USTB SERIES

In-Line Airfoil Centrifugal Fan

U.S. FAN INTERNATIONAL

Form USC119A

U.S. FAN INTERNATIONAL® certifies that the USTB Series fans shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. For Sound Performance Data refer to Sound Bulletin USS119.

Member Air Movement and Control Association International, Inc.

USTB SERIES

DESIGN FEATURES

Available in Class I, II and III, standard Arrangement 1 and 9. The USTB Series fans have been designed and engineered to meet the highest standards for maximum efficiency, low operating cost, quietness, stability, and non-overloading horsepower. This concept in design combines the reliable performance of scroll-type centrifugal fans with the space saving advantages of axial type fans. The USTB Series fans are used for general building ventilation, commercial and industrial air conditioning, industrial process supply and exhaust, drying and cooling, combustion air supply, etc.

Benefits

- Airfoil bladed centrifugal wheel for efficient and quiet operation.
- In-line airflow eliminating costly elbows and duct configurations.
- Space saving compactness in both horizontal and vertical applications.
- Equal size inlet and outlet duct connection for ease of installation.
- Dependable rugged construction for long life and trouble free operation.
- Wide range of mounting arrangements, brackets and motor positions and accessories.

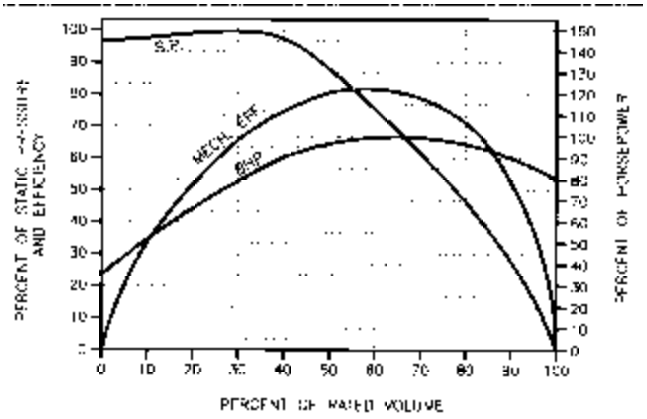
USTB Series, SWSI, Full Airfoil Wheel.

Centrifugal Airfoil Wheel

The USTB Series wheels are of the backwardly inclined airfoil blade type. The rims are spun for close tolerance fit to the die-formed blades. Trailing edges of the blades are welded. Blades are continuously welded to a heavy backplate and rim. All wheels are given accurate static and dynamic balance to insure smooth operation.

Quietness Of Operation

Correct orientation of wheel blades, combined with careful aerodynamic design of the wheel, straightening vanes and casing, decreases air turbulence and increases pressure conversion efficiency, resulting in a quiet operating fan.



Non-Overloading Horsepower

The horsepower curve peaks within the normal operating range and at maximum efficiency as illustrated. This built-in protection assures that the motor selected will not be overloaded when the fan is operating near optimum performance.

Stable Pressure Curve

As illustrated above, the inherent design of the airfoil wheel results in a steeply rising pressure characteristic over a wide range of capacities. This assures minimum changes in volume with shifts in system pressure, providing exceptionally stable operation. Components are manufactured accurately to the proper shape and dimensions providing further assurance rated performance is obtained.

Low Operating Cost

The USTB Series fan provides smooth airflow through the tubular housing because of careful design of the streamlined inlet, airfoil wheels, and aerodynamic conversion vanes. The result is a high, broad efficiency curve. A broad efficiency curve assures optimum fan performance over a wide operating range. This means lower horsepower resulting in lower operating costs for the life of the installation.

Space Saving USTB Reduces Overall Space Requirements

In-line airflow eliminates the need for costly elbows and duct turns for horizontal as well as vertical applications, thus permitting installation in the smallest possible space. USTB fans use approximately 50 to 70% of the space normally required by conventional scroll type centrifugal fans, and are generally shorter than most competitive in-line fans.

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TYPICAL CONSTRUCTION FEATURES

Housing

All welded heavy gauge steel construction designed with air passages of proper aerodynamic shape resulting in smooth, efficient airflow through the fan. Casings are rigidly braced internally to carry the weight of the motor. The streamlined inlet is bolted independently in such a way as to ensure correct wheel to inlet clearance. Flanged inlet and outlet connections are standard with optional slip fit available. Mounting feet or brackets for floor or ceiling mounting are available on all Arrangement 9 fans and lifting lugs are furnished where required.

The V-belt drive sheaves and bearings are isolated from the airstream by a belt tube through which the V-belts pass from the outside of the casing to the inner tube, which houses the fan shaft and bearings. The end cover of the inner tube is readily removable for easy access to the shaft and bearing assembly and a standard access door allows easy wheel inspection.

The inner cylinder is not air tight and, therefore, the fan should not be used where the escape of contaminated air would cause problems.

Wheels

Class I, II and III wheels are made of welded high strength material selected for proper yield strength, featuring streamlined, die-formed, airfoil blades for shock free airflow and low power requirements, minimizing turbulence and sound. All wheels are precision balanced to ensure smooth, trouble free operation. Hubs are fabricated from steel plate or cast iron. Type 'A' wheel is cost effective. Class I wheel is constructed from aluminum and suitable for commercial operation up to 200°F.

Shaft

Turned, ground and polished SAE1045 medium carbon steel and designed to operate well below the first critical speed.

Bearings

All USTB Series fans are furnished with heavy duty, self-aligning, grease lubricated bearings with extended grease fittings as standard. Bearings are rated at a L-10 life of 20,000 hours for Classes I, II and III. Extra heavy duty, split pillow block bearings with extended L-10 life are also available.

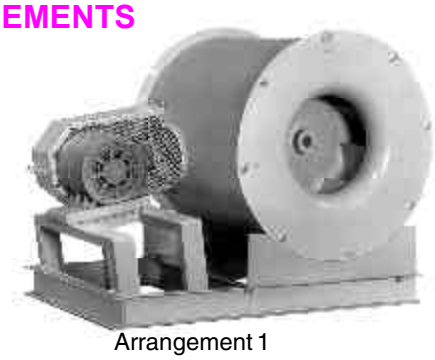
High Temperature Construction

Temperature limit for standard fans is 150°F (66°C). All classes can be modified to handle gases up to 300°F (149°C). This is done by utilizing an interference fit between the wheel and shaft, insulation pads under the bearings and a special high temperature lubrication and eight thrust fins on the backplate of wheel to induce airflow through belt tube. Bearings are carefully selected to suit operating temperatures. **Fans for higher temperatures up to 600°F (316°C) are available per special order.**

Spark Resistant Construction

Explosive applications require special construction. U.S. FAN INTERNATIONAL offers modified Classes I, II and III to meet either AMCA types A, B, or C. Explosion proof motors and static resistant belts should be furnished to meet AMCA requirements in volatile atmospheres.

ARRANGEMENTS



Arrangement 1

Arrangement 1 is for floor mounting only.

Horizontal Mounted Arrangement 9 with mounting feet.

Arrangement 9

Arrangement 9 Horizontal Mount with Hanging Brackets for Rod Installation.

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OPTIONAL ACCESSORIES

- **Drive Guard**

Totally enclosed, made to OSHA standards, or three sided removable, solid-vented fabricated sheet or perforated metal guard providing protection around motor sheave and V-belts.

- **Weather Cover**

Enclosed, removable, solid-vented fabricated sheet metal cover designed to protect motor and V-belt drive for outdoor application. When weather cover is used a drive guard is not required.

- **Screens**

Flat, heavy gauge, coated wire mesh available for inlet, outlet or inlet vane control.

- **Access Door**

Offered in flush mounted or standard bolted. Flush mounted hinged/latch type access doors are also available. All access doors are furnished with standard gasketing. Location over wheel is determined by installation and mounting requirements.

- **Drains (Standard or Flanged) and Weep Holes**

To drain water resulting from condensation or cleaning of a wheel, a casing drain connection or weep holes can be furnished at low points in the fan casing. Weep holes may be furnished in the wheel to eliminate the possibility of water condensing in the blades.

- **Shaft Seal**

Shaft seals are available to protect bearings and belt tube from contaminated air. Standard shaft seal consists of a flat type material backed by a steel retaining plate secured to the inner cylinder around the shaft opening. Note: Standard shaft seals are not considered air tight.

- **Motor Mounting**

Motors up to NEMA frame size 404T and V-belt drives can be factory mounted on both Arrangement 1 and 9 fans per standard AMCA positions.

- **Slip Ring Or Companion Angles**

Available for use where inlet or outlet slip connection is required or to provide a flanged inlet connection.

- **Discharge Windband and Damper**

Constructed with leaf type damper, and reinforced outer casing (windband) for vertical mounted units. Gravity holds damper closed when fan is not in use. High velocity upblast discharge produces a curtain that turns back most rain and snow. Select fans with a minimum outlet velocity of 500 FPM (2.540 m/s).

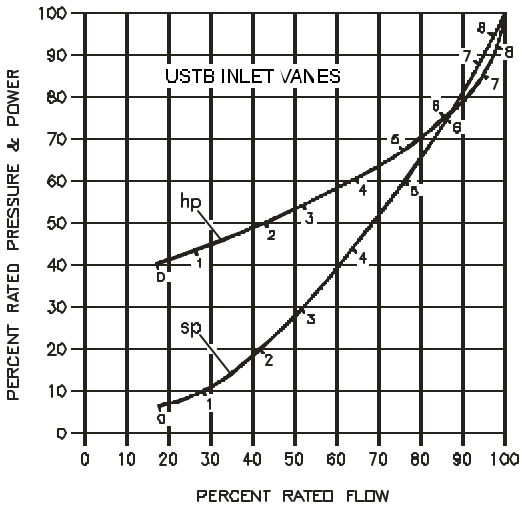
- **Roof Curb Mounting Base**

Designed for vertical roof mounted units, consisting of a one piece, heavy gauge, reinforced steel mounting platform, for bolting to fan flange.

- **Inlet Vane Control (IVC)**

Vane control is a simple and efficient means of regulating fan output over a wide range of operating conditions. It combines the advantages of instantaneous regulation of fan capacity (to meet exact pressure and volume requirements of the system) with substantial power savings during those periods when the full rated delivery of the fan is not required. Vanes may be operated automatically or manually without shutting the fan down. Vane control is available for all fan sizes.

The control of fan output by movable inlet vanes has been accepted as one of the most economical means of varying fan capacity at high efficiency.



Typical Inlet Vane Control Horsepower Curve illustrating power savings.

Internal (Nested) IVC

External IVC with stub shaft and lever

- **ADDITIONAL ACCESSORIES**

Spark Resistant Construction, High Temperature Construction, Special Metals and Alloys, Heavy Duty Special Bearings, Stainless Steel Nameplate, Motors and V-Belt Drives, IVC Operators and Hardware, Vibration Isolation Hardware, Special Paints and Coatings.

USTB SERIES

PHYSICAL DATA

Housings

Bolted and welded heavy gauge steel housings with straightening vanes are welded to the housing assuring maximum efficiency and strength.

Inlets and Outlets

Drilled mounting flanges are a standard part of the Series USTB fan. Optional companion flanges are available to create a slip joint inlet.

Wheels

Class I, II and III wheels are fabricated with die-formed airfoil blades that are welded to the backplate and rim and secured to a heavy duty hub assembly.

Hubs

Fabricated from steel or cast iron.

Bearings

All units are supplied with anti-friction, pillow block type, grease lubricated ball or roller bearings as standard.

SELECTION AND APPLICATION

Motor Selection

The motor horsepower lines in the performance curves are for determining the proper size motor, not the BHP for the point of operation. If the point of operation is to the right of the motor horsepower curve, use the next larger motor size.

BHP for the point of operation can be found in the performance tables.

The minimum motor sizes indicated in the fan performance data are based upon the use of standard, open dripproof or enclosed, normal torque motors for across-the-line starting. The use of other motors for reduced voltage starting, high or low starting torques, designed with high inertia capabilities, etc., should be checked to be sure they will start and accelerate the fan without overheating the motor or overloading the electrical circuit. The motors listed in the performance data have been selected based on one start per day and operation in an ambient temperature not exceeding 104°F (40°C). More frequent starting or operation in higher temperatures will probably require a motor larger than the minimum sizes listed.

Motor recommendations for fan sizes 37 through 73 are based on the use of four pole, 1800 RPM motors. Under certain operating conditions it may be possible to use motors smaller than those listed in the performance tables. The selection of smaller motors should be reviewed with the motor supplier. When a fractional horsepower is used, its starting and accelerating characteristics should be carefully checked.

Correction Of Fan Performance For Other Than Standard Air Conditions

Air volumes to be handled by the fan must be calculated to satisfy the application. A fan operating on a given system at a given speed is a constant volume machine. The density of air entering the fan (affected by temperature and/or altitude) can vary, but the air volume delivered will remain unchanged. The system resistance, the fan pressure capability and brake horsepower will vary directly with the air density.

In general practice the design system resistance is calculated using standard air density and the fan pressure requirements are determined for “standard” conditions. This is sometimes known as the equivalent pressure (SP_E). Select the fan from the catalog in the normal manner using the equivalent pressure (SP_E), noting the fan RPM and BHP. As indicated by Fan Law #2, the design air volume and selected fan speed will remain unchanged, but the fan pressure and horsepower will vary with the air density. The system resistance will also vary with the air density.

FAN LAWS

Two basic fan laws relate performance variables for any fan of a given design (such as the USTB Series). An understanding of these relationships is necessary to select fans when they are handling air or gas which is different than standard or when fan performance adjustments must be made on existing systems. Both of these laws apply to a **given unchanged duct system**.

FAN LAW #1

SPEED VARIABLE - CONSTANT AIR DENSITY

A. Volume (CFM)...Varies directly as the ratio of the speeds.

$$CFM_2 = CFM_1 \times \left(\frac{RPM_2}{RPM_1}\right)$$

B. Pressure (SP or TP)...Varies directly as the square of the speed ratio.

$$Pressure_2 = Pressure_1 \times \left(\frac{RPM_2}{RPM_1}\right)^2$$

C. Power...Varies directly as the cube of the speed ratio.

$$BHP_2 = BHP_1 \times \left(\frac{RPM_2}{RPM_1}\right)^3$$

FAN LAW #2

AIR DENSITY VARIABLE - CONSTANT SPEED

A. Volume (CFM)...Remains unchanged.

B. Pressure (SP or TP)...Varies directly as the ratio of the air densities.

$$Pressure_2 = Pressure_1 \times \left(\frac{Air\ Density_2}{Air\ Density_1}\right)$$

C. Power...Varies directly as the ratio of the air densities.

$$BHP_2 = BHP_1 \times \left(\frac{AirDensity_2}{Air\ Density_1}\right)$$

SELECTION AND APPLICATION

SAMPLE CORRECTION

A size 60 fan must deliver 35,680 CFM (16.84 m^3/s) at 1½ inches wg (373 Pa) static pressure. The fan must perform at an altitude of 4000 feet (1219 m) with air entering the fan inlet at 150°F (66°C).

1. Obtain density factor from the table below. For 150°F (66°C) air at an altitude of 4000 feet (1219 m) the factor is 1.33. This same ratio can be obtained by interpolation using the corresponding metric table (see illustration).

°C	1000m	1219m	1250m
50	1.23		1.27
65.6	(1.292)	1.327	(1.332)
75	1.33		1.37

2. Convert the actual static pressure to standard conditions (SP_E):

   SP_E = 1.5" wg (373 Pa) X 1.33 = 2.0" wg (497 Pa).

3. Use the specified airflow rate and equivalent static pressure (SP_E) to obtain the fan speed and power requirements from the fan rating tables.

   From the performance table on page 34 a size 60 fan must operate at 481 RPM and requires 17.44 HP (13.0 kW).

4. The speed is correct as selected from the performance table (when elevated temperatures are involved, compare with the maximum allowable speed of the fan). The power requirements must be converted back to the actual operating conditions by using the ratio of the actual density to standard density.

   Divide the tabular power from Step 3 by the density ratio from Step 1:

   $$Power = \frac{17.44\ HP\ (13.0\ kW)}{1.33} = 13.11 HP\ (9.8 kW).$$

5. Check specifications to determine if the fan will be expected to operate at lower temperatures (such as start up of a system). If it is, check the power requirement at this lower temperature.

   Assume the system will start with the fan handling air at 70°F (21°C)

   a. The air density ratio for 70°F (21°C) and 4000 feet (1219 m) is 1.16.

   b. Convert the power at standard conditions [70°F (21°C) and sea level] to 70°F (21°C) and 4000 feet (1219 m) elevation.

   $$Power = \frac{17.44\ (13.0)}{1.16} = 15.03\ HP\ (11.2\ kW)$$

   c. Select a motor based upon the maximum power required or 15.03 (11.2 kW).

AIR DENSITY RATIOS AT VARIOUS ALTITUDES AND AIR TEMPERATURES

AIR GAS TEMP °F	Altitude In Ft. Above Sea Level With Corresponding Barometric Pressure in Inches Hg.										
	0 29.92	1000 28.86	2000 27.82	3000 26.81	4000 25.84	5000 24.89	6000 23.98	7000 23.09	8000 22.22	9000 21.38	10000 20.58
-20	0.83	0.86	0.89	0.93	0.96	1.00	1.04	1.08	1.12	1.16	1.21
0	0.87	0.91	0.94	0.97	1.01	1.04	1.08	1.13	1.17	1.22	1.26
50	0.96	1.00	1.04	1.07	1.11	1.16	1.20	1.25	1.30	1.35	1.40
70	1.00	1.04	1.08	1.12	1.16	1.20	1.25	1.30	1.35	1.40	1.45
100	1.06	1.10	1.14	1.18	1.22	1.27	1.32	1.37	1.42	1.48	1.54
150	1.15	1.19	1.24	1.30	1.33	1.38	1.44	1.49	1.55	1.61	1.67
200	1.25	1.29	1.34	1.39	1.44	1.50	1.56	1.61	1.68	1.75	1.81
250	1.34	1.39	1.44	1.50	1.55	1.61	1.67	1.74	1.80	1.88	1.95
300	1.44	1.49	1.54	1.60	1.66	1.72	1.79	1.86	1.93	2.01	2.08
350	1.53	1.59	1.65	1.71	1.77	1.84	1.91	1.98	2.06	2.14	2.22
400	1.62	1.68	1.75	1.81	1.88	1.95	2.03	2.10	2.18	2.27	2.36
450	1.72	1.78	1.85	1.92	1.99	2.07	2.15	2.23	2.31	2.40	2.49
500	1.81	1.88	1.95	2.02	2.10	2.18	2.26	2.35	2.44	2.54	2.63
550	1.91	1.98	2.05	2.13	2.20	2.29	2.38	2.47	2.56	2.67	2.77
600	2.00	2.08	2.15	2.23	2.32	2.40	2.50	2.59	2.69	2.84	2.91
650	2.10	2.17	2.25	2.34	2.43	2.52	2.62	2.72	2.83	2.93	3.05
700	2.19	2.27	2.35	2.44	2.53	2.63	2.73	2.83	2.94	3.07	3.18
800	2.38	2.46	2.55	2.65	2.75	2.86	2.97	3.08	3.20	3.32	3.45

AIR GAS TEMP °C	Altitude in Meters Above Sea Level With Corresponding Barometric Pressure in Millimeters Hg.										
	0 760	250 738	500 717	750 697	1000 677	1250 657	1500 639	1750 620	2000 603	2500 569	3000 536
0	0.93	0.95	0.98	1.01	1.04	1.08	1.10	1.14	1.16	1.23	1.32
21	1.00	1.03	1.05	1.09	1.12	1.15	1.19	1.22	1.27	1.33	1.41
50	1.10	1.12	1.16	1.19	1.23	1.27	1.30	1.33	1.39	1.47	1.56
75	1.18	1.22	1.25	1.28	1.33	1.37	1.41	1.45	1.49	1.59	1.67
100	1.27	1.30	1.33	1.39	1.43	1.47	1.52	1.54	1.59	1.69	1.79
125	1.35	1.39	1.43	1.47	1.52	1.56	1.61	1.67	1.69	1.82	1.92
150	1.43	1.47	1.52	1.56	1.61	1.67	1.69	1.75	1.82	1.92	2.04
175	1.52	1.56	1.61	1.67	1.69	1.75	1.82	1.85	1.92	2.04	2.17
200	1.61	1.64	1.69	1.75	1.79	1.85	1.92	1.96	2.04	2.13	2.27
225	1.69	1.72	1.79	1.85	1.89	1.96	2.00	2.08	2.13	2.27	2.38
250	1.79	1.82	1.89	1.92	2.00	2.04	2.13	2.17	2.22	2.38	2.50
275	1.85	1.92	1.96	2.04	2.08	2.13	2.22	2.27	2.33	2.50	2.63
300	1.96	2.00	2.04	2.13	2.17	2.22	2.33	2.38	2.44	2.63	2.78
325	2.04	2.08	2.13	2.22	2.27	2.33	2.44	2.50	2.56	2.70	2.86
350	2.13	2.17	2.22	2.33	2.38	2.44	2.50	2.56	2.63	2.86	3.03
375	2.17	2.27	2.33	2.38	2.44	2.56	2.63	2.70	2.78	2.94	3.13
400	2.27	2.33	2.44	2.50	2.56	2.63	2.70	2.78	2.86	3.03	3.23
425	2.38	2.44	2.50	2.56	2.63	2.70	2.86	2.94	3.03	3.13	3.33
450	2.44	2.50	2.63	2.70	2.78	2.86	2.94	3.03	3.13	3.23	3.45
475	2.56	2.63	2.70	2.78	2.86	2.94	3.03	3.13	3.23	3.45	3.57

TEMPERATURE/RPM CORRECTIONS

Maximum allowable class speeds shown above each fan performance table refer to fans of standard construction operating at 70°F (21°C). Since the strength of steel decreases appreciably with temperature rise, maximum allowable speeds must be corrected accordingly.

Reduce maximum allowable fan speed by applying RPM correction factors from the following table.

When non-standard materials are used to fabricate the wheel and/or shaft the "Maximum Design RPM" may also change. See Application Data for correct RPM or contact US Fan.

TEMPERATURE/RPM CORRECTION FACTORS		
TEMP	-20°F to 150°F (-29°C to 66°C)	151°F - 300°F (66°C - 149°C)
FACTOR	1.0	0.957

USTB SERIES

SIZE 15

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	15 inches	381 mm
Wheel Circumference	3.93 feet	1.198 m
Inlet Diameter/Area	20 1/8 inches dia./2.21 sq. ft.	511 mm/.2053 m^2
Outlet Diameter/Area	20 1/8 inches I.D./2.21 sq. ft.	511 mm/.2053 m^2
Tip Speed	3.93 x RPM ft./minute	1.198 x RPM m/minute
Maximum BHP	.128 x (RPM ÷1000)^3 BHP	.0955 x (RPM ÷1000)^3 kW

SIZE 15	-20° to 150°F -29° to 66°C
CLASS I	3070
CLASS II	4008
CLASS III	5031

VOL CFM	OUT VEL	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP		1 3/4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
663	300	•666	•0.05	•766	•0.07																
884	400	771	0.07	844	0.09	•922	•0.12	•993	•0.15												
1105	500	888	0.10	956	0.13	1017	0.16	1074	0.20	•1137	•0.23	•1196	•0.26	•1254	•0.30						
1326	600	1009	0.14	1073	0.18	1130	0.21	1182	0.25	1231	0.29	1278	0.33	1332	0.37	•1431	•0.45	•1532	•0.55		
1547	700	1138	0.20	1193	0.24	1247	0.28	1297	0.32	1344	0.36	1388	0.41	1430	0.45	1513	0.54	1602	0.64	•1685	•0.74
1768	800	1273	0.27	1318	0.31	1368	0.36	1415	0.41	1460	0.46	1502	0.50	1542	0.55	1617	0.65	1688	0.76	1766	0.86
1989	900	1409	0.36	1451	0.40	1491	0.45	1536	0.51	1578	0.56	1619	0.61	1657	0.67	1730	0.78	1798	0.89	1862	1.01
2210	1000	1548	0.47	1586	0.52	1623	0.57	1659	0.62	1700	0.68	1738	0.74	1775	0.80	1846	0.93	1911	1.05	1973	1.17
2431	1100	1688	0.60	1723	0.66	1757	0.71	1790	0.77	1823	0.83	1860	0.89	1895	0.96	1963	1.09	2027	1.23	2087	1.36
2652	1200	1829	0.76	1861	0.82	1893	0.88	1924	0.94	1954	1.00	1984	1.06	2018	1.13	2083	1.28	2144	1.42	2203	1.57
2873	1300	1970	0.94	2001	1.00	2031	1.07	2060	1.13	2088	1.20	2116	1.27	2143	1.34	2205	1.49	2264	1.64	2321	1.80
3094	1400	2112	1.15	2141	1.22	2169	1.29	2197	1.36	2224	1.43	2250	1.50	2276	1.58	2328	1.73	2385	1.89	2440	2.06
3315	1500	2255	1.39	2283	1.47	2309	1.54	2335	1.62	2360	1.69	2385	1.77	2410	1.85	2457	2.00	2509	2.17	2561	2.35
3536	1600	2399	1.67	2424	1.75	2449	1.83	2474	1.91	2498	1.99	2522	2.07	2545	2.15	2591	2.31	2634	2.48	2684	2.67
3757	1700	2543	1.98	2567	2.07	2591	2.15	2614	2.23	2637	2.32	2659	2.40	2682	2.49	2725	2.66	2767	2.84	2809	3.02
3978	1800	2687	2.33	2710	2.42	2732	2.51	2755	2.60	2776	2.69	2798	2.78	2819	2.87	2861	3.05	2901	3.23	2941	3.42
4199	1900	2831	2.72	2853	2.82	2875	2.91	2896	3.00	2917	3.10	2937	3.19	2958	3.29	2997	3.48	3036	3.67	3074	3.86
4420	2000	2976	3.16	2997	3.25	3017	3.35	3038	3.45	3057	3.55	3077	3.65	3097	3.75	3135	3.95	3172	4.15	3209	4.35
4862	2200	3266	4.16	3285	4.26	3304	4.37	3323	4.48	3341	4.59	3359	4.70	3377	4.80	3412	5.02	3447	5.24	3481	5.46
5304	2400	3557	5.36	3575	5.47	3592	5.59	3609	5.71	3626	5.82	3643	5.94	3659	6.06	3692	6.30	3724	6.53	3756	6.77
5746	2600	3849	6.77	3865	6.90	3881	7.02	3897	7.15	3913	7.27	3928	7.40	3944	7.53	3974	7.78	4004	8.04	4034	8.30
6188	2800	4142	8.42	4157	8.55	4171	8.69	4186	8.82	4201	8.96	4215	9.09	4230	9.23	4258	9.50	4286	9.78	4314	10.05
6630	3000	4435	10.32	4449	10.46	4463	10.60	4476	10.75	4490	10.89	4503	11.04	4517	11.19	4543	11.48	4570	11.77	4596	12.06
7072	3200	4729	12.49	4742	12.64	4754	12.79	4767	12.95	4780	13.10	4793	13.26	4805	13.41	4830	13.72	4855	14.03	4880	14.34

VOL CFM	OUT VEL	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1547	700	•1771	•0.85																		
1768	800	1843	0.97	•1985	•1.20																
1989	900	1925	1.12	2065	1.37	•2192	•1.63	2334	1.93												
2210	1000	2032	1.30	2147	1.56	2273	1.83	•2390	•2.11	•2505	•2.41	2640	2.77								
2431	1100	2144	1.49	2251	1.77	2355	2.06	2470	2.36	2579	2.66	•2681	•2.98	2795	3.33	2916	3.73				
2652	1200	2258	1.72	2363	2.01	2460	2.31	2553	2.63	2660	2.95	2762	3.28	•2858	•3.62	•2951	•3.96	3059	4.37	3170	4.80
2873	1300	2375	1.96	2476	2.28	2571	2.60	2661	2.93	2746	3.26	2843	3.61	2939	3.97	3030	4.33	•3118	•4.70	•3203	•5.07
3094	1400	2493	2.23	2592	2.57	2684	2.91	2772	3.26	2855	3.61	2935	3.97	3021	4.34	3111	4.72	3198	5.11	3282	5.50
3315	1500	2612	2.53	2709	2.89	2800	3.26	2885	3.62	2966	3.99	3044	4.37	3119	4.76	3194	5.15	3280	5.55	3363	5.96
3536	1600	2734	2.85	2828	3.24	2917	3.64	3000	4.02	3079	4.41	3156	4.80	3229	5.20	3300	5.61	3368	6.03	3445	6.45
3757	1700	2857	3.22	2948	3.62	3034	4.03	3117	4.45	3194	4.86	3269	5.27	3341	5.69	3410	6.12	3477	6.55	3543	6.98
3978	1800	2981	3.61	3069	4.04	3153	4.47	3234	4.91	3311	5.35	3384	5.78	3454	6.22	3522	6.66	3588	7.11	3652	7.56
4199	1900	3111	4.06	3192	4.49	3274	4.94	3353	5.40	3428	5.87	3500	6.33	3569	6.78	3636	7.24	3700	7.71	3763	8.18
4420	2000	3244	4.56	3317	4.98	3396	5.45	3473	5.93	3546	6.41	3617	6.91	3685	7.39	3751	7.87	3814	8.35	3876	8.84
4862	2200	3514	5.69	3579	6.14	3644	6.60	3717	7.12	3787	7.64	3854	8.17	3920	8.70	3984	9.25	4046	9.78	4105	10.30
5304	2400	3787	7.01	3848	7.50	3907	7.99	3965	8.49	4032	9.05	4097	9.62	4160	10.19	4221	10.77	4281	11.35	4339	11.94
5746	2600	4063	8.56	4120	9.08	4175	9.60	4229	10.13	4282	10.67	4343	11.27	4404	11.88	4462	12.49	4520	13.11	4576	13.74
6188	2800	4341	10.33	4395	10.89	4447	11.45	4498	12.02	4548	12.59	4597	13.16	4652	13.79	4708	14.44	4763	15.10	4817	15.76
6630	3000	4621	12.36	4672	12.95	4722	13.55	4770	14.15	4817	14.76	4864	15.37	4910	15.98	4957	16.62	5010	17.31		
7072	3200	4904	14.66	4952	15.29	4998	15.92														

VOL CFM	OUT VEL	7" SP		7 1/2" SP		8" SP		8 1/2" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2873	1300	3304	5.51	3407	5.98																
3094	1400	•3363	•5.89	•3442	•6.30	3534	6.76	3630	7.26	3723	7.77										
3315	1500	3443	6.37	3521	6.79	•3596	•7.22	•3670	•7.64	3751	8.12	3930	9.19								
3536	1600	3525	6.88	3602	7.32	3677	7.76	3749	8.21	•3820	•8.66	•3958	•9.58	4128	10.71						
3757	1700	3607	7.43	3684	7.88	3758	8.34	3830	8.81	3900	9.27	4036	10.22	•4165	•11.19	4318	12.33	4473	13.54		
3978	1800	3715	8.02	3775	8.48	3840	8.96	3912	9.44	3981	9.93	4116	10.91	4245	11.91	•4368	•12.93	4501	14.05	4651	15.32
4199	1900	3825	8.65	3884	9.13	3943	9.62	4000	10.11	4064	10.61	4197	11.64	4325	12.67	4447	13.72	•4565	•14.79	•4679	•15.87
4420	2000	3936	9.33	3995	9.83	4052	10.33	4109	10.84	4163	11.35	4279	12.40	4406	13.47	4528	14.56	4645	15.66	4758	16.78
4862	2200	4163	10.83	4220	11.36	4276	11.90	4330	12.44	4383	12.99	4487	14.09	4587	15.22	4691	16.36	4807	17.54	4919	18.73
5304	2400	4396	12.53	4451	13.09	4504	13.66	4557	14.24	4609	14.82	4709	15.99	4806	17.18	4900	18.39	4990	19.61		
5746	2600	4631	14.37	4685	15.01	4738	15.65	4789	16.26	4838	16.87	4936	18.12	5030	19.37						
6188	2800	4870	16.42	4922	17.10	4973	17.77	5023	18.45												

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

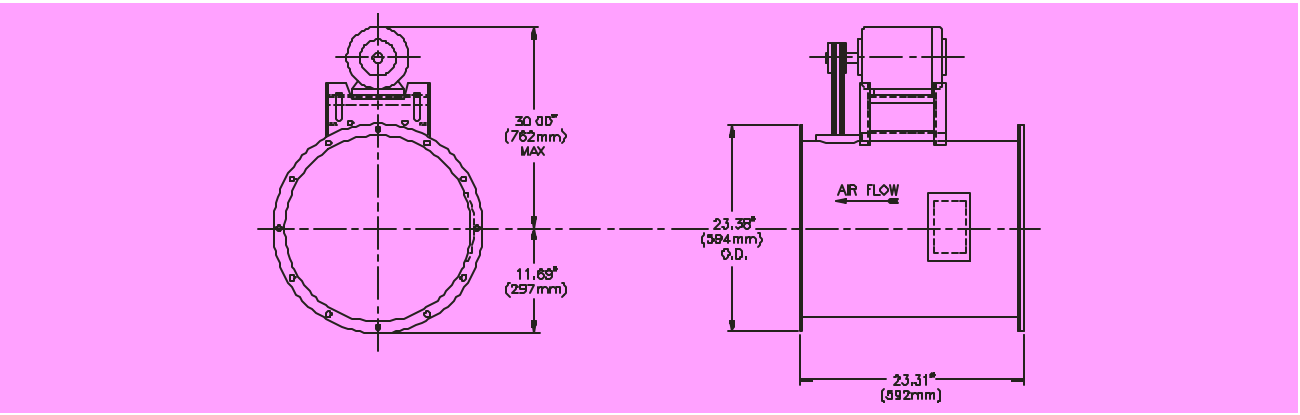
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

