



INDUSTRIAL PROCESS AND  
COMMERCIAL VENTILATION SYSTEMS

# MIXED FLOW INDUCED FLOW EXHAUST FANS

MODEL TVIFE, DIRECT DRIVE



**AMCA 260  
TESTED**



## 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 our Fan Selector program at [tcf.com](http://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

### TVIFE

#### 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.

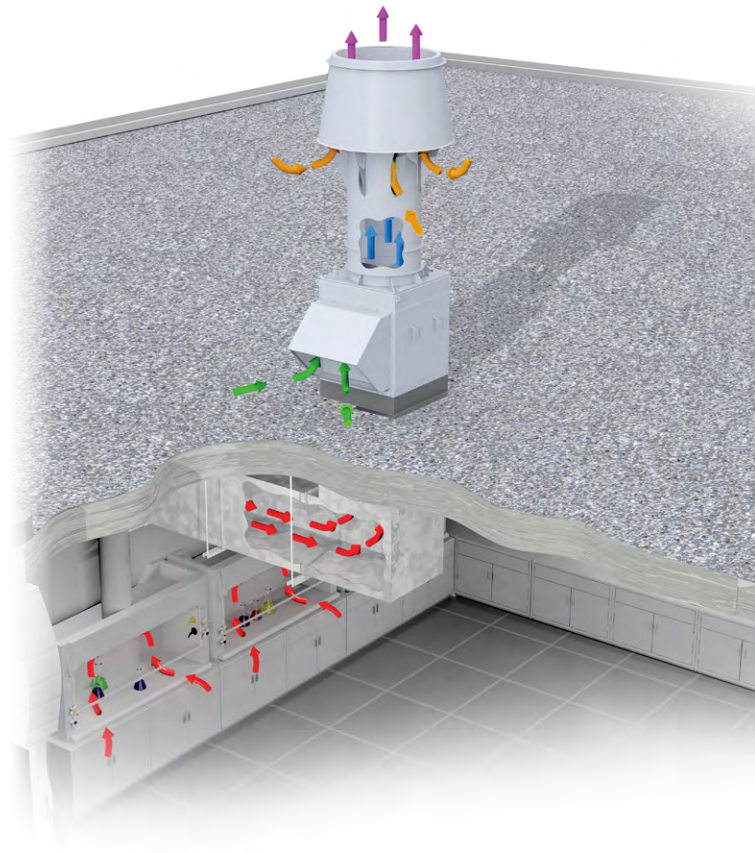
Induced flow exhaust fans dilute contaminated air at the outlet as well as increase the outlet volume of the fan. This accelerates the discharge air, increasing plume height without a tall stack.

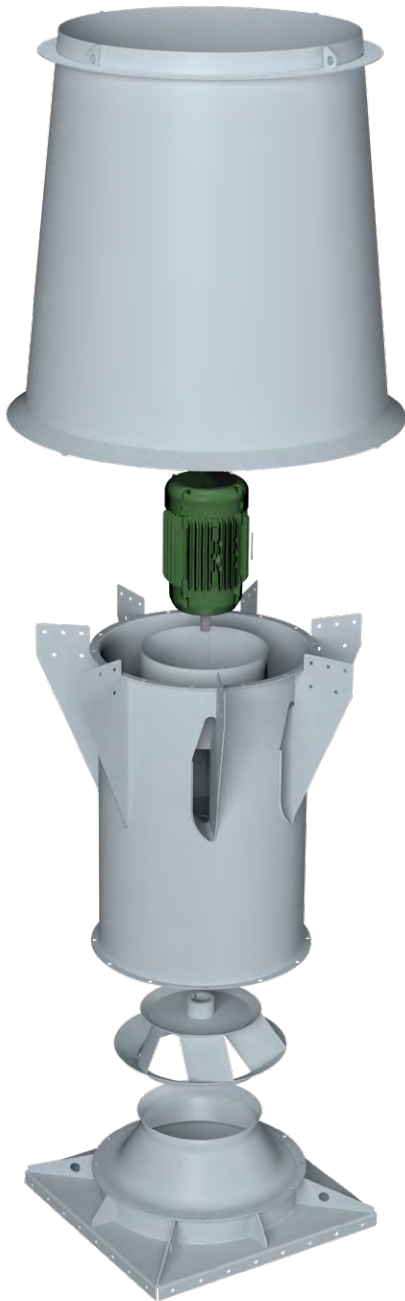


#### Energy Recovery Systems

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.





**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.

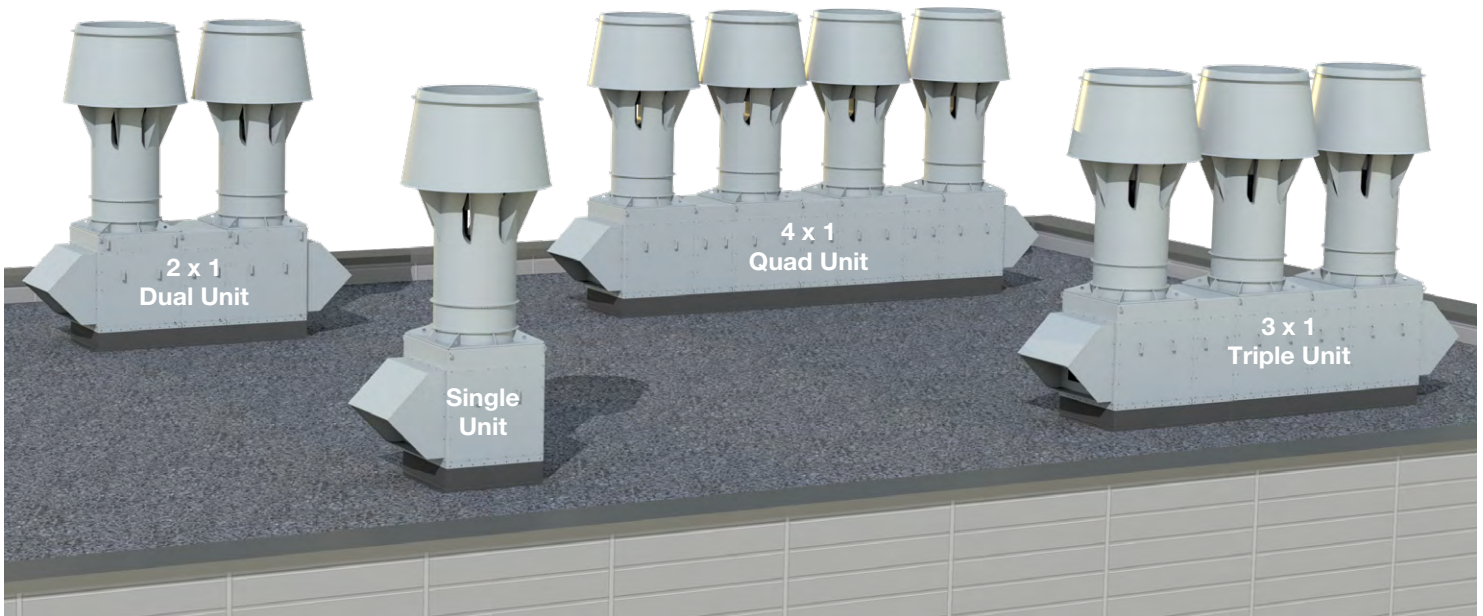
**Bolted Access Door** for inspection or cleaning of the wheel.

**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.

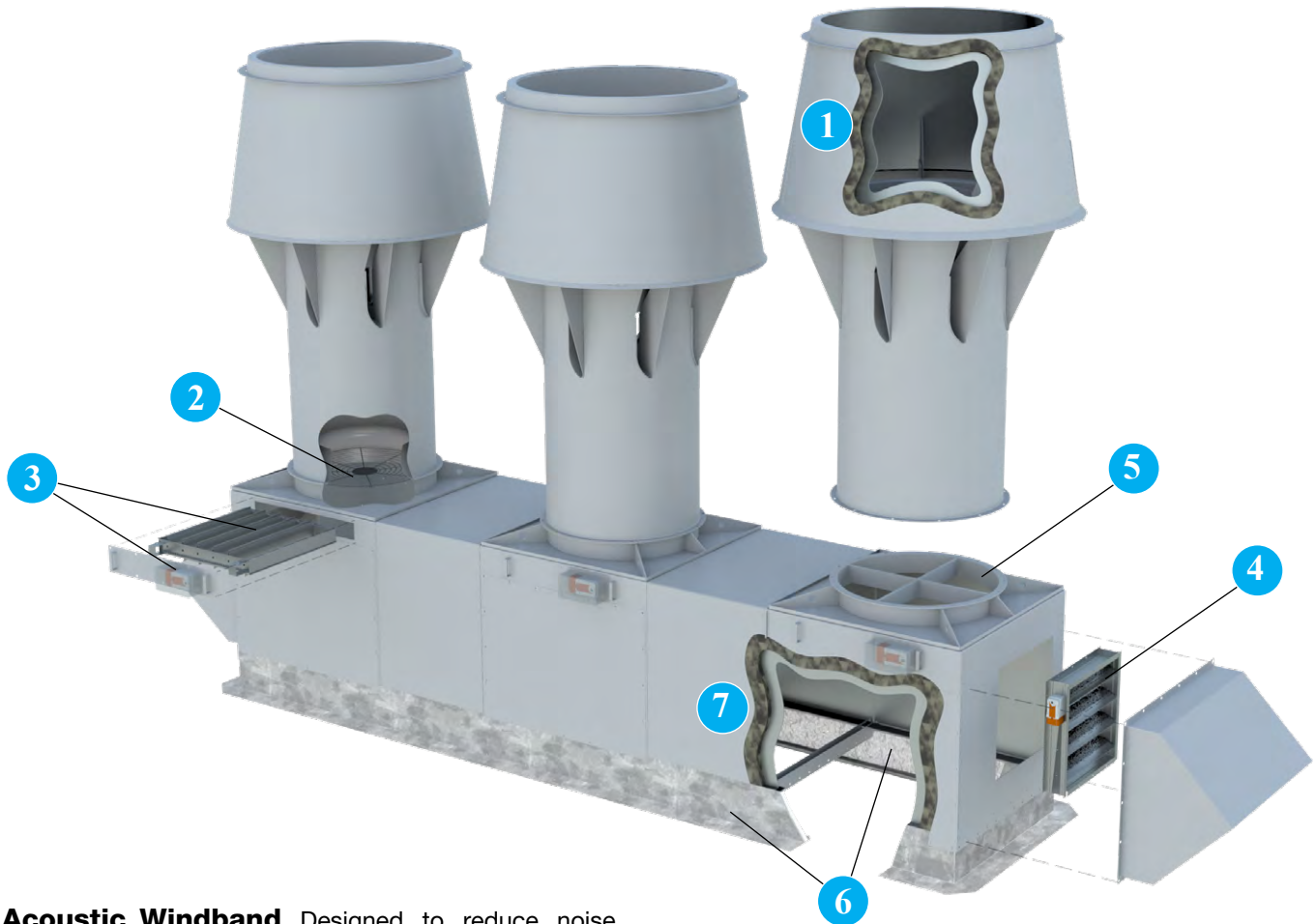
## Other Standard Features

- 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%)



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





**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.

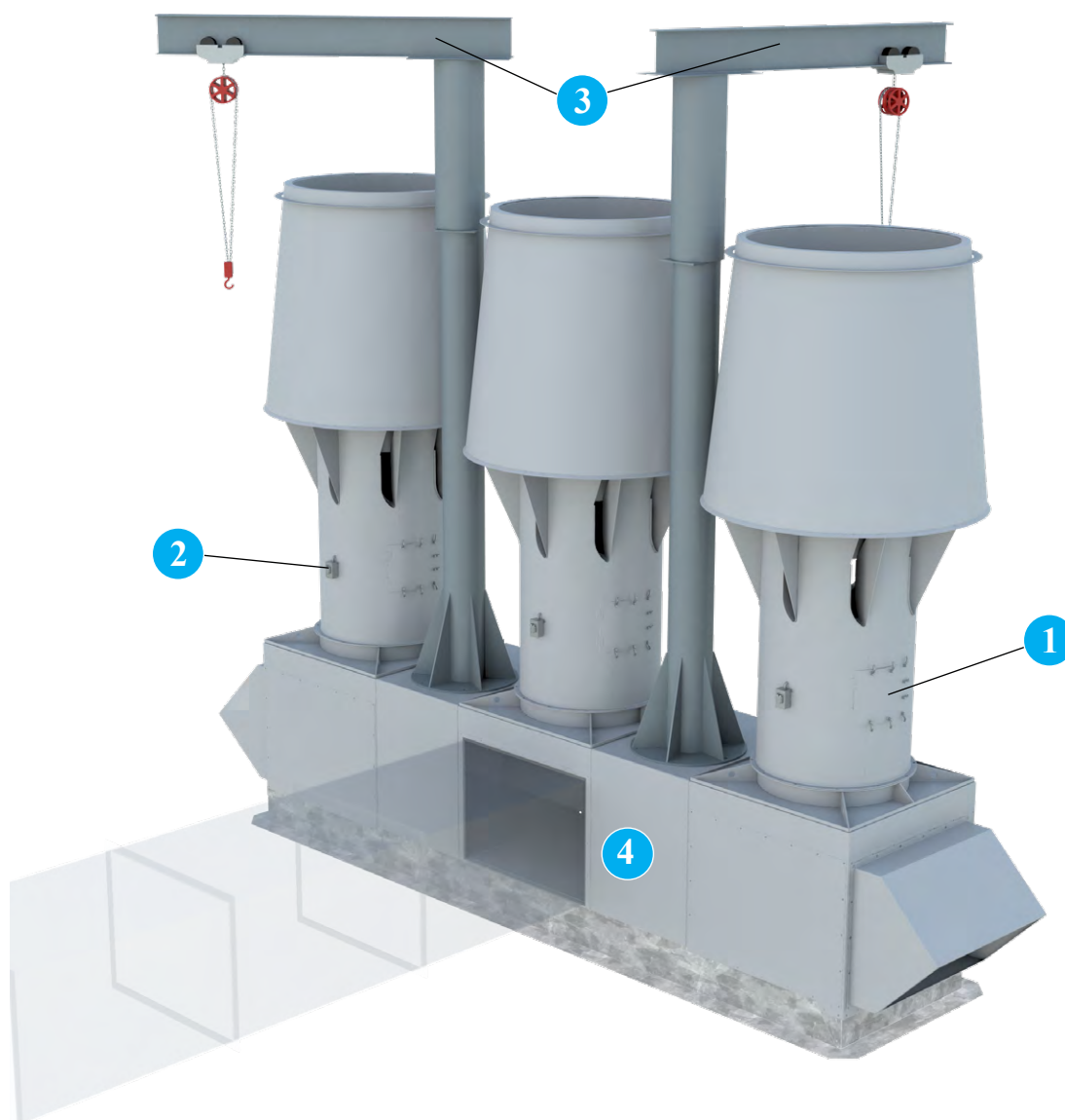
**4 Bypass Dampers** are used to maintain outlet velocities by allowing a constant volume at the fan when exhaust air is reduced. Bypass dampers are available with either a manual, locking quadrant (handle) or with electrical controls and various materials of construction and coating options.

**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 1 1/2" 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.

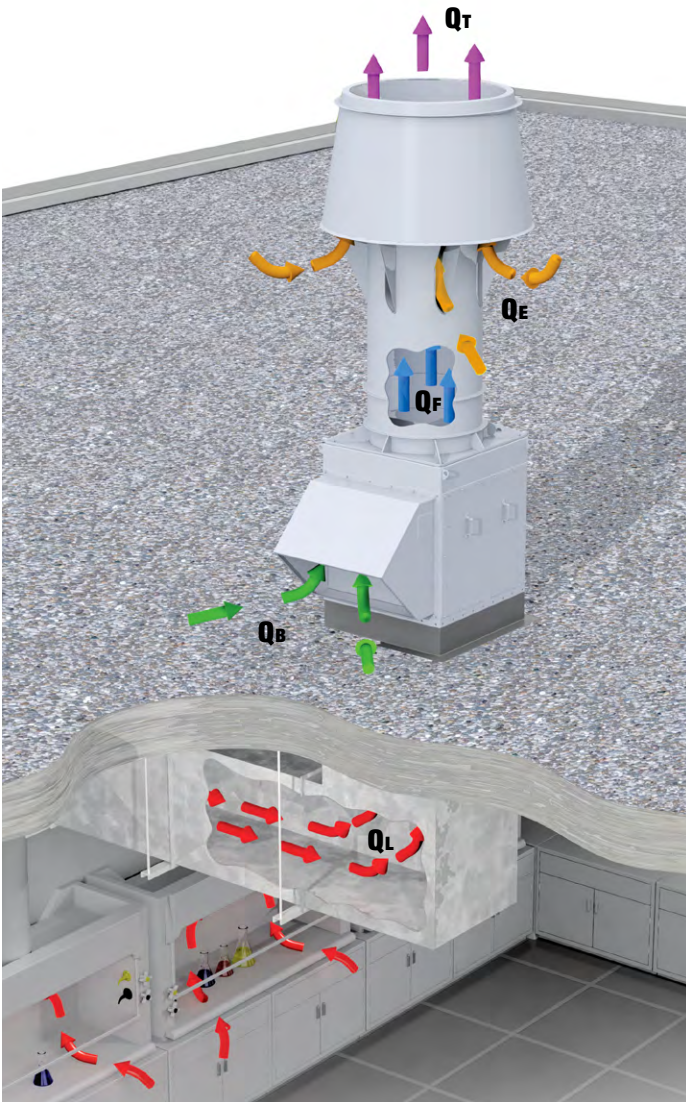
**3 Jib Crane** Heavy duty jib crane is designed to handle the weight of the heaviest individual component. The mount is connected to the specially reinforced mixing box spacer mixing box structure.

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



- QB = Bypass Flow**
- QE = Entrained Flow**
- QF = Fan Flow**
- QL = Laboratory Flow (Contaminated Air)**
- QT = 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.)

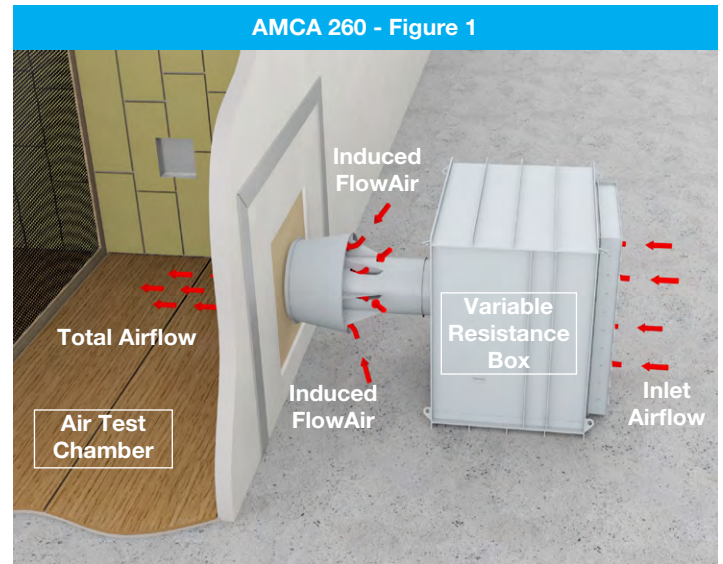
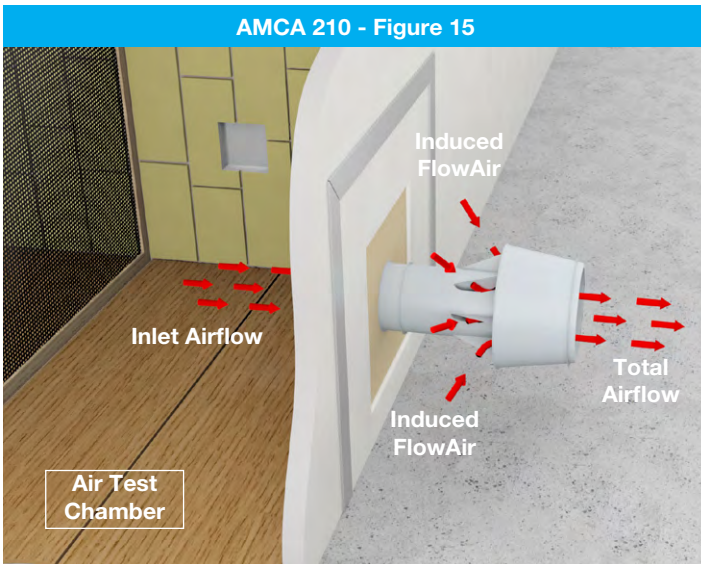
## Windband

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



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.

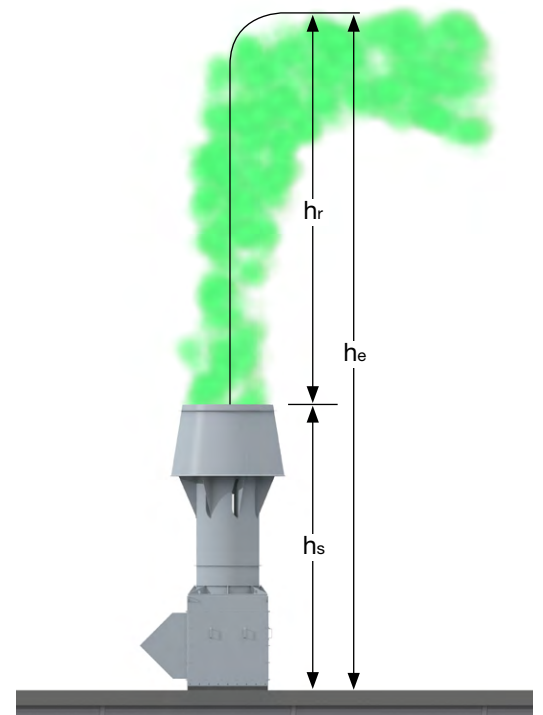


Table 1. Maximum RPM, Wheel Weights, and WR<sup>2</sup> (moment of inertia in lb-ft<sup>2</sup>)

FAN SIZE	CLASS I			CLASS II		
	MAX. RPM	WEIGHT LB.	WR <sup>2</sup> LB-FT <sup>2</sup>	MAX. RPM	WEIGHT LB.	WR <sup>2</sup> LB-FT <sup>2</sup>
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.

