



INDUSTRIAL PROCESS AND
COMMERCIAL VENTILATION SYSTEMS

TURBO PRESSURE BLOWERS

TBNA | TBNS



Overview

TBNA | TBNS



Arrangement 8
with Punched
Outlet Flange

The TBN series of fans are low volume, high-pressure blowers designed for stable operation throughout their operating range. Multiple outlet sizes and wheel diameters allow the most efficient selections across a wide range of operating points. These units incorporate a high efficiency wheel design at an economical price.

Typical Applications

- Pneumatic conveying
- Exhausting
- Combustion air
- Air knives
- Chemical processes
- Thermal oxidation
- Aeration
- Seal air

Capabilities

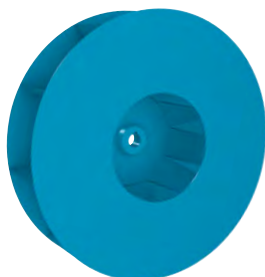
- Static pressures to 128" w.g.
- Airflow capabilities to 20,000 CFM
- High temperature applications to 600°F
- For higher performance requirements, see below.

Housing Construction

All TBN fans come standard with heavy gauge, continuously welded steel housings for rugged, heavy duty, long term service. Size 14 to 26 housings are reversible and rotatable. Size 14 to 26 TBN fans come standard with an inlet venturi with screen. All TBN fans come standard with a round punched flanged outlet connection.



TBNA
Aluminum Wheel



TBNS
Steel Wheel

WHEEL TYPES

TBNA Aluminum Wheel - The TBNA offers a radial air handling wheel of riveted aluminum construction. This wheel is available in both narrow "N" and wide "W" widths for sizes up to 26" diameter for optimum performance and high efficiency. The TBNA is designed to handle clean air applications with temperatures up to 200°F. The TBNA wheel is a non-reversible design.

TBNS Steel Wheel - The TBNS is an all welded radial design steel wheel that is available in a variety of special materials. This wheel is available in both narrow "N" and wide "W" widths for sizes up to 26" diameter to meet specific performance requirements. The TBNS is designed to handle fumes, light particulates, and temperatures up to 600°F. The TBNS design is less efficient than the TBNA and requires a BHP correction. See the table in the Engineering Data section for correction factors. The TBNS wheel is a reversible design.



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

Arrangements

TBNA | TBNS

Arrangement 1 (Belt Driven)

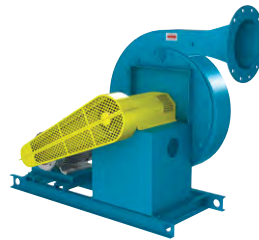
The fan wheel on an Arrangement 1 is overhung on the shaft, i.e., mounted at the end of the shaft. The motor can be mounted in any of the four AMCA standard motor positions, W, X, Y or Z. The two fan bearings are mounted on the bearing pedestal, out of the airstream.

Arrangement 4 (Direct Drive)

The fan wheel on an Arrangement 4 is mounted directly on the motor shaft with the motor mounted on a pedestal. An Arrangement 4 offers a compact, low maintenance design, as there are no fan bearings, fan shaft or drive parts to maintain. Variations of Arrangement 4 include 4 Standard (Pedestal Mount), 4HI (Horizontal Inlet Mount) and 4VI (Vertical Inlet Mount).

Arrangement 8 (Direct Drive)

An Arrangement 8 is a modified version of an Arrangement 1 used for direct drive. The bearing pedestal is extended to accommodate the motor. A flexible coupling connects the fan and motor shaft.



Arrangement 1



Arrangement 4



Arrangement 8

| ARRANGEMENT | MAXIMUM TEMP (°F) | | |
|-------------|-------------------|------|------------------------|
| | TBNA | TBNS | |
| | | STD | HIGH TEMP CONSTRUCTION |
| ARR. 1 | 200 | 300 | 600 |
| ARR. 4 | 180 | 180 | N/A |
| ARR. 8 | 200 | 300 | 600 |



OPTIONAL CONSTRUCTION

Spark Resistant Construction

Available for Model TBNA only. Fan applications may involve the handling of fumes or vapors. Such applications require careful consideration by the system designer to insure the safe handling of such gases. Twin City Fan & Blower offers the following classifications of spark resistant construction per AMCA Standard 99-0401-86. It is the specifier's or the user's responsibility to specify the type of spark resistant construction with full recognition of the potential hazards and the degree of protection required.

Construction

Type A - All parts of the fan in contact with the airstream must be made of nonferrous material — usually aluminum and limited to 200°F.

Type B - The fan shall have a nonferrous wheel and nonferrous rub ring about the opening through which the shaft passes — usually aluminum wheel and rub ring and limited to 200°F.

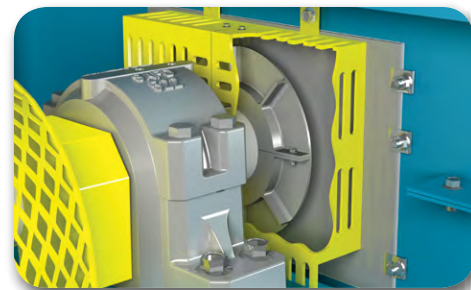
Type C - Not available.

High Temperature Construction (TBNS Only)

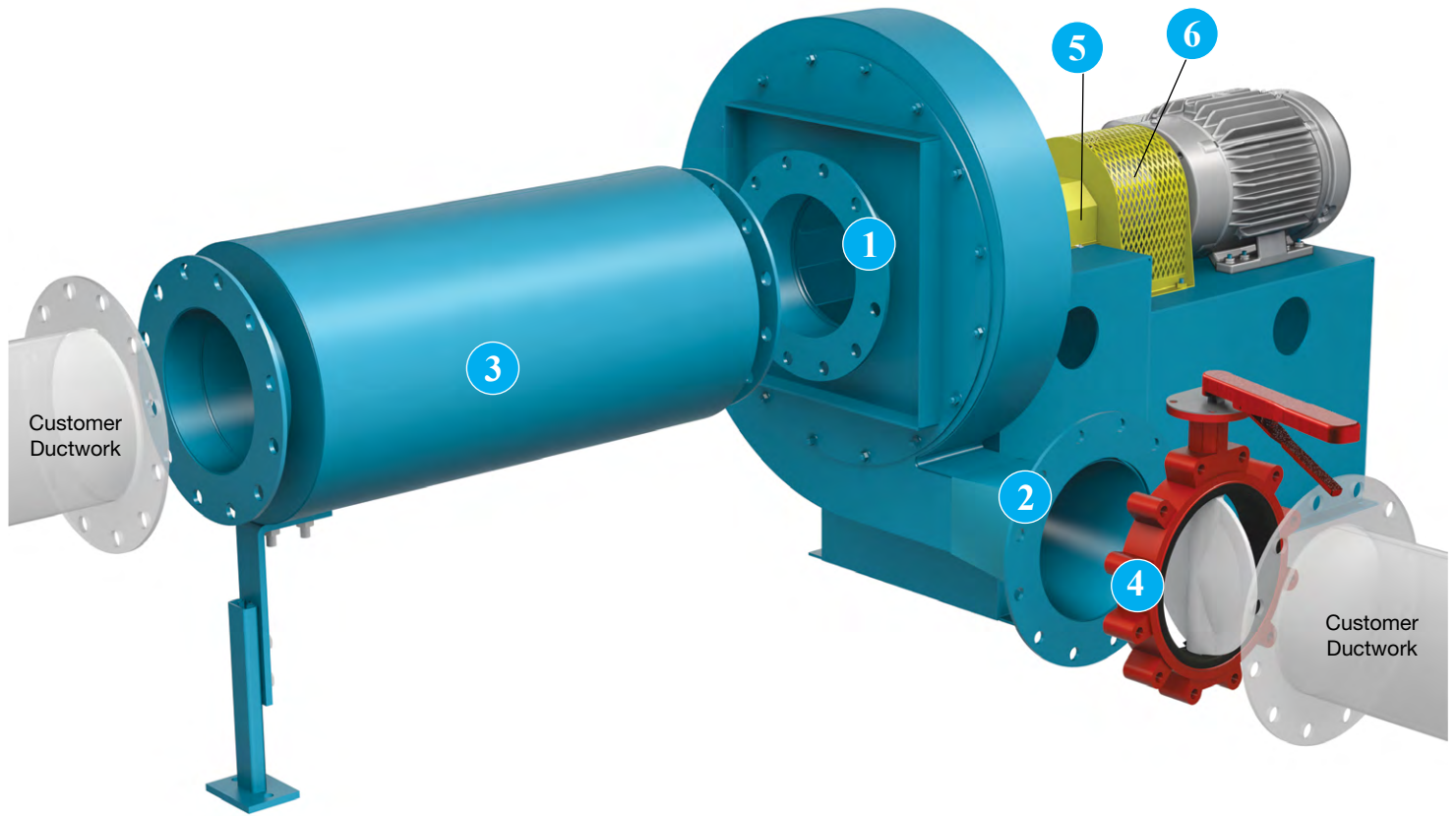
301 to 500°F - Package includes shaft seal, shaft cooler with guard, high temperature grease, and standard enamel paint.

501 to 600°F - Package includes shaft seal, shaft cooler with guard, high temperature grease, and high temperature aluminum paint.

Special Materials - Stainless steel and other special alloys are available in the type TBNS radial design.



Shaft Cooler & Safety Guard



1 Flanged Inlet For bolted pipe or duct connections. Flanged inlet is punched to ANSI 125/150 hole pattern.

2 Flanged Outlet punched to ANSI 125/150 hole pattern for bolted connection is standard.

3 Inlet Silencer with Support Leg Welded steel construction with acoustical absorption material to reduce noise emanating from fan inlet. Flanged connection is suggested for mounting to the inlet of the fan. The opposite end of the silencer can be furnished with an inlet venturi, inlet flange, or inlet pipe assembly. Unless otherwise specified, the silencer will be furnished with flanges (punched) at both ends.

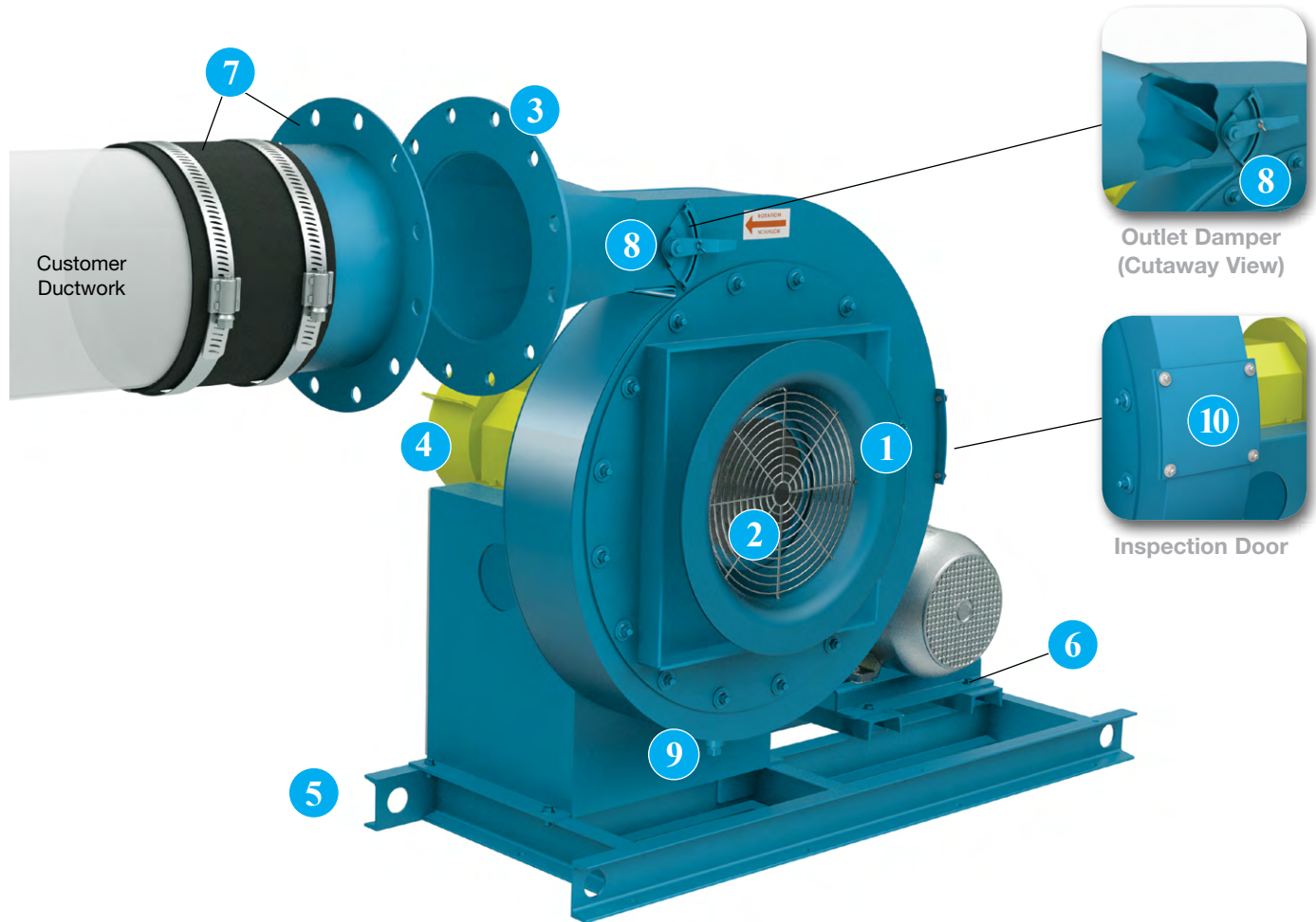
4 Blast Gate with Handle A wafer-type butterfly valve for mounting to outlet flange allows controlling flow to full shutoff. Available for automatic control. Maximum temperature 250°F.

5 Shaft & Bearing Guard OSHA style to enclose the shaft and bearings. Painted safety yellow.

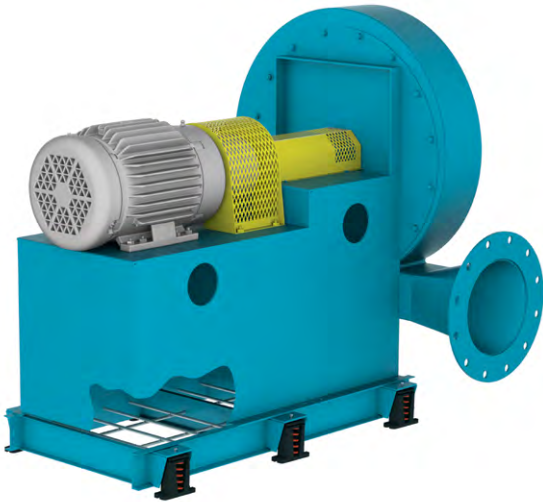
6 Coupling Guard OSHA style to enclose the coupling. Painted safety yellow.

Other Accessories Include:

- Inlet Pipe Assembly (for slip-on pipe or duct connections)
- Plain Pipe Outlet (for slip type connections)
- Inlet Filter (non-ducted inlet installations)
- Inlet Filter w/ Hood (non-ducted inlet installations)
- Flanged Outlet Flex Connector
- Plain Pipe Outlet Flex Connector
- Outlet Silencer
- Shaft Closure Plate
- Isolation Base (Arrangements 1 & 4)
- Inertia Base
- Vibration Rails (Arrangements 4)
- Cast Motors
- Extended Lube Lines
- Insulated Housings (Steel Wall or Aluminum Clad)
- Insulation Pins



- 1 Inlet Venturi** allows for smooth air entry on non-ducted fans.
- 2 Inlet Screen** Recommended for all non-ducted inlet installations to obtain catalog performance.
- 3 Flanged Outlet** punched to ANSI 125/150 hole pattern for bolted connection is standard.
- 4 Belt Guard** OSHA style to enclose the V-belt drive. Painted safety yellow.
- 5 Unitary Base** Steel structural base for mounting fan and motor on common structure. Allows for complete assembly of fan, motor, and v-belt drive (Arrangement 1). Must be bolted to a rigid support structure. (See page 6 for additional fan mounting.)
- 6 Motor Slide Base** for positioning motors and adjusting belt tension during installation and maintenance.
- 7 Companion Flange with Rubber Sleeve & Clamps** offers flexible connection between the fan and outlet ductwork. Flexible rubber sleeve is good to 200°F operation.
- 8 Built-In Outlet Damper** offers a low cost single blade damper installed near the discharge of the fan housing for volume control where moderate leakage can be allowed. Available for manual control only.
- 9 Drain** Standard 3/4" NPT half coupling located at the lowest point of the housing. Available with or without plug.
- 10 Inspection Door** Heavy duty bolted panel provides access for wheel inspection.



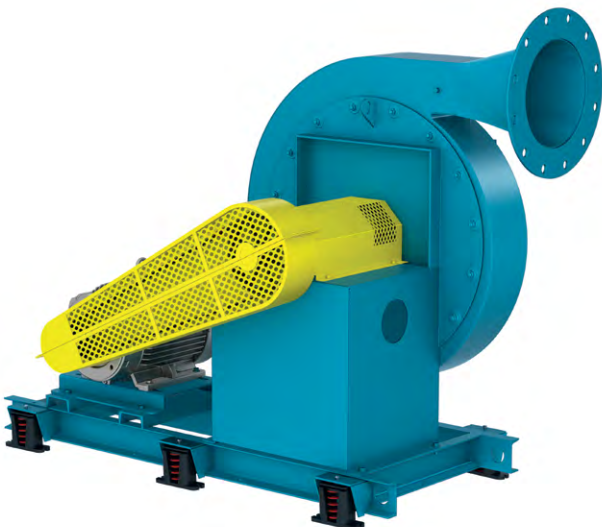
Inertia Bases

Inertia Bases provide a common support to fan, motor and drive including guards and utilize heavy duty structural channel with spring isolators. Inertia bases incorporate reinforcing rods and require customer supplied concrete. Inertia bases are typically used on longer, direct drive fans to mitigate assembly deflection, maintaining proper alignment between the motor, coupling, shaft and bearings. Flexible connectors at inlet and outlet are required.



Vibration Rails with RIS Isolators (Sizes 14 to 26, Arr. 4 only)

Vibration Rails with RIS Isolators are designed to limit forces transmitted to the support structure of an operating fan. Constructed of structural angle, the rails extend the distance between mounting points distributing a more even load to the isolators. Rubber-in-shear type isolators and flexible connectors at inlet and outlet are required.



Vibration Isolation Bases provide a common support to fan, motor and drive including guards and utilize heavy duty structural channel. Vibration isolation bases require spring or rubber-in-shear type isolators that are designed to limit forces transmitted to the support structure of an operating fan.

Shaft & Bearings

| SIZE | SHAFT DIA. (IN.) | | | | BEARING TYPE | | |
|-----------------|------------------|---------|---------|---------|--------------|--------|--------|
| | TBNA | | TBNS | | TBNA/S | TBNA | TBNS |
| | ARR. 1 | ARR. 8 | ARR. 1 | ARR. 8 | ARR. 1 | ARR. 8 | ARR. 8 |
| 14 to 18 | 1-3/16 | 1-3/16 | 1-3/16 | 1-3/16 | HSHDB | SDB-C | SDB-C |
| 19 to 22 | 1-7/16 | 1-7/16 | 1-7/16 | 1-7/16 | RB | SDB-C | SDB-C |
| 23 to 26 | 1-7/16 | 1-7/16 | 1-7/16 | 1-7/16 | RB | SDB-C | SDB-C |
| 27006 | 1-11/16 | 1 | 1-11/16 | 1-3/16 | RB-C | SDB-C | HDB-C |
| 27008 | 1-15/16 | 1-3/16 | 1-15/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 27010 | 2-3/16 | 1-11/16 | 2-3/16 | 1-7/16 | RB-C | SDB-C | RB-C |
| 27012 | 2-7/16 | 2-3/16 | 2-7/16 | 1-11/16 | RB-C | HDB-C | RB-C |
| 27506 | 1-11/16 | 1-3/16 | 1-15/16 | 1-3/16 | RB-C | SDB-C | HDB-C |
| 27508 | 1-15/16 | 1-3/16 | 1-15/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 27510 | 2-3/16 | 1-11/16 | 2-3/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 27512 | 2-7/16 | 2-3/16 | 2-7/16 | 1-11/16 | RB-C | HDB-C | RB-C |
| 28006 | 1-15/16 | 1-3/16 | 1-15/16 | 1-3/16 | RB-C | SDB-C | HDB-C |
| 28008 | 1-15/16 | 1-3/16 | 1-15/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 28010 | 2-3/16 | 1-11/16 | 2-7/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 28012 | 2-7/16 | 2-3/16 | 2-7/16 | 1-11/16 | RB-C | HDB-C | RB-C |
| 28506 | 1-15/16 | 1-3/16 | 1-15/16 | 1-7/16 | RB-C | SDB-C | HDB-C |
| 28508 | 1-15/16 | 1-7/16 | 2-3/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 28510 | 2-7/16 | 1-15/16 | 2-7/16 | 1-11/16 | RB-C | HDB-C | RB-C |
| 28512 | 2-7/16 | 1-11/16 | 2-7/16 | 1-15/16 | RB-C | SDB-C | RB-C |
| 29006 | 1-15/16 | 1-3/16 | 1-15/16 | 1-7/16 | RB-C | SDB-C | HDB-C |
| 29008 | 2-3/16 | 1-7/16 | 2-3/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 29010 | 2-7/16 | 1-15/16 | 2-7/16 | 1-11/16 | RB-C | HDB-C | RB-C |
| 29012 | 2-7/16 | 1-11/16 | 2-7/16 | 1-15/16 | RB-C | SDB-C | RB-C |
| 30008 | 2-3/16 | 1-7/16 | 2-3/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 30010 | 2-7/16 | 2-3/16 | 2-7/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 30012 | 2-7/16 | 1-11/16 | 2-7/16 | 1-11/16 | RB-C | SDB-C | RB-C |
| 30014 | 2-11/16 | 1-15/16 | 2-11/16 | 2-7/16 | RB-C | HDB-C | RB-C |
| 30508 | 2-3/16 | 1-7/16 | 2-3/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 30510 | 2-7/16 | 2-3/16 | 2-7/16 | 1-11/16 | RB-C | HDB-C | RB-C |
| 30512 | 2-7/16 | 1-11/16 | 2-7/16 | 1-15/16 | RB-C | SDB-C | RB-C |
| 30514 | 2-11/16 | 2-3/16 | 2-11/16 | 2-7/16 | RB-C | HDB-C | RB-C |
| 31008 | 2-3/16 | 1-7/16 | 2-3/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 31010 | 2-7/16 | 2-3/16 | 2-7/16 | 1-11/16 | RB-C | HDB-C | RB-C |
| 31012 | 2-7/16 | 1-11/16 | 2-11/16 | 1-15/16 | RB-C | HDB-C | RB-C |
| 31014 | 2-11/16 | 1-15/16 | 2-11/16 | 2-7/16 | RB-C | RB-C | RB-C |
| 31508 | 2-3/16 | 1-7/16 | 2-3/16 | 1-7/16 | RB-C | HDB-C | RB-C |
| 31510 | 2-7/16 | 2-3/16 | 2-7/16 | 1-11/16 | RB-C | HDB-C | RB-C |
| 31512 | 2-7/16 | 1-11/16 | 2-11/16 | 2-3/16 | RB-C | RB-C | RB-C |
| 31514 | 2-11/16 | 1-15/16 | 2-11/16 | 2-11/16 | RB-C | RB-C | HSHDB |