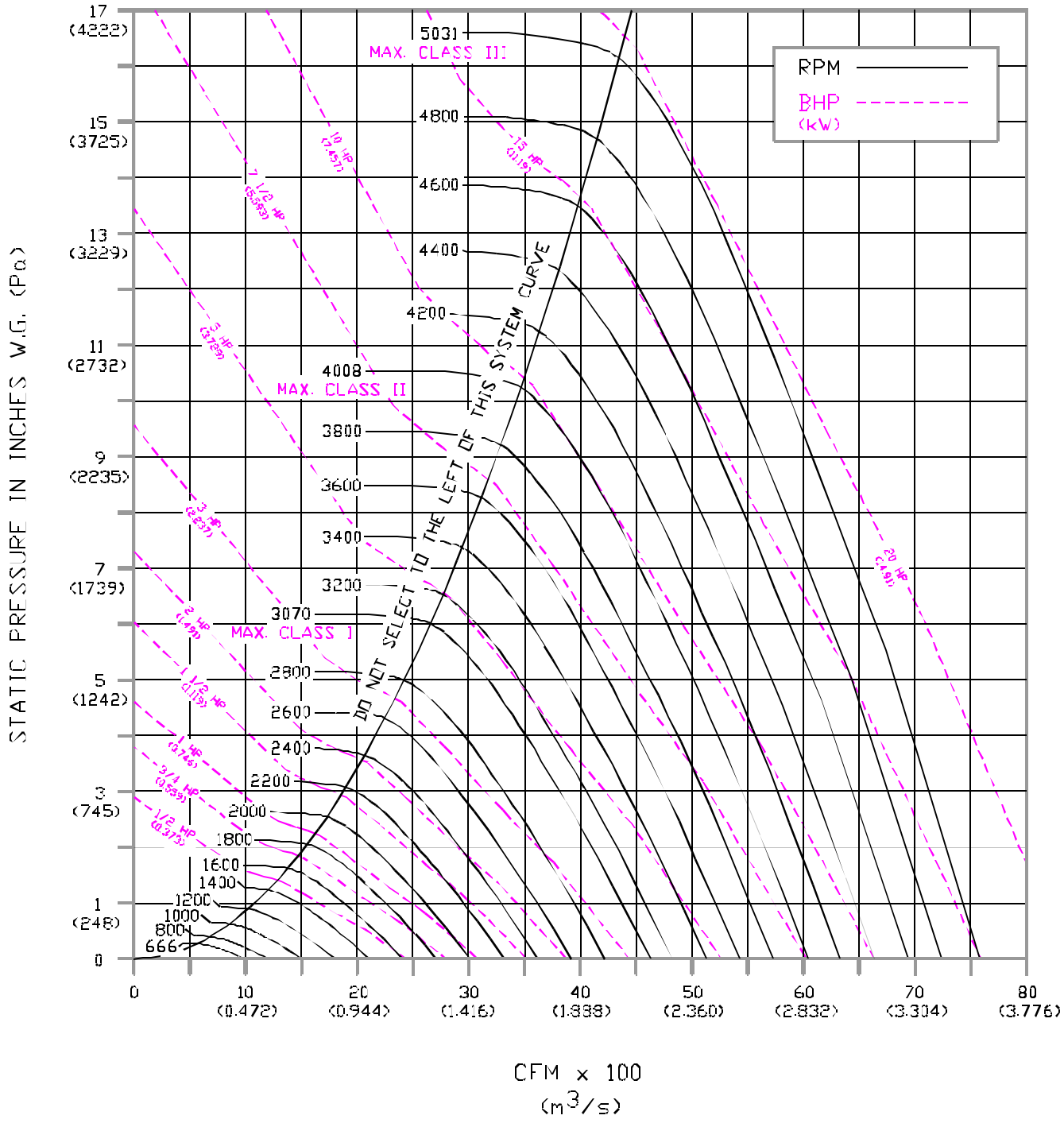
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 15





USTB SERIES

SIZE 18

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	18 ¼ inches	464 mm
Wheel Circumference	4.78 feet	1.457 m
Inlet Diameter/Area	24 9/16 inches dia./3.29 sq. ft.	624 mm/.3056 m^2
Outlet Diameter/Area	24 9/16 inches I.D./3.29 sq. ft.	624 mm/.3056 m^2
Tip Speed	4.78 x RPM ft./minute	1.457 x RPM m/minute
Maximum BHP	.417 x (RPM ÷ 1000)^3 BHP	.3110 x (RPM ÷ 1000)^3 kW

SIZE 18	-20° to 150°F -29° to 66°C
CLASS I	2332
CLASS II	3041
CLASS III	3824

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
987	300	•511	•0.06	•597	•0.09																
1316	400	584	0.09	647	0.12	•707	•0.16	•774	•0.20												
1645	500	670	0.13	723	0.17	773	0.21	825	0.25	•873	•0.30	•922	•0.35	978	0.40						
1974	600	768	0.19	809	0.23	854	0.28	896	0.33	938	0.38	981	0.43	•1022	•0.48	•1103	•0.60	1194	0.73		
2303	700	869	0.27	906	0.31	941	0.37	979	0.42	1017	0.47	1052	0.53	1088	0.59	1162	0.71	•1229	•0.83	•1302	•0.98
2632	800	971	0.36	1006	0.42	1038	0.47	1068	0.53	1101	0.59	1135	0.65	1167	0.72	1228	0.84	1294	0.98	1356	1.12
2961	900	1075	0.48	1107	0.55	1137	0.61	1166	0.67	1193	0.74	1220	0.80	1251	0.87	1309	1.01	1363	1.15	1421	1.31
3290	1000	1180	0.63	1210	0.70	1238	0.77	1265	0.84	1291	0.91	1316	0.98	1340	1.05	1393	1.20	1445	1.36	1495	1.52
3619	1100	1286	0.81	1314	0.88	1341	0.96	1366	1.04	1390	1.11	1414	1.19	1437	1.27	1480	1.43	1529	1.59	1577	1.76
3948	1200	1393	1.02	1419	1.10	1444	1.18	1469	1.27	1491	1.35	1514	1.43	1535	1.52	1577	1.69	1617	1.86	1662	2.04
4277	1300	1500	1.26	1525	1.35	1548	1.44	1571	1.53	1594	1.62	1615	1.71	1635	1.80	1675	1.98	1713	2.17	1750	2.36
4606	1400	1608	1.54	1631	1.64	1654	1.74	1675	1.83	1697	1.93	1717	2.03	1737	2.13	1775	2.32	1811	2.52	1846	2.72
4935	1500	1717	1.87	1738	1.97	1759	2.07	1780	2.18	1800	2.28	1820	2.39	1839	2.50	1875	2.70	1910	2.91	1944	3.12
5264	1600	1826	2.24	1846	2.35	1866	2.46	1886	2.57	1905	2.68	1923	2.79	1942	2.90	1977	3.13	2010	3.35	2043	3.57
5593	1700	1935	2.65	1954	2.77	1973	2.89	1992	3.00	2010	3.12	2028	3.24	2045	3.36	2080	3.60	2112	3.83	2143	4.07
5922	1800	2044	3.12	2063	3.24	2081	3.37	2098	3.49	2116	3.61	2133	3.74	2150	3.86	2182	4.12	2214	4.37	2244	4.62
6251	1900	2154	3.64	2172	3.77	2189	3.90	2205	4.03	2222	4.16	2238	4.29	2254	4.42	2286	4.69	2317	4.96	2346	5.22
6580	2000	2264	4.22	2281	4.36	2297	4.49	2313	4.63	2329	4.76	2344	4.90	2360	5.04	2390	5.32	2420	5.60	2449	5.88
7238	2200	2485	5.56	2500	5.71	2515	5.85	2529	6.00	2544	6.15	2558	6.30	2572	6.45	2600	6.76	2628	7.06	2655	7.37
7896	2400	2706	7.16	2720	7.32	2733	7.48	2747	7.64	2760	7.80	2774	7.97	2787	8.13	2813	8.46	2838	8.79	2863	9.12
8554	2600	2927	9.04	2940	9.22	2953	9.39	2965	9.57	2978	9.74	2990	9.92	3002	10.09	3027	10.45	3050	10.80	3074	11.16
9212	2800	3150	11.24	3161	11.43	3173	11.61	3185	11.80	3196	11.99	3208	12.18	3219	12.37	3242	12.75	3264	13.13	3286	13.51
9870	3000	3372	13.77	3383	13.97	3394	14.17	3405	14.37	3416	14.57	3427	14.78	3437	14.98	3458	15.38	3479	15.79	3500	16.20
10528	3200	3595	16.66	3605	16.88	3616	17.09	3626	17.30	3636	17.52	3646	17.73	3656	17.95	3676	18.38	3696	18.81	3715	19.24

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2303	700	1381	1.13																		
2632	800	•1414	•1.27	1547	1.61																
2961	900	1478	1.46	•1584	•1.79	1700	2.16	1819	2.56												
3290	1000	1544	1.68	1648	2.03	•1744	•2.39	•1843	•2.78	1953	3.22										
3619	1100	1623	1.94	1714	2.30	1808	2.68	1896	3.07	•1978	•3.47	2081	3.95	2179	4.44						
3948	1200	1706	2.23	1790	2.60	1874	3.00	1960	3.42	2041	3.84	•2118	•4.28	•2202	•4.75	2295	5.28	2384	5.81		
4277	1300	1791	2.55	1872	2.95	1949	3.36	2026	3.79	2106	4.24	2182	4.70	2255	5.17	•2324	•5.64	2408	6.19	2493	6.76
4606	1400	1880	2.92	1956	3.34	2031	3.77	2101	4.22	2172	4.68	2247	5.16	2319	5.65	2387	6.15	•2453	•6.66	•2517	•7.17
4935	1500	1977	3.33	2042	3.77	2114	4.23	2183	4.69	2248	5.17	2313	5.66	2384	6.17	2452	6.69	2517	7.22	2580	7.76
5264	1600	2074	3.79	2135	4.25	2199	4.72	2266	5.21	2330	5.71	2391	6.22	2450	6.73	2518	7.28	2582	7.83	2644	8.39
5593	1700	2173	4.30	2232	4.78	2287	5.27	2350	5.78	2413	6.30	2473	6.83	2531	7.37	2587	7.91	2648	8.48	2710	9.07
5922	1800	2273	4.86	2330	5.37	2384	5.88	2436	6.40	2497	6.94	2556	7.49	2613	8.05	2667	8.62	2720	9.19	2776	9.78
6251	1900	2374	5.48	2429	6.00	2481	6.54	2531	7.08	2583	7.63	2640	8.21	2696	8.79	2750	9.38	2802	9.98	2852	10.58
6580	2000	2476	6.15	2528	6.70	2579	7.26	2628	7.82	2675	8.39	2726	8.98	2780	9.59	2833	10.20	2884	10.82	2934	11.45
7238	2200	2681	7.68	2731	8.28	2778	8.89	2824	9.50	2869	10.11	2913	10.74	2955	11.37	3002	12.02	3052	12.68	3100	13.36
7896	2400	2888	9.46	2936	10.13	2981	10.78	3024	11.44	3067	12.10	3108	12.77	3148	13.45	3187	14.13	3226	14.81	3269	15.52
8554	2600	3097	11.52	3142	12.25	3186	12.98	3227	13.68	3267	14.39	3306	15.10	3344	15.82	3382	16.55	3419	17.28	3455	18.01
9212	2800	3308	13.90	3350	14.67	3392	15.45	3432	16.23	3470	16.99	3507	17.75	3544	18.51	3579	19.29	3615	20.06	3649	20.84
9870	3000	3520	16.61	3561	17.43	3600	18.26	3638	19.10	3676	19.93	3711	20.74	3746	21.55	3780	22.37	3813	23.19		
10528	3200	3734	19.68	3772	20.55	3809	21.43														

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4277	1300	2575	7.34																		
4606	1400	2599	7.77	2678	8.39	2755	9.01														
4935	1500	•2641	•8.30	•2702	•8.86	2778	9.51	2852	10.16	2924	10.83										
5264	1600	2705	8.96	2763	9.53	•2820	•10.11	•2876	•10.70	2948	11.39	3085	12.79	3217	14.22						
5593	1700	2769	9.66	2827	10.25	2883	10.86	2938	11.47	•2991	•12.08	•3109	•13.42	3240	14.90	3365	16.40				
5922	1800	2835	10.40	2892	11.02	2948	11.65	3002	12.28	3055	12.92	3157	14.21	•3263	•15.59	3388	17.14	3508	18.73		
6251	1900	2901	11.19	2958	11.83	3013	12.48	3067	13.14	3119	13.80	3220	15.14	3317	16.50	•3412	•17.90	3532	19.54	3647	21.19
6580	2000	2982	12.08	3029	12.71	3079	13.37	3132	14.05	3184	14.74	3284	16.12	3380	17.53	3472	18.96	•3561	•20.41	•3670	•22.07
7238	2200	3146	14.03	3192	14.71	3237	15.40	3280	16.09	3323	16.79	3415	18.25	3510	19.75	3600	21.27	3688	22.81	3772	24.37
7896	2400	3315	16.25	3359	16.98	3402	17.71	3444	18.45	3486	19.19	3566	20.69	3644	22.21	3731	23.82	3817	25.45		
8554	2600	3490	18.76	3529	19.52	3571	20.30	3612	21.08	3652	21.87	3730	23.46	3806	25.07						
9212	2800	3683	21.63	3716	22.42	3749	23.22	3783	24.02	3822	24.86										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

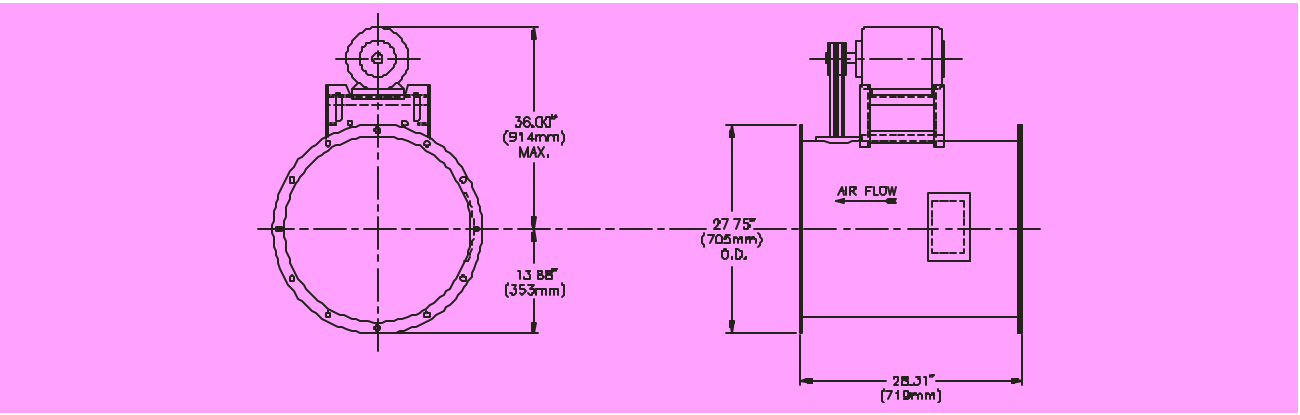
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

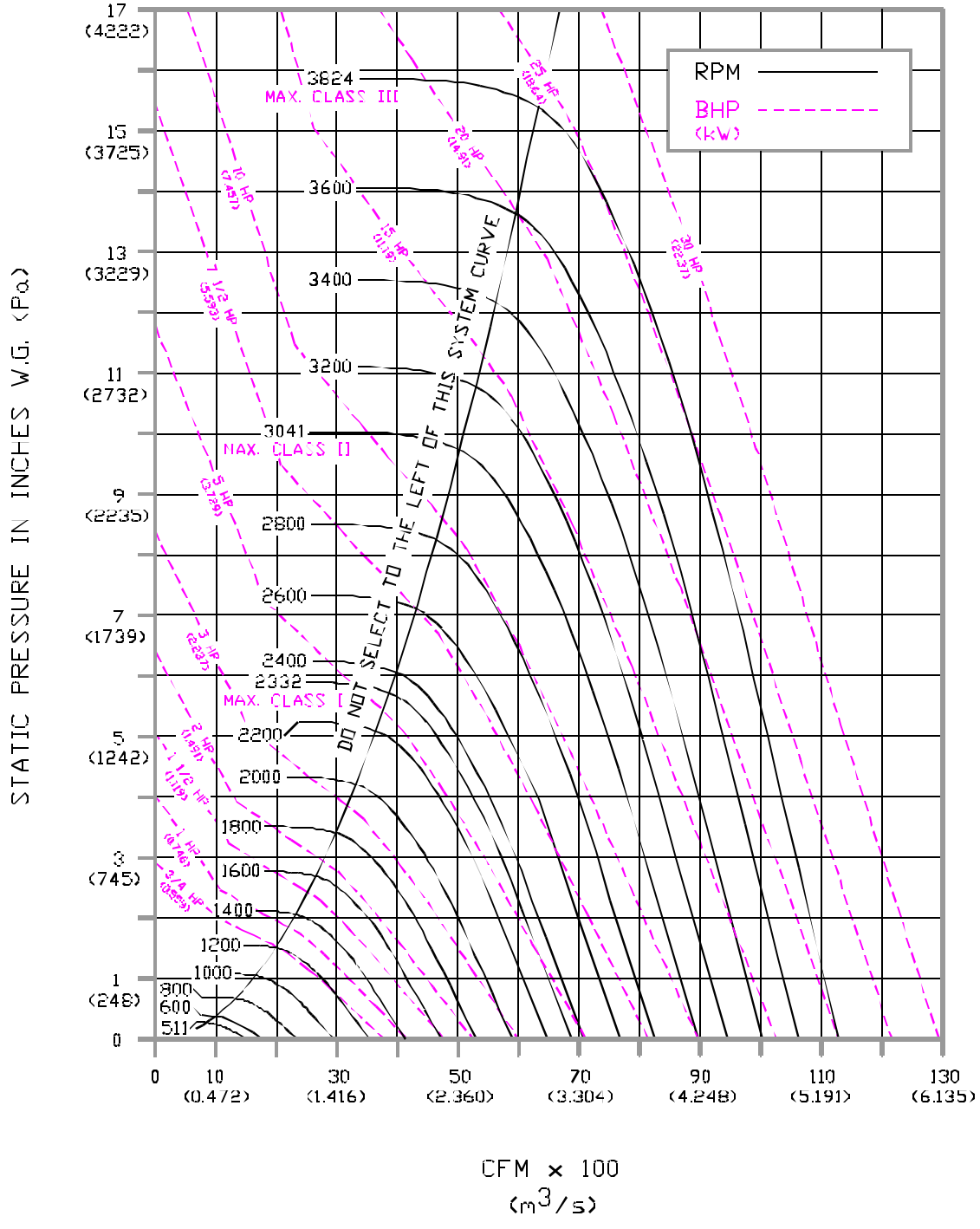
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 18





USTB SERIES

SIZE 20

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	20 inches	508 mm
Wheel Circumference	5.24 feet	1.597 m
Inlet Diameter/Area	27 inches dia./3.98 sq. ft.	686 mm/.3698 m^2
Outlet Diameter/Area	27 inches I.D./3.98 sq. ft.	686 mm/.3698 m^2
Tip Speed	5.24 x RPM ft./minute	1.597 x RPM m/minute
Maximum BHP	.661 x (RPM ÷ 1000)^3 BHP	.4929 x (RPM ÷ 1000)^3 kW

SIZE 20	-20° to 150°F -29° to 66°C
CLASS I	2128
CLASS II	2775
CLASS III	3489

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1185	300	•466	•0.07	•545	•0.11																
1580	400	532	0.11	591	0.15	•646	•0.19	• 706	•0.24												
1975	500	611	0.16	660	0.20	705	0.25	753	0.30	•796	•0.36	•842	•0.42	892	0.48						
2370	600	701	0.23	738	0.28	779	0.33	817	0.39	856	0.45	895	0.51	•933	• 0.58	•1006	•0.71	1090	0.87		
2765	700	792	0.32	826	0.38	858	0.44	893	0.50	927	0.57	960	0.63	992	0.70	1060	0.85	•1122	•1.00	•1188	•1.17
3160	800	886	0.44	917	0.50	947	0.57	975	0.64	1004	0.71	1035	0.78	1065	0.86	1120	1.01	1181	1.18	1237	1.35
3555	900	980	0.58	1010	0.66	1037	0.73	1064	0.81	1088	0.88	1113	0.96	1141	1.04	1194	1.21	1244	1.38	1297	1.57
3950	1000	1076	0.76	1104	0.84	1130	0.92	1154	1.01	1178	1.09	1200	1.18	1222	1.26	1271	1.44	1319	1.63	1364	1.82
4345	1100	1173	0.97	1199	1.06	1223	1.15	1246	1.24	1268	1.34	1290	1.43	1311	1.52	1351	1.71	1395	1.91	1439	2.12
4740	1200	1271	1.22	1294	1.32	1317	1.42	1340	1.52	1361	1.62	1381	1.72	1401	1.82	1439	2.02	1475	2.23	1516	2.45
5135	1300	1369	1.51	1391	1.62	1413	1.73	1434	1.84	1454	1.95	1473	2.06	1492	2.16	1528	2.38	1563	2.60	1596	2.83
5530	1400	1467	1.85	1488	1.97	1508	2.08	1528	2.20	1548	2.32	1567	2.44	1584	2.55	1619	2.78	1652	3.02	1684	3.26
5925	1500	1566	2.24	1586	2.37	1605	2.49	1624	2.61	1642	2.74	1660	2.87	1678	2.99	1711	3.24	1743	3.49	1773	3.74
6320	1600	1665	2.69	1684	2.82	1702	2.95	1720	3.08	1738	3.21	1755	3.35	1771	3.48	1804	3.75	1834	4.01	1864	4.28
6715	1700	1765	3.19	1783	3.32	1800	3.46	1817	3.60	1833	3.75	1850	3.89	1866	4.03	1897	4.32	1926	4.60	1955	4.88
7110	1800	1865	3.75	1882	3.89	1898	4.04	1914	4.19	1930	4.34	1946	4.49	1961	4.64	1991	4.94	2020	5.24	2047	5.54
7505	1900	1965	4.37	1981	4.53	1997	4.68	2012	4.84	2027	4.99	2042	5.15	2057	5.31	2085	5.63	2113	5.95	2140	6.26
7900	2000	2065	5.06	2080	5.23	2095	5.39	2110	5.55	2124	5.72	2139	5.88	2153	6.05	2180	6.38	2207	6.72	2234	7.06
8690	2200	2267	6.67	2280	6.85	2294	7.02	2307	7.20	2321	7.38	2334	7.56	2347	7.75	2372	8.11	2397	8.48	2422	8.85
9480	2400	2468	8.59	2481	8.78	2493	8.97	2506	9.17	2518	9.36	2530	9.56	2542	9.76	2566	10.15	2589	10.55	2612	10.95
10270	2600	2670	10.85	2682	11.06	2694	11.27	2705	11.48	2716	11.69	2728	11.90	2739	12.11	2761	12.54	2783	12.97	2804	13.40
11060	2800	2873	13.49	2884	13.71	2895	13.94	2905	14.16	2916	14.39	2926	14.61	2937	14.84	2957	15.30	2978	15.76	2998	16.22
11850	3000	3076	16.52	3086	16.76	3096	17.00	3106	17.25	3116	17.49	3126	17.73	3136	17.97	3155	18.46	3174	18.95	3193	19.44
12640	3200	3280	20.00	3289	20.25	3298	20.51	3308	20.76	3317	21.02	3326	21.28	3335	21.54	3353	22.05	3371	22.57	3389	23.09

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2765	700	1260	1.36																		
3160	800	•1290	•1.52	1412	1.93																
3555	900	1349	1.76	•1445	•2.15	1551	2.59	1660	3.07												
3950	1000	1409	2.02	1504	2.43	•1591	•2.87	•1681	•3.33	1782	3.86										
4345	1100	1481	2.32	1564	2.76	1650	3.22	1730	3.69	•1805	•4.17	1898	4.74	1988	5.33						
4740	1200	1557	2.67	1633	3.12	1710	3.60	1788	4.10	1863	4.61	•1933	•5.14	•2009	•5.71	2094	6.34	2176	6.98		
5135	1300	1634	3.06	1708	3.54	1778	4.04	1848	4.55	1922	5.09	1991	5.64	2057	6.21	•2120	•6.78	2197	7.43	2275	8.11
5530	1400	1715	3.50	1785	4.01	1853	4.53	1917	5.06	1982	5.62	2050	6.20	2116	6.79	2178	7.38	•2238	•7.99	•2297	•8.61
5925	1500	1803	4.00	1863	4.52	1929	5.07	1991	5.63	2051	6.20	2111	6.79	2175	7.41	2237	8.04	2297	8.67	2354	9.32
6320	1600	1892	4.55	1948	5.10	2006	5.67	2067	6.26	2126	6.85	2182	7.46	2236	8.08	2297	8.74	2356	9.40	2413	10.07
6715	1700	1983	5.16	2036	5.74	2087	6.32	2144	6.94	2201	7.56	2256	8.20	2309	8.84	2360	9.50	2416	10.18	2472	10.88
7110	1800	2074	5.84	2125	6.44	2175	7.05	2223	7.68	2278	8.33	2332	9.00	2384	9.67	2434	10.35	2482	11.03	2532	11.75
7505	1900	2166	6.58	2216	7.21	2263	7.85	2309	8.50	2356	9.16	2409	9.86	2460	10.55	2509	11.26	2556	11.98	2602	12.70
7900	2000	2259	7.39	2307	8.04	2353	8.71	2398	9.39	2441	10.08	2487	10.78	2536	11.51	2584	12.25	2631	12.99	2677	13.74
8690	2200	2446	9.22	2491	9.94	2535	10.67	2577	11.40	2618	12.14	2657	12.89	2696	13.64	2739	14.43	2784	15.23	2828	16.03
9480	2400	2634	11.35	2678	12.16	2719	12.94	2759	13.73	2798	14.53	2835	15.33	2872	16.14	2908	16.96	2943	17.78	2983	18.63
10270	2600	2825	13.83	2866	14.70	2906	15.57	2944	16.42	2980	17.27	3016	18.12	3051	18.99	3085	19.86	3119	20.74	3152	21.62
11060	2800	3018	16.68	3056	17.61	3094	18.54	3131	19.48	3166	20.39	3200	21.30	3233	22.22	3265	23.15	3297	24.08	3329	25.02
11850	3000	3212	19.93	3248	20.92	3284	21.91	3319	22.92	3353	23.92	3385	24.89	3417	25.86	3448	26.84	3479	27.83		
12640	3200	3407	23.61	3441	24.66	3475	25.72														

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5135	1300	2350	8.81																		
5530	1400	2371	9.33	2444	10.07	2513	10.82														
5925	1500	•2410	•9.97	•2465	•10.64	2535	11.42	2602	12.20	2668	13.00										
6320	1600	2468	10.76	2521	11.44	•2573	•12.14	•2624	• 12.85	2690	13.68	2815	15.36	2935	17.07						
6715	1700	2527	11.59	2579	12.31	2631	13.03	2681	13.77	•2729	• 14.50	• 2837	•16.11	2956	17.89	3070	19.69				
7110	1800	2586	12.48	2639	13.23	2689	13.98	2739	14.74	2787	15.51	2880	17.06	•2978	•18.72	3092	20.59	3201	22.49		
7505	1900	2647	13.43	2699	14.21	2749	14.99	2798	15.77	2846	16.57	2938	18.18	3026	19.81	•3113	•21.50	3222	23.46	3327	25.45
7900	2000	2721	14.50	2764	15.26	2809	16.05	2858	16.87	2905	17.69	2997	19.36	3084	21.05	3168	22.76	•3249	• 24.50	•3349	•26.50
8690	2200	2871	16.84	2912	17.66	2953	18.49	2993	19.32	3032	20.16	3116	21.91	3202	23.71	3285	25.54	3365	27.39	3442	29.26
9480	2400	3024	19.50	3064	20.38	3104	21.26	3142	22.14	3180	23.04	3254	24.84	3325	26.66	3404	28.59	3483	30.55		
10270	2600	3184	22.51	3220	23.43	3258	24.36	3295	25.31	3332	26.25	3403	28.16	3472	30.10						
11060	2800	3360	25.96	3390	26.91	3420	27.87	3451	28.84	3487	29.84										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

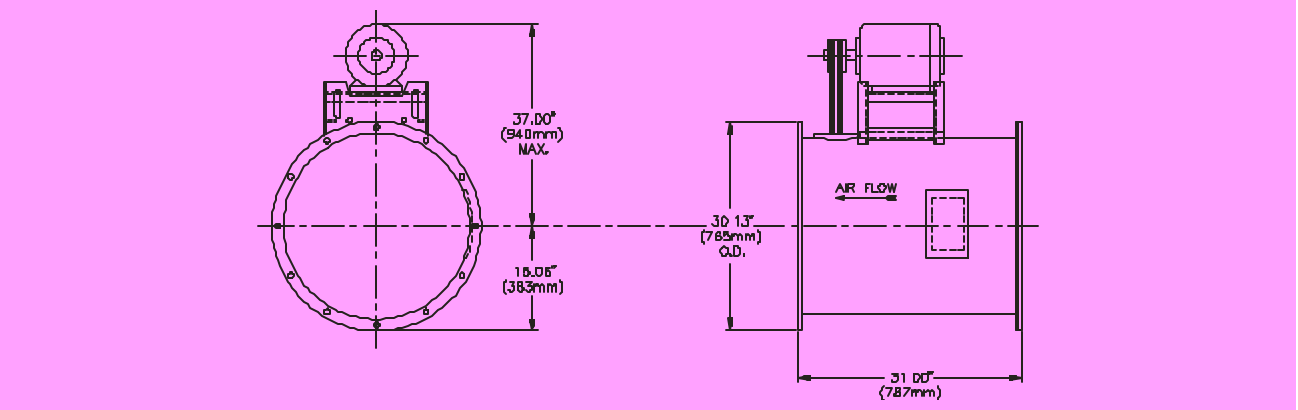
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

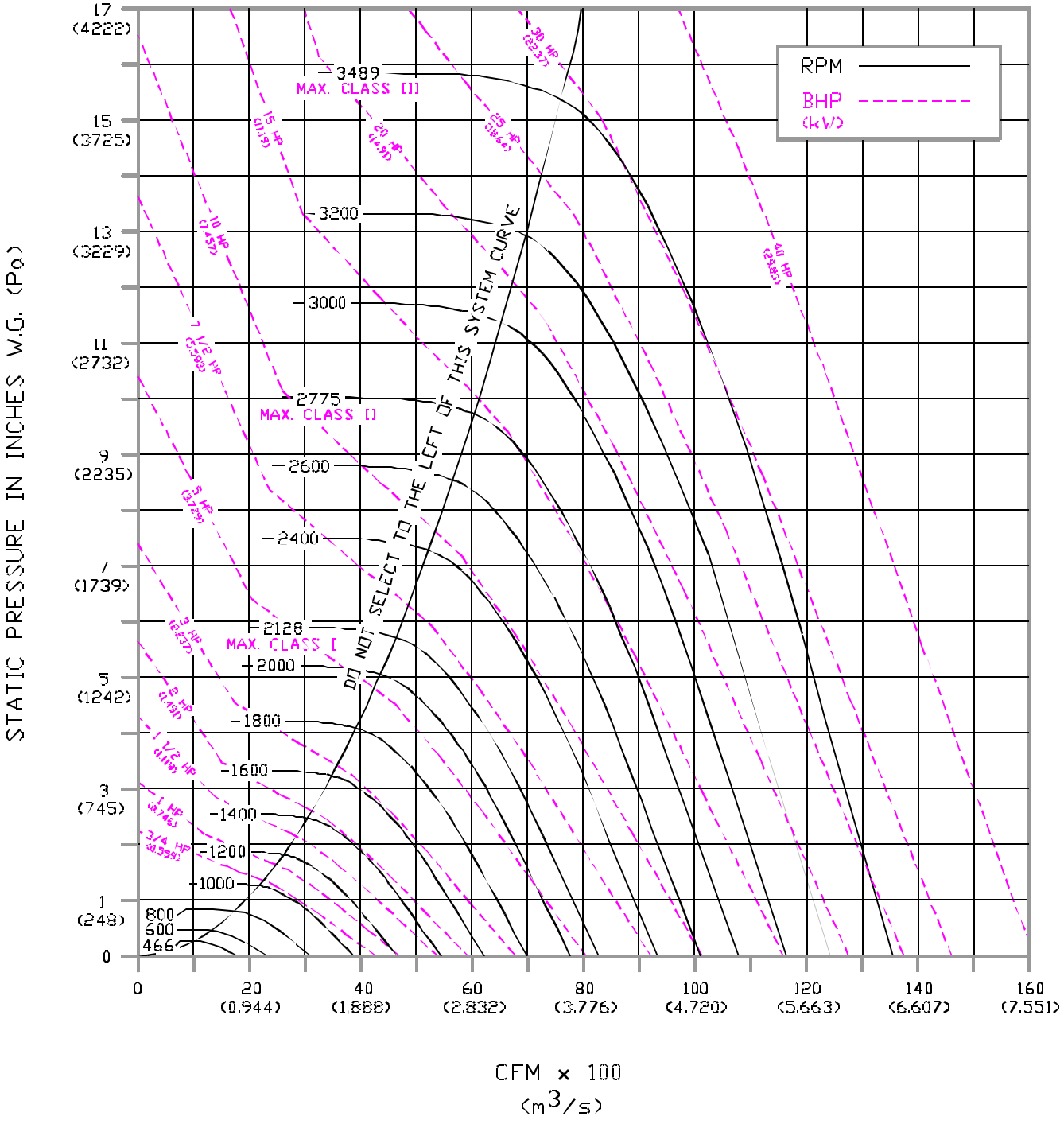
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 20





USTB SERIES

SIZE 22

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	22 1/4 inches	565 mm
Wheel Circumference	5.83 feet	1.777 m
Inlet Diameter/Area	29 15/16 inches dia./4.89 sq. ft.	760 mm/.4543 m^2
Outlet Diameter/Area	29 15/16 inches I.D./4.89 sq. ft.	760 mm/.4543 m^2
Tip Speed	5.82 x RPM ft./minute	1.774 x RPM m/minute
Maximum BHP	.889 x (RPM ÷ 1000)^3 BHP	.6629 x (RPM ÷ 1000)^3 kW

SIZE 22	-20° to 150°F -29° to 66°C
CLASS I	1913
CLASS II	2495
CLASS III	3137

VOL CFM	OUT VEL	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP		1 3/4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1467	300	•419	•0.09	•490	•0.14																
1956	400	479	0.13	531	0.18	•580	•0.24	•635	•0.30												
2445	500	550	0.20	593	0.25	634	0.31	677	0.38	•716	•0.44	•756	•0.52	802	0.60						
2933	600	630	0.28	663	0.35	700	0.41	735	0.48	769	0.56	805	0.64	•838	•0.72	•904	•0.88	980	1.08		
3422	700	712	0.40	743	0.47	771	0.54	803	0.62	834	0.70	863	0.79	892	0.87	953	1.05	•1008	•1.24	•1068	•1.45
3911	800	796	0.54	825	0.62	851	0.71	876	0.79	903	0.88	930	0.97	957	1.06	1007	1.25	1061	1.46	1112	1.67
4400	900	881	0.72	908	0.81	933	0.90	956	1.00	978	1.09	1000	1.19	1026	1.29	1073	1.50	1118	1.71	1165	1.94
4889	1000	967	0.94	992	1.04	1016	1.14	1038	1.25	1059	1.35	1079	1.46	1099	1.56	1142	1.79	1185	2.02	1226	2.25
5378	1100	1054	1.20	1077	1.31	1100	1.43	1120	1.54	1140	1.65	1159	1.77	1178	1.88	1214	2.12	1254	2.36	1294	2.62
5867	1200	1142	1.51	1164	1.63	1184	1.76	1204	1.88	1223	2.01	1241	2.13	1259	2.25	1293	2.50	1326	2.76	1363	3.03
6356	1300	1230	1.87	1250	2.00	1270	2.14	1289	2.28	1307	2.41	1324	2.54	1341	2.68	1374	2.95	1405	3.22	1435	3.50
6845	1400	1319	2.29	1338	2.44	1356	2.58	1374	2.72	1391	2.87	1408	3.02	1424	3.16	1455	3.45	1485	3.74	1514	4.03
7334	1500	1408	2.78	1426	2.93	1443	3.08	1460	3.24	1476	3.39	1492	3.55	1508	3.71	1538	4.01	1566	4.32	1594	4.63
7822	1600	1497	3.32	1514	3.49	1530	3.65	1546	3.81	1562	3.98	1577	4.15	1592	4.31	1621	4.64	1649	4.97	1675	5.30
8311	1700	1587	3.94	1602	4.11	1618	4.29	1633	4.46	1648	4.64	1663	4.81	1677	4.99	1705	5.35	1732	5.69	1757	6.04
8800	1800	1676	4.64	1691	4.82	1706	5.00	1721	5.18	1735	5.37	1749	5.55	1763	5.74	1790	6.12	1816	6.49	1840	6.86
9289	1900	1766	5.41	1781	5.60	1795	5.79	1809	5.99	1822	6.18	1836	6.38	1849	6.57	1875	6.97	1900	7.36	1924	7.75
9778	2000	1857	6.27	1870	6.47	1884	6.67	1897	6.87	1910	7.08	1923	7.28	1935	7.49	1960	7.90	1984	8.32	2008	8.74
10756	2200	2037	8.25	2050	8.47	2062	8.70	2074	8.92	2086	9.14	2098	9.36	2109	9.59	2132	10.04	2155	10.49	2177	10.95
11734	2400	2219	10.63	2230	10.87	2241	11.11	2252	11.35	2263	11.59	2274	11.83	2285	12.08	2307	12.57	2327	13.06	2348	13.55
12711	2600	2401	13.43	2411	13.69	2421	13.95	2432	14.21	2442	14.47	2452	14.73	2462	14.99	2482	15.52	2501	16.05	2521	16.58
13689	2800	2583	16.69	2592	16.97	2602	17.25	2612	17.53	2621	17.81	2631	18.09	2640	18.37	2658	18.94	2677	19.50	2695	20.07
14667	3000	2765	20.45	2774	20.75	2783	21.05	2792	21.35	2801	21.65	2810	21.95	2819	22.25	2836	22.85	2853	23.45	2870	24.06
15645	3200	2948	24.75	2957	25.07	2965	25.38	2973	25.70	2982	26.02	2990	26.34	2998	26.66	3014	27.30	3031	27.94	3047	28.58

