

TURNING AIR INTO SOLUTIONS.

Fan & Blower

Twin City

**AMCA 260
TESTED**



**DIRECT DRIVE MIXED FLOW
INDUCED FLOW EXHAUST FANS**

Model TVIFE

LABORATORY EXHAUST FANS

Overview

TVIFE



TVIFE
Single Unit

TVIFE
Dual Unit



Twin City Fan & Blower offers the latest innovation in direct drive, induced flow exhaust fans. The TVIFE dramatically improves upon the conventional bifurcated design for direct drive fume exhaust fans with its patented Turbo-Vane™ design (U.S. Patent 8758101).

Available in twenty-two (22) sizes, 90 through 542, the TVIFE consists of a direct drive, vertically mounted mixed flow fan with one of three (3) different nozzles and specially designed windband to maximize dilution ratio (overall outlet volume/lab outlet volume) and exhaust plume height.

A revolutionary housing design integrates multiple vanes open to the exterior of the fan to allow for motor cooling and additional induced flow while minimizing turbulence inside the fan.

Mounted on a modular mixing plenum box or standard curb cap, the TVIFE is capable of generating an induced flow to meet stringent roof exhaust requirements.

TVIFE fans in a standard configuration utilize a heavy-duty curb cap. An optional modular mixing plenum box includes an integrated curb cap.

Benefits of Mixed Flow Fans

Twin City Fan & Blower Model TVIFE Mixed Flow Induced Flow fans combine the benefits of axial flow and centrifugal flow fans with the added benefit of entraining ambient air for a pre-diluted exhaust plume. The TVIFE has the advantages of an axial fan with its compact design and straight-through airflow combined with a centrifugal fan's preferred acoustical characteristics and high pressure capabilities. TVIFE fans offer superior air and sound performance and the AMCA certified rating seal for induced flow air and sound.

Sizes

12.25" to 66.0" wheel diameters

Performance

Airflow to 86,000 CFM

Static pressure to 8" w.g.



For complete product performance, drawings, and available accessories, download Fan Selector at tcf.com.



Model TVIFE is available with UL/cUL 705 listing, for electrical, File No. E158680.



Twin City Fan & Blower certifies that the TVIFE Direct Drive Mixed Flow Induced Flow Exhaust Fans herein are licensed to bear the AMCA Seal. The ratings shown are based on test and procedures performance in accordance with AMCA Publication 211 and 311 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Induced Flow Fan Air and Sound Performance tested in accordance with AMCA standard 260. See Catalog 1091 for sound ratings.

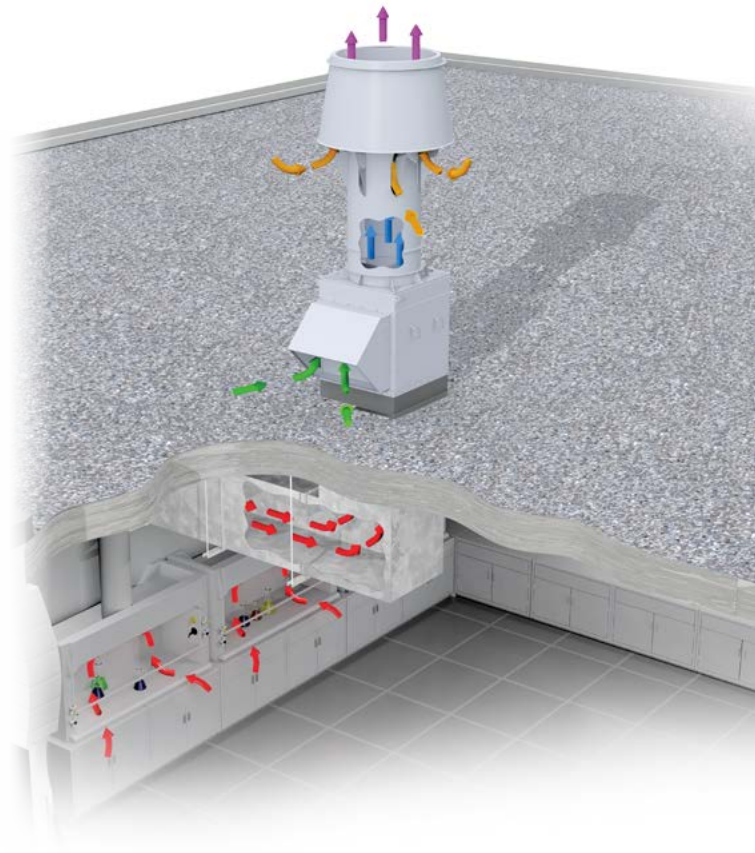
Application

Lab Exhaust

Application

The patented, TVIFE Induced Flow Mixed Flow Exhaust Fan (U.S. Patent 8758101) is intended for use in exhausting laboratory/hazardous fumes in a safe and efficient manner. The TVIFE housing uses an innovative Turbo-Vane™ design that integrates the internal nozzle and straightening vanes into one. Turbo-Vanes™ induce air within the fan housing as well as the windband, giving the best entrainment and efficiency in the industry. The design also allows for uniform motor cooling, while keeping the motor out of the airstream.

Induced flow exhaust fans dilute contaminated air at the outlet as well as increase the outlet volume of the fan. This accelerates the discharge air, increasing plume height without a tall stack.



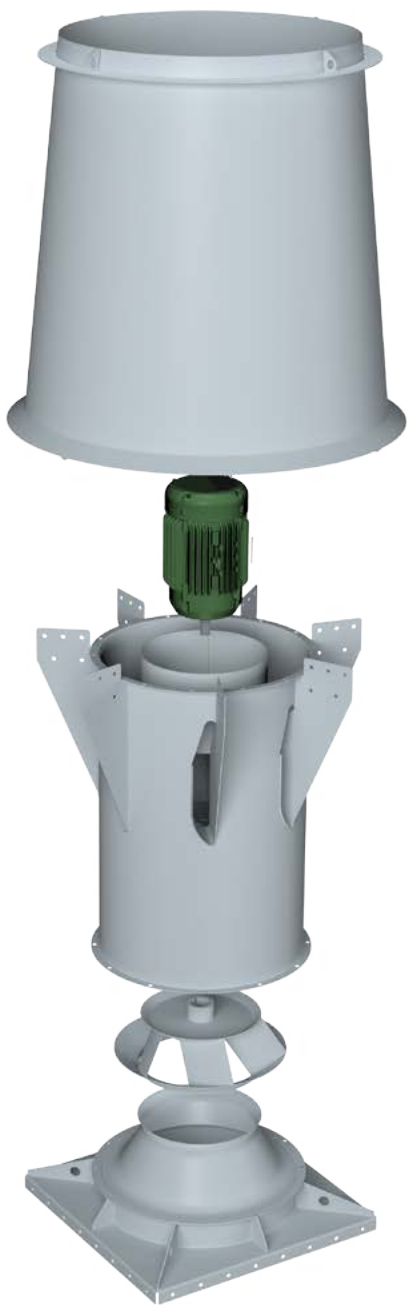
Energy Recovery Systems

Twin City Fan & Blower energy recovery systems for fume exhaust applications combine our line of high efficiency fume exhaust fans with the latest in energy recovery technology. TCF can greatly reduce your energy consumption and carbon footprint while simultaneously increasing your bottom line. Our energy recovery plenums are available in endless configurations to match your specific needs.

TCF's energy recovery systems are designed to extract energy from the conditioned air exiting the laboratory and return the captured energy back into the make-up air unit before it re-enters the building. Energy recovery systems can also be used to pre-cool incoming supply air by removing the heat from the incoming airstream and sending it to the exhaust system.



STANDARD CONSTRUCTION



Wheel/Impeller is designed with die-formed, continuously-welded single-thickness or airfoil blades for a stable air performance throughout the operating range.

Windbands are designed to maximize plume height and entrainment air. Constructed of heavy-gauge steel for strength and rigidity, the windband is mounted directly to the fan housing.

Turbo Vane™ housing integrates the internal nozzle and straightening vanes into one. Turbo Vanes™ convert tangential velocity pressure into useful static pressure, reducing turbulence and increasing efficiency while providing increased dilution to contaminated air and motor cooling. Extensive testing of various shapes and locations has resulted in the most efficient aerodynamic design of the straightening vanes.

Housing is constructed of heavy-gauge steel and continuously welded for strength and rigidity. All TVIFE fans are provided with punched inlet and outlet flanges as standard.

Drain coupling welded to the lowest point of the housing allows drainage of condensate from fan housing.

NOTE: While precipitation entry into the fan and duct system is greatly reduced while the fan is in operation, precipitation may enter in while the fan is not operating. Care must be taken by the system designer, building owner, and user to consider precipitation mitigation and moisture draining for the fume exhaust system.

Bolted Access Door for inspection or cleaning of the wheel.

Curb Cap attaches to the fan's inlet flange for curb mounting. Standard accessory on TVIFE without mixing plenum box.

Two-Piece Housing, on sizes 365 and larger, allows the main body of the housing to be raised off the inlet funnel section exposing the wheel for inspection and removal. This design allows for easy and efficient alignment and mounting of wheel and funnel.

Other Standard Features

- Arrangement 4, Direct Drive Design
- Three (3) discharge nozzles available per fan size (medium, high and extra high velocity)
- Two (2) induced flow windbands (standard and high plume)
- Three (3) discrete wheel widths available (100%, 75%, 50%)

MOUNTING CONFIGURATIONS



Unique applications require unique configurations. With the Twin City Fan & Blower modular mixing box, multiple configurations are able to be easily created and retrofitted.



Fan & Blower
Twin City



OPTIONS/ACCESSORIES



1 Acoustic Windband Designed to reduce noise of the fan system by attenuating sound at the fan outlet.

2 Inlet Safety Screens can be provided for installation in the fan inlet.

3 Isolation Damper are typically used on multi-fan systems to isolate individual fans. Isolation dampers are available with 2-position, spring-return controls and various materials of construction and coating options.

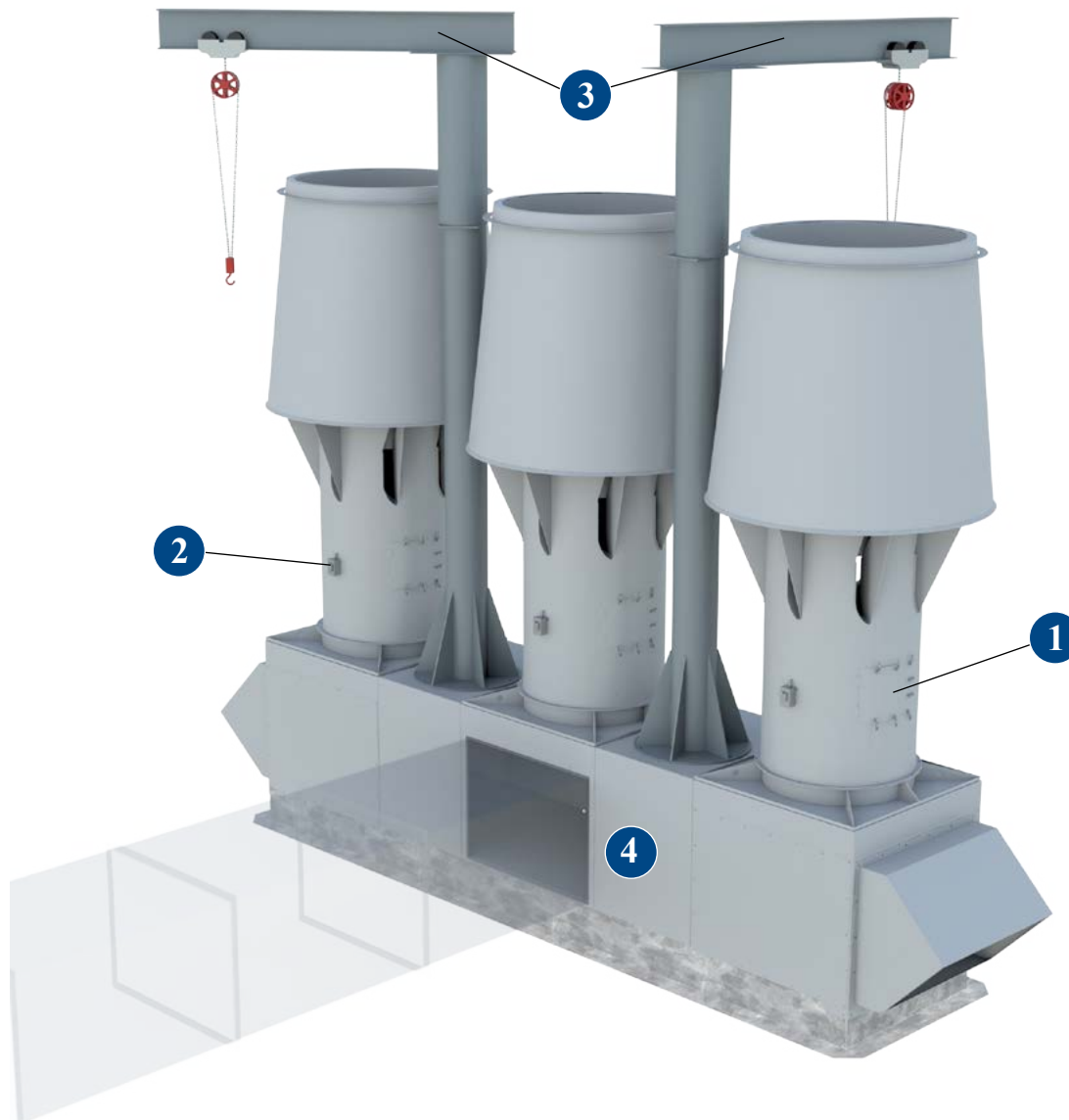
4 Bypass Dampers are used to maintain outlet velocities by allowing a constant volume at the fan when exhaust air is reduced. Bypass dampers are available with either a manual, locking quadrant (handle) or with electrical controls and various materials of construction and coating options.

5 Vortex Breaker Installed in the mixing plenum box at the fan inlet, the vortex breaker minimizes

air 'swirl'. Recommended for multi-fan configurations and where mixing box intakes are not directly across from the inlet of the fan.

6 Insulated Roof Curb Standard roof curbs are 12" high and are constructed of heavy duty galvanized steel and include 1½" thick insulation. Contact factory for other roof curb options. Note: 125 mph windload ratings require a Twin City Fan & Blower supplied roof curb. Parallel backdraft dampers are available for mounting in roof curbs.

7 Mixing Plenum Box w/ Weatherhood; w/ Insulation & Stainless Steel Liner Bottom Intake The mixing plenum box features modular construction allowing for multiple configurations and effortless retrofitting. Bottom intake is standard, side intake option available upon request.



1 Quick Open Access Doors are designed for quick wheel inspection and maintenance. Access doors are specified where examination and cleaning of the fan interior is frequently required.

2 NEMA 3R Disconnect Switch, rain proof, disconnect is available shipped loose for field mounting and wiring or factory mounted and wired. Also available with a NEMA 4 or 7/9 switch.

3 Jib Crane Heavy duty jib crane is designed to handle the weight of the heaviest individual component. The mount is connected to the specially reinforced mixing box spacer mixing box structure.

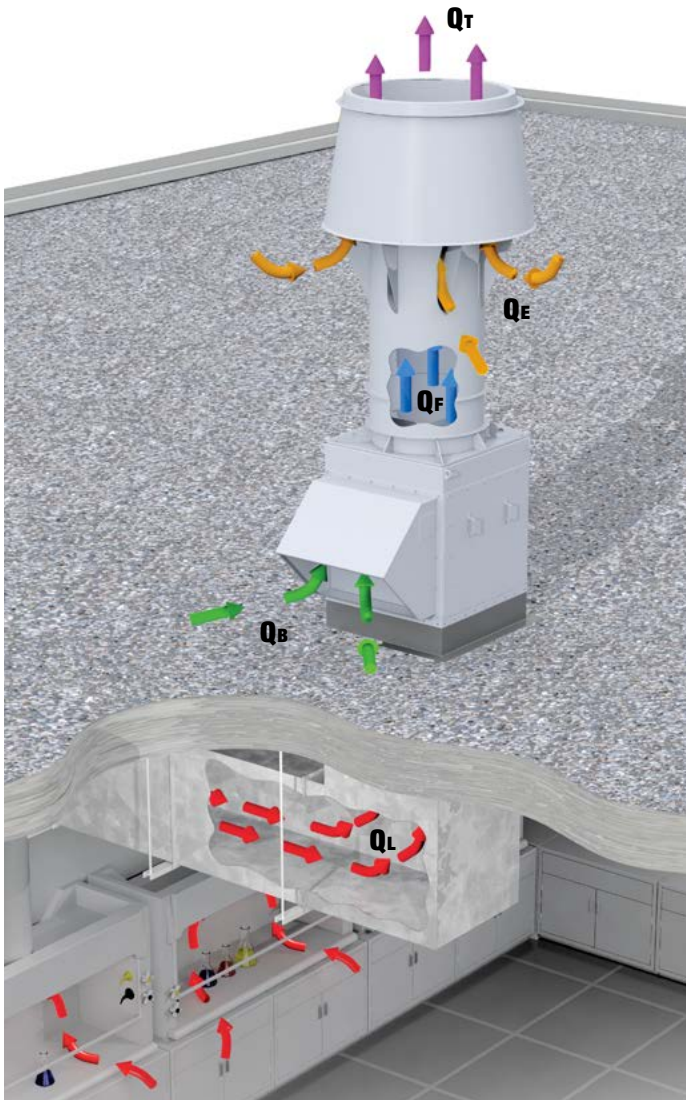
Single and double mixing boxes receive one (1) jib crane. 3x1 and 4x1 configurations receive two (2) jib cranes.

4 Mixing Plenum Box w/ Weatherhood; Side Intake The mixing plenum box features modular construction allowing for multiple configurations and effortless retrofitting. Bottom intake is standard, side intake option available upon request.

OTHER ACCESSORIES:

- Stainless Steel Hardware
- Inlet/Outlet Flange (Punched)
- Pressure Transducer
- Curb Cap

FUME EXHAUST DEFINITIONS



- Q_B = Bypass Flow**
- Q_E = Entrained Flow**
- Q_F = Fan Flow**
- Q_L = Laboratory Flow (Contaminated Air)**
- Q_T = Total Flow**

$$Q_T = Q_E + Q_F$$

$$Q_F = Q_B + Q_L$$

$$\therefore Q_T = Q_E + Q_B + Q_L$$

$$\text{Dilution Ratio} = \text{D.R.} = \frac{Q_T}{Q_L}$$

$$\text{Entrainment Ratio} = \text{E.R.} = \frac{Q_T}{Q_F}$$

Bypass Air

Ambient air that is drawn through the bypass air plenum and mixed with the lab exhaust to increase dilution and plume rise. Bypass air is primarily used in variable volume applications to maintain a constant discharge volume but can also be used to increase overall exhaust volume and dilution. (See diagram to left.)

Dilution Ratio

The ratio of the total fan outlet volume to the lab exhaust volume. (Total Volume/Lab Exhaust Volume). Value includes any additional bypass air in the calculation. (See diagram to left.)

Entrainment Air

Air that is entrained (induced flow) through the windband and fan housing, mixed with the laboratory exhaust to increase the dilution ratio and plume rise. (See diagram to left.)

Entrainment Ratio

The ratio of the total fan outlet volume to the fan inlet volume. (Total Volume/Fan Inlet Volume - see diagram to left.)