SDB: Standard Duty Ball Bearing
HDB: Heavy Duty Ball Bearing
RB: Roller Bearing
SRB: Roller Bearing with Split Pillow Block Housing
HSHDB: High Speed Heavy Duty Ball Bearing
SDB-C: Concentric Standard Duty Ball Bearing
HDB-C: Concentric Heavy Duty Ball Bearing
RB-C: Concentric Roller Bearing

| SIZE | SHAFT DIA. (IN.) | | | | BEARING TYPE | | |
|--------------|------------------|---------|---------|---------|--------------|--------|--------|
| | TBNA | | TBNS | | TBNA/S | TBNA | TBNS |
| | ARR. 1 | ARR. 8 | ARR. 1 | ARR. 8 | ARR. 1 | ARR. 8 | ARR. 8 |
| 32008 | 2-3/16 | 1-11/16 | 2-3/16 | 1-7/16 | RB-C | SDB-C | RB-C |
| 32010 | 2-7/16 | 2-3/16 | 2-7/16 | 1-11/16 | RB-C | HDB-C | RB-C |
| 32012 | 2-11/16 | 1-15/16 | 2-11/16 | 2-3/16 | RB-C | HDB-C | RB-C |
| 32014 | 2-11/16 | 1-15/16 | 2-11/16 | 2-11/16 | RB-C | RB-C | HSHDB |
| 33008 | 2-3/16 | 1-11/16 | 2-3/16 | 1-11/16 | RB-C | HDB-C | RB-C |
| 33010 | 2-7/16 | 1-11/16 | 2-11/16 | 1-15/16 | RB-C | RB-C | RB-C |
| 33012 | 2-11/16 | 1-15/16 | 2-11/16 | 2-3/16 | RB-C | HDB-C | RB-C |
| 33014 | 2-15/16 | 2-3/16 | 3-7/16 | 2-15/16 | RB-C | HSHDB | HSHDB |
| 33508 | 2-3/16 | 1-11/16 | 2-7/16 | 1-15/16 | RB-C | HDB-C | RB-C |
| 33510 | 2-11/16 | 1-15/16 | 2-11/16 | 2-3/16 | RB-C | RB-C | RB-C |
| 33512 | 2-11/16 | 1-15/16 | 2-11/16 | 2-3/16 | RB-C | RB-C | RB-C |
| 33514 | 3-7/16 | 2-3/16 | 3-7/16 | 2-15/16 | RB-C | RB-C | HSHDB |
| 34008 | 2-7/16 | 1-11/16 | 2-7/16 | 1-15/16 | RB-C | HDB-C | RB-C |
| 34010 | 2-11/16 | 1-15/16 | 2-11/16 | 2-3/16 | RB-C | RB-C | RB-C |
| 34012 | 2-11/16 | 1-15/16 | 2-11/16 | 2-7/16 | RB-C | RB-C | RB-C |
| 34014 | 3-7/16 | 2-3/16 | 3-7/16 | 2-15/16 | RB-C | RB-C | HSHDB |
| 34508 | 2-7/16 | 1-11/16 | 2-7/16 | 1-15/16 | RB-C | RB-C | RB-C |
| 34510 | 2-11/16 | 1-15/16 | 2-11/16 | 2-3/16 | RB-C | RB-C | RB-C |
| 34512 | 2-11/16 | 2-3/16 | 2-15/16 | 2-11/16 | RB-C | RB-C | HSHDB |
| 34514 | 3-7/16 | 2-3/16 | 3-7/16 | 2-15/16 | RB-C | RB-C | HSHDB |
| 35008 | 2-7/16 | 1-11/16 | 2-7/16 | 1-15/16 | RB-C | RB-C | RB-C |
| 35010 | 2-11/16 | 1-15/16 | 2-11/16 | 2-3/16 | RB-C | RB-C | RB-C |
| 35012 | 2-15/16 | 2-3/16 | 2-15/16 | 2-15/16 | RB-C | HDB-C | HSHDB |
| 35014 | 3-7/16 | 2-3/16 | 3-7/16 | 2-15/16 | RB-C | RB-C | HSHDB |
| 36010 | 2-11/16 | 1-15/16 | 2-11/16 | 2-3/16 | RB-C | RB-C | RB-C |
| 36012 | 2-15/16 | 2-3/16 | 2-15/16 | 2-15/16 | RB-C | HDB-C | HSHDB |
| 36014 | 3-7/16 | 2-3/16 | 3-7/16 | 2-15/16 | RB-C | RB-C | HSHDB |
| 36016 | 3-7/16 | 2-3/16 | 3-7/16 | 3-7/16 | RB-C | RB-C | HSHDB |
| 36510 | 2-11/16 | 1-15/16 | 2-11/16 | 2-3/16 | RB-C | RB-C | RB-C |
| 36512 | 2-15/16 | 2-3/16 | 2-15/16 | 2-7/16 | RB-C | RB-C | RB-C |
| 36514 | 3-7/16 | 2-3/16 | 3-7/16 | 2-15/16 | RB-C | RB-C | HSHDB |
| 36516 | 3-7/16 | 2-3/16 | 3-7/16 | 3-7/16 | RB-C | RB-C | HSHDB |
| 37010 | 2-11/16 | 1-15/16 | 2-11/16 | 2-3/16 | RB-C | RB-C | RB-C |
| 37012 | 2-15/16 | 2-3/16 | 3-7/16 | 2-7/16 | RB-C | RB-C | RB-C |
| 37014 | 3-7/16 | 2-3/16 | 3-7/16 | 2-15/16 | RB-C | RB-C | HSHDB |
| 37016 | 3-7/16 | 2-3/16 | 3-7/16 | 3-7/16 | RB-C | HSHDB | HSHDB |
| 37510 | 2-11/16 | 1-15/16 | 2-11/16 | 2-11/16 | RB-C | RB-C | HSHDB |
| 37512 | 2-15/16 | 2-3/16 | 3-7/16 | 2-7/16 | RB-C | RB-C | RB-C |
| 37514 | 3-7/16 | 2-3/16 | 3-7/16 | 3-7/16 | RB-C | RB-C | HSHDB |
| 37516 | 3-7/16 | 2-3/16 | 3-7/16 | 3-7/16 | RB-C | HSHDB | HSHDB |
| 38010 | 2-15/16 | 1-15/16 | 2-15/16 | 2-3/16 | RB-C | SRB | RB-C |
| 38012 | 3-7/16 | 2-3/16 | 3-7/16 | 2-7/16 | RB-C | RB-C | RB-C |
| 38014 | 3-7/16 | 2-3/16 | 3-7/16 | 3-7/16 | RB-C | RB-C | HSHDB |
| 38016 | 3-7/16 | 2-7/16 | 3-7/16 | 3-7/16 | RB-C | RB-C | HSHDB |





Bare Fan Weights (Lbs.)

| SIZE | ARRANGEMENT 1 | | ARRANGEMENT 4 | | ARRANGEMENT 8 | |
|------------|---------------|------|---------------|------|---------------|------|
| | TBNA | TBNS | TBNA | TBNS | TBNA | TBNS |
| 14N to 18N | 202 | 212 | 185 | 195 | 282 | 292 |
| 14W to 18W | 218 | 230 | 201 | 213 | 298 | 310 |
| 19N to 22N | 278 | 292 | 252 | 266 | 395 | 409 |
| 19W to 22W | 335 | 351 | 309 | 325 | 452 | 468 |
| 23N to 26N | 392 | 432 | 366 | 406 | 524 | 564 |
| 23W to 26W | 445 | 473 | 419 | 447 | 577 | 605 |
| 270xx | 743 | 780 | 724 | 761 | 1073 | 1111 |
| 275xx | 744 | 783 | 724 | 763 | 1074 | 1113 |
| 280xx | 744 | 796 | 725 | 777 | 1075 | 1127 |
| 285xx | 738 | 792 | 726 | 780 | 1069 | 1123 |
| 290xx | 739 | 795 | 727 | 783 | 1070 | 1126 |
| 300xx | 897 | 958 | 835 | 895 | 1258 | 1318 |
| 305xx | 906 | 965 | 839 | 899 | 1266 | 1326 |
| 310xx | 904 | 965 | 841 | 903 | 1264 | 1326 |
| 315xx | 902 | 981 | 839 | 918 | 1262 | 1341 |
| 320xx | 911 | 985 | 848 | 922 | 1271 | 1345 |
| 330xx | 1031 | 1112 | 903 | 984 | 1384 | 1465 |
| 335xx | 1042 | 1143 | 910 | 1011 | 1412 | 1513 |
| 340xx | 1044 | 1148 | 912 | 1016 | 1413 | 1518 |
| 345xx | 1050 | 1153 | 919 | 1022 | 1420 | 1523 |
| 350xx | 1052 | 1159 | 921 | 1027 | 1422 | 1528 |
| 360xx | 1200 | 1304 | 1020 | 1125 | 1579 | 1684 |
| 365xx | 1202 | 1310 | 1022 | 1130 | 1581 | 1689 |
| 370xx | 1204 | 1315 | 1024 | 1136 | 1584 | 1695 |
| 375xx | 1206 | 1321 | 1026 | 1141 | 1586 | 1700 |
| 380xx | 1208 | 1327 | 1029 | 1147 | 1588 | 1706 |

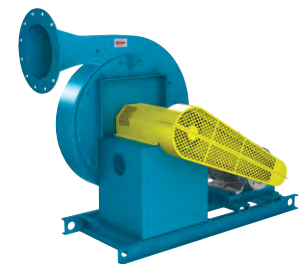
Note: Weights provided above are for the largest inlet/outlet size available on the housing.

Housing Thickness

| SIZE | HOUSING THICKNESS | |
|----------|-------------------|---------|
| | SIDES | SCROLL |
| 14 to 26 | 10 GA. | 10 GA. |
| 27 to 38 | 0.25 IN | 0.25 IN |

Temperature Derate

| AIRSTREAM TEMP (°F) | TBNA | TBNS | | | | | | | |
|---------------------|------|-------------|-----------|-------------|------|-------------|------|-------------|------|
| | | Sizes 14-26 | | Sizes 27-32 | | Sizes 33-35 | | Sizes 36-38 | |
| | | Steel | Stainless | Steel | 2205 | Steel | 2205 | Steel | 2205 |
| 70 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 200 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 0.90 |
| 300 | N/A | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.93 | 1.00 | 0.87 |
| 400 | N/A | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.85 |
| 500 | N/A | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 0.89 | 1.00 | 0.83 |
| 600 | N/A | 1.00 | 1.00 | 1.00 | 0.94 | 1.00 | 0.86 | 0.96 | 0.80 |



Inlet Suction Pressure Correction

If the inlet pressure is suction or negative, the static pressure required must be corrected by the inlet density ratio.

Example: Operating conditions: 70°F at sea level. System resistance at the inlet of the fan is 40".

The correction factor from the table at right is 0.902, or it can be calculated as follows:

$$(407.5 - 40") \div 407.5 = 0.902$$

Equivalent static pressure to be used for selection from the standard performance curves:

$$40" \div 0.902 = 44.36"$$

Actual air density at the inlet of the fan:

$$0.075 \text{ lb/ft}^3 \times 0.902 = 0.0676 \text{ lb/ft}^3$$

Inlet Suction Pressure Correction Factors

| INLET SUCTION PRESSURE (IN. W.G.) | CORRECTION FACTOR |
|-----------------------------------|-------------------|
| 5 | 0.988 |
| 10 | 0.975 |
| 15 | 0.963 |
| 20 | 0.951 |
| 25 | 0.939 |
| 30 | 0.926 |
| 35 | 0.914 |
| 40 | 0.902 |
| 45 | 0.89 |
| 50 | 0.877 |
| 55 | 0.865 |
| 60 | 0.853 |
| 65 | 0.84 |

| INLET SUCTION PRESSURE (IN. W.G.) | CORRECTION FACTOR |
|-----------------------------------|-------------------|
| 70 | 0.828 |
| 75 | 0.816 |
| 80 | 0.804 |
| 85 | 0.791 |
| 90 | 0.779 |
| 95 | 0.767 |
| 100 | 0.755 |
| 105 | 0.742 |
| 110 | 0.73 |
| 115 | 0.718 |
| 120 | 0.706 |
| 125 | 0.693 |
| 130 | 0.681 |

$$\text{Correction Factor} = (407.5 - \text{Inlet Suction Pressure}) \div 407.5$$

Maximum RPM, Wheel Weights and WR² (moment of inertia in lb-ft²)

| SIZE | WHEEL | | | | | |
|-------|-----------------|----------|---------------------------------------|--------------|----------|---------------------------------------|
| | TBNA (ALUMINUM) | | | TBNS (STEEL) | | |
| | MAX. RPM | WT. (LB) | WR ² (LB-FT ²) | MAX. RPM | WT. (LB) | WR ² (LB-FT ²) |
| 14N | 4000 | 10.5 | 3.3 | 4000 | 13.1 | 1.9 |
| 14W | 4000 | 10.5 | 4.0 | 4000 | 12.8 | 2.0 |
| 15N | 4000 | 10.6 | 3.4 | 4000 | 14.6 | 2.5 |
| 15W | 4000 | 10.6 | 4.1 | 4000 | 14.6 | 2.7 |
| 16N | 4000 | 10.7 | 3.5 | 4000 | 16.2 | 3.2 |
| 16W | 4000 | 10.7 | 4.2 | 4000 | 16.5 | 3.4 |
| 17N | 4000 | 10.8 | 3.7 | 4000 | 18.0 | 4.0 |
| 17W | 4000 | 10.9 | 4.5 | 4000 | 18.5 | 4.3 |
| 18N | 4000 | 11.0 | 3.9 | 4000 | 19.8 | 5.0 |
| 18W | 4000 | 11.1 | 4.7 | 4000 | 20.5 | 5.4 |
| 19N | 3900 | 14.7 | 8.1 | 3900 | 21.7 | 6.1 |
| 19W | 3900 | 14.9 | 9.7 | 3900 | 22.0 | 6.4 |
| 20N | 3900 | 14.8 | 8.4 | 3900 | 23.7 | 7.4 |
| 20W | 3900 | 15.2 | 10.1 | 3900 | 24.1 | 7.8 |
| 21N | 3900 | 15.0 | 8.8 | 3900 | 25.8 | 8.9 |
| 21W | 3900 | 15.5 | 10.6 | 3900 | 26.4 | 9.5 |
| 22N | 3900 | 15.2 | 9.3 | 3900 | 28.0 | 10.7 |
| 22W | 3900 | 15.8 | 11.2 | 3900 | 28.8 | 11.3 |
| 23N | 3800 | 19.8 | 16.8 | 3600 | 43.2 | 19.3 |
| 23W | 3800 | 21.1 | 21.6 | 3600 | 43.9 | 20.3 |
| 24N | 3800 | 20.1 | 17.5 | 3600 | 46.8 | 22.7 |
| 24W | 3800 | 21.5 | 22.5 | 3600 | 47.8 | 24.1 |
| 25N | 3800 | 20.3 | 18.2 | 3600 | 50.6 | 26.6 |
| 25W | 3800 | 21.9 | 23.4 | 3600 | 51.9 | 28.2 |
| 26N | 3800 | 20.5 | 19.0 | 3600 | 54.5 | 31.0 |
| 26W | 3800 | 22.3 | 24.4 | 3600 | 56.1 | 32.9 |
| 27006 | 3600 | 39.1 | 17.1 | 3600 | 76.2 | 50.7 |
| 27008 | 3600 | 35.8 | 17.7 | 3600 | 73.9 | 52.1 |
| 27010 | 3600 | 42.0 | 19.1 | 3600 | 81.3 | 54.3 |
| 27012 | 3600 | 46.7 | 21.3 | 3600 | 86.9 | 57.8 |
| 27506 | 3600 | 39.8 | 18.3 | 3600 | 78.5 | 54.3 |
| 27508 | 3600 | 36.6 | 18.9 | 3600 | 76.2 | 55.8 |
| 27510 | 3600 | 42.8 | 20.3 | 3600 | 83.7 | 58.0 |
| 27512 | 3600 | 47.6 | 22.5 | 3600 | 88.3 | 61.5 |
| 28006 | 3600 | 40.6 | 19.5 | 3600 | 93.6 | 68.7 |
| 28008 | 3600 | 37.4 | 20.2 | 3600 | 90.8 | 70.2 |
| 28010 | 3600 | 43.7 | 21.6 | 3600 | 97.7 | 72.4 |
| 28012 | 3600 | 48.9 | 23.9 | 3600 | 104.2 | 76.5 |
| 28506 | 3600 | 41.4 | 20.8 | 3600 | 96.3 | 73.5 |
| 28508 | 3600 | 38.3 | 21.5 | 3600 | 93.6 | 75.0 |
| 28510 | 3600 | 44.5 | 23.0 | 3600 | 100.6 | 77.3 |
| 28512 | 3600 | 49.4 | 25.3 | 3600 | 104.7 | 81.0 |
| 29006 | 3600 | 42.2 | 22.1 | 3600 | 99.2 | 78.5 |
| 29008 | 3600 | 39.2 | 22.9 | 3600 | 96.5 | 80.2 |
| 29010 | 3600 | 45.4 | 24.4 | 3600 | 103.5 | 82.6 |
| 29012 | 3600 | 50.2 | 26.7 | 3600 | 107.8 | 86.4 |
| 30008 | 3600 | 43.9 | 28.6 | 3600 | 111.8 | 101.5 |
| 30010 | 3600 | 50.2 | 30.3 | 3600 | 119.0 | 104.4 |
| 30012 | 3600* | 55.4 | 32.7 | 3600* | 123.2 | 108.6 |
| 30014 | 3600* | 68.9 | 38.7 | 3600* | 136.4 | 116.5 |
| 30508 | 3600 | 46.0 | 30.5 | 3600 | 116.5 | 108.3 |
| 30510 | 3600 | 57.1 | 32.7 | 3600 | 128.8 | 111.7 |
| 30512 | 3600* | 64.6 | 35.6 | 3600* | 135.4 | 116.9 |
| 30514 | 3600* | 69.9 | 40.7 | 3600* | 139.1 | 121.0 |
| 31008 | 3600 | 47.1 | 32.4 | 3600 | 119.8 | 115.1 |
| 31010 | 3600 | 58.1 | 34.6 | 3600 | 132.2 | 118.7 |
| 31012 | 3600* | 65.6 | 37.6 | 3600* | 138.9 | 124.0 |
| 31014 | 3600* | 71.0 | 42.7 | 3600* | 143.6 | 131.0 |

| SIZE | WHEEL | | | | | |
|-------|-----------------|----------|---------------------------------------|--------------|----------|---------------------------------------|
| | TBNA (ALUMINUM) | | | TBNS (STEEL) | | |
| | MAX. RPM | WT. (LB) | WR ² (LB-FT ²) | MAX. RPM | WT. (LB) | WR ² (LB-FT ²) |
| 31508 | 3600 | 52.5 | 38.3 | 3600 | 136.8 | 136.6 |
| 31510 | 3600 | 63.3 | 40.7 | 3600 | 148.8 | 140.3 |
| 31512 | 3600* | 70.9 | 44.0 | 3600* | 154.9 | 145.7 |
| 31514 | 3600* | 76.3 | 49.5 | 3600* | 159.0 | 152.8 |
| 32008 | 3600 | 53.7 | 40.5 | 3600 | 141.8 | 145.0 |
| 32010 | 3600 | 64.5 | 43.0 | 3600 | 152.7 | 148.8 |
| 32012 | 3600* | 72.1 | 46.4 | 3600* | 158.9 | 154.4 |
| 32014 | 3600* | 77.6 | 52.0 | 3600* | 163.2 | 161.8 |
| 33008 | 3600* | 57.8 | 46.7 | 3600* | 153.0 | 166.2 |
| 33010 | 3600* | 68.4 | 49.4 | 3600* | 164.2 | 170.6 |
| 33012 | 3600* | 74.5 | 51.5 | 3600* | 167.2 | 173.2 |
| 33014 | 3600* | 80.2 | 57.4 | 3600* | 171.8 | 181.2 |
| 33508 | 3600* | 64.7 | 55.6 | 3600* | 179.5 | 204.9 |
| 33510 | 3600* | 74.7 | 58.2 | 3600* | 191.1 | 210.4 |
| 33512 | 3600* | 80.6 | 60.3 | 3600* | 193.7 | 213.4 |
| 33514 | 3600* | 86.0 | 66.2 | 3600* | 199.1 | 223.6 |
| 34008 | 3600* | 70.0 | 58.9 | 3600* | 184.2 | 216.6 |
| 34010 | 3600* | 76.1 | 61.3 | 3600* | 195.9 | 222.4 |
| 34012 | 3600* | 82.0 | 63.5 | 3600* | 198.5 | 225.4 |
| 34014 | 3600* | 87.5 | 69.5 | 3600* | 204.2 | 236.1 |
| 34508 | 3600* | 71.3 | 62.1 | 3600* | 189.0 | 228.8 |
| 34510 | 3600* | 77.6 | 64.6 | 3600* | 200.8 | 234.8 |
| 34512 | 3600* | 83.4 | 66.8 | 3600* | 202.9 | 237.8 |
| 34514 | 3600* | 89.0 | 73.0 | 3600* | 209.3 | 249.1 |
| 35008 | 3600* | 72.7 | 65.4 | 3600* | 194.1 | 241.9 |
| 35010 | 3600* | 79.0 | 68.0 | 3600* | 206.0 | 248.1 |
| 35012 | 3600* | 84.9 | 73.8 | 3600* | 208.7 | 251.4 |
| 35014 | 3600* | 90.5 | 76.6 | 3600* | 214.7 | 262.9 |
| 36010 | 3600* | 82.7 | 76.0 | 3600* | 211.9 | 270.8 |
| 36012 | 3600* | 89.7 | 79.6 | 3600* | 217.5 | 277.6 |
| 36014 | 3600* | 94.4 | 86.3 | 3600* | 223.1 | 288.9 |
| 36016 | 3600* | 99.3 | 91.9 | 3600* | 223.0 | 294.1 |
| 36510 | 3600* | 84.3 | 79.8 | 3600* | 216.9 | 285.2 |
| 36512 | 3600* | 91.2 | 83.5 | 3600* | 222.7 | 292.3 |
| 36514 | 3600* | 96.9 | 90.4 | 3600* | 228.5 | 304.0 |
| 36516 | 3600* | 100.9 | 95.8 | 3600* | 228.4 | 309.3 |
| 37010 | 3600* | 85.9 | 83.9 | 3600* | 222.3 | 300.6 |
| 37012 | 3600* | 92.8 | 87.7 | 3600* | 228.1 | 308.0 |
| 37014 | 3600* | 98.5 | 94.7 | 3600* | 234.1 | 320.1 |
| 37016 | 3600* | 102.6 | 100.1 | 3600* | 234.0 | 325.6 |
| 37510 | 3600* | 87.5 | 88.0 | 3600* | 227.4 | 316.2 |
| 37512 | 3600* | 94.4 | 91.9 | 3600* | 233.4 | 323.8 |
| 37514 | 3600* | 100.2 | 99.1 | 3600* | 239.5 | 336.4 |
| 37516 | 3600* | 104.2 | 104.6 | 3600* | 239.5 | 342.1 |
| 38010 | 3600* | 89.1 | 92.4 | 3600* | 232.7 | 332.4 |
| 38012 | 3600* | 96.0 | 96.3 | 3600* | 238.7 | 340.3 |
| 38014 | 3600* | 101.8 | 103.7 | 3600* | 244.3 | 353.1 |
| 38016 | 3600* | 105.9 | 109.3 | 3600* | 245.1 | 359.2 |

* Arrangement 1, sizes 300xx - 320xx with 12 and 14 outlet and 330 - 380 with all outlet sizes are limited to 3200 RPM and 300 BHP maximum.



Selection

The performance curves shown are for Model TBNA and are based on standard air density: 70°F at sea level (0.075 lb/ft³). For Model TBNS performance, see Fan Selector (FS10).

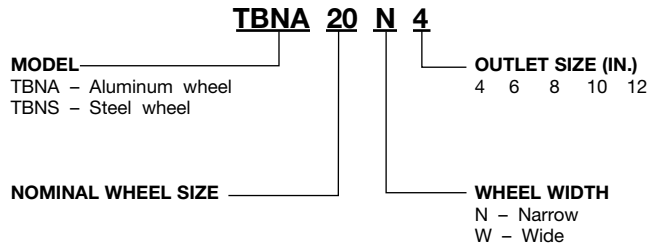
Selection Steps

1. Locate the CFM required on the horizontal axis.
2. Follow a vertical line up to the fan curve closest to the required SP. This will determine the fan size. The dotted lines represent system characteristic curves.
3. Interpolate BHP.

