8	5/8	48	16	FLANGED		.179	FLANGED		.179	2	1/4	.190	143T/U	286T/U	2 3/16
72	77	75 1/4	72 5/8	11/16	60	16	2	1/4	.179	2	1/4	.179	2	1/4	1/4	182T/U	326T/U	2 3/16
84	91	88 1/4	84 5/8	11/16	60	16	3	5/16	.179	3	5/16	.179	3	5/16	1/4	182T/U	326T/U	2 3/16
96	103	100 1/4	96 5/8	11/16	72	16	3	5/16	.179	3	5/16	.179	3	5/16	5/16	213T/U	326T/U	2 7/16

R23136H

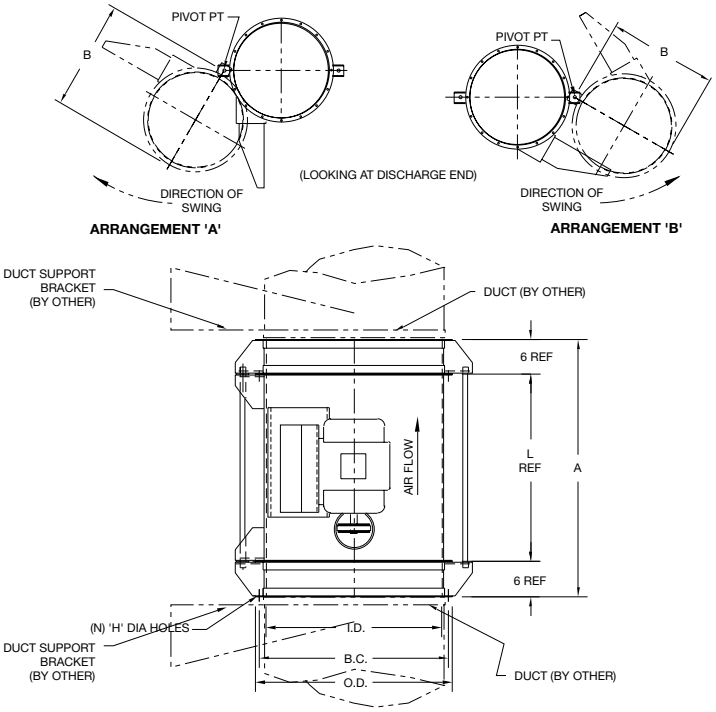
Dimensions shown are in inches unless otherwise indicated.
Dimensions are not to be used for construction.

Swingout Construction

Direct Drive



Belt Driven

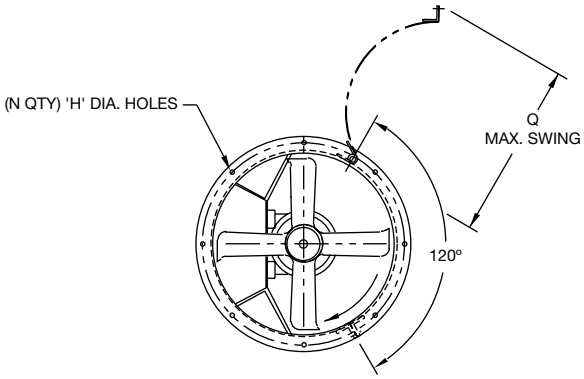


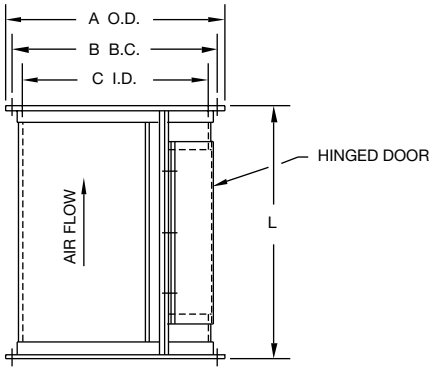
SIZE	I.D.	B.C.	O.D.	A	B	H	N	L
12	12¼	13⅞	14⅞	34	16⅜	11/32	8	22
14	14¼	15⅞	16⅞	34	18⅜	11/32	8	22
16	16¼	17⅞	18⅞	36	20⅜	11/32	8	24
18	18¼	19⅞	20⅞	36	22⅜	11/32	8	24
21	21¼	22⅞	24	36	25½	7/16	8	24
24	24¼	25⅞	27	36	28½	7/16	8	24
30	30⅜	32	33½	39	35	7/16	8	27
36	36½	38⅜	40	46	41½	7/16	16	34
42	42½	44⅝	46	46	47½	9/16	16	34
48	48⅝	50⅝	52	48	53½	9/16	16	36

