

Aerovent[®]

The Industrial Choice.



AIRFOIL FANS

Model CAE-SW / CAE-DW

Airfoil Fans



CAE-SW
Arrangement 9



CAE-DW
Arrangement 3

Models

CAE SWSI | CAE DWDI Featuring the E-Series Wheel

This catalog features the new CAE airfoil wheel design. It includes both the SWSI (single width, single inlet) and the DWDI (double width, double inlet) designs. The newly designed airfoil blades offer higher efficiencies and better sound characteristics than our previous designs.

Please discuss your particular application with the Aerovent representative for your area.

Aerovent has established itself as a leader in the design and manufacture of quality air moving equipment and continues to advance by implementing a philosophy that stresses quality in all of its operations. Our products are known for their rugged construction and reliability of operation. Aerovent offers flexibility in design and construction of fans coupled with superior service before and after the sale.

Model CAE-SW

Sizes

12.25" to 98.25" wheel diameters

Performance

Airflow to 233,100 CFM

Static pressure to 20" w.g.

Arrangements

Available in Arrangements 1, 3, 4, 8, 9, 9F, 10

Model CAE-DW

Sizes

12.25" to 89" wheel diameters

Performance

Airflow to 419,500 CFM

Static pressure to 14" w.g.

Arrangements

Available in Arrangements 3, 3F



Aerovent, A Twin City Fan Company, certifies that the Model CAE SWSI and CAE DWDI fans shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

Refer to Catalog 726 for sound power levels.



Models CAE-SW and CAE-DW are available with the UL/cUL 705 listing for electrical, File No. E158680.

Wheel Construction

High efficiency, non-overloading airfoil wheels are provided on all sizes and arrangements. Wheels shall have precision spun, flat inlet cones to allow higher efficiencies over the performance range of the fan. Aluminum wheels using extruded aluminum blades are provided as standard on sizes 245 and smaller and are available as an option on larger units.

The CAE-DW wheels shall have staggered blades for improved sound characteristics. All hollow blade wheels shall be continuously welded around all edges. All wheels shall be statically and dynamically balanced on precision electronic balancers to a Balance Quality Grade G6.3 per ANSI/AMCA 204 or better.

Housing Construction

All fan housings are continuously welded to provide strength and durability for extended service life — a necessity in all commercial and industrial installations.

All housings are reinforced with rigid bracing to increase structural integrity. The support angles are intermittently welded and caulked between welds to prevent bleed-through corrosion. Precisely positioned cutoff plates and aerodynamically spun inlet cones provide high efficiency and smooth airflow through the fan. The housing construction and dimensions are exactly the same as our current CBA fan design.

All fans are available in standard discharge configuration. CAE-SW fans Class I and II, sizes 270 and smaller in Arrangements 1, 4, and 9 are field rotatable to any standard discharge position. To help reduce overall heights, all CAE-DW fans feature a non-rotatable housing design as standard.

Shaft

Shafts are AISI Grade 1040 or 1045 hot-rolled steel accurately turned, ground, polished, and ring gauged for accuracy. Shafts are generously sized for a first critical speed of at least 1.43 times the maximum speed for the class.

Bearings

Bearings are heavy duty, grease lubricated, spherical roller or anti-friction ball (CAE-DW bearings are adapter mounted), self-aligning, pillow block type, selected for minimum average bearing life (AFBMA L-50) in excess of 200,000 hours at the maximum fan RPM.

Mechanical Run Test & Final Vibration Check

All fans are assembled for a mechanical run test and final balance prior to shipment. Vibration readings are taken on both fan bearings in the axial, horizontal, and vertical directions at the specified speed. Fans are balanced to 0.15 in./sec. peak or less.



CAE-DW wheel with hollow airfoil blades staggered for improved sound quality



CAE-SW wheel with hollow airfoil blades continuously welded to the rim and backplate



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SWSI Arrangements



Arrangement 1 fan with optional unitary base, shaft and V-belt drive guard.

Arrangement 1 SWSI — Single Width, Single Inlet

Arrangement 1 fans are usually belt driven. The wheel 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 1 fans are thus recommended for high temperature or contaminated air applications. Belt driven configurations offer performance flexibility. If the performance requirements change after the fan has been installed, it is simple and inexpensive to change the drive.

Extended lube line at inlet — standard on all Arrangement 3 fans.



Arrangement 3 SWSI — Single Width, Single Inlet

Arrangement 3 is available in belt driven only. Arrangement 3 SWSI has one bearing located in the airstream. The wheel is mounted between the bearings and supported by the fan housing, which makes it a structurally sound, compact, and economical arrangement.



Direct drive Arrangement 4 with shaft seal.

Arrangement 4 SWSI — Single Width, Single Inlet

Arrangement 4 is available in direct drive only. The fan wheel is mounted directly on the motor shaft with the motor mounted on a pedestal. An Arrangement 4 design offers low maintenance as there are no fan bearings, fan shaft or drive parts to maintain. Arrangement 4 is typically limited to size 365 or smaller.

Typical Direct Drive Speeds

| 60 Hz OPERATION | | 50 Hz OPERATION | |
|-------------------|-----------------|-------------------|-----------------|
| Synchronous Speed | Full Load Speed | Synchronous Speed | Full Load Speed |
| 3600 | 3500 | 3000 | 2900 |
| 1800 | 1750 | 1500 | 1450 |
| 1200 | 1170 | 1000 | 975 |
| 900 | 870 | 750 | 725 |

The actual full load speed of the motor can vary slightly depending upon motor HP, motor design and motor manufacturer.

Arrangement 8 fan with optional coupling and horizontal split housing.



Arrangement 8 SWSI — Single Width, Single Inlet

Arrangement 8 is a modified version of Arrangement 1 used for direct drive. The Arrangement 1 bearing pedestal is extended to accommodate the motor. A flexible coupling connects the fan and motor shaft. Refer to the typical direct drive speeds under Arrangement 4. Recommended for 250 HP and larger applications.

SWSI Arrangements

Arrangement 9 SWSI — Single Width, Single Inlet

Arrangement 9 is available as belt driven only. A motor slide base is mounted on the side of the bearing pedestal. This arrangement permits the unit to ship as a complete assembly with the motor and drive mounted.

Arrangement 9F SWSI — Single Width, Single Inlet (Not Shown)

Arrangement 9F is available when a unit requires a motor that is too large to mount on the side of the bearing pedestal. The fan base is extended to accommodate the motor, for horizontal mounting, similar to an Arrangement 1 fan. Arrangement 9F is not suitable for mounting vibration isolators directly under the fan.



Fan shown is Arrangement 9 CW-UBD with motor on right-hand side.

Arrangement 10 SWSI — Single Width, Single Inlet

Arrangement 10 is available in sizes 122 through 600 as belt driven only. An Arrangement 10 unit has an adjustable motor base mounted inside the bearing pedestal. This arrangement offers a more compact design than the Arrangement 9 and is suitable for roof or outdoor installations with a weather cover. For Class I and II fans, sizes 122 through 365, Arrangement 10 units are commonly referred to as Utility Sets. (Refer to Catalog 600 for more details.)



Class II Arrangement 10 Utility Set with optional shaft seal.

Arrangement 3

DWDI fans are generally supplied in Arr. 3 for V-belt drive. The wheel is mounted between the bearings and supported by the fan housing. Since both bearings are located in the airstream, standard DWDI fans should be used for clean air applications with air temperatures limited to 130°F. The motor can be mounted in any of the four standard motor positions: W, X, Y or Z.

Arrangement 3F (Not Shown)

Arr. 3F offers an integral extended base to accommodate the motor. The base is prepunched to accept vibration isolators. Arr. 3F is available to Size 660 and for motor positions W and Z as standard. For motor positions X and Y, consult factory.

DWDI Arrangements



Arr. 3 on isolation base with motor located in "Z" position.

Optional Construction

Spark Resistant Construction

Fan applications may involve the handling of potentially explosive or flammable particles, fumes or vapors. Such applications require careful consideration by the system designer to insure the safe handling of such gases. Aerovent offers the following classifications of spark resistant construction per AMCA Standard 99-0401. It is the specifier 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.

- Type A All parts of the fan in contact with the airstream must be made of non-ferrous material — usually aluminum and limited to 250°F operation.
- Type B The fan shall have a non-ferrous wheel and non-ferrous ring about the opening through which the shaft passes — usually aluminum wheel and rub ring and limited to 250°F construction.
- Type C The fan shall be so constructed that the shift of the wheel or shaft will not permit two ferrous parts of the fan to rub or strike. This is accomplished with an aluminum inlet cone and rub ring. This construction is limited to 500°F. Construction to 800°F is available using a steel inlet cone with copper/bronze lining.

Notes:

1. Bearings shall be placed outside the airstream. Therefore, spark resistant construction is not available on Arrangement 3 or 7.
2. The user shall electrically ground all fan parts.

Refer to the above listed AMCA standard for full details

Special Metals

To suit the demanding applications of today's industry, Aerovent offers a variety of material for construction, including aluminum and stainless steel. We offer AWS and ASME certified welding procedures and welding technicians to assure quality construction when using special metals as well.

Split Housings

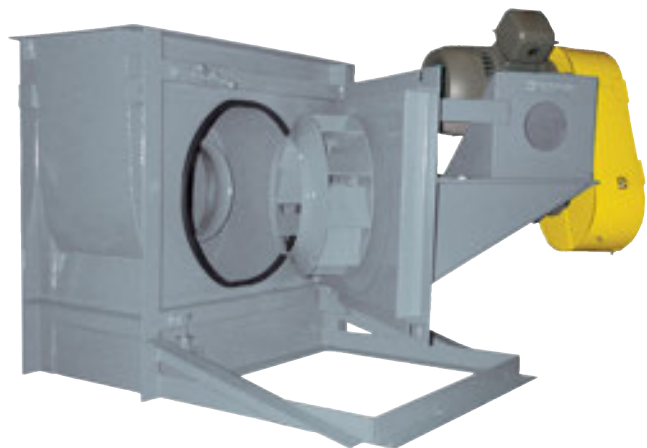
All fans are designed to permit wheel removal through the fan inlet. To suit installation as well as transportation requirements, Aerovent offers horizontal split, pie-shaped, as well as other special split housing designs. Pie-shaped split housings allow fan wheel and shaft removal without disconnecting ductwork.



Arrangement 8 fan with horizontal split housing with bolted access door

Swingout Construction

Swingout fans are ideal for applications requiring frequent cleaning and inspection of the fan wheel and interior of the housing such as found in spray painting booth exhaust.