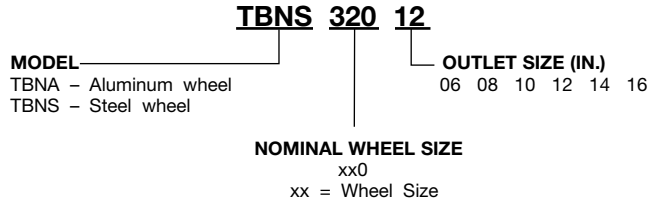
Selection Example:

Size = 22N4 RPM = 3500
 Density = 0.075 lb/ft³ Outlet Velocity = 5727 FPM
 CFM = 500 BHP (TBNA) = 4.85
 SP = 33.8"

Model Nomenclature (Size 14 — Size 26)



Model Nomenclature (Size 27 — Size 38)

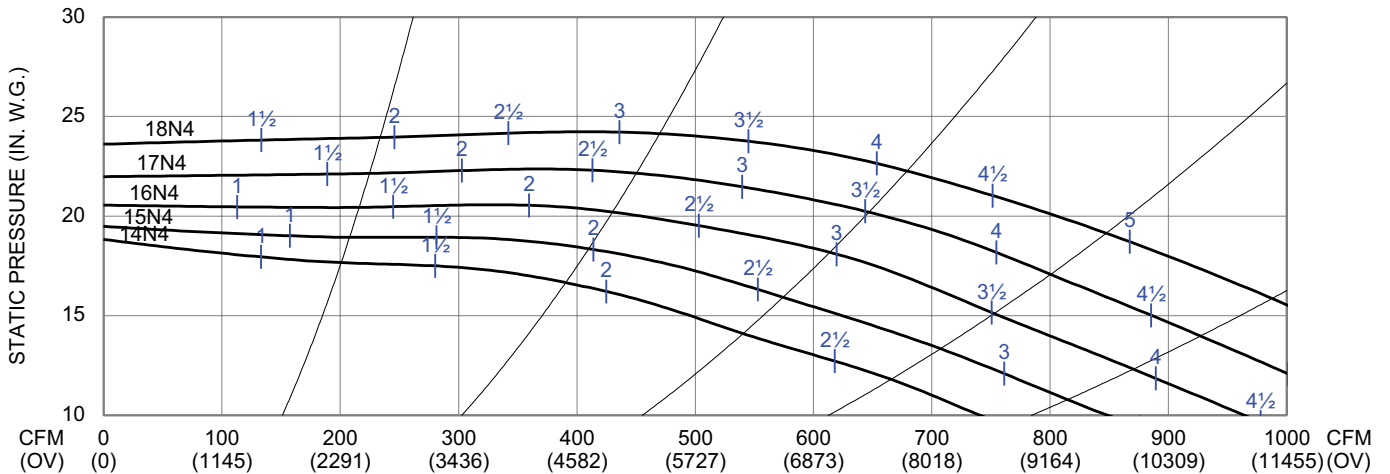


TBNA 4 In. Outlet

Outlet Area: 0.09 ft²

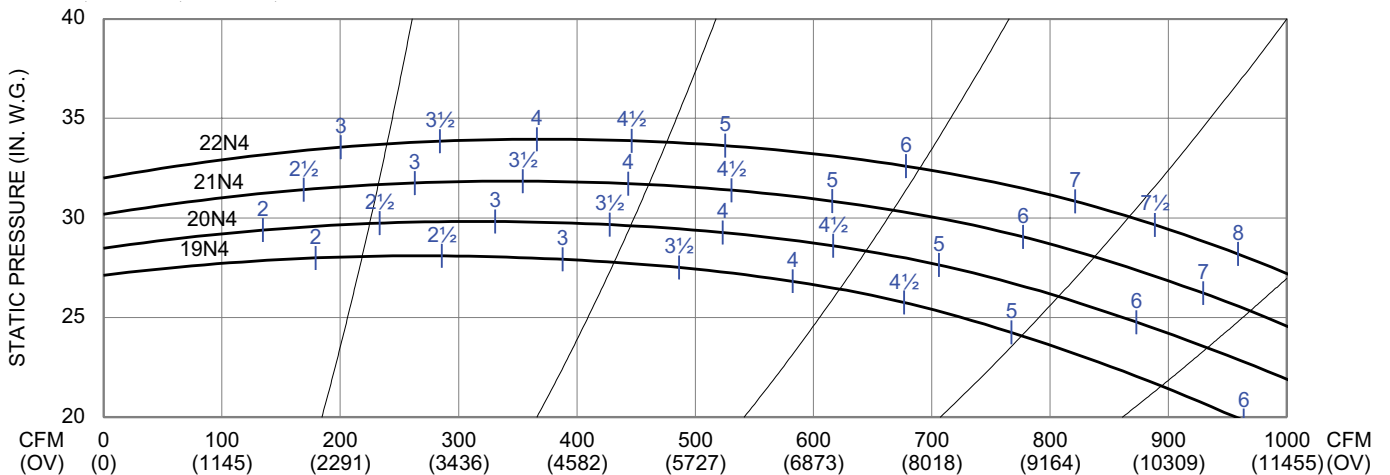
14N4, 15N4, 16N4, 17N4, 18N4

3500 RPM



19N4, 20N4, 21N4, 22N4

3500 RPM



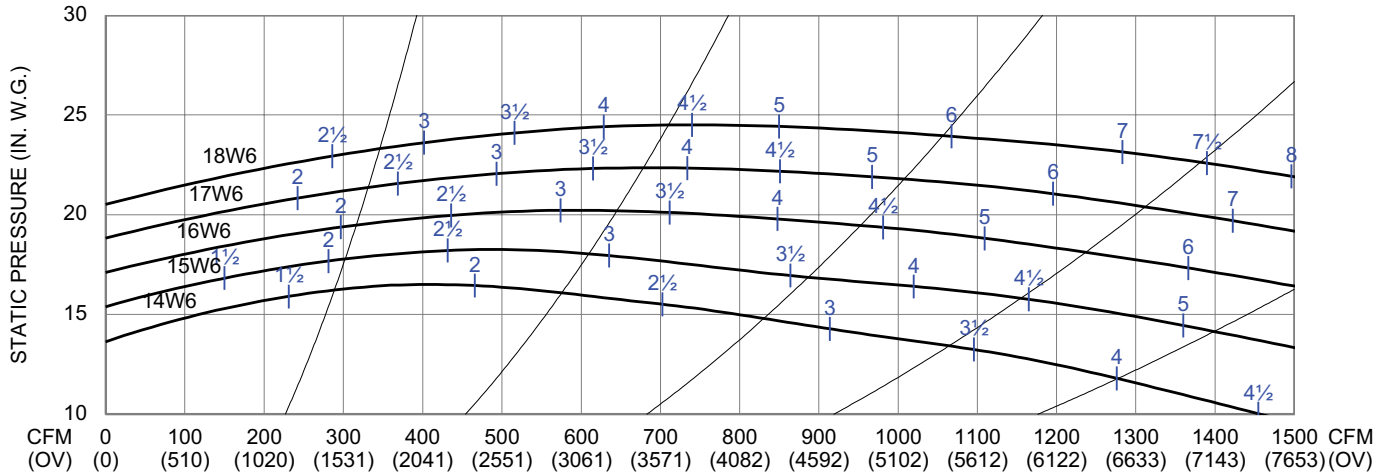
Performance shown is with a ducted outlet, and a ducted inlet or inlet with venturi.

TBNA 6 In. Outlet

Outlet Area: 0.20 ft²

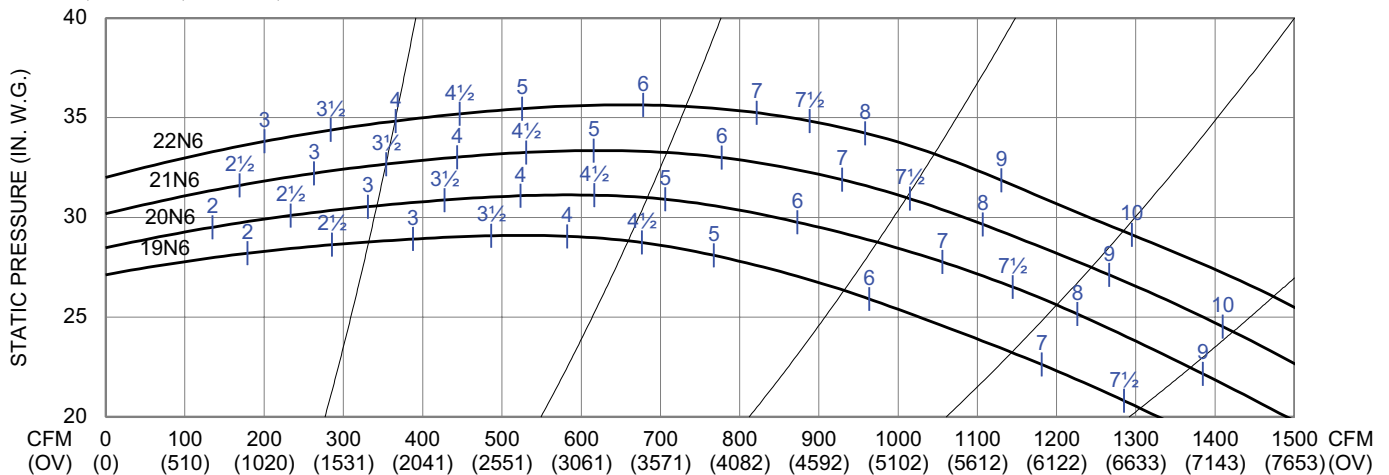
14W6, 15W6, 16W6, 17W6, 18W6

3500 RPM



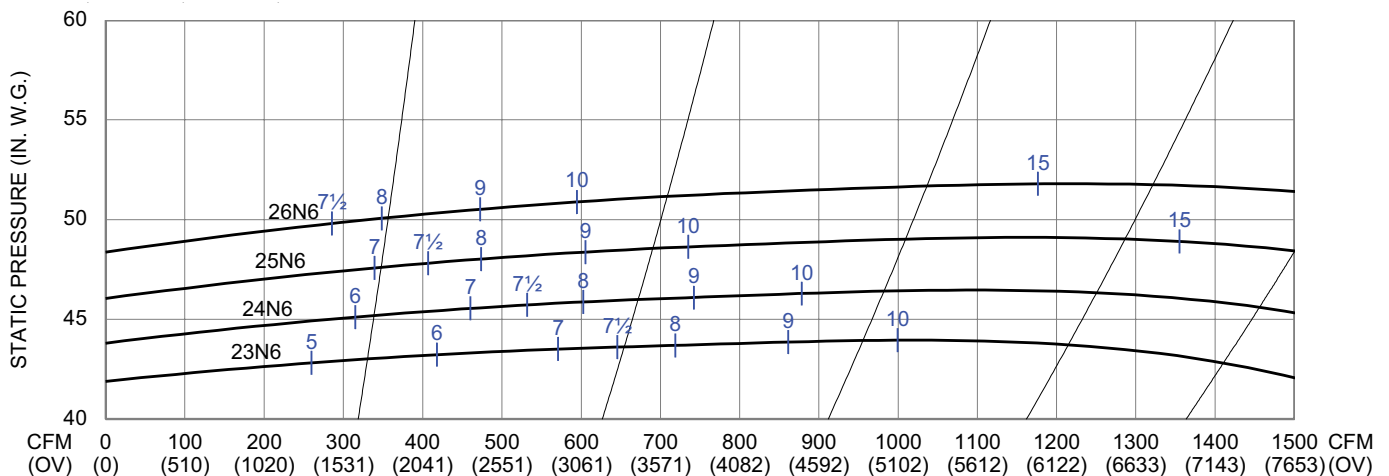
19N6, 20N6, 21N6, 22N6

3500 RPM



23N6, 24N6, 25N6, 26N6

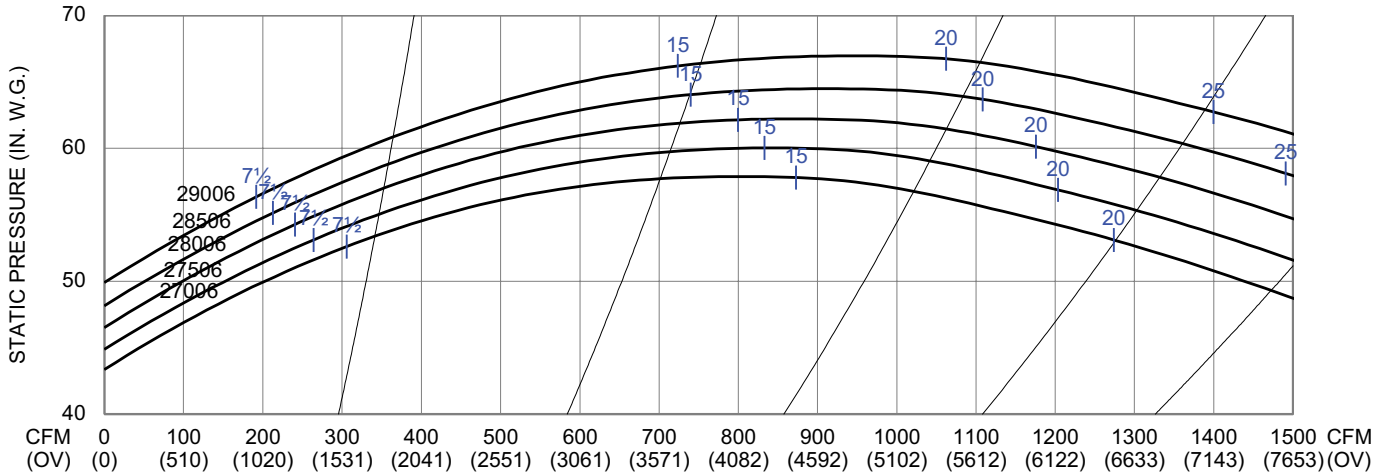
3500 RPM



Performance shown is with a ducted outlet, and a ducted inlet or inlet with venturi.

27006, 27506, 28006, 28506, 29006

3550 RPM

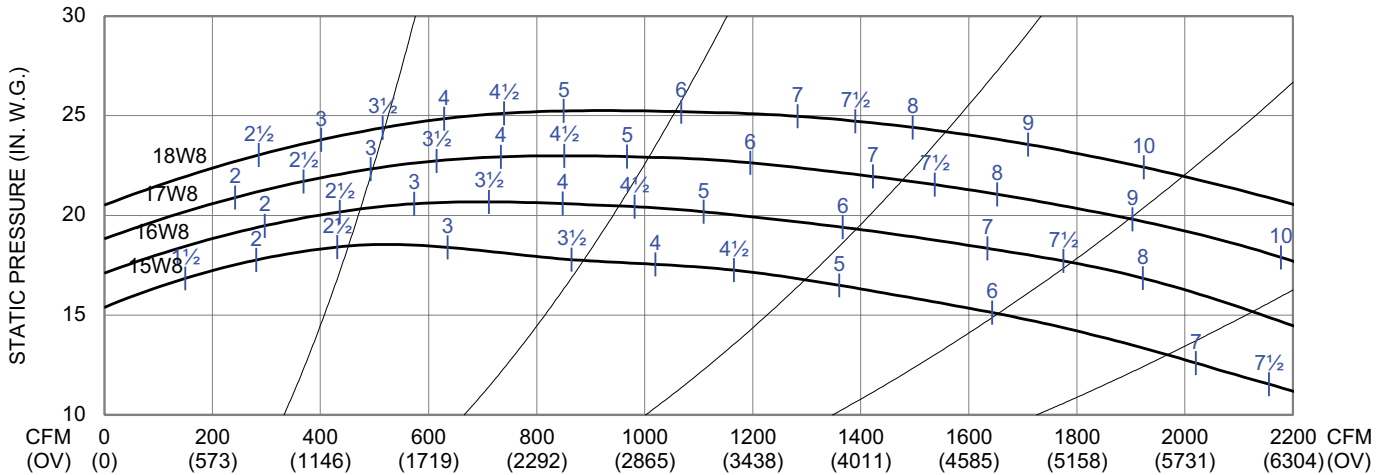


TBNA 8 In. Outlet

Outlet Area: 0.35 ft²

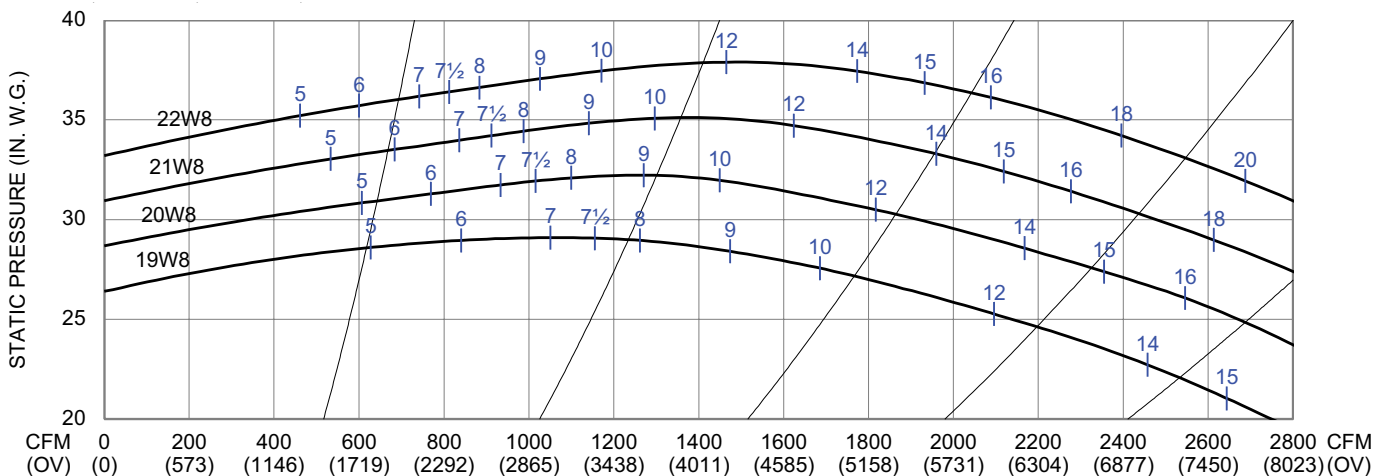
15W8, 16W8, 17W8, 18W8

3500 RPM



19W8, 20W8, 21W8, 22W8

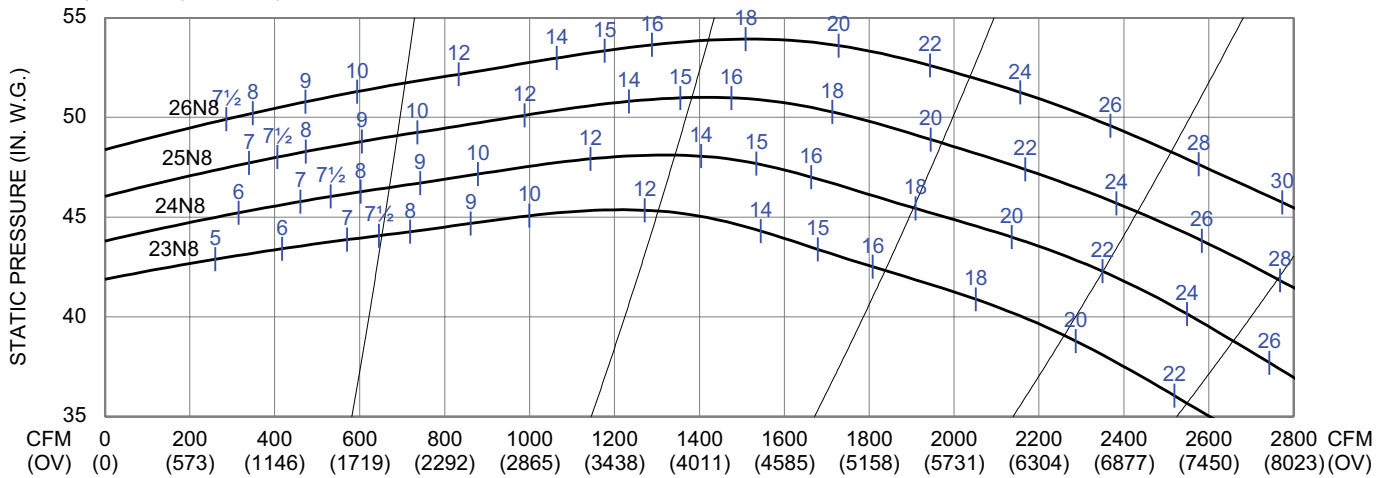
3500 RPM



Performance shown is with a ducted outlet, and a ducted inlet or inlet with venturi.

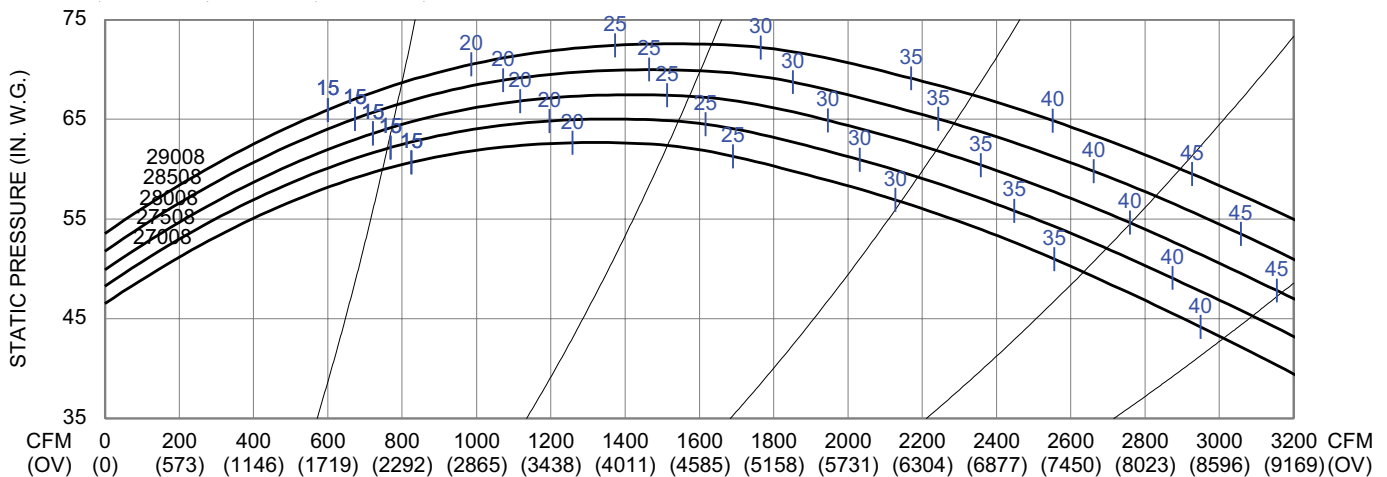
23N8, 24N8, 25N8, 26N8

3500 RPM



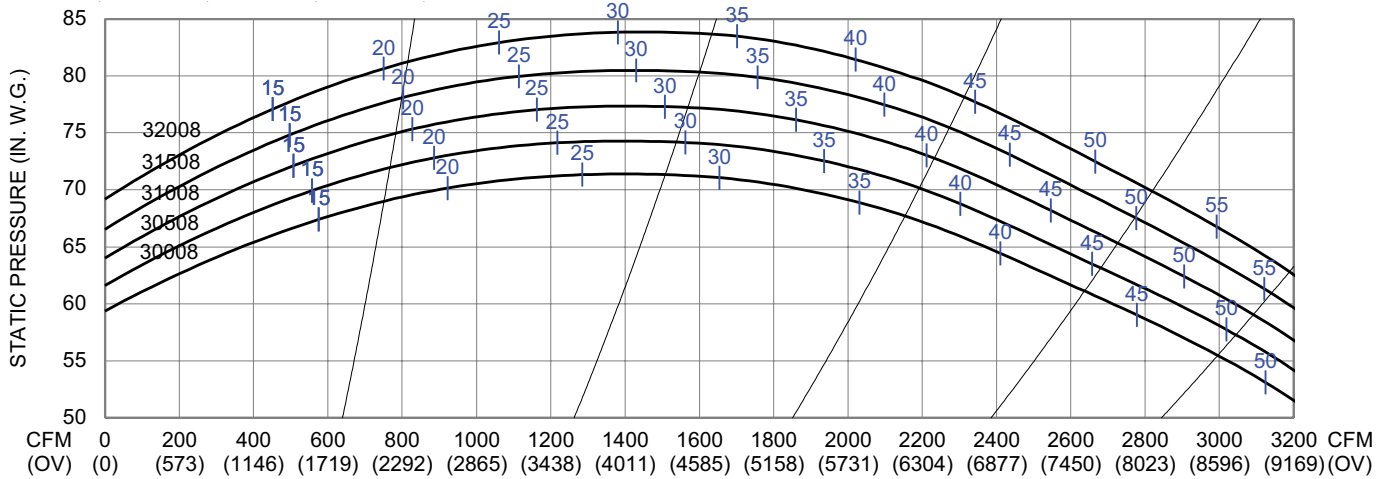
27008, 27508, 28008, 28508, 29008

3550 RPM



30008, 30508, 31008, 31508, 32008

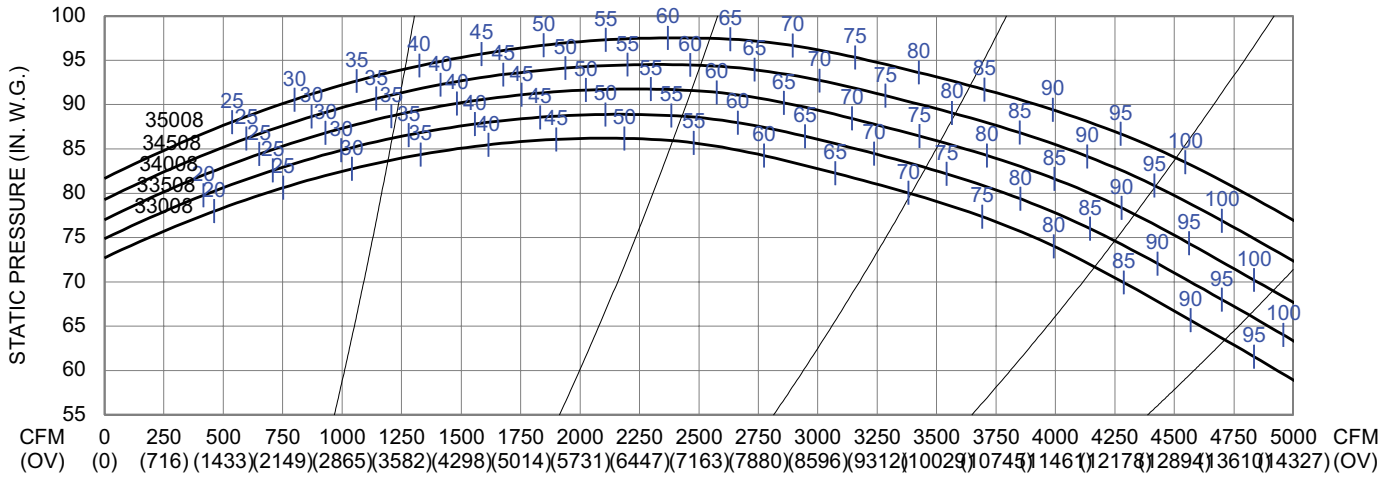
3550 RPM



Performance shown is with a ducted outlet, and a ducted inlet or inlet with venturi.