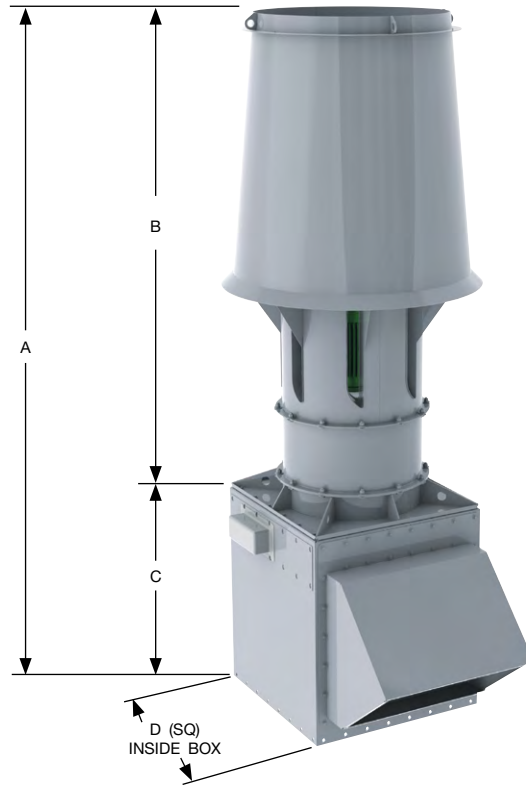


# 90 TVIFE

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 0.287 ft<sup>2</sup>

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	
950	3315	2064	0.25	1985	2221	0.31	1979	2374	0.37	1971	2529	0.44	1973	2689	0.51	1990										
1125	3925	2335	0.36	2354	2470	0.42	2349	2603	0.49	2345	2733	0.57	2338	2862	0.64	2333	3128	0.81	2348	3386	1.00	2378				
1300	4536	2617	0.51	2720	2737	0.58	2719	2854	0.65	2715	2969	0.73	2711	3082	0.81	2705	3306	0.99	2696	3535	1.18	2705	3766	1.40	2732	
1475	5147	2908	0.69	3087	3015	0.77	3086	3119	0.86	3083	3222	0.94	3080	3324	1.03	3077	3524	1.22	3067	3721	1.41	3058	3921	1.63	3062	
1650	5757	3204	0.92	3453	3300	1.01	3452	3396	1.11	3452	3489	1.20	3450	3581	1.29	3447	3763	1.49	3440	3942	1.70	3432	4118	1.92	3424	
1825	6368	3504	1.20	3819	3592	1.30	3819	3679	1.40	3819	3765	1.51	3818	3849	1.61	3815	4016	1.82	3811	4180	2.04	3805				
2000	6978	3807	1.54	4184	3888	1.65	4185	3968	1.76	4185	4047	1.87	4184	4126	1.98	4184										

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 0.287 ft<sup>2</sup>

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	
825	2879	2158	0.22	1804	2320	0.28	1797	2474	0.33	1788	2627	0.40	1787	2782	0.47	1799	<u>3064</u>	<u>0.61</u>	<u>1822</u>							
950	3315	2390	0.30	2080	2535	0.36	2076	2674	0.42	2069	2808	0.49	2060	2941	0.56	2056	3210	0.72	2073	3459	0.88	2095				
1075	3751	2630	0.39	2356	2762	0.46	2352	2888	0.53	2347	3011	0.60	2341	3131	0.68	2335	3365	0.84	2327	3604	1.02	2344	3831	1.20	2366	
1200	4187	2876	0.51	2631	2997	0.59	2628	3113	0.66	2625	3226	0.74	2621	3337	0.82	2616	3550	0.99	2603	3759	1.17	2597	3973	1.36	2610	
1325	4623	3125	0.65	2905	3238	0.74	2904	3345	0.82	2900	3450	0.90	2898	3552	0.98	2894	3751	1.16	2884	3943	1.35	2872	4132	1.55	2867	
1450	5059	3379	0.82	3181	3483	0.91	3179	3584	1.00	3177	3681	1.09	3174	3776	1.18	3170	3962	1.37	3164	4142	1.57	3153				
1575	5495	3635	1.02	3455	3732	1.11	3454	3826	1.21	3452	3918	1.31	3450	4007	1.40	3447	4181	1.60	3441							

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 0.287 ft<sup>2</sup>

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	
650	2268	2143	0.17	1400	2306	0.22	1390	2461	0.26	1381	2615	0.31	1380	2770	0.37	1388										
750	2617	2375	0.23	1621	2521	0.28	1612	2662	0.33	1604	2796	0.38	1595	2929	0.44	1592	3198	0.57	1602	<u>3442</u>	<u>0.70</u>	<u>1613</u>				
850	2966	2614	0.31	1841	2748	0.36	1834	2862	0.42	1826	3000	0.47	1819	3119	0.53	1811	3354	0.66	1804	3592	0.81	1813	3815	0.96	1825	
950	3315	2859	0.40	2061	2983	0.46	2055	3101	0.52	2048	3215	0.58	2041	3326	0.65	2034	3540	0.78	2022	3750	0.93	2017	3963	1.09	2024	
1050	3664	3109	0.51	2281	3223	0.58	2275	3333	0.64	2269	3439	0.71	2262	3542	0.78	2256	3742	0.92	2244	3934	1.07	2233	4124	1.23	2229	
1150	4013	3362	0.64	2501	3468	0.71	2495	3573	0.78	2489	3670	0.86	2483	3767	0.93	2478	3954	1.08	2467	4134	1.24	2455				
1250	4361	3617	0.79	2720	3717	0.87	2715	3814	0.95	2710	3907	1.03	2704	3998	1.11	2699	4174	1.27	2689							

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.208 ft<sup>2</sup>

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	
750	3599	2124	0.26	1949	2308	0.32	1948	2474	0.39	1947	2624	0.45	1949	2762	0.52	1950										
875	4199	2356	0.36	2275	2523	0.43	2273	2680	0.50	2272	2825	0.58	2271	2959	0.66	2272	3203	0.81	2274	3426	0.97	2279				
1000	4798	2599	0.49	2601	2751	0.57	2599	2895	0.65	2598	3033	0.73	2597	3163	0.82	2596	3401	0.99	2598	3615	1.17	2599	3815	1.35	2604	
1125	5398	2851	0.64	2927	2988	0.73	2926	3121	0.82	2923	3249	0.92	2922	3372	1.01	2921	3604	1.21	2921	3813	1.40	2921	4006	1.60	2923	
1250	5998	3110	0.84	3253	3233	0.94	3251	3356	1.03	3250	3476	1.14	3249	3591	1.24	3248	3811	1.45	3246	4016	1.67	3245	4206	1.89	3247	
1375	6598	3373	1.07	3578	3486	1.18	3577	3598	1.28	3576	3709	1.39	3574	3818	1.51	3574	4025	1.73	3571	4223	1.97	3570				
1500	7198	3641	1.35	3905	3744	1.46	3903	3847	1.58	3902	3950	1.70	3901	4051	1.82	3899										

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.208 ft<sup>2</sup>

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	
675	3239	2158	0.22	1794	2337	0.28	1787	2497	0.34	1782	2641	0.40	1781	2772	0.45	1779	3013	0.58	1780							
775	3719	2370	0.30	2065	2536	0.36	2057	2690	0.43	2051	2831	0.49	2047	2960	0.56	2045	3193	0.70	2043	3404	0.83	2042				
875	4199	2589	0.39	2335	2744	0.46	2327	2888	0.53	2321	3024	0.61	2316	3152	0.68	2314	3380	0.83	2309	3586	0.99	2307	3776	1.14	2307	
975	4679	2815	0.50	2606	2958	0.58	2598	3095	0.66	2592	3223	0.74	2587	3345	0.82	2582	3571	0.99	2576	3773	1.16	2573	3958	1.33	2570	
1075	5158	3046	0.63	2875	3178	0.72	2868	3306	0.80	2862	3428	0.89	2857	3544	0.98	2852	3764	1.17	2845	3964	1.35	2840	4146	1.54	2836	
1175	5638	3282	0.79	3146	3404	0.88	3139	3523	0.98	3133	3639	1.07	3128	3750	1.17	3123	3960	1.36	3115	4156	1.57	3108				
1275	6118	3521	0.98	3416	3634	1.08	3409	3745	1.17	3403	3854	1.28	3398	3960	1.38	3393	4161	1.59	3384							

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.208 ft<sup>2</sup>

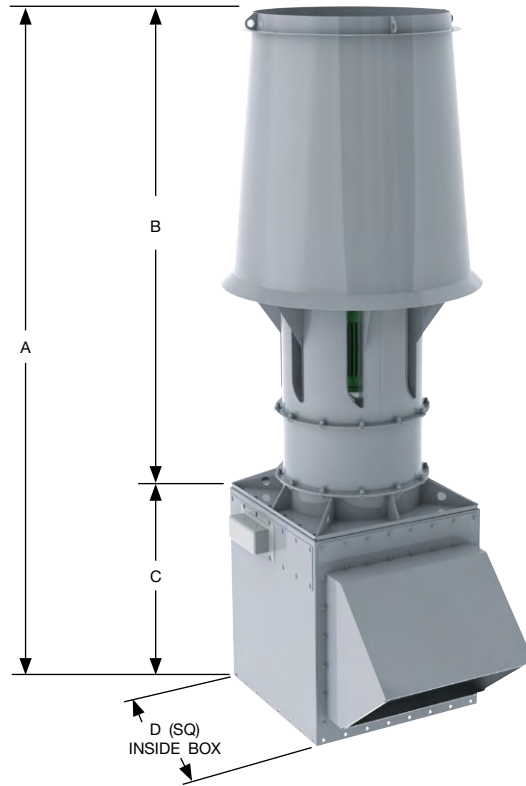
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
575	2759	2129	0.17	1499	2307	0.22	1505	2465	0.26	1511	2606	0.31	1516	2737	0.36	1522	2974	0.46	1530							
675	3239	2374	0.24	1755	2538	0.29	1761	2689	0.3																	

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	127.04
<b>B</b>	93.29
<b>C</b>	33.75
<b>D</b>	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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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:**

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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 0.430 ft<sup>2</sup>

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	3316	1686	0.37	2976	1814	0.46	2966	1939	0.55	2955	2065	0.65	2956	2196	0.77	2982										
1675	3898	1896	0.53	3501	2008	0.63	3497	2117	0.73	3489	2224	0.84	3479	2330	0.95	3473	2549	1.21	3497	2760	1.49	3542				
1925	4480	2116	0.74	4028	2215	0.84	4025	2311	0.96	4018	2406	1.07	4011	2500	1.20	4004	2685	1.46	3992	2875	1.75	4009	3065	2.07	4050	
2175	5062	2341	0.99	4551	2430	1.11	4549	2517	1.24	4546	2602	1.36	4540	2686	1.49	4533	2852	1.77	4519	3016	2.07	4510	3182	2.39	4516	
2425	5643	2571	1.31	5074	2651	1.45	5073	2731	1.58	5073	2808	1.72	5067	2885	1.86	5063	3036	2.15	5053	3184	2.46	5039	3331	2.79	5029	
2675	6225	2804	1.70	5597	2877	1.84	5596	2950	1.99	5596	3021	2.14	5593	3092	2.30	5591	3230	2.61	5581	3367	2.94	5572				
2925	6807	3039	2.16	6119	3107	2.32	6120	3174	2.48	6120	3240	2.64	6119	3305	2.80	6116	3433	3.14	6109							

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 0.430 ft<sup>2</sup>

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	
1225	2851	1751	0.32	2678	1884	0.41	2667	2010	0.49	2653	2137	0.59	2658	2265	0.69	2678										
1425	3316	1953	0.45	3121	2071	0.54	3113	2184	0.63	3101	2294	0.73	3091	2402	0.84	3086	2622	1.07	3113	2826	1.32	3146				
1625	3782	2162	0.60	3562	2269	0.70	3556	2371	0.81	3547	2471	0.92	3539	2568	1.03	3529	2758	1.27	3520	2951	1.54	3541	3137	1.82	3576	
1825	4247	2376	0.79	4002	2474	0.91	3998	2568	1.02	3992	2659	1.14	3985	2749	1.26	3979	2921	1.51	3961	3089	1.79	3951	3261	2.08	3967	
2025	4713	2595	1.03	4443	2685	1.15	4440	2771	1.28	4434	2856	1.40	4430	2938	1.53	4423	3098	1.80	4409	3252	2.09	4392	3404	2.39	4384	
2225	5178	2816	1.31	4882	2899	1.44	4879	2980	1.58	4876	3058	1.72	4871	3135	1.86	4867	3284	2.14	4855	3428	2.45	4841				
2425	5643	3040	1.64	5321	3117	1.79	5319	3193	1.93	5318	3266	2.08	5314	3338	2.23	5310										

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 0.430 ft<sup>2</sup>

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	
975	2269	1751	0.26	2101	1884	0.32	2085	2010	0.39	2071	2136	0.47	2069	2263	0.56	2082										
1125	2618	1940	0.35	2433	2060	0.42	2419	2174	0.50	2405	2284	0.58	2392	2393	0.66	2387	2612	0.86	2401	2811	1.06	2417				
1275	2967	2136	0.46	2764	2245	0.54	2752	2350	0.62	2741	2451	0.71	2729	2548	0.80	2716	2740	1.00	2705	2934	1.21	2718	3116	1.44	2737	
1425	3316	2336	0.60	3094	2437	0.69	3084	2533	0.78	3073	2626	0.87	3062	2717	0.97	3052	2891	1.17	3030	3063	1.39	3023	3237	1.63	3034	
1575	3665	2540	0.76	3423	2633	0.86	3413	2723	0.96	3405	2809	1.06	3394	2894	1.17	3386	3057	1.38	3367	3213	1.61	3348	3368	1.85	3340	
1725	4014	2746	0.96	3751	2834	1.07	3745	2917	1.18	3735	2998	1.29	3726	3077	1.40	3718	3230	1.62	3701	3377	1.86	3683				
1875	4364	2955	1.19	4080	3037	1.31	4074	3116	1.43	4067	3192	1.55	4059	3266	1.66	4051	3409	1.90	4033							

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.313 ft<sup>2</sup>

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	
1125	3600	1735	0.39	2923	1885	0.48	2921	2021	0.58	2922	2143	0.68	2923	2256	0.78	2925										
1300	4160	1912	0.53	3380	2049	0.63	3377	2178	0.74	3377	2297	0.86	3377	2406	0.97	3376	2606	1.20	3380	2789	1.44	3389				
1475	4720	2096	0.70	3836	2222	0.82	3834	2341	0.94	3832	2454	1.07	3830	2561	1.19	3829	2756	1.45	3832	2932	1.72	3835	3096	1.99	3842	
1650	5280	2287	0.92	4291	2401	1.04	4289	2512	1.18	4287	2618	1.32	4286	2720	1.46	4285	2910	1.74	4284	3082	2.03	4287	3241	2.33	4290	
1825	5840	2484	1.18	4749	2587	1.32	4746	2690	1.46	4745	2789	1.61	4742	2885	1.76	4742	3067	2.07	4738	3236	2.39	4739	3391	2.71	4740	
2000	6400	2684	1.49	5205	2778	1.64	5202	2873	1.80	5202	2966	1.96	5200	3056	2.12	5196	3229	2.45	5195	3393	2.80	5194				
2175	6960	2887	1.86	5661	2974	2.02	5659	3061	2.19	5658	3147	2.36	5655	3233	2.53	5655	3396	2.89	5649							

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.313 ft<sup>2</sup>

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	3200	1749	0.33	2656	1896	0.41	2646	2027	0.50	2640	2144	0.58	2636	2252	0.67	2634	2449	0.85	2634							
1150	3680	1921	0.43	3061	2058	0.53	3050	2184	0.63	3042	2300	0.73	3039	2405	0.83	3034	2596	1.03	3029	2769	1.23	3029				
1300	4160	2100	0.57	3467	2227	0.67	3455	2346	0.78	3448	2457	0.89	3440	2561	1.01	3435	2748	1.23	3428	2916	1.46	3423	3072	1.69	3423	
1450	4640	2284	0.73	3872	2402	0.85	3862	2514	0.97	3853	2619	1.09	3845	2719	1.21	3838	2904	1.46	3830	3069	1.71	3824	3221	1.97	3820	
1600	5120	2473	0.93	4278	2581	1.06	4267	2686	1.19	4257	2786	1.32	4249	2882	1.45	4244	3061	1.72	4232	3225	2.00	4226	3374	2.28	4220	
1750	5600	2665	1.17	4682	2765	1.30	4673	2863	1.44	4663	2958	1.58	4655	3049	1.73	4648	3221	2.02	4636	3382	2.32	4629				
1900	6080	2860	1.44	5087	2953	1.59	5078	3044	1.74	5069	3134	1.89	5061	3221	2.04	5054	3385	2.35	5040							

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.313 ft<sup>2</sup>

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	
850	2720	1723	0.25	2216	1869	0.32	2225	1998	0.39	2232	2114	0.46	2241	2221	0.53	2250										
1000	3200	1923	0.34	2602	2057	0.42	2609	2181	0.50	2617	2294	0.58	2623	2398	0.67	2630	2586	0.84	2644	2756	1.01	2657				

# 135 TVIFE

Wheel Type: Mixed Flow Single Thickness

Wheel Dia.: 16.50"

Max RPM = Class I: 3137

Tip Speed FPM = 3.23 x RPM

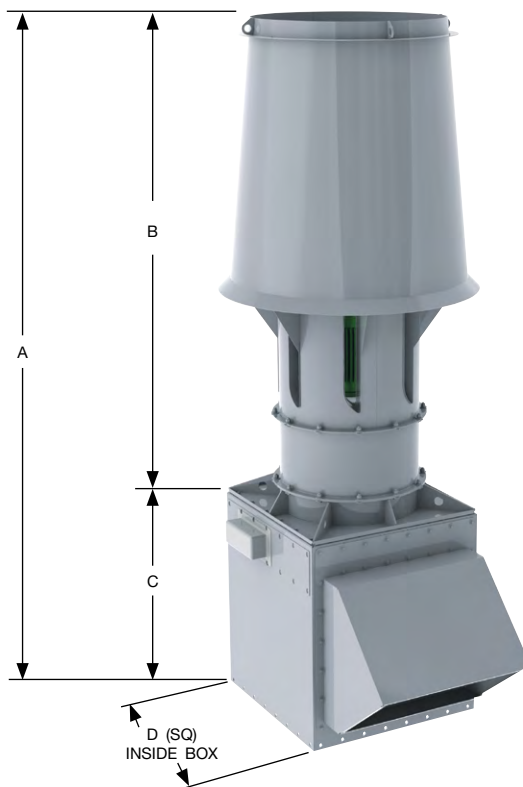
Min Motor Frame: 48C

Max Motor Frame: 184C

Windband Outlet Area: 3.27 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	135.76
<b>B</b>	102.01
<b>C</b>	33.75
<b>D</b>	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 ft<sup>2</sup>

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	2572	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	2.63	5582	2826	3.05	5554
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 ft<sup>2</sup>

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	2.00	4368	2844	2.40	4486
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	2.32	4885	2936	2.71	4887
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 ft<sup>2</sup>

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	1.62	3286	2852	1.94	3362
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.



**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 0.520 ft<sup>2</sup>

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	
1750	<u>3366</u>	1548	0.46	3654	1664	0.57	3647	1776	0.68	3631	1888	0.81	3628	2005	0.95	3654	<u>2221</u>	<u>1.24</u>	<u>3709</u>							
2050	<u>3943</u>	1739	0.66	4286	1839	0.78	4279	1938	0.90	4273	2034	1.03	4260	2129	1.17	4249	2326	1.48	4277	2517	1.82	4328				
2350	<u>4520</u>	1937	0.91	4915	2026	1.04	4911	2113	1.18	4905	2199	1.32	4898	2284	1.47	4890	2450	1.78	4870	2620	2.14	4888	2793	2.52	4936	
2650	<u>5097</u>	2141	1.22	5545	2221	1.37	5542	2299	1.52	5537	2377	1.68	5534	2453	1.83	5527	2603	2.17	5510	2750	2.53	5492	2900	2.91	5500	
2950	<u>5674</u>	2348	1.61	6171	2421	1.77	6171	2493	1.94	6171	2563	2.11	6166	2632	2.28	6160	2769	2.63	6149	2903	3.01	6132	3036	3.41	6119	
3250	<u>6251</u>	2558	2.08	6798	2625	2.26	6799	2691	2.44	6799	2755	2.62	6795	2819	2.80	6792	2944	3.18	6781	3068	3.58	6771				
3550	<u>6828</u>	2771	2.64	7427	2832	2.83	7427	2893	3.02	7428	2953	3.22	7427	3012	3.42	7424	3128	3.82	7416							

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 0.520 ft<sup>2</sup>

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	
1475	<u>2837</u>	1586	0.39	3222	1707	0.49	3208	1823	0.59	3194	1939	0.71	3200	2056	0.83	3226										
1700	<u>3270</u>	1756	0.52	3721	1865	0.63	3711	1969	0.75	3697	2070	0.87	3684	2170	1.00	3682	2372	1.28	3717	2557	1.58	3756				
1925	<u>3703</u>	1933	0.69	4220	2031	0.81	4210	2126	0.94	4200	2218	1.07	4188	2308	1.20	4177	2484	1.49	4170	2664	1.81	4206	2832	2.15	4244	
2150	<u>4135</u>	2113	0.90	4715	2204	1.03	4709	2291	1.17	4701	2376	1.31	4693	2458	1.45	4680	2618	1.76	4659	2776	2.08	4657	2937	2.44	4685	
2375	<u>4568</u>	2297	1.15	5211	2381	1.30	5206	2461	1.44	5198	2540	1.59	5192	2616	1.74	5182	2765	2.07	5163	2909	2.41	5145	3052	2.77	5144	
2600	<u>5001</u>	2483	1.45	5704	2561	1.61	5701	2636	1.76	5695	2709	1.92	5688	2781	2.09	5683	2920	2.43	5667	3055	2.79	5651				
2825	<u>5434</u>	2671	1.79	6197	2744	1.97	6196	2815	2.14	6193	2883	2.31	6186	2950	2.49	6180	3081	2.85	6169							

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 0.520 ft<sup>2</sup>

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	<u>2260</u>	1587	0.31	2531	1709	0.39	2513	1824	0.47	2496	1939	0.57	2495	2054	0.67	2509										
1375	<u>2645</u>	1777	0.43	2973	1885	0.52	2958	1988	0.61	2941	2088	0.71	2927	2185	0.81	2916	2383	1.05	2934	2565	1.29	2957				
1575	<u>3029</u>	1974	0.59	3415	2071	0.68	3399	2165	0.79	3387	2256	0.89	3374	2343	1.00	3358	2514	1.24	3341	2687	1.50	3354	2853	1.79	3379	
1775	<u>3414</u>	2175	0.78	3854	2265	0.89	3842	2350	1.00	3829	2433	1.12	3817	2514	1.23	3805	2670	1.49	3782	2821	1.75	3766	2974	2.04	3772	
1975	<u>3799</u>	2380	1.01	4292	2463	1.14	4282	2542	1.26	4271	2619	1.38	4261	2694	1.51	4251	2838	1.78	4227	2977	2.06	4206	3113	2.35	4191	
2175	<u>4183</u>	2588	1.29	4731	2665	1.43	4722	2739	1.57	4713	2810	1.70	4702	2880	1.84	4694	3015	2.12	4675							
2375	<u>4568</u>	2799	1.62	5170	2870	1.77	5162	2939	1.92	5153	3006	2.07	5144	3071	2.22	5135										