Standard Configurations

Designation for Rotation and Discharge

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
| | | | | | | | |

Direction of rotation is determined from drive side of the fan.
 On single inlet fans, the drive side is always considered the side opposite the fan inlet.
 On double inlet fans with drives on both sides, the drive side is that with the higher power drive unit.
 The direction of discharge is determined in accordance with the diagrams shown above. The angle of discharge references the vertical axis of the fan and is designated in degrees above or below that reference axis.
 On fans inverted for ceiling suspension or side-wall mounting, the discharge is determined when the fan is resting on the floor.

Motor Positions

The drawing above illustrates the AMCA motor position standards for Arrangement 1 and 3 fans (Arrangement 1 shown). The location of the motor is determined by facing the drive side of the fan and designating the motor position by letters W, X, Y, or Z, in accordance with the diagram shown above.

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Accessories

Volume Control Devices

Outlet dampers, variable inlet vanes, and variable frequency drives are three popular devices used to control volume for fan systems.

Variable Inlet Vanes

Variable inlet vanes cause the entering air to spin in the direction of wheel rotation, resulting in reduction in volume, static pressure and brake horsepower and thus providing an infinite number of fan curves approximately parallel to the original fan curve. Variable inlet vanes cost about 50% to 80% more than outlet dampers but offer significant savings in energy. Because of their simplicity, inlet vanes can be more reliable when compared to variable frequency drives.

There are two types of variable inlet vanes: nested (internal type) and bolted on (external type).

Nested inlet vanes are built into the fan inlet cone and offer the advantage of saving space and lower cost as opposed to the external type. They are available on all fan sizes 165 and larger. Aerovent offers cantilevered vanes to size 890 Class II fans to minimize insertion losses and noise associated with center hub design.

External inlet vanes are bolted to the inlet of the fan and are available from size 122 to size 890. Use of external vanes should be considered for hostile environments since operating linkages are shielded from the airstream. Both types of inlet vanes are available to 600°F construction.

Outlet Dampers

The closing of the damper adds to the resistance that the fan is working against. This moves the operating point to the left of the initial rating point. The savings in horsepower depends on the relative position on the fan curve and is usually much less than offered by other methods. Outlet dampers are typically the least expensive option and should be considered when infrequent operation at lesser capacity is desired or when handling hot, humid or particulate laden air.

There are two types of outlet dampers: parallel blade and opposed blade.

Parallel blade dampers are recommended for systems where air volume is modulated between full-open to about 75% of open.

Opposed blade dampers cost about 10% more and are recommended for systems where volume is modulated over the entire range. Opposed blades reduce air volume in a closer relationship to the control arm movement.

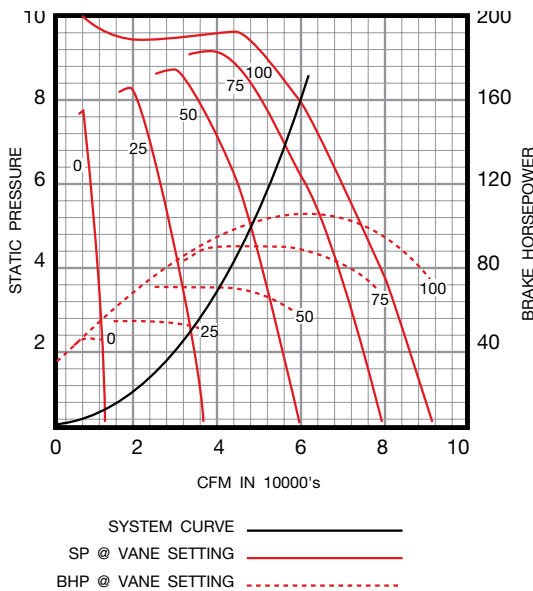


Nested Inlet Vanes



External Inlet Vanes

Performance Curves at Different Vane Settings



Parallel Blade Outlet Damper



Opposed Blade Outlet Damper

Variable Frequency Drive (VFD)

A VFD changes the fan speed and can provide the greatest potential for energy savings, although at highest initial cost. A VFD should be considered for extended operation at part load conditions, especially below 70% of the full volume operation.

Access Doors

Bolted, quick opening, and raised bolted access doors are available for wheel inspection or maintenance.

Drain

Threaded pipe coupling welded to the lowest point in the housing scroll. All fans come with a weep hole in the bottom of the housing.

Shaft Seal

A shaft seal reduces leakage and protects the bearings from a contaminated airstream. It is constructed of non-asbestos woven fibrous materials (ceramic felt) compressed between an aluminum cover plate and the fan housing. A ceramic felt shaft seal does not make the fan gas tight. A variety of special seals is available for low leakage applications requiring more positive protection, including mechanical type stuffing boxes.

Flanged Inlet

A punched inlet flange is available for duct mounting.

Flanged Outlet (DWDI Class I & II)

A punched or unpunched flange is welded to the fan outlet. An unpunched flanged outlet is standard on all SWSI and DWDI Class III and IV fans.

Inlet/Outlet Companion Flanges

Companion flanges are used for installing the fan to flexible sleeve connections and are punched to match the fan's inlet or outlet.

Inlet and Outlet Screens

Safety screens are available for mounting in the fan inlet or outlet in non-ducted applications.

Special Paint & Protective Coatings

Aerovent has an in-house, specialty coating facility to handle any type of coating requirement. Refer to Protective Coatings Guide FE-400 for more details.



Quick-Open
Access Door

Bolted
Access Door

Raised Bolted
Access Door



Extended Drain with Plug



Shaft Seal



Inlet Safety Screen



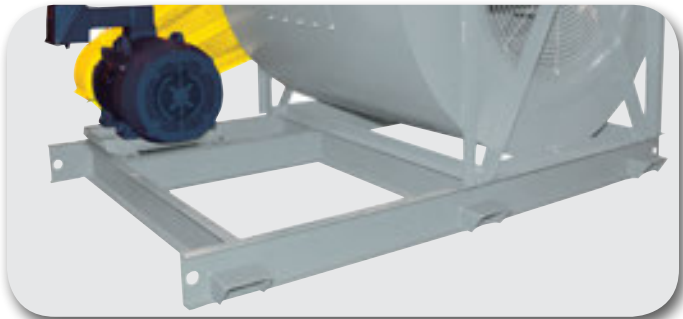
Inlet Companion Flange



Accessories



Belt, Bearing and Shaft Guard



Unitary Base



Inlet Box



Inlet Box with Shutter

Belt Guards

A belt guard protects personnel from the moving drive parts. Both standard and totally enclosed type guards are available.

Shaft and Bearing Guards (SWSI)

Solid sheet metal guards cover shaft and bearings and come with extended lube lines to a common point out either side of the guard. A guard spanning the shaft between the bearings is also available to provide easy access to bearings for lubrication and vibration monitoring.

Unitary Base

A structural steel base provides common support to fan, motor and drive including guards. This style of base is designed for use without isolators and requires adequate foundation integrity for proper operation.

Vibration Isolation Bases

Heavy structural base for fan, motor and drive is designed for use with spring or rubber-in-shear type isolators. Use of flexible connectors at inlet and outlet is required on fans with isolators.

V-Belt Drives

V-belt drives offer an economical yet flexible means of transmitting power to the fans. There are two types of V-belt drives.

- **Adjustable Pitch or Variable Speed Drives**

An adjustable pitch drive offers easy adjustment of speed. The motor pulley pitch can be adjusted when the fan is at rest which can offer speed variation of about 10% from the design speed. This style of sheave can result in higher vibration so adjustable pitch drives are not recommended for use on motors over 10 HP or wherever low vibration is required.

- **Fixed Pitch or Constant Speed Drives**

This type of drive offers low cost and lowest vibration levels. Speed change can often be accomplished by changing only one of the sheaves.

Bearing Upgrades

Unit roller or split pillow block, double row roller bearings are available. Split pillow block roller bearings are not available for fans with less than 1-7/16" diameter bearings and are not recommended for fans with light loadings. Refer to Fan Engineering Letters FE-1200 and FE-1300 for the correct type of bearings, selection criteria, maintenance, etc.

Other Accessories Available

- Variation in wheel diameter and width
- Inlet boxes
- Bearings RTD
- Piezometer ring airflow measuring system
- Consult factory for other accessories



Flow Measurement System

Piezometer Ring (Airflow Measuring System)

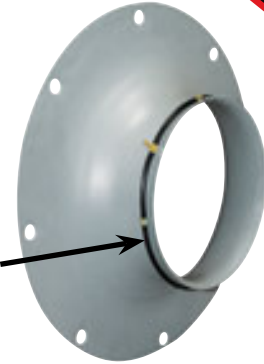
A piezometer ring is available on model CAE fans, as well as other Aerovent housed and plenum fans, as part of an airflow measuring system, based on the principle of a flow nozzle. The inlet cone of the fan is used as the flow nozzle. The flow can be calculated by measuring the pressure drop through the inlet cone. No tubes or sensors are inserted in the high velocity airstream which could obstruct airflow.

The system, consists of a piezometer ring mounted at the throat and a static pressure tap mounted on the face of the inlet cone. A differential pressure transducer and digital display can also be provided.

The pressure drop is measured from the tap located on the face of the inlet cone to the piezometer ring in the throat. The inlet tap is connected to the high-pressure side of the transducer and the piezometer ring is connected to the low-pressure side.

Based on Aerovent laboratory tests, the system was determined to be accurate within +/-5%.

Piezometer Ring Mounted at Throat of Inlet Cone



NOTE: Aerovent does not recommend placement of flow measuring probes inside the fan inlet cone in the path of airflow. These devices create disturbances and unpredictable performance losses. Aerovent will not be responsible for loss of performance due to such devices.

Performance Correction for Temperature & Altitude

The performance tables in this catalog are based on fans handling standard air at a density of 0.075 pounds per cubic foot. This is equivalent to air at 70°F at sea level (29.92" Hg barometric pressure). When specified performance is at a density different than standard, it must be converted to the

equivalent standard conditions before the fan can be selected from the performance tables. The equivalent standard conditions can be calculated by using the Temperature and Altitude Density Ratios shown in the table below.