33008, 33508, 34008, 34508, 35008

3550 RPM

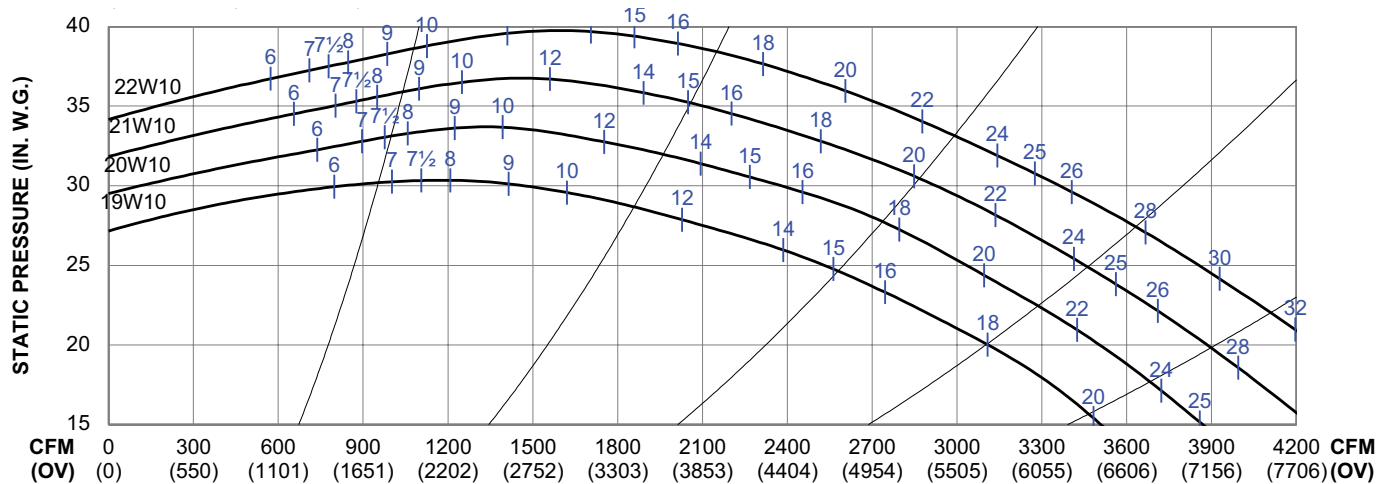


TBNA 10 In. Outlet

Outlet Area: 0.55 ft²

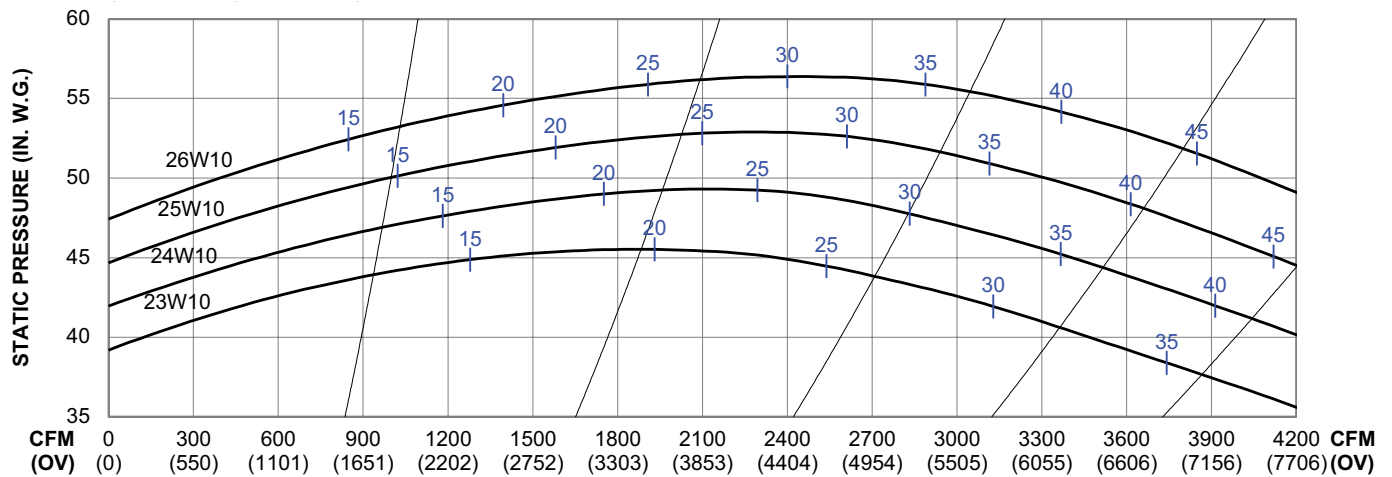
19W10, 20W10, 21W10, 22W10

3550 RPM



23W10, 24W10, 25W10, 26W10

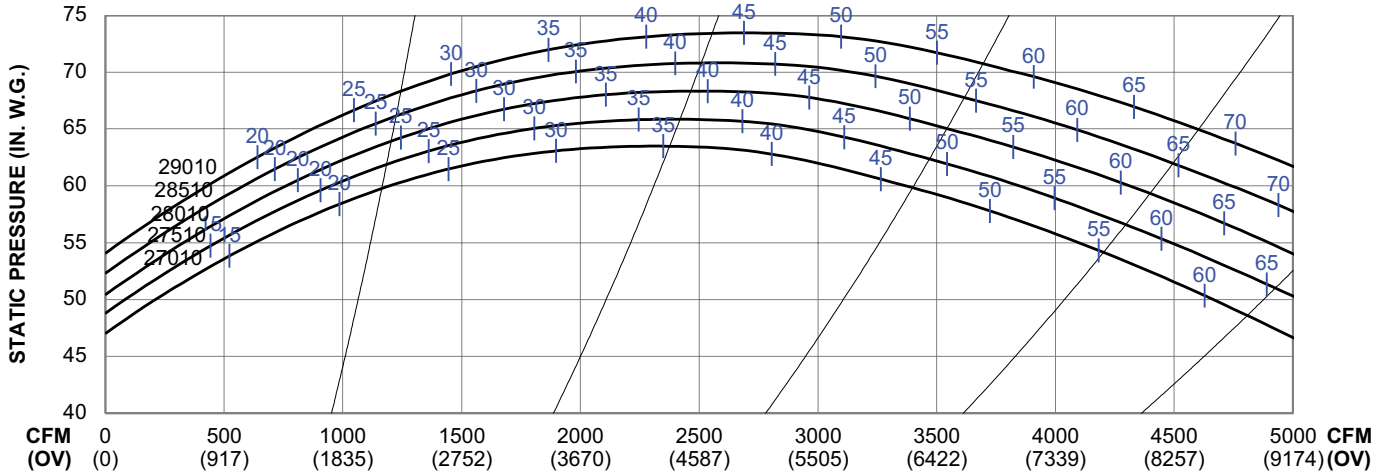
3550 RPM



Performance shown is with a ducted outlet, and a ducted inlet or inlet with venturi.

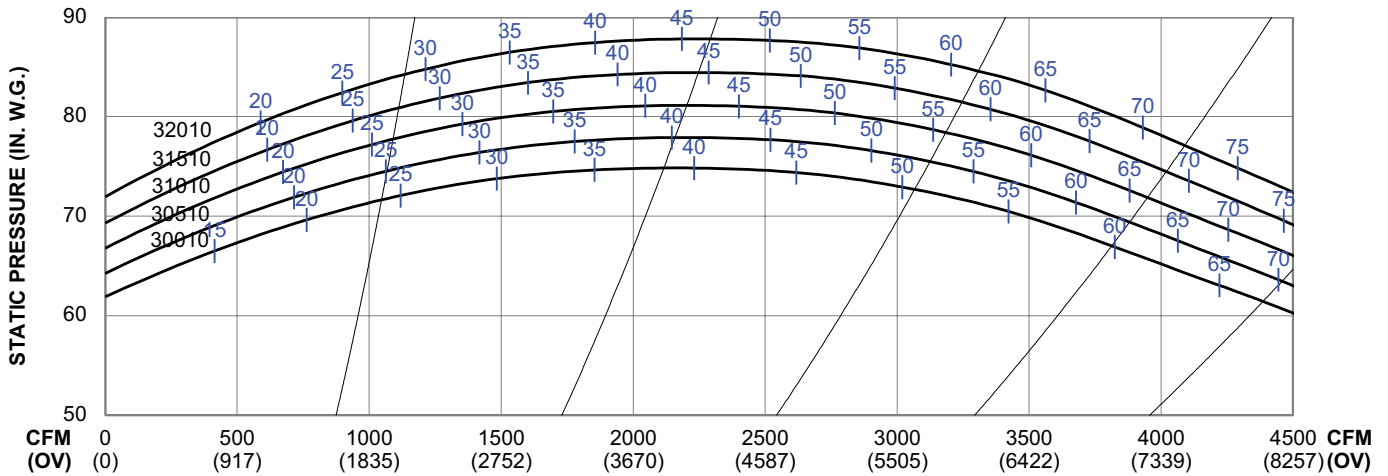
27010, 27510, 28010, 28510, 29010

3550 RPM



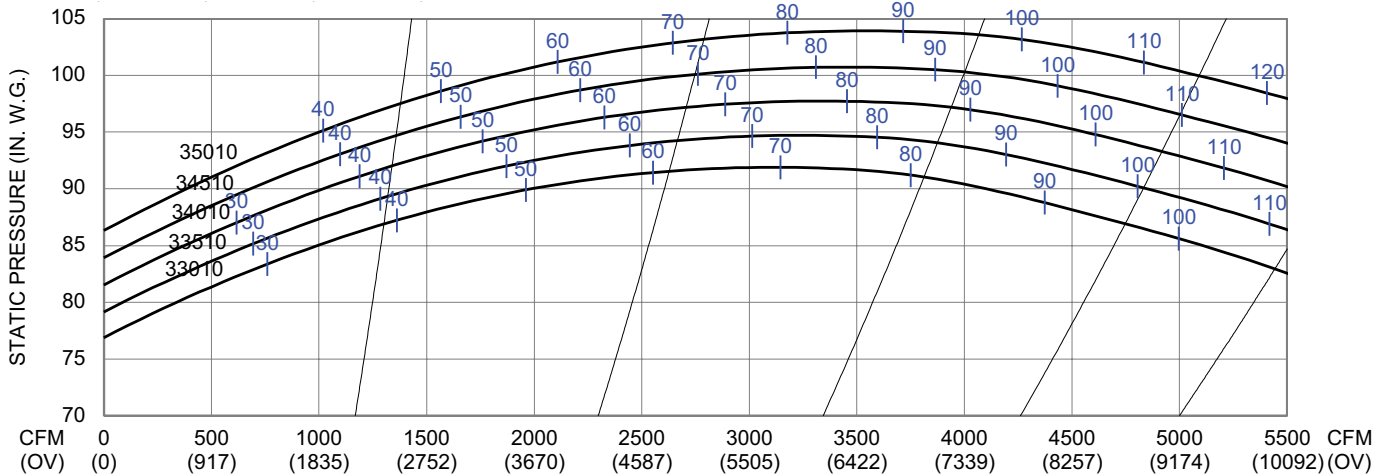
30010, 30510, 31010, 31510, 32010

3550 RPM



33010, 33510, 34010, 34510, 35010

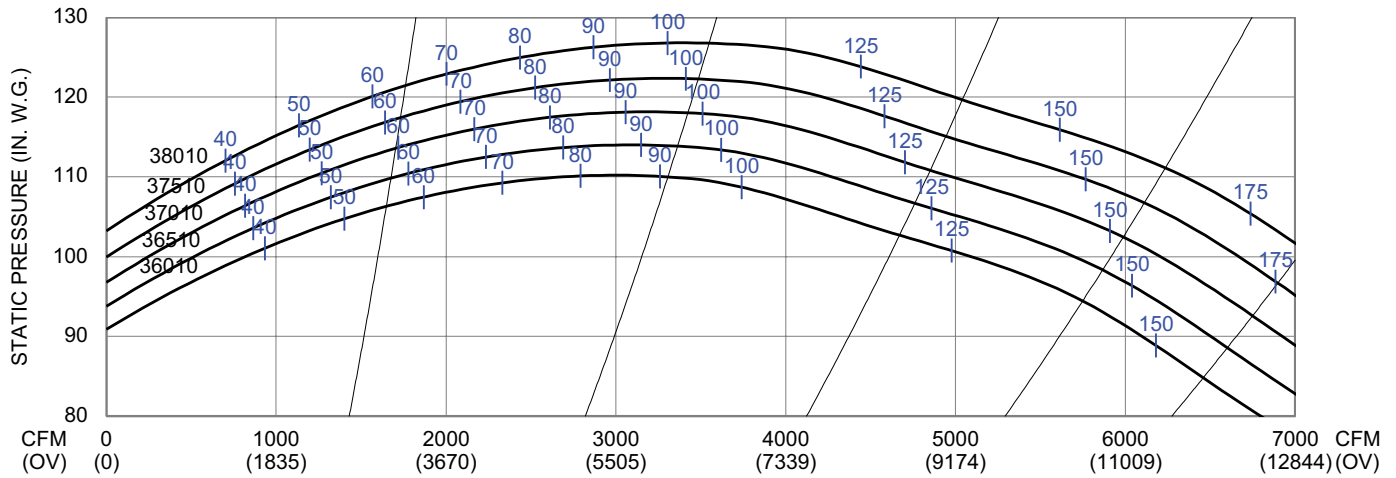
3550 RPM



Performance shown is with a ducted outlet, and a ducted inlet or inlet with venturi.

36010, 36510, 37010, 37510, 38010

3550 RPM

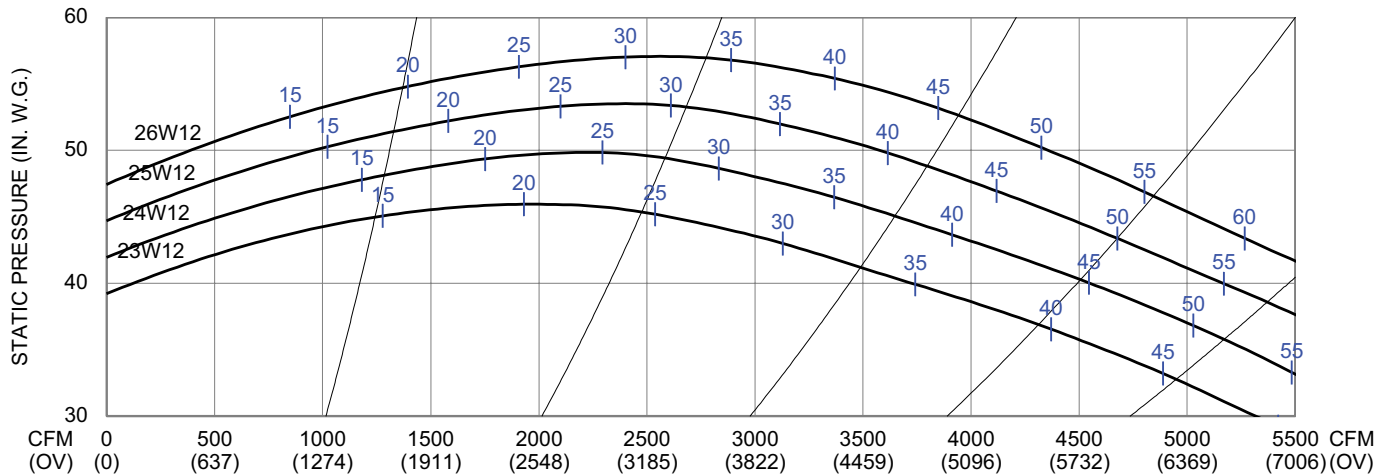


TBNA 12 In. Outlet

Outlet Area: 0.79 ft²

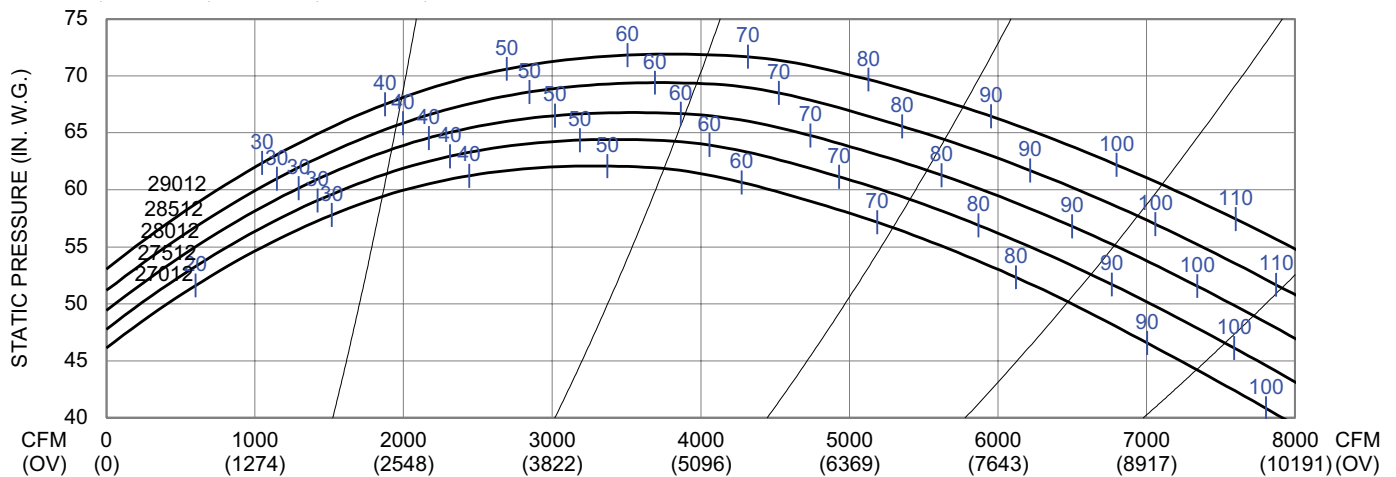
23W12, 24W12, 25W12, 26W12

3550 RPM



27012, 27512, 28012, 28512, 29012

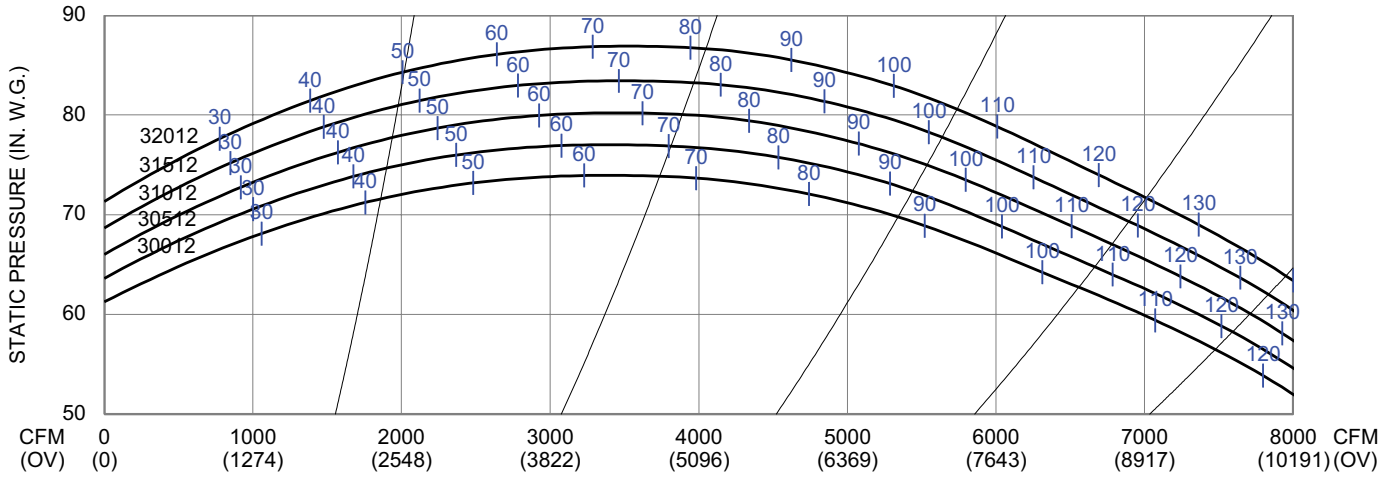
3550 RPM



Performance shown is with a ducted outlet, and a ducted inlet or inlet with venturi.

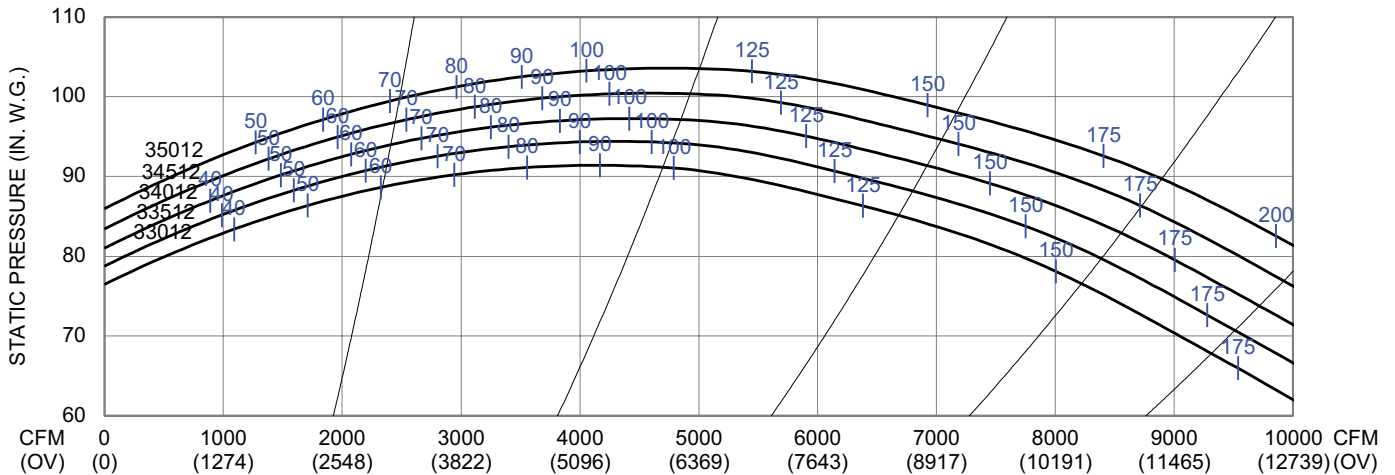
30012, 30512, 31012, 31512, 32012

3550 RPM



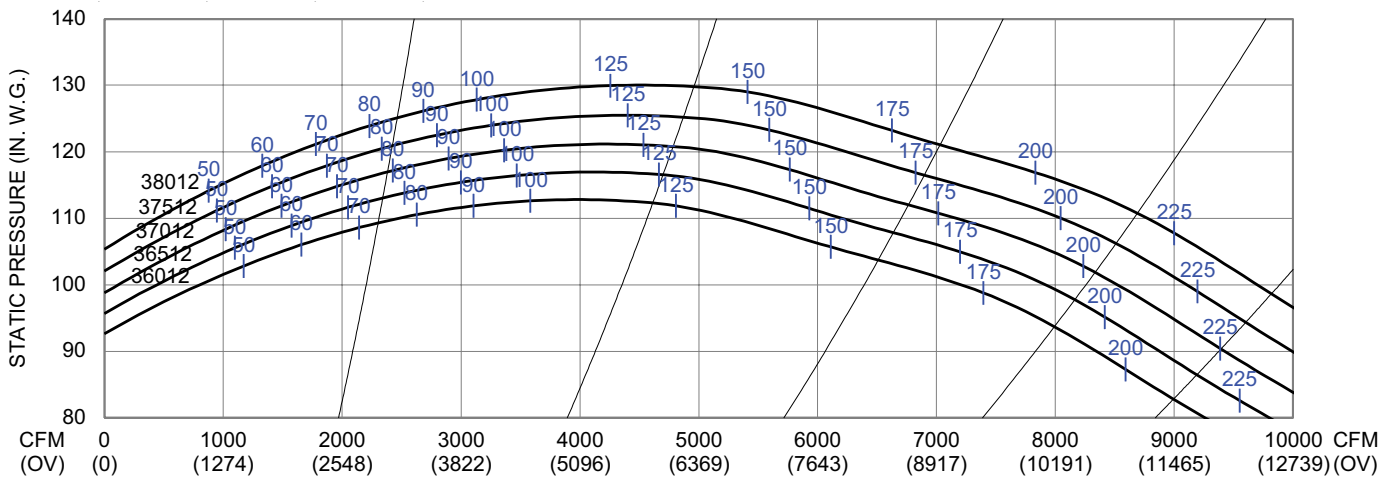
33012, 33512, 34012, 34512, 35012

3550 RPM



36012, 36512, 37012, 37512

3550 RPM



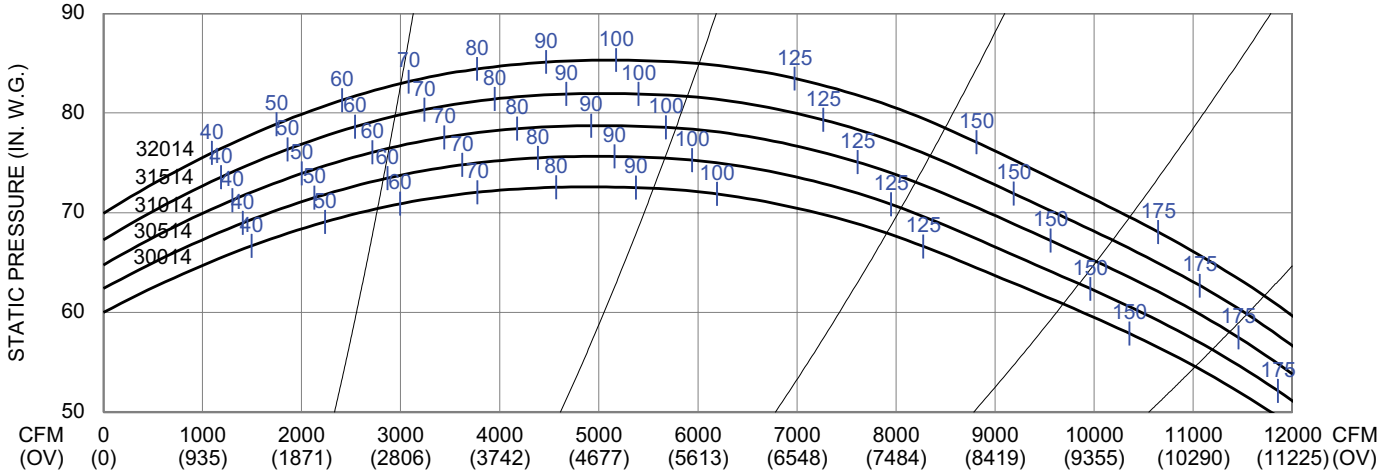
Performance shown is with a ducted outlet, and a ducted inlet or inlet with venturi.