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.378 ft<sup>2</sup>

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	
1375	<u>3637</u>	1588	0.48	3574	1723	0.59	3570	1846	0.71	3570	1957	0.83	3572	2060	0.96	3576	2248	1.21	3583							
1600	<u>4232</u>	1759	0.66	4159	1882	0.79	4155	1998	0.93	4154	2106	1.07	4154	2205	1.20	4154	2386	1.49	4159	2551	1.78	4166				
1825	<u>4827</u>	1938	0.89	4745	2050	1.04	4741	2157	1.19	4740	2259	1.34	4739	2356	1.50	4740	2532	1.82	4741	2691	2.15	4744	2839	2.48	4751	
2050	<u>5422</u>	2124	1.18	5332	2225	1.34	5329	2324	1.51	5326	2419	1.68	5326	2510	1.85	5324	2682	2.21	5325	2837	2.56	5325	2980	2.93	5326	
2275	<u>6017</u>	2315	1.54	5919	2406	1.71	5916	2497	1.89	5914	2586	2.07	5912	2671	2.26	5909	2834	2.65	5906	2987	3.04	5908	3127	3.44	5908	
2500	<u>6612</u>	2509	1.96	6505	2593	2.15	6504	2676	2.34	6502	2758	2.54	6499	2838	2.74	6494	2992	3.16	6492							
2725	<u>7207</u>	2706	2.46	7092	2783	2.67	7090	2859	2.87	7087	2935	3.09	7085	3011	3.31	7084										

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.378 ft<sup>2</sup>

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	
1200	<u>3174</u>	1581	0.39	3185	1716	0.49	3176	1835	0.59	3168	1941	0.70	3161	2040	0.80	3162										
1400	<u>3703</u>	1754	0.53	3726	1878	0.65	3714	1993	0.77	3706	2097	0.89	3697	2193	1.01	3694	2366	1.25	3687	2523	1.50	3687				
1600	<u>4232</u>	1934	0.72	4269	2048	0.84	4253	2155	0.98	4244	2255	1.11	4234	2350	1.25	4230	2519	1.53	4219	2672	1.81	4216	2813	2.09	4216	
1800	<u>4761</u>	2119	0.94	4808	2224	1.09	4795	2324	1.23	4783	2418	1.38	4773	2509	1.54	4768	2676	1.85	4757	2825	2.16	4747	2963	2.47	4745	
2000	<u>5290</u>	2309	1.22	5347	2405	1.38	5336	2498	1.54	5323	2588	1.70	5316	2673	1.87	5307	2834	2.21	5293	2982	2.55	5284	3117	2.90	5277	
2200	<u>5819</u>	2503	1.56	5888	2591	1.73	5876	2677	1.90	5864	2761	2.08	5854	2843	2.26	5848	2996	2.62	5833							
2400	<u>6348</u>	2699	1.95	6426	2781	2.14	6417	2861	2.32	6407	2939	2.51	6395	3016	2.71	6387										

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.378 ft<sup>2</sup>

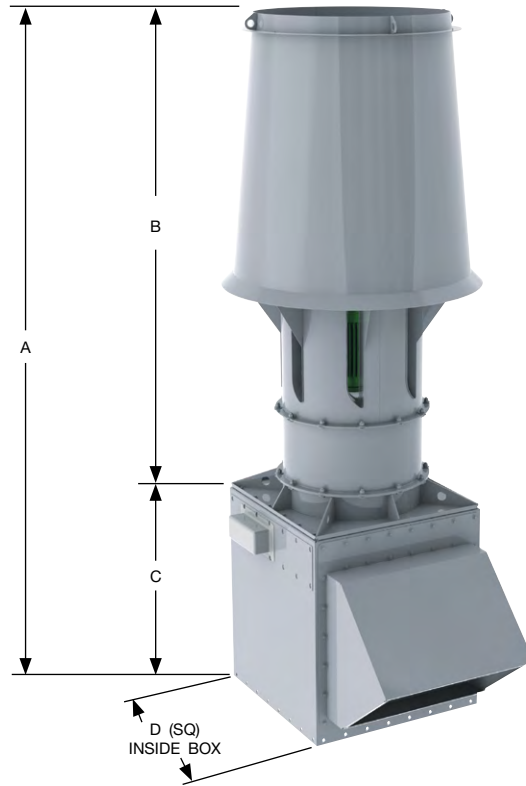
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			0.75" SP			1" SP			1.25" SP			1.50" SP			2" SP			2.50" SP			3" SP			
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	
1025	<u>2711</u>	1563	0.30	2675	1696	0.38	2685	1814	0.47	2696	1919	0.55	2704	2016	0.64	2713										
1200	<u>3174</u>	1738	0.41	3124	1860	0.50	3132	1973	0.60	3141	2077	0.70	3151	2171												

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	123.34
<b>B</b>	86.59
<b>C</b>	36.75
<b>D</b>	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 ft<sup>2</sup>

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	2211	1.94	4562	2474	2.63	4404										
3300	3706	1817	1.01	6168	1952	1.31	6182	2202	1.96	6175	2433	2.66	6138	2653	3.42	6072	2864	4.24	5980	3069	5.11	5828	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	3431	7.33	7439	
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 ft<sup>2</sup>

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	2269	1.72	3916	2528	2.34	3811										
2700	3032	1842	0.80	5333	1992	1.08	5340	2259	1.67	5324	2499	2.31	5279	2723	2.99	5214	2936	3.73	5109	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	3341	5.53	6421	3516	6.43	6356	
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 ft<sup>2</sup>

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	2267	1.39	2890	2720	2.41										
2075	2330	1835	0.63	4092	1989	0.86	4063	2258	1.34	4002	2498	1.85	3934	2720	2.41	3858	2930	3.00	3750	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	3335	4.44	4742	3508	5.16	4667
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	3382	4.24	6848	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:

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.

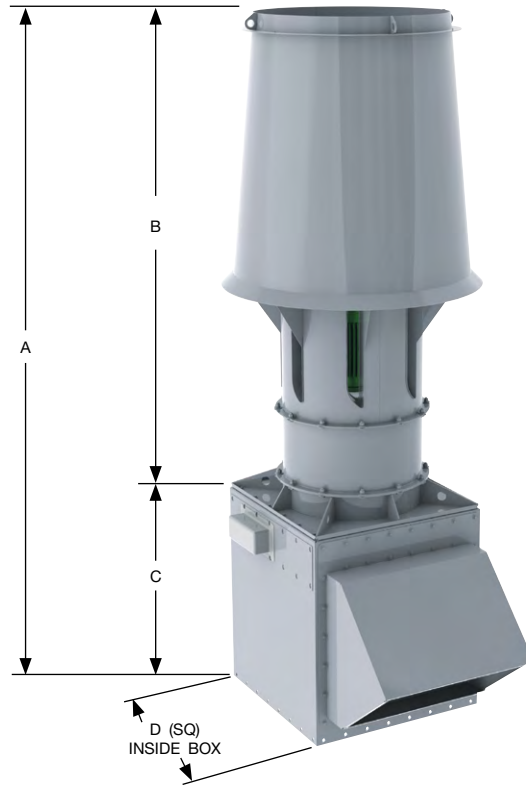


# 165 TVIFE

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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	134.14
<b>B</b>	94.39
<b>C</b>	39.75
<b>D</b>	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 ft<sup>2</sup>

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	1964	1039	0.32	3931	1237	0.55	3886	1591	1.10	3667																
3050	2852	1342	0.67	5712	1493	0.96	5710	1768	1.61	5655																
4000	3740	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	4629	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	5517	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	6405	2715	4.99	12752	2791	5.61	12776	2940	6.89	12821	3081	8.17	12836	3217	9.49	12838										
7800	7294	3071	7.15	14511	3139	7.86	14537																			

## MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.07 ft<sup>2</sup>

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	1636	1077	0.28	3456	1279	0.49	3403																			
2500	2338	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	3039	1684	0.96	6417	1821	1.30	6429	2064	2.01	6411	2283	2.78	6359	2487	3.61	<u>6281</u>	<u>2681</u>	<u>4.49</u>	<u>6156</u>	2866	5.43	5995				
4000	3740	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	4442	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	5143	2682	3.60	10812	2774	4.17	10842	2944	5.32	10869	3102	6.48	10876													
6250	5844	3024	5.09	12280	3106	5.74	12307																			

## MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.07 ft<sup>2</sup>

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	1262	1079	0.23	2616	1280	0.40	2537																		
1925	1800	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	2338	1679	0.76	4930	1819	1.04	4895	2064	1.61	4823	2283	2.24	4742	2485	2.90	<u>4651</u>	<u>2676</u>	<u>3.61</u>	<u>4522</u>	2858	4.37	4396			
3075	2875	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	3413	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	3951	2664	2.79	8354	2759	3.26	8341	2936	4.20	8310	3097	5.14	8267												
4800	4488	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.

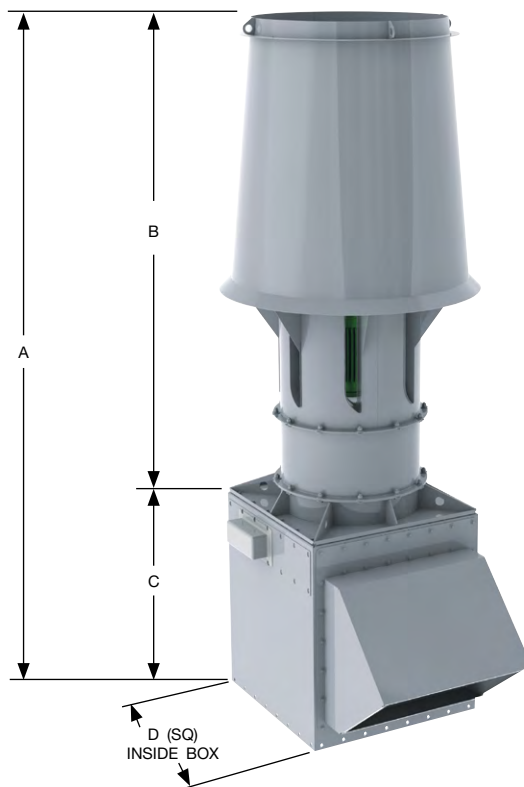


# 182 TVIFE

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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	146.03
<b>B</b>	104.28
<b>C</b>	41.75
<b>D</b>	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 ft<sup>2</sup>

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	2237	5.54	11469	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 ft<sup>2</sup>

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	2236	4.47	7777	2410	5.56	7620	2577	6.73	7431				
4950	3740	1807	1.96	9757	1913	2.47	9784	2105	3.52	9789	2278	4.61	9761	2441	5.77	9721	2595	6.97	9651	2742	8.24	9562	2885	9.57	9462	
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 ft<sup>2</sup>

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	2228	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	2268	3.65	7284	2431	4.58	7202	2585	5.55	7113	2731	6.56	7013	2874	7.64	6906	
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	2764	6.25	10126	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 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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 0.945 ft<sup>2</sup>

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
2200	2327	935	0.38	4747	1122	0.63	4698	1446	1.23	4584															
3200	3385	1199	0.80	6897	1344	1.13	6905	1604	1.86	6848	1838	2.67	6721	2055	3.57	6643									
4200	4443	1489	1.51	9067	1605	1.92	9052	1822	2.81	9060	2021	3.75	9020	2207	4.77	8942	2384	5.85	8851	2553	6.99	8737	2715	8.87	11077
5200	5500	1791	2.61	11244	1888	3.11	11210	2072	4.15	11220	2245	5.25	11220	2408	6.41	11194	2564	7.62	11147	2713	8.87	11077	2858	10.20	11019
6200	6558	2101	4.18	13430	2183	4.76	13386	2342	5.97	13362	2494	7.23	13381	2639	8.54	13377	2778	9.90	13361	2913	11.31	13338			
7200	7616	2415	6.31	15613	2486	6.98	15567	2626	8.37	15524	2760	9.79	15522	2890	11.26	15535									
8200	8674	2731	9.09	17791	2795	9.86	17756	2918	11.41	17693															

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 0.945 ft<sup>2</sup>

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
1850	1957	958	0.32	4174	1146	0.55	4115																		
2675	2829	1219	0.65	6039	1372	0.95	6035	1635	1.60	5960	1867	2.33	5842	2077	3.13	5789									
3500	3702	1503	1.20	7912	1631	1.58	7907	1857	2.37	7886	2059	3.22	7831	2245	4.12	7757	2420	5.09	7662	2585	6.10	7575	2742	7.18	7595
4325	4575	1800	2.02	9804	1908	2.48	9769	2106	3.42	9767	2286	4.42	9751	2453	5.45	9716	2609	6.53	9651	2758	7.65	9588	2902	8.83	9526
5150	5447	2103	3.18	11691	2197	3.72	11650	2372	4.83	11631	2534	5.98	11631	2685	7.15	11615	2828	8.37	11590						
5975	6320	2411	4.75	13581	2493	5.37	13534	2649	6.64	13489	2796	7.95	13495												
6800	7193	2722	6.79	15470	2796	7.50	15431																		

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 0.945 ft<sup>2</sup>

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
1475	1560	959	0.26	3268	1145	0.44	3201																		
2125	2248	1217	0.52	4737	1370	0.76	4705	1632	1.29	4623	1860	1.88	4508	2066	2.52	4457									
2775	2935	1497	0.93	6210	1626	1.24	6181	1853	1.89	6132	2054	2.57	6067	2237	3.30	5989	2409	4.08	5893	2572	4.91	5827	2725	5.77	5828
3425	3623	1788	1.56	7692	1899	1.93	7646	2099	2.70	7610	2279	3.51	7570	2445	4.34	7519	2600	5.22	7456	2748	6.13	7400	2889	7.07	7328
4075	4310	2087	2.44	9179	2183	2.88	9123	2361	3.78	9078	2524	4.71	9049	2676	5.67	9018	2819	6.65	8981						
4725	4998	2390	3.64	10663	2475	4.14	10608	2634	5.17	10541	2783	6.23	10522												
5375	5685	2696	5.18	12146	2772	5.76	12093	2916	6.92	12017															

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.688 ft<sup>2</sup>

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
1775	2581	948	0.38	4653	1149	0.62	4604	1479	1.19	4639															
2600	3781	1204	0.80	6799	1366	1.13	6814	1647	1.84	6765	1888	2.61	6698	2105	3.46	6735									
3425	4981	1492	1.54	8989	1620	1.94	8963	1861	2.82	8976	2076	3.76	8940	2270	4.74	8878	2451	5.76	8828	2621	6.83	8816	2783	7.98	8888
4250	6181	1795	2.68	11205	1898	3.15	11117	2103	4.19	11139	2295	5.31	11143	2473	6.46	11125	2637	7.64	11067	2793	8.85	11025			
5075	7381	2106	4.33	13425	2193	4.88	13327	2366	6.06	13269	2535	7.33	13297	2696	8.65	13297	2850	10.03	13296						
5900	8581	2422	6.59	15646	2497	7.21	15547	2646	8.54	15432	2795	9.95	15438												
6725	9780	2741	9.54	17866	2807	10.25	17770																		

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.688 ft<sup>2</sup>

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
1525	2218	936	0.30	4067	1132	0.51	4009																		
2250	3272	1191	0.63	6030	1355	0.92	6012	1627	1.53	5926	1856	2.18	5850	2060	2.89	5877									
2975	4327	1474	1.19	8010	1608	1.55	7973	1849	2.32	7938	2056	3.12	7864	2242	3.95	7799	2414	4.82	7746	2573	5.72	7717	2725	6.69	7773
3700	5381	1773	2.06	10028	1883	2.49	9932	2092	3.40	9907	2282	4.37	9870	2455	5.36	9827	2613	6.37	9761	2762	7.41	9713	2903	8.48	9666
4425	6435	2079	3.32	12043	2173	3.81	11932	2355	4.87	11865	2525	5.98	11844	2685	7.13	11817	2835	8.32	11788						
5150	7490	2391	5.03	14064	2472	5.60	13947	2631	6.79	13823	2784	8.04	13802												
5875	8544	2706	7.28	16082	2778	7.92	15971	2918	9.25	15813															

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 0.688 ft<sup>2</sup>

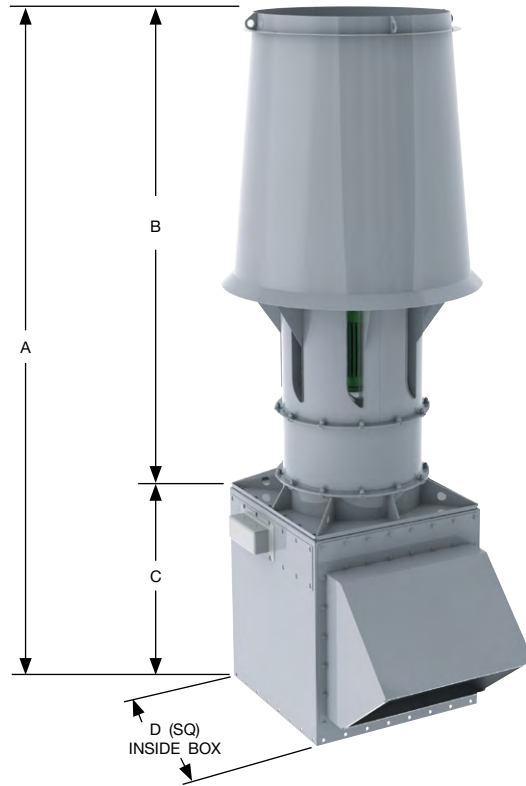
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
1300	1891	925	0.23	3441	1117	0.40	3430																		
1925	2800	1178	0.48	5038	1340	0.71	5084	1609	1.21	5090	1835	1.75	5072	2036	2.35	5130									
2550	3709	1460	0.91	6659	1593	1.19	6692	1831	1.82	6750	2036	2.47	6751	2219	3.16	6736	2388	3.88	6720	2545	4.64	6725	2694	5.44	6791
3175	4618	1757	1.57	8310	1867	1.91	8292	2074	2.64	8362	2262	3.43	8402	2432	4.24	8412	2588	5.07	8399	2734	5.92	8385	2873	6.80	8374
3800	5526	2063	2.52	9973	2156	2.92	9930	2335	3.76	9953	2504	4.66	10011	2662	5.60	10046	2809	6.56	10063						
4425	6435	2373	3.82	11632	2454	4.28	11584	2611	5.22	11558	2762	6.23	11607	2906	7.28	11653									
5050	7344	2686	5.53	13291	2758	6.04	1324																		

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	156.98
<b>B</b>	114.23
<b>C</b>	42.75
<b>D</b>	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 ft<sup>2</sup>

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																
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 ft<sup>2</sup>

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 ft<sup>2</sup>

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.



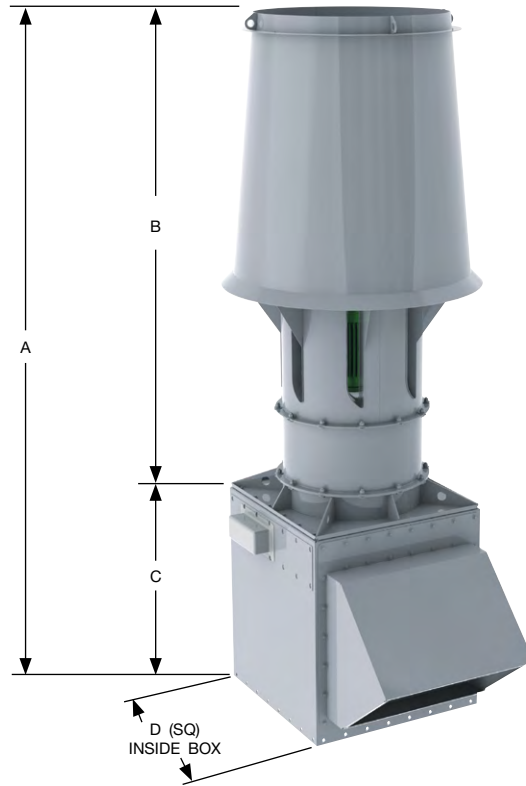


# 222 TVIFE

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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	130.19
<b>B</b>	84.44
<b>C</b>	45.75
<b>D</b>	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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 1.39 ft<sup>2</sup>

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
3225	2316	763	0.54	6468	918	0.91	6005																		
4725	3394	983	1.15	9611	1101	1.63	9490	1315	2.70	8921	1521	3.99	8601	1721	5.50	9010									
6225	4471	1224	2.18	12560	1319	2.78	12645	1496	4.08	12453	1660	5.49	12095	1813	6.99	11413	1970	8.72	11277	2129	10.67	11571	2276	12.71	11903
7725	5549	1475	3.76	15456	1555	4.50	15661	1705	6.03	15619	1846	7.66	15476	1980	9.38	15251	2107	11.17	14788	2230	13.05	14225	2355	15.11	13988
9225	6626	1732	6.04	18357	1800	6.90	18570	1930	8.69	18749	2054	10.55	18630	2172	12.48	18513	2286	14.50	18357	2397	16.60	18136			
10725	7704	1992	9.13	21259	2052	10.14	21472	2167	12.19	21755	2276	14.28	21784	2382	16.45	21662									
12225	8781	2255	13.18	24175	2307	14.31	24360																		

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 1.39 ft<sup>2</sup>

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
2725	1957	784	0.47	5705	939	0.80	5239																		
3950	2837	999	0.94	8404	1124	1.37	8276	1341	2.34	7672	1546	3.50	7535	1738	4.82	7875									
5175	3717	1233	1.71	10971	1337	2.26	10980	1523	3.43	10781	1689	4.69	10329	1844	6.05	9811	2002	7.61	9842	2156	9.33	10108	2295	11.08	10353
6400	4597	1476	2.88	13460	1566	3.56	13616	1728	4.94	13504	1876	6.41	13357	2013	7.95	13077	2141	9.54	12550	2266	11.24	12161	2393	13.11	12101
7625	5477	1726	4.54	15954	1804	5.34	16144	1947	6.96	16205	2079	8.63	16065	2204	10.39	15952	2322	12.20	15774						
8850	6357	1979	6.77	18444	2048	7.70	18638	2176	9.56	18830	2296	11.47	18777												
10075	7237	2234	9.68	20934	2296	10.74	21124																		