VOL CFM	OUT VEL	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3422	700	1132	1.68																		
3911	800	•1160	•1.89	1269	2.39																
4400	900	1212	2.17	•1299	•2.65	1394	3.20	1492	3.80												
4889	1000	1266	2.50	1352	3.01	•1430	•3.55	•1511	•4.13	1602	4.78										
5378	1100	1331	2.88	1406	3.41	1483	3.98	1555	4.56	•1622	•5.16	1706	5.87	1787	6.60						
5867	1200	1399	3.31	1468	3.87	1537	4.46	1608	5.08	1674	5.71	•1737	•6.36	•1806	•7.06	1883	7.84	1956	8.64		
6356	1300	1469	3.79	1536	4.39	1598	5.00	1662	5.64	1727	6.30	1790	6.99	1849	7.68	•1906	•8.39	1975	9.20	2045	10.04
6845	1400	1542	4.33	1604	4.96	1665	5.61	1723	6.27	1781	6.95	1843	7.67	1902	8.40	1958	9.14	•2012	•9.89	•2064	•10.66
7334	1500	1621	4.95	1674	5.60	1734	6.28	1790	6.97	1844	7.68	1897	8.41	1955	9.17	2011	9.95	2064	10.73	2116	11.53
7822	1600	1701	5.63	1751	6.31	1803	7.02	1858	7.74	1911	8.48	1961	9.24	2010	10.00	2065	10.81	2118	11.64	2169	12.47
8311	1700	1782	6.39	1830	7.10	1876	7.83	1928	8.59	1979	9.36	2028	10.15	2076	10.95	2121	11.75	2172	12.60	2222	13.47
8800	1800	1864	7.22	1910	7.97	1955	8.73	1998	9.50	2048	10.31	2096	11.13	2143	11.97	2188	12.81	2231	13.66	2276	14.54
9289	1900	1947	8.14	1992	8.92	2034	9.71	2076	10.52	2118	11.34	2165	12.20	2211	13.06	2255	13.94	2298	14.83	2339	15.72
9778	2000	2030	9.14	2073	9.96	2115	10.78	2155	11.62	2194	12.47	2235	13.35	2280	14.25	2323	15.16	2365	16.08	2406	17.01
10756	2200	2199	11.41	2239	12.31	2278	13.20	2316	14.11	2353	15.03	2389	15.95	2423	16.89	2462	17.86	2503	18.85	2542	19.84
11734	2400	2368	14.05	2408	15.05	2444	16.02	2480	17.00	2515	17.98	2549	18.97	2582	19.98	2614	20.99	2646	22.01	2681	23.07
12711	2600	2540	17.12	2577	18.19	2613	19.28	2646	20.32	2679	21.37	2711	22.43	2743	23.50	2773	24.58	2804	25.67	2833	26.76
13689	2800	2713	20.64	2747	21.79	2781	22.95	2814	24.12	2846	25.24	2876	26.37	2906	27.51	2935	28.65	2964	29.80	2992	30.96
14667	3000	2887	24.67	2920	25.89	2952	27.13	2983	28.37	3014	29.61	3043	30.81	3072	32.02	3099	33.23	3127	34.45		
15645	3200	3062	29.23	3093	30.53	3124	31.83														

VOL CFM	OUT VEL	7" SP		7 1/2" SP		8" SP		8 1/2" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6356	1300	2112	10.90																		
6845	1400	2132	11.55	2197	12.46	2259	13.39														
7334	1500	•2166	•12.34	•2216	•13.17	2279	14.13	2339	15.10	2398	16.09										
7822	1600	2218	13.31	2266	14.16	•2313	•15.03	•2359	•15.91	2418	16.93	2531	19.01	2638	21.13						
8311	1700	2271	14.35	2319	15.24	2365	16.13	2410	17.04	•2453	•17.95	•2550	•19.94	2657	22.14	2760	24.38				
8800	1800	2325	15.45	2372	16.37	2418	17.31	2462	18.25	2505	19.19	2589	21.12	•2677	•23.17	2779	25.48	2877	27.83		
9289	1900	2379	16.62	2426	17.58	2471	18.55	2515	19.52	2558	20.51	2641	22.50	2720	24.53	•2798	•26.61	2897	29.03	2991	31.49
9778	2000	2446	17.94	2484	18.89	2525	19.87	2569	20.88	2611	21.90	2694	23.96	2772	26.05	2848	28.18	•2921	•30.33	•3010	•32.79
10756	2200	2580	20.85	2618	21.86	2654	22.88	2690	23.91	2725	24.95	2801	27.12	2878	29.35	2953	31.61	3024	33.90	3094	36.21
11734	2400	2718	24.14	2755	25.22	2790	26.31	2825	27.41	2859	28.51	2925	30.74	2988	33.00	3060	35.39	3130	37.81		
12711	2600	2862	27.87	2894	29.00	2928	30.16	2962	31.32	2995	32.50	3059	34.86	3121	37.25						
13689	2800	3020	32.13	3047	33.31	3074	34.49	3102	35.69	3134	36.93										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

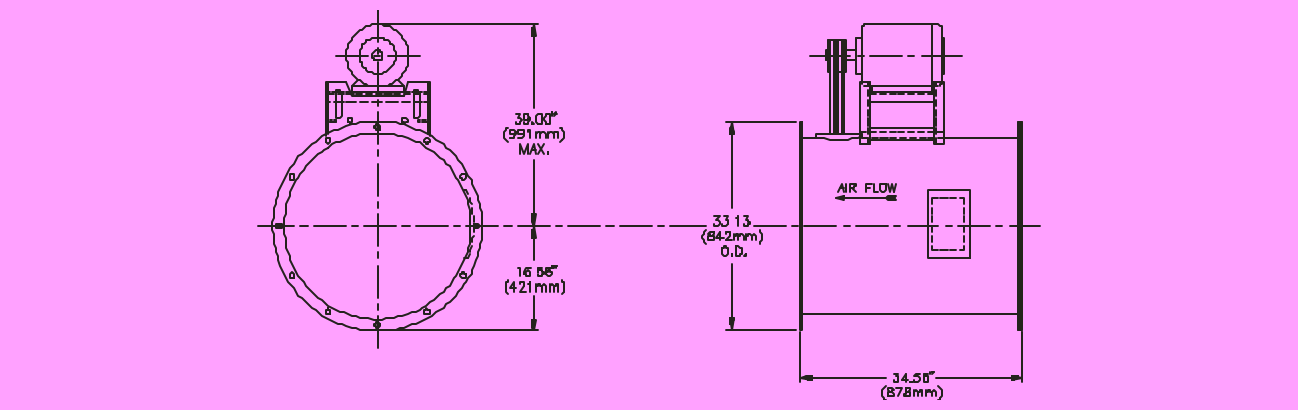
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

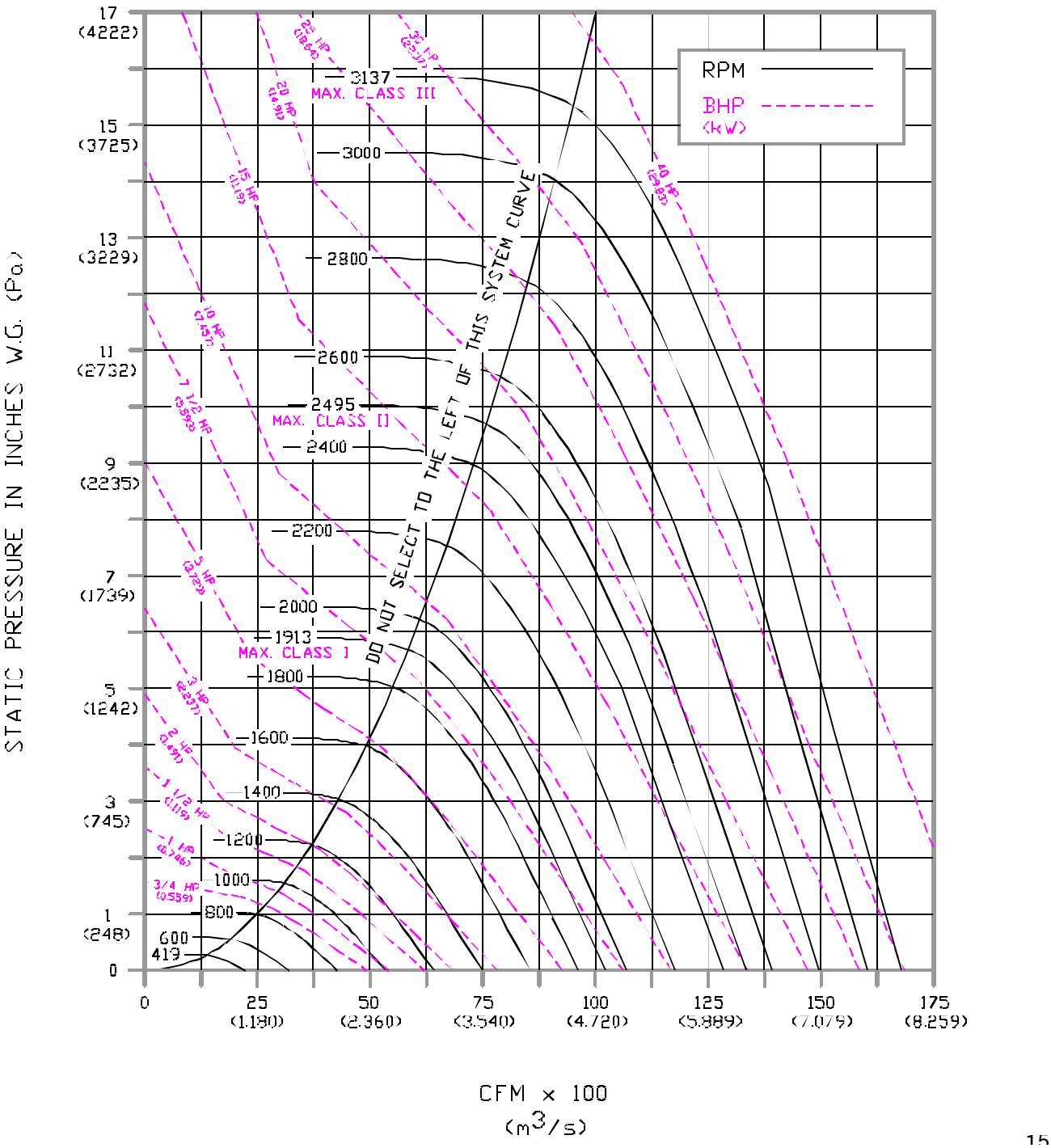
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 22





USTB SERIES

SIZE 24

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	24 ½ inches	622 mm
Wheel Circumference	6.41 feet	1.954 m
Inlet Diameter/Area	32 15/16 inches dia./5.92 sq. ft.	837 mm/.5500 m^2
Outlet Diameter/Area	32 15/16 inches I.D./5.92 sq. ft.	837 mm/.5500 m^2
Tip Speed	6.42 x RPM ft./minute	1.956 x RPM m/minute
Maximum BHP	1.824 x (RPM ÷ 1000)^3 BHP	1.360 x (RPM ÷ 1000)^3 kW

SIZE 24	-20° to 150°F -29° to 66°C
CLASS I	1738
CLASS II	2266
CLASS III	2849

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1779	300	•381	•0.11	•445	•0.16																
2372	400	435	0.16	482	0.22	•527	•0.29	•577	•0.36												
2965	500	499	0.24	539	0.31	576	0.38	614	0.46	•650	•0.54	•687	•0.63	728	0.73						
3557	600	572	0.34	602	0.42	636	0.50	667	0.59	699	0.68	731	0.77	•761	•0.87	•821	•1.07	890	1.31		
4150	700	647	0.48	675	0.57	701	0.66	729	0.75	757	0.85	784	0.95	810	1.06	865	1.28	•916	•1.50	•970	•1.76
4743	800	723	0.65	749	0.75	773	0.86	796	0.96	820	1.07	845	1.18	869	1.29	914	1.52	964	1.77	1010	2.03
5336	900	801	0.87	825	0.98	847	1.10	868	1.21	889	1.33	908	1.44	932	1.57	975	1.82	1016	2.08	1059	2.35
5929	1000	879	1.14	901	1.26	922	1.39	942	1.51	962	1.64	980	1.77	998	1.90	1037	2.17	1077	2.45	1114	2.73
6522	1100	958	1.45	979	1.59	999	1.73	1018	1.87	1036	2.01	1053	2.14	1070	2.28	1103	2.57	1139	2.87	1175	3.18
7115	1200	1037	1.83	1057	1.98	1076	2.13	1094	2.28	1111	2.43	1127	2.58	1144	2.73	1175	3.04	1204	3.35	1238	3.68
7708	1300	1117	2.27	1136	2.43	1153	2.60	1171	2.76	1187	2.93	1203	3.09	1218	3.25	1248	3.57	1276	3.91	1303	4.24
8301	1400	1198	2.78	1215	2.95	1232	3.13	1248	3.31	1264	3.48	1279	3.66	1294	3.83	1322	4.18	1349	4.53	1375	4.89
8894	1500	1279	3.37	1295	3.55	1311	3.74	1326	3.93	1341	4.11	1356	4.31	1370	4.50	1397	4.87	1423	5.24	1448	5.62
9486	1600	1360	4.03	1375	4.23	1390	4.43	1404	4.63	1419	4.83	1433	5.03	1446	5.23	1473	5.63	1497	6.03	1522	6.43
10079	1700	1441	4.78	1456	4.99	1470	5.20	1483	5.41	1497	5.62	1510	5.84	1523	6.05	1549	6.49	1573	6.90	1596	7.33
10672	1800	1523	5.63	1536	5.85	1550	6.07	1563	6.29	1576	6.51	1589	6.74	1601	6.96	1626	7.42	1649	7.87	1671	8.32
11265	1900	1605	6.56	1617	6.80	1630	7.03	1643	7.26	1655	7.50	1667	7.74	1679	7.97	1703	8.45	1726	8.93	1747	9.41
11858	2000	1686	7.61	1699	7.85	1711	8.09	1723	8.34	1735	8.59	1746	8.83	1758	9.08	1780	9.58	1802	10.09	1824	10.60
13044	2200	1851	10.01	1862	10.28	1873	10.55	1884	10.82	1895	11.09	1906	11.36	1916	11.63	1937	12.18	1957	12.73	1977	13.28
14230	2400	2015	12.90	2026	13.19	2036	13.48	2046	13.77	2056	14.06	2066	14.36	2076	14.65	2095	15.24	2114	15.84	2133	16.44
15415	2600	2181	16.29	2190	16.61	2199	16.92	2209	17.24	2218	17.55	2227	17.87	2236	18.19	2254	18.83	2272	19.47	2290	20.11
16601	2800	2346	20.25	2355	20.59	2364	20.93	2372	21.27	2381	21.61	2389	21.95	2398	22.29	2415	22.97	2431	23.66	2448	24.35
17787	3000	2512	24.82	2520	25.18	2528	25.54	2536	25.90	2544	26.26	2552	26.62	2560	26.99	2576	27.72	2592	28.45	2607	29.19
18973	3200	2678	30.03	2686	30.41	2693	30.80	2701	31.18	2708	31.57	2716	31.95	2723	32.34	2738	33.12	2753	33.89	2767	34.67

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4150	700	1028	2.04																		
4743	800	•1053	•2.29	1153	2.89																
5336	900	1101	2.64	•1180	•3.22	1266	3.88	1355	4.61												
5929	1000	1150	3.03	1228	3.65	•1299	•4.30	•1373	•5.00	1455	5.80										
6522	1100	1209	3.49	1277	4.14	1347	4.83	1412	5.53	•1473	•6.26	1550	7.12	1623	8.00						
7115	1200	1271	4.01	1333	4.69	1396	5.40	1460	6.16	1521	6.92	•1578	•7.71	•1640	•8.56	1710	9.51	1776	10.48		
7708	1300	1334	4.60	1395	5.32	1452	6.06	1509	6.83	1569	7.65	1625	8.47	1679	9.32	•1731	•10.17	1794	11.15	1857	12.18
8301	1400	1400	5.26	1457	6.02	1513	6.80	1565	7.60	1618	8.43	1674	9.30	1727	10.19	1778	11.08	•1828	•12.00	•1875	•12.92
8894	1500	1472	6.00	1521	6.79	1575	7.62	1626	8.46	1675	9.31	1723	10.19	1776	11.12	1826	12.06	1875	13.02	1922	13.99
9486	1600	1545	6.83	1590	7.66	1638	8.51	1688	9.39	1736	10.29	1781	11.20	1825	12.13	1875	13.12	1923	14.11	1970	15.12
10079	1700	1619	7.75	1662	8.61	1704	9.49	1751	10.41	1797	11.35	1842	12.31	1885	13.27	1927	14.25	1972	15.28	2018	16.34
10672	1800	1693	8.76	1735	9.67	1775	10.59	1815	11.53	1860	12.51	1904	13.50	1946	14.51	1987	15.53	2026	16.57	2068	17.63
11265	1900	1768	9.87	1809	10.82	1848	11.78	1885	12.76	1924	13.76	1967	14.80	2008	15.85	2048	16.91	2087	17.98	2125	19.07
11858	2000	1844	11.09	1883	12.08	1921	13.08	1958	14.10	1993	15.13	2030	16.19	2071	17.28	2110	18.38	2148	19.50	2185	20.62
13044	2200	1997	13.84	2034	14.93	2070	16.02	2104	17.11	2137	18.23	2170	19.35	2201	20.49	2236	21.66	2273	22.86	2309	24.07
14230	2400	2151	17.04	2187	18.26	2220	19.43	2253	20.62	2284	21.81	2315	23.02	2345	24.23	2374	25.46	2403	26.70	2435	27.98
15415	2600	2307	20.76	2340	22.07	2373	23.38	2404	24.65	2434	25.93	2463	27.21	2491	28.51	2519	29.82	2546	31.14	2573	32.46
16601	2800	2464	25.04	2496	26.44	2526	27.84	2556	29.25	2585	30.61	2612	31.98	2640	33.36	2666	34.75	2692	36.15	2718	37.56
17787	3000	2622	29.93	2652	31.41	2681	32.91	2710	34.41	2738	35.92	2764	37.37	2790	38.84	2815	40.31	2840	41.79		
18973	3200	2782	35.46	2810	37.03	2838	38.62														

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7708	1300	1918	13.22																		
8301	1400	1936	14.01	1995	15.11	2052	16.24														
8894	1500	•1967	•14.97	•2012	•15.97	2069	17.14	2125	18.32	2178	19.51										
9486	1600	2015	16.14	2058	17.18	•2100	•18.22	•2142	•19.29	2196	20.53	2298	23.05	2396	25.62						
10079	1700	2063	17.40	2106	18.48	2148	19.56	2188	20.66	•2228	•21.77	•2316	•24.18	2413	26.84	2507	29.56				
10672	1800	2112	18.74	2154	19.86	2196	20.99	2236	22.13	2275	23.28	2351	25.61	•2431	•28.09	2524	30.90	2613	33.75		
11265	1900	2161	20.16	2203	21.32	2244	22.50	2284	23.68	2323	24.87	2399	27.29	2471	29.74	•2541	•32.27	2631	35.21	2716	38.19
11858	2000	2221	21.76	2256	22.91	2294	24.10	2333	25.32	2372	26.56	2446	29.06	2518	31.60	2586	34.17	•2653	•36.78	•2734	•39.77
13044	2200	2344	25.29	2378	26.52	2411	27.75	2443	29.00	2475	30.26	2544	32.89	2614	35.59	2682	38.33	2747	41.11	2810	43.92
14230	2400	2469	29.28	2502	30.59	2534	31.91	2566	33.24	2596	34.58	2656	37.29	2714	40.03	2779	42.92	2843	45.86		
15415	2600	2600	33.80	2629	35.17	2660	36.58	2690	37.99	2720	39.41	2779	42.28	2835	45.18						
16601	2800	2743	38.98	2768	40.40	2792	41.84	2818	43.29	2847	44.80										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

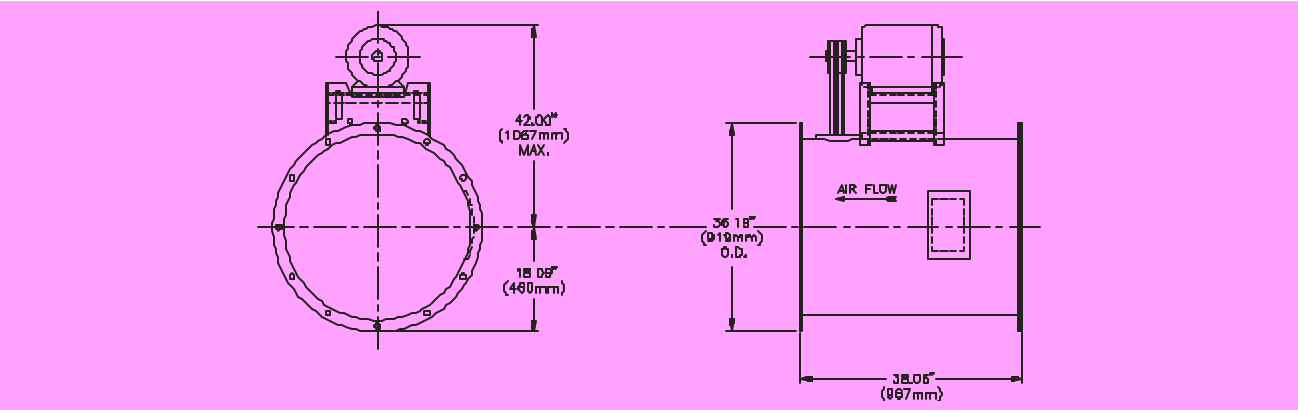
For minimum motor size required see page 6.

Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

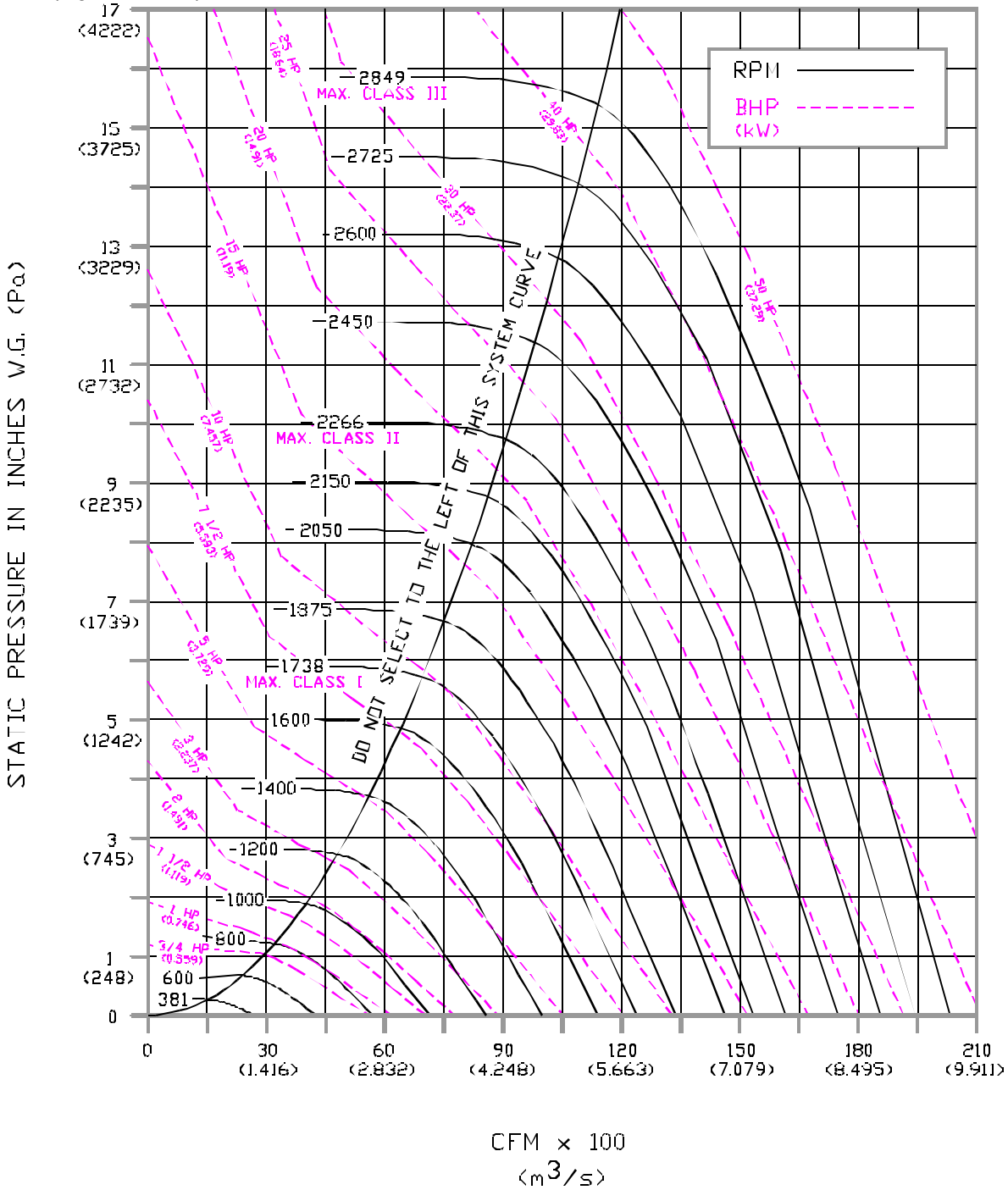
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

SIZE 24



See page 42 for complete dimensional data.



USTB SERIES

SIZE 27

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	27 inches	686 mm
Wheel Circumference	7.07 feet	2.155 m
Inlet Diameter/Area	36 7/16 inches dia./7.25 sq. ft.	926 mm/.6735 m^2
Outlet Diameter/Area	36 7/16 inches I.D./7.25 sq. ft.	926 mm/.6735 m^2
Tip Speed	7.07 x RPM ft./minute	2.155 x RPM m/minute
Maximum BHP	2.256 x (RPM ÷ 1000)^3 BHP	1.682 x (RPM ÷ 1000)^3 kW

SIZE 27	-20° to 150°F -29° to 66°C
CLASS I	1622
CLASS II	2118
CLASS III	2658

VOL CFM	OUT VEL	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP		1 3/4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2161	300	•348	•0.13	•410	•0.19																
2881	400	400	0.19	442	0.26	•484	•0.34	•530	•0.42												
3602	500	460	0.28	496	0.36	529	0.45	563	0.54	•596	•0.63	•630	•0.73	669	0.85						
4322	600	525	0.39	556	0.49	586	0.59	614	0.69	641	0.80	670	0.91	•696	•1.02	•753	•1.26	819	1.54		
5042	700	593	0.55	620	0.66	646	0.77	671	0.88	697	1.00	721	1.12	744	1.25	792	1.50	•840	•1.77	•888	•2.05
5762	800	662	0.75	687	0.87	711	0.99	733	1.12	755	1.24	778	1.38	800	1.51	841	1.79	883	2.08	924	2.38
6483	900	732	0.99	755	1.13	777	1.26	798	1.40	819	1.54	838	1.68	858	1.83	898	2.14	935	2.45	971	2.77
7203	1000	804	1.30	825	1.44	845	1.59	865	1.74	884	1.89	902	2.05	920	2.21	955	2.53	991	2.87	1025	3.22
7923	1100	876	1.66	895	1.82	914	1.98	932	2.14	950	2.31	968	2.48	985	2.65	1017	2.99	1049	3.35	1082	3.72
8644	1200	948	2.09	966	2.26	984	2.43	1001	2.61	1018	2.79	1034	2.97	1050	3.15	1081	3.52	1111	3.90	1140	4.29
9364	1300	1021	2.60	1038	2.78	1055	2.97	1071	3.15	1086	3.34	1102	3.54	1117	3.73	1147	4.13	1175	4.53	1202	4.94
10084	1400	1095	3.18	1111	3.38	1126	3.58	1141	3.78	1156	3.98	1170	4.18	1185	4.39	1213	4.81	1240	5.24	1266	5.68
10805	1500	1169	3.85	1184	4.06	1198	4.27	1212	4.49	1226	4.70	1240	4.92	1254	5.14	1280	5.59	1306	6.04	1331	6.50
11525	1600	1243	4.61	1257	4.83	1271	5.06	1284	5.29	1297	5.52	1310	5.74	1323	5.98	1349	6.45	1373	6.93	1397	7.41
12245	1700	1317	5.47	1330	5.71	1343	5.95	1356	6.19	1369	6.43	1381	6.67	1393	6.91	1417	7.41	1441	7.91	1464	8.43
12965	1800	1391	6.43	1404	6.68	1416	6.94	1429	7.19	1441	7.44	1453	7.70	1464	7.96	1487	8.48	1510	9.00	1532	9.54
13686	1900	1466	7.51	1478	7.77	1490	8.04	1502	8.30	1513	8.57	1524	8.84	1536	9.11	1557	9.65	1579	10.20	1600	10.76
14406	2000	1541	8.70	1552	8.98	1563	9.25	1575	9.53	1586	9.81	1596	10.10	1607	10.38	1628	10.95	1649	11.52	1669	12.11
15847	2200	1691	11.45	1701	11.76	1711	12.06	1722	12.37	1732	12.68	1742	12.98	1752	13.29	1771	13.92	1790	14.54	1809	15.17
17287	2400	1841	14.75	1851	15.08	1860	15.41	1870	15.74	1879	16.08	1888	16.41	1897	16.75	1915	17.42	1933	18.10	1950	18.78
18728	2600	1992	18.63	2001	18.99	2009	19.35	2018	19.71	2027	20.07	2035	20.43	2044	20.79	2061	21.52	2077	22.25	2093	22.98
20168	2800	2143	23.16	2151	23.55	2159	23.93	2167	24.32	2175	24.70	2183	25.09	2191	25.48	2207	26.26	2222	27.04	2238	27.82
21609	3000	2294	28.38	2302	28.79	2309	29.20	2317	29.61	2324	30.03	2332	30.44	2339	30.85	2354	31.68	2369	32.52	2383	33.36
23050	3200	2446	34.34	2453	34.78	2460	35.21	2467	35.65	2474	36.09	2481	36.53	2488	36.97	2502	37.85	2516	38.74	2529	39.63

VOL CFM	OUT VEL	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5042	700	946	2.39																		
5762	800	•967	•2.69	1059	3.39																
6483	900	1008	3.10	•1083	•3.79	•1161	•4.54														
7203	1000	1057	3.57	1124	4.30	1191	5.06	•1258	•5.86	1337	6.80										
7923	1100	1113	4.10	1172	4.87	1233	5.68	1293	6.51	•1355	•7.38	1421	8.32	1494	9.38						
8644	1200	1170	4.70	1227	5.52	1281	6.37	1337	7.24	1391	8.14	•1449	•9.08	•1504	•10.03	1569	11.13	1635	12.29		
9364	1300	1228	5.36	1284	6.24	1336	7.13	1385	8.05	1437	9.00	1487	9.96	1539	10.96	•1592	•11.98	•1642	•13.02	1705	14.25
10084	1400	1291	6.12	1342	7.03	1392	7.98	1440	8.95	1486	9.93	1534	10.95	1581	11.98	1627	13.03	1677	14.12	•1725	•15.23
10805	1500	1355	6.97	1402	7.92	1450	8.91	1497	9.93	1541	10.96	1584	12.02	1628	13.10	1673	14.19	1715	15.30	1760	16.45
11525	1600	1421	7.91	1465	8.91	1508	9.93	1554	10.99	1597	12.08	1639	13.18	1679	14.31	1720	15.45	1762	16.61	1803	17.78
12245	1700	1487	8.94	1530	9.99	1571	11.06	1612	12.16	1655	13.29	1696	14.45	1735	15.62	1773	16.80	1810	18.01	1850	19.23
12965	1800	1554	10.08	1595	11.18	1635	12.30	1674	13.44	1713	14.61	1753	15.81	1791	17.03	1829	18.26	1865	19.52	1900	20.78
13686	1900	1621	11.33	1661	12.48	1700	13.65	1737	14.84	1773	16.04	1811	17.28	1849	18.55	1885	19.83	1921	21.13	1955	22.45
14406	2000	1689	12.70	1728	13.90	1766	15.12	1802	16.36	1837	17.61	1871	18.88	1907	20.19	1942	21.52	1977	22.87	2011	24.23
15847	2200	1827	15.81	1863	17.11	1899	18.43	1933	19.76	1966	21.11	1998	22.48	2030	23.86	2060	25.26	2093	26.70	2125	28.16
17287	2400	1967	19.47	2001	20.85	2034	22.27	2066	23.71	2098	25.16	2128	26.63	2158	28.11	2187	29.60	2216	31.11	2243	32.63
18728	2600	2109	23.72	2141	25.21	2171	26.71	2202	28.25	2232	29.80	2261	31.36	2289	32.94	2317	34.53	2344	36.13	2371	37.75
20168	2800	2253	28.61	2282	30.20	2311	31.80	2339	33.42	2367	35.07	2395	36.73	2422	38.41	2449	40.10	2475	41.80	2500	43.51
21609	3000	2397	34.19	2425	35.88	2452	37.58	2479	39.30	2505	41.03	2531	42.79	2557	44.57	2582	46.35	2607	48.15	2632	49.96
23050	3200	2542	40.52	2569	42.31	2594	44.11	2620	45.92	2644	47.75										