TBNA 14 In. Outlet

Outlet Area: 1.07 ft²

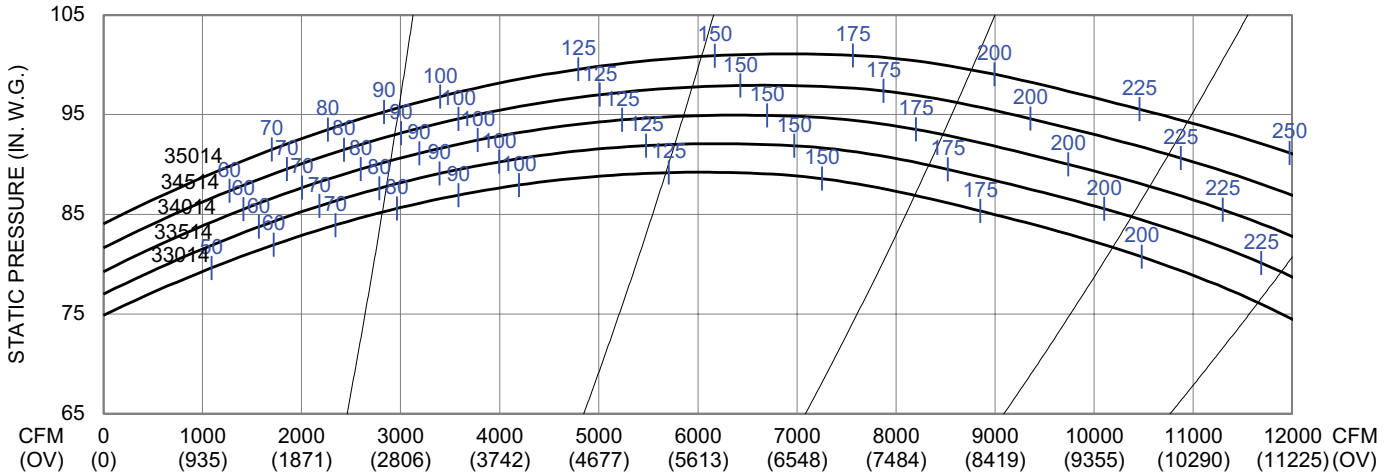
30014, 30514, 31014, 31514, 32014

3550 RPM



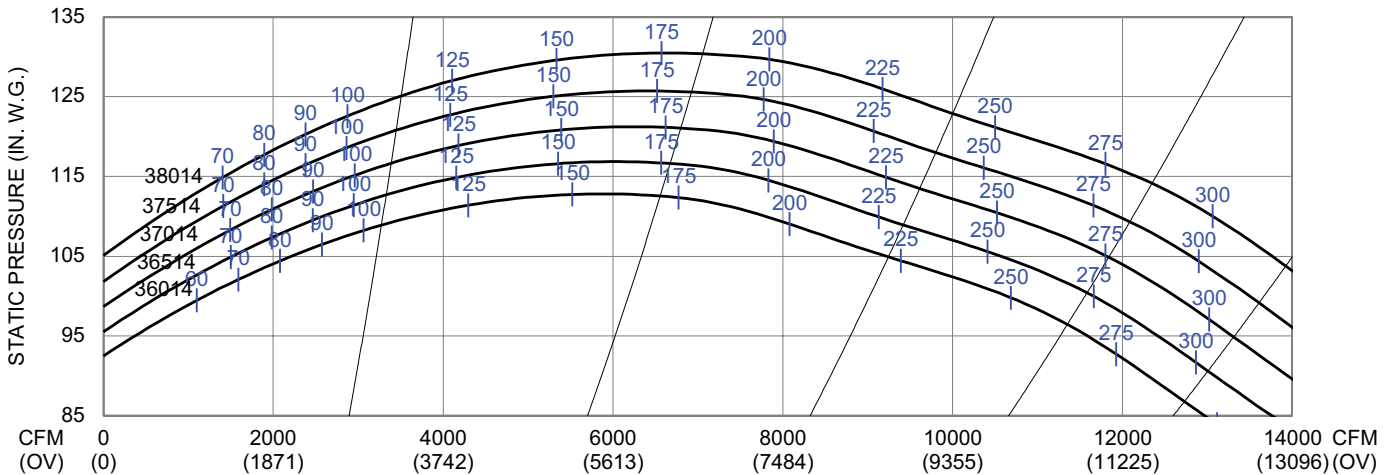
33014, 33514, 34014, 34514, 35014

3550 RPM



36014, 36514, 37014, 37514, 38014

3550 RPM



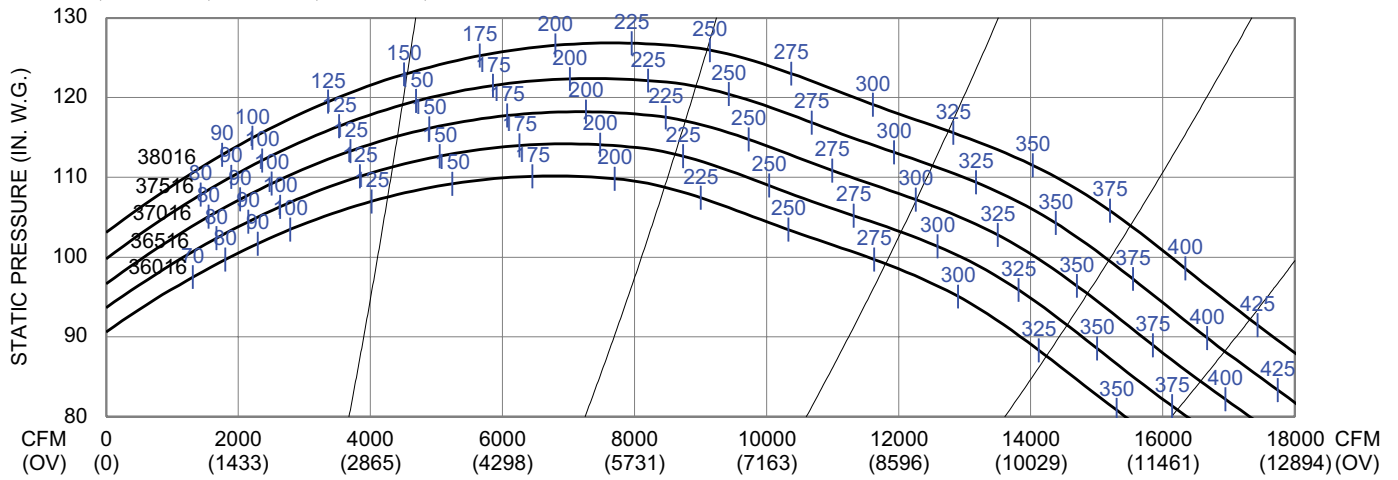
Performance shown is with a ducted outlet, and a ducted inlet or inlet with venturi.

TBNA 16 In. Outlet

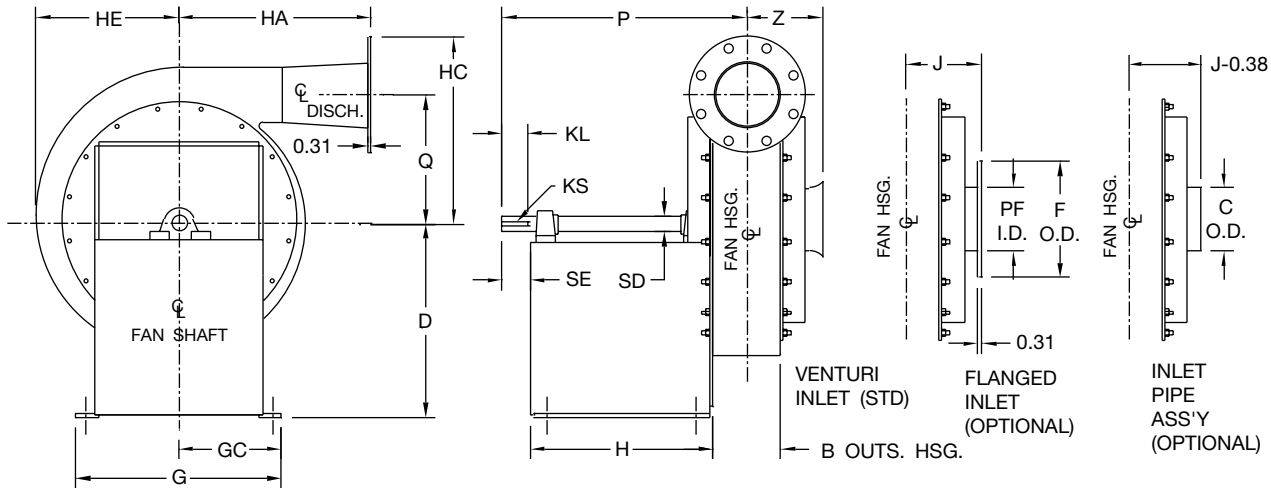
Outlet Area: 1.40 ft²

36016, 36516, 37016, 37516, 38016

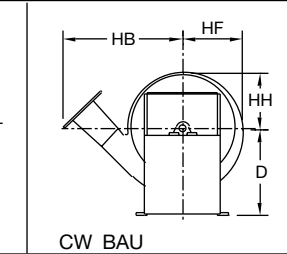
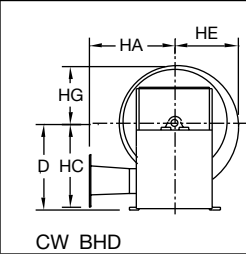
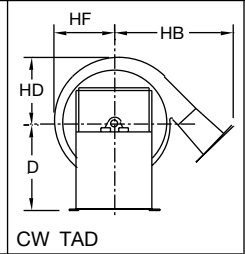
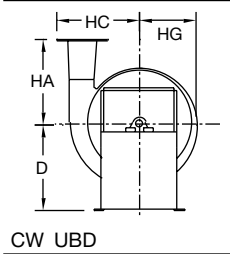
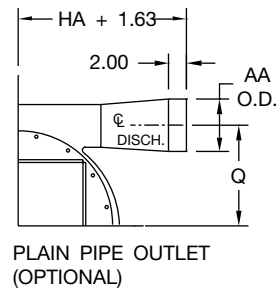
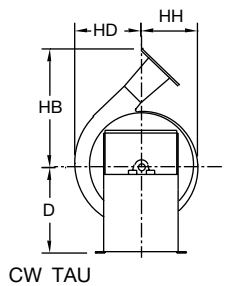
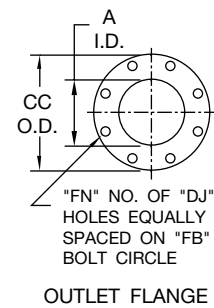
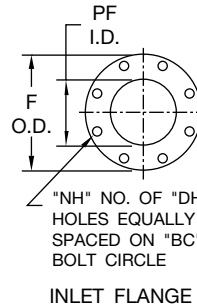
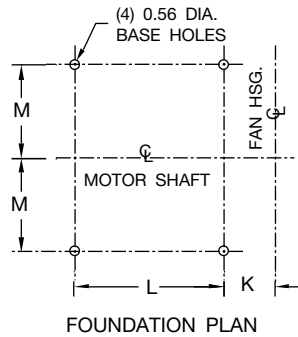
3550 RPM



Arrangement 1 (Sizes 14 – 26)



CLOCKWISE ROTATION
TOP HORIZONTAL DISCHARGE
'CW THD'
WITH STD. FLANGED OUTLET



Notes:

1. CW rotation shown, CCW rotation similar but opposite.
2. Bolt patterns on inlet and outlet flanges straddle centerline.
3. Inlet screen included with venturi inlet.

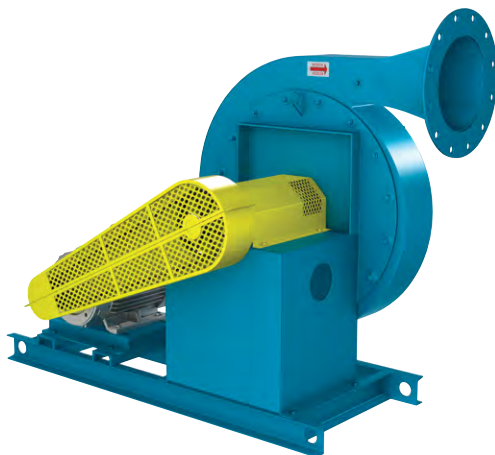
Arrangement 1 (Sizes 14 – 26)

| FAN SIZE | A | AA | B | BC | C | CC | D | DH | DJ | F | FB | FN | G | GC | H | HA | HB | HC |
|------------------------------|-------|-------|------|-------|-------|-------|-------|------|------|-------|-------|----|-------|-------|-------|-------|-------|-------|
| 14N4, 15N4, 16N4, 17N4, 18N4 | 4.00 | 4.50 | 3.88 | 9.50 | 6.63 | 9.00 | 17.75 | 0.88 | 0.75 | 11.00 | 7.50 | 8 | 19.50 | 9.75 | 11.63 | 18.25 | 24.44 | 16.31 |
| 14W6, 15W6, 16W6, 17W6, 18W6 | 6.00 | 6.63 | 6.25 | 11.75 | 8.63 | 11.00 | 17.75 | 0.88 | 0.88 | 13.50 | 9.50 | 8 | 19.50 | 9.75 | 11.63 | 18.25 | 25.13 | 17.31 |
| 15W8, 16W8, 17W8, 18W8 | 8.00 | 8.63 | 6.25 | 11.75 | 8.63 | 13.50 | 17.75 | 0.88 | 0.88 | 13.50 | 11.75 | 8 | 19.50 | 9.75 | 11.63 | 18.25 | 26.00 | 18.56 |
| 19N4, 20N4, 21N4, 22N4 | 4.00 | 4.50 | 3.88 | 9.50 | 6.63 | 9.00 | 23.00 | 0.88 | 0.75 | 11.00 | 7.50 | 8 | 23.50 | 11.75 | 17.13 | 17.75 | 26.25 | 19.38 |
| 19N6, 20N6, 21N6, 22N6 | 6.00 | 6.63 | 3.88 | 9.50 | 6.63 | 11.00 | 23.00 | 0.88 | 0.88 | 11.00 | 9.50 | 8 | 23.50 | 11.75 | 17.13 | 17.75 | 26.94 | 20.38 |
| 19W8, 20W8, 21W8, 22W8 | 8.00 | 8.63 | 6.25 | 11.75 | 8.63 | 13.50 | 23.00 | 0.88 | 0.88 | 13.50 | 11.75 | 8 | 23.50 | 11.75 | 17.13 | 17.75 | 27.88 | 21.63 |
| 19W10, 20W10, 21W10, 22W10 | 10.00 | 10.75 | 6.25 | 14.25 | 8.63 | 16.00 | 23.00 | 1.00 | 1.00 | 16.00 | 14.25 | 12 | 23.50 | 11.75 | 17.13 | 21.75 | 31.56 | 22.88 |
| 23N6, 24N6, 25N6, 26N6 | 6.00 | 6.63 | 5.00 | 11.75 | 8.63 | 11.00 | 24.00 | 0.88 | 0.88 | 13.50 | 9.50 | 8 | 23.50 | 11.75 | 17.13 | 19.00 | 29.81 | 23.13 |
| 23N8, 24N8, 25N8, 26N8 | 8.00 | 8.63 | 5.00 | 11.75 | 8.63 | 13.50 | 24.00 | 0.88 | 0.88 | 13.50 | 11.75 | 8 | 23.50 | 11.75 | 17.13 | 19.00 | 30.69 | 24.38 |
| 23W10, 24W10, 25W10, 26W10 | 10.00 | 10.75 | 7.25 | 14.25 | 10.75 | 16.00 | 24.00 | 1.00 | 1.00 | 16.00 | 14.25 | 12 | 23.50 | 11.75 | 17.13 | 23.00 | 34.38 | 25.63 |
| 23W12, 24W12, 25W12, 26W12 | 12.00 | 12.75 | 7.25 | 17.00 | 10.75 | 19.00 | 24.00 | 1.00 | 1.00 | 19.00 | 17.00 | 12 | 23.50 | 11.75 | 17.13 | 23.00 | 35.44 | 27.13 |

| FAN SIZE | HD | HE | HF | HG | HH | J | K | KL | KS | L | M | NH | P | PF | Q | SD | SE | Z |
|------------------------------|-------|-------|-------|-------|-------|------|------|------|----------|-------|-------|----|-------|-------|-------|------|------|------|
| 14N4, 15N4, 16N4, 17N4, 18N4 | 14.00 | 13.63 | 13.19 | 12.75 | 12.31 | 5.56 | 3.38 | 2.38 | .25x.138 | .63 | 8.88 | 8 | 16.19 | 6.00 | 11.75 | 1.19 | 2.63 | 4.56 |
| 14W6, 15W6, 16W6, 17W6, 18W6 | 14.00 | 13.63 | 13.19 | 12.75 | 12.31 | 6.69 | 4.50 | 2.38 | .25x.138 | .63 | 8.88 | 8 | 17.38 | 8.00 | 11.75 | 1.19 | 2.63 | 6.38 |
| 15W8, 16W8, 17W8, 18W8 | 14.00 | 13.63 | 13.19 | 12.75 | 12.31 | 6.69 | 4.50 | 2.38 | .25x.138 | .63 | 8.88 | 8 | 17.38 | 8.00 | 11.75 | 1.19 | 2.63 | 6.38 |
| 19N4, 20N4, 21N4, 22N4 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.06 | 3.38 | 3.25 | .38x.19 | 14.13 | 10.88 | 8 | 23.06 | 6.00 | 14.88 | 1.44 | 4.00 | 4.56 |
| 19N6, 20N6, 21N6, 22N6 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.06 | 3.38 | 3.25 | .38x.19 | 14.13 | 10.88 | 8 | 23.06 | 6.00 | 14.88 | 1.44 | 4.00 | 4.56 |
| 19W8, 20W8, 21W8, 22W8 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.69 | 4.50 | 3.25 | .38x.19 | 14.13 | 10.88 | 8 | 24.13 | 8.00 | 14.88 | 1.44 | 3.88 | 6.38 |
| 19W10, 20W10, 21W10, 22W10 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.69 | 4.50 | 3.25 | .38x.19 | 14.13 | 10.88 | 12 | 24.13 | 10.00 | 14.88 | 1.44 | 3.88 | 6.38 |
| 23N6, 24N6, 25N6, 26N6 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 6.94 | 3.88 | 3.88 | .38x.19 | 14.13 | 10.88 | 8 | 24.13 | 8.00 | 17.63 | 1.44 | 4.50 | 5.25 |
| 23N8, 24N8, 25N8, 26N8 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 6.94 | 3.88 | 3.88 | .38x.19 | 14.13 | 10.88 | 8 | 24.13 | 8.00 | 17.63 | 1.44 | 4.50 | 5.25 |
| 23W10, 24W10, 25W10, 26W10 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 7.19 | 5.00 | 3.88 | .38x.19 | 14.13 | 10.88 | 12 | 25.25 | 10.00 | 17.63 | 1.44 | 4.50 | 6.88 |
| 23W12, 24W12, 25W12, 26W12 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 7.19 | 5.00 | 3.88 | .38x.19 | 14.13 | 10.88 | 12 | 25.25 | 12.00 | 17.63 | 1.44 | 4.50 | 6.88 |

BC16177D

DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS AVAILABLE UPON REQUEST.