Nozzle

Device located internal to the fan housing, providing fume exhaust air to accelerate upon entrance to the windband. Several nozzles per fan size are available on the TVIFE; medium-velocity, high-velocity and extra-high-velocity. Each nozzle provides different flow characteristics. Nozzle should be selected based on the application requirements.

Plume Rise

The height of the fume exhaust and entrainment air above the discharge of the windband. (See page 9 for diagram and calculations.)

Plume Height

Overall height of the discharge plume rise, plus the added height of the exhaust system above the roofdeck level. (See page 9 for diagram and calculations.)

Total Airflow

The total airflow exiting the windband, including fume exhaust, bypass air, and entrainment air. (See diagram to left.)

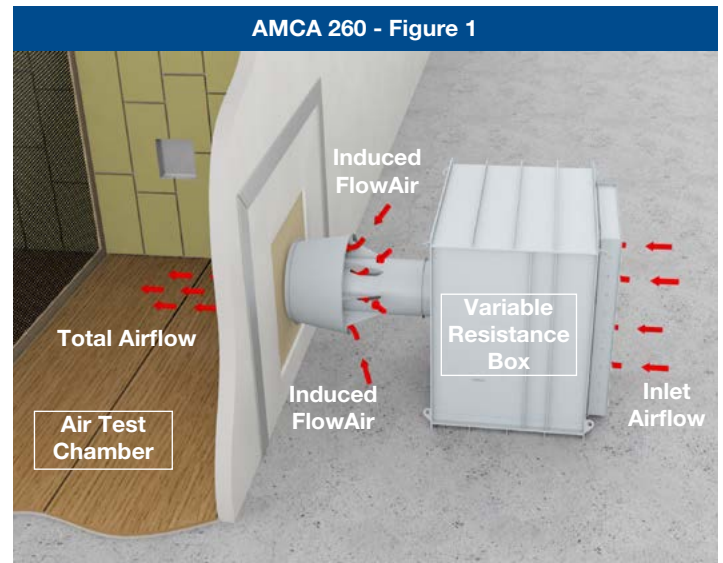
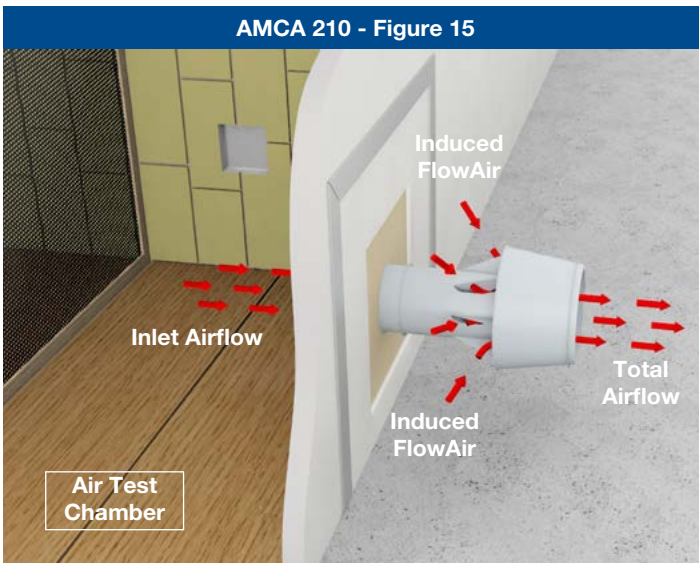
Windband

Device used to direct the fume exhaust as it leaves the housing of the exhaust fan and entrain dilution air.

AMCA 260 TESTING

The following illustrations describe the procedure for determining the total laboratory exhaust fan discharge flow. The total discharge flow is the sum of inlet airflow and entrained airflow. The key requirement to AMCA 260 is the variable resistance box. This box allows the measurement of total discharge flow ($P_s = 0$ in. w.g. to simulate discharging the fan to atmosphere) at all points along its fan curve.

Without the variable resistance box, the entrained airflow can only be measured at the free air point of its fan curve. The entrained airflow obtained can be used to calculate an effective plume height. Therefore, AMCA 260 certification is necessary to ensure the laboratory exhaust fan specified is providing the plume rise and entrainment submitted.



PLUME HEIGHT CALCULATION

$$h_e = h_r + h_s^*$$

$$h_e = [3.0 \times (V \times d/U)] + h_s$$

- h_e = Effective plume height (ft)
- h_r = Plume rise (ft)
- h_s = Stack height (height from roof to outlet of windband) (ft)
- V = Windband exit velocity (ft/min)
- d = Windband outlet diameter (ft)
- U = Crosswind speed (ft/min)

* Equation taken from ASHRAE Laboratory Design Guide, Equation 9-2.
Note: Plume height calculations are typically calculated with a 10 mph (880 ft/min) crosswind.

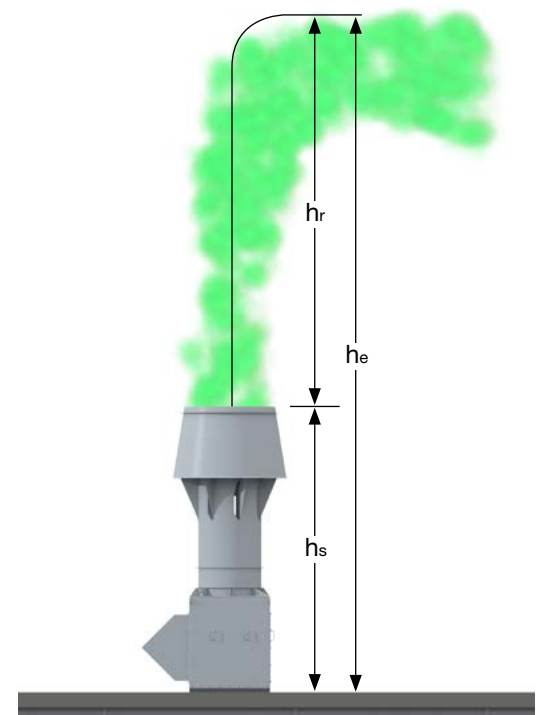


Table 1. Maximum RPM, Wheel Weights, and WR^2 (moment of inertia in lb-ft²)

FAN SIZE	CLASS I			CLASS II		
	MAX. RPM	WEIGHT LB.	WR^2 LB-FT ²	MAX. RPM	WEIGHT LB.	WR^2 LB-FT ²
90	4225	9	1.05	-	-	-
122	3450	12	2.15	-	-	-
135	3137	15	3.5	-	-	-
150	2721	24	5.5	3558	28	7.1
165	2483	32	8	3247	36	10.3
182	2232	38	12	2918	44	15
200	2027	48	20	2650	52	23
222	1839	57	29	2405	62	34
222P	1839	57	29	2405	62	34
245	1655	69	45	2165	75	52
245P	1655	69	45	2165	75	52
270	1505	82	66	1968	90	76
270P	1505	82	66	1968	90	76
300	1360	140	133	1779	150	145
300P	1360	140	133	1779	150	145
330	1234	167	197	1613	179	215
330P	1234	167	197	1613	179	215
365	1116	233	320	1459	247	347
402	1013	324	588	1325	324	588
445	915	393	883	1197	393	883
490	828	478	1321	1082	478	1321
542	752	591	1934	984	591	1934

Table 2. Bare Fan with Windband Weights (lb)

FAN SIZE	CLASS I	CLASS II
90	253	-
122	354	-
135	407	-
150	467	467
165	542	542
182	659	659
200	784	784
222	833	833
222P	934	934
245	1046	1046
245P	1166	1166
270	1214	1221
270P	1359	1366
300	1541	1541
300P	1719	1719
330	1849	1849
330P	2065	2065
365	2255	2255
402	2777	2795
445	3377	3400
490	4104	4131
542	5035	5035

NOTE:

Weights do not include motor, mixing plenum box or roof curb weights. See Table 4 for mixing plenum box weights. See Table 5 for separate windband weights.

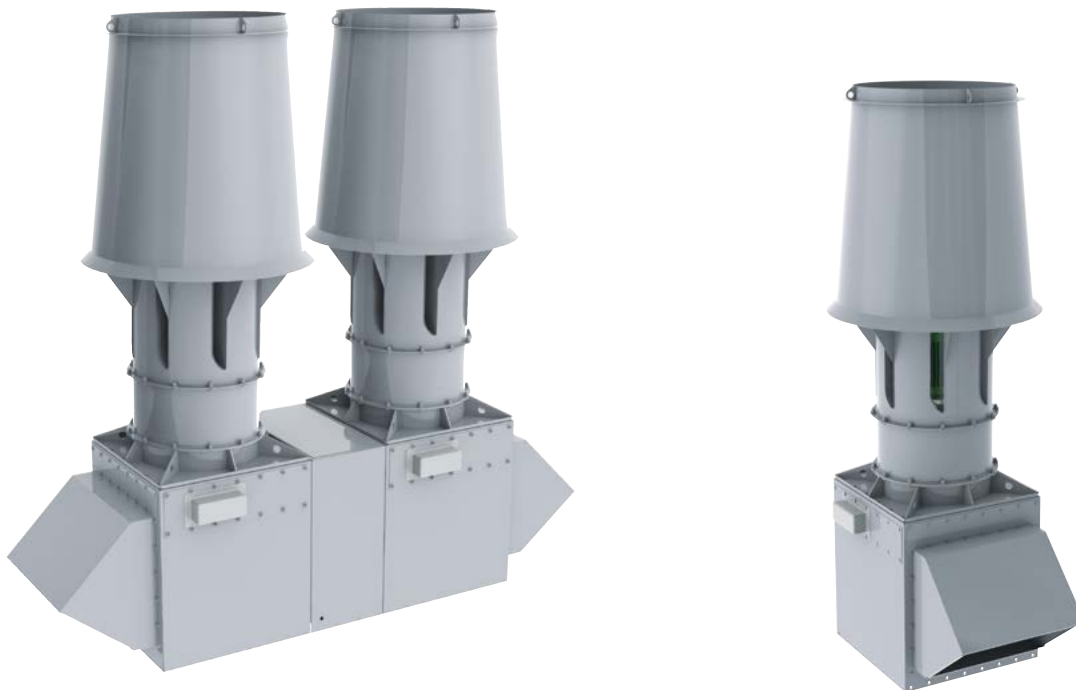


Table 3. Temperature and Altitude Density Ratios

AIR TEMP °F	ALTITUDE IN FEET ABOVE SEA LEVEL											
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	15000
	BAROMETRIC PRESSURE IN INCHES OF MERCURY											
	29.92	28.86	27.82	26.82	25.84	24.90	23.98	23.09	22.22	21.39	20.58	16.89
-50	1.293	1.247	1.201	1.159	1.116	1.076	1.036	0.997	0.960	0.924	0.889	0.729
0	1.152	1.111	1.071	1.032	0.995	0.959	0.923	0.889	0.856	0.824	0.792	0.650
70	1.000	0.964	0.930	0.896	0.864	0.832	0.801	0.772	0.743	0.714	0.688	0.564
100	0.946	0.912	0.880	0.848	0.818	0.787	0.758	0.730	0.703	0.676	0.651	0.534
150	0.869	0.838	0.808	0.770	0.751	0.723	0.696	0.671	0.646	0.620	0.598	0.490
200	0.803	0.774	0.747	0.720	0.694	0.668	0.643	0.620	0.596			

Table 4. Mixing Plenum Box Weights (lb)

FAN SIZE	SINGLE	DOUBLE	TRIPLE	QUAD
90	269	554	852	1148
122	342	706	1086	1464
135	337	708	1095	1484
150	439	906	1392	1880
165	462	964	1488	2012
182	506	1062	1644	2228
200	519	1110	1725	2340
222	738	1590	2478	3368
222P	738	1590	2478	3368
245	926	1974	3066	4160
245P	926	1974	3066	4160
270	952	2070	3234	4400
270P	952	2070	3234	4400
300	1135	2450	3822	5192
300P	1135	2450	3822	5192
330	1320	2824	4392	5960
330P	1320	2824	4392	5960
365	1449	3114	4851	6588
402	1588	3422	5337	7248
445	1814	3892	6057	8224
490	1999	4310	6720	9128
542	2208	4776	7452	10132

Table 5. Windband Weights (lb)

FAN SIZE	WEIGHT
90	96
122	142
135	171
150	146
165	174
182	216
200	262
222	212
222P	314
245	250
245P	370
270	300
270P	445
300	367
300P	545
330	444
330P	661
365	536
402	648
445	789
490	961
542	1159

NOTES:

- Weights do not include roof curb, dampers or actuators.
- Weights are for non-insulated, bottom-intake mixing boxes without jib crane mounting.



90 TVIFE

Wheel Type: Mixed Flow Single Thickness

Wheel Dia.: 12.25"

Max RPM = Class I: 4225

Tip Speed FPM = 2.40 x RPM

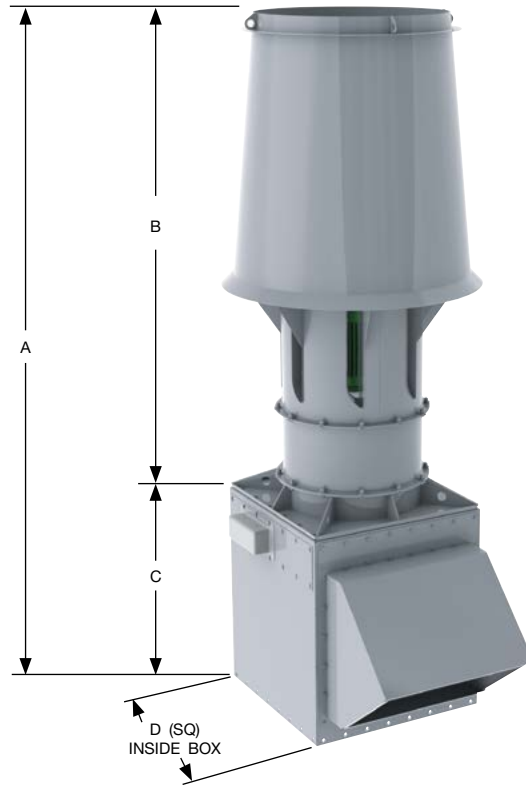
Min Motor Frame: 48C

Max Motor Frame: 145C

Windband Outlet Area: 1.80 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	107.09
B	77.34
C	29.75
D	24.00

Note: Mixing Box is not part of the base fan.
See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.440 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
1175	2670	2043	0.25	2038	2183	0.32	2026	2323	0.38	2009	2466	0.46	1995	2625	0.54	2016	3055	0.86	2386	3340	1.07	2475			
1400	3182	2334	0.37	2433	2453	0.44	2427	2571	0.52	2418	2689	0.59	2406	2806	0.68	2389	3208	1.05	2773	3457	1.26	2759	3696	1.49	2810
1625	3693	2635	0.52	2825	2741	0.60	2823	2843	0.69	2817	2944	0.77	2809	3046	0.86	2800	3248	1.29	3186	3665	1.51	3162	3845	1.74	3141
1850	4205	2944	0.72	3215	3038	0.81	3216	3130	0.90	3213	3220	1.00	3208	3309	1.09	3201	3488	1.29	3186	3665	1.51	3162	3845	1.74	3141
2075	4716	3257	0.97	3604	3343	1.07	3607	3427	1.17	3607	3509	1.27	3605	3589	1.37	3601	3748	1.59	3589	3907	1.82	3574	4065	2.06	3553
2300	5227	3575	1.27	3994	3653	1.38	3997	3729	1.49	3998	3805	1.60	3998	3879	1.71	3997	4023	1.95	3987	4166	2.19	3976			
2525	5739	3896	1.63	4383	3967	1.75	4387	4037	1.87	4388	4106	1.99	4389	4175	2.11	4389									

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.440 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
1000	2273	2145	0.23	1829	2294	0.28	1819	2438	0.35	1799	2584	0.42	1789	2746	0.49	1817	3167	0.76	2091	3448	0.95	2166			
1150	2614	2381	0.30	2107	2513	0.37	2100	2642	0.44	2091	2768	0.51	2075	2893	0.59	2060	3167	0.76	2091	3448	0.95	2166			
1300	2955	2624	0.40	2384	2744	0.47	2380	2860	0.54	2373	2974	0.62	2365	3086	0.70	2351	3308	0.88	2327	3551	1.07	2356	3806	1.29	2427
1450	3295	2872	0.51	2660	2983	0.59	2658	3089	0.67	2653	3192	0.75	2646	3295	0.84	2640	3495	1.02	2615	3694	1.22	2594	3910	1.44	2616
1600	3636	3124	0.65	2935	3227	0.74	2935	3326	0.82	2932	3421	0.91	2927	3514	1.00	2921	3699	1.20	2906	3879	1.40	2881	4060	1.62	2863
1750	3977	3378	0.81	3208	3474	0.91	3209	3567	1.00	3209	3656	1.10	3206	3743	1.20	3201	3913	1.40	3189	4082	1.61	3175			
1900	4318	3636	1.00	3483	3725	1.10	3484	3812	1.21	3485	3896	1.31	3483	3978	1.42	3480	4137	1.63	3471						

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.440 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
775	1761	2154	0.18	1405	2305	0.23	1388	2450	0.28	1366	2596	0.34	1353	2757	0.40	1368	3189	0.62	1587	3464	0.78	1632			
900	2045	2409	0.25	1642	2542	0.30	1628	2671	0.36	1612	2796	0.42	1593	2920	0.48	1576	3189	0.62	1587	3464	0.78	1632			
1025	2330	2670	0.33	1877	2791	0.39	1865	2907	0.45	1852	3021	0.52	1839	3132	0.58	1823	3350	0.73	1793	3585	0.88	1801	3833	1.06	1842
1150	2614	2937	0.43	2111	3049	0.50	2101	3155	0.57	2090	3258	0.64	2079	3360	0.71	2067	3557	0.86	2038	3751	1.02	2012	3957	1.19	2012
1275	2898	3208	0.55	2344	3312	0.63	2336	3411	0.70	2326	3506	0.78	2317	3599	0.86	2306	3782	1.02	2285	3958	1.18	2257	4133	1.36	2233
1400	3182	3482	0.70	2576	3578	0.78	2568	3672	0.86	2562	3761	0.95	2553	3847	1.03	2544	4016	1.20	2525	4181	1.38	2504			
1525	3466	3759	0.87	2808	3849	0.96	2802	3936	1.05	2795	4021	1.14	2789	4102	1.23	2780									

Underlined figures indicate maximum static efficiency.

NOTES:

1. Performance certified is for installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. Performance ratings do not include the effects of crosswinds.