VOL CFM	OUT VEL	7" SP		7 1/2" SP		8" SP		8 1/2" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9364	1300	1766	15.51																		
10084	1400	•1772	•16.36	1831	17.69	1888	19.04														
10805	1500	1806	17.62	•1851	•18.81	•1894	•20.01	1949	21.43	2002	22.86										
11525	1600	1842	18.97	1886	20.21	1929	21.46	•1970	•22.72	•2011	•23.99	2111	26.99								
12245	1700	1889	20.47	1927	21.72	1964	22.99	2005	24.31	2046	25.63	•2123	•28.32	2215	31.41	2307	34.67				
12965	1800	1936	22.07	1974	23.37	2010	24.69	2046	26.01	2081	27.36	2158	30.15	•2232	•32.98	2314	36.13	2403	39.55		
13686	1900	1989	23.78	2021	25.12	2057	26.49	2093	27.86	2127	29.25	2193	32.07	2267	35.01	•2337	•37.99	•2409	•41.13	2495	44.72
14406	2000	2044	25.61	2076	27.00	2108	28.40	2140	29.82	2174	31.26	2240	34.17	2302	37.13	2372	40.21	2439	43.33	•2504	•46.49
15847	2200	2157	29.63	2188	31.12	2219	32.62	2249	34.13	2278	35.65	2334	38.74	2396	41.89	2455	45.08	2512	48.31	2573	51.65
17287	2400	2273	34.18	2303	35.77	2333	37.36	2362	38.97	2390	40.59	2445	43.86	2498	47.18	2549	50.55	2606	53.98		
18728	2600	2397	39.38	2422	41.02	2449	42.68	2477	44.39	2504	46.10	2558	49.57	2609	53.08						
20168	2800	2525	45.23	2550	46.97	2574	48.72	2598	50.47	2621	52.24										
21609	3000	2656	51.78																		

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ▢ CL. III ▢

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

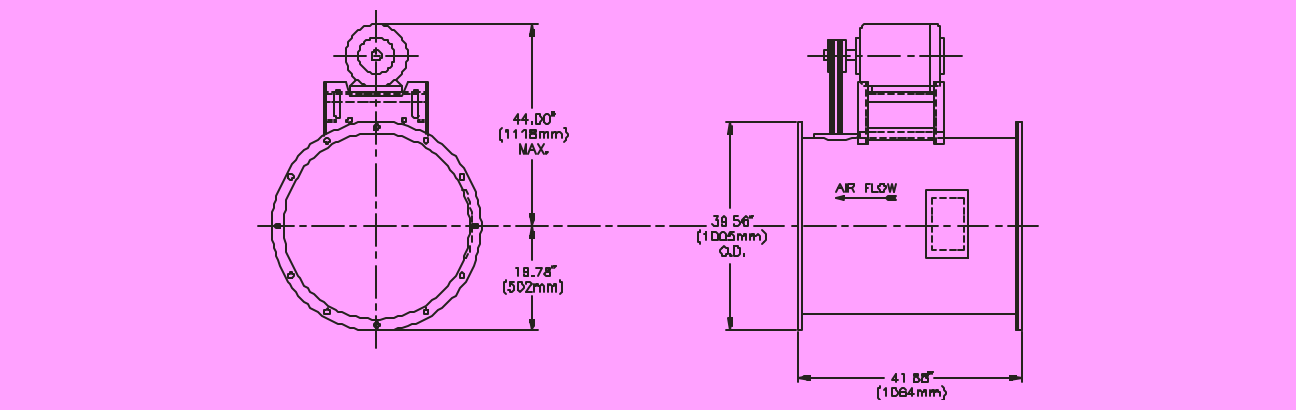
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

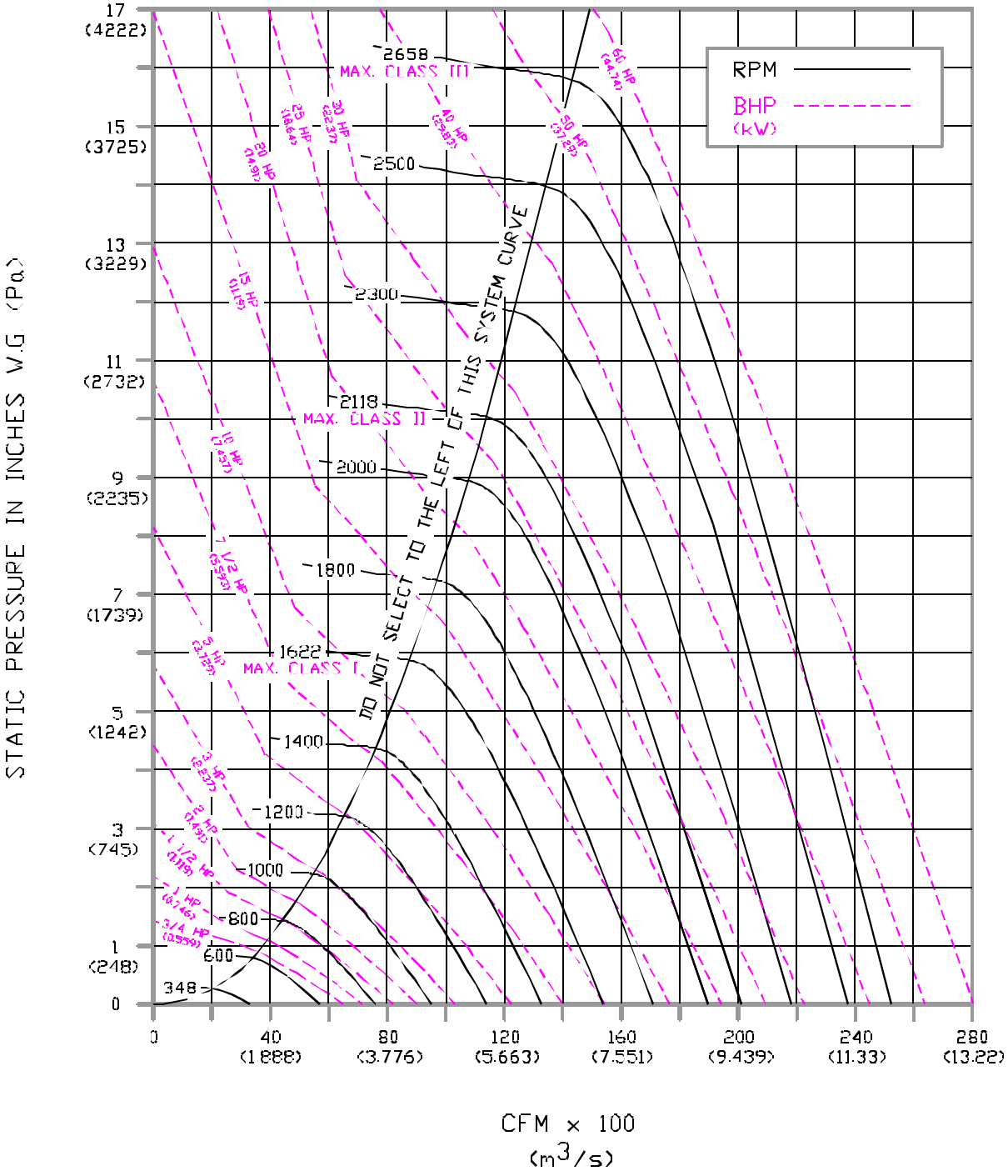
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 27





USTB SERIES

SIZE 30

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	30 inches	762 mm
Wheel Circumference	7.85 feet	2.393 m
Inlet Diameter/Area	40 3/16 inches dia./8.81 sq. ft.	1021 mm/.8185 m^2
Outlet Diameter/Area	40 3/16 inches I.D./8.81 sq. ft.	1021 mm/.8185 m^2
Tip Speed	7.85 x RPM ft./minute	2.393 RPM m/minute
Maximum BHP	3.826 x (RPM ÷ 1000)^3 BHP	2.853 x (RPM ÷ 1000)^3 kW

SIZE 30	-20° to 150°F -29° to 66°C
CLASS I	1455
CLASS II	1900
CLASS III	2386

VOL CFM	OUT VEL	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP		1 3/4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2667	300	•315	•0.15	•365	•0.22																
3556	400	363	0.22	400	0.31	•436	•0.39	•473	•0.49	513	0.59										
4445	500	417	0.33	449	0.42	479	0.53	509	0.63	•538	•0.74	•566	•0.85	•597	•0.97						
5333	600	477	0.47	504	0.58	531	0.70	556	0.81	581	0.94	606	1.06	629	1.19	•678	•1.46	•729	•1.75		
6222	700	541	0.66	563	0.78	586	0.91	609	1.04	631	1.18	653	1.32	674	1.46	716	1.76	758	2.06	•798	•2.38
7111	800	605	0.90	625	1.04	645	1.18	665	1.33	685	1.48	705	1.63	725	1.79	762	2.11	799	2.44	835	2.78
8000	900	671	1.21	689	1.36	707	1.51	724	1.67	742	1.83	760	2.00	778	2.17	813	2.52	846	2.88	879	3.25
8889	1000	738	1.58	755	1.74	771	1.91	787	2.09	802	2.26	818	2.44	834	2.63	866	3.00	898	3.39	928	3.79
9778	1100	806	2.03	821	2.21	836	2.39	850	2.58	864	2.77	878	2.96	893	3.16	922	3.56	951	3.97	980	4.40
10667	1200	873	2.56	887	2.75	901	2.95	915	3.15	928	3.36	941	3.56	954	3.77	980	4.20	1007	4.64	1033	5.09
11556	1300	942	3.18	955	3.39	967	3.60	980	3.82	993	4.04	1005	4.26	1017	4.48	1040	4.93	1065	5.40	1090	5.88
12445	1400	1010	3.90	1022	4.12	1034	4.35	1046	4.58	1058	4.81	1069	5.05	1081	5.29	1103	5.77	1125	6.26	1148	6.77
13334	1500	1079	4.72	1090	4.96	1102	5.21	1113	5.45	1123	5.70	1134	5.95	1145	6.20	1166	6.71	1187	7.23	1207	7.76
14222	1600	1148	5.66	1159	5.92	1169	6.17	1180	6.44	1190	6.70	1200	6.96	1210	7.23	1231	7.77	1250	8.32	1269	8.87
15111	1700	1217	6.72	1227	6.99	1237	7.26	1247	7.54	1257	7.82	1267	8.10	1276	8.38	1295	8.95	1314	9.53	1332	10.11
16000	1800	1286	7.90	1296	8.19	1306	8.48	1315	8.77	1324	9.07	1333	9.36	1342	9.66	1360	10.25	1378	10.86	1396	11.48
16889	1900	1356	9.23	1365	9.53	1374	9.84	1383	10.14	1392	10.45	1401	10.76	1409	11.07	1426	11.70	1443	12.33	1460	12.98
17778	2000	1425	10.70	1434	11.02	1443	11.34	1451	11.66	1460	11.98	1468	12.30	1476	12.63	1492	13.29	1509	13.95	1525	14.62
19556	2200	1565	14.09	1573	14.44	1581	14.79	1588	15.15	1596	15.50	1604	15.85	1611	16.21	1626	16.93	1641	17.65	1655	18.37
21334	2400	1704	18.16	1712	18.54	1719	18.92	1726	19.30	1733	19.69	1740	20.07	1747	20.46	1761	21.23	1775	22.01	1788	22.80
23111	2600	1844	22.96	1851	23.37	1858	23.78	1865	24.19	1871	24.60	1878	25.02	1884	25.44	1897	26.27	1910	27.11	1922	27.95
24889	2800	1985	28.54	1991	28.98	1997	29.43	2003	29.87	2010	30.31	2016	30.76	2022	31.20	2034	32.10	2045	33.00	2057	33.90
26667	3000	2125	34.98	2131	35.45	2137	35.93	2143	36.40	2148	36.87	2154	37.35	2160	37.82	2171	38.78	2182	39.74	2193	40.70
28445	3200	2266	42.34	2272	42.84	2277	43.34	2282	43.85	2288	44.35	2293	44.86	2298	45.36	2309	46.38	2319	47.39	2329	48.41

VOL CFM	OUT VEL	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6222	700	•843	•2.72																		
7111	800	872	3.14	•946	•3.88	1026	4.72														
8000	900	912	3.63	977	4.41	•1040	•5.24	1110	6.13												
8889	1000	957	4.20	1016	5.03	1075	5.90	•1132	•6.80	•1193	•7.76	1257	8.80								
9778	1100	1008	4.83	1061	5.73	1115	6.65	1168	7.60	1220	8.57	•1273	•9.59	1330	10.68	1388	11.84				
10667	1200	1060	5.56	1111	6.50	1160	7.48	1209	8.48	1257	9.51	1306	10.57	•1353	•11.64	•1403	•12.78	1456	13.97	1509	15.24
11556	1300	1114	6.36	1163	7.37	1210	8.40	1255	9.46	1300	10.54	1343	11.64	1389	12.78	1434	13.93	•1476	•15.10	•1524	•16.35
12445	1400	1171	7.28	1216	8.33	1261	9.42	1304	10.54	1345	11.68	1388	12.84	1429	14.01	1470	15.22	1512	16.45	1553	17.69
13334	1500	1229	8.30	1271	9.40	1314	10.55	1356	11.72	1395	12.91	1434	14.13	1474	15.36	1512	16.62	1550	17.89	1589	19.19
14222	1600	1288	9.44	1329	10.60	1367	11.78	1408	13.01	1447	14.26	1484	15.53	1520	16.82	1557	18.14	1594	19.46	1630	20.81
15111	1700	1350	10.70	1387	11.91	1424	13.15	1461	14.42	1499	15.73	1536	17.06	1571	18.40	1605	19.77	1639	21.16	1674	22.56
16000	1800	1413	12.09	1446	13.35	1483	14.65	1517	15.97	1553	17.32	1588	18.71	1623	20.11	1656	21.53	1688	22.97	1720	24.43
16889	1900	1477	13.62	1509	14.94	1541	16.28	1575	17.66	1608	19.05	1641	20.49	1675	21.95	1708	23.43	1739	24.92	1770	26.44
17778	2000	1541	15.30	1572	16.67	1602	18.06	1634	19.49	1665	20.94	1696	22.41	1728	23.93	1760	25.46	1791	27.02	1822	28.58
19556	2200	1670	19.11	1699	20.60	1727	22.10	1754	23.62	1783	25.18	1812	26.76	1840	28.37	1868	29.98	1897	31.65	1926	33.33
21334	2400	1801	23.59	1828	25.19	1855	26.81	1880	28.45	1905	30.10	1930	31.78	1957	33.49	1983	35.22	2009	36.97	2034	38.73
23111	2600	1934	28.80	1959	30.51	1984	32.25	2008	34.00	2031	35.77	2054	37.55	2077	39.35	2101	41.18	2125	43.04	2149	44.91
24889	2800	2069	34.81	2091	36.63	2114	38.48	2137	40.34	2159	42.23	2181	44.12	2202	46.03	2223	47.96	2244	49.90	2267	51.88
26667	3000	2204	41.66	2225	43.60	2246	45.56	2267	47.54	2288	49.53	2309	51.54	2329	53.57	2349	55.60	2369	57.65		
28445	3200	2340	49.44	2360	51.49	2380	53.56														

VOL CFM	OUT VEL	7" SP		7 1/2" SP		8" SP		8 1/2" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11556	1300	1572	17.64	1621	18.99	1672	20.44														
12445	1400	•1592	•18.95	•1637	•20.30	1682	21.69	1726	23.09	1773	24.64										
13334	1500	1628	20.51	1666	21.84	•1703	•23.19	•1744	•24.63	1786	26.11	1870	29.17								
14222	1600	1665	22.17	1702	23.56	1739	24.97	1774	26.39	•1808	•27.83	•1885	•30.90	1962	34.07	2045	37.58				
15111	1700	1708	23.97	1741	25.40	1775	26.86	1810	28.34	1844	29.83	1910	32.86	•1980	•36.06	2054	39.41	2129	42.97		
16000	1800	1753	25.90	1786	27.39	1818	28.89	1848	30.41	1881	31.95	1946	35.10	2008	38.29	•2072	•41.60	2142	45.12	2210	48.69
16889	1900	1800	27.97	1831	29.51	1862	31.07	1893	32.64	1923	34.23	1982	37.46	2044	40.77	2104	44.12	•2161	•47.51	•2228	•51.21
17778	2000	1851	30.17	1880	31.77	1908	33.39	1938	35.02	1967	36.66	2024	39.98	2081	43.37	2140	46.84	2196	50.35	2251	53.90
19556	2200	1955	35.03	1982	36.74	2009	38.47	2036	40.21	2062	41.96	2114	45.51	2168	49.11	2219	52.75	2269	56.45	2323	60.23
21334	2400	2061	40.53	2087	42.36	2114	44.20	2139	46.05	2165	47.91	2213	51.68	2261	55.50	2309	59.37	2358	63.28		
23111	2600	2173	46.80	2196	48.70	2220	50.63	2245	52.59	2269	54.57	2317	58.56	2363	62.60						
24889	2800	2289	53.88	2312	55.89	2334	57.91	2355	59.94	2376	61.99										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

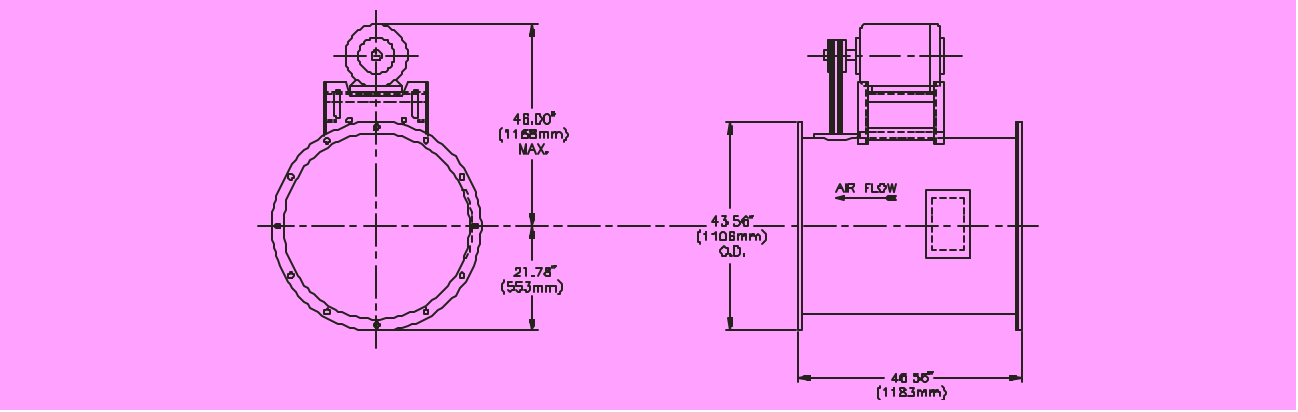
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

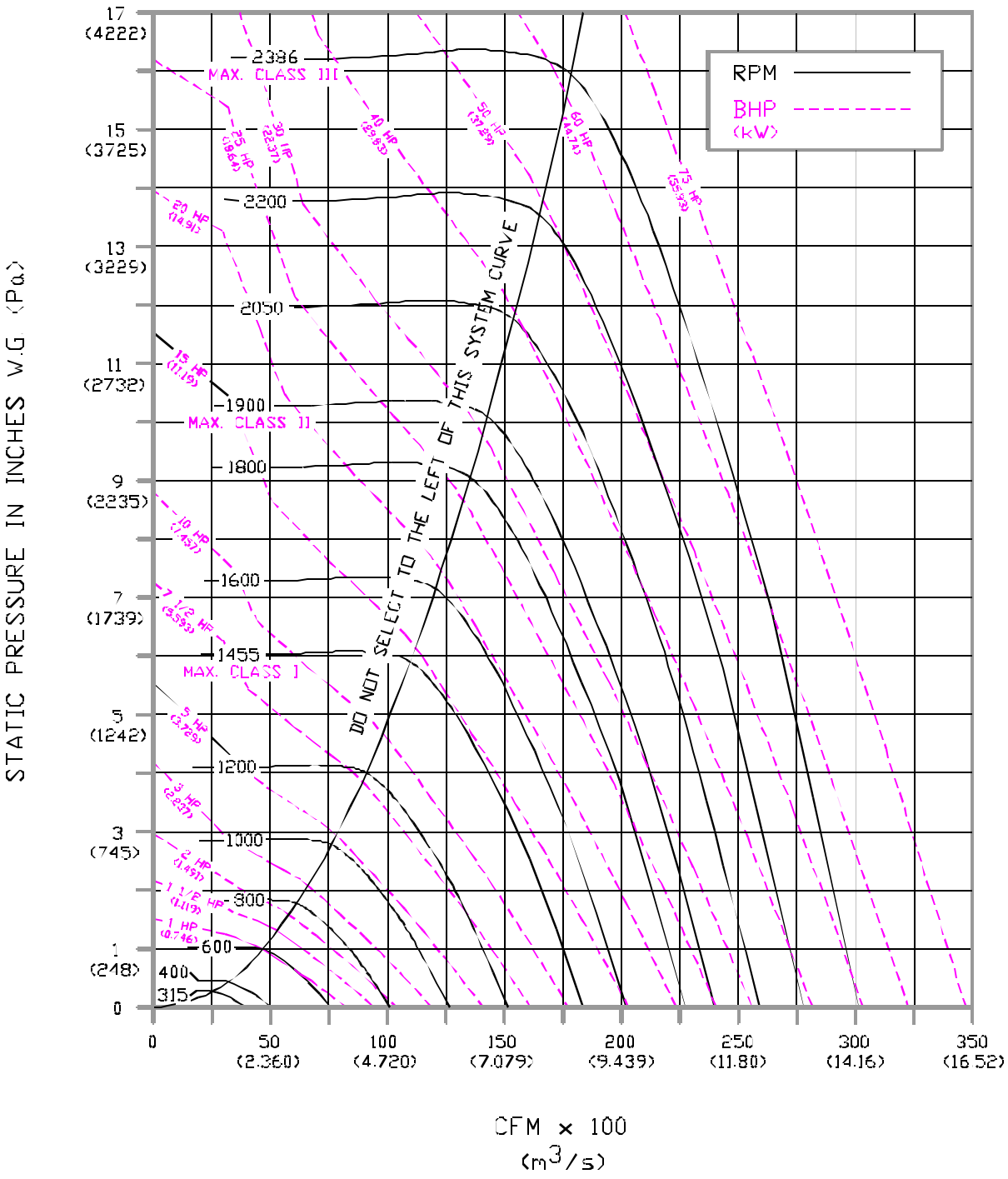
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 30





USTB SERIES

SIZE 33

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	33 inches	838 mm
Wheel Circumference	8.64 feet	2.633 m
Inlet Diameter/Area	44 $\frac{9}{16}$ inches dia./10.8 sq. ft.	1132 mm/1.003 m^2
Outlet Diameter/Area	44 $\frac{9}{16}$ inches I.D./10.8 sq. ft.	1132 mm/1.003 m^2
Tip Speed	8.64 x RPM ft./minute	2.633 x RPM m/minute
Maximum BHP	6.153 x (RPM ÷ 1000)^3 BHP	4.588 x (RPM ÷ 1000)^3 kW

SIZE 33	-20° to 150°F -29° to 66°C
CLASS I	1323
CLASS II	1727
CLASS III	2169

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3228	300	•286	•0.18	•332	•0.27																
4304	400	330	0.27	363	0.37	•397	•0.48	•430	•0.59	467	0.72										
5380	500	379	0.40	409	0.51	435	0.64	462	0.76	•489	•0.89	•515	•1.03	•543	•1.18						
6456	600	434	0.57	458	0.70	483	0.84	506	0.99	528	1.13	551	1.29	572	1.44	•616	•1.77	•663	•2.12		
7532	700	492	0.80	512	0.95	533	1.10	554	1.26	574	1.43	594	1.60	613	1.77	651	2.13	689	2.50	•726	•2.88
8608	800	550	1.09	569	1.26	586	1.43	605	1.61	623	1.79	641	1.97	659	2.16	693	2.55	727	2.96	759	3.37
9684	900	610	1.46	627	1.65	643	1.83	658	2.02	675	2.22	691	2.42	707	2.63	739	3.05	769	3.49	799	3.94
10760	1000	671	1.91	686	2.11	701	2.32	715	2.53	729	2.74	744	2.96	758	3.18	787	3.63	816	4.11	844	4.59
11836	1100	733	2.45	746	2.67	760	2.90	773	3.12	786	3.35	799	3.58	812	3.82	838	4.31	865	4.81	891	5.33
12912	1200	794	3.10	807	3.33	819	3.57	832	3.82	844	4.07	856	4.32	867	4.57	891	5.09	916	5.62	940	6.16
13988	1300	856	3.85	868	4.10	880	4.36	891	4.62	903	4.89	914	5.16	925	5.43	946	5.98	969	6.54	991	7.12
15064	1400	919	4.72	930	4.99	941	5.27	951	5.55	962	5.83	972	6.12	983	6.41	1003	6.99	1023	7.58	1044	8.19
16140	1500	981	5.72	992	6.01	1002	6.31	1012	6.60	1022	6.90	1032	7.21	1042	7.51	1061	8.13	1079	8.76	1098	9.40
17216	1600	1044	6.85	1054	7.17	1063	7.48	1073	7.79	1082	8.11	1091	8.43	1101	8.76	1119	9.41	1137	10.08	1154	10.75
18292	1700	1107	8.14	1116	8.47	1125	8.80	1134	9.13	1143	9.47	1152	9.81	1160	10.15	1178	10.84	1195	11.54	1212	12.24
19368	1800	1170	9.58	1179	9.92	1187	10.27	1196	10.63	1204	10.98	1213	11.34	1221	11.70	1237	12.42	1254	13.16	1270	13.90
20444	1900	1233	11.18	1241	11.55	1250	11.92	1258	12.29	1266	12.66	1274	13.03	1281	13.41	1297	14.17	1313	14.94	1328	15.72
21520	2000	1296	12.96	1304	13.34	1312	13.73	1320	14.12	1327	14.51	1335	14.90	1343	15.30	1357	16.09	1372	16.89	1387	17.71
23672	2200	1423	17.07	1430	17.50	1437	17.92	1444	18.35	1452	18.78	1458	19.20	1465	19.64	1479	20.50	1492	21.37	1505	22.25
25824	2400	1550	22.00	1557	22.46	1563	22.92	1570	23.38	1576	23.85	1583	24.31	1589	24.78	1602	25.72	1614	26.66	1626	27.61
27976	2600	1677	27.81	1684	28.31	1690	28.80	1696	29.30	1702	29.80	1708	30.31	1714	30.81	1725	31.82	1737	32.84	1748	33.86
30128	2800	1805	34.58	1811	35.11	1816	35.65	1822	36.18	1828	36.72	1833	37.26	1839	37.80	1849	38.88	1860	39.97	1871	41.06
32280	3000	1933	42.38	1938	42.95	1943	43.52	1949	44.09	1954	44.67	1959	45.24	1964	45.82	1974	46.97	1984	48.13	1994	49.30
34432	3200	2061	51.29	2066	51.90	2071	52.51	2076	53.12	2080	53.73	2085	54.34	2090	54.95	2100	56.18	2109	57.41	2118	58.64

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7532	700	•767	•3.30																		
8608	800	793	3.80	•860	•4.70	933	5.72														
9684	900	829	4.40	888	5.34	•946	•6.34	1009	7.42												
10760	1000	870	5.08	924	6.09	977	7.14	•1029	•8.23	•1085	•9.40	1142	10.65								
11836	1100	917	5.85	965	6.93	1014	8.05	1062	9.20	1110	10.38	•1157	•11.61	1209	12.93	1262	14.33				
12912	1200	964	6.73	1011	7.88	1055	9.06	1100	10.27	1143	11.51	1188	12.79	•1230	•14.09	•1276	•15.47	1323	16.91	1372	18.44
13988	1300	1013	7.71	1058	8.93	1100	10.18	1141	11.46	1182	12.76	1222	14.10	1263	15.47	1304	16.86	•1342	•18.28	•1386	•19.80
15064	1400	1065	8.81	1106	10.09	1147	11.41	1186	12.76	1223	14.14	1262	15.54	1299	16.96	1337	18.42	1375	19.91	1412	21.42
16140	1500	1118	10.05	1156	11.39	1195	12.77	1233	14.19	1269	15.63	1304	17.11	1340	18.60	1375	20.12	1409	21.65	1445	23.23
17216	1600	1171	11.43	1208	12.83	1243	14.27	1280	15.75	1316	17.27	1350	18.81	1382	20.37	1416	21.96	1449	23.56	1482	25.19
18292	1700	1228	12.96	1261	14.42	1295	15.92	1329	17.46	1363	19.04	1397	20.65	1429	22.28	1459	23.94	1491	25.61	1522	27.31
19368	1800	1285	14.65	1315	16.17	1348	17.74	1380	19.33	1412	20.97	1444	22.65	1476	24.35	1506	26.07	1535	27.81	1564	29.58
20444	1900	1343	16.50	1372	18.09	1402	19.71	1432	21.38	1462	23.07	1493	24.81	1523	26.57	1553	28.37	1582	30.18	1610	32.01
21520	2000	1401	18.53	1429	20.19	1456	21.87	1486	23.60	1514	25.36	1542	27.14	1572	28.97	1601	30.83	1629	32.71	1656	34.61
23672	2200	1519	23.14	1545	24.94	1571	26.77	1595	28.61	1621	30.49	1647	32.41	1673	34.35	1698	36.31	1725	38.32	1752	40.36
25824	2400	1638	28.57	1663	30.51	1687	32.47	1710	34.45	1732	36.46	1755	38.48	1779	40.56	1803	42.65	1827	44.76	1850	46.89
27976	2600	1759	34.88	1781	36.95	1804	39.06	1826	41.18	1847	43.32	1868	45.48	1889	47.65	1910	49.87	1933	52.12	1955	54.39
30128	2800	1881	42.16	1902	44.37	1923	46.60	1943	48.86	1963	51.14	1983	53.44	2003	55.75	2022	58.08	2041	60.42	2061	62.82
32280	3000	2004	50.47	2024	52.81	2043	55.18	2062	57.57	2081	59.99	2100	62.43	2118	64.87	2136	67.34	2154	69.82		
34432	3200	2128	59.88	2146	62.37	2164	64.88														

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13988	1300	1429	21.36	1473	22.98	1520	24.74														
15064	1400	•1448	•22.94	•1488	•24.58	1529	26.25	1569	27.95	1612	29.82										
16140	1500	1480	24.83	1515	26.44	•1548	•28.08	•1585	•29.81	1624	31.60	1700	35.31								
17216	1600	1514	26.84	1548	28.53	1581	30.23	1613	31.95	•1644	•33.69	•1714	•37.40	1784	41.24	1859	45.48				
18292	1700	1553	29.02	1583	30.75	1614	32.52	1646	34.31	1677	36.12	1736	39.78	•1801	•43.65	1867	47.71	1935	52.01		
19368	1800	1594	31.36	1624	33.16	1653	34.98	1681	36.82	1710	38.68	1769	42.49	1826	46.35	•1884	•50.36	1948	54.62	2009	58.94
20444	1900	1637	33.86	1665	35.73	1693	37.62	1721	39.52	1748	41.44	1802	45.35	1859	49.35	1913	53.41	•1965	•57.51	•2026	•61.98
21520	2000	1683	36.53	1709	38.46	1735	40.42	1762	42.39	1789	44.38	1841	48.41	1892	52.51	1945	56.71	1997	60.96	2047	65.25
23672	2200	1777	42.41	1803	44.48	1827	46.57	1851	48.68	1875	50.80	1922	55.10	1971	59.46	2018	63.87	2063	68.33	2112	72.92
25824	2400	1874	49.08	1898	51.29	1922	53.51	1945	55.75	1968	58.01	2013	62.57	2056	67.20	2100	71.88	2144	76.61		
27976	2600	1976	56.67	1997	58.97	2019	61.30	2041	63.68	2064	66.08	2107	70.91	2148	75.80						
30128	2800	2082	65.24	2102	67.67	2122	70.12	2142	72.58	2161	75.06										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

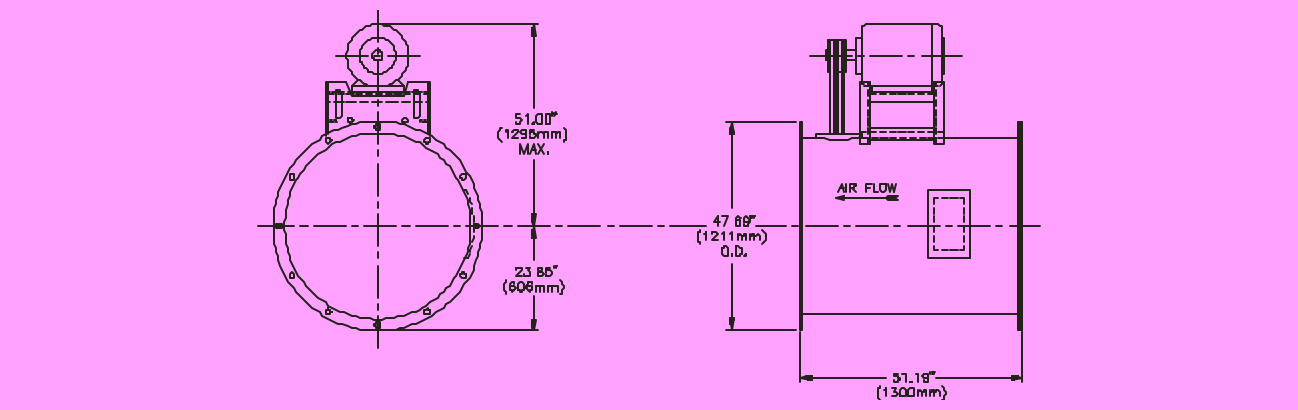
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