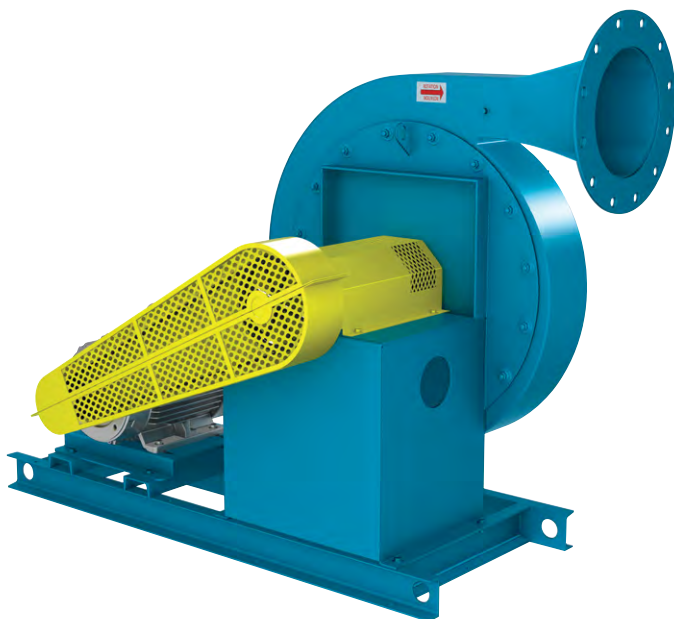
Arrangement 1 (Sizes 27 – 38)

| FAN SIZE | D | HD | HE | HF | HG | HH | G | GC | L | M | Q |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 270xx – 290xx | 31.25 | 22.44 | 21.75 | 21.13 | 20.44 | 19.81 | 29.25 | 14.63 | 19.25 | 13.38 | 19.75 |
| 300xx – 320xx | 34.50 | 24.75 | 24.00 | 23.25 | 22.56 | 21.81 | 29.25 | 14.63 | 21.25 | 13.38 | 21.75 |
| 330xx – 350xx | 36.75 | 27.44 | 26.63 | 25.81 | 25.00 | 24.19 | 29.25 | 14.63 | 23.25 | 14.38 | 24.13 |
| 360xx – 380xx | 40.00 | 29.75 | 28.88 | 28.00 | 27.19 | 26.25 | 31.25 | 15.63 | 25.25 | 14.38 | 26.00 |

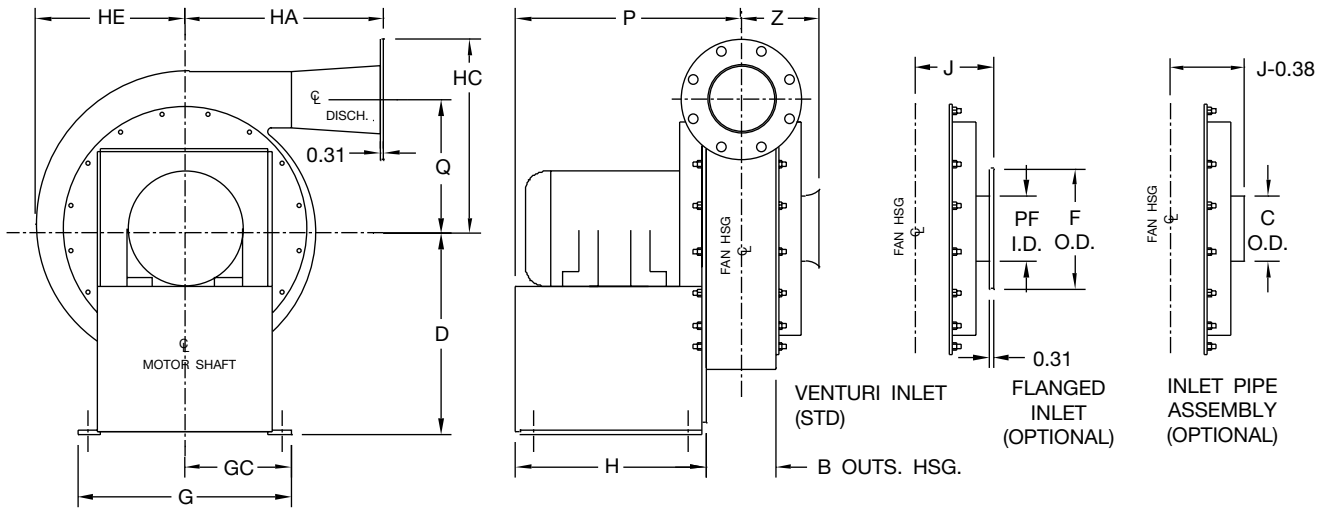
| FAN SIZE | OUTLET SIZE | B | F | H | HA | HB | HC | J | K | N | P | PF | R | T |
|---------------|-------------|------|-------|-------|-------|-------|-------|------|------|----|-------|-------|------|-------|
| 270xx – 290xx | xxx06 | 4.88 | 11.00 | 21.94 | 19.75 | 31.56 | 24.88 | 6.00 | 3.50 | 8 | 31.63 | 6.00 | 0.88 | 9.50 |
| | xxx08 | 5.88 | 13.50 | 21.94 | 19.75 | 32.50 | 26.13 | 6.50 | 4.00 | 8 | 32.13 | 8.00 | 0.88 | 11.75 |
| | xxx10 | 6.50 | 16.00 | 22.13 | 23.75 | 36.19 | 27.38 | 7.00 | 4.50 | 12 | 32.63 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 8.50 | 19.00 | 22.13 | 23.75 | 37.25 | 28.88 | 8.00 | 5.50 | 12 | 33.63 | 12.00 | 1.00 | 17.00 |
| 300xx – 320xx | xxx08 | 5.00 | 13.50 | 23.88 | 20.25 | 34.50 | 28.50 | 6.00 | 3.50 | 8 | 34.63 | 8.00 | 0.88 | 11.75 |
| | xxx10 | 6.00 | 16.00 | 23.88 | 24.25 | 38.19 | 29.75 | 7.00 | 4.00 | 12 | 35.13 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 7.13 | 19.00 | 24.19 | 24.25 | 39.25 | 31.25 | 7.38 | 4.88 | 12 | 36.00 | 12.00 | 1.00 | 17.00 |
| | xxx14 | 9.38 | 21.00 | 24.19 | 28.25 | 42.81 | 32.25 | 8.50 | 6.00 | 12 | 37.13 | 14.00 | 1.13 | 18.75 |
| 330xx – 350xx | xxx08 | 6.00 | 13.50 | 25.88 | 28.75 | 42.19 | 30.88 | 6.50 | 4.00 | 8 | 36.88 | 8.00 | 0.88 | 11.75 |
| | xxx10 | 6.63 | 16.00 | 26.06 | 28.75 | 43.06 | 32.13 | 7.00 | 4.50 | 12 | 37.44 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 7.13 | 19.00 | 26.19 | 28.75 | 44.13 | 33.63 | 7.38 | 4.88 | 12 | 37.75 | 12.00 | 1.00 | 17.00 |
| | xxx14 | 9.38 | 21.00 | 26.19 | 28.75 | 44.88 | 34.63 | 8.50 | 6.00 | 12 | 38.88 | 14.00 | 1.13 | 18.75 |
| 360xx – 380xx | xxx10 | 6.13 | 16.00 | 27.81 | 29.25 | 44.75 | 34.00 | 6.50 | 4.00 | 12 | 38.88 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 6.75 | 19.00 | 28.19 | 29.25 | 45.81 | 35.50 | 7.13 | 4.63 | 12 | 39.56 | 12.00 | 1.00 | 17.00 |
| | xxx14 | 8.75 | 21.00 | 28.19 | 29.25 | 46.50 | 36.50 | 8.13 | 5.63 | 12 | 40.56 | 14.00 | 1.13 | 18.75 |
| | xxx16 | 9.50 | 23.50 | 28.13 | 29.25 | 47.44 | 37.75 | 8.50 | 6.00 | 16 | 40.88 | 16.00 | 1.13 | 21.25 |

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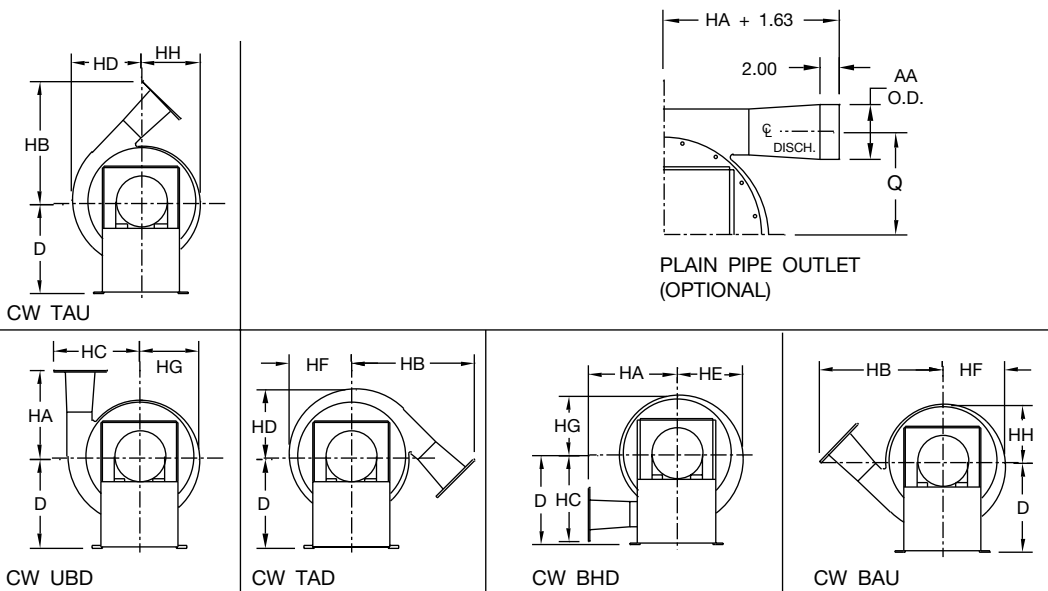
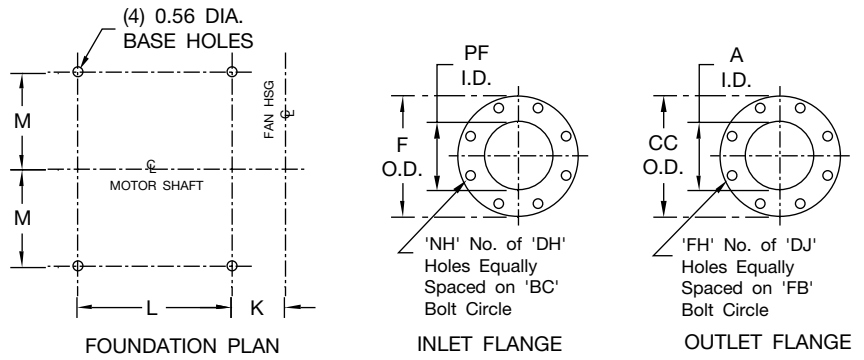
DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS AVAILABLE UPON REQUEST.



Arrangement 4 (Sizes 14 – 26)



CLOCKWISE ROTATION
TOP HORIZONTAL DISCHARGE
'CW THD'
WITH STD. FLANGED OUTLET



Notes:

1. CW rotation shown, CCW rotation similar but opposite.
2. Bolt patterns on inlet and outlet flanges straddle centerline.
3. Inlet screen included with venturi inlet.

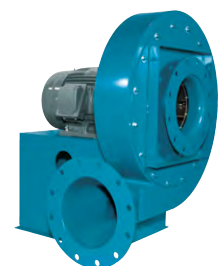
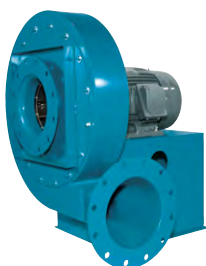
Arrangement 4 (Sizes 14 – 26)

| FAN SIZE | MOTOR FRAME | A | AA | B | BC | C | CC | D | DH | DJ | F | FB | FN | G | GC | H | HA |
|--------------------------------|---------------|-------|-------|------|-------|-------|-------|-------|------|------|-------|-------|----|-------|-------|-------|-------|
| 14N4, 15N4 16N4, 17N4, 18N4 | 143T & 145T | 4.00 | 4.50 | 3.88 | 9.50 | 6.63 | 9.00 | 17.75 | 0.88 | 0.75 | 11.00 | 7.50 | 8 | 19.50 | 9.75 | 11.63 | 18.25 |
| | 19.00 | | | | | | | | | | | | | | | | |
| 14W6, 15W6 16W6, 17W6, 18W6 | 143T & 145T | 6.00 | 6.63 | 6.25 | 11.75 | 8.63 | 11.00 | 17.75 | 0.88 | 0.88 | 13.50 | 9.50 | 8 | 19.50 | 9.75 | 11.63 | 18.25 |
| | 19.00 | | | | | | | | | | | | | | | | |
| 15W8, 16W8 17W8, 18W8 | 182T & 184T | 8.00 | 8.63 | 6.25 | 11.75 | 8.63 | 13.50 | 19.00 | 0.88 | 0.88 | 13.50 | 11.75 | 8 | 19.50 | 9.75 | 17.13 | 18.25 |
| | 213T & 215T | | | | | | | 19.75 | | | | | | | | | |
| 19N4, 20N4 21N4, 22N4 | 145T | 4.00 | 4.50 | 3.88 | 9.50 | 6.63 | 9.00 | 23.00 | 0.88 | 0.75 | 11.00 | 7.50 | 8 | 23.50 | 11.75 | 17.13 | 17.75 |
| | 182T & 184T | | | | | | | 24.00 | | | | | | | | | |
| 19N6, 20N6 21N6, 22N6 | 182T & 184T | 6.00 | 6.63 | 3.88 | 9.50 | 6.63 | 11.00 | 24.00 | 0.88 | 0.88 | 11.00 | 9.50 | 8 | 23.50 | 11.75 | 17.13 | 17.75 |
| | 213T & 215T | | | | | | | 24.75 | | | | | | | | | |
| 19W8, 20W8 21W8, 22W8 | 182T & 184T | 8.00 | 8.63 | 6.25 | 11.75 | 8.63 | 13.50 | 24.00 | 0.88 | 0.88 | 13.50 | 11.75 | 8 | 23.50 | 11.75 | 17.13 | 17.75 |
| | 213T & 215T | | | | | | | 24.75 | | | | | | | | | |
| 19W10, 20W10 21W10, 22W10 | 254T & 256T | 10.00 | 10.75 | 6.25 | 14.25 | 8.63 | 16.00 | 26.00 | 1.00 | 1.00 | 16.00 | 14.25 | 12 | 23.50 | 11.75 | 22.50 | 21.75 |
| | 284TS | | | | | | | 26.75 | | | | | | | | | |
| 23N6, 24N6 25N6, 26N6 | 184T | 6.00 | 6.63 | 5.00 | 11.75 | 8.63 | 11.00 | 24.00 | 0.88 | 0.88 | 13.50 | 9.50 | 8 | 23.50 | 11.75 | 17.13 | 19.00 |
| | 213T & 215T | | | | | | | 24.75 | | | | | | | | | |
| 23N8, 24N8 25N8, 26N8 | 254T & 256T | 8.00 | 8.63 | 5.00 | 11.75 | 8.63 | 13.50 | 26.00 | 0.88 | 0.88 | 13.50 | 11.75 | 8 | 23.50 | 11.75 | 22.50 | 19.00 |
| | 213T & 215T | | | | | | | 24.75 | | | | | | | | | |
| 23W10, 24W10 25W10, 26W10 | 254T & 256T | 8.00 | 8.63 | 5.00 | 11.75 | 8.63 | 13.50 | 26.00 | 0.88 | 0.88 | 13.50 | 11.75 | 8 | 23.50 | 11.75 | 22.50 | 19.00 |
| | 254T & 256T | | | | | | | 26.00 | | | | | | | | | |
| 23W10, 24W10 25W10, 26W10 | 284TS | 10.00 | 10.75 | 7.25 | 14.25 | 10.75 | 16.00 | 26.75 | 1.00 | 1.00 | 16.00 | 14.25 | 12 | 23.50 | 11.75 | 22.50 | 23.00 |
| | 286TS | | | | | | | 28.25 | | | | | | | | | |
| 23W12, 24W12 25W12, 26W12 | 324TS & 326TS | 12.00 | 12.75 | 7.25 | 17.00 | 10.75 | 19.00 | 29.25 | 1.00 | 1.00 | 19.00 | 17.00 | 12 | 23.50 | 11.75 | 26.50 | 23.00 |
| | 286TS | | | | | | | 28.25 | | | | | | | | | |
| 23W12, 24W12 25W12, 26W12 | 324TS & 326TS | 12.00 | 12.75 | 7.25 | 17.00 | 10.75 | 19.00 | 29.25 | 1.00 | 1.00 | 19.00 | 17.00 | 12 | 23.50 | 11.75 | 26.50 | 23.00 |
| | 324TS & 326TS | | | | | | | 29.25 | | | | | | | | | |

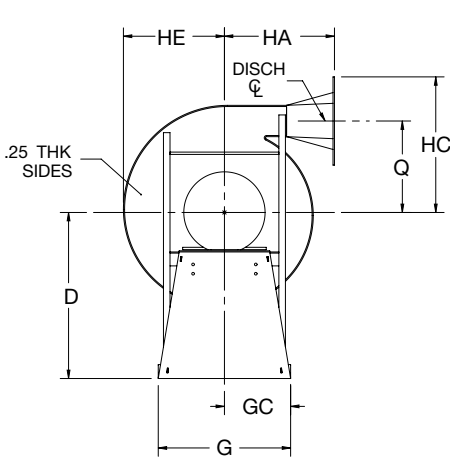
| FAN SIZE | MOTOR FRAME | HB | HC | HD | HE | HF | HG | HH | J | K | L | M | NH | P | PF | Q | Z |
|--------------------------------|---------------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|----|-------|-------|-------|------|
| 14N4, 15N4 16N4, 17N4, 18N4 | 143T & 145T | 24.44 | 16.31 | 14.00 | 13.63 | 13.19 | 12.75 | 12.31 | 5.56 | 3.38 | 8.63 | 8.88 | 8 | 13.56 | 6.00 | 11.75 | 4.56 |
| | 182T & 184T | | | | | | | | | | 14.13 | | | 19.06 | | | |
| 14W6, 15W6 16W6, 17W6, 18W6 | 143T & 145T | 25.13 | 17.31 | 14.00 | 13.63 | 13.19 | 12.75 | 12.31 | 6.69 | 4.50 | 8.63 | 8.88 | 8 | 14.75 | 8.00 | 11.75 | 6.38 |
| | 182T & 184T | | | | | | | | | | 14.13 | | | 20.25 | | | |
| 15W8, 16W8 17W8, 18W8 | 182T & 184T | 26.00 | 18.56 | 14.00 | 13.63 | 13.19 | 12.75 | 12.31 | 6.69 | 4.50 | 14.13 | 8.88 | 8 | 20.25 | 8.00 | 11.75 | 6.38 |
| | 213T & 215T | | | | | | | | | | 14.13 | | | 20.25 | | | |
| 19N4, 20N4 21N4, 22N4 | 145T | 26.25 | 19.38 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.06 | 3.38 | 14.13 | 10.88 | 8 | 19.06 | 6.00 | 14.88 | 4.56 |
| | 182T & 184T | | | | | | | | | | 14.13 | | | 19.06 | | | |
| 19N6, 20N6 21N6, 22N6 | 182T & 184T | 26.94 | 20.38 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.06 | 3.38 | 14.13 | 10.88 | 8 | 19.06 | 6.00 | 14.88 | 4.56 |
| | 213T & 215T | | | | | | | | | | 14.13 | | | 19.06 | | | |
| 19W8, 20W8 21W8, 22W8 | 182T & 184T | 27.88 | 21.63 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.69 | 4.50 | 14.13 | 10.88 | 8 | 20.25 | 8.00 | 14.88 | 6.38 |
| | 213T & 215T | | | | | | | | | | 14.13 | | | 20.25 | | | |
| 19W10, 20W10 21W10, 22W10 | 254T & 256T | 31.56 | 22.88 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.69 | 4.50 | 19.50 | 10.88 | 12 | 25.63 | 10.00 | 14.88 | 6.38 |
| | 284TS | | | | | | | | | | 19.50 | | | 25.63 | | | |
| 23N6, 24N6 25N6, 26N6 | 184T | 29.81 | 23.13 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 6.94 | 3.88 | 14.13 | 10.88 | 8 | 19.63 | 8.00 | 17.63 | 5.25 |
| | 213T & 215T | | | | | | | | | | 14.13 | | | 19.63 | | | |
| 23N8, 24N8 25N8, 26N8 | 254T & 256T | 30.69 | 24.38 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 6.94 | 3.88 | 14.13 | 10.88 | 8 | 19.63 | 8.00 | 17.63 | 5.25 |
| | 213T & 215T | | | | | | | | | | 14.13 | | | 19.63 | | | |
| 23W10, 24W10 25W10, 26W10 | 254T & 256T | 34.38 | 25.63 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 7.19 | 5.00 | 19.50 | 10.88 | 12 | 26.13 | 10.00 | 17.63 | 6.88 |
| | 284TS | | | | | | | | | | 19.50 | | | 26.13 | | | |
| 23W10, 24W10 25W10, 26W10 | 286TS | 34.38 | 25.63 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 7.19 | 5.00 | 19.50 | 10.88 | 12 | 26.13 | 10.00 | 17.63 | 6.88 |
| | 324TS & 326TS | | | | | | | | | | 23.50 | | | 30.13 | | | |
| 23W12, 24W12 25W12, 26W12 | 286TS | 35.44 | 27.13 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 7.19 | 5.00 | 23.50 | 10.88 | 12 | 30.13 | 12.00 | 17.63 | 6.88 |
| | 324TS & 326TS | | | | | | | | | | 23.50 | | | 30.13 | | | |

BC16176E

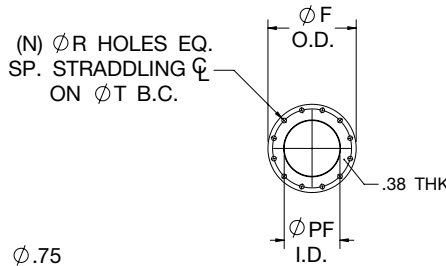
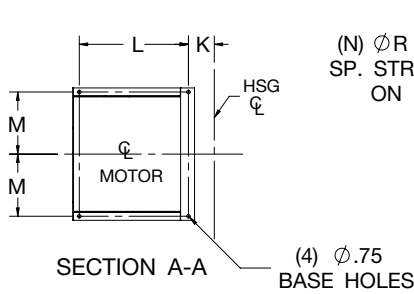
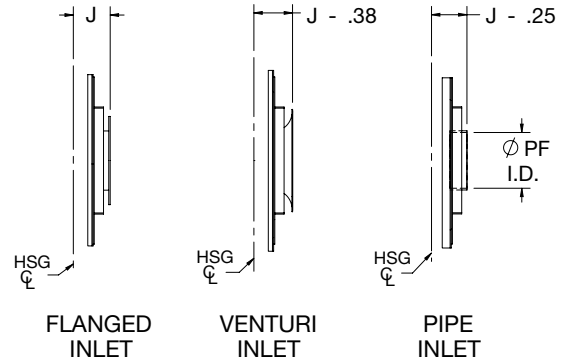
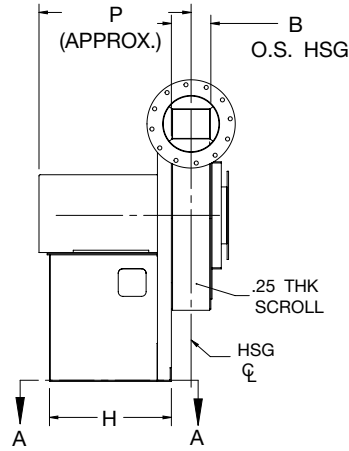
DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS AVAILABLE UPON REQUEST.



Arrangement 4 (Sizes 27 - 38)



DRIVE SIDE VIEW
CW THD

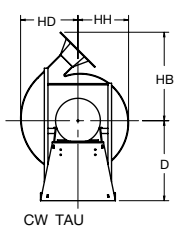


INLET/OUTLET
FLANGED DETAIL

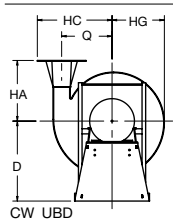
| FAN SIZE | HD | HE | HF | HG | HH | Q |
|---------------|-------|-------|-------|-------|-------|-------|
| 270xx - 290xx | 22.44 | 21.75 | 21.13 | 20.44 | 19.81 | 19.75 |
| 300xx - 320xx | 24.75 | 24.00 | 23.25 | 22.56 | 21.81 | 21.75 |
| 330xx - 350xx | 27.44 | 26.63 | 25.81 | 25.00 | 24.19 | 24.13 |
| 360xx - 380xx | 29.75 | 28.88 | 28.00 | 27.19 | 26.25 | 26.00 |

Notes:

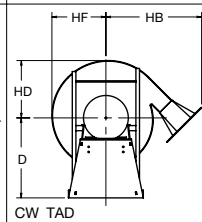
1. CW rotation shown, CCW rotation similar but opposite.