122 TVIFE

Wheel Type: Mixed Flow Single Thickness

Wheel Dia.: 15.00"

Max RPM = Class I: 3450

Tip Speed FPM = 2.93 x RPM

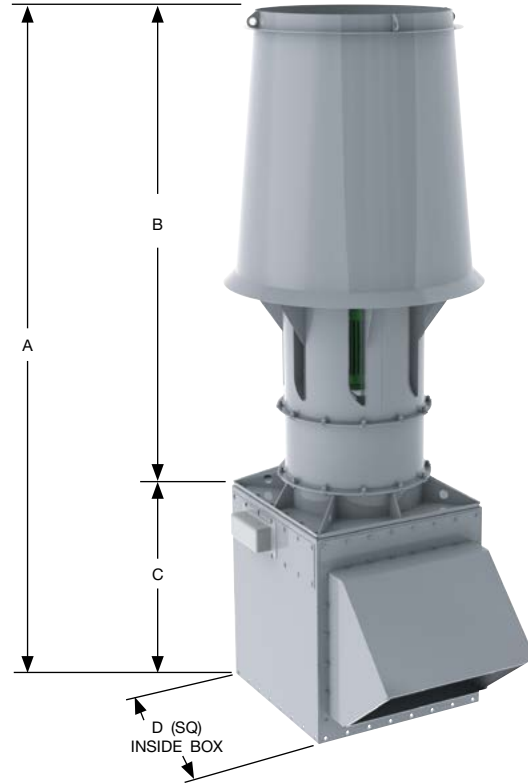
Min Motor Frame: 48C

Max Motor Frame: 184C

Windband Outlet Area: 2.70 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	127.04
B	93.29
C	33.75
D	28.00

Note: Mixing Box is not part of the base fan.
See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.660 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
1775	2691	1678	0.39	3081	1791	0.48	3063	1905	0.58	3038	2020	0.69	3013	2147	0.81	3036	2412	1.09	3183							
2100	3183	1907	0.56	3650	2004	0.66	3641	2100	0.77	3627	2196	0.89	3608	2292	1.01	3583	2495	1.29	3576	2728	1.61	3711				
2425	3676	2143	0.78	4213	2230	0.90	4212	2314	1.02	4204	2397	1.15	4192	2481	1.28	4180	2646	1.56	4135	2818	1.87	4115	3015	2.22	4194	
2750	4169	2386	1.06	4778	2464	1.19	4780	2540	1.33	4777	2614	1.47	4770	2687	1.61	4759	2834	1.91	4735	2980	2.23	4697	3129	2.57	4667	
3075	4661	2633	1.41	5341	2703	1.55	5344	2772	1.70	5344	2840	1.86	5342	2906	2.01	5335	3037	2.33	5316	3169	2.67	5296	3299	3.03	5260	
3400	5154	2882	1.83	5902	2946	1.99	5906	3010	2.15	5910	3072	2.32	5909	3133	2.49	5906	3253	2.84	5895	3371	3.19	5876				
3725	5647	3134	2.33	6464	3193	2.51	6470	3251	2.69	6472	3309	2.87	6475	3365	3.05	6472										

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.660 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
1500	2274	1752	0.34	2743	1874	0.43	2727	1991	0.52	2697	2111	0.63	2685	2242	0.74	2722										
1750	2653	1967	0.47	3209	2073	0.57	3197	2177	0.67	3181	2279	0.78	3160	2379	0.90	3136	2597	1.15	3169	2826	1.44	3281				
2000	3032	2188	0.63	3670	2285	0.74	3665	2377	0.85	3653	2468	0.97	3640	2558	1.10	3624	2734	1.36	3584	2922	1.65	3603	3127	1.98	3702	
2250	3411	2414	0.83	4128	2503	0.95	4128	2587	1.08	4120	2669	1.21	4110	2750	1.34	4099	2909	1.62	4067	3066	1.92	4033	3229	2.24	4035	
2500	3790	2644	1.07	4586	2726	1.21	4589	2804	1.35	4585	2879	1.49	4578	2953	1.63	4569	3099	1.93	4549	3241	2.24	4517	3382	2.57	4485	
2750	4169	2877	1.37	5044	2952	1.52	5047	3025	1.67	5047	3096	1.82	5044	3164	1.98	5037	3297	2.29	5018	3430	2.62	5000				
3000	4548	3112	1.72	5501	3181	1.88	5504	3249	2.04	5505	3316	2.21	5506	3380	2.37	5501										

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.660 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
1175	1781	1774	0.28	2131	1896	0.35	2105	2013	0.43	2072	2130	0.51	2050	2259	0.61	2068	2511	0.81	2137							
1350	2046	1968	0.37	2462	2076	0.45	2439	2182	0.54	2416	2284	0.63	2387	2385	0.72	2362	2605	0.93	2380	2829	1.16	2446				
1525	2312	2167	0.49	2791	2267	0.58	2773	2362	0.67	2753	2455	0.76	2731	2546	0.86	2707	2726	1.08	2665	2921	1.31	2682	3124	1.57	2744	
1700	2577	2370	0.62	3118	2463	0.73	3104	2550	0.83	3085	2635	0.93	3067	2719	1.04	3049	2882	1.26	3005	3043	1.50	2969	3217	1.76	2980	
1875	2842	2576	0.79	3444	2662	0.90	3431	2744	1.01	3416	2823	1.12	3401	2900	1.24	3384	3052	1.48	3351	3198	1.72	3309	3345	1.99	3279	
2050	3107	2785	0.99	3770	2865	1.11	3759	2942	1.23	3746	3016	1.35	3732	3088	1.47	3718	3228	1.72	3687	3366	1.99	3655				
2225	3373	2995	1.21	4094	3070	1.34	4084	3143	1.47	4074	3214	1.61	4064	3281	1.74	4050	3412	2.01	4022							

Underlined figures indicate maximum static efficiency.

NOTES:

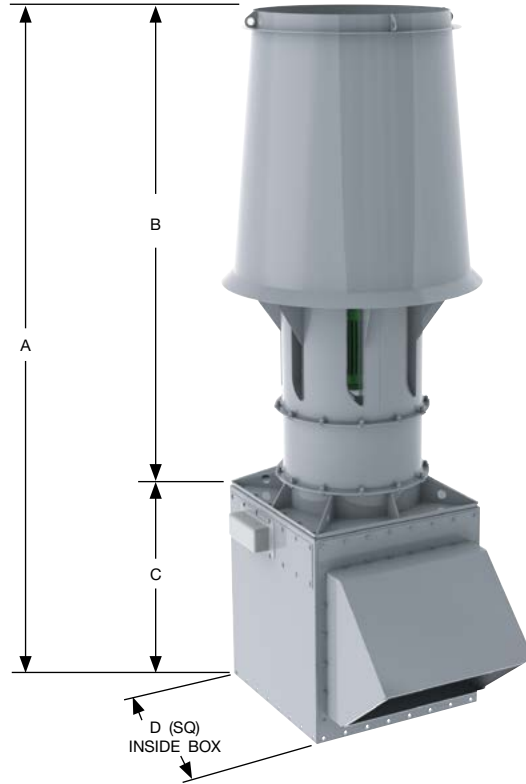
- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

135 TVIFE

Wheel Type: Mixed Flow Single Thickness
 Wheel Dia.: 16.50"
 Max RPM = Class I: 3137
 Tip Speed FPM = 3.23 x RPM
 Min Motor Frame: 48C
 Max Motor Frame: 184C
 Windband Outlet Area: 3.27 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	135.76
B	102.01
C	33.75
D	28.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.798 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
2150	2693	1526	0.47	3729	1630	0.58	3711	1732	0.71	3676	1837	0.84	3649	1953	0.99	3681	2193	1.32	3852	2477	1.93	4470			
2525	3163	1725	0.66	4389	1814	0.79	4378	1902	0.93	4361	1989	1.07	4334	2077	1.22	4304	2264	1.55	4303	2552	2.23	4927	2736	2.66	5044
2900	3633	1930	0.92	5042	2009	1.06	5037	2086	1.20	5025	2163	1.36	5012	2240	1.52	4995	2392	1.86	4941	2552	2.23	4927	2736	2.66	5044
3275	4102	2139	1.23	5690	2211	1.39	5692	2281	1.55	5687	2349	1.72	5676	2417	1.89	5665	2553	2.25	5634	2687	2.63	5582	2826	3.05	5554
3650	4572	2353	1.62	6341	2418	1.79	6344	2482	1.97	6344	2544	2.15	6338	2605	2.34	6328	2727	2.72	6306	2849	3.13	6277	2970	3.56	6235
4025	5042	2569	2.09	6990	2628	2.28	6994	2687	2.48	6997	2745	2.67	6996	2801	2.87	6990	2912	3.28	6973	3022	3.71	6950	3133	4.16	6925
4400	5512	2786	2.64	7636	2841	2.85	7643	2895	3.06	7646	2949	3.28	7649	3002	3.50	7648	3104	3.94	7635						

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.798 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
1825	2286	1599	0.41	3338	1709	0.52	3319	1816	0.64	3287	1923	0.76	3266	2042	0.90	3311	2276	1.21	3450	2572	1.75	3984			
2125	2662	1793	0.57	3896	1890	0.69	3885	1984	0.82	3867	2076	0.95	3840	2167	1.09	3813	2363	1.40	3845	2572	1.75	3984			
2425	3038	1993	0.77	4449	2080	0.90	4442	2164	1.04	4430	2247	1.18	4417	2328	1.33	4395	2488	1.65	4348	2658	2.00	4368	2844	2.40	4486
2725	3414	2197	1.01	5000	2277	1.16	4998	2354	1.31	4991	2428	1.46	4979	2502	1.62	4968	2646	1.96	4929	2788	2.32	4885	2936	2.71	4887
3025	3789	2404	1.30	5549	2478	1.47	5550	2549	1.63	5547	2618	1.80	5540	2685	1.97	5530	2817	2.33	5505	2946	2.71	5467	3074	3.11	5428
3325	4165	2613	1.65	6096	2682	1.83	6100	2748	2.02	6099	2812	2.20	6095	2875	2.39	6090	2996	2.76	6069	3116	3.16	6046			
3625	4541	2825	2.07	6644	2889	2.26	6650	2950	2.46	6649	3011	2.66	6650	3070	2.87	6647									

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.798 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
1425	1785	1615	0.34	2584	1726	0.43	2553	1832	0.52	2513	1939	0.62	2488	2055	0.74	2507	2284	0.98	2590	2579	1.42	2984			
1650	2067	1803	0.46	3011	1901	0.56	2984	1996	0.66	2956	2088	0.77	2922	2179	0.88	2890	2375	1.14	2902	2579	1.42	2984			
1875	2349	1996	0.61	3434	2085	0.72	3411	2171	0.83	3389	2255	0.95	3365	2336	1.07	3334	2497	1.33	3281	2668	1.62	3286	2852	1.94	3362
2100	2631	2192	0.79	3853	2275	0.92	3836	2354	1.04	3817	2430	1.17	3795	2505	1.30	3774	2651	1.57	3723	2794	1.86	3675	2945	2.18	3672
2325	2912	2392	1.01	4272	2469	1.15	4258	2542	1.29	4241	2613	1.43	4224	2681	1.57	4203	2817	1.86	4165	2947	2.17	4115	3076	2.49	4071
2550	3194	2594	1.28	4690	2666	1.43	4679	2735	1.58	4666	2801	1.73	4650	2865	1.88	4633	2989	2.19	4596	3112	2.52	4560			
2775	3476	2798	1.59	5107	2865	1.75	5098	2929	1.91	5085	2992	2.08	5073	3052	2.24	5057									

Underlined figures indicate maximum static efficiency.

- NOTES:**
1. Performance certified is for installation Type A: Free inlet, free outlet.
 2. Power rating (BHP) does not include transmission losses.
 3. Performance ratings do not include the effects of appurtenances (accessories).
 4. Performance ratings do not include the effects of crosswinds.

PERFORMANCE DATA

HV (High Velocity Nozzle)

Nozzle Outlet Area: 0.520 ft²

Table with 24 columns (FAN INLET CFM, NOZ-ZLE OV, 0.5" SP, 0.75" SP, 1" SP, 1.25" SP, 1.50" SP, 2" SP, 2.50" SP, 3" SP) and 11 rows of performance data for HV (High Velocity Nozzle).

HV7 (High Velocity Nozzle)

Nozzle Outlet Area: 0.520 ft²

Table with 24 columns (FAN INLET CFM, NOZ-ZLE OV, 0.5" SP, 0.75" SP, 1" SP, 1.25" SP, 1.50" SP, 2" SP, 2.50" SP, 3" SP) and 11 rows of performance data for HV7 (High Velocity Nozzle).

HV5 (High Velocity Nozzle)

Nozzle Outlet Area: 0.520 ft²

Table with 24 columns (FAN INLET CFM, NOZ-ZLE OV, 0.5" SP, 0.75" SP, 1" SP, 1.25" SP, 1.50" SP, 2" SP, 2.50" SP, 3" SP) and 11 rows of performance data for HV5 (High Velocity Nozzle).

XV (Extra High Velocity Nozzle)

Nozzle Outlet Area: 0.378 ft²

Table with 24 columns (FAN INLET CFM, NOZ-ZLE OV, 0.5" SP, 0.75" SP, 1" SP, 1.25" SP, 1.50" SP, 2" SP, 2.50" SP, 3" SP) and 11 rows of performance data for XV (Extra High Velocity Nozzle).

XV7 (Extra High Velocity Nozzle)

Nozzle Outlet Area: 0.378 ft²

Table with 24 columns (FAN INLET CFM, NOZ-ZLE OV, 0.5" SP, 0.75" SP, 1" SP, 1.25" SP, 1.50" SP, 2" SP, 2.50" SP, 3" SP) and 11 rows of performance data for XV7 (Extra High Velocity Nozzle).

XV5 (Extra High Velocity Nozzle)

Nozzle Outlet Area: 0.378 ft²

Table with 24 columns (FAN INLET CFM, NOZ-ZLE OV, 0.5" SP, 0.75" SP, 1" SP, 1.25" SP, 1.50" SP, 2" SP, 2.50" SP, 3" SP) and 11 rows of performance data for XV5 (Extra High Velocity Nozzle).

Underlined figures indicate maximum static efficiency.

NOTES:

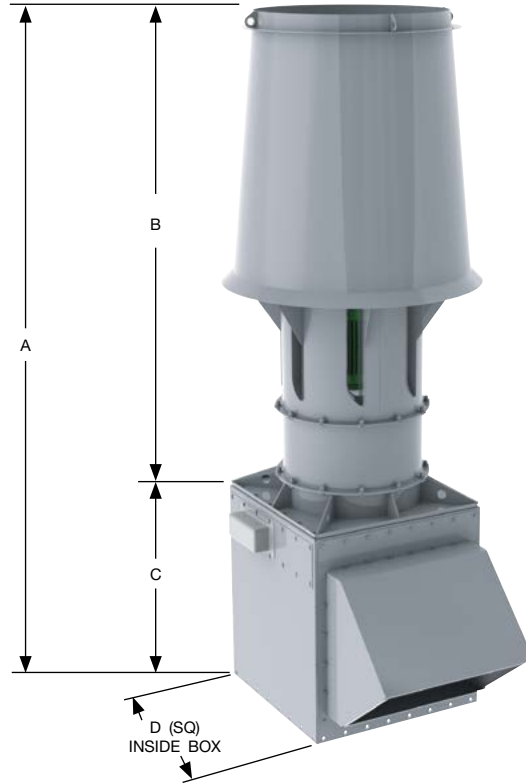
- 1. Performance certified is for installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. Performance ratings do not include the effects of crosswinds.

150 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 18.25"
 Max RPM = Class I: 2721; Class II: 3558
 Tip Speed FPM = 4.78 x RPM
 Min Motor Frame: 48C
 Max Motor Frame: 215C
 Windband Outlet Area: 3.99 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	123.34
B	86.59
C	36.75
D	33.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.891 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
1750	1965	1139	0.27	3275	1356	0.46	3239	1743	0.91	3048																
2525	2835	1464	0.55	4728	1631	0.79	4729	1933	1.33	4680																
3300	3706	1817	1.01	6168	1952	1.31	6182	2202	1.96	6175	2433	2.66	6138	2653	3.42	6072	<u>2864</u>	<u>4.24</u>	<u>5980</u>	<u>3069</u>	<u>5.11</u>	<u>5828</u>	3266	6.03	5754	
4075	4576	2183	1.70	7601	2297	2.07	7625	2510	2.85	7636	2709	3.66	7624	2898	4.50	7598	3081	5.40	7557	3258	6.34	7499	<u>3431</u>	<u>7.33</u>	<u>7439</u>	
4850	5446	2557	2.67	9034	2655	3.12	9061	2841	4.03	9088	3016	4.96	9087	3184	5.92	9079	3345	6.91	9063	3502	7.94	9039				
5625	6317	2936	3.99	10469	3022	4.51	10496	3186	5.56	10529	3342	6.61	10539	3493	7.70	10540										
6400	7187	3318	5.71	11904	3394	6.30	11929	3541	7.48	11965																

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.891 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
1450	1628	1177	0.23	2863	1399	0.41	2819																			
2075	2330	1497	0.45	4105	1676	0.67	4097	1988	1.16	4037	<u>2269</u>	<u>1.72</u>	<u>3916</u>	2528	2.34	3811										
2700	3032	1842	0.80	5333	1992	1.08	5340	2259	1.67	5324	2499	2.31	5279	<u>2723</u>	<u>2.99</u>	<u>5214</u>	<u>2936</u>	<u>3.73</u>	<u>5109</u>	3139	4.52	4977				
3325	3734	2200	1.31	6555	2329	1.66	6571	2563	2.36	6573	2775	3.10	6557	2973	3.87	6525	3161	4.68	6478	<u>3341</u>	<u>5.53</u>	<u>6421</u>	<u>3516</u>	<u>6.43</u>	<u>6356</u>	
3950	4436	2566	2.03	7776	2679	2.44	7798	2887	3.27	7813	3078	4.11	7807	3257	4.99	7797	3426	5.88	7773							
4575	5138	2937	2.99	8997	3037	3.46	9019	3224	4.42	9044	3397	5.38	9047													
5200	5839	3312	4.23	10219	3401	4.77	10240																			

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.891 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
1125	1263	1183	0.19	2180	1404	0.33	2118																		
1600	1797	1497	0.36	3139	1679	0.54	3102	1990	0.94	3013	<u>2267</u>	<u>1.39</u>	<u>2890</u>												
2075	2330	1835	0.63	4092	1989	0.86	4063	2258	1.34	4002	2498	1.85	3934	2720	2.41	3858	<u>2930</u>	<u>3.00</u>	<u>3750</u>	3130	3.63	3649			
2550	2864	2184	1.02	5035	2319	1.30	5018	2558	1.88	4969	2771	2.47	4920	2969	3.09	4865	3156	3.75	4804	<u>3335</u>	<u>4.44</u>	<u>4742</u>	<u>3508</u>	<u>5.16</u>	<u>4667</u>
3025	3397	2542	1.56	5978	2660	1.90	5965	2875	2.58	5930	3069	3.26	5886	3249	3.97	5847	3419	4.69	5804						
3500	3930	2905	2.29	6920	3010	2.68	6910	3204	3.46	6882	<u>3382</u>	<u>4.24</u>	<u>6848</u>	3548	5.04	6810									
3975	4464	3272	3.22	7862	3366	3.67	7854	3543	4.55	7834															

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

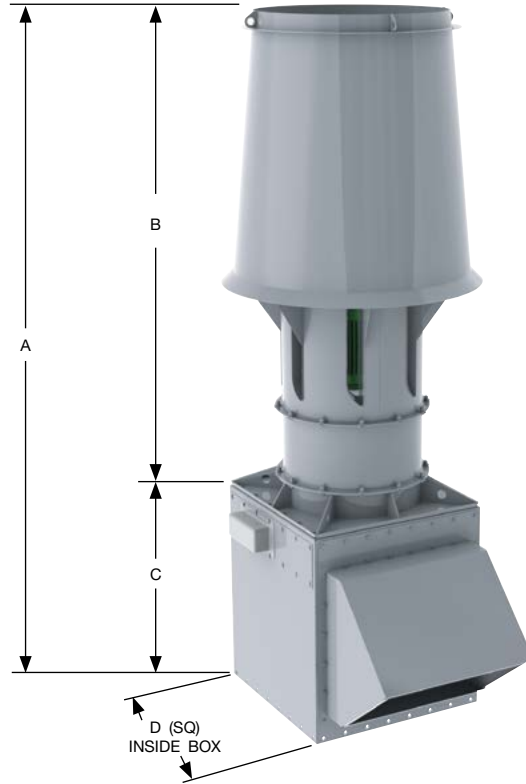
- Performance certified for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