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 1.39 ft<sup>2</sup>

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	1562	785	0.38	4467	939	0.65	4083	1217	1.35	4227															
3150	2263	1000	0.74	6612	1126	1.10	6487	1340	1.89	5960	1542	2.83	5846	1730	3.90	6082									
4125	2963	1233	1.35	8661	1338	1.80	8624	1524	2.76	8425	1689	3.78	8038	1841	4.88	7614	1997	6.16	7635	2147	7.54	7809	2284	8.97	7992
5100	3663	1475	2.26	10645	1566	2.81	10725	1729	3.95	10583	1877	5.15	10436	2013	6.39	10182	2139	7.68	9738	2262	9.06	9430	2388	10.58	9391
6075	4364	1723	3.55	12621	1803	4.21	12743	1948	5.53	12732	2081	6.90	12593	2205	8.32	12467	2322	9.79	12296						
7050	5064	1974	5.28	14593	2045	6.04	14724	2176	7.57	14826	2297	9.13	14737												
8025	5764	2229	7.55	16578	2292	8.41	16703																		

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.01 ft<sup>2</sup>

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	3111	845	0.73	6519	990	1.13	6525																		
4325	4272	1058	1.46	9003	1173	1.96	8947	1381	3.04	8949	1568	4.24	8996												
5500	5432	1287	2.64	11489	1382	3.25	11438	1558	4.54	11378	1721	5.94	11393	1868	7.36	11350	2018	9.01	11498	2186	11.12	12110			
6675	6593	1524	4.38	13970	1604	5.10	13922	1755	6.60	13829	1898	8.20	13803	2035	9.90	13835	2161	11.61	13813	2280	13.35	13774	2402	15.30	13862
7850	7753	1766	6.81	16450	1835	7.64	16407	1967	9.36	16320	2093	11.17	16252	2215	13.06	16241	2332	15.02	16251						
9025	8914	2010	10.04	18918	2071	10.99	18883	2188	12.93	18805	2301	14.95	18736												
10200	10074	2257	14.21	21395	2311	15.27	21359																		

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.01 ft<sup>2</sup>

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
2700	2667	832	0.58	5802	975	0.92	5835	1226	1.74	6022															
3750	3704	1046	1.14	8039	1164	1.59	8066	1368	2.54	8113	1552	3.63	8227												
4800	4741	1275	2.03	10263	1374	2.59	10302	1551	3.75	10333	1709	4.97	10362	1857	6.31	10444	1999	7.74	10549	2136	9.26	10653			
5850	5778	1512	3.37	12481	1596	4.02	12522	1753	5.41	12572	1894	6.83	12590	2025	8.30	12608	2150	9.86	12660	2271	11.53	12746	2387	13.25	12818
6900	6815	1754	5.23	14700	1828	5.99	14751	1966	7.58	14803	2094	9.24	14826	2214	10.91	14849	2326	12.61	14851						
7950	7852	2000	7.72	16926	2065	8.59	16972	2188	10.38	17031	2305	12.26	17069												
9000	8889	2248	10.94	19152	2305	11.90	19185																		

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.01 ft<sup>2</sup>

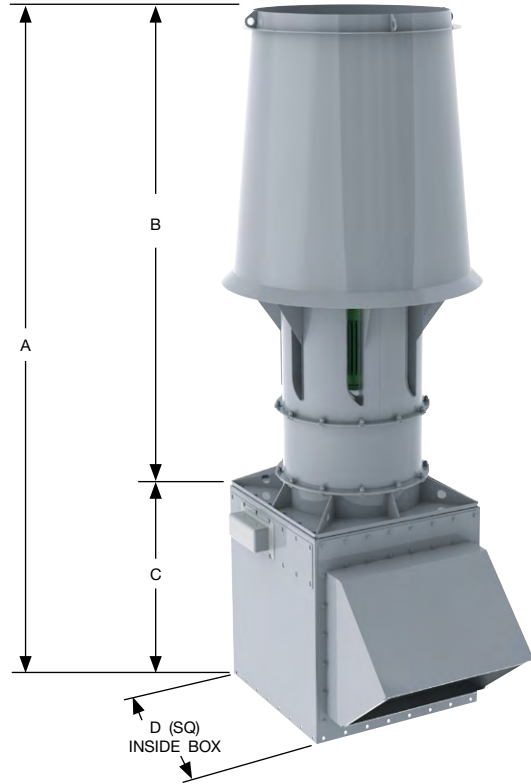
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
2350	2321	831	0.46	4932	974	0.75	5039																		
3250	3210	1045	0.89	6764	1159	1.26	6828	1364	2.07	6984	1553	3.02	7233												
4150	4099	1273	1.57	8619	1369	2.02	8657	1541	2.97	8747	1701	4.01	8873	1855	5.18	9067	1997	6.40	9242	2129	7.67	9397			
5050	4988	1508	2.56	10478	1591	3.10	10496	1742	4.23	10577	1881	5.40	10652	2012	6.64	10737	2142	8.00	10885	2267	9.45	11050	2385	10.94	11200
5950	5877	1748	3.95	12343	1821	4.58	12355	1955	5.87	12403	2080	7.22	12480	2197	8.60	12536	2310	10.03	12608						
6850	6765	1991	5.79	14209	2056	6.52	14217	2177	7.98	14246	2290	9.50	14307	2397	11.06	14368									
7750	7654	2237	8.18	16082	2295	8.98	16085	2405	10.63	16103															

## 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	147.25
<b>B</b>	101.50
<b>C</b>	45.75
<b>D</b>	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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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:

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.

HP (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.39 ft<sup>2</sup>

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
3225	2316	763	0.54	6956	918	0.91	6359																		
4725	3394	983	1.15	10436	1101	1.63	10265	1315	2.70	9368	1521	3.99	9425	1721	5.50	9993									
6225	4471	1224	2.18	13730	1319	2.78	13741	1496	4.08	13295	1660	5.49	12560	1813	6.99	12194	1970	8.72	12317	2129	10.67	12799	2276	12.71	13200
7725	5549	1475	3.76	17014	1555	4.50	17044	1705	6.03	17034	1846	7.66	16571	1980	9.38	15853	2107	11.17	15428	2230	13.05	15152	2355	15.11	15129
9225	6626	1732	6.04	20299	1800	6.90	20332	1930	8.69	20361	2054	10.55	20321	2172	12.48	19951	2286	14.50	19298	2397	16.60	18823			
10725	7704	1992	9.13	23578	2052	10.14	23623	2167	12.19	23665	2276	14.28	23676	2382	16.45	23629									
12225	8781	2255	13.18	26867	2307	14.31	26897																		

HP7 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.39 ft<sup>2</sup>

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
2725	1957	784	0.47	6087	939	0.80	5577																		
3950	2837	999	0.94	9134	1124	1.37	8874	1341	2.34	8120	1546	3.50	8282	1738	4.82	8728									
5175	3717	1233	1.71	11962	1337	2.26	11956	1523	3.43	11367	1689	4.69	10782	1844	6.05	10552	2002	7.61	10793	2156	9.33	11197	2295	11.08	11466
6400	4597	1476	2.88	14778	1566	3.56	14795	1728	4.94	14716	1876	6.41	14116	2013	7.95	13568	2141	9.54	13210	2266	11.24	13057	2393	13.11	13170
7625	5477	1726	4.54	17603	1804	5.34	17625	1947	6.96	17627	2079	8.63	17478	2204	10.39	16979	2322	12.20	16420						
8850	6357	1979	6.77	20419	2048	7.70	20449	2176	9.56	20456	2296	11.47	20454												
10075	7237	2234	9.68	23230	2296	10.74	23266																		

HP5 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.39 ft<sup>2</sup>

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	1562	785	0.38	4756	939	0.65	4347	1217	1.35	4677															
3150	2263	1000	0.74	7190	1126	1.10	6943	1340	1.89	6314	1542	2.83	6423	1730	3.90	6742									
4125	2963	1233	1.35	9438	1338	1.80	9397	1524	2.76	8865	1689	3.78	8397	1841	4.88	8191	1997	6.16	8371	2147	7.54	8650	2284	8.97	8854
5100	3663	1475	2.26	11680	1566	2.81	11654	1729	3.95	11527	1877	5.15	11006	2013	6.39	10567	2139	7.68	10264	2262	9.06	10130	2388	10.58	10220
6075	4364	1723	3.55	13918	1803	4.21	13905	1948	5.53	13858	2081	6.90	13689	2205	8.32	13238	2322	9.79	12790						
7050	5064	1974	5.28	16147	2045	6.04	16143	2176	7.57	16108	2297	9.13	16063												
8025	5764	2229	7.55	18389	2292	8.41	18384																		

XP (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.01 ft<sup>2</sup>

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	3111	845	0.73	7399	990	1.13	7313																		
4225	4272	1058	1.46	10325	1173	1.96	10143	1381	3.04	10034	1568	4.24	10179												
5500	5432	1287	2.64	13235	1382	3.25	13080	1558	4.54	12836	1721	5.94	12768	1868	7.36	12781	2018	9.01	13020	2186	11.12	13761	2402	15.30	15678
6675	6593	1524	4.38	16128	1604	5.10	15997	1755	6.60	15730	1898	8.20	15566	2035	9.90	15513	2161	11.61	15498	2280	13.35	15519			
7850	7753	1766	6.81	19015	1835	7.64	18901	1967	9.36	18667	2093	11.17	18458	2215	13.06	18331	2332	15.02	18250						
9025	8914	2010	10.04	21886	2071	10.99	21790	2188	12.93	21588	2301	14.95	21388												
10200	10074	2257	14.21	24765	2311	15.27	24675																		

XP7 (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.01 ft<sup>2</sup>

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
2700	2667	832	0.58	6459	975	0.92	6348	1226	1.74	6875															
3750	3704	1046	1.14	9171	1164	1.59	8968	1368	2.54	8806	1552	3.63	8993												
4800	4741	1275	2.03	11868	1374	2.59	11668	1551	3.75	11419	1709	4.97	11311	1857	6.31	11256	1999	7.74	11556	2136	9.26	12051	2387	13.25	13935
5850	5778	1512	3.37	14540	1596	4.02	14373	1753	5.41	14076	1894	6.83	13910	2025	8.30	13824	2150	9.86	13717	2271	11.53	13737			
6900	6815	1754	5.23	17202	1828	5.99	17069	1966	7.58	16788	2094	9.24	16552	2214	10.91	16425	2326	12.61	16328						
7950	7852	2000	7.72	19866	2065	8.59	19746	2188	10.38	19503	2305	12.26	19266												
9000	8889	2248	10.94	22525	2305	11.90	22405																		

XP5 (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.01 ft<sup>2</sup>

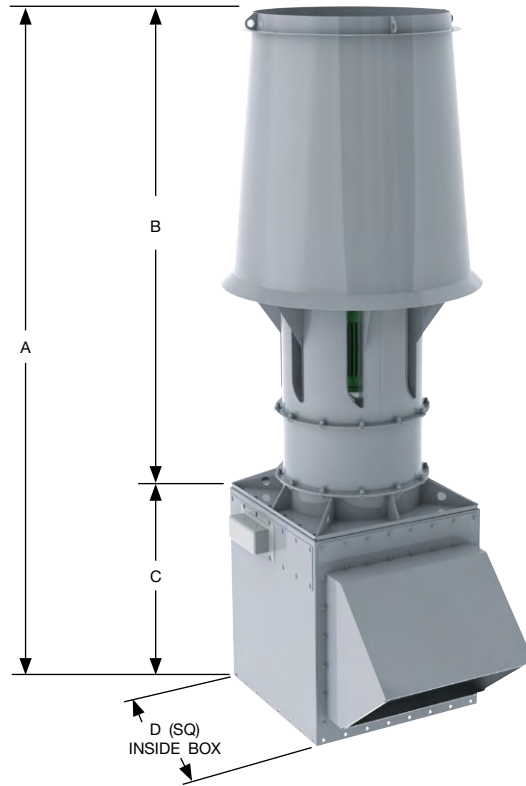
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
2350	2321	831	0.46	5533	974	0.75	5510																		
3250	3210	1045	0.89	7739	1159	1.26	7650	1364	2.07	7595	1553	3.02	7865												
4150	4099	1273	1.57	9936	1369	2.02	9852	1541	2.97	9745	1701	4.01	9742	1855	5.18	9734	1997	6.40	10084	2129	7.67	10549			
5050	4988	1508	2.56	12116	1591	3.10	12053	1742	4.23	11920	1881	5.40	11864	2012	6.64	11857	2142	8.00	11791	2267	9.45	11864	2385	10.94	12132
5950	5877	1748	3.95	14295	1821	4.58	14246	1955	5.87	14125	2080	7.22	14031	2197	8.60	13978	2310	10.03	13971						
6850	6765	1991	5.79	16471	2056	6.52	16431	2177	7.98	16334	2290	9.50	16233	2397	11.06	16150									
7750	7654	2237	8.18	18652	2295	8.98	18616	24																	

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	144.96
<b>B</b>	93.21
<b>C</b>	51.75
<b>D</b>	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 ft<sup>2</sup>

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	<u>7735</u>																			
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 ft<sup>2</sup>

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	<u>6682</u>																			
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 ft<sup>2</sup>

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	<u>4905</u>	1049	1.52	4926															
4025	1557	854	0.74	7244	981	1.23	7428	1188	2.27	7537	1361	3.40	<u>7653</u>	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:

1. Performance certified 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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 1.72 ft<sup>2</sup>

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
4000	2327	689	0.67	8035	827	1.13	7442	1091	2.35	7730															
5850	3404	886	1.42	11888	993	2.02	11761	1185	3.35	11066	1369	4.93	10622	1550	6.81	11160									
7700	4480	1103	2.70	15529	1189	3.45	15647	1348	5.05	15411	1495	6.79	14963	1633	8.66	14137	1774	10.79	13960	1917	13.21	14318	2049	15.71	14715
9550	5556	1329	4.66	19105	1401	5.57	19360	1536	7.47	19313	1663	9.48	19142	1783	11.60	18856	1898	13.83	18314	2008	16.13	17598	2120	18.67	17288
11400	6633	1560	7.47	22682	1621	8.54	22942	1739	10.76	23184	1849	13.03	23008	1956	15.44	22882	2059	17.94	22703	2158	20.52	22412			
13250	7709	1794	11.29	26264	1848	12.54	26527	1951	15.07	26871	2050	17.67	26925	2145	20.35	26768									
15100	8785	2030	16.29	29853	2078	17.71	30101																		

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 1.72 ft<sup>2</sup>

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
3375	1964	707	0.58	7070	846	0.99	6492	1102	2.07	6788															
4875	2836	899	1.16	10373	1012	1.70	10224	1207	2.89	9475	1392	4.32	9317	1564	5.95	9717									
6375	3709	1108	2.10	13521	1202	2.78	13533	1369	4.22	13276	1519	5.78	12723	1658	7.45	12071	1801	9.38	12129	1940	11.51	12468	2065	13.67	12770
7875	4582	1325	3.53	16571	1406	4.36	16759	1552	6.07	16614	1685	7.87	16423	1809	9.77	16081	1924	11.72	15414	2037	13.82	14951	2152	16.13	14895
9375	5454	1547	5.53	19611	1618	6.52	19851	1747	8.51	19919	1867	10.59	19760	1979	12.74	19605	2085	14.95	19373						
10875	6327	1773	8.25	22663	1835	9.39	22897	1952	11.69	23150	2059	14.01	23055	2162	16.44	22925									
12375	7200	2001	11.78	25717	2057	13.08	25952	2162	15.68	26262															

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 1.72 ft<sup>2</sup>

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
2675	1556	705	0.46	5492	843	0.80	4996																		
3875	2254	898	0.91	8137	1011	1.35	7974	1204	2.32	7314	1387	3.48	7201	1556	4.81	7492									
5075	2953	1106	1.65	10650	1202	2.21	10617	1369	3.38	10360	1517	4.64	9857	1655	6.00	9361	1796	7.58	9400	1931	9.29	9616	2054	11.04	9841
6275	3651	1324	2.77	13103	1406	3.45	13200	1553	4.85	13023	1686	6.32	12832	1809	7.86	12518	1923	9.45	11976	2034	11.15	11605	2147	13.02	11549
7475	4349	1546	4.35	15531	1618	5.15	15679	1749	6.78	15664	1869	8.47	15493	1980	10.21	15323	2086	12.02	15116						
8675	5047	1772	6.47	17966	1835	7.40	18116	1954	9.29	18250	2062	11.19	18124	2165	13.16	17985									
9875	5745	2000	9.24	20401	2057	10.29	20557	2164	12.42	20745															

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.25 ft<sup>2</sup>

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
3900	3120	762	0.91	8073	892	1.40	8075	1135	2.63	8607															
5350	4280	954	1.81	11142	1057	2.43	11068	1244	3.77	11070	1412	5.25	11126												
6800	5440	1160	3.27	14209	1245	4.02	14140	1403	5.62	14061	1550	7.35	14086	1682	9.10	14029	1816	11.12	14190	1967	13.72	14939			
8250	6600	1373	5.42	17267	1445	6.31	17209	1581	8.17	17098	1710	10.16	17073	1832	12.24	17089	1946	14.36	17075	2053	16.50	17028	2162	18.89	17119
9700	7760	1590	8.42	20318	1652	9.44	20262	1771	11.57	20159	1885	13.82	20086	1994	16.14	20059	2100	18.58	20085						
11150	8920	1810	12.42	23370	1865	13.59	23328	1971	16.00	23244	2072	18.49	23149												
12600	10080	2032	17.56	26424	2081	18.88	26386																		

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.25 ft<sup>2</sup>

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
3325	2660	748	0.71	7152	877	1.14	7194																		
4600	3680	937	1.38	9864	1043	1.93	9889	1228	3.11	9958	1394	4.45	10095												
5875	4700	1139	2.46	12560	1229	3.14	12611	1389	4.56	12647	1532	6.06	12686	1666	7.71	12792	1794	9.46	12910	1919	11.35	13069			
7150	5720	1349	4.05	15259	1425	4.85	15307	1567	6.55	15364	1695	8.29	15391	1814	10.10	15420	1927	12.02	15485	2036	14.06	15582	2142	16.19	15691
8425	6740	1563	6.27	17953	1630	7.20	18013	1755	9.14	18074	1872	11.18	18116	1980	13.22	18133	2082	15.30	18145						
9700	7760	1780	9.22	20650	1839	10.28	20705	1951	12.46	20780	2057	14.76	20823	2157	17.10	20850									
10975	8780	2000	13.05	23361	2052	14.22	23403	2153	16.65	23480															

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.25 ft<sup>2</sup>

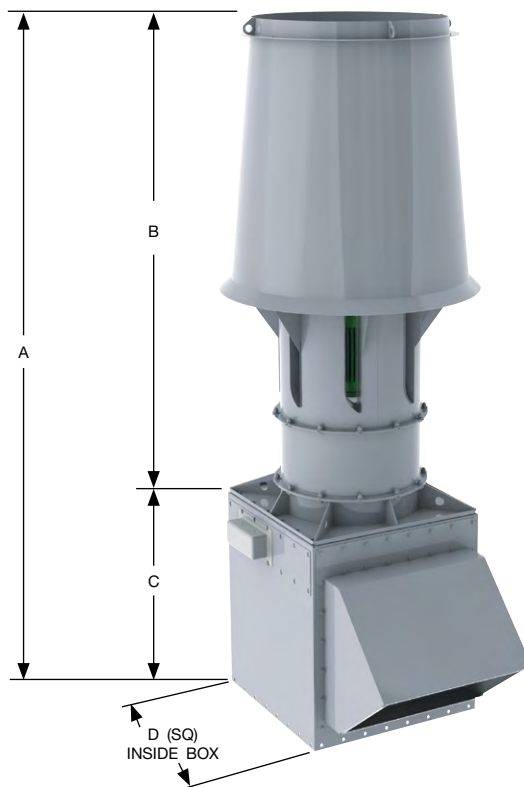
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
2900	2320	748	0.57	6090	876	0.93	6212																		
4000	3200	938	1.09	8323	1041	1.54	8403	1226	2.54	8599	1396	3.71	8902	1667	6.37	11156	1795	7.87	11372	1914	9.43	11565			
5100	4080	1141	1.91	10589	1228	2.47	10641	1384	3.64	10761	1528	4.92	10914	1864	6.37	13189	1923	9.81	13369	2036	11.59	13575	2142	13.41	13754
6200	4960	1351	3.12	12869	1426	3.78	12892	1562	5.16	12987	1687	6.60	13074	1806	8.13	13189	1923	9.81	13369	2036	11.59	13575	2142	13.41	13754
7300	5840	1565	4.80	15152	1630	5.57	15155	1752	7.16	15225	1864	8.81	15309	1970	10.50	15383	2072	12.26	15472						
8400	6720	1781	7.03	17428	1839	7.90	17429																		

## 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	163.90
<b>B</b>	112.15
<b>C</b>	51.75
<b>D</b>	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 ft<sup>2</sup>

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	1624	8.84	15934	1756	11.02	15945	1879	13.27	15770	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	2005	16.67	19952	2113	19.36	20031	
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 ft<sup>2</sup>

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	9.56	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	2047	14.41	16946	2154	16.77	16873	
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 ft<sup>2</sup>

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	4724	1049	1.52	4782															
4025	1557	854	0.74	7463	981	1.23	7274	1188	2.27	7374	1361	3.40	7175	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	7.66	9769	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	2047	11.60	12586	2152	13.50	12465
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:**

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.