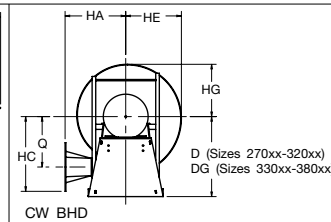
CW TAU



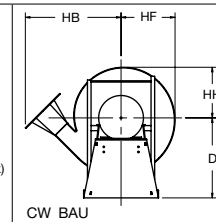
CW UBD



CW TAD



CW BHD



CW BAU

| FAN SIZE | OUTLET SIZE | B | F | HA | HB | HC | J | N | PF | R | T |
|---------------|-------------|------|-------|-------|-------|-------|------|----|-------|------|-------|
| 270xx - 290xx | xxx06 | 4.88 | 11.00 | 19.75 | 31.56 | 24.88 | 6.00 | 8 | 6.00 | 0.88 | 9.50 |
| | xxx08 | 5.88 | 13.50 | 19.75 | 32.50 | 26.13 | 6.50 | 8 | 8.00 | 0.88 | 11.75 |
| | xxx10 | 6.50 | 16.00 | 23.75 | 36.19 | 27.38 | 7.00 | 12 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 8.50 | 19.00 | 23.75 | 37.25 | 28.88 | 8.00 | 12 | 12.00 | 1.00 | 17.00 |
| 300xx - 320xx | xxx08 | 5.00 | 13.50 | 20.25 | 34.50 | 28.50 | 6.00 | 8 | 8.00 | 0.88 | 11.75 |
| | xxx10 | 6.00 | 16.00 | 24.25 | 38.19 | 29.75 | 7.00 | 12 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 7.13 | 19.00 | 24.25 | 39.25 | 31.25 | 7.38 | 12 | 12.00 | 1.00 | 17.00 |
| | xxx14 | 8.50 | 21.00 | 28.25 | 42.81 | 32.25 | 8.50 | 12 | 14.00 | 1.13 | 18.75 |
| 330xx - 350xx | xxx08 | 6.00 | 13.50 | 28.75 | 42.19 | 30.88 | 6.50 | 8 | 8.00 | 0.88 | 11.75 |
| | xxx10 | 6.63 | 16.00 | 28.75 | 43.06 | 32.13 | 7.00 | 12 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 7.13 | 19.00 | 28.75 | 44.13 | 33.63 | 7.38 | 12 | 12.00 | 1.00 | 17.00 |
| | xxx14 | 9.38 | 21.00 | 28.75 | 44.88 | 34.63 | 8.50 | 12 | 14.00 | 1.13 | 18.75 |
| 360xx - 380xx | xxx10 | 6.13 | 16.00 | 29.25 | 44.75 | 34.00 | 6.50 | 12 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 6.75 | 19.00 | 29.25 | 45.81 | 35.50 | 7.13 | 12 | 12.00 | 1.00 | 17.00 |
| | xxx14 | 8.75 | 21.00 | 29.25 | 46.50 | 36.50 | 8.13 | 12 | 14.00 | 1.13 | 18.75 |
| | xxx16 | 9.50 | 23.50 | 29.25 | 47.44 | 37.75 | 8.50 | 16 | 16.00 | 1.13 | 21.25 |

Arrangement 4 (Sizes 27 – 38)

| FAN SIZE | MOTOR FRAME | D | DG | G | GC | L | M |
|---------------|---------------|-------|-------|-------|-------|-------|-------|
| 270xx – 290xx | 254T – 256T | 34.00 | – | 28.50 | 14.25 | 23.50 | 13.38 |
| | 284TS – 286TS | 34.75 | – | 28.50 | 14.25 | 23.50 | 13.38 |
| | 324TS – 326TS | 35.75 | – | 28.50 | 14.25 | 23.50 | 13.38 |
| | 364TS – 365TS | 34.50 | – | 29.25 | 14.63 | 31.50 | 13.38 |
| | 404TS – 405TS | 35.50 | – | 29.25 | 14.63 | 31.50 | 13.38 |
| 300xx – 320xx | 254T – 256T | 34.00 | – | 28.50 | 14.25 | 23.50 | 13.38 |
| | 284TS – 286TS | 34.75 | – | 28.50 | 14.25 | 23.50 | 13.38 |
| | 324TS – 326TS | 35.75 | – | 28.50 | 14.25 | 23.50 | 13.38 |
| | 364TS – 365TS | 34.50 | – | 29.25 | 14.63 | 31.50 | 13.38 |
| | 404TS – 405TS | 35.50 | – | 29.25 | 14.63 | 31.50 | 13.38 |
| | 444TS – 445TS | 34.50 | – | 31.25 | 15.63 | 43.50 | 14.38 |
| 330xx – 350xx | 254T – 256T | 35.50 | 35.50 | 31.25 | 15.63 | 20.50 | 14.38 |
| | 284TS – 286TS | 36.25 | 36.25 | 31.25 | 15.63 | 23.00 | 14.38 |
| | 324TS – 326TS | 37.25 | 37.25 | 31.25 | 15.63 | 25.75 | 14.38 |
| | 364TS – 365TS | 32.63 | 39.25 | 31.25 | 15.63 | 31.50 | 14.38 |
| | 404TS – 405TS | 33.63 | 40.25 | 31.25 | 15.63 | 31.50 | 14.38 |
| | 444TS – 445TS | 37.75 | 39.13 | 31.25 | 15.63 | 43.50 | 14.38 |
| 360xx – 380xx | 254T – 256T | 35.50 | 35.50 | 31.25 | 15.63 | 20.50 | 14.38 |
| | 284TS – 286TS | 36.25 | 36.25 | 31.25 | 15.63 | 23.00 | 14.38 |
| | 324TS – 326TS | 37.25 | 37.25 | 31.25 | 15.63 | 25.75 | 14.38 |
| | 364TS – 365TS | 32.63 | 39.25 | 31.25 | 15.63 | 31.50 | 14.38 |
| | 404TS – 405TS | 33.63 | 40.25 | 31.25 | 15.63 | 31.50 | 14.38 |
| | 444TS – 445TS | 37.75 | 39.13 | 31.25 | 15.63 | 43.50 | 14.38 |
| | 447TS – 449TS | 37.75 | 39.13 | 31.25 | 15.63 | 43.50 | 14.38 |

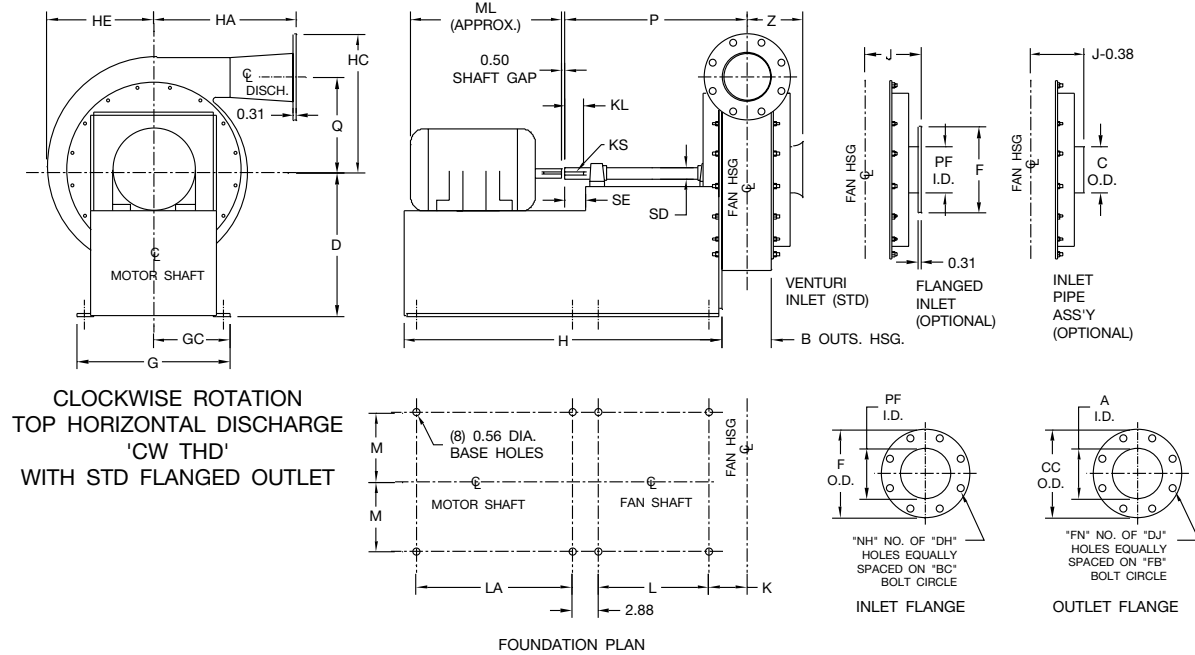


| FAN SIZE | MOTOR FRAME | H | | | | | | K | | | | | | P | | | | | |
|---------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | xxx06 | xxx08 | xxx10 | xxx12 | xxx14 | xxx16 | xxx06 | xxx08 | xxx10 | xxx12 | xxx14 | xxx16 | xxx06 | xxx08 | xxx10 | xxx12 | xxx14 | xxx16 |
| 270xx – 290xx | 254T – 256T | 26.06 | 26.06 | 26.31 | 26.25 | – | – | 3.50 | 4.00 | 4.50 | 5.50 | – | – | 24.00 | 26.50 | 26.88 | 27.56 | – | – |
| | 284TS – 286TS | 26.06 | 26.06 | 26.31 | 26.25 | – | – | 3.50 | 4.00 | 4.50 | 5.50 | – | – | 26.50 | 29.06 | 29.38 | 30.06 | – | – |
| | 324TS – 326TS | 26.13 | 26.13 | 26.38 | 26.31 | – | – | 3.50 | 4.00 | 4.50 | 5.50 | – | – | 28.50 | 31.06 | 31.44 | 32.06 | – | – |
| | 364TS – 365TS | – | 34.19 | 34.44 | 34.38 | – | – | 3.50 | 4.00 | 4.50 | 5.50 | – | – | – | 33.19 | 33.50 | 34.19 | – | – |
| | 404TS – 405TS | – | 34.19 | 34.44 | 34.38 | – | – | 3.50 | 4.00 | 4.50 | 5.50 | – | – | – | 37.00 | 37.44 | 38.06 | – | – |
| 300xx – 320xx | 254T – 256T | – | 26.00 | 26.00 | 26.31 | – | – | 3.50 | 4.00 | 4.88 | 6.00 | – | – | – | 26.25 | 26.63 | 27.13 | 27.88 | – |
| | 284TS – 286TS | – | 26.00 | 26.00 | 26.31 | – | – | 3.50 | 4.00 | 4.88 | 6.00 | – | – | – | 28.75 | 29.13 | 29.63 | 30.38 | – |
| | 324TS – 326TS | – | 26.06 | 26.06 | 26.38 | – | – | 3.50 | 4.00 | 4.88 | 6.00 | – | – | – | 30.75 | 31.13 | 31.63 | 32.38 | – |
| | 364TS – 365TS | – | 34.13 | 34.13 | 34.44 | – | – | 3.50 | 4.00 | 4.88 | 6.00 | – | – | – | 32.91 | 33.25 | 33.75 | 34.50 | – |
| | 404TS – 405TS | – | 34.13 | 34.13 | 34.44 | – | – | 3.50 | 4.00 | 4.88 | 6.00 | – | – | – | 36.75 | 37.13 | 37.63 | 38.38 | – |
| | 444TS – 445TS | – | – | 46.13 | 46.44 | – | – | 3.50 | 4.00 | 4.88 | 6.00 | – | – | – | – | 41.91 | 42.44 | 43.19 | – |
| 330xx – 350xx | 254T – 256T | – | 23.38 | 23.56 | 23.69 | – | – | 4.38 | 4.88 | 5.25 | 6.38 | – | – | – | 26.50 | 26.88 | 27.06 | 27.81 | – |
| | 284TS – 286TS | – | 25.88 | 26.06 | 26.19 | – | – | 4.38 | 4.88 | 5.25 | 6.38 | – | – | – | 29.06 | 29.38 | 29.56 | 30.31 | – |
| | 324TS – 326TS | – | 28.69 | 28.88 | 29.00 | – | – | 4.38 | 4.88 | 5.25 | 6.38 | – | – | – | 31.00 | 31.38 | 31.56 | 32.31 | – |
| | 364TS – 365TS | – | 34.13 | 34.31 | 34.44 | – | – | 4.00 | 4.50 | 4.88 | 6.00 | – | – | – | 33.13 | 33.50 | 33.69 | 34.44 | – |
| | 404TS – 405TS | – | 34.13 | 34.31 | 34.44 | – | – | 4.00 | 4.50 | 4.88 | 6.00 | – | – | – | 37.00 | 37.38 | 37.56 | 38.31 | – |
| | 444TS – 445TS | – | 46.13 | 46.31 | 46.44 | – | – | 4.00 | 4.50 | 4.88 | 6.00 | – | – | – | 41.81 | 42.19 | 42.38 | 43.13 | – |
| 360xx – 380xx | 254T – 256T | – | – | 23.31 | 23.63 | – | – | 4.38 | 5.00 | 6.00 | 6.38 | – | – | – | 26.56 | 26.94 | 27.56 | 27.81 | – |
| | 284TS – 286TS | – | – | 25.81 | 26.13 | – | – | 4.38 | 5.00 | 6.00 | 6.38 | – | – | – | 29.06 | 29.44 | 30.06 | 30.31 | – |
| | 324TS – 326TS | – | – | 28.63 | 28.94 | – | – | 4.38 | 5.00 | 6.00 | 6.38 | – | – | – | 31.06 | 31.44 | 32.06 | 32.31 | – |
| | 364TS – 365TS | – | – | 34.06 | 34.38 | – | – | 4.00 | 4.63 | 5.63 | 6.00 | – | – | – | 33.19 | 33.56 | 34.25 | 34.44 | – |
| | 404TS – 405TS | – | – | 34.06 | 34.38 | – | – | 4.00 | 4.63 | 5.63 | 6.00 | – | – | – | 37.06 | 37.44 | 38.06 | 38.31 | – |
| | 444TS – 445TS | – | – | 46.06 | 46.38 | – | – | 4.00 | 4.63 | 5.63 | 6.00 | – | – | – | 41.88 | 42.25 | 42.88 | 43.13 | – |
| | 447TS – 449TS | – | – | 46.06 | 46.38 | – | – | 4.00 | 4.63 | 5.63 | 6.00 | – | – | – | 51.44 | 51.81 | 52.44 | 52.75 | – |

BC1005391A

DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS AVAILABLE UPON REQUEST.

Arrangement 8 (Sizes 14 – 26)



Notes:

1. CW rotation shown, CCW rotation similar but opposite.
2. Bolt patterns on inlet and outlet flanges straddle centerline.
3. Inlet screen included with venturi inlet.

| FAN SIZE | MOTOR FRAME | A | AA | B | BC | C | CC | D | DH | DJ | F | FB | FN | G | GC | H | HA |
|------------------|---------------|-------|-------|------|-------|-------|-------|-------|------|------|-------|-------|----|-------|-------|-------|-------|
| 14N4, 15N4 | 143T & 145T | 4.00 | 4.50 | 3.88 | 9.50 | 6.63 | 9.00 | 17.75 | 0.88 | 0.75 | 11.00 | 7.50 | 8 | 19.50 | 9.75 | 28.63 | 18.25 |
| 16N4, 17N4, 18N4 | 182T & 184T | | | | | | | | | | | | | | | 32.50 | |
| 14W6, 15W6 | 143T & 145T | 6.00 | 6.63 | 6.25 | 11.75 | 8.63 | 11.00 | 17.75 | 0.88 | 0.88 | 13.50 | 9.50 | 8 | 19.50 | 9.75 | 28.63 | 18.25 |
| 16W6, 17W6, 18W6 | 182T & 184T | | | | | | | | | | | | | | | 32.50 | |
| 15W8, 16W8 | 182T & 184T | 8.00 | 8.63 | 6.25 | 11.75 | 8.63 | 13.50 | 17.75 | 0.88 | 0.88 | 13.50 | 11.75 | 8 | 19.50 | 9.75 | 32.50 | 18.25 |
| 17W8, 18W8 | 213T & 215T | | | | | | | | | | | | | | | 32.50 | |
| 19N4, 20N4 | 143T & 145T | 4.00 | 4.50 | 3.88 | 9.50 | 6.63 | 9.00 | 23.00 | 0.88 | 0.75 | 11.00 | 7.50 | 8 | 23.50 | 11.75 | 35.50 | 17.75 |
| 21N4, 22N4 | 182T & 184T | | | | | | | | | | | | | | | 39.38 | |
| 19N6, 20N6 | 182T & 184T | 6.00 | 6.63 | 3.88 | 9.50 | 6.63 | 11.00 | 23.00 | 0.88 | 0.88 | 11.00 | 9.50 | 8 | 23.50 | 11.75 | 39.38 | 17.75 |
| 21N6, 22N6 | 213T & 215T | | | | | | | | | | | | | | | 40.38 | |
| 19W8, 20W8 | 182T & 184T | 8.00 | 8.63 | 6.25 | 11.75 | 8.63 | 13.50 | 23.00 | 0.88 | 0.88 | 13.50 | 11.75 | 8 | 23.50 | 11.75 | 39.38 | 17.75 |
| 21W8, 22W8 | 213T & 215T | | | | | | | | | | | | | | | 40.38 | |
| | 254T & 256T | | | | | | | | | | | | | | | 45.38 | |
| 19W10, 20W10 | 213T & 215T | 10.00 | 10.75 | 6.25 | 14.25 | 8.63 | 16.00 | 23.00 | 1.00 | 1.00 | 16.00 | 14.25 | 12 | 23.50 | 11.75 | 40.38 | 21.75 |
| 21W10, 22W10 | 254T & 256T | | | | | | | | | | | | | | | 45.38 | |
| | 284TS & 286TS | | | | | | | | | | | | | | | 46.50 | |
| 23N6, 24N6 | 182T & 184T | 6.00 | 6.63 | 5.00 | 11.75 | 8.63 | 11.00 | 24.00 | 0.88 | 0.88 | 13.50 | 9.50 | 8 | 23.50 | 11.75 | 40.00 | 19.00 |
| 25N6, 26N6 | 213T & 215T | | | | | | | | | | | | | | | 41.00 | |
| | 254T & 256T | | | | | | | | | | | | | | | 46.00 | |
| 23N8, 24N8 | 213T & 215T | 8.00 | 8.63 | 5.00 | 11.75 | 8.63 | 13.50 | 24.00 | 0.88 | 0.88 | 13.50 | 11.75 | 8 | 23.50 | 11.75 | 41.00 | 19.00 |
| 25N8, 26N8 | 254T & 256T | | | | | | | | | | | | | | | 46.00 | |
| | 254T & 256T | | | | | | | | | | | | | | | 46.00 | |
| 23W10, 24W10 | 284TS & 286TS | 10.00 | 10.75 | 7.25 | 14.25 | 10.75 | 16.00 | 24.00 | 1.00 | 1.00 | 16.00 | 14.25 | 12 | 23.50 | 11.75 | 47.13 | 23.00 |
| 25W10, 26W10 | 324TS & 326TS | | | | | | | | | | | | | | | 50.38 | |
| 23W12, 24W12 | 284TS & 286TS | 12.00 | 12.75 | 7.25 | 17.00 | 10.75 | 19.00 | 24.00 | 1.00 | 1.00 | 19.00 | 17.00 | 12 | 23.50 | 11.75 | 47.13 | 23.00 |
| 25W12, 26W12 | 324TS & 326TS | | | | | | | | | | | | | | | 50.38 | |

Arrangement 8 (Sizes 14 – 26)

| FAN SIZE | MOTOR FRAME | HB | HC | HD | HE | HF | HG | HH | J | K | KL | KS | L | LA | M | ML | NH |
|--------------------------------|---|-------|-------|-------|-------|-------|-------|-------|------|------|------|---------|-------|-------------------------|-------|-------------------------|----|
| 14N4, 15N4 16N4, 17N4, 18N4 | 143T & 145T 182T & 184T | 24.44 | 16.31 | 14.00 | 13.63 | 13.19 | 12.75 | 12.31 | 5.56 | 3.38 | 2.38 | .25x.13 | 8.63 | 14.13 18.00 | 8.88 | 14.38 18.13 | 8 |
| 14W6, 15W6 16W6, 17W6, 18W6 | 143T & 145T 182T & 184T | 25.13 | 17.31 | 14.00 | 13.63 | 13.19 | 12.75 | 12.31 | 6.69 | 4.50 | 2.38 | .25x.13 | 8.63 | 14.13 18.00 | 8.88 | 14.38 18.13 | 8 |
| 15W8, 16W8 17W8, 18W8 | 182T & 184T 213T & 215T | 26.00 | 18.56 | 14.00 | 13.63 | 13.19 | 12.75 | 12.31 | 6.69 | 4.50 | 2.38 | .25x.13 | 8.63 | 18.00 19.00 | 8.88 | 18.13 20.13 | 8 |
| 19N4, 20N4 21N4, 22N4 | 143T & 145T 182T & 184T | 26.25 | 19.38 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.06 | 3.38 | 3.25 | .38x.19 | 14.13 | 15.50 19.38 | 10.88 | 14.38 18.13 | 8 |
| 19N6, 20N6 21N6, 22N6 | 182T & 184T 213T & 215T | 26.94 | 20.38 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.06 | 3.38 | 3.25 | .38x.19 | 14.13 | 19.38 20.38 | 10.88 | 18.13 20.13 | 8 |
| 19W8, 20W8 21W8, 22W8 | 182T & 184T 213T & 215T 254T & 256T | 27.88 | 21.63 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.69 | 4.50 | 3.25 | .38x.19 | 14.13 | 19.38 20.38 25.38 | 10.88 | 18.13 20.13 25.75 | 8 |
| 19W10, 20W10 21W10, 22W10 | 213T & 215T 254T & 256T 284TS & 286TS | 31.56 | 22.88 | 17.00 | 16.50 | 16.00 | 15.50 | 15.00 | 6.69 | 4.50 | 3.25 | .38x.19 | 14.13 | 20.38 25.38 26.50 | 10.88 | 20.13 25.75 27.50 | 12 |
| 23N6, 24N6 25N6, 26N6 | 182T & 184T 213T & 215T 254T & 256T | 29.81 | 23.13 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 6.94 | 3.88 | 3.88 | .38x.19 | 14.13 | 20.00 21.00 26.00 | 10.88 | 18.13 20.13 25.75 | 8 |
| 23N8, 24N8 25N8, 26N8 | 213T & 215T 254T & 256T | 30.69 | 24.38 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 6.94 | 3.88 | 3.88 | .38x.19 | 14.13 | 21.00 26.00 | 10.88 | 20.13 25.75 | 8 |
| 23W10, 24W10 25W10, 26W10 | 254T & 256T 284TS & 286TS 324TS & 326TS | 34.38 | 25.63 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 7.19 | 5.00 | 3.88 | .38x.19 | 14.13 | 26.00 27.13 30.38 | 10.88 | 25.75 27.50 30.50 | 12 |
| 23W12, 24W12 25W12, 26W12 | 284TS & 286TS 324TS & 326TS | 35.44 | 27.13 | 20.00 | 19.50 | 18.88 | 18.25 | 17.69 | 7.19 | 5.00 | 3.88 | .38x.19 | 14.13 | 27.13 30.38 | 10.88 | 27.50 30.50 | 12 |

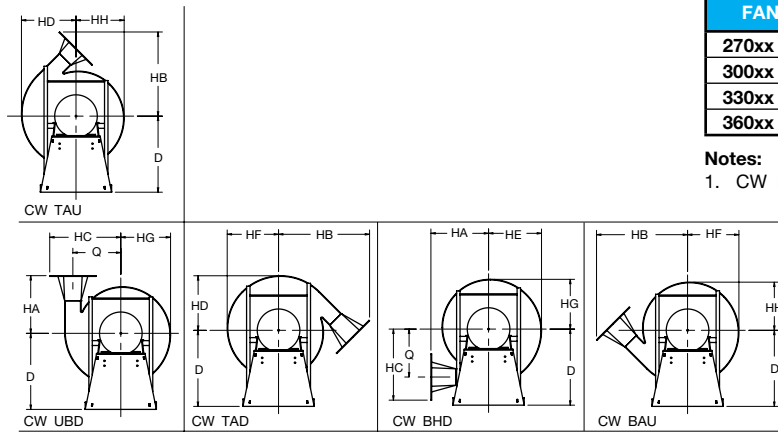
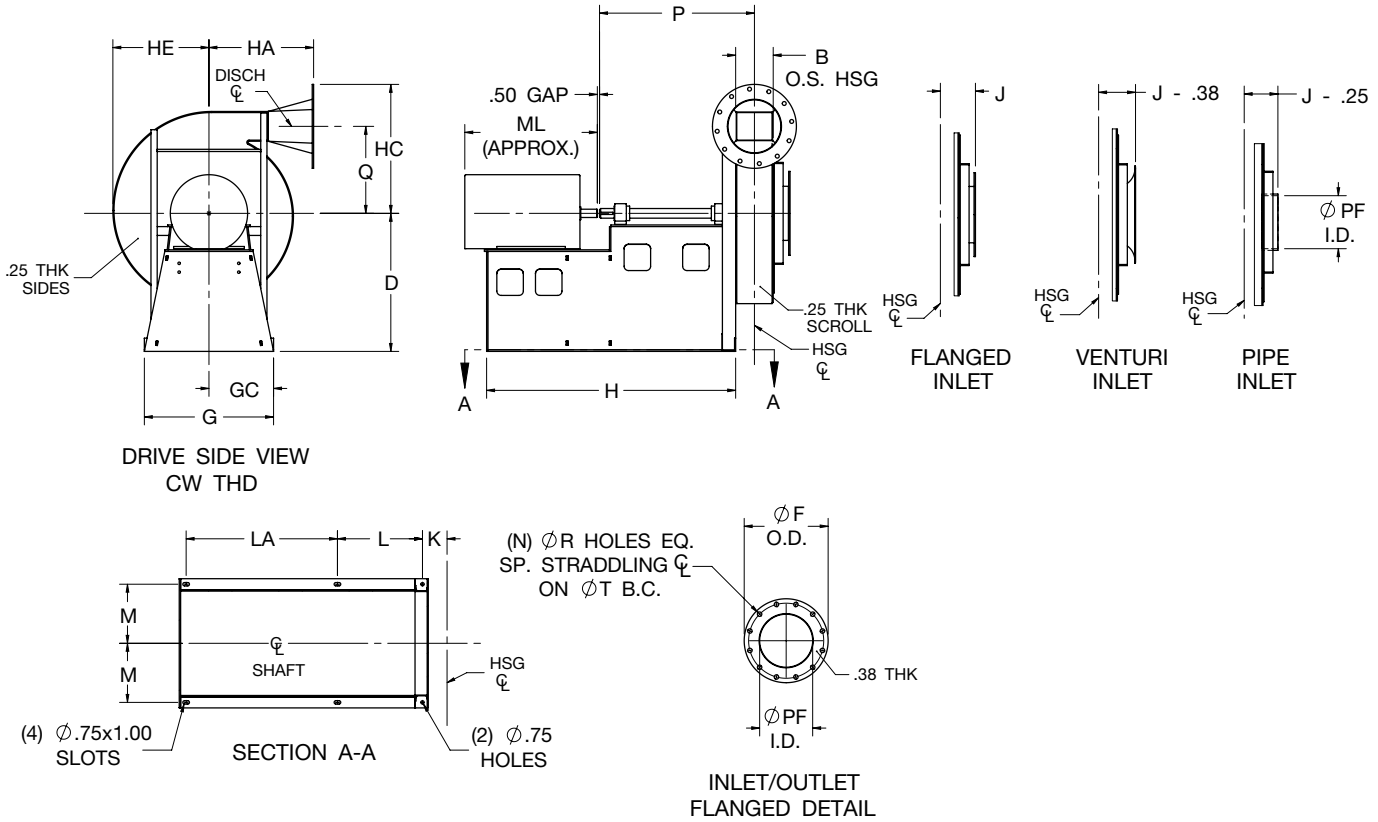
| FAN SIZE | MOTOR FRAME | P | PF | Q | SD | SE | Z |
|--------------------------------|---|-------|-------|-------|------|------|------|
| 14N4, 15N4 16N4, 17N4, 18N4 | 143T & 145T 182T & 184T | 16.19 | 6.00 | 11.75 | 1.19 | 2.63 | 4.56 |
| 14W6, 15W6 16W6, 17W6, 18W6 | 143T & 145T 182T & 184T | 17.38 | 8.00 | 11.75 | 1.19 | 2.63 | 6.38 |
| 15W8, 16W8 17W8, 18W8 | 182T & 184T 213T & 215T | 17.38 | 8.00 | 11.75 | 1.19 | 2.63 | 6.38 |
| 19N4, 20N4 21N4, 22N4 | 143T & 145T 182T & 184T | 23.06 | 6.00 | 14.88 | 1.44 | 4.00 | 4.56 |
| 19N6, 20N6 21N6, 22N6 | 182T & 184T 213T & 215T | 23.06 | 6.00 | 14.88 | 1.44 | 4.00 | 4.56 |
| 19W8, 20W8 21W8, 22W8 | 182T & 184T 213T & 215T 254T & 256T | 24.13 | 8.00 | 14.88 | 1.44 | 3.88 | 6.38 |
| 19W10, 20W10 21W10, 22W10 | 213T & 215T 254T & 256T 284TS & 286TS | 24.13 | 10.00 | 14.88 | 1.44 | 3.88 | 6.38 |
| 23N6, 24N6 25N6, 26N6 | 182T & 184T 213T & 215T 254T & 256T | 24.13 | 8.00 | 17.63 | 1.44 | 4.50 | 5.25 |
| 23N8, 24N8 25N8, 26N8 | 213T & 215T 254T & 256T | 24.13 | 8.00 | 17.63 | 1.44 | 4.50 | 5.25 |
| 23W10, 24W10 25W10, 26W10 | 254T & 256T 284TS & 286TS 324TS & 326TS | 25.25 | 10.00 | 17.63 | 1.44 | 4.50 | 6.88 |
| 23W12, 24W12 25W12, 26W12 | 284TS & 286TS 324TS & 326TS | 25.25 | 12.00 | 17.63 | 1.44 | 4.50 | 6.88 |

BC16341D

DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS AVAILABLE UPON REQUEST.