165 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 20.00"
 Max RPM = Class I: 2483; Class II: 3247
 Tip Speed FPM = 5.24 x RPM
 Min Motor Frame: 48C
 Max Motor Frame: 215C
 Windband Outlet Area: 4.79 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	134.14
B	94.39
C	39.75
D	34.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.07 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
2100	<u>1964</u>	1039	0.32	3931	1237	0.55	3886	1591	1.10	3667																
3050	<u>2852</u>	1342	0.67	5712	1493	0.96	5710	1768	1.61	5655	<u>2021</u>	<u>2.35</u>	<u>5522</u>	2260	3.17	5323										
4000	<u>3740</u>	1671	1.23	7475	1794	1.61	7497	2020	2.40	7487	2229	3.24	7441	2428	4.15	7359	<u>2620</u>	<u>5.13</u>	<u>7261</u>	<u>2806</u>	<u>6.19</u>	<u>7082</u>	2985	7.30	6976	
4950	<u>4629</u>	2013	2.10	9235	2115	2.55	9259	2308	3.49	9276	2489	4.48	9268	2660	5.50	9239	2825	6.58	9187	2985	7.72	9117	3141	8.91	9040	
5900	<u>5517</u>	2361	3.32	10989	2449	3.86	11018	2617	4.97	11052	2776	6.10	11058	2927	7.26	11045	3073	8.46	11028	3215	9.71	11001				
6850	<u>6405</u>	2715	4.99	12752	2791	5.61	12776	2940	6.89	12821	3081	8.17	12836	3217	9.49	12838										
7800	<u>7294</u>	3071	7.15	14511	3139	7.86	14537																			

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.07 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
1750	<u>1636</u>	1077	0.28	3456	1279	0.49	3403																			
2500	<u>2338</u>	1369	0.54	4943	1532	0.81	4936	1817	1.41	4871	<u>2072</u>	<u>2.07</u>	<u>4720</u>	2309	2.82	4596										
3250	<u>3039</u>	1684	0.96	6417	1821	1.30	6429	2064	2.01	6411	2283	2.78	6359	2487	3.61	6281	<u>2681</u>	<u>4.49</u>	<u>6156</u>	<u>2866</u>	<u>5.43</u>	<u>5995</u>				
4000	<u>3740</u>	2010	1.58	7882	2128	2.00	7903	2342	2.85	7911	2535	3.73	7892	2715	4.66	7852	2887	5.64	7800	3051	6.66	7732	3210	7.74	7651	
4750	<u>4442</u>	2344	2.44	9348	2447	2.94	9374	2637	3.93	9395	2811	4.95	9390	2974	6.00	9376	3128	7.08	9347							
5500	<u>5143</u>	2682	3.60	10812	2774	4.17	10842	2944	5.32	10869	3102	6.48	10876													
6250	<u>5844</u>	3024	5.09	12280	3106	5.74	12307																			

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.07 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
1350	<u>1262</u>	1079	0.23	2616	1280	0.40	2537																			
1925	<u>1800</u>	1368	0.43	3777	1533	0.65	3730	1817	1.13	3625	<u>2069</u>	<u>1.67</u>	<u>3474</u>	2301	2.26	3368										
2500	<u>2338</u>	1679	0.76	4930	1819	1.04	4895	2064	1.61	4823	2283	2.24	4742	2485	2.90	4651	<u>2676</u>	<u>3.61</u>	<u>4522</u>	<u>2858</u>	<u>4.37</u>	<u>4396</u>				
3075	<u>2875</u>	2000	1.23	6070	2123	1.58	6051	2340	2.27	5992	2534	2.99	5934	2715	3.74	5871	2885	4.53	5796	3048	5.35	5722	3205	6.22	5633	
3650	<u>3413</u>	2330	1.90	7214	2437	2.31	7197	2632	3.12	7154	2809	3.95	7105	2972	4.80	7054	3127	5.67	7003							
4225	<u>3951</u>	2664	2.79	8354	2759	3.26	8341	2936	4.20	8310	3097	5.14	8267													
4800	<u>4488</u>	3001	3.93	9493	3086	4.46	9481	3247	5.53	9457																

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

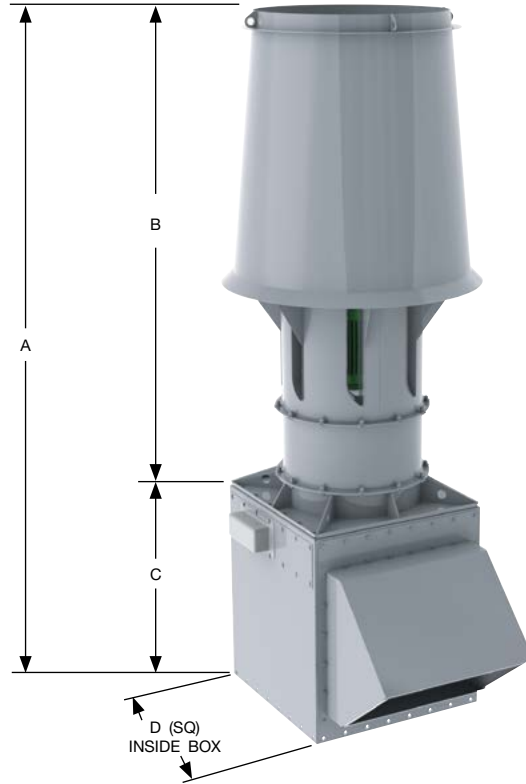
1. Performance certified is for installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. Performance ratings do not include the effects of crosswinds.

182 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 22.25"
 Max RPM = Class I: 2232; Class II: 2918
 Tip Speed FPM = 5.83 x RPM
 Min Motor Frame: 56C
 Max Motor Frame: 256C
 Windband Outlet Area: 5.93 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	146.03
B	104.28
C	41.75
D	36.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.32 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
2600	1964	934	0.40	4866	1112	0.68	4812	1430	1.36	4536																
3775	2852	1206	0.82	7068	1342	1.19	7067	1589	1.99	6998	<u>1816</u>	<u>2.91</u>	<u>6823</u>	2032	3.93	6598										
4950	3740	1502	1.53	9252	1612	1.99	9275	1815	2.96	9261	2004	4.01	9215	2183	5.14	9115	<u>2355</u>	<u>6.35</u>	<u>8986</u>	<u>2522</u>	<u>7.65</u>	<u>8760</u>	2683	9.03	8631	
6125	4628	1809	2.60	11427	1901	3.16	11460	2074	4.32	11476	<u>2237</u>	<u>5.54</u>	<u>11469</u>	2390	6.80	11426	2539	8.14	11368	2683	9.55	11283	<u>2824</u>	<u>11.03</u>	<u>11198</u>	
7300	5515	2122	4.11	13598	2201	4.78	13635	2352	6.15	13677	2494	7.54	13676	2631	8.99	13669	2762	10.47	13647	2889	12.01	13608				
8475	6403	2439	6.16	15771	2508	6.93	15807	2642	8.52	15864	2769	10.11	15885	2891	11.74	15884										
9650	7291	2759	8.84	17948	2820	9.71	17981																			

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.32 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
2175	1643	971	0.35	4298	1152	0.61	4234	1466	1.23	4004																
3100	2342	1232	0.68	6128	1379	1.01	6122	1634	1.74	6034	<u>1864</u>	<u>2.57</u>	<u>5863</u>	2076	3.49	5696										
4025	3041	1514	1.19	7945	1637	1.61	7957	1856	2.50	7939	2053	3.45	7877	<u>2236</u>	<u>4.47</u>	<u>7777</u>	2410	5.56	7620	2577	6.73	7431				
4950	3740	1807	1.96	9757	1913	2.47	9784	2105	3.52	9789	<u>2278</u>	<u>4.61</u>	<u>9761</u>	2441	5.77	9721	2595	6.97	9651	<u>2742</u>	<u>8.24</u>	<u>9562</u>	<u>2885</u>	<u>9.57</u>	<u>9462</u>	
5875	4439	2106	3.02	11565	2198	3.63	11593	2369	4.86	11619	2526	6.13	11615	2672	7.42	11593	2811	8.75	11562							
6800	5138	2409	4.44	13371	2491	5.15	13405	2644	6.57	13439	2787	8.00	13452													
7725	5836	2715	6.28	15179	2788	7.08	15210																			

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.32 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
1675	1265	971	0.28	3245	1152	0.49	3151																			
2375	1794	1227	0.53	4662	1376	0.80	4605	1631	1.39	4470	<u>1858</u>	<u>2.06</u>	<u>4281</u>													
3075	2323	1501	0.92	6061	1628	1.27	6021	1849	1.98	5930	2046	2.74	5826	2431	3.56	5711	2401	4.44	5552	2585	5.38	5401				
3775	2852	1785	1.50	7452	1896	1.92	7427	2092	2.77	7354	<u>2268</u>	<u>3.65</u>	<u>7284</u>	2431	4.58	7202	2585	5.55	7113	2731	6.56	7013	<u>2874</u>	<u>7.64</u>	<u>6906</u>	
4475	3381	2076	2.29	8843	2174	2.79	8827	2350	3.79	8771	2510	4.81	8710	2657	5.85	8643	2797	6.93	8577							
5175	3910	2371	3.35	10230	2458	3.93	10218	2618	5.09	10178	<u>2764</u>	<u>6.25</u>	<u>10126</u>	2901	7.43	10073										
5875	4439	2669	4.72	11618	2747	5.37	11607	2893	6.68	11577																

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

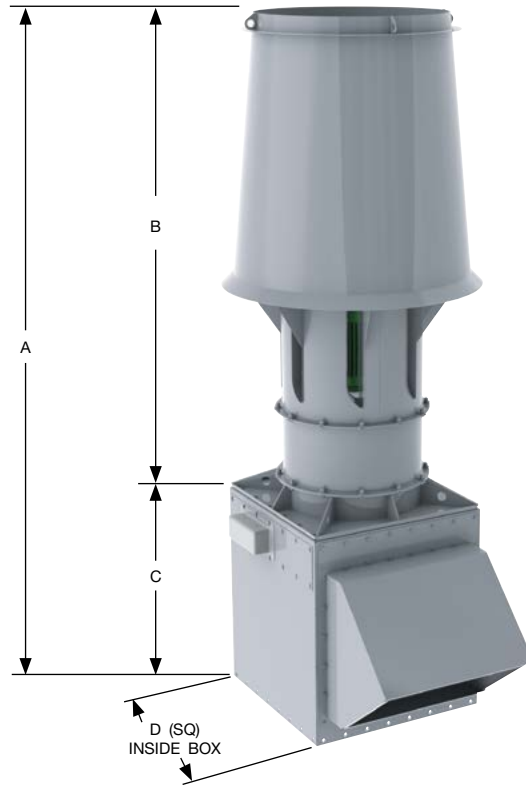
1. Performance certified is for installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. Performance ratings do not include the effects of crosswinds.

200 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 24.50"
 Max RPM = Class I: 2027; Class II: 2650
 Tip Speed FPM = 6.41 x RPM
 Min Motor Frame: 56C
 Max Motor Frame: 256C
 Windband Outlet Area: 7.19 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	156.98
B	114.23
C	42.75
D	37.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.60 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
3150	1963	848	0.49	5898	1009	0.82	5819	1298	1.65	5484																
4550	2835	1091	0.99	8527	1215	1.43	8524	1439	2.40	8420	<u>1647</u>	<u>3.50</u>	<u>8221</u>	1843	4.74	7939										
5950	3708	1354	1.81	11121	1455	2.37	11152	1641	3.54	11139	1813	4.80	11071	1976	6.16	10939	<u>2134</u>	<u>7.64</u>	<u>10791</u>	<u>2286</u>	<u>9.21</u>	<u>10500</u>	2433	10.87	10375	
7350	4580	1627	3.06	13706	1712	3.74	13753	1871	5.14	13777	2019	6.60	13754	2160	8.12	13712	2296	9.74	13633	2428	11.44	13533	<u>2556</u>	<u>13.22</u>	<u>13411</u>	
8750	5452	1907	4.83	16303	1979	5.63	16343	2118	7.28	16397	2248	8.95	16394	2373	10.69	16380	2493	12.47	16351	2610	14.33	16309				
10150	6325	2190	7.23	18895	2253	8.15	18935	2375	10.03	18993	2492	11.95	19022	2604	13.90	19021										
11550	7197	2475	10.34	21485	2531	11.38	21524	2641	13.52	21596																

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.60 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
2625	1636	879	0.42	5183	1044	0.74	5106																			
3750	2337	1117	0.82	7413	1251	1.22	7409	1483	2.11	7306	<u>1691</u>	<u>3.11</u>	<u>7076</u>	1884	4.22	6884										
4875	3038	1374	1.44	9626	1486	1.96	9642	1684	3.02	9610	1863	4.17	9534	2030	5.41	<u>9423</u>	<u>2188</u>	<u>6.74</u>	<u>9228</u>	2340	8.16	9004				
6000	3739	1640	2.37	11823	1737	3.00	11860	1911	4.27	11862	2069	5.60	11838	2216	6.98	11779	2356	8.45	11695	2490	9.99	11594	<u>2620</u>	<u>11.60</u>	<u>11474</u>	
7125	4440	1913	3.66	14026	1997	4.40	14064	2152	5.90	14093	2294	7.43	14081	2427	9.00	14060	2553	10.62	14021							
8250	5141	2189	5.40	16223	2263	6.25	16260	2403	7.98	16310	2532	9.72	16318													
9375	5842	2468	7.64	18424	2534	8.60	18459																			

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.60 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
2050	1277	887	0.35	3974	1050	0.60	3858	1329	1.20	3583															
2900	1807	1120	0.66	5692	1255	0.99	5625	1486	1.71	5467	<u>1691</u>	<u>2.51</u>	<u>5241</u>	1880	3.41	5073									
3750	2337	1370	1.14	7395	1485	1.56	7346	1685	2.42	7237	1863	3.35	7110	2028	4.35	<u>6973</u>	<u>2184</u>	<u>5.42</u>	<u>6779</u>	<u>2333</u>	<u>6.55</u>	<u>6595</u>			
4600	2866	1629	1.84	9087	1729	2.35	9054	1906	3.39	8960	2065	4.46	8874	2213	5.59	8779	2352	6.77	8667	2485	8.00	8554	<u>2614</u>	<u>9.30</u>	<u>8424</u>
5450	3396	1893	2.81	10770	1981	3.42	10747	2141	4.64	10683	2286	5.88	10608	2419	7.14	10528	2546	8.45	10451						
6300	3926	2162	4.11	12458	2240	4.81	12440	2385	6.22	12392	2517	7.63	12326	2641	9.07	12259									
7150	4455	2433	5.78	14142	2503	6.57	14127	2635	8.17	14089															

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

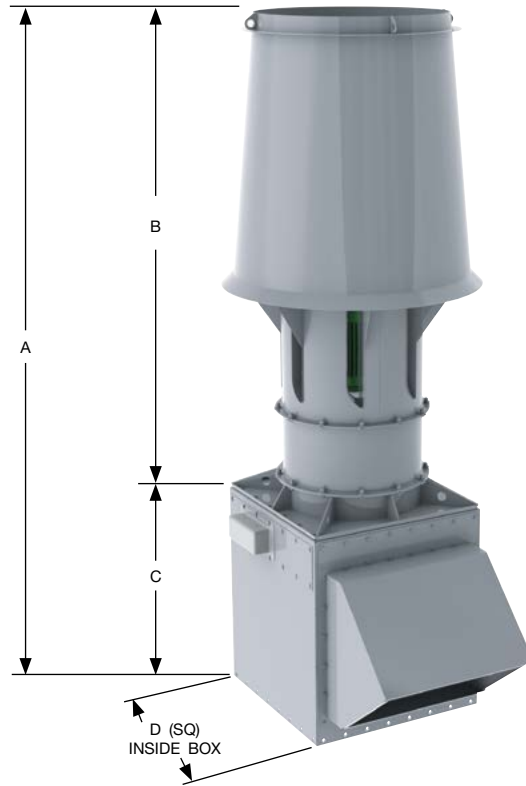
1. Performance certified is for installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. Performance ratings do not include the effects of crosswinds.

222 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 27.00"
 Max RPM = Class I: 1839; Class II: 2405
 Tip Speed FPM = 7.07 x RPM
 Min Motor Frame: 56C
 Max Motor Frame: 284C
 Windband Outlet Area: 8.73 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	130.19
B	84.44
C	45.75
D	40.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 2.09 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
3525	1684	732	0.48	5968	898	0.88	6270																			
5325	2543	950	0.97	8944	1073	1.49	8979	1297	2.67	9351	1494	3.98	9574	1676	5.42	9811										
7125	3403	1192	1.82	11997	1291	2.47	11956	1471	3.86	12038	1640	5.41	12302	1801	7.12	12634	1947	8.86	12776	2085	10.69	12865	2220	12.64	13061	
8925	4263	1446	3.11	15050	1528	3.92	15014	1682	5.59	14972	1824	7.34	15064	1960	9.22	15240	2093	11.25	15491	2222	13.39	15769	2343	15.57	15948	
10725	5123	1707	4.98	18108	1776	5.94	18065	1909	7.90	18007	2035	9.92	17995	2154	12.03	18070	2268	14.22	18192	2380	16.53	18349				
12525	5982	1972	7.54	21168	2031	8.64	21118	2147	10.89	21058	2259	13.20	21013	2367	15.59	21013										
14325	6842	2239	10.90	24222	2291	12.14	24176	2394	14.70	24117																

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 2.09 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
2850	1361	749	0.41	5126	918	0.77	5430	1183	1.58	5836																
4300	2054	959	0.78	7743	1096	1.26	7741	1328	2.32	8073	1523	3.48	8501	1696	4.71	8758										
5750	2746	1193	1.39	10253	1306	1.99	10376	1505	3.29	10344	1682	4.70	10608	1842	6.20	10940	1986	7.74	11253	2122	9.36	11540	2250	11.02	11714	
7200	3439	1441	2.33	12757	1534	3.05	12895	1708	4.60	13023	1864	6.23	12945	2009	7.96	13094	2146	9.78	13368	2273	11.65	13623	2392	13.56	13883	
8650	4131	1695	3.67	15253	1775	4.51	15400	1927	6.30	15587	2067	8.19	15639	2198	10.14	15562	2322	12.18	15604							
10100	4824	1954	5.50	17761	2023	6.45	17894	2156	8.47	18094	2284	10.63	18225	2403	12.83	18262										
11550	5517	2216	7.89	20276	2277	8.98	20399	2395	11.23	20598																

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 2.09 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
2100	1003	735	0.31	3892	903	0.59	3956	1165	1.22	3979															
3250	1552	947	0.60	5852	1088	0.99	5996	1318	1.83	6082	1511	2.75	6183	1681	3.73	6200									
4400	2102	1183	1.07	7784	1301	1.57	7950	1505	2.64	8144	1679	3.76	8203	1835	4.94	8260	1978	6.18	8337	2112	7.48	8401	2236	8.81	8397
5550	2651	1435	1.82	9791	1532	2.40	9867	1712	3.68	10113	1871	5.04	10252	2014	6.43	10316	2147	7.87	10353	2271	9.35	10395	2389	10.90	10466
6700	3200	1695	2.90	11819	1776	3.56	11836	1934	5.04	12040	2078	6.61	12216	2211	8.24	12336	2335	9.91	12420						
7850	3749	1959	4.38	13849	2030	5.15	13852	2166	6.78	13949	2298	8.56	14150												
9000	4299	2227	6.34	15889	2289	7.20	15877																		