Temperature and Altitude Density Ratios

| AIR TEMP °F | ALTITUDE IN FEET ABOVE SEA LEVEL | | | | | | | | | | | |
|----------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0 | 1000 | 2000 | 3000 | 4000 | 5000 | 6000 | 7000 | 8000 | 9000 | 10000 | 20000 |
| | BAROMETRIC PRESSURE IN INCHES OF MERCURY | | | | | | | | | | | |
| | 29.92 | 28.86 | 27.82 | 26.82 | 25.84 | 24.90 | 23.98 | 23.09 | 22.22 | 21.39 | 20.58 | 16.89 |
| -50 | 1.293 | 1.247 | 1.201 | 1.159 | 1.116 | 1.076 | 1.036 | 0.997 | 0.960 | 0.924 | 0.889 | 0.729 |
| 0 | 1.152 | 1.111 | 1.071 | 1.032 | 0.995 | 0.959 | 0.923 | 0.889 | 0.856 | 0.824 | 0.792 | 0.650 |
| 50 | 1.039 | 1.003 | 0.967 | 0.932 | 0.897 | 0.864 | 0.833 | 0.801 | 0.772 | 0.743 | 0.715 | 0.586 |
| 70 | 1.000 | 0.964 | 0.930 | 0.896 | 0.864 | 0.832 | 0.801 | 0.772 | 0.743 | 0.714 | 0.688 | 0.564 |
| 100 | 0.946 | 0.912 | 0.880 | 0.848 | 0.818 | 0.787 | 0.758 | 0.730 | 0.703 | 0.676 | 0.651 | 0.534 |
| 150 | 0.869 | 0.838 | 0.808 | 0.770 | 0.751 | 0.723 | 0.696 | 0.671 | 0.646 | 0.620 | 0.598 | 0.490 |
| 200 | 0.803 | 0.774 | 0.747 | 0.720 | 0.694 | 0.668 | 0.643 | 0.620 | 0.596 | 0.573 | 0.552 | 0.453 |
| 250 | 0.747 | 0.720 | 0.694 | 0.669 | 0.645 | 0.622 | 0.598 | 0.576 | 0.555 | 0.533 | 0.514 | 0.421 |
| 300 | 0.697 | 0.672 | 0.648 | 0.624 | 0.604 | 0.580 | 0.558 | 0.538 | 0.518 | 0.498 | 0.480 | 0.393 |
| 350 | 0.654 | 0.631 | 0.608 | 0.586 | 0.565 | 0.544 | 0.524 | 0.505 | 0.486 | 0.467 | 0.450 | 0.369 |
| 400 | 0.616 | 0.594 | 0.573 | 0.552 | 0.532 | 0.513 | 0.493 | 0.476 | 0.458 | 0.440 | 0.424 | 0.347 |
| 450 | 0.582 | 0.561 | 0.542 | 0.522 | 0.503 | 0.484 | 0.466 | 0.449 | 0.433 | 0.416 | 0.401 | 0.328 |
| 500 | 0.552 | 0.532 | 0.513 | 0.495 | 0.477 | 0.459 | 0.442 | 0.426 | 0.410 | 0.394 | 0.380 | 0.311 |
| 550 | 0.525 | 0.506 | 0.488 | 0.470 | 0.454 | 0.437 | 0.421 | 0.405 | 0.390 | 0.375 | 0.361 | 0.296 |
| 600 | 0.500 | 0.482 | 0.465 | 0.448 | 0.432 | 0.416 | 0.400 | 0.386 | 0.372 | 0.352 | 0.344 | 0.282 |
| 650 | 0.477 | 0.460 | 0.444 | 0.427 | 0.412 | 0.397 | 0.382 | 0.368 | 0.354 | 0.341 | 0.328 | 0.269 |
| 700 | 0.457 | 0.441 | 0.425 | 0.410 | 0.395 | 0.380 | 0.366 | 0.353 | 0.340 | 0.326 | 0.315 | 0.258 |
| 750 | 0.439 | 0.423 | 0.407 | 0.393 | 0.379 | 0.365 | 0.351 | 0.338 | 0.326 | 0.313 | 0.303 | 0.248 |
| 800 | 0.420 | 0.404 | 0.389 | 0.375 | 0.362 | 0.350 | 0.336 | 0.323 | 0.311 | 0.300 | 0.290 | 0.237 |
| 850 | 0.404 | 0.391 | 0.376 | 0.363 | 0.349 | 0.336 | 0.324 | 0.312 | 0.300 | 0.289 | 0.279 | 0.228 |
| 900 | 0.389 | 0.376 | 0.363 | 0.349 | 0.336 | 0.324 | 0.312 | 0.300 | 0.289 | 0.279 | 0.268 | 0.220 |
| 950 | 0.376 | 0.363 | 0.350 | 0.337 | 0.325 | 0.313 | 0.301 | 0.290 | 0.279 | 0.269 | 0.259 | 0.212 |
| 1000 | 0.363 | 0.350 | 0.338 | 0.325 | 0.314 | 0.302 | 0.291 | 0.280 | 0.270 | 0.259 | 0.250 | 0.205 |

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

SWSI

| SIZE | SW ALUMINUM | | | | | | | | | | | |
|------|-------------|-------------------|---------------------------------------|----------|-------------------|---------------------------------------|-----------|-------------------|---------------------------------------|----------|-------------------|---------------------------------------|
| | CLASS I | | | CLASS II | | | CLASS III | | | CLASS IV | | |
| | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) |
| 122 | 3990 | 9.4 | 0.97 | 5206 | 9.4 | 0.97 | NA | NA | NA | NA | NA | NA |
| 135 | 3265 | 10.1 | 1.4 | 4260 | 10.1 | 1.4 | | | | | | |
| 150 | 3260 | 13.7 | 2.12 | 4253 | 13.6 | 2.12 | | | | | | |
| 165 | 2673 | 15.7 | 3.23 | 3487 | 16.8 | 4.04 | | | | | | |
| 182 | 2207 | 17 | 6.1 | 2879 | 18 | 6.1 | 3628 | 21 | 6.2 | | | |
| 200 | 2014 | 21 | 6.4 | 2627 | 21 | 7.4 | 3310 | 24 | 9.3 | | | |
| 222 | 1814 | 30 | 12 | 2367 | 30 | 12 | 2982 | 34 | 15 | | | |
| 245 | 1647 | 35 | 21 | 2149 | 35 | 21 | 2708 | 38 | 22 | | | |
| 270 | 1474 | 40 | 29 | 1923 | 40 | 29 | 2423 | 47 | 32 | | | |
| 300 | 1327 | 49 | 46 | 1731 | 54 | 51 | 2181 | 58 | 52 | | | |
| 330 | 1206 | 62 | 70 | 1573 | 67 | 76 | 1982 | 72 | 77 | | | |
| 365 | 1080 | 73 | 103 | 1409 | 79 | 112 | 1775 | 84 | 114 | | | |
| 402 | 979 | 85 | 151 | 1278 | 93 | 165 | 1610 | 98 | 166 | | | |
| 445 | 886 | 126 | 233 | 1156 | 135 | 253 | 1456 | 142 | 256 | | | |
| 490 | 804 | 164 | 391 | 1050 | 164 | 391 | 1322 | 174 | 535 | | | |
| 542 | 727 | 227 | 632 | 948 | 227 | 632 | 1194 | 239 | 673 | | | |
| 600 | 657 | 255 | 931 | 857 | 255 | 931 | 1080 | 270 | 991 | | | |
| 660 | 597 | 346 | 1377 | 779 | 346 | 1377 | 982 | 371 | 1478 | | | |
| 730 | 540 | 412 | 2049 | 705 | 499 | 2671 | 888 | 550 | 2985 | | | |
| 807 | 488 | 499 | 3008 | 637 | 574 | 3474 | NA | NA | NA | | | |
| 890 | 443 | 774 | 5652 | 578 | 884 | 6438 | | | | | | |
| 982 | 401 | 904 | 8248 | 523 | 1041 | 9443 | | | | | | |

| SIZE | SW STEEL | | | | | | | | | | | |
|------|----------|-------------------|---------------------------------------|----------|-------------------|---------------------------------------|-----------|-------------------|---------------------------------------|----------|-------------------|---------------------------------------|
| | CLASS I | | | CLASS II | | | CLASS III | | | CLASS IV | | |
| | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) |
| 122 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 135 | | | | | | | | | | | | |
| 150 | | | | | | | | | | | | |
| 165 | | | | | | | | | | | | |
| 182 | | | | | | | | | | | | |
| 200 | | | | | | | | | | | | |
| 222 | | | | | | | | | | | | |
| 245 | | | | | | | | | | | | |
| 270 | 1474 | 99 | 70 | 1923 | 99 | 70 | 2423 | 121 | 82 | 2756 | 135 | 91 |
| 300 | 1327 | 124 | 106 | 1731 | 124 | 106 | 2181 | 148 | 123 | 2480 | 160 | 137 |
| 330 | 1206 | 151 | 162 | 1573 | 150 | 162 | 1982 | 185 | 183 | 2255 | 199 | 203 |
| 365 | 1080 | 218 | 276 | 1409 | 216 | 276 | 1775 | 251 | 293 | 2040 | 251 | 306 |
| 402 | 979 | 252 | 401 | 1278 | 251 | 401 | 1610 | 289 | 451 | 1850 | 288 | 444 |
| 445 | 886 | 340 | 620 | 1156 | 339 | 620 | 1456 | 437 | 815 | 1673 | 464 | 848 |
| 490 | 804 | 392 | 895 | 1050 | 390 | 895 | 1322 | 533 | 1257 | 1520 | 563 | 1308 |
| 542 | 727 | 567 | 1423 | 948 | 608 | 1543 | 1194 | 738 | 2068 | 1373 | 810 | 2262 |
| 600 | 657 | 696 | 2246 | 857 | 698 | 2246 | 1080 | 856 | 2986 | 1241 | 942 | 3356 |
| 660 | 597 | 942 | 3413 | 779 | 953 | 3415 | 982 | 1132 | 4494 | 1128 | 1235 | 5040 |
| 730 | 540 | 1092 | 5274 | 705 | 1103 | 5276 | 888 | 1390 | 7222 | 1020 | 1507 | 7812 |
| 807 | 488 | 1288 | 7766 | 637 | 1397 | 8451 | 802 | 1617 | 10610 | 922 | 1758 | 11505 |
| 890 | 443 | 1935 | 14129 | 578 | 1940 | 14130 | 728 | 2353 | 18160 | 837 | 2498 | 19429 |
| 982 | 401 | 2245 | 20481 | 523 | 2258 | 20483 | 654 | 2971 | 29160 | 756 | --- | --- |