Arrangement 8 (Sizes 27 – 38)



| FAN SIZE | D | HD | HE | HF | HG | HH | Q |
|---------------|-------|-------|-------|-------|-------|-------|-------|
| 270xx – 290xx | 31.25 | 22.44 | 21.75 | 21.13 | 20.44 | 19.81 | 19.75 |
| 300xx – 320xx | 34.50 | 24.75 | 24.00 | 23.25 | 22.56 | 21.81 | 21.75 |
| 330xx – 350xx | 36.75 | 27.44 | 26.63 | 25.81 | 25.00 | 24.19 | 24.13 |
| 360xx – 380xx | 40.00 | 29.75 | 28.88 | 28.00 | 27.19 | 26.25 | 26.00 |

Notes:
1. CW rotation shown, CCW rotation similar but opposite.

| FAN SIZE | OUTLET SIZE | B | F | HA | HB | HC | J | K | N | PF | R | T |
|---------------|-------------|------|-------|-------|-------|-------|------|------|----|-------|------|-------|
| 270xx – 290xx | xxx06 | 4.88 | 11.00 | 19.75 | 31.56 | 24.88 | 6.00 | 3.50 | 8 | 6.00 | 0.88 | 9.50 |
| | xxx08 | 5.88 | 13.50 | 19.75 | 32.50 | 26.13 | 6.50 | 4.00 | 8 | 8.00 | 0.88 | 11.75 |
| | xxx10 | 6.50 | 16.00 | 23.75 | 36.19 | 27.38 | 7.00 | 4.50 | 12 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 8.50 | 19.00 | 23.75 | 37.25 | 28.88 | 8.00 | 5.50 | 12 | 12.00 | 1.00 | 17.00 |
| 300xx – 320xx | xxx08 | 5.00 | 13.50 | 20.25 | 34.50 | 28.50 | 6.00 | 3.50 | 8 | 8.00 | 0.88 | 11.75 |
| | xxx10 | 6.00 | 16.00 | 24.25 | 38.19 | 29.75 | 7.00 | 4.00 | 12 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 7.13 | 19.00 | 24.25 | 39.25 | 31.25 | 7.38 | 4.88 | 12 | 12.00 | 1.00 | 17.00 |
| | xxx14 | 9.38 | 21.00 | 28.25 | 42.81 | 32.25 | 8.50 | 6.00 | 12 | 14.00 | 1.13 | 18.75 |
| 330xx – 350xx | xxx08 | 6.00 | 13.50 | 28.75 | 42.19 | 30.88 | 6.50 | 4.00 | 8 | 8.00 | 0.88 | 11.75 |
| | xxx10 | 6.63 | 16.00 | 28.75 | 43.06 | 32.13 | 7.00 | 4.50 | 12 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 7.13 | 19.00 | 28.75 | 44.13 | 33.63 | 7.38 | 4.88 | 12 | 12.00 | 1.00 | 17.00 |
| | xxx14 | 9.38 | 21.00 | 28.75 | 44.88 | 34.63 | 8.50 | 6.00 | 12 | 14.00 | 1.13 | 18.75 |
| 360xx – 380xx | xxx10 | 6.13 | 16.00 | 29.25 | 44.75 | 34.00 | 6.50 | 4.00 | 12 | 10.00 | 1.00 | 14.25 |
| | xxx12 | 6.75 | 19.00 | 29.25 | 45.81 | 35.50 | 7.13 | 4.63 | 12 | 12.00 | 1.00 | 17.00 |
| | xxx14 | 8.75 | 21.00 | 29.25 | 46.50 | 36.50 | 8.13 | 5.63 | 12 | 14.00 | 1.13 | 18.75 |
| | xxx16 | 9.50 | 23.50 | 29.25 | 47.44 | 37.75 | 8.50 | 6.00 | 16 | 16.00 | 1.13 | 21.25 |

Arrangement 8 (Sizes 27 – 38)

| FAN SIZE | MOTOR FRAME | G | GC | L | LA | M | ML |
|---------------|---------------|-------|-------|-------|-------|-------|-------|
| 270xx – 290xx | 254T – 256T | 29.25 | 14.63 | 19.25 | 28.75 | 13.38 | 25.75 |
| | 284TS – 286TS | 29.25 | 14.63 | 19.25 | 30.75 | 13.38 | 28.88 |
| | 324TS – 326TS | 29.25 | 14.63 | 19.25 | 34.25 | 13.38 | 30.00 |
| | 364TS – 365TS | 29.25 | 14.63 | 27.75 | 27.75 | 13.38 | 32.13 |
| | 404TS – 405TS | 29.25 | 14.63 | 30.25 | 30.25 | 13.38 | 36.50 |
| 300xx – 320xx | 254T – 256T | 29.25 | 14.63 | 21.25 | 28.75 | 13.38 | 25.75 |
| | 284TS – 286TS | 29.25 | 14.63 | 21.25 | 30.75 | 13.38 | 28.88 |
| | 324TS – 326TS | 29.25 | 14.63 | 21.25 | 34.25 | 13.38 | 30.00 |
| | 364TS – 365TS | 29.25 | 14.63 | 28.75 | 28.75 | 13.38 | 32.13 |
| | 404TS – 405TS | 29.25 | 14.63 | 31.25 | 31.25 | 13.38 | 36.50 |
| | 444TS – 445TS | 31.25 | 15.63 | 33.75 | 33.75 | 14.38 | 41.81 |
| 330xx – 350xx | 254T – 256T | 31.25 | 15.63 | 23.25 | 27.13 | 14.38 | 25.75 |
| | 284TS – 286TS | 31.25 | 15.63 | 23.25 | 29.13 | 14.38 | 28.88 |
| | 324TS – 326TS | 31.25 | 15.63 | 23.25 | 35.13 | 14.38 | 30.00 |
| | 364TS – 365TS | 31.25 | 15.63 | 30.25 | 30.25 | 14.38 | 32.13 |
| | 404TS – 405TS | 31.25 | 15.63 | 32.50 | 32.50 | 14.38 | 36.50 |
| | 444TS – 445TS | 31.25 | 15.63 | 35.38 | 35.38 | 14.38 | 41.81 |
| 360xx – 380xx | 254T – 256T | 31.25 | 15.63 | 25.25 | 27.13 | 14.38 | 25.75 |
| | 284TS – 286TS | 31.25 | 15.63 | 25.25 | 29.13 | 14.38 | 28.88 |
| | 324TS – 326TS | 31.25 | 15.63 | 25.25 | 35.13 | 14.38 | 30.00 |
| | 364TS – 365TS | 31.25 | 15.63 | 31.25 | 31.25 | 14.38 | 32.13 |
| | 404TS – 405TS | 31.25 | 15.63 | 33.50 | 33.50 | 14.38 | 36.50 |
| | 444TS – 445TS | 31.25 | 15.63 | 36.38 | 36.38 | 14.38 | 41.81 |
| 447TS – 449TS | 31.25 | 15.63 | 40.63 | 40.63 | 14.38 | 51.38 | |



| FAN SIZE | MOTOR FRAME | H | | | | | | P | | | | | |
|---------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | xxx06 | xxx08 | xxx10 | xxx12 | xxx14 | xxx16 | xxx06 | xxx08 | xxx10 | xxx12 | xxx14 | xxx16 |
| 270xx – 290xx | 254T – 256T | 50.56 | 50.56 | 50.75 | - | - | - | 30.75 | 31.25 | 31.75 | 32.75 | - | - |
| | 284TS – 286TS | 52.56 | 52.56 | 52.75 | - | - | - | 31.75 | 32.25 | 32.25 | 33.75 | - | - |
| | 324TS – 326TS | 56.13 | 56.13 | 56.31 | - | - | - | 33.00 | 33.50 | 34.00 | 35.00 | - | - |
| | 364TS – 365TS | - | 58.19 | 58.38 | - | - | - | - | 34.38 | 34.88 | 35.88 | - | - |
| | 404TS – 405TS | - | 63.19 | 63.38 | - | - | - | - | 36.63 | 37.13 | 38.13 | - | - |
| 300xx – 320xx | 254T – 256T | - | 52.50 | 52.81 | - | - | - | 32.75 | 33.25 | 34.13 | 35.25 | - | - |
| | 284TS – 286TS | - | 54.50 | 54.81 | - | - | - | 33.75 | 34.25 | 35.13 | 36.25 | - | - |
| | 324TS – 326TS | - | 58.06 | 58.38 | - | - | - | 35.00 | 35.50 | 36.38 | 37.50 | - | - |
| | 364TS – 365TS | - | 60.13 | 60.44 | - | - | - | 35.88 | 36.38 | 37.25 | 38.38 | - | - |
| | 404TS – 405TS | - | 65.13 | 65.44 | - | - | - | 38.13 | 38.63 | 39.50 | 40.63 | - | - |
| | 444TS – 445TS | - | 70.13 | 70.44 | - | - | - | 39.00 | 39.50 | 40.38 | 41.50 | - | - |
| 330xx – 350xx | 254T – 256T | - | 52.88 | 53.06 | 53.19 | - | - | 33.63 | 34.13 | 34.50 | 35.63 | - | - |
| | 284TS – 286TS | - | 54.88 | 55.06 | 55.19 | - | - | 34.63 | 35.13 | 35.50 | 36.63 | - | - |
| | 324TS – 326TS | - | 60.94 | 61.13 | 61.25 | - | - | 38.38 | 38.88 | 39.25 | 40.38 | - | - |
| | 364TS – 365TS | - | 63.13 | 63.31 | 63.44 | - | - | 39.38 | 39.88 | 40.25 | 41.38 | - | - |
| | 404TS – 405TS | - | 67.63 | 67.81 | 67.94 | - | - | 41.13 | 41.63 | 42.00 | 43.13 | - | - |
| | 444TS – 445TS | - | 73.38 | 73.56 | 73.69 | - | - | 42.75 | 43.25 | 43.63 | 44.75 | - | - |
| 360xx – 380xx | 254T – 256T | - | - | 54.81 | 55.19 | 55.13 | - | - | 35.63 | 36.31 | 37.31 | 37.63 | - |
| | 284TS – 286TS | - | - | 56.81 | 57.19 | 57.13 | - | - | 36.63 | 37.31 | 38.31 | 38.63 | - |
| | 324TS – 326TS | - | - | 62.88 | 63.25 | 63.19 | - | - | 40.38 | 41.06 | 42.06 | 42.38 | - |
| | 364TS – 365TS | - | - | 65.06 | 65.44 | 65.38 | - | - | 41.38 | 42.06 | 43.06 | 43.38 | - |
| | 404TS – 405TS | - | - | 69.56 | 69.94 | 69.88 | - | - | 43.13 | 43.81 | 44.81 | 45.13 | - |
| | 444TS – 445TS | - | - | 75.31 | 75.69 | 75.63 | - | - | 44.75 | 45.44 | 46.44 | 46.75 | - |
| 447TS – 449TS | - | - | 83.81 | 84.19 | 84.13 | - | - | 45.13 | 45.81 | 46.81 | 47.13 | - | |

BC1005392A

DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS AVAILABLE UPON REQUEST.



Model TBNA

Fans shall be Model TBNA Turbo Pressure Blowers as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

PERFORMANCE — Fans shall be tested and rated in accordance with industry accepted test codes and shall be guaranteed by the manufacturer to deliver rated published performance levels.

HOUSING — Fan housings shall be constructed of continuously welded heavy gauge steel. Sizes 14 through 26 shall be rotatable and reversible. A choice of inlet connections at no additional charge shall include an inlet venturi with screen, an inlet pipe assembly and a punched flange to ANSI 125/150. The outlet connection shall be flanged and punched to ANSI 125/150 with the option of a plain pipe assembly on Sizes 14 - 26.

WHEEL — Model TBNA wheels shall be constructed of aluminum alloy with riveted construction. Wheels shall be statically and dynamically balanced. The complete fan assembly shall be test balanced at the operating speed prior to shipment.

SHAFT (ARR. 1 & 8 ONLY) — Shafts shall be AISI 1045 hot rolled steel, accurately turned, ground, polished, and ring gauged for accuracy. Shafts shall be sized for the first critical speed of at least 1.43 times the maximum speed.

BEARINGS (ARR 1, 8 ONLY) — Bearings shall be heavy duty, grease lubricated, anti-friction ball or roller, self-aligning, pillow block type and selected for a minimum average bearing life (AFBMA L-50) in excess of 200,000 hours at the maximum fan RPM.

FINISH AND COATING — The entire fan assembly, excluding the shaft, shall be thoroughly degreased and deburred before application of a rust-preventative primer. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly. The fan shaft shall be coated with a petroleum-based rust protectant. Aluminum components shall be unpainted.

ACCESSORIES — When specified, accessories such as inlet filters, inlet filters with hoods, inlet and outlet silencers, flexible connectors for flanged outlet and plain pipe outlets, outlet blast gates, built-in outlet dampers, shaft closure plates, shaft seals, drains, inspection ports, shaft and bearing guards, belt guards, couplings, coupling guards, unitary bases, isolation bases, inertia bases, and vibration rails shall be provided by Twin City Fan & Blower to maintain one source responsibility.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced to in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — Manufacturer shall guarantee the workmanship and materials for its Turbo Pressure Blowers for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



Model TBNS

Fans shall be Model TBNS Turbo Pressure Blowers as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

PERFORMANCE — Fans shall be tested and rated in accordance with industry accepted test codes and shall be guaranteed by the manufacturer to deliver rated published performance levels.

HOUSING — Fan housings shall be constructed of continuously welded heavy gauge steel. Sizes 14 through 26 shall be rotatable and reversible. A choice of inlet connections at no additional charge shall include an inlet venturi with screen, an inlet pipe assembly and a punched flange to ANSI 125/150. The outlet connection shall be flanged and punched to ANSI 125/150 with the option of a plain pipe assembly on Sizes 14 - 26.

WHEEL — Model TBNS wheels shall be constructed of continuously welded heavy gauge steel or from a variety of special materials. Wheels shall be statically and dynamically balanced. The complete fan assembly shall be test balanced at the operating speed prior to shipment.

SHAFT (ARR. 1 & 8 ONLY) — Shafts shall be AISI 1045 hot rolled steel, accurately turned, ground, polished, and ring gauged for accuracy. Shafts shall be sized for the first critical speed of at least 1.43 times the maximum speed.

BEARINGS (ARR 1, 8 ONLY) — Bearings shall be heavy duty, grease lubricated, anti-friction ball or roller, selfaligning, pillow block type and selected for a minimum average bearing life (AFBMA L-50) in excess of 200,000 hours at the maximum fan RPM.

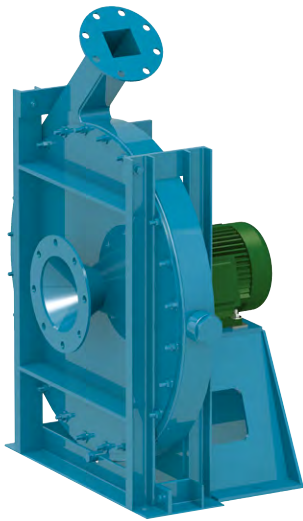
FINISH AND COATING — The entire fan assembly, excluding the shaft, shall be thoroughly degreased and deburred before application of a rust-preventative primer. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly. The fan shaft shall be coated with a petroleum-based rust protectant. Aluminum components shall be unpainted.

ACCESSORIES — When specified, accessories such as inlet filters, inlet filters with hoods, inlet and outlet silencers, flexible connectors for flanged outlet and plain pipe outlets, outlet blast gates, built-in outlet dampers, shaft closure plates, shaft seals, drains, inspection ports, shaft and bearing guards, belt guards, couplings, coupling guards, unitary bases, isolation bases, inertia bases, and vibration rails shall be provided by Twin City Fan & Blower to maintain one source responsibility.

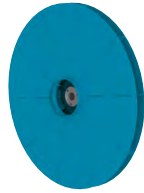
FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced to in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — Manufacturer shall guarantee the workmanship and materials for its Turbo Pressure Blowers for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.

ALTERNATIVE PRESSURE BLOWERS



HRO Wheel



HRS Wheel

Models

HRO | HRS

Sizes

19.75" to 61.25" wheel diameters

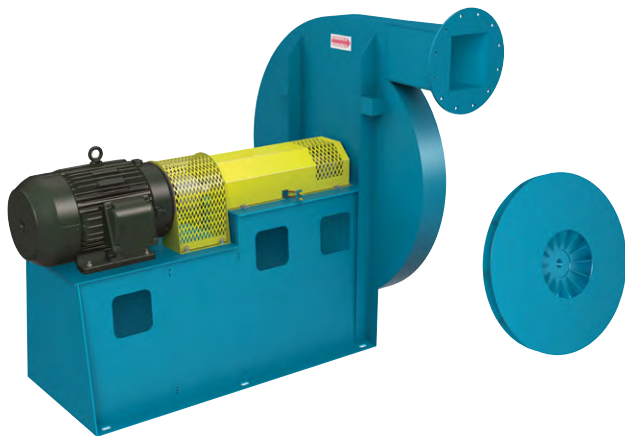
Performance

Airflow to 10,000 CFM

Static pressures up to 120" w.g.



See Catalog 1300 for more information



Model

TBR

Sizes

10.75" to 35.19" wheel diameters

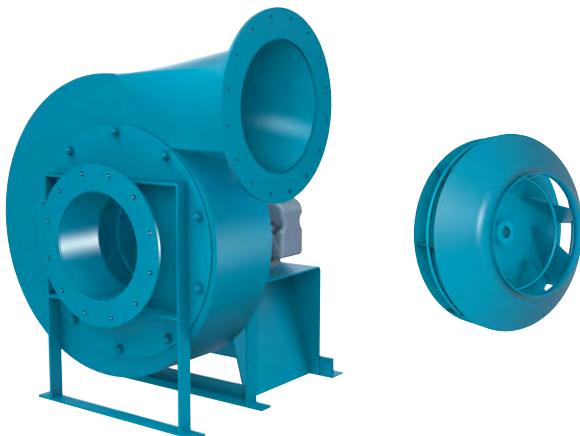
Performance

Airflow to 10,100 CFM

Static pressures to 104" w.g.



See Catalog 1200 for more information



Model

TBA

Sizes

11.19" to 32.06" wheel diameters

Performance

Airflow to 28,700 CFM

Static pressures to 70" w.g.



See Catalog 1200 for more information

Models

MBO | MBR | MBW

Sizes

19.63" to 58.94" wheel diameters

MBO Performance

Airflow to 18,000 CFM

Static pressures over 170" w.g.

MBR Performance

Airflow to 18,000 CFM

Static pressures over 180" w.g.

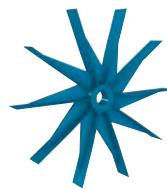
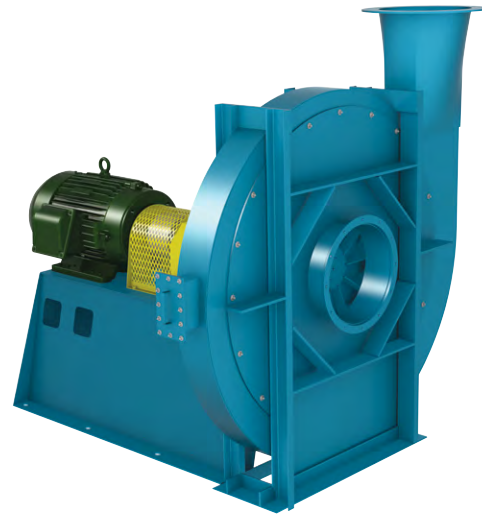
MBW Performance

Airflow to 20,000 CFM

Static pressures over 160" w.g.



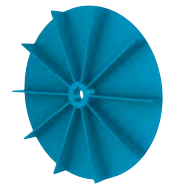
See Catalog 1400 for more information



MBO Wheel



MBR Wheel



MBW Wheel

Model

BCN

Sizes

27" to 73" wheel diameters

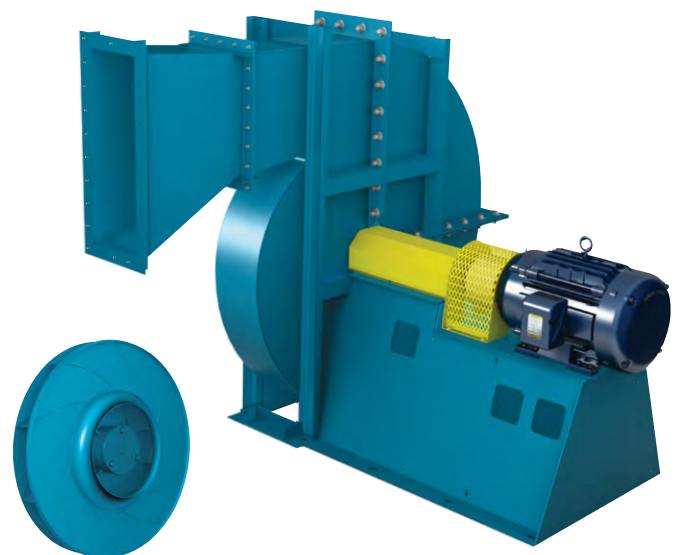
Performance

Airflow to 75,000 CFM

Static pressures to 100" w.g.



See Catalog 1450 for more information



INDUSTRIAL PROCESS AND COMMERCIAL VENTILATION SYSTEMS

CENTRIFUGAL FANS | UTILITY SETS | PLENUM & PLUG FANS | INLINE CENTRIFUGAL FANS
MIXED FLOW FANS | TUBEAXIAL & VANEAXIAL FANS | PROPELLER WALL FANS | PROPELLER ROOF VENTILATORS
CENTRIFUGAL ROOF & WALL EXHAUSTERS | CEILING VENTILATORS | GRAVITY VENTILATORS | DUCT BLOWERS
RADIAL BLADED FANS | RADIAL TIP FANS | HIGH EFFICIENCY INDUSTRIAL FANS | PRESSURE BLOWERS
LABORATORY EXHAUST FANS | FILTERED SUPPLY FANS | MANCOOLERS | FIBERGLASS FANS | CUSTOM FANS



TWIN CITY FAN & BLOWER
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