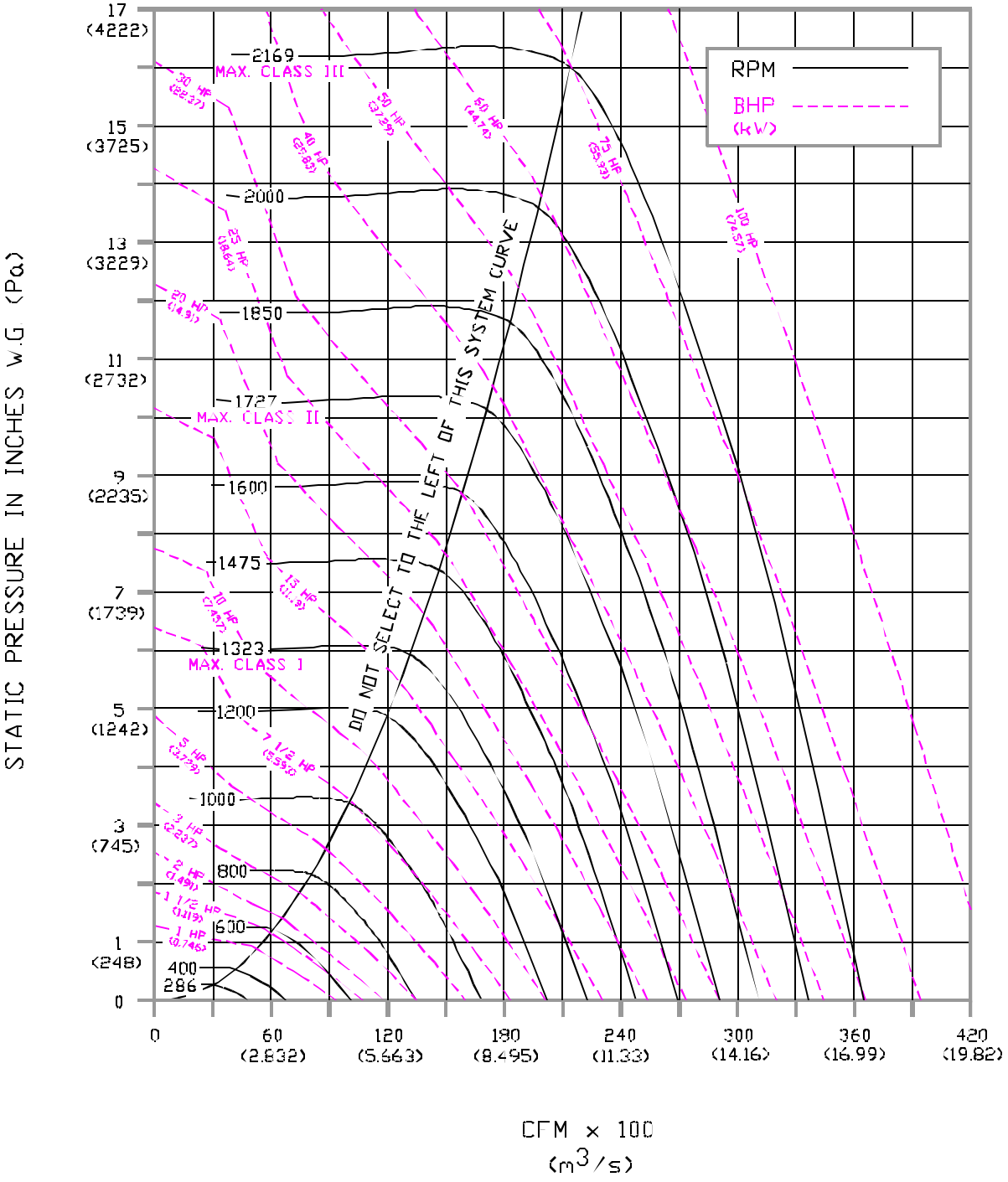
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 33





USTB SERIES

SIZE 37

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	36 ½ inches	927 mm
Wheel Circumference	9.56 feet	2.914 m
Inlet Diameter/Area	49 1/16 inches dia./13.1 sq. ft.	1246 mm/1.217 m^2
Outlet Diameter/Area	49 1/16 inches I.D./13.1 sq. ft.	1246 mm/1.217 m^2
Tip Speed	9.55 x RPM ft./minute	2.911 x RPM m/minute
Maximum BHP	10.75 x (RPM ÷ 1000)^3 BHP	8.016 x (RPM ÷ 1000)^3 kW

SIZE 37	-20° to 150°F -29° to 66°C
CLASS I	1157
CLASS II	1494
CLASS III	1875

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3951	300	•261	•0.23	•306	•0.35																
5268	400	298	0.34	329	0.47	•363	•0.61	•396	•0.77	431	0.94										
6585	500	343	0.50	370	0.65	395	0.80	420	0.97	•447	•1.15	•472	•1.33	•500	•1.54						
7902	600	392	0.71	415	0.88	436	1.06	458	1.25	479	1.44	500	1.64	523	1.85	•565	•2.29	611	2.78		
9219	700	442	0.98	463	1.18	482	1.38	500	1.59	520	1.80	538	2.02	555	2.24	592	2.72	•630	•3.22	•666	•3.73
10536	800	495	1.34	513	1.55	531	1.78	547	2.01	563	2.24	580	2.48	596	2.73	628	3.23	658	3.76	693	4.32
11853	900	548	1.78	564	2.01	580	2.26	596	2.51	611	2.77	625	3.03	639	3.30	669	3.85	697	4.41	724	4.99
13170	1000	603	2.31	617	2.58	631	2.84	645	3.12	660	3.40	673	3.68	686	3.97	712	4.56	739	5.17	764	5.79
14487	1100	657	2.96	671	3.24	683	3.54	696	3.83	709	4.13	722	4.44	735	4.75	759	5.39	782	6.04	806	6.70
15804	1200	712	3.72	725	4.03	737	4.35	748	4.67	760	4.99	772	5.32	784	5.65	807	6.33	829	7.03	850	7.73
17121	1300	767	4.62	779	4.95	790	5.29	801	5.63	812	5.98	823	6.33	834	6.69	856	7.41	877	8.15	897	8.90
18438	1400	823	5.65	834	6.01	844	6.37	855	6.74	865	7.11	875	7.48	885	7.86	905	8.63	925	9.41	945	10.21
19755	1500	879	6.84	889	7.22	899	7.61	909	8.00	918	8.39	928	8.79	937	9.19	956	10.00	975	10.83	994	11.67
21072	1600	934	8.19	944	8.59	954	9.01	963	9.42	972	9.84	981	10.26	990	10.68	1007	11.54	1025	12.41	1043	13.30
22389	1700	991	9.71	1000	10.14	1009	10.58	1018	11.02	1026	11.46	1035	11.90	1043	12.35	1060	13.25	1076	14.16	1093	15.09
23706	1800	1047	11.42	1055	11.87	1064	12.33	1072	12.79	1081	13.26	1089	13.73	1097	14.20	1113	15.15	1128	16.11	1143	17.08
25023	1900	1103	13.32	1111	13.80	1119	14.28	1127	14.77	1135	15.26	1143	15.75	1151	16.24	1166	17.24	1181	18.25	1195	19.26
26340	2000	1160	15.43	1167	15.93	1175	16.44	1183	16.95	1190	17.46	1198	17.98	1205	18.50	1220	19.54	1234	20.59	1248	21.65
28974	2200	1273	20.31	1280	20.86	1287	21.42	1294	21.98	1301	22.54	1308	23.10	1314	23.66	1328	24.80	1341	25.95	1354	27.10
31608	2400	1386	26.14	1393	26.75	1399	27.35	1406	27.96	1412	28.57	1418	29.18	1425	29.79	1437	31.02	1449	32.26	1461	33.51
34242	2600	1500	33.03	1506	33.68	1512	34.33	1518	34.99	1524	35.64	1530	36.30	1535	36.96	1547	38.29	1558	39.62	1569	40.96
36876	2800	1614	41.04	1619	41.74	1625	42.44	1630	43.15	1636	43.85	1641	44.56	1647	45.26	1658	46.69	1668	48.11	1679	49.55
39510	3000	1728	50.28	1733	51.03	1738	51.78	1743	52.53	1748	53.28	1754	54.04	1759	54.79	1769	56.31	1779	57.83	1788	59.36
42144	3200	1842	60.84	1847	61.63	1852	62.43	1857	63.23	1861	64.03	1866	64.83	1871	65.63						

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9219	700	706	4.31																		
10536	800	•725	•4.90	791	6.13	861	7.51														
11853	900	753	5.60	•812	•6.89	•868	•8.23	932	9.76												
13170	1000	789	6.43	840	7.77	894	9.19	•943	•10.66	999	12.28	1055	14.00								
14487	1100	830	7.38	875	8.78	921	10.26	970	11.82	•1016	•13.41	•1062	•15.08	1115	16.94	1165	18.83				
15804	1200	872	8.46	915	9.94	956	11.47	998	13.08	1044	14.77	1087	16.49	•1128	•18.25	1173	20.15	1221	22.18	1267	24.24
17121	1300	916	9.66	957	11.24	996	12.85	1034	14.51	1071	16.23	1114	18.05	1155	19.90	•1194	•21.79	•1231	•23.70	1274	25.80
18438	1400	964	11.02	999	12.67	1038	14.37	1074	16.12	1109	17.90	1142	19.72	1182	21.67	1221	23.65	1258	25.65	•1294	•27.69
19755	1500	1012	12.52	1046	14.26	1080	16.05	1116	17.88	1150	19.75	1182	21.66	1213	23.59	1249	25.63	1285	27.74	1321	29.86
21072	1600	1060	14.19	1094	16.02	1125	17.89	1157	19.80	1191	21.76	1223	23.75	1253	25.78	1283	27.83	1313	29.95	1348	32.17
22389	1700	1110	16.04	1142	17.96	1172	19.91	1202	21.90	1233	23.94	1264	26.02	1294	28.14	1323	30.28	1351	32.45	1378	34.65
23706	1800	1159	18.07	1191	20.07	1220	22.12	1249	24.20	1276	26.31	1306	28.48	1335	30.68	1364	32.91	1391	35.16	1418	37.45
25023	1900	1210	20.29	1240	22.39	1269	24.52	1297	26.69	1323	28.90	1349	31.13	1377	33.41	1405	35.73	1432	38.08	1458	40.45
26340	2000	1261	22.72	1290	24.91	1318	27.14	1345	29.39	1371	31.68	1396	34.01	1420	36.36	1447	38.76	1474	41.19	1499	43.65
28974	2200	1366	28.26	1391	30.61	1417	33.02	1443	35.46	1467	37.93	1491	40.42	1515	42.95	1537	45.51	1559	48.09	1583	50.71
31608	2400	1473	34.76	1496	37.30	1518	39.86	1542	42.48	1566	45.13	1588	47.80	1611	50.51	1632	53.23	1653	55.99	1674	58.77
34242	2600	1580	42.31	1602	45.03	1623	47.77	1643	50.55	1665	53.37	1687	56.23	1708	59.11	1729	62.01	1749	64.94	1769	67.89
36876	2800	1689	50.99	1709	53.89	1729	56.82	1748	59.77	1767	62.75	1787	65.78	1808	68.84	1827	71.92	1847	75.03	1866	78.15
39510	3000	1798	60.89	1817	63.98	1836	67.09	1854	70.22	1872	73.38										

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
17121	1300	1318	27.99	1361	30.22	1402	32.48														
18438	1400	•1328	•29.75	1368	32.02	1409	34.38	1450	36.76	1488	39.18										
19755	1500	1355	32.02	•1388	•34.20	•1420	•36.40	1457	38.80	1495	41.32	1570	46.43								
21072	1600	1382	34.42	1415	36.69	1447	38.99	•1478	•41.31	•1508	•43.66	1577	48.81	1648	54.23	1716	59.74				
22389	1700	1410	36.96	1442	39.33	1474	41.73	1505	44.14	1535	46.58	•1592	•51.52	1655	56.86	1723	62.57	1787	68.37		
23706	1800	1444	39.76	1470	42.12	1502	44.61	1532	47.12	1562	49.65	1619	54.78	•1674	•59.99	1730	65.45	1794	71.45	1857	77.54
25023	1900	1484	42.84	1509	45.27	1533	47.72	1560	50.25	1589	52.88	1646	58.20	1701	63.60	•1753	•69.08	•1803	•74.63	•1864	•80.87
26340	2000	1525	46.13	1549	48.64	1573	51.18	1596	53.74	1619	56.32	1674	61.78	1728	67.37	1779	73.03	1829	78.77		
28974	2200	1607	53.37	1631	56.06	1654	58.76	1677	61.49	1699	64.24	1742	69.81	1784	75.47	1834	81.49				
31608	2400	1694	61.57	1715	64.41	1738	67.29	1760	70.20	1781	73.12	1823	79.03	1864	85.02						
34242	2600	1789	70.87	1808	73.87	1826	76.89	1845	79.94	1865	83.03										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

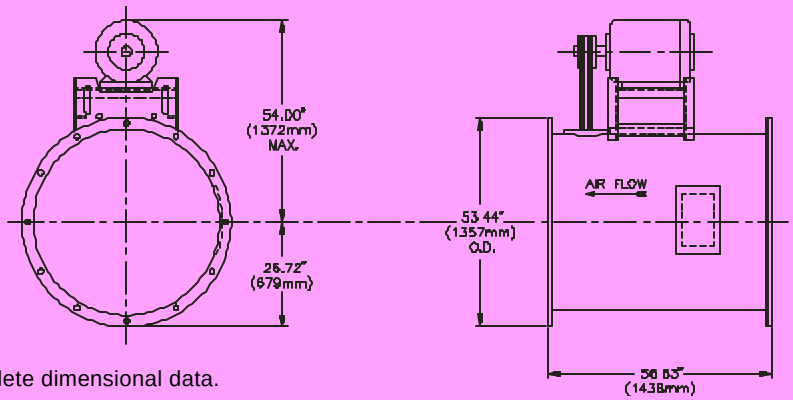
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

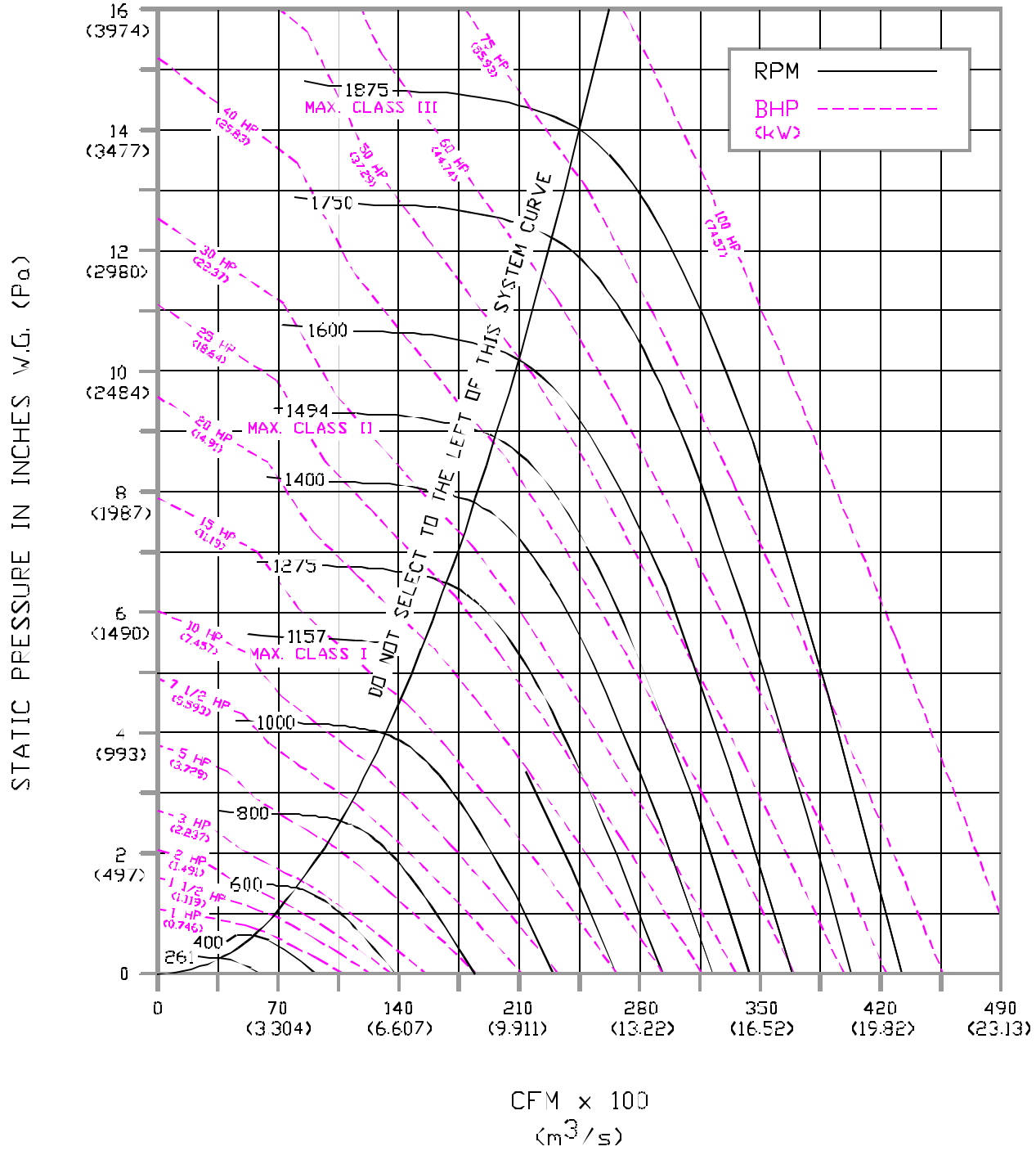
Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 37



See page 42 for complete dimensional data.



USTB SERIES

SIZE 40

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	40 ¼ inches	1022 mm
Wheel Circumference	10.5 feet	3.200 m
Inlet Diameter/Area	54 5/16 inches dia./16.1 sq. ft.	1380 mm/1.496 m^2
Outlet Diameter/Area	54 5/16 inches I.D./16.1 sq. ft.	1380 mm/1.496 m^2
Tip Speed	10.5 x RPM ft./minute	3.200 x RPM m/minute
Maximum BHP	17.49 x (RPM ÷ 1000)^3 BHP	13.04 x (RPM ÷ 1000)^3 kW

SIZE 40	-20° to 150°F -29° to 66°C
CLASS I	1049
CLASS II	1354
CLASS III	1700

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4815	300	•237	•0.28	•277	•0.42																
6420	400	271	0.42	299	0.57	•329	•0.75	•359	•0.93	391	1.14										
8025	500	312	0.61	336	0.79	358	0.98	381	1.19	•406	•1.40	•428	•1.63	•454	•1.87						
9630	600	356	0.86	377	1.07	396	1.29	416	1.52	434	1.75	453	2.00	474	2.26	•513	•2.79	555	3.39		
11235	700	402	1.20	421	1.44	438	1.68	454	1.94	472	2.20	488	2.46	504	2.74	537	3.31	•572	•3.92	•604	•4.55
12840	800	450	1.63	466	1.90	482	2.17	497	2.45	512	2.73	526	3.03	541	3.33	570	3.94	597	4.58	629	5.27
14445	900	498	2.17	513	2.46	527	2.76	541	3.07	555	3.38	568	3.70	581	4.03	607	4.69	633	5.38	657	6.09
16050	1000	547	2.83	561	3.15	573	3.47	586	3.81	599	4.15	611	4.50	623	4.85	646	5.57	671	6.31	694	7.07
17655	1100	597	3.62	609	3.97	621	4.32	632	4.68	644	5.05	656	5.43	667	5.80	689	6.58	710	7.37	732	8.18
19260	1200	647	4.55	658	4.93	669	5.32	680	5.70	690	6.10	701	6.50	712	6.91	733	7.73	753	8.58	772	9.44
20865	1300	697	5.65	708	6.05	718	6.47	728	6.89	738	7.31	747	7.73	757	8.17	777	9.05	796	9.95	815	10.87
22470	1400	748	6.91	758	7.35	767	7.79	777	8.24	786	8.69	795	9.15	804	9.60	822	10.54	841	11.50	858	12.47
24075	1500	798	8.37	808	8.83	817	9.30	826	9.78	834	10.26	843	10.74	851	11.23	868	12.22	886	13.23	902	14.25
25680	1600	849	10.02	858	10.51	867	11.01	875	11.52	883	12.03	891	12.54	899	13.06	915	14.10	931	15.16	947	16.24
27285	1700	900	11.88	908	12.41	917	12.94	925	13.47	932	14.01	940	14.55	948	15.09	963	16.19	977	17.31	993	18.44
28890	1800	951	13.97	959	14.53	967	15.09	974	15.65	982	16.21	989	16.78	997	17.36	1011	18.51	1025	19.68	1038	20.87
30495	1900	1002	16.30	1010	16.88	1017	17.47	1025	18.06	1032	18.66	1039	19.26	1046	19.86	1059	21.07	1073	22.30	1086	23.54
32100	2000	1054	18.88	1061	19.49	1068	20.11	1075	20.73	1082	21.36	1088	21.99	1095	22.62	1108	23.89	1121	25.17	1133	26.46
35310	2200	1157	24.85	1163	25.53	1169	26.20	1176	26.88	1182	27.57	1188	28.25	1194	28.94	1206	30.33	1218	31.72	1230	33.13
38520	2400	1260	31.99	1266	32.73	1271	33.47	1277	34.20	1283	34.95	1289	35.69	1294	36.44	1306	37.94	1317	39.45	1327	40.97
41730	2600	1363	40.42	1368	41.21	1374	42.01	1379	42.80	1385	43.60	1390	44.41	1395	45.21	1406	46.83	1416	48.45	1426	50.09
44940	2800	1466	50.23	1472	51.08	1477	51.94	1482	52.79	1487	53.65	1492	54.51	1496	55.37	1506	57.10	1516	58.84	1525	60.59
48150	3000	1570	61.54	1575	62.45	1580	63.36	1584	64.28	1589	65.19	1594	66.11	1598	67.03	1607	68.88	1616	70.73	1625	72.59
51360	3200	1674	74.46	1678	75.43	1683	76.40	1687	77.37	1692	78.34	1696	79.32	1700	80.30						

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11235	700	641	5.25																		
12840	800	•658	•5.97	717	7.47	781	9.15														
14445	900	683	6.83	•737	•8.40	•787	•10.02	845	11.89												
16050	1000	716	7.84	762	9.47	811	11.21	•856	•12.99	906	14.96	957	17.05								
17655	1100	753	9.01	794	10.71	836	12.51	881	14.41	•922	•16.35	•963	•18.37	1011	20.63	1057	22.94				
19260	1200	791	10.32	831	12.13	868	14.00	906	15.95	947	18.01	986	20.11	•1023	•22.25	1064	24.54	1107	27.01	1149	29.53
20865	1300	832	11.80	869	13.71	905	15.68	938	17.70	972	19.79	1011	22.01	1048	24.26	•1083	•26.55	•1117	•28.88	1155	31.42
22470	1400	875	13.45	907	15.46	942	17.54	975	19.67	1007	21.84	1037	24.05	1073	26.42	1108	28.83	1142	31.27	•1174	•33.75
24075	1500	919	15.29	950	17.41	980	19.58	1013	21.82	1044	24.09	1073	26.41	1101	28.77	1133	31.25	1166	33.81	1198	36.40
25680	1600	963	17.34	993	19.56	1022	21.83	1051	24.16	1081	26.55	1110	28.98	1138	31.44	1164	33.95	1192	36.51	1223	39.22
27285	1700	1008	19.59	1037	21.93	1065	24.31	1091	26.73	1119	29.22	1148	31.75	1175	34.32	1201	36.93	1226	39.58	1251	42.26
28890	1800	1053	22.07	1081	24.52	1108	27.01	1134	29.54	1159	32.12	1186	34.75	1212	37.43	1238	40.15	1263	42.89	1287	45.68
30495	1900	1099	24.79	1126	27.35	1152	29.95	1178	32.59	1202	35.27	1225	37.99	1250	40.78	1276	43.60	1300	46.45	1324	49.34
32100	2000	1146	27.77	1171	30.43	1197	33.14	1221	35.89	1245	38.68	1268	41.51	1290	44.38	1314	47.30	1338	50.26	1361	53.26
35310	2200	1241	34.55	1264	37.41	1287	40.34	1310	43.31	1333	46.32	1354	49.36	1376	52.44	1396	55.55	1416	58.69	1437	61.89
38520	2400	1338	42.50	1359	45.58	1379	48.71	1401	51.90	1422	55.12	1443	58.38	1463	61.67	1483	65.00	1502	68.35	1520	71.74
41730	2600	1436	51.73	1455	55.04	1474	58.38	1493	61.76	1513	65.20	1533	68.68	1552	72.19	1570	75.73	1589	79.30	1607	82.89
44940	2800	1535	62.35	1553	65.88	1571	69.45	1588	73.05	1606	76.68	1624	80.37	1642	84.09	1660	87.85	1677	91.63	1695	95.44
48150	3000	1634	74.46	1651	78.22	1668	82.01	1685	85.83												

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20865	1300	1196	34.10	1234	36.81	1272	39.56														
22470	1400	•1205	•36.26	1241	39.00	1278	41.87	1315	44.78	1350	47.72										
24075	1500	1229	39.03	•1259	•41.68	•1288	•44.37	1321	47.26	1356	50.33	1424	56.55								
25680	1600	1254	41.96	1284	44.73	1313	47.53	•1341	•50.36	•1368	•53.21	1430	59.46	1495	66.05	1556	72.76				
27285	1700	1279	45.07	1309	47.95	1338	50.87	1365	53.81	1393	56.78	•1445	•62.80	1501	69.26	1562	76.21	1621	83.28		
28890	1800	1311	48.49	1334	51.36	1363	54.39	1390	57.45	1417	60.53	1469	66.78	•1519	•73.12	•1569	•79.72	1627	87.04	1684	94.45
30495	1900	1347	52.26	1370	55.21	1392	58.20	1416	61.27	1442	64.47	1494	70.95	1543	77.52	1590	84.19	•1636	•90.96	•1690	•98.51
32100	2000	1384	56.28	1406	59.34	1428	62.42	1449	65.54	1470	68.68	1519	75.33	1568	82.13	1615	89.03	1660	96.01		
35310	2200	1460	65.13	1481	68.39	1502	71.69	1523	75.01	1543	78.36	1582	85.15	1619	92.03	1665	99.35				
38520	2400	1539	75.15	1557	78.61	1578	82.12	1598	85.65	1617	89.21	1655	96.41	1692	103.71						
41730	2600	1624	86.52	1642	90.17	1659	93.85	1675	97.56	1694	101.32										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

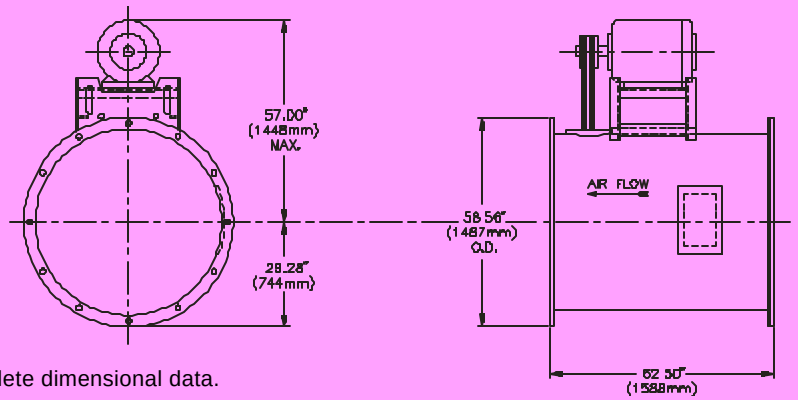
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

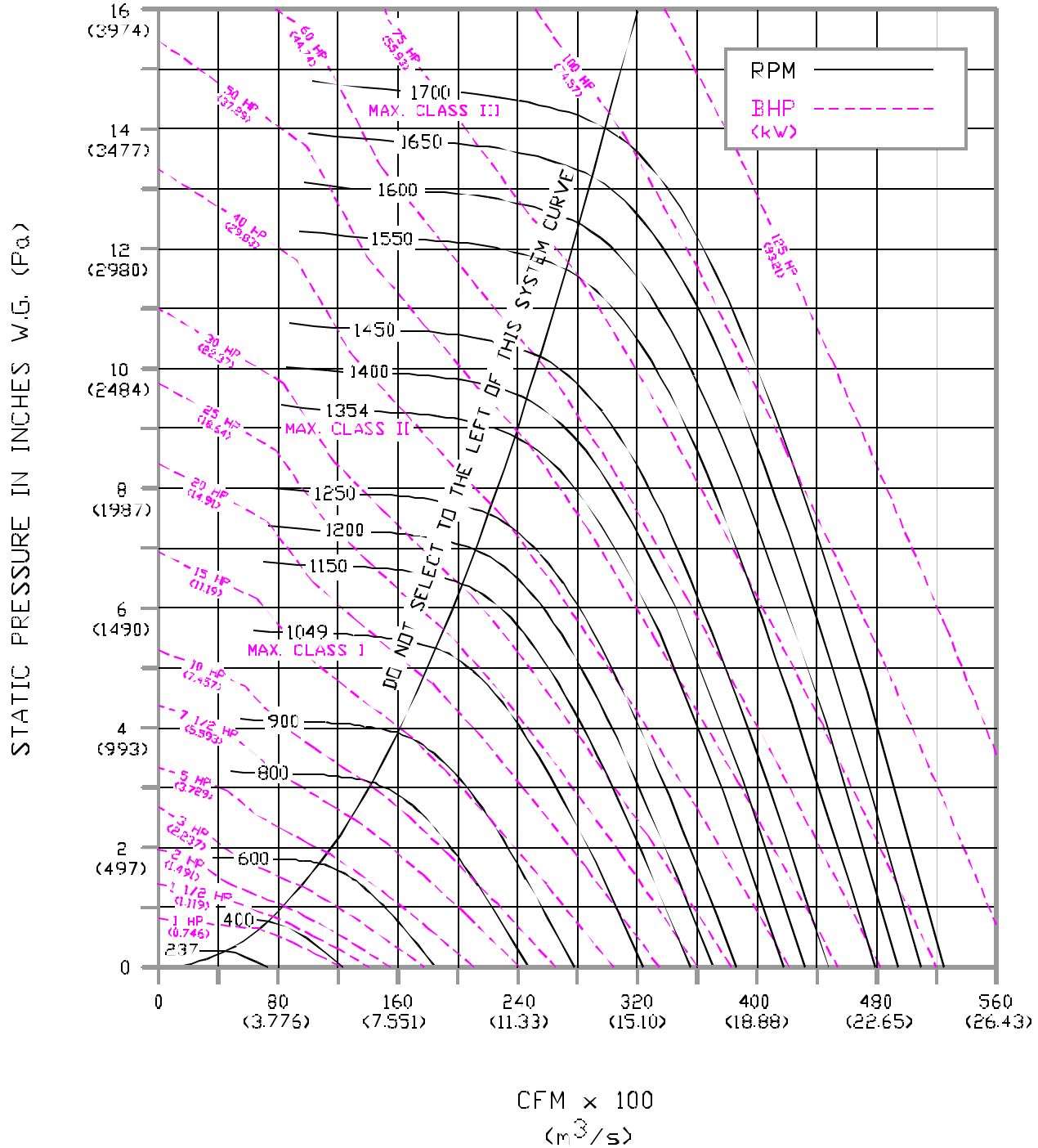
Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 40



See page 42 for complete dimensional data.