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

DWDI

| SIZE | DW ALUMINUM | | | | | | | | | | | |
|------|-------------|-------------------|---------------------------------------|----------|-------------------|---------------------------------------|-----------|-------------------|---------------------------------------|----------|-------------------|---------------------------------------|
| | CLASS I | | | CLASS II | | | CLASS III | | | CLASS IV | | |
| | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) |
| 122 | 3957 | 14 | 1.1 | 5158 | 14.6 | 1.1 | NA | NA | NA | NA | NA | NA |
| 135 | 3374 | 14.8 | 1.56 | 4398 | 17.5 | 1.6 | | | | | | |
| 150 | 3232 | 21.8 | 2.4 | 4213 | 23.8 | 2.43 | | | | | | |
| 165 | 2761 | 25 | 3.75 | 3599 | 27.7 | 4.55 | | | | | | |
| 182 | 2248 | 29 | 10.4 | 2930 | 29 | 9.9 | 3695 | 33 | 9.8 | | | |
| 200 | 2051 | 36 | 10.9 | 2674 | 40 | 14 | 3372 | 39 | 15.2 | | | |
| 222 | 1837 | 45 | 18 | 2395 | 53 | 21 | 3020 | 54 | 24 | | | |
| 245 | 1668 | 53 | 32 | 2175 | 62 | 37 | 2742 | 60 | 35 | | | |
| 270 | 1541 | 62 | 45 | 2009 | 69 | 50 | 2533 | 75 | 51 | | | |
| 300 | 1387 | 80 | 75 | 1808 | 86 | 81 | 2280 | 89 | 80 | | | |
| 330 | 1261 | 108 | 122 | 1644 | 114 | 129 | 2072 | 104 | 111 | | | |
| 365 | 1114 | 109 | 154 | 1452 | 123 | 174 | 1831 | 119 | 162 | | | |
| 402 | 1010 | 133 | 236 | 1317 | 144 | 256 | 1661 | 141 | 239 | | | |
| 445 | 914 | 191 | 353 | 1191 | 222 | 416 | 1502 | 219 | 395 | | | |
| 490 | 830 | 245 | 584 | 1082 | 260 | 619 | 1364 | 262 | 806 | | | |
| 542 | 750 | 339 | 945 | 977 | 337 | 939 | 1232 | 360 | 1014 | | | |
| 600 | 678 | 380 | 1388 | 883 | 376 | 1372 | 1114 | 401 | 1470 | | | |
| 660 | 616 | 495 | 1972 | 803 | 499 | 1987 | 1013 | 537 | 2141 | | | |
| 730 | 557 | 593 | 2949 | 726 | 716 | 3832 | 916 | 826 | 4484 | | | |
| 807 | 504 | 727 | 4382 | 656 | 819 | 4955 | NA | NA | NA | | | |
| 890 | 457 | 1131 | 8259 | 596 | 1295 | 9429 | | | | | | |
| 982 | 414 | 1340 | 12230 | 539 | 1541 | 13979 | | | | | | |

| SIZE | DW STEEL | | | | | | | | | | | |
|------|----------|-------------------|---------------------------------------|----------|-------------------|---------------------------------------|-----------|-------------------|---------------------------------------|----------|-------------------|---------------------------------------|
| | CLASS I | | | CLASS II | | | CLASS III | | | CLASS IV | | |
| | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) | MAX. RPM | WHEEL WEIGHT (LB) | WR ² (LB-FT ²) |
| 122 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 135 | | | | | | | | | | | | |
| 150 | | | | | | | | | | | | |
| 165 | | | | | | | | | | | | |
| 182 | | | | | | | | | | | | |
| 200 | | | | | | | | | | | | |
| 222 | | | | | | | | | | | | |
| 245 | | | | | | | | | | | | |
| 270 | 1541 | 152 | 116 | 2009 | 170 | 117 | 2533 | 195 | 130 | 2756 | 212 | 142 |
| 300 | 1387 | 201 | 176 | 1808 | 197 | 176 | 2280 | 227 | 196 | 2480 | 261 | 216 |
| 330 | 1261 | 263 | 272 | 1644 | 254 | 272 | 2072 | 268 | 290 | 2255 | 304 | 316 |
| 365 | 1114 | 326 | 439 | 1452 | 335 | 440 | 1831 | 356 | 444 | 2040 | 362 | 472 |
| 402 | 1010 | 395 | 640 | 1317 | 390 | 640 | 1661 | 417 | 700 | 1850 | 434 | 689 |
| 445 | 914 | 516 | 981 | 1191 | 557 | 984 | 1502 | 674 | 1317 | 1673 | 720 | 1383 |
| 490 | 830 | 585 | 1427 | 1082 | 618 | 1430 | 1364 | 803 | 2049 | 1520 | 830 | 2066 |
| 542 | 750 | 739 | 2128 | 977 | 771 | 2247 | 1232 | 963 | 3163 | 1373 | 991 | 3295 |
| 600 | 678 | 906 | 3338 | 883 | 897 | 3338 | 1114 | 1121 | 4614 | 1241 | 1180 | 4975 |
| 660 | 616 | 1349 | 5213 | 803 | 1375 | 5217 | 1013 | 1640 | 7099 | 1128 | 1788 | 7674 |
| 730 | 557 | 1571 | 8239 | 726 | 1582 | 8243 | 916 | 2088 | 11718 | 1020 | 2139 | 12086 |
| 807 | 504 | 1876 | 12195 | 656 | 1992 | 12933 | 828 | 2450 | 17251 | 922 | 2533 | 17816 |
| 890 | 457 | 2827 | 21881 | 596 | 2842 | 21887 | 751 | 3300 | 27962 | 837 | 3377 | 28592 |
| 982 | 414 | 3329 | 31933 | 539 | 3343 | 31941 | --- | --- | --- | --- | --- | --- |

Features & Weights

SWSI Class I

| SIZE | HOUSING | | SHAFT DIAMETER & BEARINGS | | | | BARE FAN WEIGHT (LB) | | |
|------|---------|--------|---------------------------------|--------------|---------------------------------|--------------|----------------------|-------|-------|
| | SIDES | SCROLL | ARR 1 & 9 | | ARR 3 | | ARR 1 | ARR 3 | ARR 9 |
| | | | SHAFT DIA. | BEARING TYPE | SHAFT DIA. | BEARING TYPE | | | |
| 122 | 14 | 14 | 1 | B | 1 | B | 122 | 104 | 129 |
| 135 | 14 | 14 | 1 | B | 1 | B | 141 | 125 | 148 |
| 150 | 14 | 14 | 1 | B | 1 | B | 169 | 149 | 178 |
| 165 | 14 | 14 | 1 | B | 1 | B | 199 | 200 | 209 |
| 182 | 14 | 14 | 1 ³ / ₁₆ | B | 1 ³ / ₁₆ | B | 238 | 202 | 251 |
| 200 | 14 | 14 | 1 ⁷ / ₁₆ | B | 1 ⁷ / ₁₆ | B | 288 | 229 | 304 |
| 222 | 12 | 14 | 1 ⁷ / ₁₆ | B | 1 ⁷ / ₁₆ | B | 363 | 250 | 384 |
| 245 | 12 | 14 | 1 ⁷ / ₁₆ | B | 1 ⁷ / ₁₆ | B | 440 | 306 | 464 |
| 270 | 12 | 14 | 1 ¹¹ / ₁₆ | B | 1 ⁷ / ₁₆ | B | 596 | 446 | 625 |
| 300 | 10 | 12 | 1 ¹⁵ / ₁₆ | B | 1 ¹¹ / ₁₆ | B | 721 | 665 | 756 |
| 330 | 10 | 12 | 1 ¹⁵ / ₁₆ | B | 1 ¹¹ / ₁₆ | B | 872 | 935 | 915 |
| 365 | 10 | 12 | 1 ¹⁵ / ₁₆ | B | 1 ¹⁵ / ₁₆ | B | 1094 | 1031 | 1146 |
| 402 | 10 | 12 | 2 ³ / ₁₆ | B | 1 ¹⁵ / ₁₆ | B | 1431 | 1297 | 1501 |
| 445 | 10 | 12 | 2 ⁷ / ₁₆ | B | 1 ¹⁵ / ₁₆ | B | 1673 | 1628 | 1755 |
| 490 | 10 | 12 | 2 ¹¹ / ₁₆ | B | 2 ³ / ₁₆ | R | 1951 | 1807 | 2046 |
| 542 | 10 | 12 | 2 ¹⁵ / ₁₆ | B | 2 ⁷ / ₁₆ | R | 2863 | 2402 | 3000 |
| 600 | 10 | 12 | 2 ¹⁵ / ₁₆ | B | 2 ¹⁵ / ₁₆ | B | 3375 | 3267 | 3538 |
| 660 | 10 | 12 | 3 ⁷ / ₁₆ | R | 2 ¹⁵ / ₁₆ | R | 4277 | 4114 | 4486 |
| 730 | 10 | 10 | 3 ⁷ / ₁₆ | R | 3 ⁷ / ₁₆ | R | 5221 | 4813 | 5479 |
| 807 | 10 | 10 | 3 ¹⁵ / ₁₆ | R | 3 ¹⁵ / ₁₆ | R | 5255 | 5498 | 5515 |
| 890 | 7 | 10 | 3 ¹⁵ / ₁₆ | R | 3 ¹⁵ / ₁₆ | R | 7220 | 6668 | 7576 |
| 982 | 7 | 7 | 4 ¹⁵ / ₁₆ | SR | 4 ¹⁵ / ₁₆ | SR | 9425 | 7847 | 9888 |

Bearing Types: B = Ball Bearing R = Unit Roller Bearings SR = Spherical Roller Bearings with Split Pillow Block Housings