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

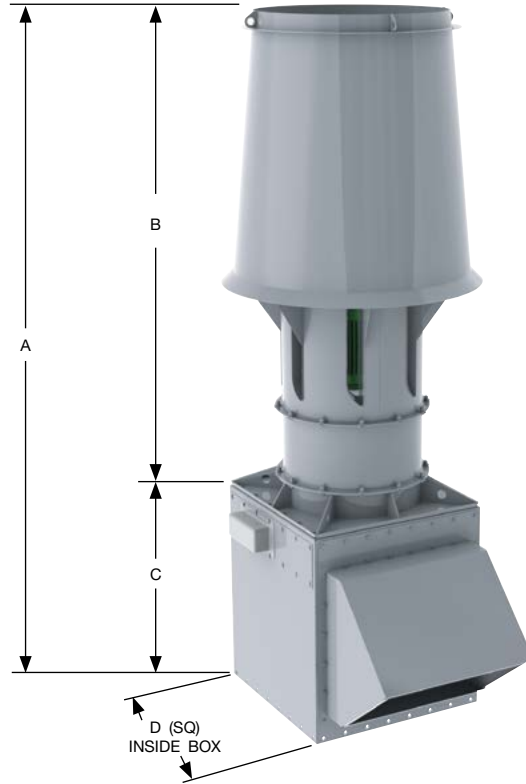
- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

222 TVIFE (HIGH PLUME)

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 27.00"
 Max RPM = Class I: 1839; Class II: 2405
 Tip Speed FPM = 7.07 x RPM
 Min Motor Frame: 56C
 Max Motor Frame: 284C
 Windband Outlet Area: 8.73 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	147.25
B	101.50
C	45.75
D	40.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MP (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.09 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
3525	1684	732	0.48	6190	898	0.88	6366																			
5325	2543	950	0.97	9557	1073	1.49	9355	1297	2.67	9536	1494	3.98	9544	1676	5.42	9514										
7125	3403	1192	1.82	12995	1291	2.47	12725	1471	3.86	12492	1640	5.41	12600	1801	7.12	12836	1947	8.86	12810	2085	10.69	12689	2220	12.64	12689	
8925	4263	1446	3.11	16391	1528	3.92	16192	1682	5.59	15790	1824	7.34	15658	1960	9.22	15680	2093	11.25	15843	2222	13.39	16048	2343	15.57	16116	
10725	5123	1707	4.98	19779	1776	5.94	19604	1909	7.90	19247	2035	9.92	18952	2154	12.03	18837	2268	14.22	18813	2380	16.53	18857				
12525	5982	1972	7.54	23160	2031	8.64	22998	2147	10.89	22702	2259	13.20	22387	2367	15.59	22149										
14325	6842	2239	10.90	26529	2291	12.14	26386	2394	14.70	26127																

MP7 (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.09 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
2850	1361	749	0.41	5271	918	0.77	5419	1183	1.58	5491																
4300	2054	959	0.78	8080	1096	1.26	7958	1328	2.32	8167	1523	3.48	8059	1696	4.71	8153										
5750	2746	1193	1.39	11023	1306	1.99	10765	1505	3.29	10638	1682	4.70	10819	1842	6.20	10945	1986	7.74	10808	2122	9.36	10776	2250	11.02	10894	
7200	3439	1441	2.33	13931	1534	3.05	13711	1708	4.60	13383	1864	6.23	13314	2009	7.96	13410	2146	9.78	13606	2273	11.65	13701	2392	13.56	13641	
8650	4131	1695	3.67	16809	1775	4.51	16637	1927	6.30	16279	2067	8.19	16059	2198	10.14	15998	2322	12.18	16024							
10100	4824	1954	5.50	19686	2023	6.45	19530	2156	8.47	19222	2284	10.63	18936	2403	12.83	18760										
11550	5517	2216	7.89	22560	2277	8.98	22422	2395	11.23	22155																

MP5 (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.09 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
2100	1003	735	0.31	3789	903	0.59	3804	1165	1.22	3866															
3250	1552	947	0.60	6025	1088	0.99	5871	1318	1.83	5947	1511	2.75	5794	1681	3.73	5870									
4400	2102	1183	1.07	8405	1301	1.57	8120	1505	2.64	7945	1679	3.76	8026	1835	4.94	8028	1978	6.18	7882	2112	7.48	7850	2236	8.81	7912
5550	2651	1435	1.82	10748	1532	2.40	10503	1712	3.68	10143	1871	5.04	10026	2014	6.43	10050	2147	7.87	10139	2271	9.35	10149	2389	10.90	10064
6700	3200	1695	2.90	13074	1776	3.56	12862	1934	5.04	12468	2078	6.61	12225	2211	8.24	12116	2335	9.91	12092						
7850	3749	1959	4.38	15384	2030	5.15	15206	2166	6.78	14848	2298	8.56	14531												
9000	4299	2227	6.34	17694	2289	7.20	17532																		

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

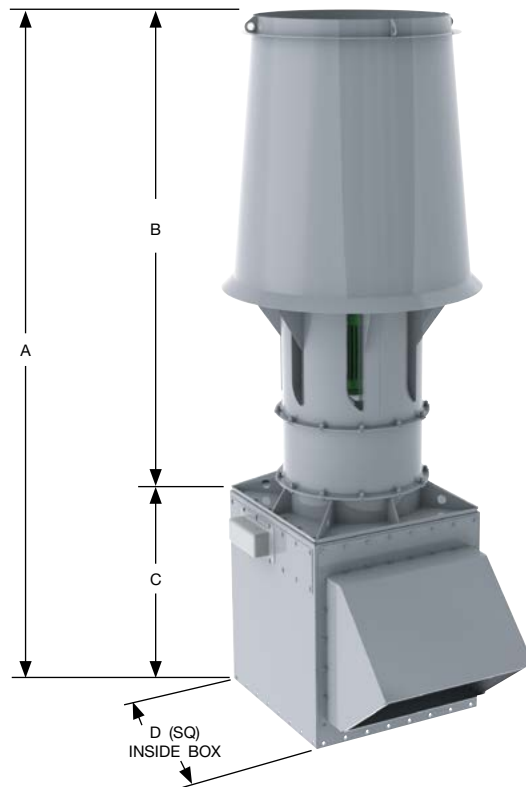
- Performance certified for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

245 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 30.00"
 Max RPM = Class I: 1655; Class II: 2165
 Tip Speed FPM = 7.85 x RPM
 Min Motor Frame: 184C
 Max Motor Frame: 286C
 Windband Outlet Area: 10.77 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	144.96
B	93.21
C	51.75
D	46.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 2.58 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
4350	1683	658	0.59	7353	808	1.09	7735																			
6600	2553	857	1.21	11079	968	1.85	11130	1169	3.31	11584	1346	4.93	11864	1509	6.71	12137										
8850	3424	1078	2.27	14899	1167	3.09	14854	1329	4.82	14962	1480	6.74	15274	1624	8.84	15675	1756	11.02	15883	1879	13.27	15968	2000	15.68	16201	
11100	4294	1310	3.91	18720	1383	4.92	18671	1521	6.99	18619	1648	9.16	18722	1769	11.48	18920	1889	14.01	19242	2005	16.67	19593	2113	19.36	19806	
13350	5165	1548	6.29	22543	1610	7.48	22496	1728	9.90	22409	1841	12.43	22395	1948	15.05	22491	2049	17.74	22617	2150	20.63	22822				
15600	6035	1789	9.53	26357	1843	10.91	26318	1946	13.71	26235	2046	16.59	26177	2143	19.56	26181										
17850	6906	2033	13.81	30183	2080	15.37	30137																			

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 2.58 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
3500	1354	672	0.50	6290	825	0.94	6682																			
5300	2050	863	0.96	9558	985	1.55	9530	1195	2.87	9963	1370	4.29	10481	1526	5.81	10802										
7100	2747	1074	1.72	12662	1176	2.47	12820	1355	4.07	12779	1514	5.81	13099	1658	7.66	13509	1788	9.56	13903	1910	11.55	14251	2025	13.60	14461	
8900	3443	1298	2.88	15765	1382	3.77	15941	1538	5.68	16092	1679	7.71	16007	1810	9.85	16197	1932	12.09	16514	2047	14.41	16841	2154	16.77	17160	
10700	4140	1529	4.56	18878	1600	5.59	19048	1736	7.80	19270	1863	10.15	19355	1980	12.55	19246	2092	15.08	19302							
12500	4836	1763	6.83	21986	1825	8.02	22150	1944	10.51	22391	2059	13.18	22555													
14300	5532	2000	9.82	25105	2054	11.15	25247	2161	13.96	25508																

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 2.58 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
2600	1006	663	0.38	4827	814	0.73	4905	1049	1.52	4926															
4025	1557	854	0.74	7244	981	1.23	7428	1188	2.27	7537	1361	3.40	7653	1514	4.62	7679									
5450	2108	1068	1.34	9646	1174	1.95	9851	1356	3.27	10076	1513	4.65	10157	1654	6.12	10237	1782	7.66	10324	1902	9.26	10394	2014	10.91	10401
6875	2660	1295	2.26	12125	1382	2.98	12217	1544	4.57	12526	1687	6.25	12701	1816	7.98	12787	1935	9.75	12824	2047	11.60	12882	2152	13.50	12951
8300	3211	1530	3.61	14639	1603	4.44	14662	1744	6.25	14904	1874	8.20	15130	1994	10.23	15285	2105	12.29	15384						
9725	3762	1769	5.46	17159	1832	6.40	17154	1955	8.43	17284	2073	10.63	17526												
11150	4314	2011	7.90	19686	2066	8.96	19663																		

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

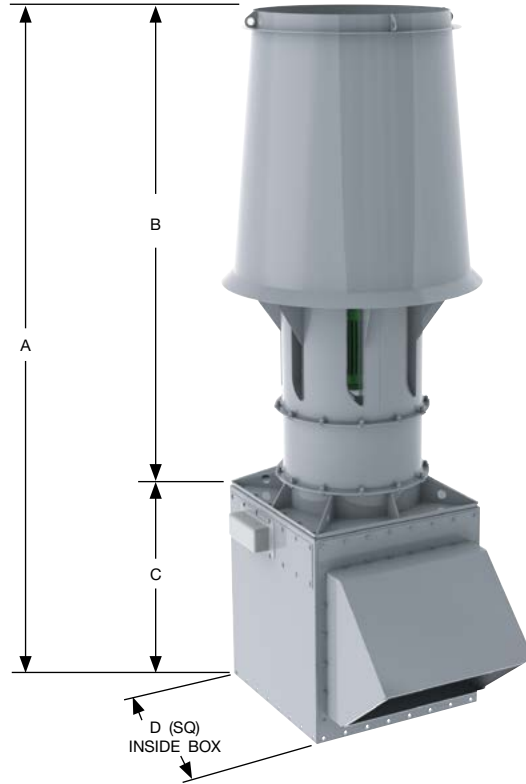
- Performance certified for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

245 TVIFE (HIGH PLUME)

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 30.00"
 Max RPM = Class I: 1655; Class II: 2165
 Tip Speed FPM = 7.85 x RPM
 Min Motor Frame: 184C
 Max Motor Frame: 286C
 Windband Outlet Area: 10.77 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	163.90
B	112.15
C	51.75
D	46.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MP (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.58 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
4350	1683	658	0.59	7624	808	1.09	<u>7853</u>																			
6600	2553	857	1.21	11839	968	1.85	11600	1169	3.31	11816	1346	4.93	11835	1509	6.71	11776										
8850	3424	1078	2.27	16141	1167	3.09	15815	1329	4.82	15534	1480	6.74	15650	<u>1624</u>	8.84	<u>15934</u>	<u>1756</u>	<u>11.02</u>	<u>15945</u>	<u>1879</u>	<u>13.27</u>	<u>15770</u>	2000	15.68	15762	
11100	4294	1310	3.91	20391	1383	4.92	20140	1521	6.99	19646	1648	9.16	19470	1769	11.48	19475	1889	14.01	19688	<u>2005</u>	<u>16.67</u>	<u>19952</u>	<u>2113</u>	<u>19.36</u>	<u>20031</u>	
13350	5165	1548	6.29	24625	1610	7.48	24416	1728	9.90	23963	1841	12.43	23598	1948	15.05	23458	2049	17.74	23402	2150	20.63	23467				
15600	6035	1789	9.53	28839	1843	10.91	28664	1946	13.71	28292	2046	16.59	27904	2143	19.56	27613										
17850	6906	2033	13.81	33060	2080	15.37	32896																			

MP7 (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.58 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
3500	1354	672	0.50	6467	825	0.94	6660																			
5300	2050	863	0.96	9974	985	1.55	9799	1195	2.87	10079	1370	4.29	9930	1526	5.81	10056										
7100	2747	1074	1.72	13613	1176	2.47	13301	1355	4.07	13143	1514	5.81	13361	1658	7.66	13519	1788	<u>9.56</u>	13360	1910	11.55	13307	2025	13.60	13448	
8900	3443	1298	2.88	17215	1382	3.77	16950	1538	5.68	16538	1679	7.71	16464	1810	9.85	16591	1932	12.09	16810	<u>2047</u>	<u>14.41</u>	<u>16946</u>	<u>2154</u>	<u>16.77</u>	<u>16873</u>	
10700	4140	1529	4.56	20805	1600	5.59	20579	1736	7.80	20128	1863	10.15	19877	1980	12.55	19785	2092	15.08	19825							
12500	4836	1763	6.83	24369	1825	8.02	24177	1944	10.51	23791	2059	13.18	23439													
14300	5532	2000	9.82	27934	2054	11.15	27752	2161	13.96	27441																

MP5 (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.58 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
2600	1006	663	0.38	4698	814	0.73	<u>4724</u>	1049	1.52	4782															
4025	1557	854	0.74	7463	981	1.23	7274	1188	<u>2.27</u>	<u>7374</u>	1361	<u>3.40</u>	<u>7175</u>	1514	4.62	7266									
5450	2108	1068	1.34	10420	1174	1.95	10070	1356	3.27	9829	1513	4.65	9936	1654	6.12	9959	1782	<u>7.66</u>	<u>9769</u>	1902	9.26	9714	2014	10.91	9795
6875	2660	1295	2.26	13313	1382	2.98	13012	1544	4.57	12570	1687	6.25	12421	1816	7.98	12454	1935	9.75	12558	<u>2047</u>	<u>11.60</u>	<u>12586</u>	<u>2152</u>	<u>13.50</u>	<u>12465</u>
8300	3211	1530	3.61	16196	1603	4.44	15939	1744	6.25	15443	1874	8.20	15148	1994	10.23	15016	2105	12.29	14976						
9725	3762	1769	5.46	19062	1832	6.40	18835	1955	8.43	18409	2073	10.63	18011												
11150	4314	2011	7.90	21923	2066	8.96	21717																		

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

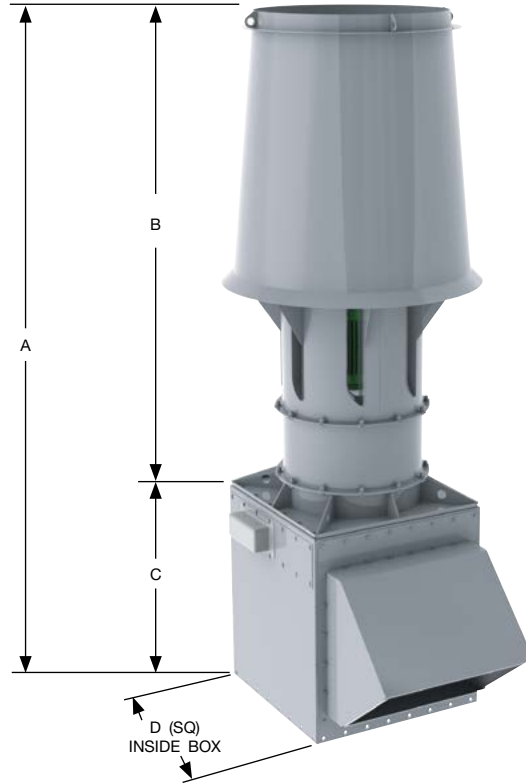
- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

270 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 33.00"
 Max RPM = Class I: 1505; Class II: 1968
 Tip Speed FPM = 8.64 x RPM
 Min Motor Frame: 184C
 Max Motor Frame: 324C
 Windband Outlet Area: 13.04 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	154.61
B	101.86
C	52.75
D	47.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 3.13 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
5275	1687	599	0.71	8919	735	1.32	9375	963	2.74	9992																
7975	2550	778	1.46	13379	879	2.23	13441	1062	4.00	13994	1223	5.95	14328	1371	8.10	14643										
10675	3413	978	2.73	17983	1058	3.71	17903	1206	5.80	18047	1344	8.13	18440	1475	10.67	18920	1595	13.29	19164	1707	16.01	19268	1817	18.92	19545	
13375	4276	1187	4.69	22566	1253	5.89	22493	1379	8.39	22436	1495	11.02	22572	1606	13.84	22833	1715	16.88	23216	1820	20.08	23619	1919	23.35	23895	
16075	5140	1401	7.51	27143	1457	8.93	27073	1566	11.88	26997	1669	14.92	26981	1766	18.08	27088	1859	21.35	27267	1950	24.79	27488				
18775	6003	1618	11.36	31716	1667	13.02	31661	1762	16.41	31581	1853	19.86	31504	1941	23.43	31500										
21475	6866	1838	16.44	36309	1881	18.32	36253	1965	22.15	36167																

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 3.13 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
4250	1359	612	0.60	7637	751	1.15	8110	968	2.35	8723																
6425	2054	785	1.16	11574	897	1.88	11570	1087	3.47	12071	1246	5.20	12697	1388	7.04	13098										
8600	2750	977	2.08	15333	1069	2.98	15511	1232	4.92	15467	1377	7.04	15864	1507	9.26	16340	1626	11.58	16838	1736	13.97	17235	1841	16.46	17503	
10775	3445	1181	3.50	19094	1257	4.57	19301	1399	6.89	19490	1527	9.34	19384	1645	11.91	19588	1757	14.64	19998	1861	17.44	20381	1958	20.29	20761	
12950	4141	1390	5.52	22843	1455	6.77	23056	1579	9.45	23334	1694	12.28	23427	1801	15.21	23312	1902	18.25	23359							
15125	4836	1603	8.27	26608	1659	9.70	26800	1768	12.73	27107	1872	15.95	27295													
17300	5531	1818	11.88	30375	1867	13.49	30544	1964	16.87	30855																

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 3.13 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
3125	999	600	0.46	5789	738	0.88	5891																			
4850	1551	774	0.89	8729	890	1.48	8955	1078	2.73	9077	1236	4.10	9229	1375	5.57	9252										
6575	2102	968	1.60	11629	1065	2.34	11884	1231	3.94	12160	1374	5.62	12259	1502	7.39	12351	1619	9.24	12469	1728	11.18	12549	1830	13.17	12560	
8300	2654	1175	2.72	14639	1254	3.59	14748	1401	5.50	15112	1531	7.53	15320	1649	9.62	15434	1757	11.76	15472	1859	13.99	15546	1955	16.30	15641	
10025	3205	1389	4.35	17686	1455	5.34	17708	1584	7.55	18011	1702	9.90	18279	1811	12.35	18464	1912	14.84	18584							
11750	3757	1606	6.58	20732	1663	7.71	20722	1775	10.17	20880	1883	12.84	21182													
13475	4308	1826	9.53	23790	1876	10.81	23762																			

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

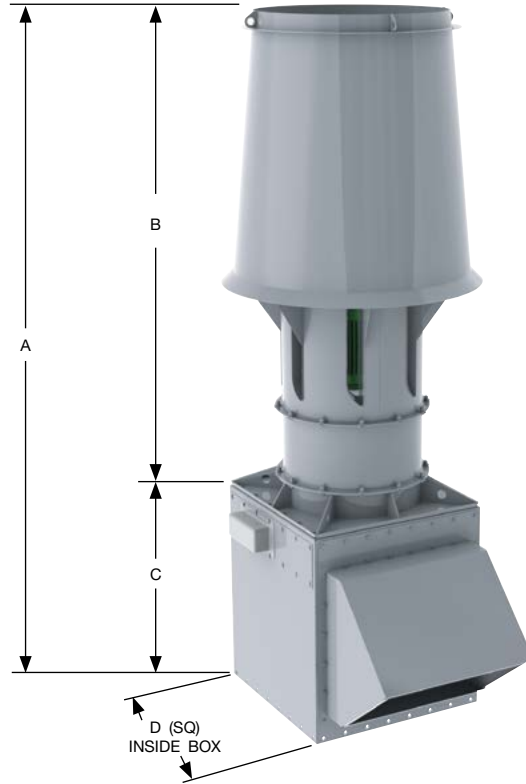
1. Performance certified is for installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. Performance ratings do not include the effects of crosswinds.