USTB SERIES

SIZE 45

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	44 ½ inches	1130 mm
Wheel Circumference	11.7 feet	3.566 m
Inlet Diameter/Area	60 ⅜ inches dia./19.9 sq. ft.	1534 mm/1.849 m^2
Outlet Diameter/Area	60 ⅜ inches I.D./19.9 sq. ft.	1534 mm/1.849 m^2
Tip Speed	11.7 x RPM ft./minute	3.566 x RPM m/minute
Maximum BHP	28.86 x (RPM ÷ 1000)^3 BHP	21 52 x (RPM ÷ 1000)^3 kW

SIZE 45	-20° to 150°F -29° to 66°C
CLASS I	949
CLASS II	1226
CLASS III	1538

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5886	300	•215	•0.34	•251	•0.52																
7848	400	245	0.51	270	0.70	•298	•0.91	•325	•1.14	353	1.40										
9810	500	282	0.74	303	0.96	324	1.20	345	1.45	•367	•1.72	•388	•1.99	•410	•2.29						
11772	600	322	1.06	341	1.31	358	1.58	376	1.86	393	2.14	410	2.44	429	2.76	•464	•3.41	502	4.14		
13734	700	364	1.47	380	1.76	396	2.06	411	2.37	427	2.69	442	3.01	456	3.35	486	4.05	•517	•4.79	•546	•5.56
15696	800	407	2.00	421	2.32	436	2.65	450	2.99	463	3.34	476	3.70	490	4.07	516	4.82	540	5.60	569	6.44
17658	900	451	2.65	464	3.01	477	3.38	490	3.75	502	4.14	514	4.52	525	4.92	549	5.74	573	6.58	594	7.44
19620	1000	495	3.46	507	3.85	518	4.25	530	4.66	542	5.07	553	5.50	564	5.93	585	6.80	607	7.71	628	8.64
21582	1100	540	4.42	551	4.85	562	5.28	572	5.72	583	6.18	593	6.63	604	7.10	623	8.04	642	9.01	662	10.00
23544	1200	585	5.57	595	6.03	605	6.50	615	6.97	624	7.46	634	7.95	644	8.44	663	9.46	681	10.49	698	11.54
25506	1300	631	6.90	640	7.40	650	7.91	659	8.42	667	8.93	676	9.46	685	9.99	703	11.07	720	12.17	737	13.28
27468	1400	676	8.45	685	8.99	694	9.53	703	10.07	711	10.62	719	11.18	727	11.74	744	12.89	760	14.06	776	15.24
29430	1500	722	10.23	731	10.80	739	11.38	747	11.96	755	12.54	762	13.13	770	13.73	785	14.94	801	16.17	816	17.43
31392	1600	768	12.25	776	12.85	784	13.47	791	14.08	799	14.70	806	15.33	814	15.96	828	17.24	842	18.53	857	19.86
33354	1700	814	14.52	822	15.17	829	15.82	836	16.47	843	17.13	850	17.79	857	18.45	871	19.80	884	21.16	898	22.54
35316	1800	860	17.08	868	17.76	875	18.44	881	19.13	888	19.82	895	20.52	901	21.22	914	22.63	927	24.06	939	25.51
37278	1900	907	19.93	914	20.64	920	21.36	927	22.09	933	22.81	940	23.55	946	24.28	958	25.76	970	27.26	982	28.77
39240	2000	953	23.08	960	23.83	966	24.59	972	25.35	978	26.11	984	26.88	990	27.65	1002	29.20	1014	30.77	1025	32.35
43164	2200	1046	30.38	1052	31.21	1058	32.04	1064	32.87	1069	33.70	1075	34.54	1080	35.38	1091	37.08	1102	38.78	1113	40.50
47088	2400	1139	39.12	1145	40.01	1150	40.91	1155	41.82	1161	42.72	1166	43.63	1171	44.55	1181	46.38	1191	48.23	1201	50.09
51012	2600	1233	49.42	1238	50.39	1243	51.36	1248	52.33	1252	53.31	1257	54.29	1262	55.28	1271	57.25	1281	59.24	1290	61.23
54936	2800	1327	61.41	1331	62.45	1336	63.50	1340	64.54	1345	65.59	1349	66.65	1354	67.70	1362	69.82	1371	71.94	1380	74.08
58860	3000	1420	75.24	1425	76.35	1429	77.47	1433	78.59	1437	79.71	1441	80.83	1446	81.95	1454	84.21	1462	86.48	1470	88.75
62784	3200	1514	91.03	1518	92.22	1522	93.40	1526	94.59	1530	95.78	1534	96.98	1538	98.17						

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13734	700	579	6.42																		
15696	800	•595	•7.30	649	9.13	706	11.18														
17658	900	618	8.35	•667	•10.26	•712	•12.25	765	14.53												
19620	1000	648	9.59	689	11.58	733	13.70	•774	•15.88	819	18.29	865	20.84								
21582	1100	682	11.01	718	13.10	756	15.29	796	17.61	•834	•19.99	•871	•22.45	915	25.22	956	28.04				
23544	1200	716	12.62	752	14.83	785	17.11	819	19.49	857	22.01	892	24.58	•926	•27.19	962	30.00	1001	33.02	1039	36.09
25506	1300	753	14.42	786	16.76	818	19.17	849	21.64	879	24.19	915	26.90	948	29.66	•980	•32.46	•1010	•35.31	1045	38.41
27468	1400	792	16.44	821	18.90	852	21.44	882	24.04	911	26.70	938	29.40	971	32.30	1002	35.24	1033	38.23	•1062	•41.25
29430	1500	831	18.70	859	21.28	887	23.94	916	26.67	944	29.45	971	32.29	996	35.18	1025	38.21	1055	41.33	1084	44.50
31392	1600	871	21.19	898	23.91	924	26.69	951	29.54	978	32.46	1004	35.42	1029	38.44	1053	41.50	1078	44.64	1107	47.95
33354	1700	912	23.95	938	26.80	963	29.72	987	32.68	1012	35.72	1038	38.82	1063	41.96	1086	45.15	1109	48.38	1132	51.66
35316	1800	953	26.98	978	29.97	1003	33.02	1026	36.11	1048	39.26	1072	42.48	1097	45.76	1120	49.08	1142	52.44	1164	55.84
37278	1900	994	30.31	1019	33.43	1042	36.61	1065	39.84	1087	43.12	1108	46.45	1131	49.85	1154	53.30	1176	56.79	1198	60.32
39240	2000	1036	33.95	1060	37.20	1083	40.52	1105	43.88	1126	47.29	1147	50.75	1167	54.25	1188	57.82	1210	61.44	1231	65.10
43164	2200	1123	42.23	1143	45.73	1164	49.32	1185	52.95	1205	56.62	1225	60.34	1244	64.10	1263	67.91	1281	71.75	1300	75.66
47088	2400	1210	51.96	1229	55.73	1248	59.55	1267	63.45	1286	67.39	1305	71.37	1323	75.40	1341	79.46	1358	83.56	1375	87.70
51012	2600	1299	63.24	1317	67.29	1334	71.38	1351	75.51	1368	79.72	1386	83.97	1404	88.26	1421	92.58	1437	96.94	1453	101.34
54936	2800	1388	76.23	1405	80.55	1421	84.91	1437	89.31	1452	93.74	1469	98.25	1485	102.81	1501	107.40	1517	112.02	1533	116.68
58860	3000	1478	91.04	1494	95.64	1509	100.27	1524	104.94												

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25506	1300	1081	41.68	1117	45.00	1150	48.36														
27468	1400	•1090	•44.32	1122	47.67	1156	51.18	1189	54.74	1221	58.33										
29430	1500	1112	47.71	•1139	•50.95	•1165	•54.24	1195	57.77	1227	61.52	1288	69.13								
31392	1600	1134	51.30	1161	54.68	1187	58.10	•1213	•61.56	•1237	•65.05	1294	72.68	1352	80.74	1407	88.94				
33354	1700	1157	55.09	1184	58.62	1210	62.18	1235	65.78	1260	69.41	•1307	•76.77	1358	84.66	1413	93.17	1466	101.80		
35316	1800	1186	59.28	1207	62.78	1233	66.49	1258	70.22	1282	73.99	1329	81.63	•1374	•89.39	•1419	•97.45	1472	106.39	1523	115.46
37278	1900	1219	63.89	1239	67.50	1259	71.14	1280	74.90	1305	78.82	1351	86.73	1396	94.77	1438	102.92	•1479	•111.19	•1529	•120.42
39240	2000	1252	68.80	1272	72.54	1292	76.31	1311	80.12	1330	83.96	1374	92.08	1418	100.40	1461	108.83	1501	117.37		
43164	2200	1320	79.62	1340	83.61	1359	87.64	1377	91.70	1395	95.80	1431	104.09	1465	112.51	1506	121.45				
47088	2400	1392	91.88	1409	96.10	1427	100.39	1445	104.71	1463	109.06	1497	117.86	1530	126.78						
51012	2600	1469	105.77	1485	110.24	1500	114.74	1515	119.27	1532	123.87										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

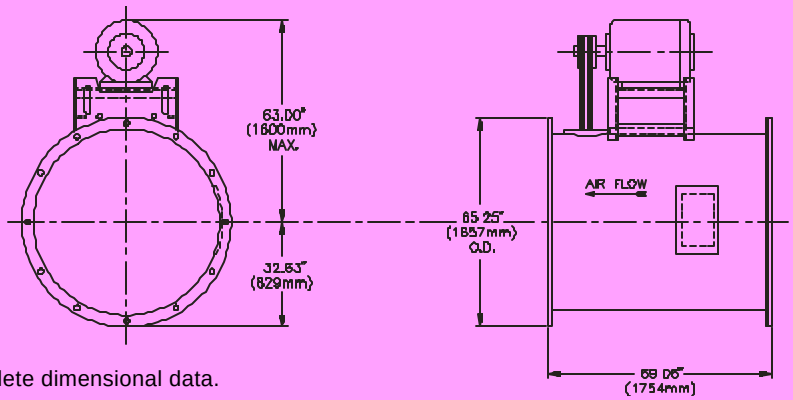
For minimum motor size required see page 6.

Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

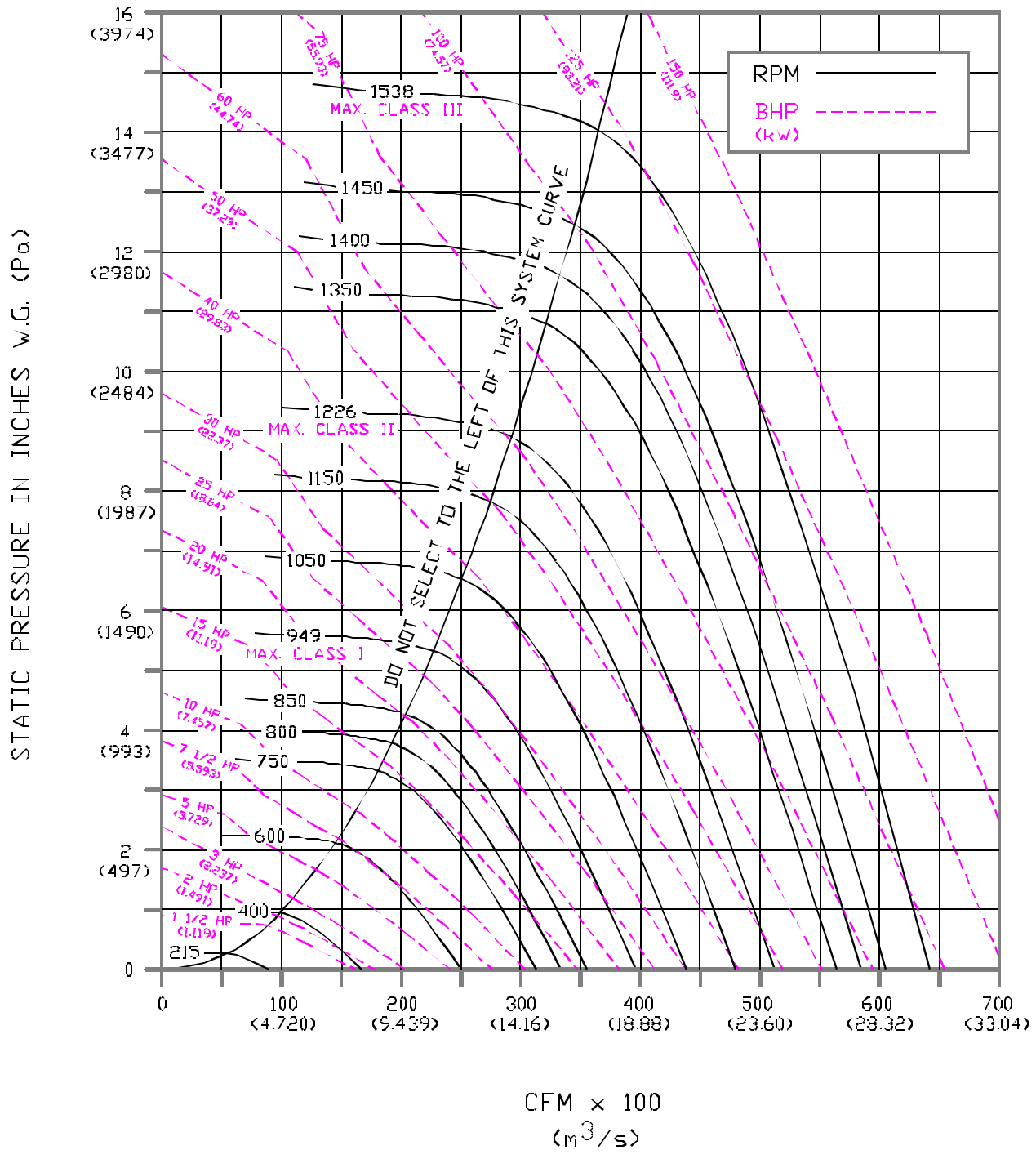
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

SIZE 45



See page 42 for complete dimensional data.



USTB SERIES

SIZE 49

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	49 inches	1245 mm
Wheel Circumference	12.9 feet	3.932 m
Inlet Diameter/Area	66 ¼ inches dia./23.9 sq. ft.	1683 mm/2.220 m^2
Outlet Diameter/Area	66 ¼ inches I.D./23.9 sq. ft.	1683 mm/2.220 m^2
Tip Speed	12.9 x RPM ft./minute	3.932 x RPM m/minute
Maximum BHP	46.74 x (RPM ÷ 1000)^3 BHP	34.85 x (RPM ÷ 1000)^3 kW

SIZE 49	-20° to 150°F -29° to 66°C
CLASS I	862
CLASS II	1113
CLASS III	1397

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7134	300	•195	•0.42	•228	•0.63																
9512	400	222	0.62	245	0.85	•271	•1.11	•295	•1.38	321	1.70										
11890	500	256	0.90	276	1.17	294	1.45	313	1.76	•333	•2.08	•352	•2.41	•373	•2.78						
14268	600	292	1.28	309	1.59	325	1.91	342	2.25	357	2.60	372	2.96	390	3.34	•421	•4.13	455	5.02		
16646	700	330	1.78	345	2.13	360	2.49	373	2.87	387	3.25	401	3.65	414	4.05	441	4.91	•470	•5.81	•496	•6.74
19024	800	369	2.42	382	2.81	396	3.21	408	3.63	420	4.05	432	4.49	445	4.93	468	5.84	490	6.79	516	7.80
21402	900	409	3.21	421	3.65	433	4.09	444	4.55	456	5.01	466	5.48	477	5.96	499	6.95	520	7.97	540	9.02
23780	1000	450	4.19	460	4.66	471	5.15	481	5.64	492	6.15	502	6.66	512	7.18	531	8.24	551	9.34	570	10.47
26158	1100	490	5.36	500	5.87	510	6.40	519	6.93	529	7.48	539	8.04	548	8.60	566	9.74	583	10.91	601	12.12
28536	1200	531	6.74	541	7.30	550	7.87	558	8.45	567	9.03	576	9.63	585	10.23	602	11.46	618	12.71	634	13.98
30914	1300	573	8.36	581	8.97	590	9.58	598	10.20	606	10.82	614	11.46	622	12.10	638	13.41	654	14.74	669	16.10
33292	1400	614	10.24	622	10.89	630	11.54	638	12.20	645	12.87	653	13.55	660	14.23	675	15.62	690	17.03	705	18.47
35670	1500	656	12.39	663	13.08	671	13.78	678	14.48	685	15.19	692	15.91	699	16.63	713	18.10	727	19.60	741	21.11
38048	1600	697	14.83	705	15.57	712	16.31	719	17.06	725	17.81	732	18.57	739	19.34	751	20.88	765	22.45	778	24.06
40426	1700	739	17.59	746	18.37	753	19.16	759	19.95	766	20.75	772	21.55	778	22.35	791	23.98	803	25.63	815	27.31
42804	1800	781	20.69	788	21.51	794	22.34	800	23.17	806	24.01	812	24.86	818	25.71	830	27.42	842	29.15	853	30.90
45182	1900	823	24.13	829	25.00	835	25.87	841	26.75	847	27.64	853	28.52	859	29.41	870	31.21	881	33.03	892	34.86
47560	2000	865	27.96	871	28.87	877	29.78	883	30.71	888	31.63	894	32.56	899	33.50	910	35.38	921	37.28	931	39.19
52316	2200	950	36.80	955	37.80	960	38.80	966	39.81	971	40.82	976	41.84	981	42.86	991	44.91	1000	46.98	1010	49.06
57072	2400	1034	47.38	1039	48.47	1044	49.56	1049	50.65	1054	51.75	1058	52.85	1063	53.96	1072	56.18	1081	58.42	1090	60.67
61828	2600	1119	59.85	1124	61.03	1128	62.21	1133	63.39	1137	64.57	1141	65.76	1146	66.95	1154	69.35	1163	71.75	1171	74.18
66584	2800	1204	74.38	1208	75.64	1213	76.91	1217	78.18	1221	79.45	1225	80.72	1229	82.00	1237	84.57	1245	87.14	1253	89.73
71340	3000	1289	91.13	1293	92.48	1297	93.83	1301	95.18	1305	96.54	1309	97.90	1312	99.27	1320	102.00	1327	104.75	1335	107.51
76096	3200	1375	110.26	1378	111.69	1382	113.13	1386	114.57	1389	116.01	1393	117.46	1396	118.91						

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16646	700	526	7.79																		
19024	800	•541	•8.84	589	11.07	641	13.55														
21402	900	561	10.12	•605	•12.44	•647	•14.85	694	17.61												
23780	1000	588	11.62	626	14.03	666	16.60	•703	•19.24	744	22.17	786	25.26								
26158	1100	619	13.35	652	15.87	687	18.53	723	21.35	•758	•24.22	•791	•27.22	831	30.57	868	33.98				
28536	1200	650	15.29	683	17.97	713	20.73	744	23.62	778	26.68	810	29.79	•841	•32.96	874	36.36	909	40.03	944	43.75
30914	1300	683	17.47	713	20.31	743	23.23	771	26.22	799	29.32	830	32.60	861	35.95	•890	•39.34	•918	•42.79	949	46.56
33292	1400	719	19.92	745	22.90	774	25.98	801	29.13	827	32.35	851	35.63	881	39.14	910	42.71	938	46.33	•964	•50.00
35670	1500	755	22.65	780	25.79	805	29.01	832	32.32	857	35.69	881	39.13	904	42.63	931	46.30	958	50.10	984	53.93
38048	1600	791	25.68	816	28.97	839	32.34	863	35.80	888	39.33	912	42.93	934	46.58	956	50.29	979	54.10	1005	58.11
40426	1700	828	29.02	852	32.48	875	36.01	896	39.60	919	43.28	942	47.04	965	50.85	986	54.71	1007	58.63	1027	62.60
42804	1800	865	32.69	888	36.31	910	40.00	932	43.76	952	47.58	974	51.48	996	55.45	1017	59.47	1037	63.55	1057	67.67
45182	1900	902	36.72	925	40.51	946	44.36	967	48.27	987	52.25	1006	56.28	1027	60.40	1048	64.58	1068	68.81	1087	73.09
47560	2000	941	41.13	962	45.07	983	49.09	1003	53.16	1022	57.30	1041	61.49	1059	65.74	1079	70.07	1099	74.46	1118	78.89
52316	2200	1019	51.16	1038	55.41	1057	59.75	1076	64.15	1094	68.60	1112	73.11	1130	77.67	1147	82.28	1163	86.94	1181	91.68
57072	2400	1099	62.94	1116	67.51	1133	72.14	1150	76.87	1168	81.65	1185	86.48	1201	91.35	1218	96.28	1233	101.25	1249	106.27
61828	2600	1179	76.61	1195	81.51	1211	86.47	1226	91.48	1242	96.58	1259	101.73	1274	106.93	1290	112.17	1305	117.46	1320	122.79
66584	2800	1260	92.33	1275	97.57	1290	102.86	1304	108.19	1319	113.57	1333	119.03	1348	124.55	1363	130.12	1378	135.72	1392	141.37
71340	3000	1342	110.28	1356	115.85	1370	121.46	1384	127.12	1397	132.83										

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30914	1300	982	50.52	1014	54.54	1045	58.61														
33292	1400	•990	•53.72	1019	57.78	1050	62.04	1080	66.35	1109	70.71										
35670	1500	1010	57.82	•1034	•61.76	•1058	•65.73	1085	70.03	1114	74.57	1170	83.79								
38048	1600	1030	62.17	1055	66.27	1078	70.42	•1101	•74.61	•1124	•78.84	1175	88.10	1228	97.87	1278	107.81				
40426	1700	1051	66.77	1075	71.05	1099	75.36	1122	79.72	1144	84.12	•1187	•93.04	1233	102.62	1283	112.93	1332	123.40		
42804	1800	1077	71.84	1096	76.09	1119	80.58	1142	85.11	1164	89.68	1207	98.93	•1247	•108.34	•1289	•118.13	1337	128.96	1383	139.95
45182	1900	1106	77.42	1125	81.80	1143	86.22	1163	90.78	1185	95.52	1227	105.12	1267	114.86	1306	124.74	•1343	•134.77	•1388	•145.97
47560	2000	1137	83.38	1155	87.90	1173	92.48	1190	97.09	1207	101.75	1248	111.60	1288	121.68	1326	131.90	1363	142.25		
52316	2200	1199	96.48	1216	101.32	1234	106.20	1251	111.13	1267	116.09	1299	126.14	1330	136.35	1367	147.19				
57072	2400	1264	111.33	1279	116.45	1296	121.65	1312	126.88	1328	132.16	1359	142.82	1390	153.63						
61828	2600	1334	128.16	1348	133.57	1362	139.03	1376	144.52	1391	150.10										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

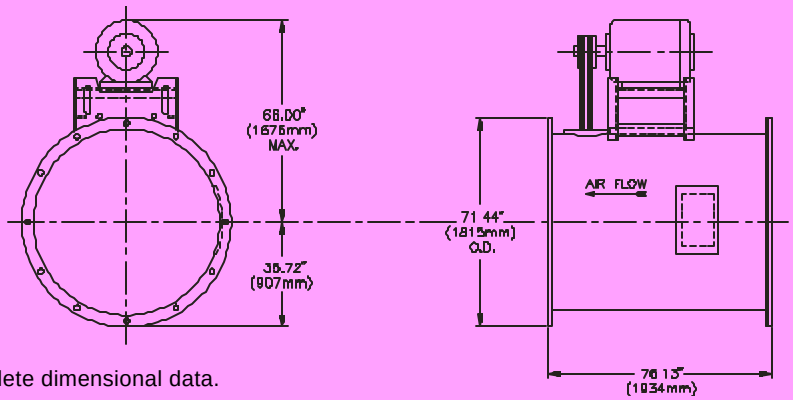
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

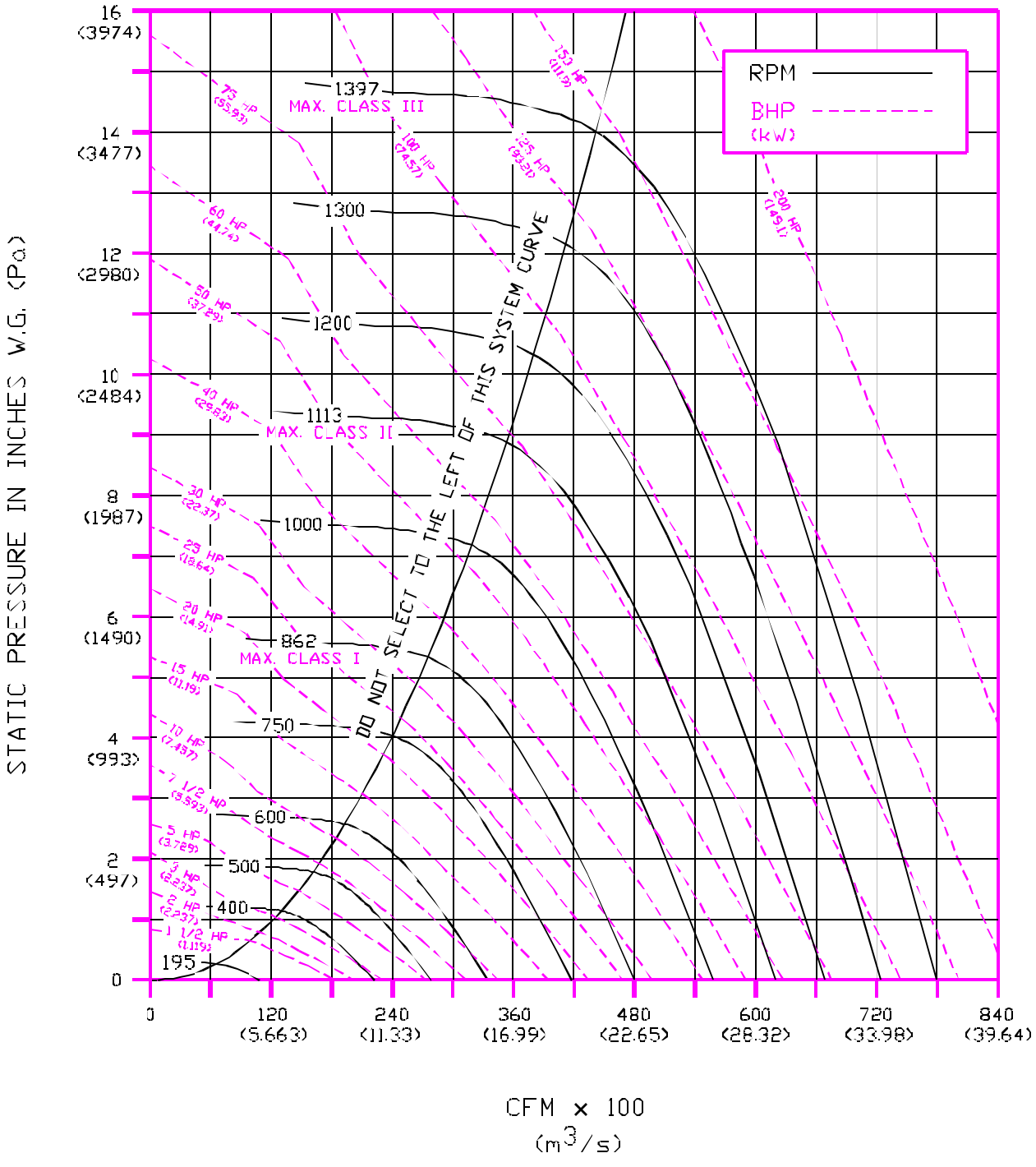
Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 49



See page 42 for complete dimensional data.



USTB SERIES

SIZE 54

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	54 ¼ inches	1378 mm
Wheel Circumference	14.2 feet	4.328 m
Inlet Diameter/Area	72 ⅜ inches dia./28.6 sq. ft.	1838 mm/2.657 m^2
Outlet Diameter/Area	72 ⅜ inches I.D./28.6 sq. ft.	1838 mm/2.657 m^2
Tip Speed	14.2 x RPM ft./minute	4.328 x RPM m/minute
Maximum BHP	78.20 x (RPM ÷ 1000)^3 BHP	58.31 x (RPM ÷ 1000)^3 kW

SIZE 54	-20° to 150°F -29° to 66°C
CLASS I	779
CLASS II	1005
CLASS III	1262

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8751	300	•176	•0.51	•206	•0.77																
11668	400	201	0.76	222	1.04	•244	•1.36	•266	•1.70	290	2.08										
14585	500	231	1.10	249	1.43	266	1.78	283	2.16	•301	•2.55	•318	•2.96	•336	•3.40						
17502	600	264	1.57	279	1.95	294	2.35	309	2.76	322	3.19	336	3.63	352	4.10	•380	•5.07	411	6.15		
20419	700	298	2.18	312	2.62	325	3.06	337	3.52	350	3.99	362	4.48	374	4.97	399	6.02	•424	•7.13	•448	•8.27
23336	800	334	2.97	346	3.45	358	3.94	369	4.45	380	4.97	391	5.50	402	6.05	423	7.17	443	8.33	467	9.57
26253	900	370	3.95	380	4.48	391	5.02	402	5.58	412	6.15	421	6.73	431	7.32	451	8.53	470	9.79	488	11.07
29170	1000	406	5.14	416	5.72	425	6.32	435	6.93	445	7.55	454	8.18	463	8.81	480	10.12	498	11.47	515	12.85
32087	1100	443	6.58	452	7.21	461	7.86	469	8.51	478	9.18	487	9.87	495	10.55	511	11.96	527	13.39	543	14.87
35004	1200	480	8.28	489	8.97	497	9.67	505	10.37	512	11.09	520	11.82	528	12.56	544	14.06	559	15.60	573	17.16
37921	1300	518	10.27	525	11.01	533	11.76	540	12.52	548	13.29	555	14.06	562	14.85	577	16.46	591	18.09	605	19.76
40838	1400	555	12.57	562	13.37	569	14.17	576	14.98	583	15.80	590	16.63	597	17.47	610	19.17	624	20.91	637	22.67
43755	1500	593	15.22	599	16.06	606	16.92	613	17.79	619	18.66	626	19.54	632	20.42	644	22.22	657	24.06	670	25.92
46672	1600	630	18.22	637	19.12	643	20.03	649	20.95	656	21.87	662	22.80	668	23.74	679	25.64	691	27.57	703	29.53
49589	1700	668	21.61	674	22.57	680	23.53	686	24.50	692	25.48	698	26.46	703	27.45	715	29.45	725	31.47	737	33.53
52506	1800	706	25.41	712	26.42	718	27.44	723	28.46	729	29.49	734	30.53	740	31.57	750	33.67	761	35.79	771	37.94
55423	1900	744	29.64	750	30.71	755	31.78	760	32.86	766	33.94	771	35.03	776	36.12	786	38.33	796	40.55	806	42.80
58340	2000	782	34.34	787	35.46	793	36.58	798	37.71	803	38.85	808	39.99	813	41.13	822	43.44	832	45.77	841	48.12
64174	2200	858	45.20	863	46.43	868	47.66	873	48.90	877	50.14	882	51.39	886	52.64	895	55.15	904	57.69	913	60.25
70008	2400	935	58.20	939	59.53	944	60.87	948	62.21	952	63.56	957	64.91	961	66.27	969	69.00	977	71.74	985	74.50
75842	2600	1012	73.52	1016	74.96	1020	76.41	1024	77.86	1028	79.31	1032	80.77	1036	82.23	1043	85.17	1051	88.12	1058	91.09
81676	2800	1088	91.37	1092	92.92	1096	94.47	1100	96.03	1103	97.59	1107	99.15	1111	100.72	1118	103.86	1125	107.02	1132	110.20
87510	3000	1165	111.94	1169	113.60	1172	115.26	1176	116.92	1179	118.58	1183	120.25	1186	121.92	1193	125.28	1200	128.65	1206	132.03
93344	3200	1243	135.44	1246	137.20	1249	138.96	1252	140.73	1256	142.50	1259	144.28	1262	146.05						

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20419	700	475	9.55																		
23336	800	•488	•10.85	532	13.57	579	16.62														
26253	900	507	12.42	•547	•15.26	•584	•18.22	627	21.60												
29170	1000	532	14.26	566	17.22	602	20.37	•635	•23.61	672	27.19	710	30.98								
32087	1100	559	16.38	589	19.47	620	22.74	653	26.19	•684	•29.72	•715	•33.38	750	37.49	784	41.68				
35004	1200	587	18.76	617	22.05	644	25.44	672	28.98	703	32.73	732	36.54	•759	•40.43	789	44.60	821	49.09	852	53.66
37921	1300	618	21.44	645	24.92	671	28.50	696	32.18	721	35.97	750	40.00	778	44.10	•804	•48.26	•829	•52.49	857	57.10
40838	1400	649	24.45	673	28.10	699	31.88	724	35.75	747	39.69	769	43.72	796	48.02	822	52.40	847	56.84	•871	•61.34
43755	1500	682	27.81	705	31.65	728	35.60	752	39.66	774	43.80	796	48.02	817	52.30	841	56.81	866	61.46	889	66.17
46672	1600	715	31.52	737	35.56	758	39.70	780	43.93	802	48.27	824	52.68	844	57.16	864	61.71	884	66.37	908	71.29
49589	1700	748	35.62	770	39.86	790	44.19	810	48.60	831	53.12	852	57.72	872	62.40	891	67.14	910	71.94	928	76.81
52506	1800	782	40.13	803	44.58	823	49.10	842	53.71	860	58.39	880	63.18	900	68.05	919	72.98	937	77.97	955	83.03
55423	1900	816	45.08	836	49.73	855	54.45	874	59.25	892	64.13	909	69.07	928	74.13	947	79.25	965	84.44	983	89.69
58340	2000	850	50.49	869	55.33	888	60.26	906	65.26	924	70.33	941	75.47	957	80.68	975	85.99	993	91.37	1010	96.81
64174	2200	921	62.82	938	68.03	955	73.35	972	78.75	989	84.21	1005	89.74	1021	95.33	1036	100.99	1051	106.70	1067	112.51
70008	2400	993	77.28	1009	82.89	1024	88.57	1040	94.37	1055	100.23	1071	106.15	1086	112.13	1100	118.17	1115	124.27	1128	130.42
75842	2600	1066	94.08	1080	100.09	1094	106.17	1108	112.31	1123	118.57	1137	124.89	1152	131.26	1166	137.69	1179	144.18	1193	150.71
81676	2800	1139	113.39	1153	119.82	1166	126.30	1179	132.84	1192	139.44	1205	146.14	1219	152.91	1232	159.73	1245	166.61	1258	173.53
87510	3000	1213	135.43	1226	142.26	1238	149.15	1250	156.09	1262	163.09										

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
37921	1300	887	61.97	916	66.89	944	71.89														
40838	1400	•894	•65.90	921	70.87	948	76.09	975	81.38	1002	86.72										
43755	1500	912	70.93	•935	•75.76	•956	•80.64	980	85.89	1006	91.46	1057	102.77								
46672	1600	931	76.27	953	81.30	974	86.39	•995	•91.52	•1015	•96.71	1061	108.05	1109	120.03	1154	132.22				
49589	1700	949	81.92	971	87.16	993	92.45	1013	97.80	1033	103.20	•1072	•114.13	1114	125.86	1159	138.50	1203	151.34		
52506	1800	973	88.15	990	93.35	1011	98.86	1032	104.41	1052	110.02	1090	121.37	•1127	•132.90	•1164	•144.88	1208	158.17	1249	171.65
55423	1900	1000	95.00	1017	100.36	1033	105.78	1050	111.37	1070	117.19	1109	128.95	1145	140.90	1180	153.02	•1214	•165.32	•1254	•179.03
58340	2000	1027	102.31	1044	107.86	1060	113.47	1075	119.13	1091	124.85	1127	136.91	1163	149.28	1198	161.81	1232	174.51		
64174	2200	1083	118.40	1099	124.33	1115	130.32	1130	136.36	1145	142.45	1174	154.77	1202	167.29	1235	180.58				
70008	2400	1142	136.63	1156	142.91	1171	149.29	1186	155.71	1200	162.18	1228	175.26	1256	188.52						
75842	2600	1206	157.30	1218	163.94	1231	170.63	1243	177.37	1257	184.20										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

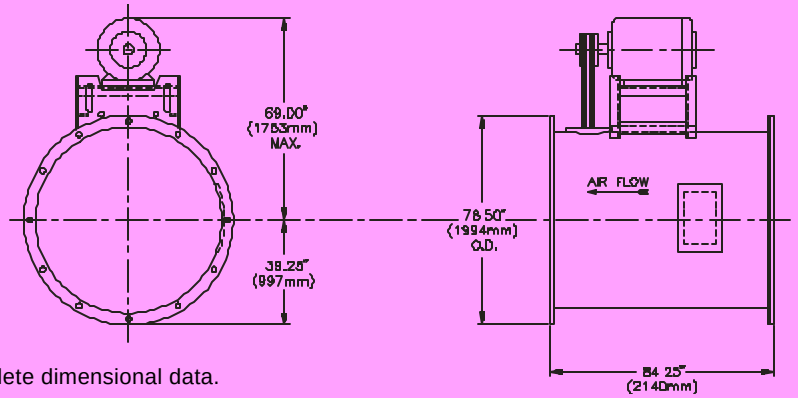
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

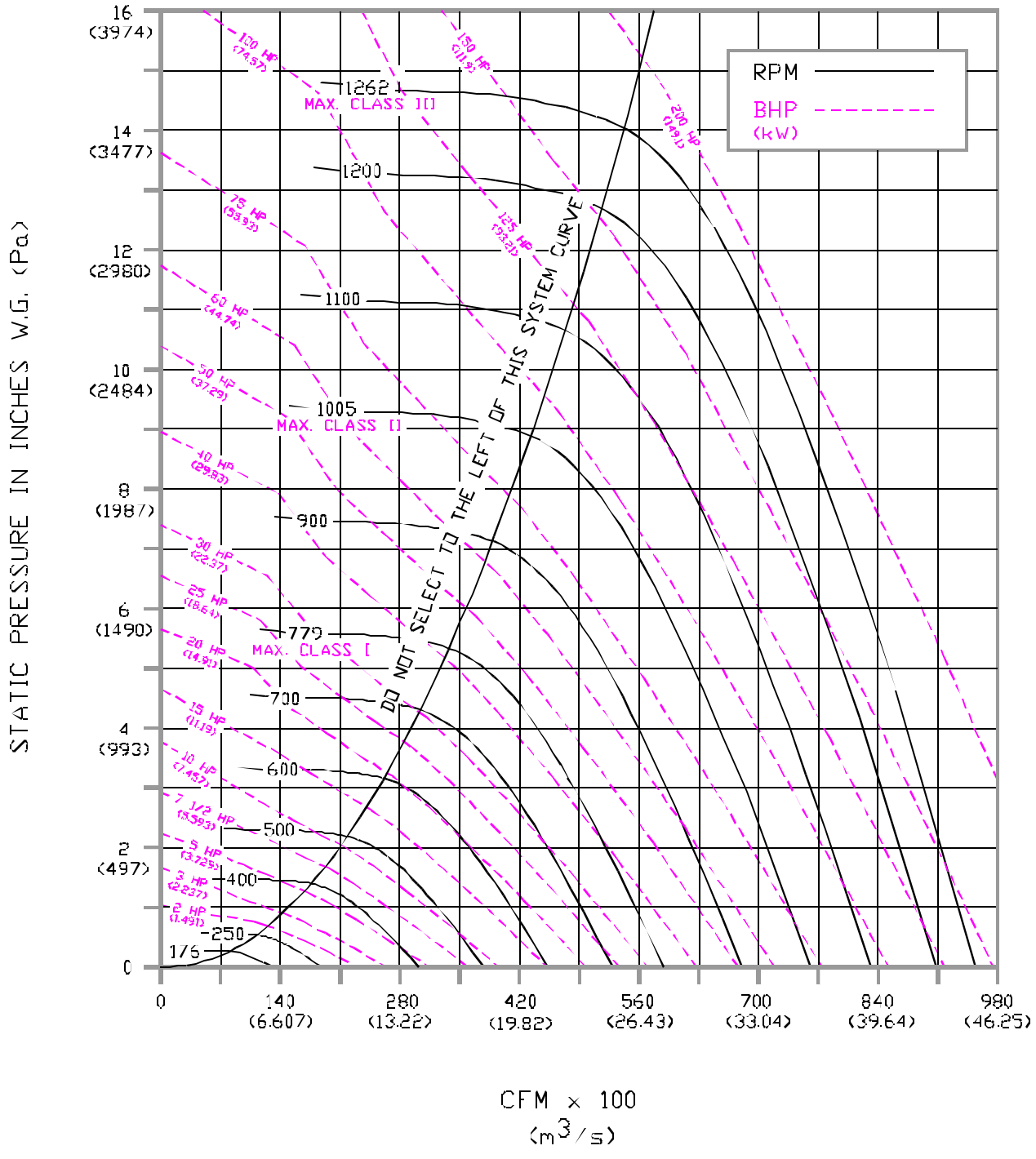
Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 54



See page 42 for complete dimensional data.