Dimensions shown are in inches unless otherwise indicated. R12076D
Dimensions are not to be used for construction. R12075C

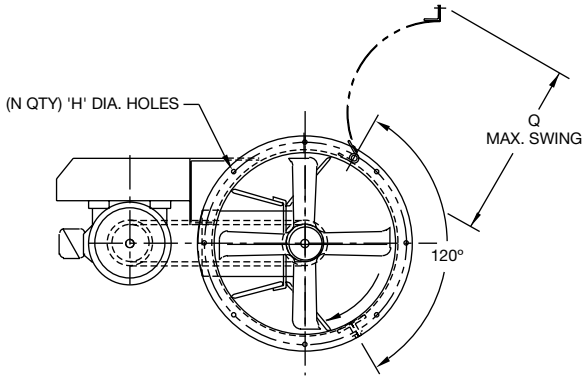
Clamshell Construction

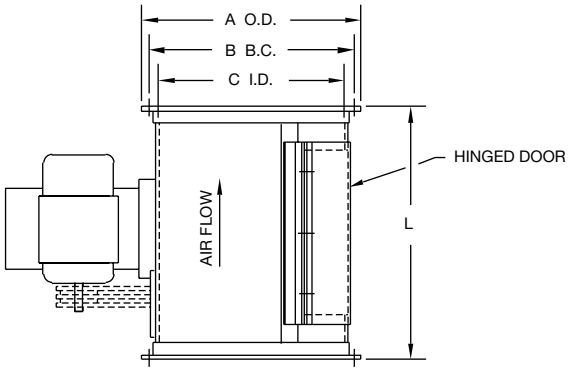
Direct Drive





Belt Driven





SIZE	A	B	C	H	N	L	Q
12	14 7/8	13 7/8	12 1/4	11/32	8	22	12 1/4
14	16 7/8	15 7/8	14 1/4	11/32	8	22	14
16	19	17 7/8	16 1/8	11/32	8	24	15 3/4
18	21	19 7/8	18 1/8	11/32	8	24	17 1/2
21	24	22 7/8	21 1/4	7/16	8	24	20 1/4
24	27	25 7/8	24 1/4	7/16	8	24	22 3/4
30	33 5/8	32	30 3/8	7/16	8	27	28 1/4
36	39 13/16	38 3/8	36 1/2	7/16	16	34	34
42	45 13/16	44 5/8	42 1/2	9/16	16	34	39 1/4
48	52	50 5/8	48 5/8	9/16	16	36	44 1/2

Dimensions shown are in inches unless otherwise indicated.
Dimensions are not to be used for construction.

R12078C
R12095E

Model TA | Arrangement 4 | Direct Drive

Fans shall be of the direct drive tubeaxial type, Arrangement 4, as manufactured by Aerovent, Minneapolis, Minnesota, and shall be of the size and capacity as indicated in the fan schedule. Fans shall have the fan propeller mounted directly on the motor shaft with the assembly enclosed entirely within the fan casing. Fans shall be tested and certified in accordance with ANSI/ASHRAE 51 and ANSI/AMCA 210 test codes and guaranteed by the manufacturer to deliver at the rated published performance levels. In addition, each unit shall be factory run tested prior to shipment.