SWSI Class II

| SIZE | HOUSING | | SHAFT DIAMETER & BEARINGS | | | | BARE FAN WEIGHT (LB) | | |
|------|---------|--------|---------------------------------|--------------|---------------------------------|--------------|----------------------|-------|-------|
| | SIDES | SCROLL | ARR 1 & 9 | | ARR 3 | | ARR 1 | ARR 3 | ARR 9 |
| | | | SHAFT DIA. | BEARING TYPE | SHAFT DIA. | BEARING TYPE | | | |
| 122 | 14 | 14 | 1 | B | 1 | B | 128 | 114 | 134 |
| 135 | 14 | 14 | 1 | B | 1 | B | 147 | 137 | 154 |
| 150 | 14 | 14 | 1 ³ / ₁₆ | B | 1 ³ / ₁₆ | B | 180 | 163 | 189 |
| 165 | 14 | 14 | 1 ³ / ₁₆ | B | 1 ³ / ₁₆ | B | 211 | 219 | 221 |
| 182 | 14 | 14 | 1 ⁷ / ₁₆ | B | 1 ⁷ / ₁₆ | B | 250 | 220 | 264 |
| 200 | 14 | 14 | 1 ⁷ / ₁₆ | B | 1 ⁷ / ₁₆ | B | 295 | 250 | 311 |
| 222 | 12 | 14 | 1 ⁷ / ₁₆ | B | 1 ⁷ / ₁₆ | B | 373 | 279 | 394 |
| 245 | 12 | 14 | 1 ¹¹ / ₁₆ | B | 1 ¹¹ / ₁₆ | B | 463 | 342 | 489 |
| 270 | 12 | 14 | 1 ¹¹ / ₁₆ | B | 1 ¹¹ / ₁₆ | B | 610 | 489 | 640 |
| 300 | 10 | 12 | 1 ¹⁵ / ₁₆ | B | 1 ¹⁵ / ₁₆ | B | 726 | 718 | 762 |
| 330 | 10 | 12 | 2 ³ / ₁₆ | B | 2 ³ / ₁₆ | B | 879 | 997 | 924 |
| 365 | 10 | 12 | 2 ⁷ / ₁₆ | B | 2 ⁷ / ₁₆ | B | 1133 | 1095 | 1189 |
| 402 | 10 | 12 | 2 ⁷ / ₁₆ | R | 2 ⁷ / ₁₆ | B | 1459 | 1392 | 1531 |
| 445 | 10 | 12 | 2 ¹¹ / ₁₆ | R | 2 ¹¹ / ₁₆ | R | 1680 | 1724 | 1765 |
| 490 | 10 | 12 | 2 ¹⁵ / ₁₆ | R | 2 ¹¹ / ₁₆ | R | 1957 | 1907 | 2057 |
| 542 | 10 | 12 | 3 ⁷ / ₁₆ | R | 2 ¹⁵ / ₁₆ | R | 2943 | 2576 | 3087 |
| 600 | 10 | 12 | 3 ⁷ / ₁₆ | R | 3 ⁷ / ₁₆ | R | 3429 | 3518 | 3598 |
| 660 | 10 | 12 | 3 ¹⁵ / ₁₆ | R | 3 ¹⁵ / ₁₆ | R | 4445 | 4476 | 4663 |
| 730 | 10 | 10 | 3 ¹⁵ / ₁₆ | R | 3 ¹⁵ / ₁₆ | R | 5415 | 5304 | 5682 |
| 807 | 10 | 10 | 4 ⁷ / ₁₆ | SR | 4 ⁷ / ₁₆ | R | 5503 | 6062 | 5776 |
| 890 | 7 | 10 | 4 ¹⁵ / ₁₆ | SR | 4 ¹⁵ / ₁₆ | R | 7621 | 7344 | 7995 |
| 982 | 7 | 7 | 5 ⁷ / ₁₆ | SR | 5 ⁷ / ₁₆ | SR | 9645 | 8595 | 10120 |

Bearing Types: B = Ball Bearing R = Unit Roller Bearings SR = Spherical Roller Bearings with Split Pillow Block Housings

Features & Weights

SWSI Class III

| SIZE | HOUSING | | SHAFT DIAMETER & BEARINGS | | | | BARE FAN WEIGHT (LB) | | |
|------|---------|--------|---------------------------------|--------------|---------------------------------|--------------|----------------------|-------|-------|
| | SIDES | SCROLL | ARR 1 & 9 | | ARR 3 | | ARR 1 | ARR 3 | ARR 9 |
| | | | SHAFT DIA. | BEARING TYPE | SHAFT DIA. | BEARING TYPE | | | |
| 122 | NA | | | | | | | | |
| 135 | | | | | | | | | |
| 150 | | | | | | | | | |
| 165 | | | | | | | | | |
| 182 | 10 | 10 | 1 ¹¹ / ₁₆ | B | 1 ¹¹ / ₁₆ | B | 272 | 377 | 287 |
| 200 | 10 | 10 | 1 ¹⁵ / ₁₆ | B | 1 ¹¹ / ₁₆ | B | 316 | 410 | 334 |
| 222 | 10 | 10 | 1 ¹⁵ / ₁₆ | B | 1 ¹⁵ / ₁₆ | R | 408 | 444 | 431 |
| 245 | 7 | 7 | 2 ³ / ₁₆ | B | 1 ¹⁵ / ₁₆ | R | 572 | 488 | 604 |
| 270 | 7 | 7 | 2 ³ / ₁₆ | B | 1 ¹⁵ / ₁₆ | R | 763 | 658 | 801 |
| 300 | 7 | 7 | 2 ⁷ / ₁₆ | R | 2 ³ / ₁₆ | R | 987 | 1069 | 1036 |
| 330 | 7 | 7 | 2 ¹¹ / ₁₆ | R | 2 ⁷ / ₁₆ | R | 1202 | 1087 | 1262 |
| 365 | 7 | 7 | 2 ¹¹ / ₁₆ | R | 2 ⁷ / ₁₆ | R | 1429 | 1492 | 1501 |
| 402 | 7 | 7 | 2 ¹⁵ / ₁₆ | R | 2 ¹¹ / ₁₆ | R | 1778 | 1867 | 1867 |
| 445 | 7 | 7 | 3 ¹ / ₁₆ | R | 2 ¹⁵ / ₁₆ | R | 2225 | 2355 | 2335 |
| 490 | 7 | 7 | 3 ¹ / ₁₆ | R | 2 ¹⁵ / ₁₆ | R | 2636 | 2704 | 2765 |
| 542 | 7 | 7 | 3 ¹⁵ / ₁₆ | R | 3 ⁷ / ₁₆ | R | 3782 | 3508 | 3965 |
| 600 | 7 | 7 | 4 ⁷ / ₁₆ | SR | 3 ¹⁵ / ₁₆ | R | 4741 | 4748 | 4971 |
| 660 | 7 | 7 | 4 ⁷ / ₁₆ | SR | 3 ¹⁵ / ₁₆ | R | 5623 | 6287 | 5897 |
| 730 | 7 | 7 | 4 ¹⁵ / ₁₆ | SR | 4 ⁷ / ₁₆ | SR | 6796 | 7374 | 7127 |
| 807 | 7 | 7 | 4 ¹⁵ / ₁₆ | SR | 4 ¹⁵ / ₁₆ | SR | 6735 | 8409 | 7066 |
| 890 | 7 | 7 | 5 ⁷ / ₁₆ | SR | 5 ⁷ / ₁₆ | SR | 8114 | 10043 | 8513 |

Bearing Types: B = Ball Bearing R = Unit Roller Bearings SR = Spherical Roller Bearings with Split Pillow Block Housings

SWSI Class IV

| SIZE | HOUSING | | SHAFT DIAMETER & BEARINGS | | | | BARE FAN WEIGHT (LB) | | | | | | | | | | | |
|------|---------|--------|---------------------------------|--------------|---------------------------------|--------------|----------------------|-------|-------|---|---|---------------------------------|---|--------------------------------|---|------|------|------|
| | SIDES | SCROLL | ARR 1 & 9 | | ARR 3 | | ARR 1 | ARR 3 | ARR 9 | | | | | | | | | |
| | | | SHAFT DIA. | BEARING TYPE | SHAFT DIA. | BEARING TYPE | | | | | | | | | | | | |
| 122 | NA | | | | | | | | | | | | | | | | | |
| 135 | | | | | | | | | | | | | | | | | | |
| 150 | | | | | | | | | | | | | | | | | | |
| 165 | | | | | | | | | | | | | | | | | | |
| 182 | | | | | | | | | | | | | | | | | | |
| 200 | | | | | | | | | | | | | | | | | | |
| 222 | | | | | | | | | | | | | | | | | | |
| 245 | | | | | | | | | | | | | | | | | | |
| 270 | | | | | | | | | | 7 | 7 | 2 ⁷ / ₁₆ | R | 2 ³ / ₁₆ | R | 883 | 731 | 927 |
| 300 | | | | | | | | | | 7 | 7 | 2 ¹¹ / ₁₆ | R | 2 ⁷ / ₁₆ | R | 1112 | 1180 | 1169 |
| 330 | 0.25 | 0.25 | 2 ¹⁵ / ₁₆ | R | 2 ¹¹ / ₁₆ | R | 1527 | 1614 | 1604 | | | | | | | | | |
| 365 | 0.25 | 0.25 | 3 ¹ / ₁₆ | R | 2 ¹⁵ / ₁₆ | R | 1978 | 1673 | 2077 | | | | | | | | | |
| 402 | 0.25 | 0.25 | 3 ⁷ / ₁₆ | R | 2 ¹⁵ / ₁₆ | R | 2425 | 2077 | 2547 | | | | | | | | | |
| 445 | 0.25 | 0.25 | 3 ¹⁵ / ₁₆ | R | 3 ⁷ / ₁₆ | R | 3100 | 2643 | 3252 | | | | | | | | | |
| 490 | 0.25 | 0.25 | 3 ¹⁵ / ₁₆ | R | 3 ⁷ / ₁₆ | R | 3567 | 2994 | 3742 | | | | | | | | | |
| 542 | 0.25 | 0.25 | 4 ⁷ / ₁₆ | SR | 3 ¹⁵ / ₁₆ | R | 4699 | 3883 | 4927 | | | | | | | | | |
| 600 | 0.25 | 0.25 | 4 ¹⁵ / ₁₆ | SR | 4 ⁷ / ₁₆ | SR | 5604 | 5218 | 5880 | | | | | | | | | |
| 660 | 0.25 | 0.25 | 4 ¹⁵ / ₁₆ | SR | 4 ⁷ / ₁₆ | SR | 6766 | 6962 | 7099 | | | | | | | | | |
| 730 | 0.25 | 0.25 | 5 ⁷ / ₁₆ | SR | 4 ¹⁵ / ₁₆ | SR | 8295 | 8104 | 8705 | | | | | | | | | |
| 807 | 0.25 | 0.25 | 5 ⁷ / ₁₆ | SR | 5 ⁷ / ₁₆ | SR | 8060 | 9224 | 8463 | | | | | | | | | |
| 890 | 0.25 | 0.25 | 5 ¹⁵ / ₁₆ | SR | 5 ¹⁵ / ₁₆ | SR | 9581 | 11012 | 10059 | | | | | | | | | |

Bearing Types: B = Ball Bearing R = Unit Roller Bearings SR = Spherical Roller Bearings with Split Pillow Block Housings