HP (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.72 ft<sup>2</sup>

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
4000	2327	689	0.67	8651	827	1.13	7874	1091	2.35	8557															
5850	3404	886	1.42	12909	993	2.02	12728	1185	3.35	11611	1369	4.93	11639	1550	6.81	12378									
7700	4480	1103	2.70	16976	1189	3.45	17002	1348	5.05	16460	1495	6.79	15536	1633	8.66	15094	1774	10.79	15237	1917	13.21	15831	2049	15.71	16319
9550	5556	1329	4.66	21032	1401	5.57	21070	1536	7.47	21061	1663	9.48	20504	1783	11.60	19600	1898	13.83	19098	2008	16.13	18737	2120	18.67	18693
11400	6633	1560	7.47	25082	1621	8.54	25120	1739	10.76	25176	1849	13.03	25097	1956	15.44	24664	2059	17.94	23873	2158	20.52	23258			
13250	7709	1794	11.29	29130	1848	12.54	29186	1951	15.07	29229	2050	17.67	29262	2145	20.35	29197									
15100	8785	2030	16.29	33179	2078	17.71	33236																		

HP7 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.72 ft<sup>2</sup>

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
3375	1964	707	0.58	7549	846	0.99	6907	1102	2.07	7511															
4875	2836	899	1.16	11275	1012	1.70	10965	1207	2.89	10027	1392	4.32	10238	1564	5.95	10769									
6375	3709	1108	2.10	14741	1202	2.78	14738	1369	4.22	13991	1519	5.78	13283	1658	7.45	12988	1801	9.38	13306	1940	11.51	13813	2065	13.67	14142
7875	4582	1325	3.53	18193	1406	4.36	18210	1552	6.07	18104	1685	7.87	17343	1809	9.77	16685	1924	11.72	16237	2037	13.82	16061	2152	16.13	16219
9375	5454	1547	5.53	21636	1618	6.52	21671	1747	8.51	21669	1867	10.59	21494	1979	12.74	20849	2085	14.95	20156						
10875	6327	1773	8.25	25088	1835	9.39	25119	1952	11.69	25149	2059	14.01	25120	2162	16.44	24945									
12375	7200	2001	11.78	28537	2057	13.08	28580	2162	15.68	28604															

HP5 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.72 ft<sup>2</sup>

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
2675	1556	705	0.46	5842	843	0.80	5328																		
3875	2254	898	0.91	8849	1011	1.35	8526	1204	2.32	7758	1387	3.48	7915	1556	4.81	8303									
5075	2953	1106	1.65	11604	1202	2.21	11569	1369	3.38	10893	1517	4.64	10308	1655	6.00	10078	1796	7.58	10312	1931	9.29	10654	2054	11.04	10897
6275	3651	1324	2.77	14375	1406	3.45	14342	1553	4.85	14180	1686	6.32	13522	1809	7.86	12994	1923	9.45	12632	2034	11.15	12473	2147	13.02	12579
7475	4349	1546	4.35	17124	1618	5.15	17106	1749	6.78	17050	1869	8.47	16835	1980	10.21	16255	2086	12.02	15717						
8675	5047	1772	6.47	19879	1835	7.40	19861	1954	9.29	19827	2062	11.19	19755	2165	13.16	19551									
9875	5745	2000	9.24	22628	2057	10.29	22625	2164	12.42	22585															

XP (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.25 ft<sup>2</sup>

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
3900	3120	762	0.91	9163	892	1.40	9051	1135	2.63	9783															
5350	4280	954	1.81	12779	1057	2.43	12548	1244	3.77	12412	1412	5.25	12587												
6800	5440	1160	3.27	16368	1245	4.02	16170	1403	5.62	15864	1550	7.35	15788	1682	9.10	15797	1816	11.12	16067	1967	13.72	16977			
8250	6600	1373	5.42	19934	1445	6.31	19775	1581	8.17	19448	1710	10.16	19255	1832	12.24	19163	1946	14.36	19158	2053	16.50	19182	2162	18.89	19359
9700	7760	1590	8.42	23486	1652	9.44	23344	1771	11.57	23059	1885	13.82	22812	1994	16.14	22641	2100	18.58	22557						
11150	8920	1810	12.42	27036	1865	13.59	26920	1971	16.00	26685	2072	18.49	26425												
12600	10080	2032	17.56	30585	2081	18.88	30482																		

XP7 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.25 ft<sup>2</sup>

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
3325	2660	748	0.71	7959	877	1.14	7826																		
4600	3680	937	1.38	11249	1043	1.93	10989	1228	3.11	10801	1394	4.45	11058												
5875	4700	1139	2.46	14518	1229	3.14	14275	1389	4.56	13970	1532	6.06	13835	1666	7.71	13792	1794	9.46	14186	1919	11.35	14825			
7150	5720	1349	4.05	17700	1425	4.85	17559	1567	6.55	17188	1695	8.29	16995	1814	10.10	16900	1927	12.02	16760	2036	14.06	16805	2142	16.19	17097
8425	6740	1563	6.27	21003	1630	7.20	20834	1755	9.14	20479	1872	11.18	20210	1980	13.22	20046	2082	15.30	19940						
9700	7760	1780	9.22	24231	1839	10.28	24078	1951	12.46	23778	2057	14.76	23481	2157	17.10	23254									
10975	8780	2000	13.05	27468	2052	14.22	27321	2153	16.65	27054															

XP5 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.25 ft<sup>2</sup>

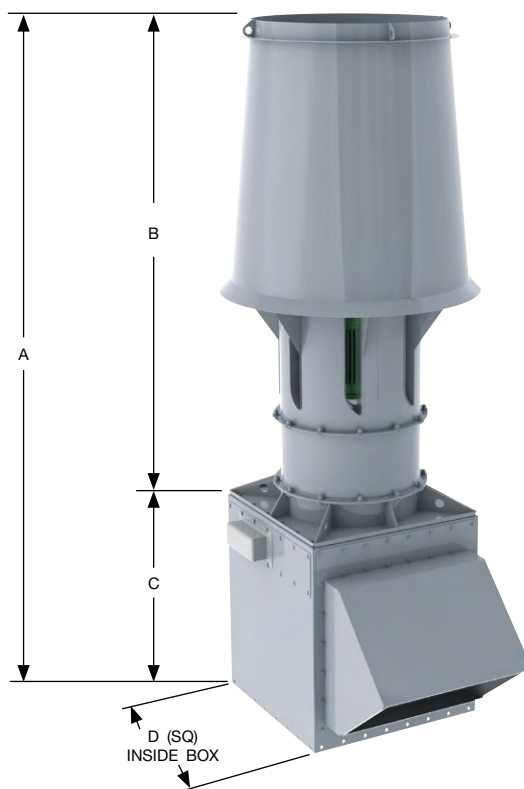
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
2900	2320	748	0.57	6833	876	0.93	6792																		
4000	3200	938	1.09	9519	1041	1.54	9414	1226	2.54	9345	1396	3.71	9690												
5100	4080	1141	1.91	12205	1228	2.47	12105	1384	3.64	11987	1528	4.92	11973	1667	6.37	11978	1795	7.87	12422	1914	9.43	12999			
6200	4960	1351	3.12	14880	1426	3.78	14801	1562	5.16	14632	1687	6.60	14558	1806	8.13	14560	1923	9.81	14463	2036	11.59	14580	2142	13.41	14921
7300	5840	1565	4.80	17547	1630	5.57	17472	1752	7.16	17333	1864	8.81	17204	1970	10.50	17146	2072	12.26	17137						
8400	6720	1781	7.03	20201	1839	7.90	20141	1949	9.71	20026	2051	11.57	19898	214											

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	154.61
<b>B</b>	101.86
<b>C</b>	52.75
<b>D</b>	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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 2.08 ft<sup>2</sup>

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
4825	2320	625	0.81	9683	751	1.36	8966																		
7050	3390	803	1.70	14326	900	2.42	14154	1076	4.04	13331	1244	5.95	12825	1408	8.21	13455									
9275	4460	999	3.23	18709	1077	4.13	18834	1223	6.07	18574	1357	8.17	18021	1482	10.41	16984	1611	13.00	16806	1742	15.93	17290	1861	18.93	17730
11500	5530	1203	5.57	23009	1269	6.67	23321	1392	8.95	23252	1507	11.36	23020	1618	13.96	22714	1722	16.62	22008	1823	19.43	21176	1925	22.48	20808
13725	6600	1411	8.90	27297	1468	10.21	27639	1575	12.88	27908	1676	15.63	27708	1773	18.52	27538	1867	21.54	27317	1958	24.67	26978			
15950	7669	1623	13.46	31619	1672	14.96	31930	1766	18.00	32341	1856	21.13	32387	1943	24.36	32201									
18175	8739	1836	19.41	35931	1880	21.12	36234	1964	24.56	36687															

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 2.08 ft<sup>2</sup>

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
4075	1959	642	0.70	8536	769	1.20	7852																		
5900	2837	817	1.40	12546	920	2.06	12372	1097	3.49	11454	1265	5.22	11260	1422	7.20	11764									
7725	3714	1008	2.55	16373	1094	3.38	16404	1246	5.13	16102	1382	7.01	15434	1508	9.02	14632	1638	11.37	14702	1764	13.94	15099	1878	16.56	15473
9550	4592	1207	4.29	20096	1280	5.30	20314	1413	7.37	20152	1534	9.57	19928	1646	11.85	19503	1751	14.23	18721	1853	16.76	18132	1957	19.55	18046
11375	5470	1410	6.75	23794	1474	7.94	24078	1592	10.37	24185	1700	12.87	23974	1802	15.48	23796	1898	18.17	23513						
13200	6347	1617	10.08	27515	1673	11.45	27794	1779	14.25	28101	1876	17.06	27991												
15025	7225	1825	14.39	31223	1875	15.95	31493																		

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 2.08 ft<sup>2</sup>

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
3250	1563	642	0.56	6666	768	0.97	6091	996	2.02	6321															
4700	2260	817	1.11	9856	920	1.64	9665	1096	2.82	8892	1261	4.22	8716	1415	5.82	9076									
6150	2957	1007	2.01	12910	1094	2.69	12869	1246	4.11	12565	1380	5.63	11953	1506	7.28	11366	1633	9.18	11381	1756	11.25	11649	1868	13.38	11923
7600	3654	1204	3.36	15860	1279	4.18	15985	1413	5.88	15779	1533	7.65	15532	1645	9.52	15158	1749	11.45	14515	1850	13.51	14067	1952	15.76	13980
9050	4352	1406	5.26	18800	1472	6.25	18988	1591	8.22	18970	1699	10.25	18744	1801	12.37	18560	1897	14.56	18304						
10500	5049	1611	7.83	21740	1669	8.96	21932	1776	11.23	22076	1875	13.54	21937	1968	15.92	21758									
11950	5746	1818	11.17	24683	1870	12.46	24874	1967	15.03	25096															

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.51 ft<sup>2</sup>

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
4700	3107	691	1.09	9730	810	1.69	9747																		
6450	4264	865	2.18	13436	959	2.92	13349	1129	4.54	13342	1282	6.32	13408												
8200	5421	1051	3.92	17124	1129	4.83	17050	1273	6.76	16955	1407	8.84	16989	1527	10.95	16914	1650	13.42	17139	1788	16.58	18070			
9950	6579	1245	6.51	20833	1310	7.57	20750	1434	9.82	20617	1551	12.20	20574	1663	14.73	20614	1766	17.27	20576	1864	19.88	20534	1964	22.79	20668
11700	7736	1442	10.12	24520	1498	11.34	24444	1607	13.92	24330	1710	16.61	24223	1810	19.44	24207	1906	22.36	24225						
13450	8893	1641	14.90	28196	1691	16.32	28142	1787	19.21	28028	1880	22.24	27933												
15200	10050	1842	21.07	31877	1887	22.67	31837																		

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.51 ft<sup>2</sup>

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
4025	2661	680	0.86	8653	797	1.37	8699																		
5575	3686	853	1.68	11957	949	2.35	11981	1117	3.77	12065	1268	5.39	12237												
7125	4711	1037	2.99	15225	1119	3.82	15292	1264	5.54	15330	1394	7.36	15381	1516	9.35	15516	1632	11.48	15653	1745	13.76	15828			
8675	5736	1229	4.93	18509	1298	5.90	18567	1427	7.97	18638	1543	10.07	18668	1651	12.26	18703	1754	14.60	18790	1853	17.07	18909	1949	19.65	19035
10225	6760	1425	7.65	21792	1485	8.77	21852	1599	11.13	21935	1705	13.60	21983	1803	16.07	22004	1896	18.62	22028						
11775	7785	1623	11.26	25066	1677	12.55	25141	1778	15.19	25222	1874	17.97	25271	1965	20.82	25309									
13325	8810	1824	15.94	28362	1871	17.36	28411	1963	20.32	28513															

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.51 ft<sup>2</sup>

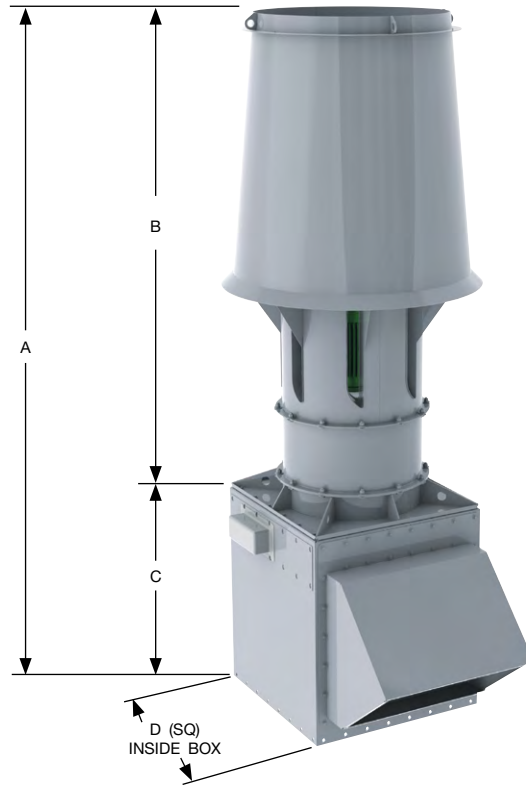
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
3525	2331	682	0.70	7402	798	1.13	7548	1001	2.17	7995															
4875	3223	858	1.34	10149	951	1.89	10245	1118	3.11	10471	1272	4.52	10835												
6225	4116	1045	2.36	12924	1123	3.04	12977	1264	4.47	13121	1394	6.02	13299	1520	7.78	13592	1636	9.61	13853	1744	11.51	14087			
7575	5008	1239	3.88	15726	1306	4.68	15742	1429	6.36	15859	1543	8.13	15982	1650	9.98	16110	1755	12.01	16309	1857	14.17	16552	1954	16.42	16788
8925	5901	1436	5.97	18520	1495	6.91	18528	1605	8.86	18610	1706	10.86	18711	1802	12.93	18804	1894	15.08	18907						
10275	6793	1636	8.77	21323	1688	9.83	21320	1787	12.04	21366	1879	14.31	21454	1966	16.63	2									

## 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	175.43
<b>B</b>	122.68
<b>C</b>	52.75
<b>D</b>	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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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:

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.

HP (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.08 ft<sup>2</sup>

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
4825	2320	625	0.81	10418	751	1.36	9494																		
7050	3390	803	1.70	15556	900	2.42	15306	1076	4.04	13998	1244	5.95	14060	1408	8.21	14923									
9275	4460	999	3.23	20450	1077	4.13	20469	1223	6.07	19823	1357	8.17	18716	1482	10.41	18157	1611	13.00	18365	1742	15.93	19124	1861	18.93	19659
11500	5530	1203	5.57	25326	1269	6.67	25378	1392	8.95	25359	1507	11.36	24628	1618	13.96	23605	1722	16.62	22970	1823	19.43	22569	1925	22.48	22523
13725	6600	1411	8.90	30182	1468	10.21	30258	1575	12.88	30309	1676	15.63	30223	1773	18.52	29657	1867	21.54	28694	1958	24.67	27995			
15950	7669	1623	13.46	35066	1672	14.96	35125	1766	18.00	35175	1856	21.13	35203	1943	24.36	35125									
18175	8739	1836	19.41	39930	1880	21.12	40002	1964	24.56	40071															

HP7 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.08 ft<sup>2</sup>

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
4075	1959	642	0.70	9111	769	1.20	8355																		
5900	2837	817	1.40	13637	920	2.06	13268	1097	3.49	12124	1265	5.22	12374	1422	7.20	13037									
7725	3714	1008	2.55	17852	1094	3.38	17864	1246	5.13	16978	1382	7.01	16109	1508	9.02	15739	1638	11.37	16122	1764	13.94	16725	1878	16.56	17136
9550	4592	1207	4.29	22064	1280	5.30	22075	1413	7.37	21962	1534	9.57	21058	1646	11.85	20237	1751	14.23	19710	1853	16.76	19472	1957	19.55	19644
11375	5470	1410	6.75	26253	1474	7.94	26288	1592	10.37	26309	1700	12.87	26083	1802	15.48	25323	1898	18.17	24472						
13200	6347	1617	10.08	30460	1673	11.45	30494	1779	14.25	30529	1876	17.06	30495												
15025	7225	1825	14.39	34647	1875	15.95	34684																		

HP5 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.08 ft<sup>2</sup>

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
3250	1563	642	0.56	7097	768	0.97	6487	996	2.02	6993															
4700	2260	817	1.11	10719	920	1.64	10339	1096	2.82	9422	1261	4.22	9580	1415	5.82	10059									
6150	2957	1007	2.01	14068	1094	2.69	14023	1246	4.11	13218	1380	5.63	12495	1506	7.28	12229	1633	9.18	12483	1756	11.25	12905	1868	13.38	13206
7600	3654	1204	3.36	17401	1279	4.18	17369	1413	5.88	17184	1533	7.65	16369	1645	9.52	15734	1749	11.45	15304	1850	13.51	15113	1952	15.76	15224
9050	4352	1406	5.26	20730	1472	6.25	20717	1591	8.22	20649	1699	10.25	20368	1801	12.37	19695	1897	14.56	19034						
10500	5049	1611	7.83	24055	1669	8.96	24045	1776	11.23	23985	1875	13.54	23913	1968	15.92	23654									
11950	5746	1818	11.17	27378	1870	12.46	27376	1967	15.03	27323															

XP (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.51 ft<sup>2</sup>

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
4700	3107	691	1.09	11043	810	1.69	10925																		
6450	4264	865	2.18	15408	959	2.92	15133	1129	4.54	14962	1282	6.32	15173												
8200	5421	1051	3.92	19725	1129	4.83	19496	1273	6.76	19127	1407	8.84	19041	1527	10.95	19049	1650	13.42	19409	1788	16.58	20536			
9950	6579	1245	6.51	24050	1310	7.57	23842	1434	9.82	23448	1551	12.20	23199	1663	14.73	23115	1766	17.27	23089	1864	19.88	23135	1964	22.79	23375
11700	7736	1442	10.12	28343	1498	11.34	28160	1607	13.92	27827	1710	16.61	27508	1810	19.44	27320	1906	22.36	27204						
13450	8893	1641	14.90	32619	1691	16.32	32475	1787	19.21	32174	1880	22.24	31883												
15200	10050	1842	21.07	36897	1887	22.67	36778																		

XP7 (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.51 ft<sup>2</sup>

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
4025	2661	680	0.86	9631	797	1.37	9462																		
5575	3686	853	1.68	13637	949	2.35	13316	1117	3.77	13089	1268	5.39	13396												
7125	4711	1037	2.99	17599	1119	3.82	17312	1264	5.54	16935	1394	7.36	16776	1516	9.35	16727	1632	11.48	17189	1745	13.76	17949			
8675	5736	1229	4.93	21556	1298	5.90	21301	1427	7.97	20855	1543	10.07	20616	1651	12.26	20499	1754	14.60	20344	1853	17.07	20390	1949	19.65	20727
10225	6760	1425	7.65	25496	1485	8.77	25276	1599	11.13	24860	1705	13.60	24529	1803	16.07	24328	1896	18.62	24211						
11775	7785	1623	11.26	29414	1677	12.55	29241	1778	15.19	28866	1874	17.97	28504	1965	20.82	28234									
13325	8810	1824	15.94	33350	1871	17.36	33170	1963	20.32	32856															

XP5 (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.51 ft<sup>2</sup>

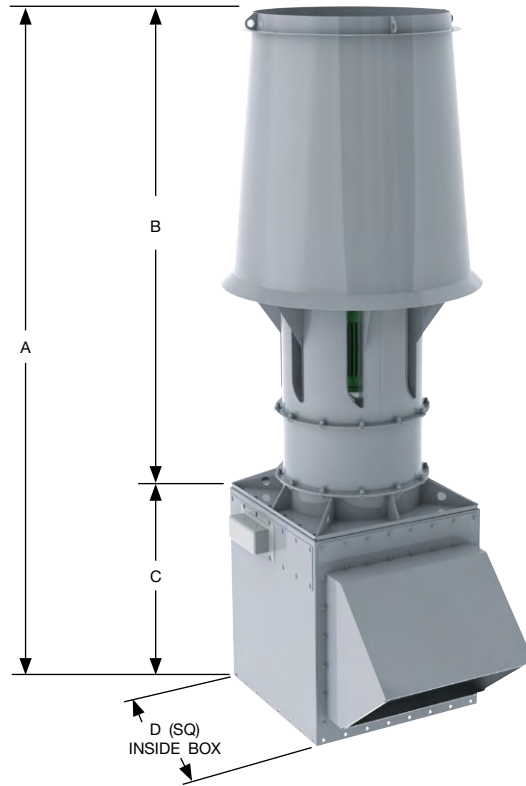
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
3525	2331	682	0.70	8307	798	1.13	8261	1001	2.17	9026															
4875	3223	858	1.34	11614	951	1.89	11483	1118	3.11	11401	1272	4.52	11773												
6225	4116	1045	2.36	14901	1123	3.04	14771	1264	4.47	14623	1394	6.02	14610	1520	7.78	14592	1636	9.61	15098	1744	11.51	15790			
7575	5008	1239	3.88	18186	1306	4.68	18081	1429	6.36	17879	1543	8.13	17806	1650	9.98	17797	1755	12.01	17682	1857	14.17	17771	1954	16.42	18171
8925	5901	1436	5.97	21450	1495	6.91	21368	1605	8.86	21201	1706	10.86	21041	1802	12.93	20972	1894	15.08	20956						
10275	6793	1636	8.77	24718	1688	9.83	24643	1787	12.04	24504	1879	14.31	243												

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	167.84
<b>B</b>	112.09
<b>C</b>	55.75
<b>D</b>	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 ft<sup>2</sup>

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	960	4.89	17114	1106	7.29	17545	1240	9.91	17946										
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 ft<sup>2</sup>

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	28575	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 ft<sup>2</sup>

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:

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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 2.54 ft<sup>2</sup>

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
5900	2319	565	0.99	11843	679	1.67	10970																		
8625	3390	726	2.09	17526	814	2.97	17326	972	4.92	16258	1125	7.28	15709	1273	10.05	16462									
11350	4461	903	3.95	22883	974	5.05	23051	1105	7.41	22694	1227	10.00	22053	1340	12.74	20785	1457	15.92	20592	1575	19.50	21155	1683	23.18	21717
14075	5532	1088	6.82	28159	1147	8.15	28521	1259	10.96	28463	1363	13.92	28182	1463	17.08	27795	1557	20.34	26931	1648	23.76	25894	1741	27.54	25495
16800	6603	1277	10.92	33431	1328	12.52	33835	1424	15.76	34143	1516	19.15	33923	1604	22.70	33728	1688	26.35	33420	1770	30.17	32992			
19525	7674	1468	16.49	38699	1512	18.31	39072	1598	22.08	39606	1679	25.89	39654	1758	29.86	39441									
22250	8745	1661	23.79	43986	1701	25.90	44364	1777	30.11	44921															

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 2.54 ft<sup>2</sup>

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
5000	1965	581	0.86	10462	696	1.48	9644	906	3.07	10058															
7225	2840	739	1.71	15359	832	2.52	15142	992	4.28	14023	1144	6.40	13789	1286	8.82	14406									
9450	3714	911	3.12	20023	989	4.13	20065	1126	6.27	19681	1249	8.56	18858	1364	11.05	17929	1481	13.91	17990	1595	17.06	18478	1698	20.26	18933
11675	4589	1090	5.23	24554	1157	6.47	24846	1277	9.01	24638	1386	11.68	24348	1488	14.50	23852	1583	17.41	22898	1675	20.49	22169	1769	23.90	22062
13900	5463	1274	8.24	29090	1331	9.68	29415	1438	12.66	29549	1536	15.72	29298	1628	18.90	29070	1715	22.18	28726						
16125	6338	1460	12.28	33614	1511	13.97	33964	1606	17.36	34314	1695	20.84	34211	1779	24.41	34000									
18350	7212	1648	17.55	38149	1693	19.44	38474	1779	23.28	38928															