270 TVIFE (HIGH PLUME)

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 33.00"
 Max RPM = Class I: 1505; Class II: 1968
 Tip Speed FPM = 8.64 x RPM
 Min Motor Frame: 184C
 Max Motor Frame: 324C
 Windband Outlet Area: 13.04 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	175.43
B	122.68
C	52.75
D	47.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MP (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 3.13 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
5275	1687	599	0.71	9249	735	1.32	9519	963	2.74	9562																
7975	2550	778	1.46	14295	879	2.23	14007	1062	4.00	14273	1223	5.95	14288	1371	8.10	14194										
10675	3413	978	2.73	19480	1058	3.71	19056	1206	5.80	18734	1344	8.13	18892	1475	10.67	19229	1595	13.29	19230	1707	16.01	19016	1817	18.92	18997	
13375	4276	1187	4.69	24579	1253	5.89	24260	1379	8.39	23667	1495	11.02	23467	1606	13.84	23498	1715	16.88	23749	1820	20.08	24044	1919	23.35	24158	
16075	5140	1401	7.51	29649	1457	8.93	29380	1566	11.88	28863	1669	14.92	28424	1766	18.08	28245	1859	21.35	28206	1950	24.79	28255				
18775	6003	1618	11.36	34702	1667	13.02	34480	1762	16.41	34050	1853	19.86	33572	1941	23.43	33211										
21475	6866	1838	16.44	39769	1881	18.32	39570	1965	22.15	39184																

MP7 (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 3.13 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
4250	1359	612	0.60	7853	751	1.15	8092	968	2.35	8206																
6425	2054	785	1.16	12079	897	1.88	11895	1087	3.47	12214	1246	5.20	12036	1388	7.04	12191										
8600	2750	977	2.08	16486	1069	2.98	16093	1232	4.92	15908	1377	7.04	16184	1507	9.26	16349	1626	11.58	16187	1736	13.97	16091	1841	16.46	16276	
10775	3445	1181	3.50	20851	1257	4.57	20524	1399	6.89	20031	1527	9.34	19937	1645	11.91	20064	1757	14.64	20357	1861	17.44	20507	1958	20.29	20410	
12950	4141	1390	5.52	25174	1455	6.77	24911	1579	9.45	24374	1694	12.28	24060	1801	15.21	23965	1902	18.25	23993							
15125	4836	1603	8.27	29493	1659	9.70	29253	1768	12.73	28805	1872	15.95	28366													
17300	5531	1818	11.88	33797	1867	13.49	33575	1964	16.87	33192																

MP5 (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 3.13 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
3125	999	600	0.46	5633	738	0.88	5661																		
4850	1551	774	0.89	8985	890	1.48	8767	1078	2.73	8876	1236	4.10	8648	1375	5.57	8761									
6575	2102	968	1.60	12557	1065	2.34	12140	1231	3.94	11861	1374	5.62	11994	1502	7.39	12008	1619	9.24	11792	1728	11.18	11726	1830	13.17	11831
8300	2654	1175	2.72	16072	1254	3.59	15701	1401	5.50	15158	1531	7.53	14980	1649	9.62	15034	1757	11.76	15152	1859	13.99	15183	1955	16.30	15043
10025	3205	1389	4.35	19566	1455	5.34	19248	1584	7.55	18658	1702	9.90	18297	1811	12.35	18136	1912	14.84	18092						
11750	3757	1606	6.58	23031	1663	7.71	22751	1775	10.17	22233	1883	12.84	21762												
13475	4308	1826	9.53	26493	1876	10.81	26243																		

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

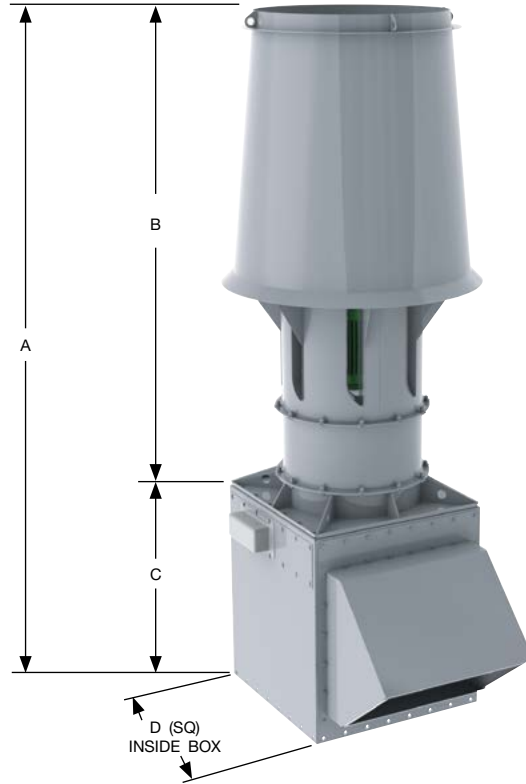
- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

300 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 36.50"
 Max RPM = Class I: 1360; Class II: 1779
 Tip Speed FPM = 9.56 x RPM
 Min Motor Frame: 213C
 Max Motor Frame: 324C
 Windband Outlet Area: 15.95 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	167.84
B	112.09
C	55.75
D	53.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 3.83 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
6450	1686	542	0.87	10926	664	1.61	11445																			
9750	2548	703	1.78	16355	794	2.72	16419	960	4.89	17114	1106	7.29	17545	1240	9.91	17946										
13050	3411	883	3.33	21963	956	4.53	21884	1090	7.09	22066	1214	9.91	22515	1333	13.03	23122	1441	16.22	23388	1543	19.57	23552	1643	23.15	23926	
16350	4273	1072	5.72	27572	1132	7.19	27491	1246	10.25	27422	1351	13.47	27591	1451	16.89	27895	1550	20.63	28380	1645	24.54	28875	1734	28.51	29184	
19650	5136	1266	9.17	33187	1317	10.92	33112	1415	14.51	33001	1508	18.22	32977	1596	22.09	33117	1680	26.09	33331	1762	30.28	33589				
22950	5998	1462	13.87	38776	1506	15.89	38699	1592	20.04	38603	1674	24.25	38499	1754	28.62	38507										
26250	6861	1660	20.05	44369	1699	22.35	44304	1775	27.03	44198																

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 3.83 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
5175	1353	552	0.73	9300	678	1.40	9889																			
7850	2052	709	1.42	14139	810	2.29	14120	982	4.24	14742	1126	6.35	15514	1255	8.61	16028										
10525	2751	884	2.55	18775	967	3.65	18989	1114	6.02	18925	1245	8.61	19409	1363	11.34	20006	1470	14.17	20596	1570	17.11	21102	1665	20.16	21438	
13200	3450	1069	4.29	23389	1138	5.61	23652	1266	8.45	23879	1381	11.43	23726	1489	14.62	24017	1589	17.93	24479	1683	21.35	24947	1771	24.85	25422	
15875	4149	1259	6.78	28000	1318	8.33	28269	1429	11.59	28584	1533	15.06	28705	1630	18.66	28875	1721	22.37	28620							
18550	4848	1452	10.18	32616	1503	11.94	32861	1601	15.64	33229	1695	19.59	33462													
21225	5547	1648	14.65	37262	1693	16.64	37488																			

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 3.83 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
3825	1000	543	0.56	7096	667	1.07	7200																			
5925	1549	699	1.08	10663	804	1.80	10939	974	3.33	11086	1117	5.01	11275	1243	6.81	11312										
8025	2097	874	1.95	14203	961	2.85	14499	1112	4.81	14852	1241	6.85	14962	1357	9.02	15081	1463	11.29	15230	1561	13.64	15306	1653	16.07	15306	
10125	2646	1060	3.31	17864	1132	4.37	18007	1265	6.71	18451	1383	9.19	18713	1489	11.73	18831	1587	14.35	18885	1679	17.07	18968	1766	19.88	19088	
12225	3195	1252	5.28	21564	1312	6.49	21595	1429	9.19	21970	1536	12.05	22300	1634	15.02	22509	1726	18.08	22668							
14325	3744	1447	7.97	25268	1499	9.36	25263	1601	12.36	25468	1698	15.60	25821													
16425	4293	1645	11.54	28993	1691	13.11	28971																			

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

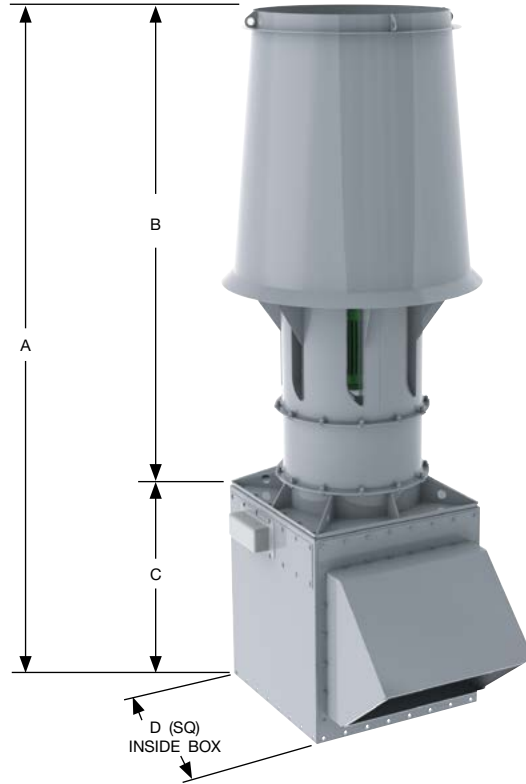
- Performance certified for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

300 TVIFE (HIGH PLUME)

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 36.50"
 Max RPM = Class I: 1360; Class II: 1779
 Tip Speed FPM = 9.56 x RPM
 Min Motor Frame: 213C
 Max Motor Frame: 324C
 Windband Outlet Area: 15.95 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	190.90
B	135.15
C	55.75
D	53.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MP (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 3.83 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
6450	1686	542	0.87	11333	664	1.61	11618	960	4.89	17454	1106	7.29	17499	1240	9.91	17407										
9750	2548	703	1.78	17474	794	2.72	17108	1090	7.09	22904	1214	9.91	23063	1333	13.03	23495	1441	16.22	23458	1543	19.57	23241	1643	23.15	23261	
13050	3411	883	3.33	23790	956	4.53	23292	1246	10.25	28924	1351	13.47	28684	1451	16.89	28705	1550	20.63	29030	1645	24.54	29392	1734	28.51	29498	
16350	4273	1072	5.72	30031	1132	7.19	29649	1246	10.25	28924	1351	13.47	28684	1451	16.89	28705	1550	20.63	29030	1645	24.54	29392	1734	28.51	29498	
19650	5136	1266	9.17	36251	1317	10.92	35933	1415	14.51	35279	1508	18.22	34736	1596	22.09	34528	1680	26.09	34475	1762	30.28	34523				
22950	5998	1462	13.87	42427	1506	15.89	42145	1592	20.04	41620	1674	24.25	41021	1754	28.62	40595										
26250	6861	1660	20.05	48598	1699	22.35	48357	1775	27.03	47884																

MP7 (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 3.83 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
5175	1353	552	0.73	9562	678	1.40	9855	982	4.24	14911	1126	6.35	14697	1255	8.61	14917										
7850	2052	709	1.42	14754	810	2.29	14519	982	4.24	14911	1126	6.35	14697	1255	8.61	14917										
10525	2751	884	2.55	20190	967	3.65	19704	1114	6.02	19465	1245	8.61	19799	1363	11.34	20022	1470	14.17	19796	1570	17.11	19705	1665	20.16	19933	
13200	3450	1069	4.29	25544	1138	5.61	25157	1266	8.45	24543	1381	11.43	24405	1489	14.62	24604	1589	17.93	24920	1683	21.35	25106	1771	24.85	25004	
15875	4149	1259	6.78	30861	1318	8.33	30550	1429	11.59	29865	1533	15.06	29481	1630	18.66	29375	1721	22.37	29400							
18550	4848	1452	10.18	36155	1503	11.94	35875	1601	15.64	35318	1695	19.59	34784													
21225	5547	1648	14.65	41463	1693	16.64	41216																			

MP5 (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 3.83 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
3825	1000	543	0.56	6905	667	1.07	6917																		
5925	1549	699	1.08	10972	804	1.80	10708	974	3.33	10839	1117	5.01	10563	1243	6.81	10713									
8025	2097	874	1.95	15334	961	2.85	14804	1112	4.81	14485	1241	6.85	14640	1357	9.02	14658	1463	11.29	14398	1561	13.64	14303	1653	16.07	14429
10125	2646	1060	3.31	19609	1132	4.37	19164	1265	6.71	18501	1383	9.19	18294	1489	11.73	18345	1587	14.35	18496	1679	17.07	18519	1766	19.88	18348
12225	3195	1252	5.28	23853	1312	6.49	23466	1429	9.19	22745	1536	12.05	22312	1634	15.02	22100	1726	18.08	22064						
14325	3744	1447	7.97	28067	1499	9.36	27730	1601	12.36	27105	1698	15.60	26508												
16425	4293	1645	11.54	32285	1691	13.11	31991																		

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

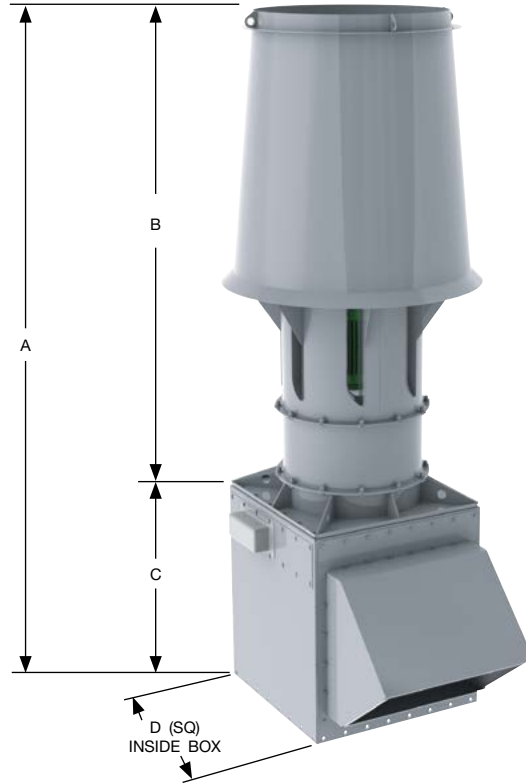
- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

330 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 40.25"
 Max RPM = Class I: 1234; Class II: 1613
 Tip Speed FPM = 10.54 x RPM
 Min Motor Frame: 215C
 Max Motor Frame: 326C
 Windband Outlet Area: 19.39 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	178.72
B	122.97
C	55.75
D	60.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 4.65 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
7850	1687	491	1.06	13263	603	1.96	13971	789	4.06	14806																
11875	2552	639	2.18	19953	721	3.32	20012	871	5.95	20835	1003	8.87	21339	1125	12.08	21874										
15900	3417	802	4.07	26759	868	5.53	26659	989	8.64	26859	1102	12.09	27437	1210	15.90	28189	1308	19.79	28532	1400	23.84	28703	1490	28.17	29102	
19925	4282	974	7.00	33602	1028	8.78	33491	1132	12.53	33441	1227	16.45	33640	1317	20.60	33981	1407	25.16	34586	1493	29.92	35186	1574	34.78	35592	
23950	5147	1150	11.21	40432	1196	13.33	40334	1285	17.71	40210	1369	22.23	40169	1449	26.95	40349	1525	31.81	40606	1600	36.96	40955				
27975	6013	1329	16.99	47276	1369	19.45	47190	1446	24.47	47039	1521	29.64	46947	1593	34.95	46936										
32000	6878	1509	24.56	54094	1544	27.34	54004	1613	33.06	53883																

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 4.65 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
6300	1354	501	0.90	11328	615	1.70	12034																			
9550	2053	643	1.73	17195	735	2.80	17192	891	5.16	17949	1021	7.72	18861	1138	10.47	19485										
12800	2751	802	3.11	22844	877	4.44	23095	1010	7.32	23005	1129	10.47	23602	1236	13.79	24328	1333	17.23	25043	1424	20.82	25675	1510	24.52	26076	
16050	3450	969	5.21	28428	1032	6.82	28762	1148	10.27	29035	1253	13.92	28882	1350	17.77	29195	1441	21.80	29770	1526	25.95	30329	1606	30.22	30915	
19300	4148	1141	8.23	34026	1195	10.12	34369	1296	14.10	34764	1390	18.31	34898	1478	22.68	34743	1561	27.22	34819							
22550	4847	1317	12.38	39671	1363	14.52	39961	1452	19.03	40412	1537	23.82	40687													
25800	5545	1494	17.80	45297	1534	20.19	45545	1613	25.22	45994																

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 4.65 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
4650	999	492	0.68	8614	605	1.30	8762																			
7200	1547	634	1.32	12969	729	2.19	13299	883	4.05	13472	1013	6.10	13713	1127	8.28	13745										
9750	2096	792	2.37	17255	871	3.46	17618	1008	5.84	18046	1125	8.32	18181	1230	10.95	18318	1326	13.71	18491	1415	16.57	18585	1499	19.53	18612	
12300	2644	960	4.01	21691	1025	5.29	21855	1146	8.13	22403	1253	11.15	22716	1350	14.26	22889	1439	17.44	22961	1522	20.73	23045	1601	24.16	23194	
14850	3192	1134	6.39	26187	1189	7.88	26239	1295	11.15	26692	1392	14.63	27090	1481	18.24	27345	1564	21.94	27522							
17400	3740	1311	9.67	30697	1358	11.35	30684	1450	14.98	30919	1539	18.95	31376													
19950	4288	1490	13.98	35213	1532	15.90	35192	1613	19.91	35285																