Features & Weights

DWDI Class I & II

| SIZE | HOUSING | | SHAFT DIAMETER & BEARINGS | | | | | | BARE FAN WEIGHT (LB) | |
|------|---------|--------|---------------------------------|---------------------------------|--------------|---------------------------------|---------------------------------|--------------|----------------------|----------|
| | SIDES | SCROLL | CLASS I | | | CLASS II | | | ARR 3 | |
| | | | SHAFT DIAMETER | | BEARING TYPE | SHAFT DIAMETER | | BEARING TYPE | CLASS I | CLASS II |
| | | | @ BRG. | @ WHEEL | | @ BRG. | @ WHEEL | | | |
| 122 | 14 | 14 | 1 ³ / ₁₆ | 1 ³ / ₁₆ | B | 1 ⁷ / ₁₆ | 1 ⁷ / ₁₆ | B | 145 | 159 |
| 135 | 14 | 14 | 1 ³ / ₁₆ | 1 ³ / ₁₆ | B | 1 ¹¹ / ₁₆ | 1 ¹¹ / ₁₆ | B | 165 | 181 |
| 150 | 14 | 14 | 1 ⁷ / ₁₆ | 1 ⁷ / ₁₆ | B | 1 ¹¹ / ₁₆ | 1 ¹¹ / ₁₆ | B | 201 | 220 |
| 165 | 14 | 14 | 1 ⁷ / ₁₆ | 1 ⁷ / ₁₆ | B | 1 ¹⁵ / ₁₆ | 1 ¹⁵ / ₁₆ | B | 231 | 254 |
| 182 | 12 | 14 | 1 ¹¹ / ₁₆ | 1 ¹¹ / ₁₆ | B | 1 ¹⁵ / ₁₆ | 1 ¹⁵ / ₁₆ | B | 279 | 302 |
| 200 | 12 | 14 | 1 ¹¹ / ₁₆ | 1 ¹¹ / ₁₆ | B | 2 ³ / ₁₆ | 2 ³ / ₁₆ | B | 327 | 350 |
| 222 | 12 | 14 | 1 ¹⁵ / ₁₆ | 1 ¹⁵ / ₁₆ | B | 2 ⁷ / ₁₆ | 2 ⁷ / ₁₆ | B | 422 | 472 |
| 245 | 12 | 14 | 2 ³ / ₁₆ | 2 ³ / ₁₆ | B | 2 ⁷ / ₁₆ | 2 ⁷ / ₁₆ | B | 463 | 527 |
| 270 | 12 | 14 | 2 ³ / ₁₆ | 2 ³ / ₁₆ | B | 2 ¹¹ / ₁₆ | 2 ¹¹ / ₁₆ | R | 686 | 756 |
| 300 | 10 | 12 | 2 ⁷ / ₁₆ | 2 ⁷ / ₁₆ | B | 2 ⁷ / ₁₆ | 2 ¹⁵ / ₁₆ | R | 971 | 1024 |
| 330 | 10 | 12 | 2 ⁷ / ₁₆ | 2 ⁷ / ₁₆ | B | 2 ⁷ / ₁₆ | 3 ⁷ / ₁₆ | R | 1107 | 1155 |
| 365 | 10 | 12 | 2 ¹¹ / ₁₆ | 2 ¹¹ / ₁₆ | B | 2 ¹¹ / ₁₆ | 3 ⁷ / ₁₆ | R | 1467 | 1556 |
| 402 | 10 | 12 | 2 ⁷ / ₁₆ | 2 ¹⁵ / ₁₆ | R | 2 ¹¹ / ₁₆ | 3 ⁷ / ₁₆ | R | 1844 | 1940 |
| 445 | 10 | 12 | 2 ⁷ / ₁₆ | 3 ⁷ / ₁₆ | R | 2 ¹⁵ / ₁₆ | 3 ¹⁵ / ₁₆ | R | 2227 | 2366 |
| 490 | 10 | 12 | 2 ¹¹ / ₁₆ | 3 ⁷ / ₁₆ | R | 3 ⁷ / ₁₆ | 3 ¹⁵ / ₁₆ | R | 2446 | 2573 |
| 542 | 10 | 12 | 2 ¹⁵ / ₁₆ | 3 ¹⁵ / ₁₆ | R | 3 ⁷ / ₁₆ | 4 ⁷ / ₁₆ | R | 3107 | 3343 |
| 600 | 10 | 12 | 3 ⁷ / ₁₆ | 4 ⁷ / ₁₆ | R | 3 ¹⁵ / ₁₆ | 4 ¹⁵ / ₁₆ | R | 4365 | 4707 |
| 660 | 10 | 12 | 3 ⁷ / ₁₆ | 4 ⁷ / ₁₆ | R | 3 ¹⁵ / ₁₆ | 4 ¹⁵ / ₁₆ | R | 5732 | 6217 |
| 730 | 10 | 10 | 3 ¹⁵ / ₁₆ | 4 ¹⁵ / ₁₆ | R | 3 ¹⁵ / ₁₆ | 5 ¹⁵ / ₁₆ | R | 6427 | 7059 |
| 807 | 10 | 10 | 3 ¹⁵ / ₁₆ | 5 ⁷ / ₁₆ | R | 4 ⁷ / ₁₆ | 6 ⁷ / ₁₆ | SR | 7883 | 8660 |
| 890 | 7 | 10 | 3 ¹⁵ / ₁₆ | 5 ¹⁵ / ₁₆ | R | 4 ⁷ / ₁₆ | 6 ¹⁵ / ₁₆ | SR | 9395 | 10446 |
| 982 | 7 | 7 | 4 ¹⁵ / ₁₆ | 6 ⁷ / ₁₆ | SR | 5 ⁷ / ₁₆ | 7 ¹ / ₂ | SR | 11585 | 12762 |

Bearing Types: B = Ball Bearing R = Unit Roller Bearings SR = Spherical Roller Bearings with Split Pillow Block Housings

DWDI Class III & IV

| SIZE | HOUSING | | | | SHAFT DIAMETER & BEARINGS | | | | | | BARE FAN WEIGHT (LB) | |
|------|-----------------|--------|-----------------|--------|---------------------------------|---------------------------------|--------------|---------------------------------|---------------------------------|--------------|----------------------|----------|
| | CLASS III | | CLASS IV | | CLASS III | | | CLASS IV | | | ARR 3 | |
| | SIDES | SCROLL | SIDES | SCROLL | SHAFT DIAMETER | | BEARING TYPE | SHAFT DIAMETER | | BEARING TYPE | CLASS III | CLASS IV |
| | | | | | @ BRG. | @ WHEEL | | @ BRG. | @ WHEEL | | | |
| 122 | CONSULT FACTORY | | CONSULT FACTORY | | CONSULT FACTORY | | | CONSULT FACTORY | | | NA | NA |
| 135 | | | | | | | | | | | NA | NA |
| 150 | | | | | | | | | | | NA | NA |
| 165 | | | | | | | | | | | NA | NA |
| 182 | 10 | 10 | 7 | 7 | 2 ³ / ₁₆ | 2 ³ / ₁₆ | R | NA | R | 435 | NA | |
| 200 | 10 | 10 | 7 | 7 | 2 ⁷ / ₁₆ | 2 ⁷ / ₁₆ | R | | | 590 | NA | |
| 222 | 10 | 10 | 7 | 7 | 2 ⁷ / ₁₆ | 2 ⁷ / ₁₆ | R | | | 751 | NA | |
| 245 | 7 | 7 | 7 | 7 | 2 ⁷ / ₁₆ | 2 ¹⁵ / ₁₆ | R | | | 812 | NA | |
| 270 | 7 | 7 | 7 | 7 | 2 ¹¹ / ₁₆ | 3 ⁷ / ₁₆ | R | 2 ¹⁵ / ₁₆ | 3 ¹⁵ / ₁₆ | R | 1122 | 1229 |
| 300 | 7 | 7 | 7 | 7 | 2 ¹¹ / ₁₆ | 3 ⁷ / ₁₆ | R | 2 ¹⁵ / ₁₆ | 4 ⁷ / ₁₆ | R | 1529 | 1669 |
| 330 | 7 | 7 | 0.25 | 0.25 | 2 ¹⁵ / ₁₆ | 3 ⁷ / ₁₆ | R | 3 ⁷ / ₁₆ | 4 ¹⁵ / ₁₆ | R | 1668 | 1848 |
| 365 | 7 | 7 | 0.25 | 0.25 | 2 ¹⁵ / ₁₆ | 3 ¹⁵ / ₁₆ | R | 3 ⁷ / ₁₆ | 4 ¹⁵ / ₁₆ | R | 2075 | 2327 |
| 402 | 7 | 7 | 0.25 | 0.25 | 3 ⁷ / ₁₆ | 3 ¹⁵ / ₁₆ | R | 3 ¹⁵ / ₁₆ | 5 ⁷ / ₁₆ | R | 2619 | 2902 |
| 445 | 7 | 7 | 0.25 | 0.25 | 3 ⁷ / ₁₆ | 4 ⁷ / ₁₆ | R | 3 ¹⁵ / ₁₆ | 5 ⁷ / ₁₆ | R | 3359 | 3755 |
| 490 | 7 | 7 | 0.25 | 0.25 | 3 ¹⁵ / ₁₆ | 4 ¹⁵ / ₁₆ | R | 4 ⁷ / ₁₆ | 5 ⁷ / ₁₆ | SR | 3705 | 4066 |
| 542 | 7 | 7 | 0.25 | 0.25 | 3 ¹⁵ / ₁₆ | 5 ⁷ / ₁₆ | R | 4 ⁷ / ₁₆ | 5 ¹⁵ / ₁₆ | SR | 4629 | 5097 |
| 600 | 7 | 7 | 0.25 | 0.25 | 4 ⁷ / ₁₆ | 5 ⁷ / ₁₆ | SR | 4 ¹⁵ / ₁₆ | 6 ⁷ / ₁₆ | SR | 6479 | 7064 |
| 660 | 7 | 7 | 0.25 | 0.25 | 4 ¹⁵ / ₁₆ | 5 ¹⁵ / ₁₆ | SR | 5 ⁷ / ₁₆ | 6 ⁷ / ₁₆ | SR | 8614 | 9574 |
| 730 | 7 | 7 | 0.25 | 0.25 | 4 ¹⁵ / ₁₆ | 6 ¹⁵ / ₁₆ | SR | 5 ¹⁵ / ₁₆ | 7 ¹ / ₂ | SR | 9999 | 10881 |
| 807 | 7 | 7 | 0.25 | 0.25 | — | — | SR | — | — | SR | 12223 | 12300 |
| 890 | 7 | 7 | 0.25 | 0.25 | — | — | SR | — | — | SR | 14547 | 15731 |
| 982 | 7 | 7 | 0.25 | 0.25 | — | — | — | — | — | — | NA | NA |

Bearing Types: B = Ball Bearing R = Unit Roller Bearings SR = Spherical Roller Bearings with Split Pillow Block Housings

CAE SWSI | Size 150

Outlet Area - 1.29 ft²

Wheel Dia. - 15.00 inches

Tip Speed - 3.93 x RPM

Fan Efficiency Grade = FEG80
Max. BHP = 0.125 (RPM÷1000)³

Table with columns: CFM, OV, 0.25" SP, 0.50" SP, 0.75" SP, 1" SP, 1.5" SP, 2" SP, 2.5" SP, 3" SP, 3.5" SP, 4" SP, 4.5" SP. Rows include CFM values from 800 to 3400.