CONSTRUCTION — Fan casings shall be welded of 14-gauge hot rolled steel in sizes 12" and 14" diameter, 12-gauge hot rolled steel in sizes 16" through 30" diameter, 10-gauge hot rolled steel in sizes 36" and 42" diameter, and 7-gauge hot rolled steel in sizes 48" diameter and larger. Inlet and outlet flanges shall be of welded angle ring construction on fan casings of 12" and 14" diameter and on casings 72" diameter and larger. Inlet and outlet flanges on sizes 16" through 60" diameter shall be integrally rolled mechanically from fan casing sheet steel to ensure concentricity and alignment of flanges. Concentricity of the fan casing shall be ensured through the use of welding jigs and fixtures. A fabricated steel motor support shall be welded into the inlet end of the fan casing. Size 21" through 48" diameter fans shall be furnished with a universal multi-frame motor base and shall have a means of horizontal and vertical adjustment. Fan casings shall be fitted with mounting legs for horizontal floor or ceiling suspension, vertical clip mounting adapters for floor or ceiling suspension, or flange mounted for direct duct connection as shown on the drawings. Fan mounting supports shall be fabricated from hot rolled steel and shall be suitably braced to ensure stability and rigidity.

PROPELLER — Precision Macheta® tipped airfoil fan blades and hub shall be 319 aluminum alloy castings. The propeller shall be secured to the motor shaft with knurled cup point set screws on sizes to 16" diameter and with split taper lock bushings on sizes of 18" diameter and larger.

MOTORS — Direct drive fan motors shall be NEMA Design B, standard industrial, continuous duty, ball bearing, variable torque type and shall be provided with the enclosure type, voltage, phase and hertz as listed in the fan schedule. If motors have regreasable bearings, external grease fittings with extended copper grease leads shall be supplied for lubrication of the motor bearings. Direct drive fans shall have the motor wiring extended through liquid-tight conduit to the outside of the housing for easy connection. Motor bearings shall have a minimum L-10 life as defined by AFBMA of at least 40,000 hours (200,000 hours average life).

BALANCING — The propeller assembly 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. In addition, direct drive fan propellers shall be balanced on the fan shaft after final assembly in the fan casing, in the manufacturing facility, to the following peak velocity values, filter-in, at the fan test speed:

Fan Application Category	Rigidly Mounted (in. / s)	Flexibly Mounted (in. / s)
BV-3	0.15	0.20

FINISH — The units, after fabrication, shall be cleaned and chemically pretreated by phosphatizing processes and shall be painted inside and outside with an alkyd primer and finish painted with an air dry acrylic enamel. The fan shall be coated with the following optional finishes:

- Air Dry Epoxy
- Plasite 4310 – Vinyl Ester
- Plasite 7122L – Air Dry Epoxy Phenolic
- Heresite VR506 – Air Dry Phenolic
- Heresite P413 – Baked Phenolic
- Powder Coat
- Carbocoat 30 (Replaces Sanitile 550 and Eisenheiss 210)
- Hot Dip Galvanizing

ACCESSORIES — The units shall be furnished complete with:

- Horizontal Support Legs
- Horizontal Ceiling Clips
- Vertical Support Section
- OSHA Inlet Guard
- Inlet Bell
- Inlet Cone
- Outlet Cone
- Swingout Arrangement (Sizes 12"–48")
- Clamshell Arrangement (Sizes 12"–48")
- Bolted Inspection Door
- Propeller Access Section
- OSHA Outlet Guard
- Acoustic Silencer (Inlet and/or Outlet)
- Companion Flanges
- Access Section
- Curb Base
- Stack Cap
- Floor Mounted Vibration Isolators [RIS] [Spring]
- Ceiling Mounted Vibration Isolators [RIS] [Spring]

Model TABD | Arrangement 9 | Belt Driven

Fans shall be of the belt driven tubeaxial type, Arrangement 9, as manufactured by Aerovent, Minneapolis, Minnesota, and shall be of the size and capacity as indicated in the fan schedule. Fans shall have the fan propeller mounted on a separate shaft and bearings in an enclosed tube with V-belt drives with a 1.3 service factor. Fans shall be tested and certified in accordance with ANSI/ASHRAE 51 and ANSI/AMCA 210 test codes and guaranteed by the manufacturer to deliver at the rated published performance levels. In addition, each unit shall be factory run tested prior to shipment.