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 2.54 ft<sup>2</sup>

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
3975	1562	581	0.69	8171	694	1.18	7438	901	2.48	7747															
5750	2260	739	1.36	12066	832	2.01	11830	991	3.45	10882	1140	5.16	10660	1279	7.12	11093									
7525	2958	911	2.46	15806	989	3.28	15741	1126	5.02	15357	1248	6.89	14636	1361	8.90	13884	1476	11.22	13909	1588	13.77	14263	1689	16.37	14589
9300	3655	1089	4.11	19412	1157	5.13	19570	1277	7.18	19290	1386	9.36	19002	1487	11.64	18537	1581	14.00	17747	1672	16.51	17188	1765	19.29	17109
11075	4353	1272	6.45	23016	1331	7.65	23233	1438	10.05	23197	1537	12.56	22953	1629	15.15	22724	1715	17.81	22391						
12850	5051	1457	9.59	26606	1509	10.97	26833	1607	13.76	27037	1696	16.59	26856												
14625	5748	1644	13.68	30203	1691	15.25	30437	1779	18.40	30716															

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.85 ft<sup>2</sup>

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
5750	3108	625	1.34	11911	732	2.06	11912																		
7875	4256	781	2.65	16408	866	3.56	16299	1020	5.53	16296	1159	7.73	16400												
10000	5405	948	4.76	20891	1018	5.86	20780	1149	8.22	20680	1270	10.76	20709	1379	13.34	20630	1491	16.37	20931	1616	20.24	22079			
12125	6553	1121	7.87	25368	1181	9.18	25294	1293	11.91	25117	1400	14.85	25096	1501	17.92	25131	1594	21.00	25073	1683	24.20	25029	1774	27.77	25211
14250	7701	1298	12.21	29853	1349	13.71	29763	1448	16.86	29625	1542	20.15	29511	1632	23.57	29472	1719	27.14	29494						
16375	8850	1477	17.99	34329	1522	19.69	34252	1610	23.25	34134	1693	26.88	33977	1775	30.73	33909									
18500	9998	1657	25.39	38790	1698	27.34	38743	1776	31.26	38609															

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.85 ft<sup>2</sup>

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
4925	2662	615	1.06	10592	721	1.68	10655																		
6825	3689	771	2.06	14623	859	2.88	14685	1010	4.62	14763	1147	6.61	14993												
8725	4715	939	3.67	18660	1012	4.67	18715	1143	6.78	18759	1261	9.02	18836	1371	11.45	18994	1476	14.06	19169	1578	16.84	19378			
10625	5742	1112	6.05	22663	1175	7.24	22750	1291	9.76	22824	1396	12.34	22865	1493	15.01	22889	1587	17.90	23024	1676	20.91	23156	1762	24.04	23282
12525	6769	1290	9.39	26696	1344	10.76	26766	1447	13.65	26869	1543	16.68	26934	1631	19.70	26944	1715	22.81	26972						
14425	7796	1470	13.85	30723	1518	15.41	30799	1609	18.63	30893	1696	22.05	30960	1778	25.53	31001									
16325	8823	1651	19.56	34739	1694	21.32	34812	1777	24.95	34935															

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 1.85 ft<sup>2</sup>

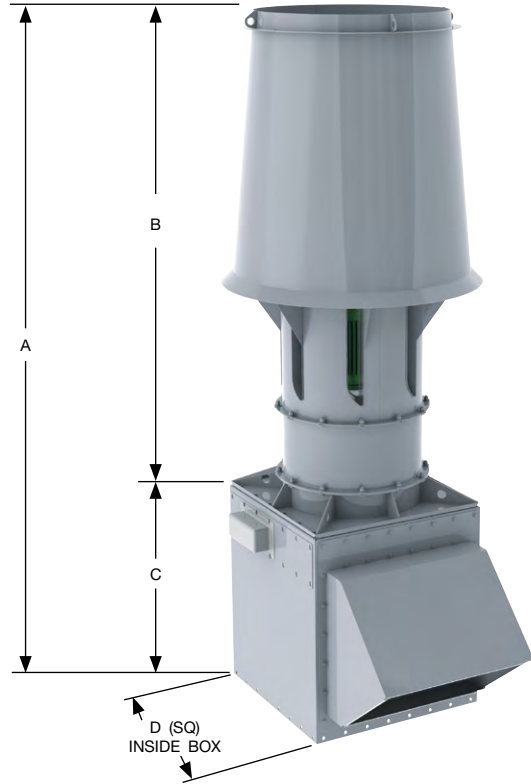
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
4300	2324	615	0.85	9019	721	1.38	9222																		
5950	3216	774	1.63	12381	858	2.30	12492	1010	3.79	12790	1149	5.51	13224												
7600	4107	943	2.87	15777	1014	3.70	15848	1142	5.45	16033	1259	7.34	16235	1373	9.49	16593	1478	11.72	16914	1576	14.06	17209			
9250	4999	1118	4.72	19197	1179	5.70	19223	1291	7.77	19380	1393	9.90	19504	1490	12.17	19664	1586	14.67	19933	1678	17.31	20223	1765	20.02	20490
10900	5891	1296	7.27	22614	1350	8.42	22636	1449	10.79	22724	1541	13.26	22859	1628	15.79	22976	1711	18.41	23097						
12550	6783	1477	10.68	26047	1524	11.98	26042																		

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	190.90
<b>B</b>	135.15
<b>C</b>	55.75
<b>D</b>	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 ft<sup>2</sup>

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	960	4.89	17454	1106	7.29	17499	1240	9.91	17407										
13050	3411	883	3.33	23790	956	4.53	23292	1090	7.09	22904	1214	9.91	23063	1333	13.03	23495	1441	16.22	23458	1543	19.57	23241	1643	23.15	23261	
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 ft<sup>2</sup>

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																			
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 ft<sup>2</sup>

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:**

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.



HP (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.54 ft<sup>2</sup>

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
5900	2319	565	0.99	12742	679	1.67	11616																		
8625	3390	726	2.09	19031	814	2.97	18739	972	4.92	17079	1125	7.28	17216	1273	10.05	18256									
11350	4461	903	3.95	25012	974	5.05	25051	1105	7.41	24212	1227	10.00	22903	1340	12.74	22219	1457	15.92	22493	1575	19.50	23396	1683	23.18	24080
14075	5532	1088	6.82	30995	1147	8.15	31038	1259	10.96	31043	1363	13.92	30154	1463	17.08	28885	1557	20.34	28107	1648	23.76	27599	1741	27.54	27587
16800	6603	1277	10.92	36965	1328	12.52	37043	1424	15.76	37081	1516	19.15	37003	1604	22.70	36331	1688	26.35	35104	1770	30.17	34235			
19525	7674	1468	16.49	42918	1512	18.31	42982	1598	22.08	43079	1679	25.89	43102	1758	29.86	43023									
22250	8745	1661	23.79	48882	1701	25.90	48979	1777	30.11	49067															

HP7 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.54 ft<sup>2</sup>

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
5000	1965	581	0.86	11171	696	1.48	10253	906	3.07	11131															
7225	2840	739	1.71	16693	832	2.52	16241	992	4.28	14841	1144	6.40	15151	1286	8.82	15967									
9450	3714	911	3.12	21829	989	4.13	21850	1126	6.27	20747	1249	8.56	19686	1364	11.05	19281	1481	13.91	19727	1595	17.06	20468	1698	20.26	20969
11675	4589	1090	5.23	26957	1157	6.47	26998	1277	9.01	26849	1386	11.68	25721	1488	14.50	24750	1583	17.41	24108	1675	20.49	23808	1769	23.90	24019
13900	5463	1274	8.24	32095	1331	9.68	32111	1438	12.66	32143	1536	15.72	31872	1628	18.90	30926	1715	22.18	29894						
16125	6338	1460	12.28	37211	1511	13.97	37261	1606	17.36	37276	1695	20.84	37270	1779	24.41	37000									
18350	7212	1648	17.55	42331	1693	19.44	42370	1779	23.28	42401															

HP5 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.54 ft<sup>2</sup>

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
3975	1562	581	0.69	8701	694	1.18	7924	901	2.48	8573															
5750	2260	739	1.36	13122	832	2.01	12656	991	3.45	11531	1140	5.16	11717	1279	7.12	12295									
7525	2958	911	2.46	17223	989	3.28	17153	1126	5.02	16152	1248	6.89	15298	1361	8.90	14942	1476	11.22	15260	1588	13.77	15801	1689	16.37	16160
9300	3655	1089	4.11	21298	1157	5.13	21264	1277	7.18	21007	1386	9.36	20025	1487	11.64	19240	1581	14.00	18714	1672	16.51	18471	1765	19.29	18631
11075	4353	1272	6.45	25378	1331	7.65	25348	1438	10.05	25251	1537	12.56	24945	1629	15.15	24118	1715	17.81	23282						
12850	5051	1457	9.59	29438	1509	10.97	29418	1607	13.77	29374	1696	16.59	29275												
14625	5748	1644	13.68	33500	1691	15.25	33499	1779	18.40	33442															

XP (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.85 ft<sup>2</sup>

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
5750	3108	625	1.34	13518	732	2.06	13352																		
7875	4256	781	2.65	18816	866	3.56	18475	1020	5.53	18275	1159	7.73	18560												
10000	5405	948	4.76	24063	1018	5.86	23759	1149	8.22	23326	1270	10.76	23212	1379	13.34	23238	1491	16.37	23708	1616	20.24	25095			
12125	6553	1121	7.87	29285	1181	9.18	29060	1293	11.91	28563	1400	14.85	28294	1501	17.92	28178	1594	21.00	28139	1683	24.20	28208	1774	27.77	28520
14250	7701	1298	12.21	34506	1349	13.71	34286	1448	16.86	33879	1542	20.15	33508	1632	23.57	33255	1719	27.14	33115						
16375	8850	1477	17.99	39712	1522	19.69	39523	1610	23.25	39180	1693	26.88	38775	1775	30.73	38494									
18500	9998	1657	25.39	44898	1698	27.34	44755	1776	31.26	44419															

XP7 (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.85 ft<sup>2</sup>

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
4925	2662	615	1.06	11789	721	1.68	11592																		
6825	3689	771	2.06	16677	859	2.88	16324	1010	4.62	16016	1147	6.61	16406												
8725	4715	939	3.67	21571	1012	4.67	21188	1143	6.78	20724	1261	9.02	20548	1371	11.45	20477	1476	14.06	21043	1578	16.84	21967			
10625	5742	1112	6.05	26394	1175	7.24	26102	1291	9.76	25542	1396	12.34	25252	1493	15.01	25088	1587	17.90	24934	1676	20.91	24968	1762	24.04	25354
12525	6769	1290	9.39	31235	1344	10.76	30961	1447	13.65	30455	1543	16.68	30057	1631	19.70	29792	1715	22.81	29646						
14425	7796	1470	13.85	36054	1518	15.41	35822	1609	18.63	35359	1696	22.05	34926	1778	25.53	34588									
16325	8823	1651	19.56	40850	1694	21.32	40645	1777	24.95	40260															

XP5 (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 1.85 ft<sup>2</sup>

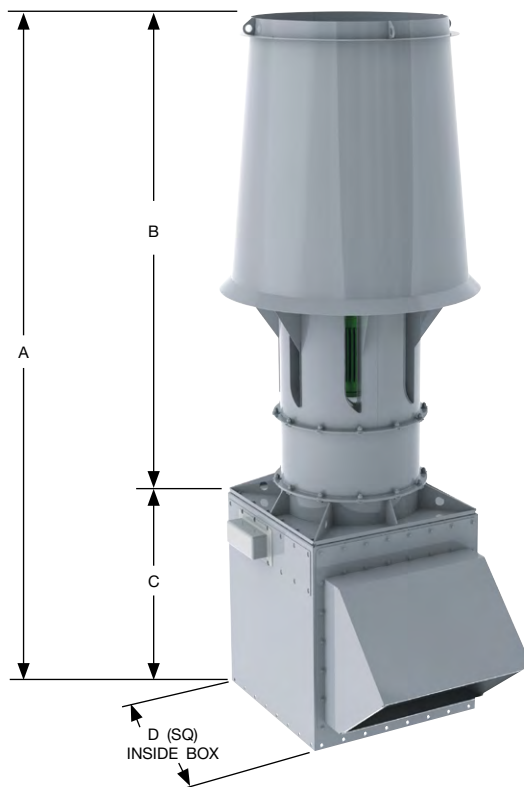
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
4300	2324	615	0.85	10120	721	1.38	10089																		
5950	3216	774	1.63	14167	858	2.30	13999	1010	3.79	13918	1149	5.51	14379												
7600	4107	943	2.87	18188	1014	3.70	18037	1142	5.45	17866	1259	7.34	17828	1373	9.49	17814	1478	11.72	18446	1576	14.06	19302			
9250	4999	1118	4.72	22199	1179	5.70	22077	1291	7.77	21847	1393	9.90	21726	1490	12.17	21718	1586	14.67	21605	1678	17.31	21714	1765	20.02	22191
10900	5891	1296	7.27	26191	1350	8.42	26103	1449	10.79	25884	1541	13.26	25703	1628	15.79	25622	1711	18.41	25597						
12550	6783	1477	10.68	30193	1524	11.98	30099																		

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	178.72
<b>B</b>	122.97
<b>C</b>	55.75
<b>D</b>	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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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:

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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 3.09 ft<sup>2</sup>

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
7175	2319	512	1.20	14382	616	2.03	13362																		
10500	3394	659	2.54	21340	739	3.62	21112	882	6.00	19817	1020	8.86	19087	1155	12.24	20066									
13825	4468	820	4.82	27871	885	6.18	28109	1003	9.04	27648	1113	12.18	26841	1216	15.53	25348	1321	19.36	25018	1428	23.71	25703	1526	28.19	26393
17150	5543	988	8.32	34295	1042	9.97	34758	1143	13.38	34674	1238	17.01	34376	1328	20.83	33881	1413	24.79	32834	1496	28.99	31622	1579	33.52	31021
20475	6618	1160	13.35	40727	1206	15.28	41212	1294	19.28	41637	1376	23.35	41312	1456	27.69	41089	1533	32.19	40771	1607	36.83	40246			
23800	7693	1334	20.18	47162	1374	22.40	47622	1452	27.01	48280	1525	31.63	48332	1596	36.44	48048									
27125	8767	1510	29.14	53627	1546	31.70	54079																		

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 3.09 ft<sup>2</sup>

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
6075	1964	527	1.04	12728	631	1.79	11716	821	3.73	12201															
8775	2836	670	2.08	18671	754	3.06	18392	899	5.19	17013	1037	7.77	16742	1166	10.72	17508									
11475	3709	826	3.79	24344	896	5.01	24365	1021	7.62	23928	1132	10.40	22891	1236	13.41	21744	1342	16.88	21813	1446	20.72	22446	1539	24.59	22982
14175	4582	987	6.34	29810	1048	7.85	30169	1157	10.93	29917	1256	14.17	29567	1348	17.57	28927	1434	21.10	27743	1518	24.86	26898	1604	29.04	26816
16875	5454	1153	9.96	35299	1206	11.75	35735	1302	15.32	35852	1391	19.04	35546	1475	22.92	35289	1554	26.91	34870						
19575	6327	1322	14.87	40811	1368	16.90	41227	1455	21.05	41676	1535	25.24	41516	1611	29.56	41249									
22275	7200	1492	21.23	46311	1533	23.54	46710	1611	28.20	47258															

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 3.09 ft<sup>2</sup>

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
4825	1560	526	0.83	9904	629	1.44	9028	816	3.00	9380															
6975	2254	669	1.64	14636	753	2.43	14333	897	4.17	13147	1034	6.27	12972	1160	8.66	13496									
9125	2949	824	2.97	19161	895	3.97	19082	1020	6.09	18633	1130	8.34	17710	1233	10.79	16825	1338	13.62	16891	1439	16.70	17298	1531	19.87	17716
11275	3644	985	4.96	23537	1046	6.18	23703	1156	8.69	23391	1255	11.33	23037	1347	14.11	22474	1432	16.96	21492	1515	20.02	20841	1599	23.38	20730
13425	4339	1150	7.78	27896	1204	9.23	28169	1301	12.14	28112	1391	15.18	27818	1474	18.31	27516	1553	21.57	27137						
15575	5034	1317	11.56	32243	1365	13.24	32538	1453	16.61	32751	1534	20.03	32529	1611	23.58	32283									
17725	5729	1486	16.47	36603	1529	18.38	36894	1609	22.21	37231															

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 2.25 ft<sup>2</sup>

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
7000	3111	567	1.63	14494	664	2.51	14496																		
9600	4266	709	3.24	19980	786	4.34	19848	926	6.76	19867	1052	9.43	20001												
12200	5422	862	5.83	25486	925	7.16	25340	1044	10.06	25236	1154	13.17	25295	1252	16.30	25165	1353	19.97	25509	1466	24.67	26886			
14800	6577	1020	9.67	30967	1074	11.26	30868	1175	14.58	30642	1272	18.17	30623	1363	21.90	30648	1448	25.70	30615	1528	29.56	30533	1610	33.89	30732
17400	7733	1182	15.04	36469	1228	16.86	36358	1317	20.68	36173	1402	24.71	36035	1484	28.92	36013	1563	33.29	36055						
20000	8888	1345	22.15	41933	1386	24.25	41852	1465	28.57	41691	1541	33.06	41540												
22600	10044	1510	31.33	47415	1546	33.65	47324																		

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 2.25 ft<sup>2</sup>

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
6000	2667	558	1.29	12891	654	2.05	12964	822	3.86	13359															
8325	3700	701	2.52	17843	780	3.52	17896	917	5.64	18000	1041	8.06	18278												
10650	4733	854	4.50	22769	920	5.73	22837	1039	8.30	22908	1146	11.04	23010	1245	13.99	23178	1340	17.17	23391	1433	20.59	23682			
12975	5766	1012	7.43	27669	1069	8.89	27777	1174	11.97	27872	1269	15.12	27922	1357	18.38	27961	1441	21.86	28079	1522	25.55	28258	1600	29.37	28423
15300	6800	1174	11.54	32590	1224	13.25	32712	1317	16.78	32837	1403	20.45	32888	1483	24.15	32916	1559	27.94	32951						
17625	7833	1339	17.06	37538	1382	18.96	37619	1465	22.93	37761	1543	27.07	37822												
19950	8866	1504	24.12	42446	1543	26.27	42540																		

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 2.25 ft<sup>2</sup>

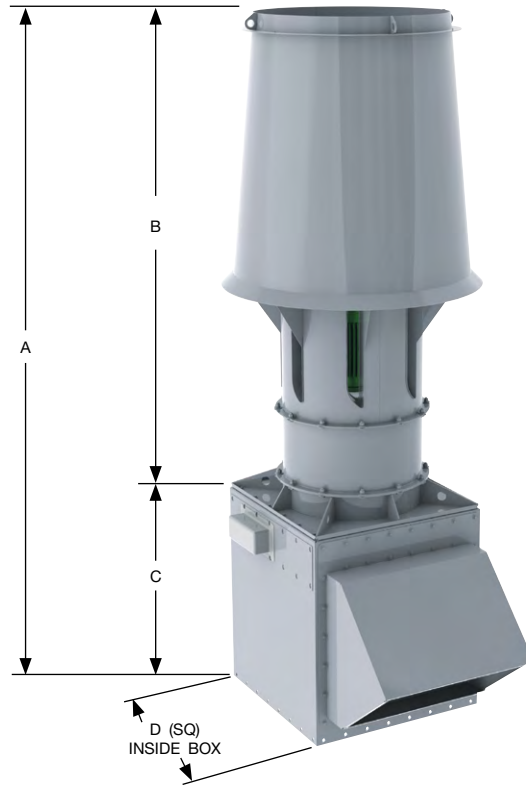
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
5225	2322	558	1.03	10976	653	1.67	11185																		
7225	3211	701	1.97	15032	778	2.79	15189	915	4.59	15521	1042	6.71	16083												
9225	4100	854	3.48	19154	918	4.48	19229	1034	6.60	19447	1141	8.91	19719	1245	11.53	20175	1340	14.25	20556	1428	17.05	20878			
11225	4989	1012	5.70	23296	1068	6.91	23344	1169	9.40	23517	1262	12.01	23680	1350	14.76	23873	1437	17.79	24196	1521	21.02	24567	1600	24.32	24895
13225	5878	1173	8.79	27441	1222	10.19	27467	1312	13.06	27578	1395	16.04	27725	1474	19.11	27867	1550	22.32	28035						
15225	6766	1336	12.89	31587	1379	14.47	31589	1461	17.76	31674	1536	21.10													

### 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	204.16
<b>B</b>	148.41
<b>C</b>	55.75
<b>D</b>	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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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:**

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.