Table with columns: CFM, OV, 5" SP, 5.5" SP, 6" SP, 7" SP, 8" SP, 9" SP, 10" SP, 11" SP, 12" SP, 13" SP, 14" SP. Rows include CFM values from 2580 to 5418.

MAXIMUM RPM: Class I — 3260 Class II — 4253 Selections above 4000 RPM not recommended. Consult factory.

CAE SWSI | Size 165

Outlet Area - 1.57 ft²

Wheel Dia. - 16.50 inches

Tip Speed - 4.32 x RPM

Fan Efficiency Grade = FEG85
Max. BHP = 0.222 (RPM÷1000)³

Table with columns: CFM, OV, 0.25" SP, 0.50" SP, 0.75" SP, 1" SP, 1.5" SP, 2" SP, 2.5" SP, 3" SP, 3.5" SP, 4" SP, 4.5" SP. Rows include CFM values from 800 to 3400.

Table with columns: CFM, OV, 5" SP, 5.5" SP, 6" SP, 7" SP, 8" SP, 9" SP, 10" SP, 11" SP, 12" SP, 13" SP, 14" SP. Rows include CFM values from 3140 to 6594.

MAXIMUM RPM: Class I — 2673 Class II — 3487

Performance certified is for installation Type B & D: Free or ducted inlet, ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Legend:

- Class I = Regular face to left of Class II
Class II = Regular face in light shaded area
Class III = Italic face to right of Class II
Class IV = Italic face in darker shaded area
Max. Static Efficiency = Underlined

CAE DWDI | Size 222

Fan Efficiency Grade = FEG90
Max. BHP = 2.17 (RPM÷1000)³

Outlet Area - 5.12 ft² Wheel Dia. - 22.25 inches Tip Speed - 5.83 x RPM

Table with 12 columns for SP (0.5" to 14") and 2 rows for CFM and OV. Includes performance data for various RPM and BHP values.

MAXIMUM RPM: Class I — 1837 Class II — 2395 Class III — 3020 Class IV — 3347

CAE DWDI | Size 245

Fan Efficiency Grade = FEG85
Max. BHP = 3.51 (RPM÷1000)³

Outlet Area - 6.21 ft² Wheel Dia. - 24.50 inches Tip Speed - 6.41 x RPM

Table with 12 columns for SP (0.5" to 14") and 2 rows for CFM and OV. Includes performance data for various RPM and BHP values.

MAXIMUM RPM: Class I — 1668 Class II — 2175 Class III — 2742 Class IV — 3039

CAE DWDI | Size 270

Fan Efficiency Grade = FEG90
Max. BHP = 5.43 (RPM÷1000)³

Outlet Area - 7.54 ft² Wheel Dia. - 27.00 inches Tip Speed - 7.07 x RPM

Table with 12 columns for SP (0.5" to 14") and 2 rows for CFM and OV. Includes performance data for various RPM and BHP values.

MAXIMUM RPM: Class I — 1541 Class II — 2009 Class III — 2533 Class IV — 2756

Performance certified is for installation Type B & D: Free or ducted inlet, ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Legend:

- Class I = Regular face to left of Class II
Class II = Regular face in light shaded area
Class III = Italic face to right of Class II
Class IV = Italic face in darker shaded area
Max. Static Efficiency = Underlined

CAE DWDI | Size 402

Fan Efficiency Grade = FEG90

Outlet Area - 16.77 ft² Wheel Dia. - 40.25 inches Tip Speed - 10.54 x RPM Max. BHP = 41.68 (RPM÷1000)³

Table with columns: CFM, OV, 0.5" SP, 1" SP, 2" SP, 3" SP, 4" SP, 5" SP, 6" SP, 8" SP, 10" SP, 12" SP, 14" SP. Each sub-column contains RPM and BHP values.

MAXIMUM RPM: Class I — 1010 Class II — 1317 Class III — 1661 Class IV — 1850

CAE DWDI | Size 445

Fan Efficiency Grade = FEG90

Outlet Area - 20.49 ft² Wheel Dia. - 44.50 inches Tip Speed - 11.65 x RPM Max. BHP = 68.85 (RPM÷1000)³

Table with columns: CFM, OV, 0.5" SP, 1" SP, 2" SP, 3" SP, 4" SP, 5" SP, 6" SP, 8" SP, 10" SP, 12" SP, 14" SP. Each sub-column contains RPM and BHP values.

MAXIMUM RPM: Class I — 914 Class II — 1191 Class III — 1502 Class IV — 1673

CAE DWDI | Size 490

Fan Efficiency Grade = FEG90

Outlet Area - 24.85 ft² Wheel Dia. - 49.00 inches Tip Speed - 12.83 x RPM Max. BHP = 111.4 (RPM÷1000)³

Table with columns: CFM, OV, 0.5" SP, 1" SP, 2" SP, 3" SP, 4" SP, 5" SP, 6" SP, 8" SP, 10" SP, 12" SP, 14" SP. Each sub-column contains RPM and BHP values.

MAXIMUM RPM: Class I — 830 Class II — 1082 Class III — 1364 Class IV — 1520

Performance certified for installation Type B & D: Free or ducted inlet, ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Legend:

- Class I = Regular face to left of Class II Class III = *Italic face* to right of Class II
Class II = *Regular face* in light shaded area Class IV = *Italic face* in darker shaded area
Max. Static Efficiency = Underlined

CAE DWDI | Size 982

Outlet Area - 99.90 ft² Wheel Dia. - 98.25 inches Tip Speed - 25.72 x RPM

Fan Efficiency Grade = FEG90
Max. BHP = 3611 (RPM÷1000)³

| CFM | OV | 0.5" SP | | 1" SP | | 2" SP | | 3" SP | | 4" SP | | 5" SP | | 6" SP | | 8" SP | | 10" SP | | 12" SP | | 14" SP | |
|--------|------|------------|-------------|------------|--------------|------------|--------------|------------|---------------|------------|---------------|------------|---------------|------------|---------------|------------|---------------|--------|-----|--------|-----|--------|-----|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 79920 | 800 | <u>130</u> | <u>7.92</u> | | | | | | | | | | | | | | | | | | | | |
| 99900 | 1000 | 144 | 10.68 | <u>177</u> | <u>19.67</u> | | | | | | | | | | | | | | | | | | |
| 119880 | 1200 | 159 | 14.00 | | | 245 | 49.01 | | | | | | | | | | | | | | | | |
| 139860 | 1400 | 176 | 18.41 | 202 | 29.52 | <u>250</u> | <u>55.28</u> | | | | | | | | | | | | | | | | |
| 159840 | 1600 | 194 | 23.92 | 218 | 36.45 | <u>260</u> | <u>63.40</u> | 303 | 96.11 | | | | | | | | | | | | | | |
| 179820 | 1800 | 212 | 30.36 | 234 | 44.14 | 273 | 73.36 | <u>310</u> | <u>106.53</u> | 349 | 145.31 | | | | | | | | | | | | |
| 199800 | 2000 | 230 | 37.83 | 251 | 53.28 | 287 | 84.57 | 321 | 119.40 | <u>354</u> | <u>157.36</u> | 390 | 202.23 | | | | | | | | | | |
| 219780 | 2200 | 249 | 46.99 | 268 | 63.47 | 303 | 98.31 | 334 | 134.36 | <u>364</u> | <u>173.65</u> | 395 | 217.65 | 427 | 265.90 | | | | | | | | |
| 239760 | 2400 | 268 | 57.53 | 286 | 75.59 | 319 | 113.07 | 348 | 151.07 | 376 | 191.97 | <u>404</u> | <u>236.85</u> | <u>432</u> | <u>284.38</u> | 491 | 394.49 | | | | | | |
| 259740 | 2600 | 287 | 69.57 | 304 | 89.08 | 336 | 130.11 | 364 | 171.30 | 390 | 213.65 | 416 | 259.92 | <u>441</u> | <u>307.65</u> | 495 | 418.23 | | | | | | |
| 279720 | 2800 | 307 | 84.02 | 323 | 105.02 | 352 | 147.28 | 379 | 191.23 | 404 | 236.14 | 429 | 284.87 | 452 | 333.25 | 500 | 442.22 | | | | | | |
| 299700 | 3000 | 326 | 99.47 | 341 | 121.66 | 370 | 168.44 | 396 | 215.50 | 420 | 263.18 | 443 | 312.49 | 465 | 363.00 | 509 | 472.99 | | | | | | |
| 319680 | 3200 | 346 | 117.76 | 360 | 141.16 | 387 | 189.88 | 412 | 239.64 | 435 | 289.62 | 457 | 341.01 | 479 | 395.73 | <u>520</u> | <u>507.19</u> | | | | | | |
| 339660 | 3400 | 366 | 138.20 | 379 | 162.66 | 405 | 214.55 | 429 | 267.11 | 452 | 321.57 | 473 | 375.21 | 493 | 429.46 | 533 | 546.82 | | | | | | |
| 379620 | 3800 | 406 | 186.06 | 418 | 213.63 | 441 | 269.84 | 464 | 329.63 | 485 | 388.66 | 505 | 448.49 | 524 | 508.66 | | | | | | | | |
| 419580 | 4200 | 446 | 244.06 | 457 | 274.46 | 479 | 337.96 | 499 | 400.48 | 519 | 465.94 | 538 | 531.78 | | | | | | | | | | |