CONSTRUCTION — Fan casings shall be welded of 14-gauge hot rolled steel in sizes 12" and 14" diameter, 12-gauge hot rolled steel in sizes 16" through 30" diameter, 10-gauge hot rolled steel in sizes 36" and 42" diameter, and 7-gauge hot rolled steel in sizes 48" diameter and larger. Inlet and outlet flanges shall be of welded angle ring construction on fan casings of 12" and 14" diameter and all casings of 72" diameter and larger. Inlet and outlet flanges on sizes 16" through 60" diameter shall be integrally rolled mechanically from fan casing sheet steel to ensure concentricity and alignment of flanges. Concentricity of the fan casing shall be ensured through the use of welding jigs and fixtures. Belt driven units are constructed with the motor base plate welded to the outside of the fan housing. The adjustment of the belt tension is accomplished with an adjustable slide rail base. Fan casings shall be fitted with mounting legs for horizontal floor or ceiling suspension, vertical clip mounting adapters for floor or ceiling suspension, or flange mounted for direct duct connection as shown on the drawings. Fan mounting supports shall be fabricated from hot rolled steel and shall be suitably braced to ensure stability and rigidity.

PROPELLER — Precision Macheta® tipped airfoil fan blades and hub shall be 319 aluminum alloy castings. The propeller shall be secured to the fan shaft with knurled cup point set screws on sizes to 16" diameter and with split taper lock bushings on sizes of 18" diameter and larger.

BEARINGS — Model TABD Belt Driven Fans shall be supplied with sealed pillow block bearings with lubrication lines extended to the outside of the fan housing for easy maintenance. Bearings shall have a minimum L-10 life as defined by AFBMA of at least 20,000 hours (100,000 hours average life).

DRIVE — All drive selections on Model TABD Belt Driven Fans shall be designed with a 1.4 service factor unless otherwise specified. Sheaves shall be cast iron with static conducting belts. Belt adjustment shall be accomplished with an adjustable motor slide rail base. Bearings and belts are enclosed in an air insulated housing for protection. An OSHA type belt guard shall be provided for personnel protection.

MOTORS — Belt driven motors shall be NEMA Design B, standard industrial, continuous duty, ball bearing, variable torque type and shall be provided with the enclosure type, voltage, phase and hertz as listed in the fan schedule.

BALANCING — The propeller assembly 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. In addition, belt driven fan propellers shall be balanced on the fan shaft after final assembly in the fan casing, in the manufacturing facility, to the following peak velocity values, filter-in, at the fan test speed:

Fan Application Category	Rigidly Mounted (in. / s)	Flexibly Mounted (in. / s)
BV-3	0.15	0.20

FINISH — The units, after fabrication, shall be cleaned and chemically pretreated by phosphatizing processes and shall be painted inside and outside with an alkyd primer and finish painted with an air dry acrylic enamel. The fan shall be coated with the following optional finishes:

- Air Dry Epoxy
- Plasite 4310 – Vinyl Ester
- Plasite 7122L – Air Dry Epoxy Phenolic
- Heresite VR506 – Air Dry Phenolic
- Heresite P413 – Baked Phenolic
- Powder Coat
- Carbocoat 30 (Replaces Sanitile 550 and Eisenheiss 210)
- Hot Dip Galvanizing

ACCESSORIES — The units shall be furnished complete with:

- Horizontal Support Legs
- Horizontal Ceiling Clips
- Vertical Support Section
- OSHA Inlet Guard
- Viton Shaft Seal
- Inlet Bell
- Inlet Cone/Outlet Cone
- Swingout Arrangement (Sizes 12"–48")
- Clamshell Arrangement (Sizes 12"–48")
- Bolted Inspection Door
- Propeller Access Section
- Spark Resistant Construction (AMCA Type A or B)
- OSHA Outlet Guard
- Acoustic Silencer (Inlet and/or Outlet)
- Companion Flanges
- Access Section
- Motor Cover
- Curb Base
- Stack Cap
- Floor Mounted Vibration Isolators [RIS] [Spring]
- Ceiling Mounted Vibration Isolators [RIS] [Spring]
- High Temperature Construction

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