HP (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 3.09 ft<sup>2</sup>

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
7175	2319	512	1.20	15470	616	2.03	14145																		
10500	3394	659	2.54	23172	739	3.62	22840	882	6.00	20810	1020	8.86	20922	1155	12.24	22257									
13825	4468	820	4.82	30465	885	6.18	30547	1003	9.04	29509	1113	12.18	27873	1216	15.53	27084	1321	19.36	27334	1428	23.71	28430	1526	28.19	29264
17150	5543	988	8.32	37749	1042	9.97	37827	1143	13.38	37816	1238	17.01	36805	1328	20.83	35216	1413	24.79	34257	1496	28.99	33679	1579	33.52	33563
20475	6618	1160	13.35	45034	1206	15.28	45120	1294	19.28	45217	1376	23.35	45063	1456	27.69	44273	1533	32.19	42853	1607	36.83	41764			
23800	7693	1334	20.18	52305	1374	22.40	52390	1452	27.01	52515	1525	31.63	52530	1596	36.44	52412									
27125	8767	1510	29.14	59597	1546	31.70	59706																		

HP7 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 3.09 ft<sup>2</sup>

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
6075	1964	527	1.04	13591	631	1.79	12460	821	3.73	13498															
8775	2836	670	2.08	20293	754	3.06	19721	899	5.19	18013	1037	7.77	18401	1166	10.72	19404									
11475	3709	826	3.79	26540	896	5.01	26534	1021	7.62	25223	1132	10.40	23901	1236	13.41	23393	1342	16.88	23933	1446	20.72	24867	1539	24.59	25448
14175	4582	987	6.34	32725	1048	7.85	32781	1157	10.93	32600	1256	14.17	31224	1348	17.57	30016	1434	21.10	29226	1518	24.86	28897	1604	29.04	29198
16875	5454	1153	9.96	38943	1206	11.75	39009	1302	15.32	39002	1391	19.04	38663	1475	22.92	37528	1554	26.91	36280						
19575	6327	1322	14.87	45177	1368	16.90	45225	1455	21.05	45273	1535	25.24	45232	1611	29.56	44882									
22275	7200	1492	21.23	51387	1533	23.54	51438	1611	28.20	51472															

HP5 (High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 3.09 ft<sup>2</sup>

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
4825	1560	526	0.83	10541	629	1.44	9620	816	3.00	10374															
6975	2254	669	1.64	15919	753	2.43	15324	897	4.17	13945	1034	6.27	14257	1160	8.66	14958									
9125	2949	824	2.97	20877	895	3.97	20795	1020	6.09	19591	1130	8.34	18523	1233	10.79	18115	1338	13.62	18535	1439	16.70	19167	1531	19.87	19619
11275	3644	985	4.96	25821	1046	6.18	25755	1156	8.69	25468	1255	11.33	24264	1347	14.11	23330	1432	16.96	22678	1515	20.02	22405	1599	23.38	22590
13425	4339	1150	7.78	30757	1204	9.23	30731	1301	12.14	30604	1391	15.18	30224	1474	18.31	29179	1553	21.57	28212						
15575	5034	1317	11.56	35673	1365	13.24	35669	1453	16.61	35582	1534	20.03	35461	1611	23.58	35090									
17725	5729	1486	16.47	40597	1529	18.38	40601	1609	22.21	40531															

XP (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.25 ft<sup>2</sup>

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
7000	3111	567	1.63	16449	664	2.51	16247																		
9600	4266	709	3.24	22913	786	4.34	22499	926	6.76	22278	1052	9.43	22632												
12200	5422	862	5.83	29357	925	7.16	28974	1044	10.06	28469	1154	13.17	28351	1252	16.30	28342	1353	19.97	28889	1466	24.67	30555			
14800	6577	1020	9.67	35748	1074	11.26	35466	1175	14.58	34849	1272	18.17	34531	1363	21.90	34364	1448	25.70	34355	1528	29.56	34405	1610	33.89	34761
17400	7733	1182	15.04	42154	1228	16.86	41884	1317	20.68	41372	1402	24.71	40921	1484	28.92	40644	1563	33.29	40488						
20000	8888	1345	22.15	48509	1386	24.25	48294	1465	28.57	47858	1541	33.06	47414												
22600	10044	1510	31.33	54881	1546	33.65	54668																		

XP7 (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.25 ft<sup>2</sup>

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
6000	2667	558	1.29	14349	654	2.05	14105	822	3.86	15264															
8325	3700	701	2.52	20354	780	3.52	19895	917	5.64	19534	1041	8.06	19983												
10650	4733	854	4.50	26326	920	5.73	25861	1039	8.30	25313	1146	11.04	25115	1245	13.99	24983	1340	17.17	25646	1433	20.59	26789			
12975	5766	1012	7.43	32229	1069	8.89	31878	1174	11.97	31200	1269	15.12	30845	1357	18.38	30655	1441	21.86	30418	1522	25.55	30463	1600	29.37	30919
15300	6800	1174	11.54	38134	1224	13.25	37847	1317	16.78	37233	1403	20.45	36712	1483	24.15	36405	1559	27.94	36225						
17625	7833	1339	17.06	44056	1382	18.96	43762	1465	22.93	43232	1543	27.07	42681												
19950	8866	1504	24.12	49916	1543	26.27	49674																		

XP5 (Extra High Velocity Nozzle - High Plume Windband)

Nozzle Outlet Area: 2.25 ft<sup>2</sup>

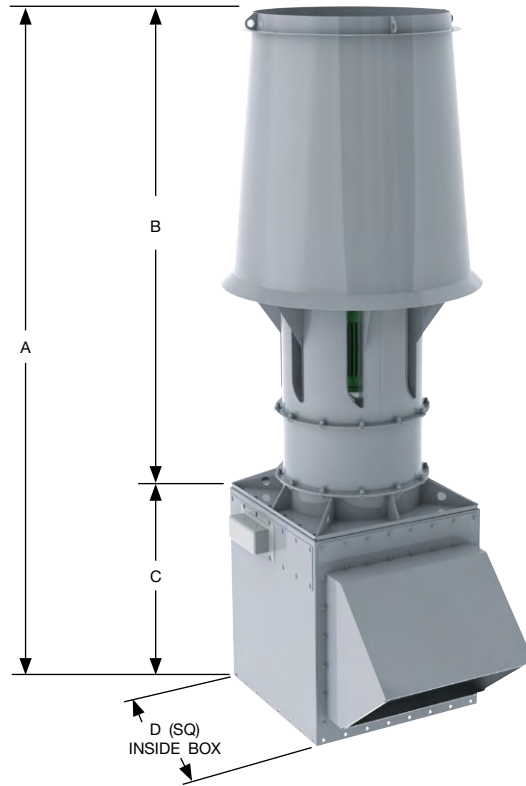
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
5225	2322	558	1.03	12317	653	1.67	12229																		
7225	3211	701	1.97	17198	778	2.79	17021	915	4.59	16880	1042	6.71	17487												
9225	4100	854	3.48	22082	918	4.48	21882	1034	6.60	21667	1141	8.91	21649	1245	11.53	21659	1340	14.25	22421	1428	17.05	23439			
11225	4989	1012	5.70	26939	1068	6.91	26809	1169	9.40	26506	1262	12.01	26375	1350	14.76	26364	1437	17.79	26213	1521	21.02	26378	1600	24.32	26967
13225	5878	1173	8.79	31781	1222	10.19	31673	1312	13.06	31408	1395	16.04	31170	1474	19.11	31073	1550	22.32	31066						
15225	6766	1336	12.89	36616	1379	14.47	36510	1461	17.76																

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	191.06
<b>B</b>	135.31
<b>C</b>	55.75
<b>D</b>	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 ft<sup>2</sup>

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	7.28	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 ft<sup>2</sup>

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 ft<sup>2</sup>

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:

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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 3.78 ft<sup>2</sup>

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
8775	2320	463	1.47	17573	557	2.48	16314																		
12825	3391	596	3.11	26081	668	4.42	25777	798	7.34	24249	923	10.84	23381	1044	14.93	24454									
16875	4462	741	5.87	34031	799	7.51	34269	907	11.04	33779	1006	14.85	32739	1099	18.93	30884	1195	23.66	30601	1292	28.99	31463	1380	34.42	32234
20925	5533	892	10.12	41835	941	12.13	42405	1032	16.27	42263	1118	20.69	41891	1200	25.39	41315	1277	30.22	40022	1352	35.34	38522	1428	40.93	37895
24975	6604	1047	16.22	49670	1089	18.59	50279	1168	23.42	50751	1243	28.44	50393	1315	33.69	50088	1385	39.21	49712	1452	44.87	49058			
29025	7675	1204	24.51	57517	1241	27.27	58119	1311	32.84	58886	1377	38.47	58933	1442	44.39	58628									
33075	8746	1363	35.41	65411	1395	38.47	65933	1457	44.71	66742															

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 3.78 ft<sup>2</sup>

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
7425	1963	476	1.27	15517	570	2.18	14255	743	4.56	14942															
10725	2836	606	2.54	22821	682	3.73	22482	813	6.34	20783	938	9.50	20467	1055	13.12	21426									
14025	3709	747	4.63	29751	810	6.12	29759	923	9.30	29216	1024	12.71	27990	1118	16.39	26583	1214	20.64	26676	1308	25.33	27445	1392	30.06	28089
17325	4581	893	7.75	36450	948	9.60	36881	1046	13.34	36541	1136	17.32	36138	1219	21.47	35338	1297	25.79	33907	1373	30.39	32876	1451	35.51	32794
20625	5454	1043	12.18	43152	1091	14.36	43688	1178	18.74	43842	1258	23.26	43441	1334	28.01	43126	1406	32.93	42651						
23925	6327	1195	18.15	49852	1237	20.65	50377	1316	25.73	50940	1388	30.83	50725	1457	36.13	50412									
27225	7199	1349	25.93	56585	1386	28.73	57068	1457	34.45	57759															

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 3.78 ft<sup>2</sup>

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
5900	1560	476	1.02	12118	569	1.76	11040	738	3.67	11463															
8550	2261	606	2.02	17928	683	3.00	17612	813	5.13	16186	935	7.67	15841	1049	10.58	16486									
11200	2962	748	3.67	23522	812	4.90	23432	925	7.50	22899	1024	10.25	21778	1117	13.25	20680	1211	16.69	20696	1303	20.50	21229	1386	24.37	21720
13850	3662	895	6.15	28917	950	7.64	29127	1049	10.72	28745	1138	13.95	28303	1221	17.35	27633	1298	20.87	26464	1373	24.63	25650	1449	28.76	25514
16500	4363	1045	9.64	34270	1094	11.43	34617	1182	15.03	34587	1262	18.72	34178	1338	22.61	33869	1409	26.60	33407						
19150	5064	1198	14.36	39649	1241	16.43	40002	1320	20.56	40262	1393	24.76	40001												
21800	5765	1352	20.49	45017	1391	22.85	45383																		

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 2.75 ft<sup>2</sup>

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
8575	3118	513	2.00	17724	601	3.07	17745	765	5.78	18922															
11750	4272	642	3.97	24458	712	5.33	24320	838	8.27	24313	951	11.51	24406												
14925	5427	780	7.14	31168	838	8.80	31043	945	12.32	30888	1044	16.11	30932	1133	19.96	30801	1224	24.43	31199	1326	30.17	32864			
18100	6581	923	11.83	37870	972	13.79	37758	1064	17.89	37520	1151	22.24	37460	1234	26.84	37534	1310	31.43	37441	1383	36.21	37389	1457	41.49	37624
21275	7736	1069	18.38	44571	1111	20.62	44454	1191	25.27	44204	1268	30.19	44042	1342	35.33	44004	1414	40.71	44087						
24450	8890	1217	27.10	51276	1254	29.67	51174	1325	34.91	50956	1394	40.42	50784												
27625	10044	1365	38.23	57922	1398	41.10	57830																		

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 2.75 ft<sup>2</sup>

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
7325	2663	505	1.58	15771	591	2.50	15816	743	4.71	16290															
10150	3691	633	3.07	21763	705	4.29	21849	829	6.88	21977	941	9.83	22301												
12975	4718	770	5.45	27728	831	6.97	27861	938	10.09	27909	1035	13.43	28038	1125	17.05	28263	1211	20.92	28519	1295	25.08	28858			
15800	5745	913	9.02	33723	964	10.77	33825	1059	14.52	33930	1145	18.35	33984	1225	22.33	34045	1302	26.63	34242	1375	31.10	34439	1446	35.79	34661
18625	6772	1058	13.96	39678	1103	16.02	39810	1187	20.30	39944	1266	24.82	40053	1338	29.29	40061	1407	33.93	40108						
21450	7799	1206	20.60	45678	1245	22.90	45775	1320	27.71	45931	1392	32.84	46061	1459	38.00	46111									
24275	8826	1355	29.13	51669	1390	31.73	51767	1458	37.13	51946															

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 2.75 ft<sup>2</sup>

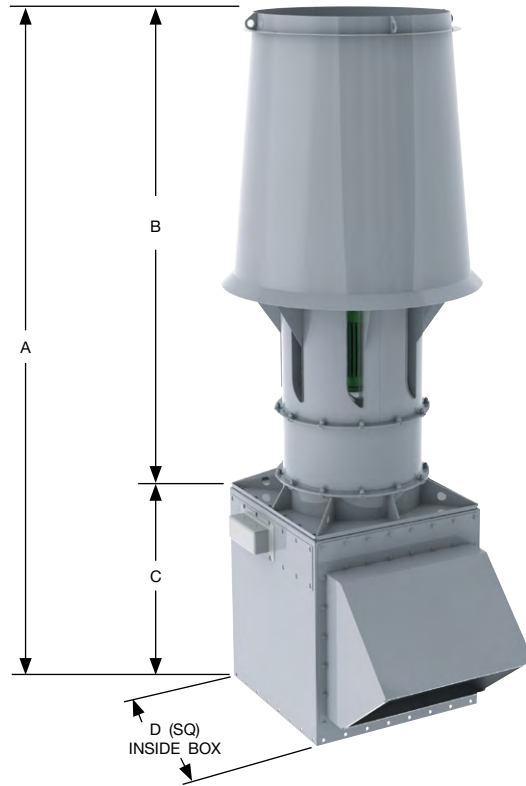
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
6400	2327	505	1.26	13429	591	2.05	13689	742	3.94	14519															
8850	3218	635	2.42	18409	704	3.42	18578	829	5.64	19038	943	8.21	19686	1127	14.13	24148	1213	17.46	25178	1293	20.91	25598			
11300	4109	774	4.28	23469	832	5.51	23568	937	8.11	23845	1033	10.92	24148	1127	14.13	24705	1213	17.46	25178	1293	20.91	25598			
13750	4999	917	7.01	28533	967	8.47	28571	1059	11.55	28811	1143	14.73	29009	1222	18.08	29222	1301	21.81	29634	1377	25.77	30092	1448	29.78	30471
16200	5890	1063	10.80	33612	1107	12.51	33634	1188	16.02	33758	1264	19.71	33979	1335	23.45	34138	1403	27.34	34314						
1865																									

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	204.12
<b>B</b>	148.37
<b>C</b>	55.75
<b>D</b>	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 ft<sup>2</sup>

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	716	8.84	30933	824	13.15	31639	924	17.89	32400											
17600	2552	525	3.24	29580	592	4.92	29637	813	12.83	39859	905	17.91	40642	994	23.56	41785	1074	29.30	42229	1150	35.34	42539	1224	41.76	43142		
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 ft<sup>2</sup>

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 ft<sup>2</sup>

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.



**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 4.59 ft<sup>2</sup>

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
10650	2323	421	1.79	21356	506	3.01	19804																		
15575	3397	542	3.78	31680	607	5.37	31286	725	8.91	29445	838	13.14	28311	949	18.16	29776									
20500	4471	674	7.15	41336	727	9.16	41662	824	13.41	40986	915	18.09	39878	999	23.03	37589	1086	28.77	37224	1173	35.15	38094	1254	41.83	39188
25425	5545	812	12.35	50855	856	14.78	51519	939	19.83	51398	1017	25.21	50954	1091	30.89	50230	1161	36.77	48707	1229	42.98	46887	1297	49.67	45970
30350	6619	953	19.79	60369	991	22.68	61103	1063	28.57	61714	1131	34.68	61289	1196	41.03	60897	1259	47.68	60398	1320	54.58	59642			
35275	7693	1096	29.93	69909	1129	33.24	70602	1193	40.05	71574	1253	46.91	71656	1311	54.00	71210									
40200	8767	1240	43.15	79453	1270	46.99	80151																		

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 4.59 ft<sup>2</sup>

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
9000	1963	433	1.55	18872	518	2.65	17326	675	5.54	18138															
13000	2835	550	3.08	27646	619	4.52	27229	739	7.71	25280	852	11.52	24832	958	15.90	25967									
17000	3708	678	5.60	36047	736	7.43	36110	838	11.26	35404	930	15.41	33943	1015	19.86	32194	1103	25.05	32399	1187	30.64	33184	1264	36.43	34043
21000	4580	811	9.40	44195	860	11.60	44656	950	16.18	44310	1031	20.96	43759	1107	26.03	42841	1178	31.27	41126	1247	36.85	39872	1317	42.98	39678
25000	5452	947	14.76	52308	990	17.37	52921	1069	22.67	53098	1143	28.24	52712	1211	33.92	52249	1276	39.84	51632						
29000	6325	1085	21.99	60429	1123	25.01	61057	1195	31.19	61753	1260	37.33	61464	1323	43.78	61109									
33000	7197	1225	31.43	68601	1259	34.86	69211	1323	41.76	70018															

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 4.59 ft<sup>2</sup>

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
10375	3111	466	2.42	21498	546	3.73	21532																		
14200	4258	582	4.79	29585	645	6.41	29368	760	9.98	29386	863	13.91	29519												
18025	5405	706	8.57	37639	758	10.54	37429	856	14.82	37279	946	19.39	37321	1027	24.04	37158	1111	29.54	37762	1204	36.51	39820			
21850	6552	835	14.18	45716	879	16.51	45536	963	21.46	45255	1043	26.78	45240	1118	32.29	45285	1187	37.82	45154	1254	43.64	45140	1321	50.00	45388
25675	7699	967	22.02	53808	1005	24.71	53646	1078	30.33	53347	1148	36.26	53139	1216	42.52	53140	1281	48.97	53198						
29500	8846	1100	32.40	61854	1134	35.52	61745	1199	41.87	61496	1261	48.43	61225	1322	55.35	61096									
33325	9993	1234	45.72	69890	1264	49.18	69772	1323	56.34	69585															

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 3.33 ft<sup>2</sup>

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
10375	3111	466	2.42	21498	546	3.73	21532																		
14200	4258	582	4.79	29585	645	6.41	29368	760	9.98	29386	863	13.91	29519												
18025	5405	706	8.57	37639	758	10.54	37429	856	14.82	37279	946	19.39	37321	1027	24.04	37158	1111	29.54	37762	1204	36.51	39820			
21850	6552	835	14.18	45716	879	16.51	45536	963	21.46	45255	1043	26.78	45240	1118	32.29	45285	1187	37.82	45154	1254	43.64	45140	1321	50.00	45388
25675	7699	967	22.02	53808	1005	24.71	53646	1078	30.33	53347	1148	36.26	53139	1216	42.52	53140	1281	48.97	53198						
29500	8846	1100	32.40	61854	1134	35.52	61745	1199	41.87	61496	1261	48.43	61225	1322	55.35	61096									
33325	9993	1234	45.72	69890	1264	49.18	69772	1323	56.34	69585															

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 3.33 ft<sup>2</sup>

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
8875	2661	458	1.90	19081	537	3.03	19197																		
12300	3688	574	3.70	26336	640	5.19	26475	752	8.31	26580	854	11.90	26984												
15725	4716	699	6.60	33603	754	8.43	33739	852	12.24	33849	939	16.23	33923	1021	20.63	34211	1100	25.37	34598	1176	30.40	34982			
19150	5743	829	10.93	40881	875	13.04	40985	962	17.62	41155	1040	22.25	41215	1113	27.11	41315	1182	32.25	41484	1248	37.65	41696	1313	43.37	42006
22575	6770	961	16.93	48118	1001	19.38	48229	1078	24.62	48432	1149	30.04	48516	1215	35.50	48564	1277	41.06	48573						
26000	7797	1095	24.96	55371	1131	27.79	55520	1199	33.62	55704	1264	39.80	55838	1325	46.07	55907									
29425	8824	1230	35.28	62617	1262	38.44	62747	1323	44.90	62921															

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 3.33 ft<sup>2</sup>

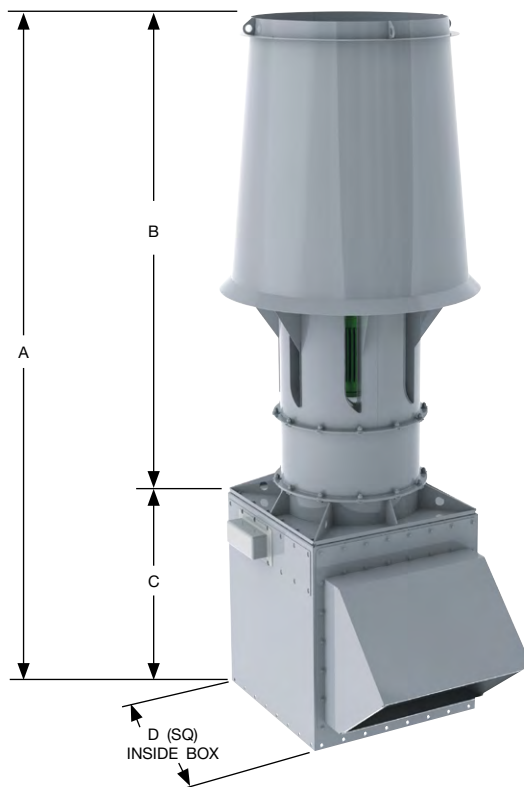
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
7750	2324	458	1.52	16248	537	2.48	16615																		
10700	3209	576	2.93	22286	639	4.14	22507	752	6.82	23028	855	9.91	23769												
13650	4093	701	5.15	28364	754	6.64	28495	849	9.77	28801	937	13.20	29209	1022	17.05	29854	1100	21.07	30412	1173	25.26	30941			
16600	4978	830	8.41	34466	875	10.16	34486	959	13.89	34788	1035	17.71	35001	1108	21.82	35325	1179	26.27	35770	1248	31.04	36315	1313	35.93	36803
19550	5863	961	12.92	40552	1001	14.98	40573	1076	19.27	40785	1144	23.66	40989	1209	28.20	41200	1271	32.90	41419						
22500	6747	1095	18.98	46703	1130	21.30	46687	1197	26.13	46790	1259	31.09													

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	219.43
<b>B</b>	163.68
<b>C</b>	55.75
<b>D</b>	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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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:

1. Performance certified 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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 5.62 ft<sup>2</sup>

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
13050	2322	380	2.19	26144	457	3.69	24268																		
19075	3394	489	4.62	38774	548	6.57	38317	655	10.93	36125	<u>757</u>	16.10	34723	857	22.24	36466									
25100	4466	608	8.74	50594	656	11.20	50997	744	16.41	50204	826	22.14	48800	<u>902</u>	28.19	46007	980	35.15	45428	1060	43.13	46803	1132	51.17	47910
31125	5538	733	15.12	62297	773	18.10	63133	847	24.21	62869	918	30.84	62381	985	37.81	61505	1048	44.99	59578	1109	52.52	57248	1171	60.79	56244
37150	6610	860	24.20	73927	894	27.70	74794	959	34.90	75524	1020	42.31	74942	1080	50.26	74612	1137	58.42	74011	1192	66.85	73065			
43175	7682	989	36.58	85608	1018	40.53	86380	1076	48.89	87578	1131	57.40	87750	1183	66.00	87153									
49200	8754	1119	52.76	97302	1145	57.29	98055	1196	66.59	99275															

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 5.62 ft<sup>2</sup>

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
11025	1962	391	1.90	23122	468	3.25	21258	609	6.76	22149															
15950	2838	497	3.77	33909	560	5.57	33475	667	9.43	30907	770	14.15	30506	865	19.47	31793									
20875	3714	613	6.89	44237	665	9.11	44285	758	13.86	43524	840	18.90	41605	<u>918</u>	24.44	39651	996	30.70	39675	1073	37.67	40800	1142	44.71	41769
25800	4590	734	11.59	54293	779	14.33	54936	859	19.89	54409	933	25.84	53842	1001	32.01	52671	1065	38.44	50574	1127	45.26	48979	1190	52.77	48705
30725	5467	857	18.19	64249	896	21.42	65020	968	28.00	65324	1034	34.78	64779	1096	41.83	64292	1154	49.02	63475						
35650	6343	983	27.19	74310	1017	30.89	75060	1081	38.40	75843	1141	46.10	75632	1197	53.93	75115									
40575	7219	1109	38.78	84290	1140	43.04	85065																		