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

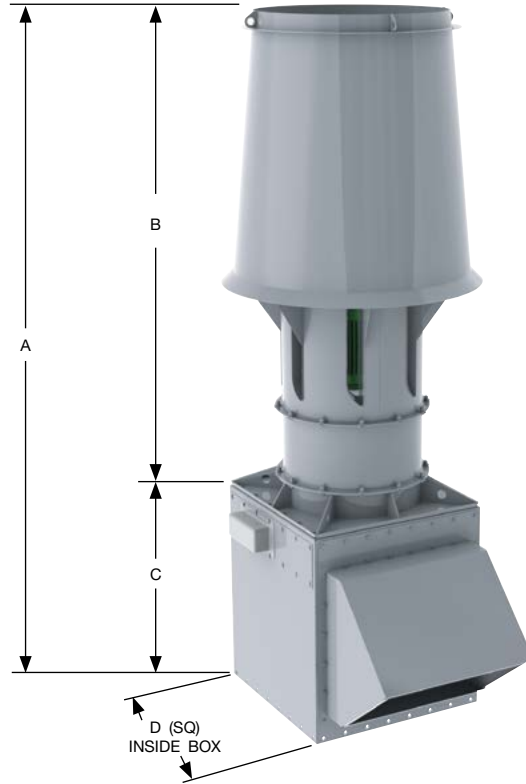
- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

330 TVIFE (HIGH PLUME)

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 40.25"
 Max RPM = Class I: 1234; Class II: 1613
 Tip Speed FPM = 10.54 x RPM
 Min Motor Frame: 215C
 Max Motor Frame: 326C
 Windband Outlet Area: 19.39 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	204.16
B	148.41
C	55.75
D	60.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MP (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 4.65 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
7850	1687	491	1.06	13754	603	1.96	14189	789	4.06	14146																
11875	2552	639	2.18	21322	721	3.32	20855	871	5.95	21252	1003	8.87	21283	1125	12.08	21231										
15900	3417	802	4.07	28987	868	5.53	28377	989	8.64	27881	1102	12.09	28109	1210	15.90	28652	1308	19.79	28632	1400	23.84	28336	1490	28.17	28294	
19925	4282	974	7.00	36601	1028	8.78	36123	1132	12.53	35279	1227	16.45	34979	1317	20.60	34973	1407	25.16	35384	1493	29.92	35823	1574	34.78	35988	
23950	5147	1150	11.21	44165	1196	13.33	43772	1285	17.71	42990	1369	22.23	42316	1449	26.95	42075	1525	31.81	42006	1600	36.96	42103				
27975	6013	1329	16.99	51728	1369	19.45	51394	1446	24.47	50720	1521	29.64	50031	1593	34.95	49488										
32000	6878	1509	24.56	59250	1544	27.34	58945	1613	33.06	58381																

MP7 (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 4.65 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
6300	1354	501	0.90	11647	615	1.70	11995																			
9550	2053	643	1.73	17944	735	2.80	17676	891	5.16	18158	1021	7.72	17867	1138	10.47	18136										
12800	2751	802	3.11	24566	877	4.44	23965	1010	7.32	23660	1129	10.47	24076	1236	13.79	24347	1333	17.23	24071	1424	20.82	23980	1510	24.52	24247	
16050	3450	969	5.21	31048	1032	6.82	30592	1148	10.27	29842	1253	13.92	29707	1350	17.77	29906	1441	21.80	30306	1526	25.95	30519	1606	30.22	30407	
19300	4148	1141	8.23	37502	1195	10.12	37142	1296	14.10	36322	1390	18.31	35842	1478	22.68	35714	1561	27.22	35765							
22550	4847	1317	12.38	43976	1363	14.52	43627	1452	19.03	42954	1537	23.82	42295													
25800	5545	1494	17.80	50404	1534	20.19	50073	1613	25.22	49489																

MP5 (Medium Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 4.65 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
4650	999	492	0.68	8383	605	1.30	8418																			
7200	1547	634	1.32	13346	729	2.19	13017	883	4.05	13170	1013	6.10	12848	1127	8.28	13020										
9750	2096	792	2.37	18628	871	3.46	17986	1008	5.84	17599	1125	8.32	17789	1230	10.95	17798	1326	13.71	17475	1415	16.57	17369	1499	19.53	17547	
12300	2644	960	4.01	23808	1025	5.29	23253	1146	8.13	22457	1253	11.15	22205	1350	14.26	22298	1439	17.44	22487	1522	20.73	22495	1601	24.16	22289	
14850	3192	1134	6.39	28967	1189	7.88	28511	1295	11.15	27629	1392	14.63	27100	1481	18.24	26846	1564	21.94	26789							
17400	3740	1311	9.67	34097	1358	11.35	33680	1450	14.98	32899	1539	18.95	32207													
19950	4288	1490	13.98	39211	1532	15.90	38860	1613	19.91	38175																

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

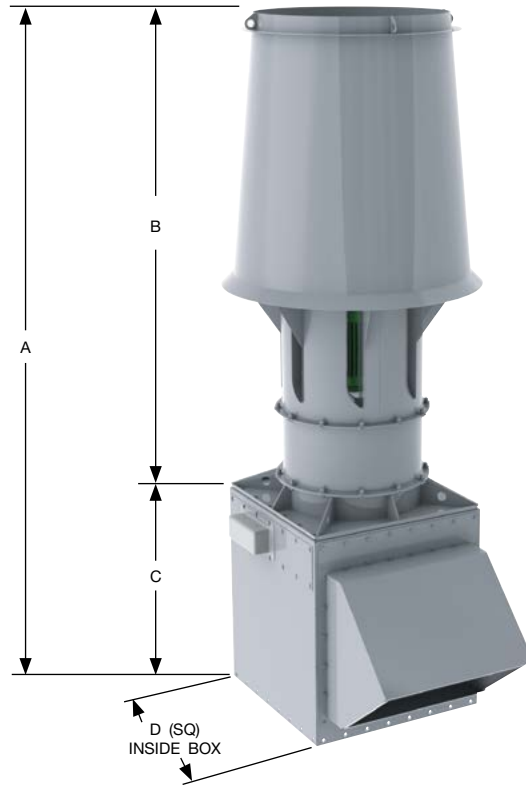
- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

365 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 44.50"
 Max RPM = Class I: 1116; Class II: 1459
 Tip Speed FPM = 11.65 x RPM
 Min Motor Frame: 254C
 Max Motor Frame: 404C
 Windband Outlet Area: 23.71 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	191.06
B	135.31
C	55.75
D	65.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 5.69 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
9600	1688	444	1.29	16205	545	2.40	17043	714	4.98	18150																
14525	2554	578	2.67	24391	652	4.06	24452	788	<u>7.28</u>	25482	907	10.83	26061	1017	14.74	26666										
19450	3420	726	4.99	32741	786	6.78	32639	895	10.57	32860	997	14.79	33555	1095	19.46	34502	1183	24.19	34868	1266	29.13	35052	1348	34.46	35610	
24375	4286	882	8.58	41127	931	10.77	41004	1024	15.31	40882	1110	20.11	41131	1192	25.22	41590	1273	30.78	42304	1351	36.62	43056	1424	42.55	43534	
29300	5152	1041	13.73	49465	1083	16.35	49367	1163	21.69	49192	1239	27.21	49145	1311	32.96	49345	1380	38.94	49676	1448	45.26	50117				
34225	6018	1203	20.81	57834	1239	23.82	57721	1309	29.98	57559	1377	36.33	57459	1442	42.81	57441										
39150	6884	1366	30.09	66177	1398	33.52	66086																			

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 5.69 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
7700	1354	453	1.09	13837	556	2.07	14693																			
11675	2053	582	2.12	21040	665	3.42	21026	806	6.32	21945	924	9.45	23087	1029	12.79	23788										
15650	2752	725	3.79	27904	793	5.43	28218	914	8.96	28147	1021	12.79	28840	1118	16.86	29740	1206	21.08	30630	1288	25.45	31383	1366	29.99	31893	
19625	3451	877	6.38	34773	933	8.33	35136	1039	12.58	35526	1133	17.00	35283	1221	21.72	35682	1304	26.69	36425	1381	31.78	37116	1453	36.97	37811	
23600	4150	1033	10.09	41634	1081	12.37	42017	1173	17.27	42533	1258	22.42	42700	1337	27.74	42476	1412	33.28	42564							
27575	4849	1191	15.13	48482	1233	17.75	48854	1313	23.24	49382	1390	29.10	49723													
31550	5548	1352	21.79	55397	1388	24.70	55694																			

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 5.69 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
5700	1002	446	0.84	10576	548	1.60	10752	707	3.33	10822																
8825	1552	574	1.62	15874	660	2.68	16283	800	4.97	16536	917	7.47	16807	1020	10.14	16847										
11950	2101	718	2.92	21151	789	4.25	21581	913	7.16	22116	1019	10.21	22297	1113	13.40	22415	1200	16.78	22638	1281	20.31	22790	1357	23.95	22832	
15075	2651	871	4.94	26607	929	6.50	26783	1039	10.00	27484	1135	13.68	27842	1222	17.47	28023	1303	21.39	28139	1378	25.41	28239	1449	29.58	28400	
18200	3200	1028	7.87	32089	1078	9.69	32165	1173	13.68	32690	1261	17.95	33193	1342	22.41	33532	1417	26.94	33751							
21325	3750	1189	11.91	37631	1231	13.96	37601	1314	18.40	37884	1394	23.24	38428													
24450	4299	1351	17.21	43154	1389	19.56	43131																			

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

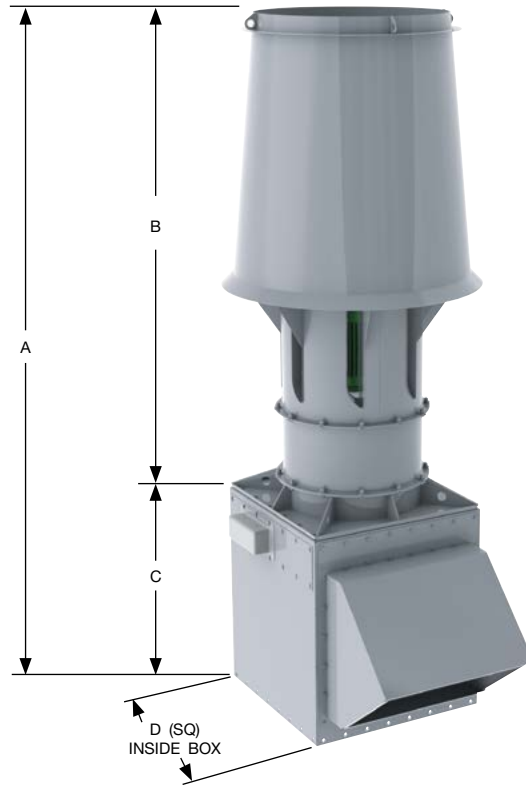
- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

402 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 49.00"
 Max RPM = Class I: 1013; Class II: 1325
 Tip Speed FPM = 12.83 x RPM
 Min Motor Frame: 256C
 Max Motor Frame: 405C
 Windband Outlet Area: 28.75 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	204.12
B	148.37
C	55.75
D	71.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 6.90 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
11625	1686	403	1.56	19628	495	2.91	20670																			
17600	2552	525	3.24	29580	592	4.92	29637	716	8.84	30933	824	13.15	31639	924	17.89	32400										
23575	3419	659	6.04	39674	714	8.22	39589	813	12.83	39859	905	17.91	40642	994	23.56	41785	1074	29.30	42229	1150	35.34	42539	1224	41.76	43142	
29550	4285	801	10.41	49865	845	13.04	49678	930	18.57	49572	1008	24.38	49865	1082	30.54	50377	1156	37.31	51283	1227	44.41	52212	1293	51.56	52757	
35525	5152	946	16.68	60016	983	19.79	59817	1056	26.28	59629	1126	33.06	59652	1191	40.01	59863	1253	47.18	60207	1315	54.87	60763				
41500	6018	1093	25.27	70155	1125	28.86	69970	1189	36.37	69805	1250	43.99	69625	1309	51.84	69599										
47475	6885	1241	36.52	80268	1270	40.68	80155																			

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 6.90 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
9350	1356	412	1.33	16825	505	2.51	17820	652	5.19	19242																
14175	2056	529	2.57	25540	604	4.15	25500	732	7.66	26610	839	11.45	27981	935	15.53	28904										
19000	2755	659	4.61	33868	721	6.60	34270	831	10.90	34202	928	15.54	35025	1016	20.48	36112	1096	25.61	37201	1170	30.88	38079	1240	36.33	38605	
23825	3455	797	7.75	42194	848	10.12	42645	944	15.26	43106	1030	20.67	42865	1110	26.41	43349	1185	32.42	44222	1255	38.60	45068	1320	44.87	45879	
28650	4155	939	12.27	50531	983	15.06	51022	1066	20.98	51619	1143	27.21	51813	1215	33.69	51565	1283	40.40	51660							
33475	4855	1083	18.41	58862	1121	21.59	59307	1194	28.28	59975	1264	35.41	60401													
38300	5554	1229	26.49	67233	1262	30.05	67613																			

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 6.90 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
6900	1001	405	1.02	12820	497	1.93	12988																			
10675	1548	521	1.96	19233	599	3.25	19720	726	6.01	20013	832	9.03	20315	926	12.28	20396										
14450	2096	650	3.50	25546	716	5.14	26138	828	8.65	26746	924	12.33	26937	1010	16.21	27122	1089	20.30	27388	1163	24.59	27602	1231	28.93	27554	
18225	2643	789	5.95	32166	842	7.85	32392	941	12.04	33184	1029	16.51	33652	1109	21.14	33927	1182	25.85	34025	1250	30.71	34137	1315	35.79	34367	
22000	3190	931	9.46	38788	976	11.65	38856	1063	16.49	39522	1143	21.66	40126	1216	27.00	40497	1285	32.54	40807							
25775	3738	1077	14.33	45499	1115	16.80	45452	1191	22.20	45821	1264	28.07	46492													
29550	4285	1223	20.68	52145	1258	23.54	52136	1324	29.45	52247																

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

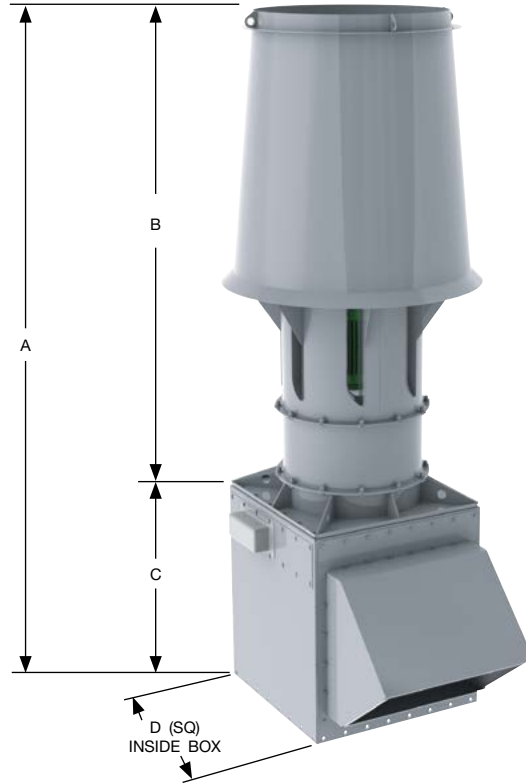
- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

445 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 54.25"
 Max RPM = Class I: 915; Class II: 1197
 Tip Speed FPM = 14.20 x RPM
 Min Motor Frame: 286C
 Max Motor Frame: 444C
 Windband Outlet Area: 35.24 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	219.43
B	163.68
C	55.75
D	80.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 8.45 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
14250	1686	364	1.92	24060	447	3.56	25322																			
21575	2553	474	3.96	36238	535	6.04	36362	646	10.81	37819	744	16.10	38733	834	21.89	39579										
28900	3419	595	7.39	48608	645	10.08	48537	734	15.70	48820	818	22.00	49893	898	28.90	51247	971	36.02	51930	1039	43.35	52202	1106	51.25	52984	
36225	4286	723	12.73	61077	764	16.03	60973	840	22.76	60764	911	29.94	61186	978	37.52	61840	1044	45.72	62844	1108	54.40	63962	1168	63.22	64688	
43550	5152	854	20.42	73523	888	24.27	73335	954	32.24	73112	1017	40.52	73115	1076	49.08	73407	1132	57.87	73831	1187	67.13	74389				
50875	6019	987	30.95	85973	1016	35.36	85754	1074	44.59	85571	1129	53.91	85340	1183	63.65	85387										
58200	6886	1121	44.77	98399	1147	49.85	98242																			

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 8.45 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
11450	1355	372	1.63	20609	456	3.08	21830																			
17350	2053	477	3.14	31232	545	5.07	31196	661	9.38	32600	758	14.05	34320	844	19.00	35345										
23250	2751	595	5.64	41496	651	8.09	41986	750	13.33	41861	838	19.04	42913	917	25.05	44192	989	31.30	45495	1056	37.76	46575	1120	44.51	47321	
29150	3449	719	9.47	51650	765	12.36	52193	852	18.68	52773	929	25.24	52398	1001	32.22	52974	1069	39.59	54068	1132	47.13	55076	1192	54.96	56209	
35050	4147	847	14.98	61850	886	18.35	62387	961	25.58	63105	1031	33.24	63369	1096	41.15	63051	1158	49.43	63235							
40950	4845	977	22.49	72058	1011	26.36	72575	1077	34.55	73391	1140	43.23	73882													
46850	5543	1108	32.30	82253	1138	36.67	82730	1197	45.85	83578																

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 8.45 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
8475	1003	366	1.25	15731	449	2.37	15930	580	4.95	16093																
13100	1550	471	2.41	23603	541	3.98	24170	656	7.38	24556	752	11.10	24958	836	15.03	24949										
17725	2097	588	4.31	31373	647	6.31	32060	748	10.61	32795	835	15.13	33058	913	19.92	33317	984	24.92	33611	1050	30.11	33781	1112	35.47	33791	
22350	2644	713	7.31	39452	761	9.63	39737	851	14.81	40753	930	20.28	41297	1001	25.86	41527	1067	31.63	41650	1129	37.64	41842	1188	43.90	42151	
26975	3191	841	11.60	47551	882	14.31	47658	961	20.27	48503	1033	26.59	49230	1099	33.16	49693	1161	39.93	50051							
31600	3739	973	17.58	55786	1008	20.65	55772	1076	27.23	56183	1142	34.44	57011													
36225	4286	1105	25.37	63940	1136	28.83	63891	1196	36.11	64052																

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

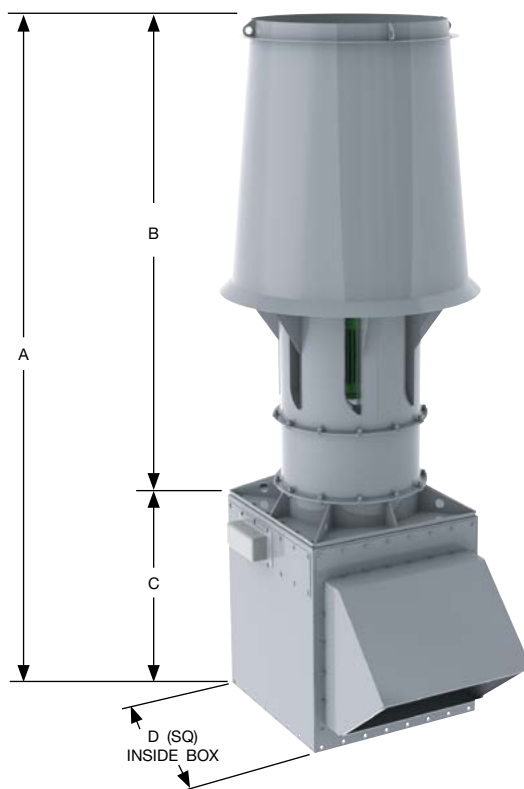
- Performance certified for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