USTB SERIES

SIZE 60

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	60 inches	1524 mm
Wheel Circumference	15.7 feet	4.785 m
Inlet Diameter/Area	80 ¾ inches dia./35.6 sq. ft.	2051 mm/3.307 m^2
Outlet Diameter/Area	80 ¾ inches I.D./35.6 sq. ft.	2051 mm/3.307 m^2
Tip Speed	15.7 x RPM ft./minute	4.785 x RPM m/minute
Maximum BHP	129.2 x (RPM ÷ 1000)^3 BHP	96.34 x (RPM ÷ 1000)^3 kW

SIZE 60	-20° to 150°F -29° to 66°C
CLASS I	704
CLASS II	909
CLASS III	1141

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10704	300	•159	•0.63	•186	•0.94																
14272	400	182	0.93	200	1.27	•221	•1.66	•241	•2.08	262	2.54										
17840	500	209	1.35	225	1.75	241	2.18	256	2.64	•272	•3.12	•287	•3.62	•304	•4.16						
21408	600	239	1.92	253	2.39	266	2.87	279	3.38	291	3.90	304	4.44	318	5.02	•344	•6.20	372	7.53		
24976	700	270	2.67	282	3.20	294	3.74	305	4.30	317	4.88	328	5.48	338	6.08	361	7.36	•384	•8.72	•405	•10.11
28544	800	302	3.63	313	4.22	323	4.83	334	5.45	343	6.08	353	6.73	363	7.40	382	8.77	401	10.18	422	11.71
32112	900	334	4.83	344	5.48	354	6.14	363	6.83	372	7.52	381	8.23	390	8.95	408	10.44	425	11.97	441	13.54
35680	1000	367	6.29	376	7.00	385	7.73	393	8.47	402	9.23	410	10.00	418	10.78	434	12.38	450	14.03	466	15.71
39248	1100	401	8.05	409	8.82	417	9.61	424	10.41	432	11.23	440	12.07	448	12.91	462	14.62	476	16.38	491	18.19
42816	1200	434	10.13	442	10.97	449	11.82	456	12.69	463	13.56	471	14.46	478	15.36	492	17.20	505	19.08	518	20.99
46384	1300	468	12.56	475	13.47	482	14.39	489	15.32	495	16.25	501	17.20	508	18.17	522	20.13	534	22.13	547	24.16
49952	1400	502	15.38	508	16.35	515	17.34	521	18.33	527	19.33	533	20.34	539	21.36	552	23.45	564	25.57	576	27.72
53520	1500	536	18.61	542	19.65	548	20.70	554	21.75	560	22.82	566	23.90	571	24.98	583	27.18	594	29.42	606	31.70
57088	1600	570	22.28	576	23.39	582	24.50	587	25.62	593	26.75	598	27.89	604	29.04	614	31.36	625	33.72	636	36.12
60656	1700	604	26.43	610	27.60	615	28.78	620	29.97	626	31.16	631	32.36	636	33.57	646	36.02	656	38.49	666	41.01
64224	1800	638	31.08	644	32.31	649	33.56	654	34.81	659	36.07	664	37.34	669	38.61	678	41.18	688	43.78	697	46.41
67792	1900	673	36.26	678	37.56	683	38.87	688	40.19	692	41.51	697	42.84	702	44.18	711	46.88	720	49.60	729	52.35
71360	2000	707	42.00	712	43.37	717	44.74	721	46.13	726	47.51	730	48.91	735	50.31	744	53.14	752	55.99	761	58.86
78496	2200	776	55.29	780	56.79	785	58.29	789	59.81	793	61.33	797	62.85	802	64.38	810	67.46	818	70.56	825	73.69
85632	2400	845	71.18	849	72.81	853	74.45	857	76.09	861	77.74	865	79.40	869	81.06	876	84.39	884	87.75	891	91.13
92768	2600	915	89.92	918	91.69	922	93.45	926	95.23	929	97.01	933	98.79	936	100.58	943	104.17	950	107.78	957	111.41
99904	2800	984	111.75	988	113.65	991	115.55	994	117.45	998	119.36	1001	121.27	1004	123.19	1011	127.04	1017	130.90	1024	134.79
107040	3000	1054	136.92	1057	138.94	1060	140.97	1063	143.00	1066	145.04	1069	147.08	1072	149.13	1079	153.23	1085	157.35	1091	161.49
114176	3200	1123	165.66	1126	167.81	1129	169.97	1132	172.13	1135	174.29	1138	176.46	1141	178.64						

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24976	700	430	11.68																		
28544	800	•442	•13.27	481	16.60	524	20.33														
32112	900	458	15.19	•495	•18.66	•528	•22.28	567	26.42												
35680	1000	481	17.44	511	21.06	544	24.91	•574	• 28.87	608	33.25	642	37.90								
39248	1100	506	20.03	533	23.82	561	27.81	591	32.03	•619	•36.35	•646	•40.83	678	45.86	709	50.98				
42816	1200	531	22.95	558	26.97	582	31.12	608	35.45	635	40.03	662	44.70	•687	•49.45	713	54.55	743	60.05	771	65.63
46384	1300	558	26.23	583	30.48	607	34.87	630	39.36	652	44.00	678	48.93	703	53.94	•727	•59.03	•749	•64.21	775	69.85
49952	1400	587	29.91	609	34.38	632	39.00	654	43.73	676	48.55	696	53.48	720	58.74	743	64.09	766	69.52	•788	•75.02
53520	1500	617	34.01	637	38.71	658	43.54	680	48.51	700	53.57	720	58.73	739	63.98	760	69.48	783	75.17	804	80.93
57088	1600	646	38.55	666	43.50	686	48.55	705	53.73	725	59.04	745	64.43	763	69.91	781	75.48	800	81.18	821	87.20
60656	1700	676	43.57	696	48.76	715	54.05	732	59.45	751	64.97	770	70.60	788	76.32	806	82.12	823	87.99	839	93.95
64224	1800	707	49.09	726	54.52	744	60.06	761	65.69	778	71.42	796	77.28	813	83.23	831	89.26	847	95.37	864	101.56
67792	1900	737	55.14	756	60.82	773	66.60	790	72.47	806	78.44	822	84.49	839	90.67	856	96.94	872	103.29	888	109.71
71360	2000	769	61.76	786	67.68	803	73.71	820	79.82	835	86.02	851	92.31	866	98.68	882	105.17	898	111.76	913	118.41
78496	2200	833	76.84	848	83.20	864	89.72	879	96.32	894	103.00	909	109.77	923	116.61	937	123.52	950	130.51	965	137.62
85632	2400	898	94.53	912	101.39	926	108.33	940	115.42	954	122.59	968	129.84	982	137.16	995	144.54	1008	152.00	1020	159.53
92768	2600	964	115.06	977	122.43	989	129.86	1002	137.37	1015	145.02	1028	152.75	1041	160.55	1054	168.42	1066	176.35	1078	184.34
99904	2800	1030	138.69	1042	146.55	1054	154.48	1066	162.48	1077	170.55	1090	178.74	1102	187.03	1114	195.37	1126	203.78	1137	212.25
107040	3000	1096	165.64	1108	174.00	1119	182.43	1131	190.92	1141	199.48										

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
46384	1300	802	75.80	828	81.82	853	87.93														
49952	1400	•808	•80.60	832	86.69	858	93.08	882	99.54	906	106.07										
53520	1500	825	86.76	•845	•92.66	•864	•98.63	886	105.06	910	111.87	955	125.71								
57088	1600	841	93.29	861	99.44	881	105.66	•900	•111.95	•918	•118.30	960	132.17	1003	146.82	1044	161.73				
60656	1700	858	100.20	878	106.61	897	113.09	916	119.63	934	126.23	•969	•139.61	1007	153.95	1048	169.41	1087	185.12		
64224	1800	879	107.82	895	114.18	914	120.92	933	127.71	951	134.57	986	148.45	•1019	•162.56	•1052	•177.21	1092	193.47	1130	209.95
67792	1900	904	116.20	919	122.76	934	129.39	950	136.23	968	143.34	1002	157.73	1035	172.35	1067	187.17	•1097	•202.21	•1134	•218.98
71360	2000	929	125.14	944	131.93	958	138.79	972	145.72	986	152.71	1019	167.47	1052	182.59	1083	197.92	1114	213.45		
78496	2200	979	144.82	994	152.08	1008	159.40	1022	166.79	1035	174.24	1061	189.31	1086	204.62	1117	220.88				
85632	2400	1033	167.12	1045	174.80	1059	182.60	1072	190.46	1085	198.37	1111	214.37	1135	230.58						
92768	2600	1090	192.40	1102	200.52	1113	208.71	1124	216.95	1136	225.31										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

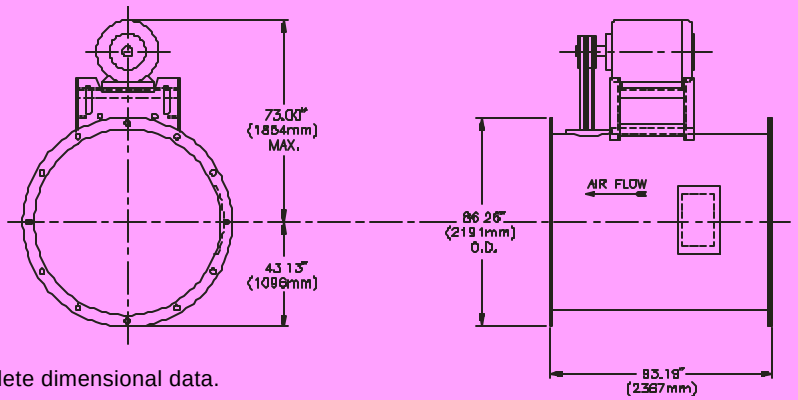
For minimum motor size required see page 6.

Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

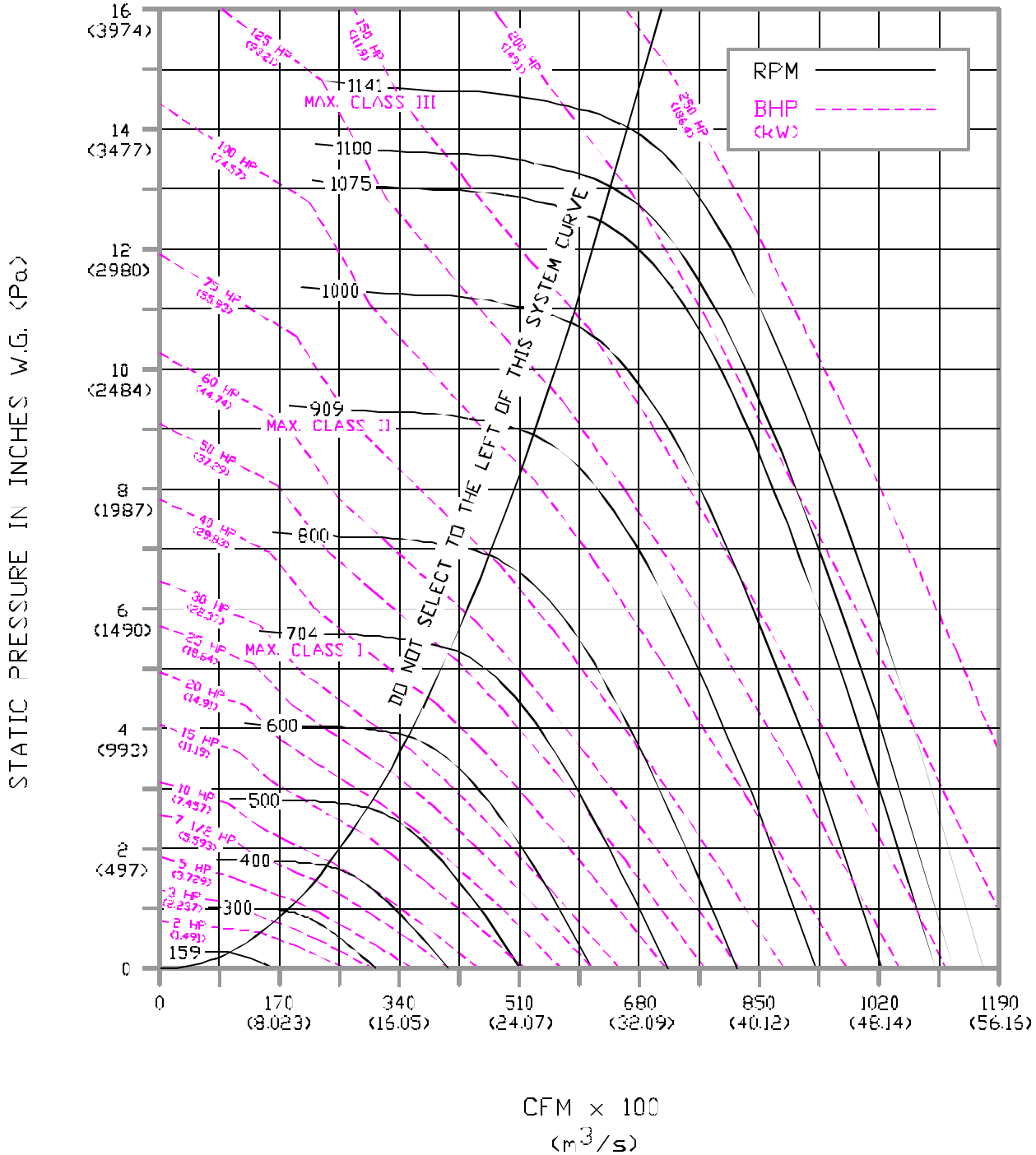
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

SIZE 60



See page 42 for complete dimensional data.



USTB SERIES

SIZE 66

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	66 inches	1676 mm
Wheel Circumference	17.3 feet	5.273 m
Inlet Diameter/Area	88 5/8 inches dia./42.9 sq. ft.	2251 mm/3.985 m^2
Outlet Diameter/Area	88 5/8 inches I.D./42.9 sq. ft.	2251 mm/3.985 m^2
Tip Speed	17.3 x RPM ft./minute	5.273 x RPM m/minute
Maximum BHP	207.7 x (RPM ÷ 1000)^3 BHP	154.9 x (RPM ÷ 1000)^3 kW

SIZE 66	-20° to 150°F -29° to 66°C
CLASS I	640
CLASS II	826
CLASS III	1037

VOL CFM	OUT VEL	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP		1 3/4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12951	300	•145	•0.76	•169	•1.14																
17268	400	165	1.12	182	1.54	•201	•2.01	•219	•2.51	238	3.08										
21585	500	190	1.63	205	2.12	219	2.64	233	3.19	•248	•3.77	•261	•4.38	•277	•5.04						
25902	600	217	2.32	230	2.89	242	3.48	254	4.09	265	4.72	277	5.37	289	6.07	•313	•7.50	338	9.11		
30219	700	245	3.23	257	3.87	267	4.53	277	5.21	288	5.91	298	6.63	308	7.36	328	8.91	•349	•10.55	•368	•12.24
34536	800	274	4.39	284	5.10	294	5.84	303	6.59	312	7.36	321	8.15	330	8.95	348	10.61	364	12.32	383	14.17
38853	900	304	5.84	313	6.63	321	7.43	330	8.26	338	9.10	346	9.96	354	10.83	370	12.63	386	14.48	401	16.38
43170	1000	334	7.61	342	8.47	350	9.35	358	10.25	365	11.17	373	12.10	380	13.04	394	14.97	409	16.97	423	19.01
47487	1100	364	9.73	372	10.67	379	11.63	386	12.60	393	13.59	400	14.60	407	15.62	420	17.69	433	19.82	446	22.00
51804	1200	395	12.25	402	13.27	408	14.30	415	15.35	421	16.41	428	17.49	434	18.59	447	20.81	459	23.08	471	25.39
56121	1300	425	15.20	432	16.29	438	17.41	444	18.53	450	19.66	456	20.81	462	21.98	474	24.36	486	26.77	497	29.23
60438	1400	456	18.60	462	19.78	468	20.97	474	22.17	479	23.39	485	24.61	490	25.84	502	28.37	513	30.94	523	33.54
64755	1500	487	22.51	493	23.77	498	25.04	504	26.32	509	27.61	514	28.91	519	30.22	530	32.88	540	35.60	550	38.35
69072	1600	518	26.96	523	28.29	529	29.64	534	31.00	539	32.37	544	33.74	549	35.13	558	37.94	568	40.79	578	43.70
73389	1700	549	31.97	554	33.39	559	34.82	564	36.25	569	37.70	574	39.15	578	40.62	587	43.57	596	46.57	606	49.62
77706	1800	580	37.60	585	39.09	590	40.60	594	42.11	599	43.64	604	45.17	608	46.71	617	49.82	625	52.96	633	56.14
82023	1900	612	43.86	616	45.44	621	47.02	625	48.62	629	50.22	634	51.83	638	53.45	646	56.71	654	60.01	662	63.33
86340	2000	643	50.81	647	52.47	651	54.13	656	55.80	660	57.48	664	59.17	668	60.87	676	64.28	684	67.73	691	71.21
94974	2200	706	66.89	709	68.70	713	70.52	717	72.35	721	74.19	725	76.04	729	77.89	736	81.61	743	85.37	750	89.15
103608	2400	768	86.11	772	88.09	776	90.07	779	92.06	783	94.05	786	96.05	790	98.06	796	102.10	803	106.16	810	110.25
112242	2600	831	108.79	835	110.92	838	113.06	841	115.20	845	117.36	848	119.51	851	121.68	857	126.02	864	130.39	870	134.79
120876	2800	895	135.20	898	137.49	901	139.78	904	142.09	907	144.40	910	146.71	913	149.03	919	153.69	925	158.36	930	163.06
129510	3000	958	165.64	961	168.09	964	170.54	966	173.00	969	175.46	972	177.93	975	180.41	980	185.38	986	190.36	991	195.37
138144	3200	1021	200.41	1024	203.01	1027	205.62	1029	208.24	1032	210.86	1035	213.48	1037	216.11						

VOL CFM	OUT VEL	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30219	700	391	14.13																		
34536	800	•401	•16.05	437	20.09	476	24.60														
38853	900	417	18.38	•450	•22.58	•480	•26.96	516	31.97												
43170	1000	437	21.10	465	25.48	495	30.14	•522	•34.94	553	40.24	584	45.86								
47487	1100	460	24.24	484	28.82	510	33.65	537	38.75	•563	•43.98	•587	•49.40	617	55.48	645	61.68				
51804	1200	483	27.76	507	32.63	529	37.65	552	42.89	578	48.43	602	54.08	•624	•59.84	649	66.00	675	72.65	701	79.41
56121	1300	508	31.73	530	36.88	552	42.18	572	47.62	593	53.23	617	59.20	639	65.26	•661	•71.43	•681	•77.69	705	84.51
60438	1400	534	36.19	553	41.59	575	47.18	595	52.90	614	58.74	632	64.70	654	71.07	676	77.54	696	84.11	•716	•90.77
64755	1500	560	41.15	579	46.84	598	52.68	618	58.69	637	64.82	655	71.06	672	77.41	691	84.07	711	90.95	731	97.92
69072	1600	587	46.64	606	52.63	623	58.74	641	65.01	659	71.43	677	77.95	694	84.58	710	91.32	727	98.22	746	105.51
73389	1700	615	52.71	633	58.99	650	65.40	666	71.93	683	78.61	700	85.42	717	92.34	733	99.35	748	106.46	763	113.67
77706	1800	642	59.39	660	65.97	676	72.66	692	79.48	707	86.41	723	93.49	739	100.70	755	108.00	770	115.39	785	122.88
82023	1900	670	66.71	687	73.58	703	80.58	718	87.68	733	94.90	747	102.22	763	109.70	778	117.29	793	124.97	808	132.73
86340	2000	699	74.72	715	81.88	730	89.17	745	96.57	759	104.07	773	111.68	787	119.39	801	127.25	816	135.21	830	143.27
94974	2200	757	92.96	771	100.66	785	108.54	799	116.53	813	124.62	826	132.80	839	141.08	852	149.45	864	157.90	877	166.50
103608	2400	816	114.36	829	122.66	841	131.06	855	139.64	867	148.32	880	157.08	892	165.94	904	174.88	916	183.90	927	193.01
112242	2600	876	139.21	888	148.11	899	157.11	911	166.20	923	175.45	935	184.81	947	194.24	958	203.76	969	213.36	980	223.03
120876	2800	936	167.79	947	177.30	958	186.89	969	196.57	979	206.33	990	216.25	1002	226.27	1013	236.37	1023	246.54	1034	256.79
129510	3000	997	200.40	1007	210.51	1018	220.71	1028	230.98												

VOL CFM	OUT VEL	7" SP		7 1/2" SP		8" SP		8 1/2" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
56121	1300	729	91.71	753	99.00	776	106.39														
60438	1400	•735	•97.52	757	104.89	780	112.62	802	120.43	823	128.34										
64755	1500	750	104.98	•768	•112.11	•786	•119.34	806	127.11	827	135.36	868	152.10								
69072	1600	765	112.87	783	120.32	801	127.84	•818	•135.45	•834	•143.13	872	159.91	912	177.65	949	195.69				
73389	1700	780	121.23	798	128.99	816	136.83	833	144.74	849	152.72	•881	•168.91	915	186.27	953	204.98	989	223.98		
77706	1800	799	130.45	814	138.15	831	146.30	848	154.52	864	162.81	896	179.61	•926	•196.69	•957	•214.42	993	234.09	1027	254.03
82023	1900	822	140.59	835	148.53	849	156.55	863	164.82	880	173.43	911	190.84	941	208.52	970	226.46	•998	•244.66	•1031	•264.96
86340	2000	844	151.40	858	159.62	871	167.92	884	176.30	897	184.76	926	202.62	956	220.92	985	239.47	1012	258.26		
94974	2200	890	175.21	903	184.00	916	192.86	929	201.80	941	210.81	965	229.05	988	247.57	1015	267.24				
103608	2400	939	202.20	950	211.48	962	220.92	975	230.43	987	240.00	1010	259.36	1032	278.98						
112242	2600	991	232.78	1001	242.61	1012	252.51	1022	262.48	1033	272.60										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

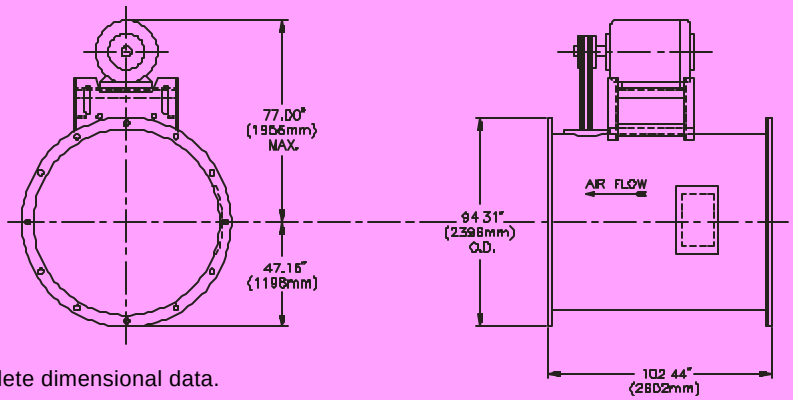
For minimum motor size required see page 6.

Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

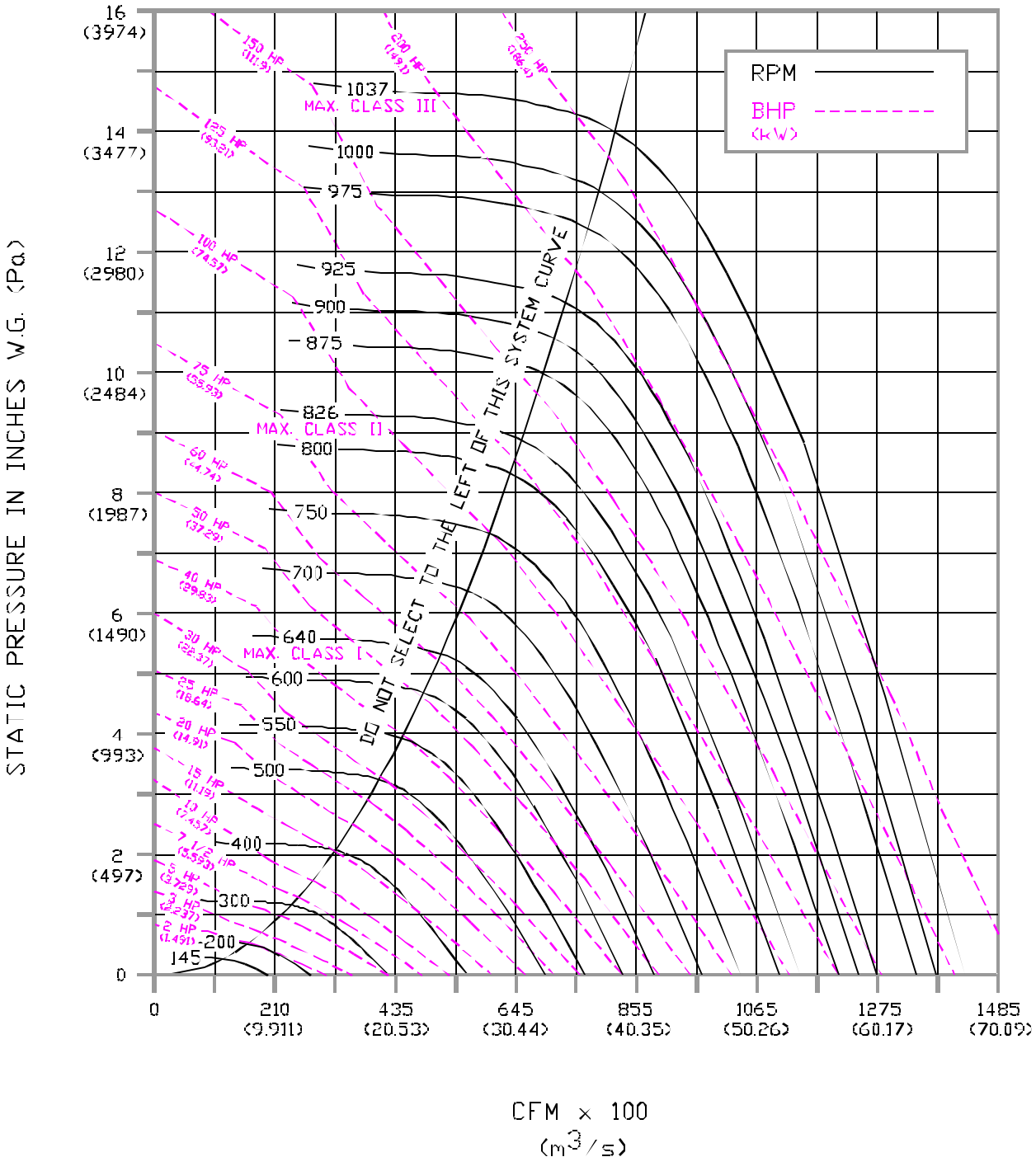
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

SIZE 66



See page 42 for complete dimensional data.



USTB SERIES

SIZE 73

MAXIMUM CLASS OPERATING RPM

Wheel Diameter	73 inches	1854 mm
Wheel Circumference	19.1 feet	5.822 m
Inlet Diameter/Area	98 inches dia./52.4 sq. ft.	2489 mm/4.868 m^2
Outlet Diameter/Area	98 inches I.D./52.4 sq. ft.	2489 mm/4.868 m^2
Tip Speed	19.1 x RPM ft./minute	5.822 x RPM m/minute
Maximum BHP	343.9 x (RPM ÷ 1000)^3 BHP	256.4 x (RPM ÷ 1000)^3 kW

SIZE 73	-20° to 150°F -29° to 66°C
CLASS I	579
CLASS II	747
CLASS III	938

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15837	300	•131	•0.93	•153	•1.39																
21116	400	149	1.37	165	1.89	•182	•2.46	•198	•3.07	215	3.77										
26395	500	172	1.99	185	2.60	198	3.23	210	3.90	•224	•4.62	•236	•5.35	•250	•6.16						
31674	600	196	2.84	208	3.53	218	4.25	229	5.00	240	5.76	250	6.57	261	7.42	•283	•9.17	306	11.14		
36953	700	222	3.95	232	4.73	241	5.54	250	6.37	260	7.22	269	8.10	278	9.00	296	10.89	•315	•12.90	•333	•14.96
42232	800	248	5.37	257	6.24	266	7.14	274	8.05	282	8.99	290	9.96	299	10.94	314	12.97	329	15.07	347	17.32
47511	900	275	7.14	283	8.10	291	9.08	298	10.09	306	11.12	313	12.17	320	13.24	335	15.44	349	17.70	362	20.03
52790	1000	302	9.30	309	10.35	316	11.43	323	12.53	330	13.65	337	14.79	344	15.95	356	18.31	370	20.75	383	23.24
58069	1100	329	11.89	336	13.04	342	14.21	349	15.40	355	16.61	362	17.84	368	19.09	380	21.63	391	24.23	403	26.90
63348	1200	357	14.97	363	16.22	369	17.48	375	18.76	381	20.05	387	21.38	393	22.72	404	25.44	415	28.21	425	31.04
68627	1300	384	18.57	390	19.91	396	21.27	401	22.64	407	24.03	412	25.44	418	26.87	429	29.77	439	32.73	449	35.74
73906	1400	412	22.73	418	24.17	423	25.63	428	27.10	433	28.58	438	30.08	443	31.59	453	34.67	463	37.81	473	41.00
79185	1500	440	27.51	445	29.05	450	30.60	455	32.16	460	33.74	465	35.33	469	36.93	479	40.18	488	43.51	498	46.88
84464	1600	468	32.94	473	34.57	478	36.22	482	37.88	487	39.55	491	41.24	496	42.94	504	46.36	513	49.86	522	53.41
89743	1700	496	39.07	501	40.80	505	42.54	510	44.30	514	46.07	518	47.85	523	49.64	531	53.25	539	56.91	547	60.65
95022	1800	524	45.94	529	47.77	533	49.61	537	51.46	541	53.32	545	55.20	549	57.08	557	60.89	565	64.73	573	68.62
100301	1900	553	53.59	557	55.52	561	57.46	565	59.41	569	61.37	573	63.34	577	65.32	584	69.31	591	73.34	599	77.41
105580	2000	581	62.08	585	64.11	589	66.14	593	68.19	596	70.24	600	72.31	604	74.38	611	78.56	618	82.78	625	87.03
116138	2200	638	81.72	641	83.94	645	86.17	648	88.41	652	90.66	655	92.91	658	95.18	665	99.73	672	104.32	678	108.95
126696	2400	694	105.22	698	107.63	701	110.05	704	112.48	707	114.92	711	117.37	714	119.83	720	124.76	726	129.73	732	134.73
137254	2600	751	132.92	754	135.53	757	138.14	760	140.77	763	143.40	766	146.04	769	148.68	775	154.00	781	159.34	786	164.71
147812	2800	808	165.19	811	167.99	814	170.80	817	173.61	820	176.43	822	179.26	825	182.10	830	187.79	836	193.52	841	199.26
158370	3000	866	202.38	868	205.37	871	208.37	873	211.38	876	214.39	879	217.41	881	220.44	886	226.51	891	232.61	896	238.73
168928	3200	923	244.86	925	248.04	928	251.23	930	254.43	933	257.64	935	260.85	937	264.06						

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
36953	700	353	17.28																		
42232	800	•363	•19.63	395	24.57	430	30.08														
47511	900	377	22.47	•406	•27.61	•434	•32.97	466	39.10												
52790	1000	395	25.80	420	31.16	447	36.86	•472	•42.72	500	49.21	528	56.08								
58069	1100	415	29.63	438	35.23	461	41.14	485	47.39	•509	•53.78	•531	•60.41	558	67.86	583	75.44				
63348	1200	436	33.94	458	39.90	478	46.03	499	52.45	522	59.22	544	66.13	•564	•73.17	586	80.72	610	88.85	633	97.12
68627	1300	459	38.79	479	45.09	499	51.57	517	58.22	536	65.09	557	72.38	578	79.80	•597	•87.34	•616	•95.00	637	103.35
73906	1400	482	44.24	500	50.84	519	57.68	538	64.68	555	71.82	572	79.11	592	86.90	611	94.82	629	102.85	•647	•111.00
79185	1500	507	50.30	524	57.26	541	64.40	558	71.75	575	79.25	592	86.88	607	94.64	625	102.79	643	111.21	661	119.73
84464	1600	531	57.01	548	64.33	563	71.81	579	79.48	596	87.33	612	95.31	627	103.41	642	111.65	657	120.10	675	129.01
89743	1700	556	64.43	572	72.11	587	79.94	602	87.93	617	96.10	633	104.43	648	112.89	662	121.47	676	130.17	690	138.98
95022	1800	581	72.59	596	80.63	611	88.82	625	97.16	639	105.63	654	114.30	668	123.11	683	132.04	696	141.08	710	150.23
100301	1900	606	81.53	621	89.94	635	98.49	649	107.18	663	116.01	675	124.96	689	134.11	703	143.39	717	152.78	730	162.28
105580	2000	632	91.32	646	100.08	660	109.00	673	118.04	686	127.22	699	136.52	711	145.95	724	155.56	738	165.31	751	175.15
116138	2200	684	113.61	697	123.03	710	132.67	722	142.44	735	152.33	747	162.33	758	172.45	770	182.69	781	193.03	793	203.54
126696	2400	738	139.76	749	149.91	760	160.19	772	170.67	784	181.29	795	192.01	807	202.83	817	213.77	828	224.80	838	235.94
137254	2600	792	170.12	802	181.01	813	192.01	823	203.12	834	214.44	845	225.88	856	237.42	866	249.06	876	260.80	886	272.63
147812	2800	846	205.04	856	216.67	866	228.40	876	240.24	885	252.18	895	264.30	905	276.56	915	288.91	925	301.35	934	313.89
158370	3000	901	244.88	910	257.25	920	269.72	929	282.28	938	294.94										

VOL CFM	OUT VEL	7" SP		7 ½" SP		8" SP		8 ½" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
68627	1300	659	112.15	681	121.08	701	130.11														
73906	1400	•664	•119.25	684	128.27	705	137.72	725	147.29	744	156.96										
79185	1500	678	128.36	•694	•137.09	•710	•145.93	728	155.45	748	165.54	785	186.01								
84464	1600	692	138.02	708	147.12	724	156.33	•739	•165.63	•754	•175.02	789	195.57	824	217.26	858	239.32				
89743	1700	705	148.23	722	157.72	737	167.31	753	176.98	768	186.75	•797	•206.55	828	227.80	861	250.68	894	273.92		
95022	1800	723	159.50	736	168.92	751	178.88	767	188.94	781	199.08	810	219.63	•837	•240.51	•865	•262.22	897	286.28	928	310.67
100301	1900	743	171.88	755	181.59	767	191.41	780	201.53	795	212.06	824	233.36	851	254.98	877	276.92	•902	•299.17	•932	•324.03
105580	2000	763	185.10	775	195.16	787	205.31	799	215.56	810	225.90	837	247.75	864	270.13	890	292.82	915	315.80		
116138	2200	805	214.20	817	224.94	828	235.78	839	246.72	851	257.74	872	280.04	893	302.70	918	326.77				
126696	2400	848	247.18	859	258.54	870	270.08	881	281.71	892	293.42	913	317.09	933	341.09						
137254	2600	896	284.55	905	296.57	915	308.68	924	320.88	934	333.25										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see page 6.