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 5.62 ft<sup>2</sup>

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
8750	1557	390	1.51	17970	466	2.60	16316																		
12675	2255	496	2.98	26562	559	4.43	26066	666	7.59	23944	767	11.39	23548	860	15.70	24456									
16600	2954	612	5.42	34852	665	7.24	34742	757	11.06	33872	839	15.18	32248	915	19.61	30588	993	24.77	30718	1068	30.38	31463	1136	36.12	32193
20525	3652	732	9.06	42837	778	11.31	43199	859	15.85	42601	932	20.63	41930	1000	25.67	40897	1063	30.87	39114	1125	36.47	37975	1187	42.56	37735
24450	4350	855	14.21	50792	895	16.86	51288	967	22.17	51205	1034	27.73	50697	1095	33.39	50111	1154	39.36	49476						
28375	5049	980	21.17	58756	1015	24.21	59258	1081	30.41	59711	1141	36.65	59320	1197	43.00	58790									
32300	5747	1106	30.20	66714	1138	33.71	67255	1197	40.66	67858															

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 4.09 ft<sup>2</sup>

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
12725	3113	421	2.97	26362	493	4.56	26375																		
17425	4263	526	5.88	36293	583	7.87	36040	687	12.27	36087	<u>780</u>	17.09	36260												
22125	5413	639	10.57	46251	686	13.00	46006	774	18.23	45784	855	23.82	45811	928	29.51	45597	1003	36.17	46212	1088	44.84	48896			
26825	6563	755	17.44	56105	795	20.32	55911	871	26.42	55589	942	32.82	55447	1010	39.62	55531	1073	46.48	55454	1133	53.57	55378	1194	61.45	55755
31525	7712	875	27.13	66087	909	30.42	65867	975	37.33	65514	1038	44.59	65246	1099	52.23	65209	1158	60.19	65316						
36225	8862	995	39.89	75938	1025	43.63	75749	1084	51.47	75473	1141	59.68	75241	1195	68.02	74983									
40925	10012	1117	56.41	85866	1144	60.65	85718	1197	69.42	85472															

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 4.09 ft<sup>2</sup>

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
10875	2660	414	2.34	23418	485	3.72	23528																		
15075	3688	519	4.55	32326	578	6.36	32447	680	10.23	32661	<u>772</u>	14.62	33158												
19275	4715	632	8.12	41239	681	10.33	41354	769	14.97	41440	849	19.96	41671	923	25.35	42025	993	31.05	42338	1062	37.24	42851			
23475	5743	749	13.41	50126	791	16.03	50292	869	21.60	50456	939	27.25	50487	1005	33.20	50614	1067	39.46	50785	1127	46.12	51083	1186	53.18	51498
27675	6770	868	20.75	58980	905	23.82	59184	974	30.20	59393	1038	36.84	59487	1098	43.59	59583	1154	50.40	59597						
31875	7798	989	30.59	67869	1021	34.01	68012	1083	41.22	68282	1141	48.70	68387	1197	56.50	68550									
36075	8825	1111	43.24	76756	1140	47.14	76922	1196	55.18	77206															

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 4.09 ft<sup>2</sup>

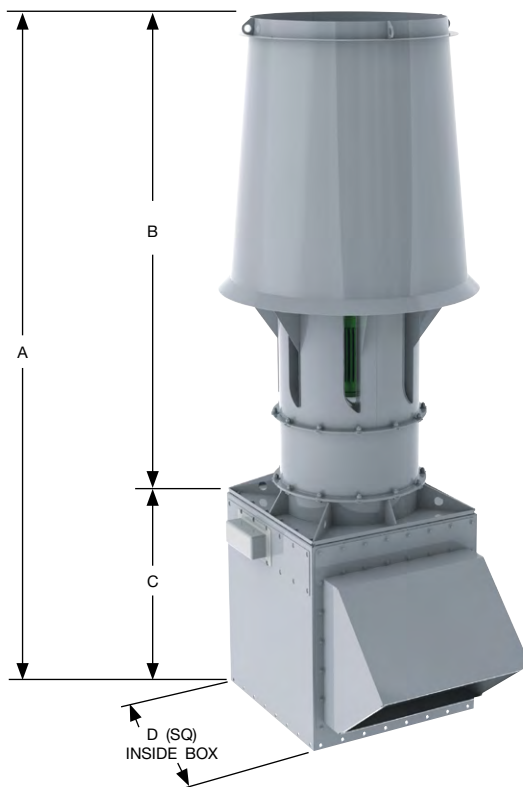
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
9500	2324	414	1.87	19940	485	3.04	20364																		
13125	3211	520	3.58	27300	577	5.07	27576	679	8.35	28207	<u>773</u>	12.18	29207												
16750	4098	633	6.31	34757	681	8.14	34926	767	11.99	35315	846	16.16	35776	923	20.90	36586	994	25.86	37323	1060	31.01	37980			
20375	4985	750	10.33	42267	792	12.53	42382	867	17.07	42699	936	21.79	42993	1001	26.76	43318	1066	32.30	43941	1128	38.13	44585	1187	44.16	45215
24000	5871	869	15.89	49769	906	18.47	49855	973	23.70	50070	1034	29.05	50294	1093	34.66	50578	1149	40.43	50850						
27625	6758	990	23.33	57307	1022	26.21	57313	1083</																	

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	236.11
<b>B</b>	180.36
<b>C</b>	55.75
<b>D</b>	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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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:

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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 6.88 ft<sup>2</sup>

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
15975	2324	344	2.69	32053	413	4.51	29626	545	9.37	30795															
23350	3396	442	5.65	47409	496	8.06	46958	592	13.36	44125	684	19.66	42339	775	27.23	44641									
30725	4469	550	10.70	61921	593	13.69	62360	673	20.11	61465	747	27.10	59731	816	34.55	56402	887	43.14	55842	958	52.70	57131	1024	62.70	58731
38100	5542	663	18.51	76233	699	22.15	77236	766	29.64	76930	830	37.73	76302	891	46.31	75318	948	55.11	72991	1003	64.31	70106	1059	74.42	68862
45475	6615	778	29.65	90480	809	33.96	91575	868	42.83	92514	923	51.88	91791	977	61.57	91354	1028	71.45	90526	1078	81.83	89427			
52850	7687	895	44.86	104812	921	49.67	105731	973	59.82	107143	1023	70.29	107396	1070	80.82	106667									
60225	8760	1012	64.58	119049	1036	70.22	120032	1082	81.59	121515															

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 6.88 ft<sup>2</sup>

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
13475	1960	353	2.31	28203	423	3.98	25971																		
19500	2836	449	4.61	41430	506	6.80	40898	603	11.53	37788	696	17.29	37273	782	23.80	38872									
25525	3713	554	8.41	54082	601	11.13	54134	685	16.93	53184	760	23.16	50999	830	29.89	48497	901	37.60	48624	970	46.05	49875	1033	54.75	51168
31550	4589	663	14.13	66340	704	17.51	67156	777	24.36	66598	843	31.54	65769	905	39.15	64415	963	47.03	61877	1019	55.37	59913	1076	64.55	59586
37575	5465	775	22.27	78604	810	26.19	79519	875	34.22	79874	935	42.55	79252	990	51.01	78496	1044	60.07	77743						
43600	6342	889	33.29	90919	919	37.72	91755	978	47.05	92845	1031	56.28	92427	1082	65.91	91842									
49625	7218	1003	47.48	103135	1031	52.69	104081																		

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 6.88 ft<sup>2</sup>

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
10725	1560	353	1.85	22026	422	3.19	20068	548	6.70	20919															
15525	2258	449	3.66	32547	506	5.43	31952	602	9.27	29258	694	13.97	28880	778	19.23	29969									
20325	2956	554	6.65	42692	601	8.85	42468	685	13.57	41500	759	18.60	39514	828	24.05	37524	898	30.32	37599	966	37.21	38536	1027	44.17	39362
25125	3655	662	11.09	52413	703	13.80	52800	777	19.42	52145	843	25.27	51328	905	31.49	50149	962	37.86	47992	1017	44.59	46420	1074	52.17	46275
29925	4353	774	17.45	62211	810	20.68	62807	875	27.17	62706	935	33.93	62024	991	40.95	61409	1044	48.23	60598						
34725	5051	886	25.89	71865	918	29.63	72510	977	37.15	73001	1032	44.87	72599												
39525	5749	1000	36.94	81605	1029	41.24	82272																		

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 5.00 ft<sup>2</sup>

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
15575	3115	381	3.65	32293	446	5.59	32301	568	10.55	34541															
21325	4265	476	7.21	44445	527	9.63	44067	621	15.00	44116	705	20.89	44304												
27075	5415	578	12.94	56602	620	15.88	56242	700	22.31	56028	773	29.13	56027	840	36.22	55941	907	44.27	56553	983	54.73	59646			
32825	6565	683	21.36	68669	719	24.87	68414	788	32.37	68060	852	40.19	67863	914	48.59	68048	971	57.01	67970	1024	65.45	67665	1080	75.26	68283
38575	7715	791	33.17	80822	822	37.22	80582	882	45.73	80193	939	54.63	79874	994	63.95	79810	1047	73.62	79891						
44325	8865	900	48.85	92928	927	53.41	92683	981	63.13	92427	1031	72.87	91953	1081	83.32	91791									
50075	10015	1010	69.01	105038	1034	74.11	104810	1082	84.84	104517															

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 5.00 ft<sup>2</sup>

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
13300	2660	374	2.85	28606	438	4.53	28707																		
18450	3690	469	5.56	39513	523	7.80	39737	615	12.52	39975	698	17.88	40557												
23600	4720	571	9.91	50399	616	12.65	50614	696	18.36	50778	768	24.45	51023	834	30.95	51323	898	38.01	51817	960	45.53	52373			
28750	5750	678	16.46	61395	716	19.67	61604	786	26.45	61751	850	33.45	61882	909	40.66	61954	966	48.47	62299	1020	56.59	62639	1073	65.18	63103
33900	6780	786	25.50	72264	819	29.22	72471	881	36.99	72689	939	45.13	72822	993	53.35	72911	1044	61.76	72978						
39050	7810	896	37.64	83194	925	41.85	83382	980	50.53	83609	1033	59.80	83806												
44200	8840	1006	53.13	94034	1032	57.87	94219	1082	67.61	94505															

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 5.00 ft<sup>2</sup>

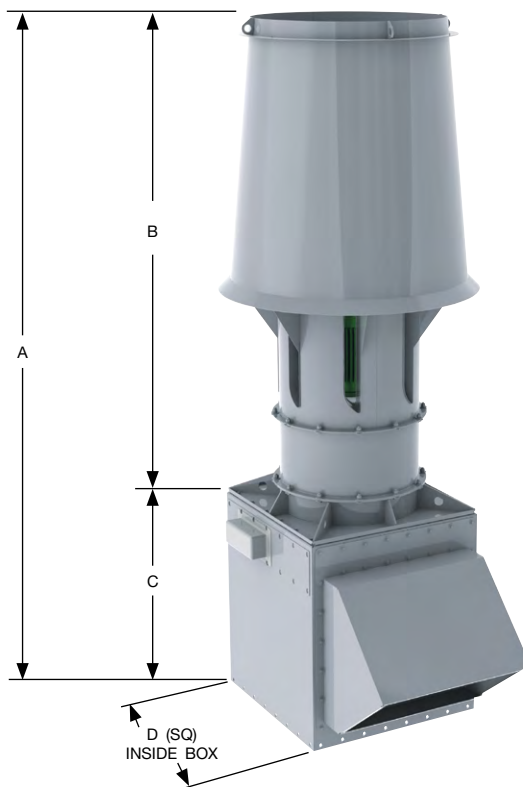
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
11625	2325	374	2.28	24359	438	3.71	24849																		
16075	3215	471	4.40	33470	522	6.21	33761	614	10.22	34512	699	14.90	35737												
20525	4105	574	7.78	42661	617	10.01	42838	694	14.69	43250	766	19.85	43884	835	25.61	44808	899	31.67	45688	958	37.89	46399			
24975	4995	680	12.74	51863	717	15.38	51923	785	20.96	52335	847	26.72	52662	906	32.83	53090	964	39.54	53768	1021	46.80	54673	1074	54.15	55405
29425	5885	788	19.61	61071	820	22.66	61055	881	29.11	61361	937	35.77	61726	990	42.62	62048	1040	49.62	62321						
33875	6775	897	28.71	70256	926	32.26	70274	981	39.57	70467	1031	46.97	70695												

# 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 ft<sup>2</sup>

OVERALL DIMENSIONS (APPROXIMATE)	
<b>A</b>	253.53
<b>B</b>	197.78
<b>C</b>	55.75
<b>D</b>	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 ft<sup>2</sup>

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	798	53.28	76818	854	64.15	77253	909	75.82	78380	
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 ft<sup>2</sup>

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 ft<sup>2</sup>

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.

**HV (High Velocity Nozzle)**

Nozzle Outlet Area: 8.32 ft<sup>2</sup>

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
19325	2323	313	3.26	38846	376	5.48	36054	496	11.37	37443															
28250	3396	402	6.84	57400	451	9.76	56839	538	16.15	53325	622	23.81	51302	704	32.87	53823									
37175	4469	500	12.95	74925	539	16.55	75438	612	24.35	74416	679	32.78	72245	742	41.83	68316	806	52.13	67424	871	63.78	69163	931	75.88	71095
46100	5542	603	22.43	92288	635	26.75	93375	697	35.96	93220	755	45.73	92432	810	56.04	91134	862	66.72	88383	912	77.86	84897	963	90.13	83428
55025	6615	707	35.83	109437	735	41.02	110729	789	51.80	111925	839	62.76	111047	888	74.46	110496	935	86.58	109651	980	99.02	108206			
63950	7687	813	54.15	126720	838	60.26	128057	885	72.49	129725	930	85.05	129949	973	97.87	129125									
72875	8760	920	78.14	144050	942	85.01	145270	984	98.83	147096															

**HV7 (High Velocity Nozzle)**

Nozzle Outlet Area: 8.32 ft<sup>2</sup>

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
16300	1959	321	2.80	34144	384	4.79	31264																		
23575	2834	408	5.57	50099	460	8.22	49486	548	13.94	45670	632	20.84	44903	711	28.81	47056									
30850	3708	503	10.14	65342	546	13.45	65437	622	20.42	64200	690	27.91	61450	754	36.09	58529	819	45.48	58809	882	55.74	60394	939	66.22	61892
38125	4583	602	17.04	80164	639	21.09	81099	705	29.31	80332	766	38.12	79506	822	47.24	77758	875	56.82	74736	926	66.91	72392	978	78.04	72047
45400	5458	704	26.88	95032	736	31.65	96162	795	41.34	96569	849	51.31	95709	900	61.73	94980	948	72.44	93824						
52675	6332	807	40.10	109842	835	45.57	110957	888	56.73	112165	937	68.05	111787	983	79.61	111010									
59950	7207	910	57.11	124534	936	63.50	125752	983	75.93	127148															

**HV5 (High Velocity Nozzle)**

Nozzle Outlet Area: 8.32 ft<sup>2</sup>

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
12975	1560	321	2.24	26666	384	3.87	24363	498	8.09	25282															
18775	2257	408	4.42	39356	460	6.58	38662	548	11.27	35567	630	16.82	34761	707	23.25	36216									
24575	2954	503	8.01	51579	546	10.69	51334	623	16.44	50260	690	22.50	47811	753	29.13	45462	816	36.63	45421	878	44.98	46594	934	53.51	47691
30375	3651	602	13.43	63440	639	16.70	63875	706	23.46	63043	766	30.53	62047	822	38.00	60536	874	45.72	57947	925	54.03	56266	976	63.05	55917
36175	4349	703	21.06	75201	735	24.89	75830	795	32.83	75810	849	40.92	74901	900	49.41	74160	948	58.16	73129						
41975	5046	805	31.28	86904	834	35.79	87672	888	44.93	88307	937	54.09	87676	984	63.67	87031									
47775	5743	909	44.69	98732	934	49.67	99380	983	60.01	100325															

**XV (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 6.05 ft<sup>2</sup>

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
18850	3116	346	4.40	39009	405	6.74	38988	516	12.73	41685															
25800	4264	432	8.68	53659	479	11.64	53305	565	18.19	53478	641	25.29	53632												
32750	5413	525	15.62	68418	564	19.25	68114	636	26.95	67725	703	35.29	67851	763	43.71	67539	825	53.65	68555	894	66.29	72279			
39700	6562	621	25.86	83103	654	30.15	82839	716	39.11	82288	775	48.71	82201	831	58.81	82357	882	68.80	82083	931	79.21	81895	981	90.82	82411
46650	7711	719	40.12	97781	747	44.99	97462	801	55.16	96896	853	65.95	96533	903	77.21	96450	952	89.13	96705						
53600	8860	818	59.07	112416	843	64.68	112188	891	76.18	111704	937	88.09	111216	982	100.59	110937									
60550	10008	918	83.46	127069	940	89.68	126820	983	102.46	126366															

**XV7 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 6.05 ft<sup>2</sup>

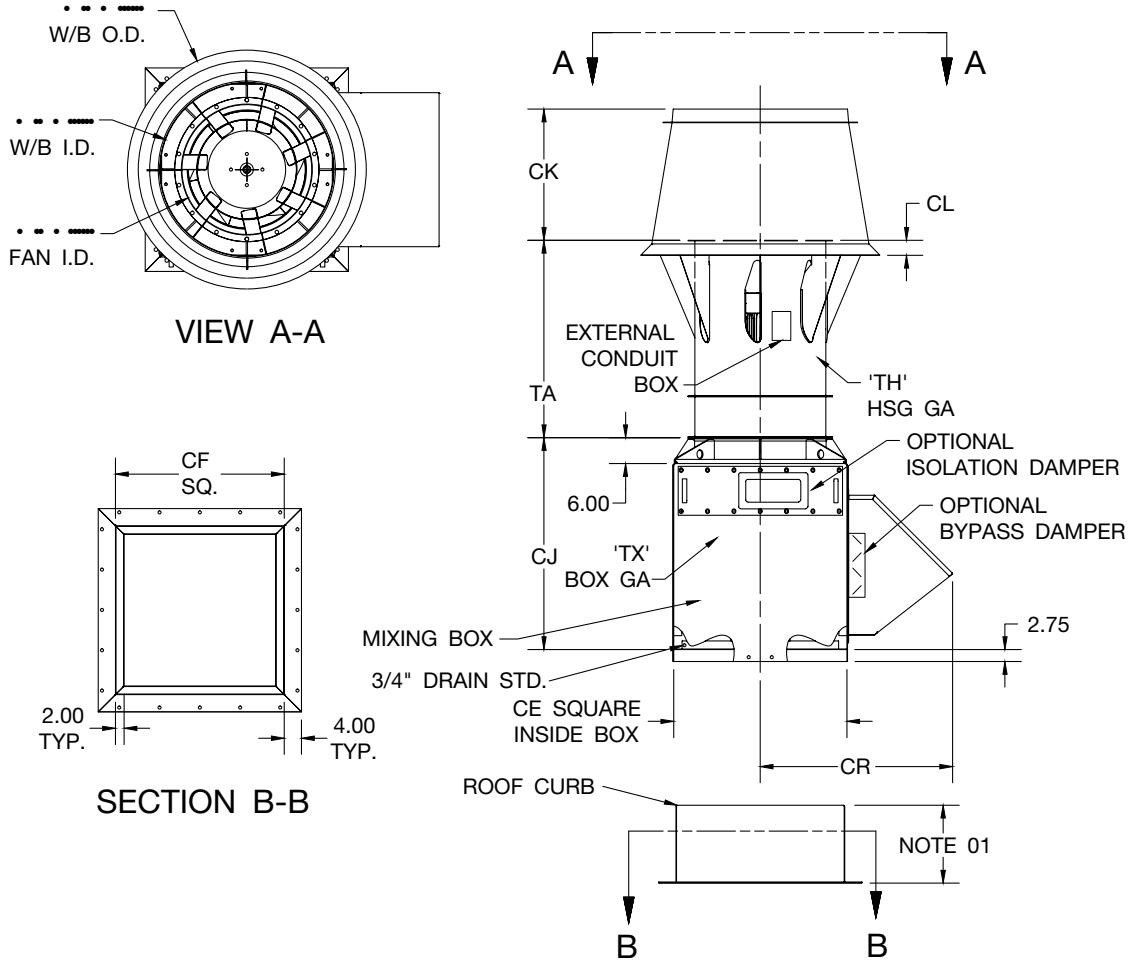
FAN INLET CFM	NOZ-ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW	RPM	BHP	OUT. FLOW
16100	2661	340	3.45	34614	399	5.51	34887																		
22325	3690	427	6.75	47904	475	9.41	48008	559	15.14	48353	634	21.58	48948												
28550	4719	519	11.98	60970	560	15.31	61243	633	22.25	61487	698	29.56	61705	758	37.42	62064	817	46.10	62847	873	55.14	63442			
34775	5748	616	19.88	74238	650	23.70	74411	715	32.06	74790	772	40.36	74755	826	49.13	74899	878	58.61	75348	927	68.41	75738	975	78.75	76253
41000	6777	714	30.79	87367	744	35.27	87615	801	44.77	87968	854	54.68	88172	903	64.62	88268	949	74.71	88288						
47225	7806	814	45.45	100593	840	50.48	100769	891	61.17	101180	939	72.34	101392	984	83.65	101477									
53450	8835	914	64.17	113709	938	69.98	113980	984	81.90	114402															

**XV5 (Extra High Velocity Nozzle)**

Nozzle Outlet Area: 6.05 ft<sup>2</sup>

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
14075	2326	341	2.78	29606	399	4.52	30192	500	8.65	31884															
19450	3215	428	5.32	40477	475	7.54	40911	558	12.35	41731	635	17.99	43162												
24825	4103	521	9.37	51524	560	12.06	51722	631	17.79	52346	696	23.98	53044	759	30.98	54202	817	38.28	55234	871	45.86	56160			
30200	4992	617	15.32	62619	651	18.55	62730	713	25.29	63244	770	32.33	63721	824	39.78	64293	876	47.78	65002	928	56.59	66124	976	65.44	66977
35575	5880	716	23.69	73855	745	27.37	73824	800	35.10	74135	851	43.16	74582	899	51.40	74941	945	59.95	75343						
40950	6769	815	34.69	84958	841	38.92	8																		

# 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 PROCESS AND COMMERCIAL VENTILATION SYSTEMS

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



**TWIN CITY FAN & BLOWER**  
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