490 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 60.00"
 Max RPM = Class I: 828; Class II: 1082
 Tip Speed FPM = 15.71 x RPM
 Min Motor Frame: 324C
 Max Motor Frame: 445C
 Windband Outlet Area: 43.10 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	236.11
B	180.36
C	55.75
D	87.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 10.34 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
17425	1685	329	2.34	29411	404	4.35	30941	584	13.21	46244	673	19.72	47456	754	26.76	48390										
26375	2551	428	4.83	44243	484	7.40	44520	584	13.21	46244	673	19.72	47456	754	26.76	48390										
35325	3417	538	9.04	59461	583	12.32	59344	664	19.24	59771	739	26.84	60923	812	35.36	62699	877	43.91	63294	939	52.95	63737	1000	62.68	64808	
44275	4282	653	15.52	74618	690	19.54	74474	759	27.79	74252	823	36.53	74735	884	45.85	75596	944	55.93	76881	1001	66.38	78081	1056	77.31	79114	
53225	5148	772	24.96	89914	803	29.70	89717	862	39.36	89349	919	49.49	89355	972	59.87	89656	1023	70.69	90228	1073	82.06	90952				
62175	6014	892	37.81	105111	918	43.17	104813	970	54.38	104523	1020	65.80	104272	1069	77.74	104352										
71125	6879	1013	54.68	120291	1036	60.80	120032	1082	73.46	119727																

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 10.34 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
14025	1357	337	2.01	25303	413	3.79	26803	532	7.76	28729															
21250	2055	432	3.85	38292	493	6.21	38193	598	11.49	39927	686	17.24	42082	764	23.33	43430									
28475	2754	538	6.90	50761	589	9.91	51407	678	16.30	51187	758	23.32	52535	830	30.74	54183	895	38.39	55767	955	46.23	57007	1013	54.51	57956
35700	3453	651	11.63	63277	693	15.20	63996	771	22.90	64640	841	30.98	64246	906	39.53	64927	967	48.50	66199	1024	57.73	67440	1078	67.27	68790
42925	4152	766	18.33	75674	802	22.51	76413	870	31.40	77326	933	40.75	77624	992	50.48	77278	1047	60.45	77347						
50150	4851	884	27.56	88209	915	32.33	88871	974	42.27	89797	1031	52.91	90405												
57375	5549	1003	39.64	100737	1030	44.98	101310																		

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 10.34 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
10350	1001	331	1.53	19251	406	2.90	19489																		
16025	1550	426	2.95	28885	489	4.86	29549	593	9.02	30019	680	13.58	30538	756	18.39	30539									
21700	2099	532	5.29	38406	585	7.72	39216	677	13.01	40192	755	18.51	40439	825	24.32	40688	890	30.51	41155	950	36.91	41420	1006	43.47	41431
27375	2648	645	8.95	48286	689	11.83	48690	770	18.15	49905	841	24.81	50529	906	31.72	50907	966	38.84	51106	1022	46.20	51336	1075	53.83	51673
33050	3197	762	14.28	58300	799	17.59	58429	869	24.79	59339	935	32.62	60319	994	40.59	60820	1050	48.86	61253						
38725	3745	881	21.59	68342	912	25.29	68272	974	33.41	68823	1033	42.16	69777												
44400	4294	1001	31.20	78370	1029	35.45	78311																		

Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

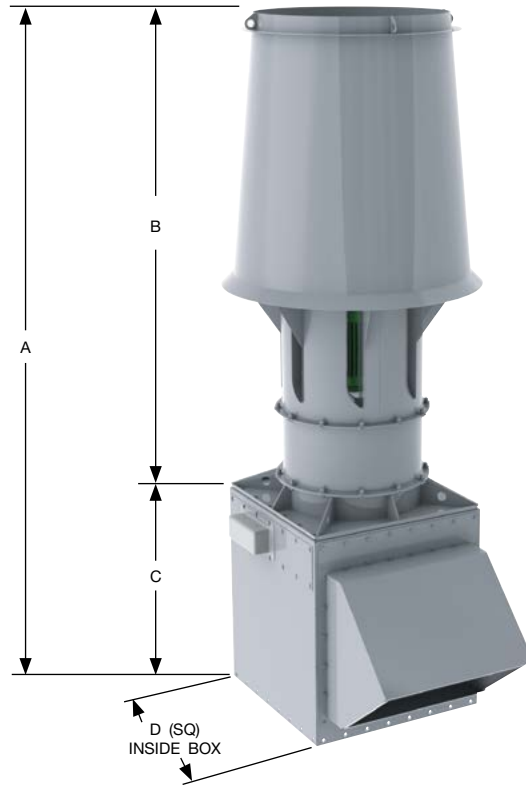
- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

542 TVIFE

Wheel Type: Mixed Flow Airfoil
 Wheel Dia.: 66.00"
 Max RPM = Class I: 752; Class II: 984
 Tip Speed FPM = 17.28 x RPM
 Min Motor Frame: 364C
 Max Motor Frame: 445C
 Windband Outlet Area: 52.15 ft²

OVERALL DIMENSIONS (APPROXIMATE)	
A	253.53
B	197.78
C	55.75
D	95.00

Note: Mixing Box is not part of the base fan.
 See page 56 for full dimensional information



MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 12.51 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP				
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW		
21100	1687	300	2.86	35780	367	5.25	37363	481	10.91	39729	612	23.88	57483	686	32.46	58781											
31925	2552	389	5.84	53517	440	8.95	53869	531	15.99	55977	612	23.88	57483	686	32.46	58781											
42750	3417	489	10.93	71932	530	14.91	71806	603	23.20	72189	672	32.51	73759	738	42.75	75816	798	53.28	76818	854	64.15	77253	909	75.82	78380		
53575	4282	594	18.82	90350	627	23.62	90064	690	33.63	89845	748	44.17	90391	803	55.34	91329	858	67.63	92982	910	80.32	94478	960	93.54	95727		
64400	5148	702	30.23	108827	730	35.94	108558	784	47.69	108181	835	59.78	108029	884	72.54	108559	930	85.53	109176	976	99.46	110176					
75225	6013	811	45.77	127200	835	52.33	126903	882	65.84	126507	928	79.81	126310	972	94.12	126302											
86050	6878	921	66.18	145568	942	73.61	145270	984	88.99	144935																	

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 12.51 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP				
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW		
16950	1355	306	2.42	30547	375	4.57	32345																				
25675	2052	392	4.64	46214	448	7.50	46178	543	13.86	48188	623	20.79	50786	694	28.15	52389											
34400	2750	489	8.35	61407	535	11.96	62126	616	19.69	61866	689	28.21	63550	754	37.11	65457	813	46.34	67351	868	55.89	68935	921	65.96	70151		
43125	3447	591	14.02	76447	629	18.31	77280	700	27.61	78051	764	37.42	77631	823	47.73	78445	879	58.67	80084	931	69.87	81620	979	81.15	83043		
51850	4145	696	22.15	91514	728	27.13	92298	790	37.88	93415	847	49.12	93708	901	60.93	93345	951	72.97	93436								
60575	4842	802	33.15	106502	830	38.87	107270	885	51.10	108584	937	63.99	109344														
69300	5539	910	47.69	121638	935	54.21	122390	983	67.68	123567																	

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 12.51 ft²

FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP				
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW		
12525	1001	301	1.86	23308	369	3.51	23565																				
19375	1549	387	3.56	34917	445	5.90	35819	539	10.91	36308	618	16.41	36916	687	22.23	36888											
26225	2096	483	6.37	46397	531	9.30	47349	615	15.72	48564	686	22.37	48870	750	29.43	49232	809	36.91	49781	863	44.55	49985	914	52.50	50007		
33075	2644	586	10.81	58384	625	14.22	58753	699	21.88	60253	764	29.96	61061	823	38.30	61496	877	46.81	61638	928	55.71	61928	976	64.88	62298		
39925	3191	692	17.23	70462	725	21.18	70540	790	30.01	71800	849	39.35	72853	903	49.02	73501	954	59.04	74032								
46775	3739	799	25.95	82481	828	30.50	82484	884	40.25	83104	938	50.86	84295														
53625	4286	908	37.51	94606	934	42.71	94592	983	53.43	94794																	

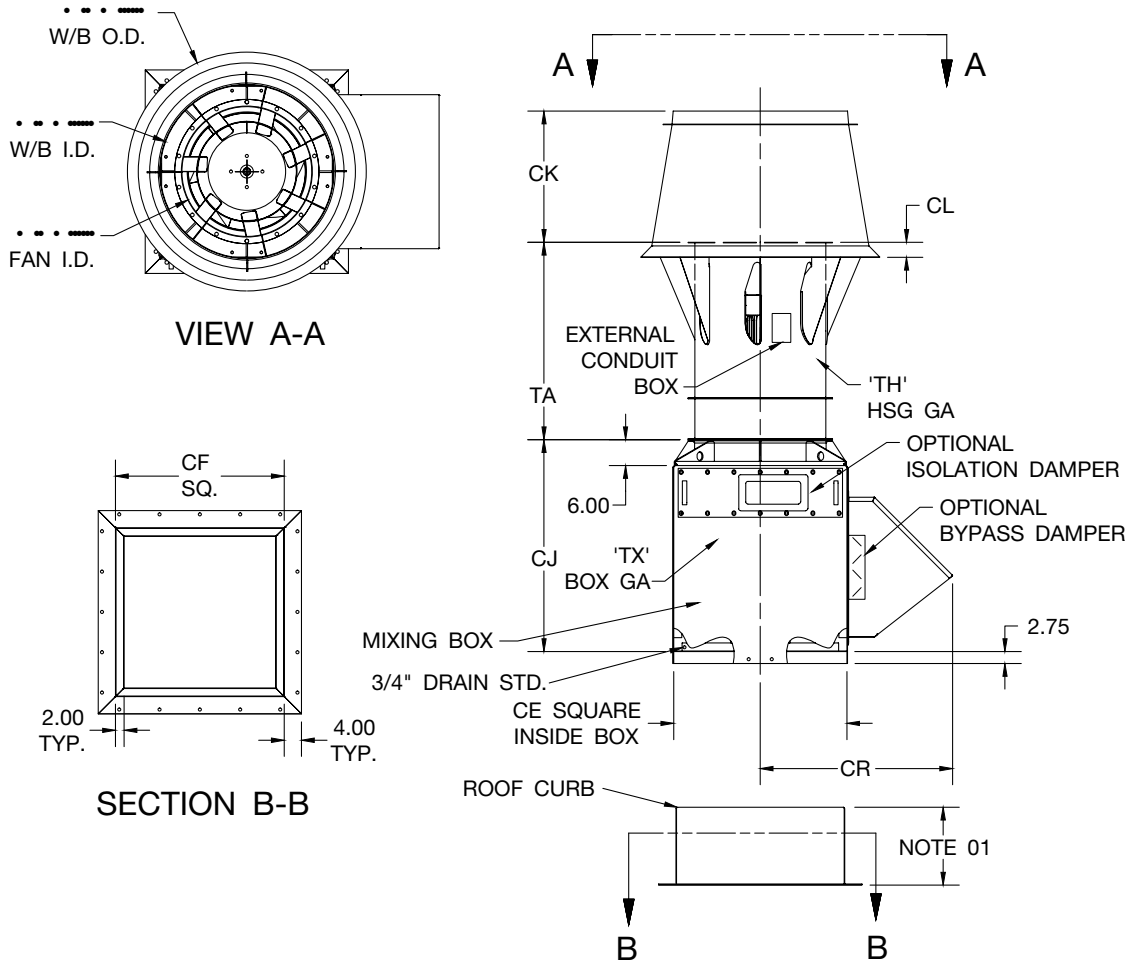
Class II = Blue shaded section

Underlined figures indicate maximum static efficiency.

NOTES:

- Performance certified is for installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- Performance ratings do not include the effects of crosswinds.

DIMENSIONAL DATA



NOTES:

1. Bottom intake standard; side intake, closed bottom optional.
2. Standard roof curb height is 12". Other heights available upon request.
3. 125 mph windload ratings require a Twin City Fan & Blower supplied roof curb.
4. Motor not shown, Min. and Max. Motor Frame 'FR'.

SIZE	CA	CB	CE	CF	CG	CJ	CK	CL	CR	TA	TH	TX	FR	
													MIN	MAX
90	13.79	18.13	24.00	23.00	25.00	33.00	48.53	1.85	28.31	22.81	12	10	48C	145C
122	16.81	22.25	28.00	27.00	30.63	37.00	59.36	2.27	32.13	27.93	12	10	48C	184C
135	18.54	24.44	28.00	27.00	33.69	37.00	65.29	2.52	32.13	30.72	12	10	48C	184C
150	20.23	27.06	33.00	32.00	37.25	40.00	47.96	2.79	37.13	32.63	10	10	48C	215C
165	22.29	29.63	34.00	33.00	40.50	43.00	52.63	3.00	38.13	35.76	10	10	56C	215C
182	24.67	32.69	36.00	35.00	45.38	45.00	58.50	3.38	10.13	39.78	10	10	56C	256C
200	27.04	36.31	37.00	36.00	50.00	46.00	64.43	3.70	41.13	43.80	10	10	56C	256C
222	30.04	40.00	40.00	39.00	55.06	49.00	32.94	2.69	44.13	45.50	10	7	56C	284C
222P	30.04	40.00	40.00	39.00	55.06	49.00	50.00	2.69	44.13	45.50	10	7	56C	284C
245	33.10	44.44	46.00	45.00	67.19	55.00	36.65	3.16	50.13	50.56	7	7	184C	286C
245P	33.10	44.44	46.00	45.00	67.19	55.00	55.59	3.16	50.13	50.56	7	7	184C	286C
270	36.48	48.88	47.00	46.00	67.31	56.00	40.24	3.32	51.13	55.62	7	7	184C	324C
270P	36.48	48.88	47.00	46.00	67.31	56.00	61.06	3.32	51.13	55.62	7	7	184C	324C
300	40.54	54.06	53.00	52.00	74.44	59.00	44.57	3.62	56.13	61.52	7	7	213C	324C
300P	40.54	54.06	53.00	52.00	74.44	59.00	67.63	3.62	56.13	61.52	7	7	213C	324C
330	44.61	59.63	60.00	59.00	82.13	59.00	49.13	3.68	59.63	67.84	7	7	215C	326C
330P	44.61	59.63	60.00	59.00	82.13	59.00	74.57	3.68	59.63	67.84	7	7	215C	326C
365	49.36	65.94	65.00	64.00	90.75	59.00	54.31	4.44	62.13	75.00	7	7	254C	404C
402	54.36	72.56	71.00	70.00	99.94	59.00	59.79	4.90	65.13	82.58	7	7	256C	405C
445	60.17	80.38	80.00	79.00	110.69	59.00	66.25	5.38	69.63	91.43	7	7	286C	444C
490	66.23	88.88	87.00	86.00	122.38	59.00	73.24	6.01	73.13	101.12	7	7	324C	445C
542	73.36	97.75	95.00	94.00	134.63	59.00	80.55	6.58	77.13	111.23	7	7	364C	445C

BC1003201A

DIMENSIONS ARE SUBJECT TO CHANGE. CERTIFIED DRAWINGS AVAILABLE ON REQUEST.

Model

TVIFE



Model TVIFE Direct Drive Induced Flow Exhaust Fans, where indicated on drawings and schedules, shall be of the non-overloading design, and shall be of the size and capacity as indicated in the fan schedule. Induced flow exhaust fans shall be as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

Fans shall be designed for maximum efficiency. Fans shall have a sharply rising pressure characteristic extending through the operating range and continuing to rise well beyond the efficiency peak to assure quiet and stable operation under all conditions. Horsepower characteristics shall be truly self-limiting and shall reach a peak in the normal selection area.

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. Model TVIFE shall be licensed to bear the AMCA certified ratings seal for air, sound and induced flow. Sound certification shall apply to both inlet and outlet sound power levels. Model TVIFE shall be UL/cUL 705 listed for electrical.

HOUSING — Housings shall be cylindrical and welded steel throughout. Inlets shall be fully streamlined. Housings shall be suitably braced to prevent vibration or pulsation. Housing shall be furcated with Turbo-Vanes™ to allow for increased induced flow and motor ventilation. Punched inlet flange shall be equipped for curb cap or mixing plenum box mounting. Model TVIFE shall include outlet nozzle, windband, heavy duty coated steel curb cap, access door.

WHEEL — Fan wheels shall have die-formed blades designed for maximum efficiency, and quiet and stable operation. Blades shall be continuously welded to the back plate and wheel cone. Wheels shall be statically and dynamically balanced and the complete fan assembly including motor and drive shall be test balanced at or near the operating speed at the factory prior to shipment.

CURB CAP — A heavy-duty, coated steel or galvanized curb cap shall be included to provide for a weather-tight transition between the roof curb and the fan.

NOZZLE AND WINDBAND — A nozzle and windband combination shall be provided to efficiently induce ambient airflow from outside the fan housing and increase discharge velocities to be a recommended minimum of 3,000 FPM without significantly affecting BHP requirements. The windband shall provide a minimum discharge height of 84" from roof surface.

MOTOR — Fan motors shall be C-Face, continuous duty, variable torque type suitable for operation on voltage, phase and hertz, as listed in the fan schedule, closely matched to the fan load. Bearings shall be selected for a minimum L-50 life of 200,000 hours. An externally mounted conduit box shall be factory installed and wired to the fan as standard. Extended lube lines shall be provided for ease of lubrication. Motor shall be mounted within the fan, isolated from the airstream. All motors shall be UL recognized.

OPTIONAL ACCESSORIES — Where required the fans shall be provided with:

- AMCA "B" or "C" spark resistant construction
- Modular mixing plenum box (bottom-intake or side-intake)
- Bypass damper with actuator
- Isolation damper with actuator
- Disconnect switches
- Roof curb
- Vortex breaker
- Special coatings (Epoxy, Air-Dry Phenolic, Synthetic Resin) on airstream parts or entire unit
- Special materials of construction

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel 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.

SUBMITTALS — Submittals for approval of equipment shall include copies of outline drawings, AMCA Certified Ratings, and percentage pressure-volume performance curves showing point of operation.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its TVIFE Mixed Flow Induced Flow Exhaust Fans for at least three (3) years from shipment.

INDUSTRIAL & COMMERCIAL FANS

Centrifugal Fans | Utility Sets | Plenum & Plug Fans | Inline Centrifugal Fans
Mixed Flow Fans | Tubeaxial & Vaneaxial Fans | Propeller Wall Fans | Propeller Roof Ventilators
Centrifugal Roof & Wall Exhausters | Ceiling Ventilators | Gravity Ventilators | Duct Blowers
Radial Bladed Fans | Radial Tip Fans | High Efficiency Industrial Fans | Pressure Blowers
Laboratory Exhaust Fans | Filtered Supply Fans | Mancoolers | Fiberglass Fans | Custom Fans



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