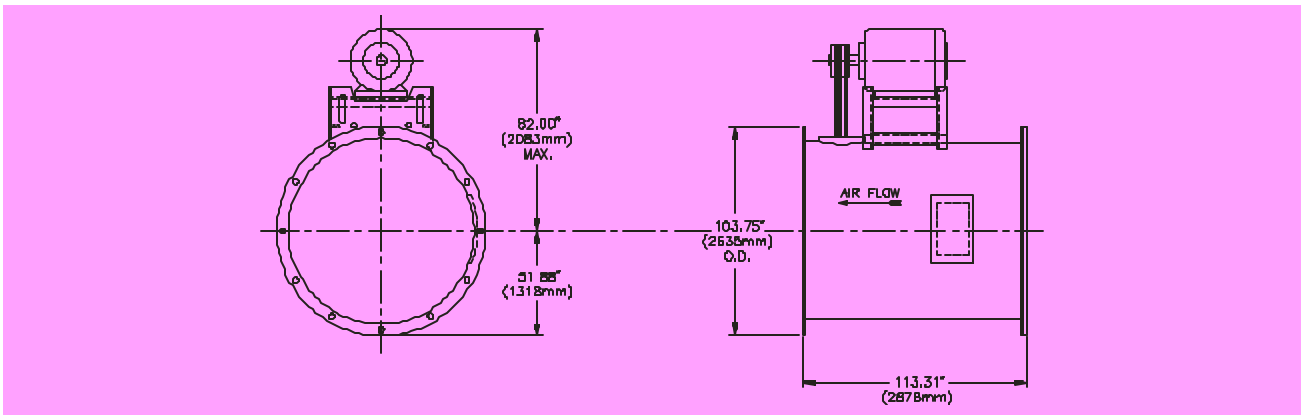
Performance shown is for Installation Type B: Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

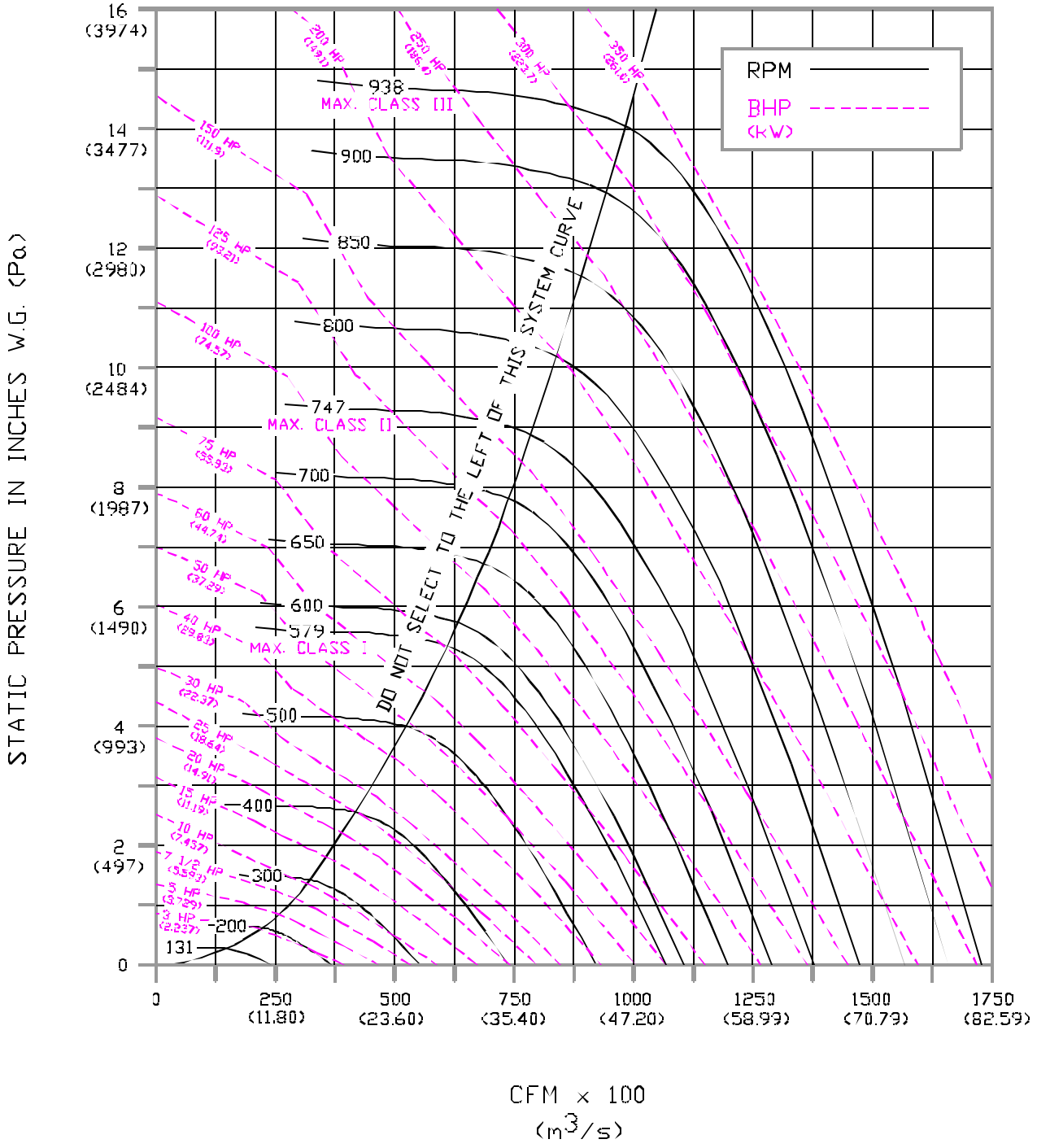
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70°F & 0 Ft. elevation (1.2 kg/m^3 at 21.1 °C & 0 m).

Refer to factors on page 40 to convert numbers above to the desired metric units.

USTB SERIES

SIZE 73





USTB SERIES

	CONVERSION TABLE					
	I-P Equivalents of Metric Units			Metric Equivalents of I-P Units		
Area	1 m^2 (square meter)	=	10.764 ft^2	1 ft^2 (square foot)	=	.09290 m^2
Density	1 kg/m^3	=	.062428 lbm/ft^3	1 lbm/ft^3	=	16.018 kg/m^3
	1 g/cm^3	=	62.428 lbm/ft^3	1 lbm/ft^3	=	.016018 g/cm^3
Energy	1 *J* (Joule) or *N-m* (Newton-meter)	=	.73756 *ft-lb*	1 *ft-lb* (foot pound)	=	1.3558 *N-m*
	1 *kcal* (kilo calorie)	=	3.9683 *Btu*	1 *Btu* (British thermal unit)	=	252 *cal*
Flow Rate (Volume)	1 m^3/s (cubic meter per second) CMS	=	2118.9 *CFM*	1 *CFM* (Cu. ft/min)	=	.00047195 m^3/s
	1 m^3/min (cubic meter per minute) CMM	=	35.315 *CFM*	1 *CFM*	=	.02832 m^3/min
	1 m^3/hr (cubic meter per hour) CMH	=	.58858 *CFM*	1 *CFM*	=	1.6990 m^3/hr
	1 *l/s* (liter per second)	=	2.1189 *CFM*	1 *CFM*	=	.47195 *l/s*
Force	1 *N* (Newton)	=	.22481 *lb*	1 *lb* (pound)	=	4.4482 *N*
	1 *kp* (kilopond)	=	2.2046 *lb*	1 *lb*	=	.45359 *kp*
Gas Constant	1 *J/kg-K* (Joule per kilogram Kelvin)	=	.18586 *ft-lb/lbm-°R*	1 *ft-lb/lbm- °R**	=	5.3803 *J/kg-K*
	1 m^2/s^2-*K* (sq. mtr per sec. sq. Kelvin)	=	5.9800 ft^2/s^2- *°R*	1 ft^2/s^2 - *°R***	=	.16723 m^2/s^2-*K*
	1 *cal/g- °C* (calorie per gram *°C*)	=	4186.8 *J/kg-K*	1 *Btu/lbm - °R*	=	1.0000 *cal/g- °C*
				*(foot-pound per poundmass degree Rankine)		
				**(square-foot per second-square degree Rankine)		
Length	1 *mm* (millimeter)	=	.03937 *inch*	1" (inch)	=	25.4 *mm*
	1 *cm* (centimeter)	=	.39370 *inch*	1"	=	2.54 *cm*
	1 *m* (meter)	=	3.2808 *ft*	1 *ft* (foot)	=	.30480 *m*
	1 *km* (kilometer)	=	.62137 *mi*	1 *mi* (mile)	=	1.6093 *km*
Mass	1 *kg* (kilogram)	=	2.2046 *lbm*	1 *lbm* (pound mass)	=	.45359 *kg*
Power	1 *W* (Watt)	=	.00134 *HP*	1 *hp* (horsepower)	=	.7457 *kW*
	1 *kW* (kilo-Watt)	=	1.3410 *hp*	1 *hp*	=	745.70 *W*
	1 *mhp* (metric horsepower)	=	.98632 *hp*	1 *hp*	=	1.0139 *mhp*
Pressure or Stress	1 N/m^2 (Newton per m ^{2}) or *Pa* (Pascal)	=	.0040264" *wg*	1" *wg* (inches water gauge)	=	248.66 *Pa* or N/m^2
	1 *mm Hg* or *torr* (*mm* Mercury)	=	.53616" *wg*	1" *wg*	=	1.8651 *mm Hg* or *torr*
	1 *kPa* (kilo Pascal)	=	.1450 *psi*	1 *psi* (pounds per sq. inch)	=	6894.8 *Pa* or N/m^2
	1 *atm* (atmosphere)	=	29.921" *Hg*	1" *Hg* (inch Mercury)	=	3386.4 *Pa* or N/m^2
	(*mm Hg* at 0°*C* or 68°*F*)			(inches *wg* at 68°*F* or 20°*C*)		
	1 oz/in^2	=	1.732" *wg*	1" *wg*	=	0.5774 oz/in^2
Temperature	For temperature intervals and rise,			For temperature intervals and rise,		
	1°*C* (degree Celcius)	=	9/5 °*F*	1°*F* (degree Fahrenheit)	=	5/9 °*C*
	For temperature in °*F* (Fahrenheit)	=	t_C x 9/5 + 32	For temperature in °*C*	=	(t_F-32) x 5/9
Torque	1 *N-m* (Newton meter)	=	8.8507 *lb-in.*	1 *lb-in.* (pound inch)	=	.11298 *N-m*
	1 *N-m* (Newton-meter)	=	.73756 *lb-ft.*	1 *lb-ft.* (pound foot)	=	1.3558 *N-m*
Velocity & Speed	1 *m/s*	=	196.5 *fpm*	1 *fpm* (feet per minute)	=	.00508 *m/s*
	1 *km/hr* (kilometer per hour)	=	.62137 *mph*	1 *mph* (mile per hour)	=	1.6093 *km/hr*
	1 *rps* (revolution per second)	=	.016667 *rpm*	1 *rpm* (revolution per minute)	=	60 *rps*
Viscosity	1 *cP* (Centipoise)	=	.00067197 *lbm/ft-s*	1 *lbm/ft-s* (pound/foot second)	=	1488.2 *cP*

TYPICAL SPECIFICATIONS

FURNISH AND INSTALL U.S. FAN SERIES IN-LINE CENTRIFUGAL FANS WITH AIRFOIL BLADING, OF THE SIZE AND CAPACITY AS SHOWN ON THE FAN SCHEDULE.

PERFORMANCE: Fans shall be licensed to bear the AMCA Sound & Air Performance Seal with performance rating based on tests and procedures conducted in accordance with AMCA Standard 211 and AMCA Standard 311, and comply with the requirements of the AMCA Certified Ratings Program. Fans shall have a sharply rising pressure characteristic which shall extend throughout the operating range and continue to rise beyond the efficiency peak to insure quiet, stable operation under most conditions. The horsepower characteristic shall be non-overloading and shall peak at maximum efficiency and within the normal selection range.

DESIGN AND CONSTRUCTION: Housings shall be tubular type to provide straight through in-line airflow entrance to discharge. Multiple aerodynamic conversion vanes, providing rigid support for outer casing, shall be located immediately following the wheel to redirect the airflow in order to minimize noise. Inlet and outlet diameters shall be identical to accommodate a single duct size. All horizontal fans shall be V-belt driven, Arrangement 9 with motor mounted on adjustable platform welded securely to the tubular housing, or Arrangement 1 with motor mounted on an integral structural base. All vertical fans shall be V-belt driven, Arrangement 9, with shaft and bearings designed to withstand the vertical thrust loads. Inlets shall be fully streamlined.

WHEELS: All wheels 15 inches (381 mm) in diameter and larger shall be centrifugal backwardly inclined type with die-formed airfoil blades for maximum efficiency and quiet regular type operation. Wheel diameters shall be in accordance with the standard sizes adopted by AMCA for non-overloading Centrifugal Fans.

INLET VANE CONTROL: Shall be provided in either nested internally mounted, or separately encased, externally mounted type designs, to permit volume reduction with a corresponding horsepower savings, and where appropriate, designed for inlet duct attachment. The free area of the conical vanes shall be not less than 120% of the fan inlet area to minimize inlet losses. The blade area shall be equalized so that vanes shall remain partially open should the control devices fail. Nested and external type design shall be furnished with either a lever and locking hand quadrant for manual operation, or a stub shaft, with optional lever for automatic control.

ACCESSORIES: Fans shall be furnished with accessories and mounting feet or brackets as shown in the schedules.

USTB SERIES

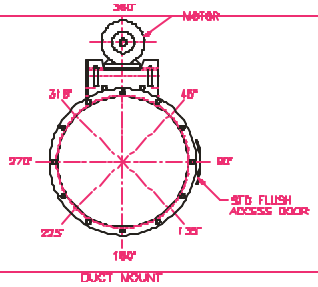
POSITIONING GUIDE FOR USTB SERIES MOTOR, FAN BASE, BRACKETS, ACCESS DOOR AND INLET VANE CONTROL

Note: **All positions are as viewed from Discharge end.** AMCA standard degrees are used.
Allowable position specifications (for motor, fan base and access doors) are: 45°/90°/135°/180°/225°/270°/315°/360°

① Type of Support - None - Fan is either Duct Supported or Roof Curb Cap Mounted

Motor Position is considered to be 360°, regardless of how you mount fan on duct or roof cap.

Fan comes standard with flush bolted access door located 90° from motor in a clockwise direction. An optional second access door may be specified at position 135°/180°/225°/270°.

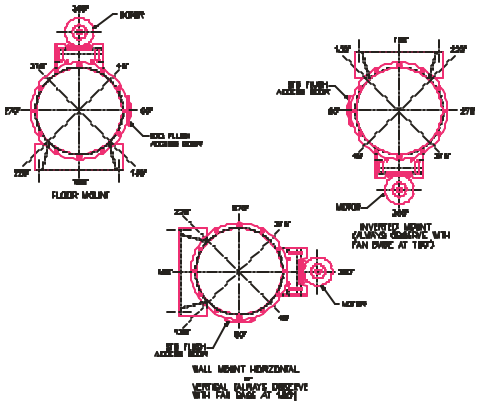


② Type of Support - Horizontal and Vertical Fan Base Support for Floor mount, Wall mount, or Inverted mount.

Regardless of the mounting of the fan base (floor, wall or inverted) always assume the fan base is at 180° position as shown when the motor is at the standard 360° position. Alternate motor positions of 45°/90°/270°/315° are available when the fan base is at 180° position.

Fan comes standard with flush bolted access door located at 90° position. Optional second access door may be specified and is available in the below positions. Note: You may want to avoid access door 180° position due to possible conflict with fan base and mounting surface.

If Motor Pos. at	Std Access at	Second Access door can be at
360° (standard position)	90°	135°/180°/225°/270°
45°	135°	180°/225/°270°/315°
90°	180°	225°/270°/315°/360°
270°	360°	45°/90°/135°/180°
315°	45°	90°/135°/180°/225°

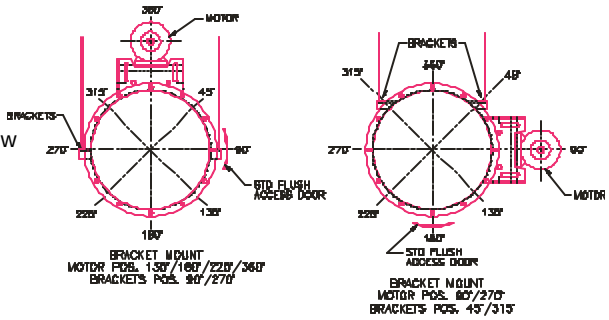


③ Type of Support - Horizontal Ceiling Support Brackets

You must specify standard 360° motor position or alternate motor positions limited to 90°/135°/180°/225°/270°. Motor position of either 45° or 315° is not allowable. Factory determines bracket position as shown.

Fan comes standard with flush bolted access door located at 90° position. Optional second access door may be specified and is available in the below positions.

If Motor Pos. at	Std Access at	Brackets at	Second Access door can be at
360° (standard position)	90°	90°/270°	135°/180°/225°/270°
90°	180°	45°/315°	225°/270°/315°/360°
135°	225°	90°/270°	270°/315°/360°/45°
180°	270°	90°/270°	315°/360°/45°/90°
225°	315°	90°/270°	360°/45°/90°/135°
270°	360°	45°/315°	45°/90°/135°/180°

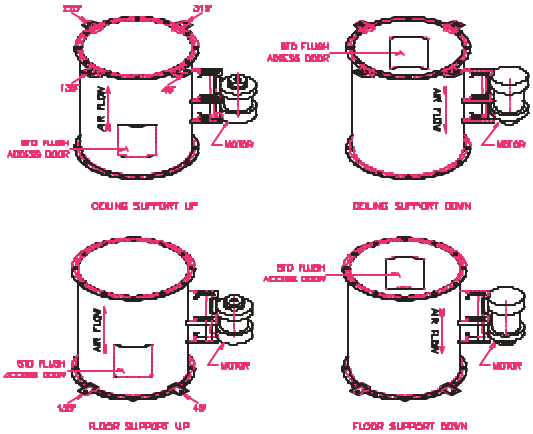


④ Type of Support - Vertical Brackets For both Ceiling Support and Floor Support

Up or down air flow must be specified. All positions are viewed from the discharge end. The standard motor position is always 360° and the standard flush bolted access door is located at 90° position. Optional second access door positions are 135°/180°/225°/270°.

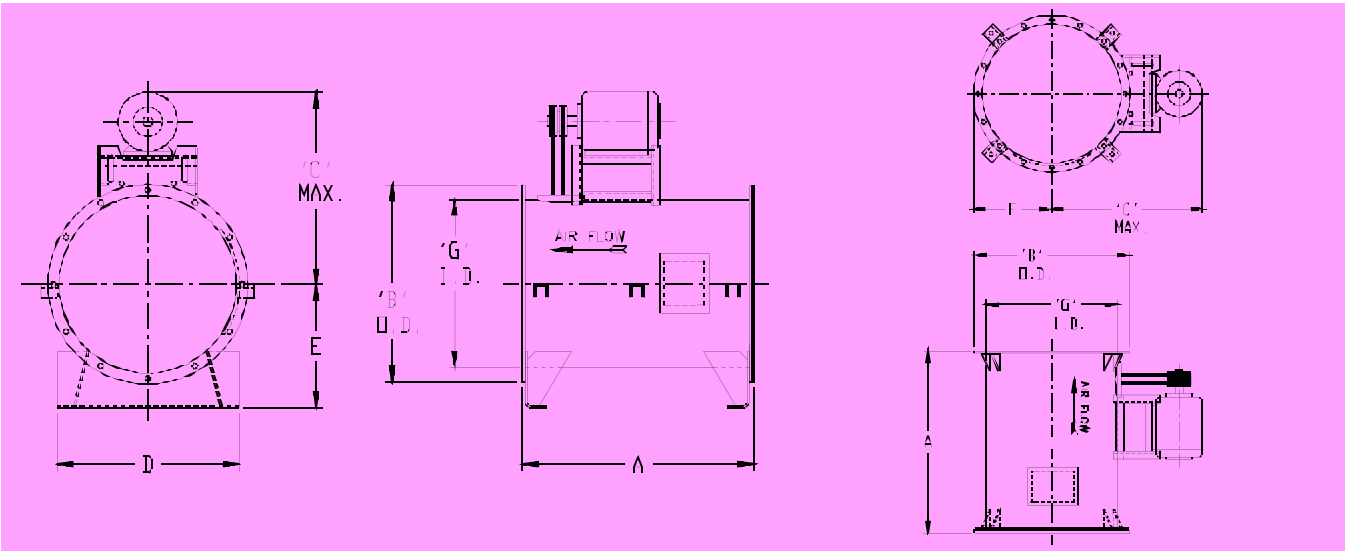
Brackets are located at 45°/135°/225°/315° positions for ceiling or floor support.

INLET VANE CONTROLS (for all of the above mounting arrangements) - Linkage standard positions are 90°, 180°, 270° and 360°. Standard position if not specified is 90° from motor location viewed from discharge. Positions 45°, 135°, 225°, and 315° require SPR.



USTB SERIES

DIMENSIONAL DATA
Sizes 15-73
Arrangement 9, Class 2



SIZE	A	B	C	D	E	F	G	EST. WT. CL/1	EST.WT. CL/2	EST.WT. CL/3
	IN	IN	IN	IN	IN	IN	IN	lbs.	lbs.	lbs.
15	23.31	23.38	30.00	25.00	14.69	11.56	20.19	180	200	225
18	28.31	27.75	36.00	26.50	16.81	13.75	24.56	240	260	280
20	31.00	30.13	37.00	26.50	18.13	15.00	26.92	285	330	385
22	34.56	33.13	39.00	33.25	19.63	16.50	29.95	345	365	430
24	38.06	36.19	42.00	35.50	21.63	18.00	32.97	425	450	480
27	41.88	39.56	44.00	36.00	23.38	19.75	36.34	525	550	595
30	46.56	43.56	46.00	42.50	25.25	21.63	40.38	660	685	705
33	51.19	47.69	51.00	45.00	27.38	23.75	44.41	820	860	905
37	56.63	53.44	54.00	46.25	29.63	26.06	49.13	1035	1075	1130
40	62.50	58.56	57.00	48.25	32.25	28.63	54.26	1390	1460	1575
45	69.06	65.25	63.00	64.00	35.88	31.75	59.98	1815	1890	2005
49	76.13	71.44	66.00	66.00	38.81	34.69	66.05	2275	2390	2560
54	84.25	78.50	69.00	68.00	41.88	38.00	73.11	3050	3205	3430
60	93.19	86.26	73.00	71.50	46.06	42.19	80.87	3990	4270	4525
66	102.44	94.31	77.00	100.00	50.00	46.13	88.96	4975	5275	5590
73	113.31	103.75	82.00	101.00	54.69	50.81	98.39	6115	6420	6740

Data shown on this page is for general information only and should not be used for exact installation dimensions. For detailed dimensional data refer to the appropriate submittal drawing. Arrangement 1 dimensions can be found on the appropriate submittal drawing.

Refer to factors on page 40 to convert numbers to the desired metric units.

NOTES

TERMS AND CON DI TIONS

ACCEPTANCE All or ders and sales are sub ject to writ ten ap proval and ac cep tance by an ex ec u tive of fi cer of U.S. Fan In ter na tional® at Ft. Smith, Ar-kan sas, and are not bind ing on the Com pany un til so ap proved.

DELIVERY De liv ery of the equip ment herein spec i-fied shall be made F.O.B. point of ship ment, un less oth er wise stated. The Com pany shall not be li a ble for de lay due to causes be yond its rea son able con-trol, such as Acts of God, acts of the purchaser, acts of civil or mil i tary au thor i ties, pri or i ties, fires, strikes, floods, epidemics, war, riots, delays in trans por ta tion, car short ages, and in abil ity, due to reasons beyond its reasonable control, to obtain nec es sary la bor, ma te rial, or man u fac tur ing fa cil i-ties. In the event of such a de lay, the date of de liv-ery shall be ex tended for a pe riod equal to the time lost by rea son of the de lay.

TERMS OF PAYMENT If, in the judg ment of the Com pany, the fi nan cial con di tion of the pur chaser at any time does not jus tify con tin u a tion of man u-fac ture or ship ment on the terms of pay ment spec i-fied, the Com pany may re quire full or par tial pay-ment in ad vance.

Pro rata pay ments shall be come due as ship ments are made. Each ship ment or de liv ery shall con sti-tute a sep a rate sale, and the de fault of any ship-ment or de liv ery shall con sti tute a sep a rate sale, and the de fault of any ship ment or de liv ery shall not vi ti ate the con tract as to other ship ments or de-liveries.

PRICE ADJUSTMENT In the event of a price change prior to com ple tion of this of fer, price will be that pre vail ing at time of ship ment.

SALES AND SIMILAR TAXES The Company's prices do not in clude sales, use, ex cise, or sim i lar taxes. Con se quently, in ad di tion to the price spec i-fied herein, the amount of any present or future sales, use, ex cise, or other sim i lar tax ap pli ca ble to the sale of the equip ment herein shall be paid by the Purchaser, or in lieu thereof the Purchaser shall pro vide the Com pany with a tax ex emp tion cer tif i cate ac cept able to the tax ing au thor i ties.

CANCELLATION Any con tract re sult ing from this quo ta tion may be cancelled by the Pur chaser only by ne go ti a tions and upon pay ments of rea son able can cel la tion charges which will take into ac count expenses already incurred and commitments made by the Com pany.

DESIGN CHANGES The company reserves the right to make changes in design, improvements and ad di tions in and to its prod ucts any time with-out im pos ing any li a bil ity or ob li ga tions to it self to ap ply or in stall the same in any prod uct man u fac-tured by it.

TITLE The title and right of possession of the equip ment sold herein shall re main with the Com-pany and such equipment shall remain personal property until all payments herein (including de-ferred payments whether evidenced by notes or otherwise) shall have been made in full in cash and the Pur chaser agrees to do all acts nec es sary to per fect and main tain such right and ti tle in the Company.

PRICE ADJUSTMENTS AND PROTECTION Prices on equipment manufactured by the Com-pany are firm for ship ment up to four months from the date of the orig i nal or der en try. Such prices are sub ject to ad just ment if ship ment is made af ter four months and up to ten months from the date of the original order entry, if equipment is shipped ten months from the date of the original or der en try, prices will be ad justed to the price in ef fect at the time of ship ment au to mat i cally. All com plete com-po nent ac ces sory ma te rial man u fac tured by oth ers and fur nished with the Com pany's equip ment such as mo tors, drives, vi bra tion equip ment, con trols or other com pletely as sem bled com po nent struc tures, are sub ject to ad just ment to the price at time of ship ment re gard less of the date of orig i nal or der entry.

SAFETY AC CES SORIES The Com pany man u fac-tures equip ment de signed to serve mul ti ple ap pli-ca tions and of fers a wide range of safety equip-ment, in clud ing guards and other de vices, as may be re quired to meet cus tomer spec i fi ca tions. With-out ex cep tion, the Com pany rec om mends that all orders include applicable safety devices. Equip-ment or dered with out ap pli ca ble safety de vices is clearly the re spon si bil ity of the Pur chaser. Fur ther, the Purchaser warrants that he has determined and ac quired any and all safety de vices re quired for equip ment sold by the Com pany. Weather cov-ers and guards for mo tor and V-belt drives, cou-plings, shafts and bearings, along with inlet and out let screens, are op tional ac ces so ries noted in the price list.

WARNING U.S. Fan In ter na tional® prod ucts are de signed and man u fac tured to pro vide re li able per for mance but they are not guar an teed to be 100% free of de-fects. Even re li able prod ucts will ex pe ri ence oc ca sional fail ures and this pos si bil ity should be rec og nized by the User. If these prod ucts are used in a life sup port ven ti la tion sys tem where fail ure could re sult in loss or in jury, the User should pro vide ad e quate back-up ven ti la tion, sup ple men tary nat u ral ven ti la tion or fail ure alarm sys tem, or ac knowl edge will ing ness to ac cept the risk of such loss or in jury.

WARNING DO NOT use in HAZ ARD OUS EN VI RON MENTS where fan's elec tri cal sys tem could pro vide ig ni tion to com bus ti ble or flam ma ble ma te ri als un less unit is spe ci fi cally built for haz ard ous en vi ron ments.

CAUTION Guards must be in stalled when fan is within reach of per son nel or within seven (7) feet (2.134 m) of work ing level or when deemed ad vis able for safety.

DISCLAIMER The Com pany has made a dil i gent ef fort to il lus trate and de scribe the prod ucts in this liter a ture ac cu rately; how ever, such il lus tra tions and de scrip-tions are for the sole pur pose of iden ti fi ca tion, and do not ex press or im ply a war ranty that the prod ucts are mer chant able, or fit for a par tic u lar pur pose, or that the prod ucts will nec es sar ily con form to the il lus tra tions or de scrip tions or di men sion.

LIMITED WAR RANTY

WARRANTY AND DISCLAIMER U.S. Fan International® extends this limited warranty to the original buyer and warrants that products manufactured by the Company shall be free from original defects in workmanship and materials for two years from date of shipment, provided same have been properly stored, installed, serviced, maintained and operated. This warranty shall not apply to products which have been altered or repaired without the Company's express authorization, or altered or repaired in any way so as, in the Company's judgment, to affect its performance or reliability, nor which have been improperly installed or subjected to misuse, negligence, or accident, or incorrectly used in combination with other substances. The Buyer assumes all risks and liability for results of use of the products. Warranties on purchased parts, such as but not limited to bearings, sheaves, belts, couplings, electric motors, pumps and controls are limited to the terms of warranty extended by our supplier.

Polyethylene tubing and cooling pads are war-ranted to be free of de fects in ma te rial and work-man ship for a pe riod of 90 days from date of ship-ment and a like war ranty ap plies to the cross fluted cel lu lar type cool ing cells for a pe riod of two years from date of ship ment pro vided same have been prop erly han dled, stored, in stalled, ser viced, main-tained and op er ated. And fur ther, not sub jected to ex ces sive heat, cor ro sive agents or chem i cals, or me chan i cal abuse that may cause tear ing, crush-ing or un due de te ri o ra tion nor used on a sys tem or in a man ner other than that for which it was de-signed as ex plained in the prod uct lit er a ture.

LIMITATION OF REMEDY AND DAMAGES All claims un der this war ranty must be made in writ ing and de liv ered to 408 South Phoe nix, Ft. Smith, Ar kan sas 72916, within 15 days af ter dis cov ery of the de fect and prior to the ex pi ra tion of two years from the date of ship ment by the Com pany of the product claimed defective, and Buyer shall be barred from any rem edy if Buyer fails to make such claim within such pe riod.

Within 30 days af ter re ceipt of a timely claim, the Company shall have the option either to inspect the prod uct while in Buyer's pos ses sion or to re-quest Buyer to re turn the prod uct to the Com pany at Buyer's ex pense for in spec tion by the Com pany. The Com pany shall re place, or at its op tion re pair, free of charge, any prod uct it de ter mines to be de-fec tive, and it shall ship the re paired or re place-ment prod uct to Buyer F.O.B. point of ship ment; pro vided, how ever, if cir cum stances are such as in the Com pany's judg ment to pro hibit re pair or re-placement to remedy the warranted defects, the Buyer's sole and ex clu sive rem edy shall be a re-fund to the Buyer of any part of the in voice price, paid to the Com pany, for the de fec tive prod uct or part.

The Com pany is not re spon si ble for the cost of re-moval of the defective prod uct or part, dam ages due to re moval, or any ex penses in curred in ship-ping the prod uct or part to or from the Com pany's plant, or the in stal la tion of the re paired or re placed prod uct or part.

Implied warranties, when applicable, shall com-mence upon the same date as the ex press war-ranty pro vided above, and shall, ex cept for war-ranties of ti tle, ex tend only for the du ra tion of the ex-press warranty. Some states do not allow limita-tions on how long an im plied war ranty lasts, so the above limitation may not apply to you. The only rem edy pro vided to you un der an ap pli ca ble im-plied war ranty and the ex press war ranty shall be the rem edy pro vided un der the ex press war-ranty, subject to the terms and conditions contained therein. The Company shall not be liable for incidental and consequential losses and dam ages un der the ex press war-ranty, any applicable implied warranty, or claims for neg li gence, ex cept to the ex tent that this lim i ta tion is found to be un en force able un der ap pli-ca ble state law. Some states do not al low the ex-clu sion or lim i ta tion of in ci den tal or con se quen tial dam ages, so the above lim i ta tion or ex clu sion may not ap ply to you. This war ranty gives you spe cific le gal rights, and you may also have other rights which vary from state to state.

No em ployee, agent, dealer, or other per son is au-thorized to give any warranties on behalf of the Com pany or to as sume for the Com pany any other li a bil ity in con nec tion with any of its prod ucts ex-cept in writ ing and signed by an of fi cer of the Com-pany.

RE PLACE MENT PARTS If re place ment parts are or dered, buyer war rants that the orig i nal com po-nents in which these replacement parts will be placed are in satisfactory working condition, and when said re place ment parts are in stalled, the re-sul tant in stal la tion will op er ate in a safe man ner, at speeds and temperatures for which the original equip ment was pur chased.

TECHNICAL ADVICE AND RECOMMENDA-TIONS, DISCLAIMER Notwithstanding any past prac tice or deal ings or any cus tom of the trade, sales shall not in clude the fur nish ing of tech ni cal ad vice or as sis tance or sys tem de sign. Any such as sis tance shall be at the Com pany's sole op tion and may be sub ject to ad di tional charge.

The Com pany as sumes no ob li ga tion or li a bil ity on ac count of any rec om men da tions, opin ions or ad-vice as to the choice, in stal la tion or use of prod-ucts. Any such rec om men da tions, opin ions or ad-vice are given and shall be ac cepted at your own risk and shall not con sti tute any war ranty or guar-an tee of such prod ucts or their per for mance.

GENERAL In no event shall any claim for con se-quential damages be made by either party. The Com pany will com ply with all ap pli ca ble Fed eral, State, and lo cal laws.

U.S. Fan In ter na tional®
408 South Phoe nix
Ft. Smith, Ar kan sas 72916
Tele phone: 501-646-2294
Fax: 501-646-8895