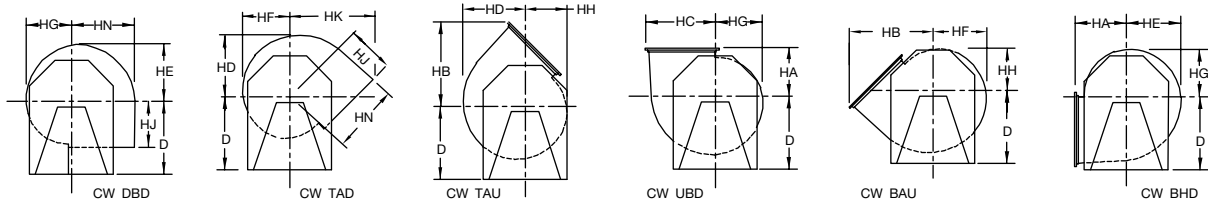
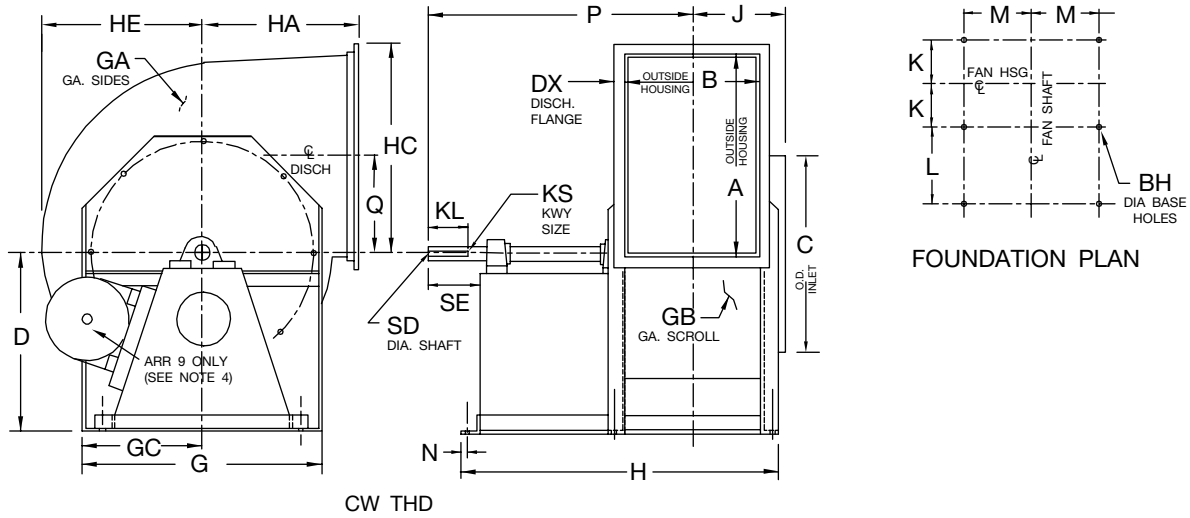
MAXIMUM RPM: Class I — 414 Class II — 539

Performance certified is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (BHP) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Legend:

Class I = Regular face to left of Class II Class III = *Italic face* to right of Class II
Class II = Regular face in light shaded area Class IV = *Italic face* in darker shaded area
Max. Static Efficiency = Underlined

Arrangement 1 & 9, SWSI Rotatable, Class I & II Sizes 122-270



NOTES:

1. Discharge angles are included on all discharges except 'TAD' and 'DBD'.
2. "CW" rotation is shown. "CCW" rotation is similar but opposite.
- * 3. Shaft diameter is increased to 1.187 on hi-temp fans that require shaft coolers.
4. Standard Arr. 9 motor location is on the left for 'CW' rotation units and on the right for 'CCW' rotation. Dim 'FR' equals max. motor frame.

Arrangement 1 & 9, SWSI Rotatable, Class I & II

Sizes 122-270

| SIZE | A | B | BH | C | D | DX | FR ARR. 9 | G | GA | GB | GC | H | | HA |
|------|-------|-------|------|-------|-------|------|--------------|-------|----|----|-------|--------|--------|-------|
| | | | | | | | | | | | | ARR. 1 | ARR. 9 | |
| 122 | 13.00 | 9.75 | 0.44 | 13.25 | 14.50 | 1.00 | 145T | 16.00 | 14 | 14 | 8.00 | 22.50 | 27.00 | 9.75 |
| 135 | 14.31 | 10.81 | 0.44 | 14.56 | 15.75 | 1.00 | 184T | 17.50 | 14 | 14 | 8.75 | 24.13 | 30.63 | 10.75 |
| 150 | 15.88 | 11.94 | 0.44 | 16.19 | 17.75 | 1.00 | 184T | 19.00 | 14 | 14 | 9.50 | 26.75 | 31.75 | 11.94 |
| 165 | 17.44 | 13.19 | 0.44 | 17.75 | 19.00 | 1.00 | 215T | 20.50 | 14 | 14 | 10.25 | 28.75 | 36.13 | 13.13 |
| 182 | 19.38 | 14.56 | 0.44 | 19.50 | 21.00 | 1.25 | 254T | 22.50 | 12 | 14 | 11.25 | 31.13 | 41.88 | 14.50 |
| 200 | 21.19 | 15.94 | 0.56 | 21.38 | 22.75 | 1.25 | 254T | 25.00 | 12 | 14 | 12.50 | 33.50 | 43.25 | 15.81 |
| 222 | 23.56 | 17.69 | 0.56 | 23.75 | 25.50 | 1.25 | 256T | 27.25 | 12 | 14 | 13.63 | 38.25 | 45.25 | 17.69 |
| 245 | 25.94 | 19.44 | 0.56 | 26.06 | 28.00 | 1.25 | 256T | 29.75 | 12 | 14 | 14.88 | 41.50 | 47.00 | 19.50 |
| 270 | 28.63 | 21.38 | 0.56 | 28.50 | 30.50 | 1.50 | 284T | 33.00 | 12 | 14 | 16.50 | 45.38 | 51.75 | 21.44 |

| SIZE | HB | HC | HD | HE | HF | HG | HH | HJ | HK | HN | J | K | KL | KS | |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------------|-------------|
| | | | | | | | | | | | | | | CL I | CL II |
| 122 | 16.75 | 13.94 | 11.19 | 10.56 | 9.94 | 9.31 | 8.69 | 9.25 | 15.69 | 12.94 | 7.44 | 5.75 | 2.50 | 0.25 x 0.13 | 0.25 x 0.13 |
| 135 | 18.38 | 15.25 | 12.31 | 11.63 | 10.94 | 10.25 | 9.56 | 10.25 | 17.31 | 14.25 | 8.00 | 6.31 | 2.50 | 0.25 x 0.13 | 0.25 x 0.13 |
| 150 | 20.31 | 16.81 | 13.75 | 12.88 | 12.13 | 11.38 | 10.63 | 11.44 | 19.25 | 15.81 | 9.06 | 6.88 | 3.00 | 0.25 x 0.13 | 0.25 x 0.13 |
| 165 | 22.25 | 18.38 | 15.06 | 14.13 | 13.31 | 12.50 | 11.69 | 12.63 | 21.19 | 17.38 | 9.69 | 7.50 | 3.00 | 0.25 x 0.13 | 0.25 x 0.13 |
| 182 | 24.81 | 20.56 | 16.69 | 15.69 | 14.75 | 13.81 | 12.88 | 14.00 | 23.56 | 19.31 | 10.88 | 8.19 | 3.50 | 0.25 x 0.13 | 0.38 x 0.19 |
| 200 | 27.00 | 22.38 | 18.38 | 17.31 | 16.25 | 15.19 | 14.13 | 15.31 | 25.75 | 21.13 | 11.56 | 8.88 | 3.50 | 0.38 x 0.19 | 0.38 x 0.19 |
| 222 | 30.00 | 24.75 | 20.44 | 19.06 | 17.94 | 16.81 | 15.69 | 17.19 | 28.75 | 23.50 | 12.44 | 10.00 | 4.00 | 0.38 x 0.19 | 0.38 x 0.19 |
| 245 | 33.00 | 27.13 | 22.38 | 21.00 | 19.75 | 18.50 | 17.25 | 19.00 | 31.75 | 25.88 | 13.31 | 10.88 | 4.50 | 0.38 x 0.19 | 0.38 x 0.19 |
| 270 | 36.44 | 30.06 | 24.69 | 23.19 | 21.81 | 20.44 | 19.06 | 20.94 | 35.00 | 28.56 | 14.25 | 11.81 | 4.50 | 0.38 x 0.19 | 0.38 x 0.19 |

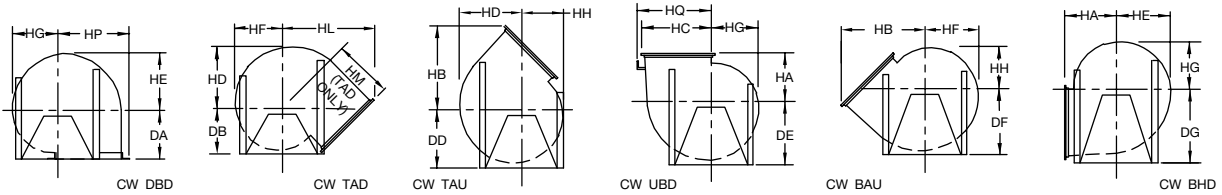
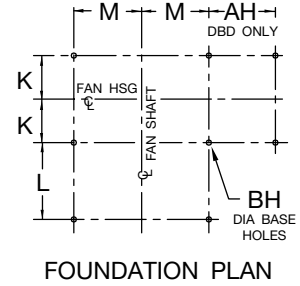
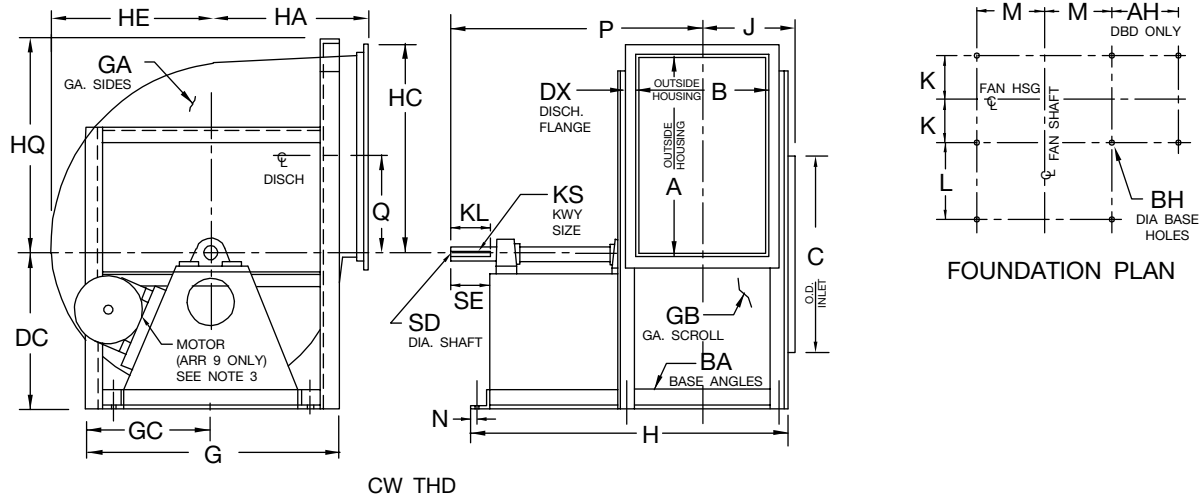
| SIZE | L | | M | N | P | | Q | SD | | SE |
|------|--------|--------|-------|------|--------|--------|-------|-------|-------|------|
| | ARR. 1 | ARR. 9 | | | ARR. 1 | ARR. 9 | | CL I | CL II | |
| 122 | 10.00 | 14.50 | 6.75 | 0.50 | 18.00 | 22.50 | 6.44 | 1.00 | 1.00* | 3.25 |
| 135 | 10.50 | 17.00 | 7.38 | 0.50 | 19.06 | 25.56 | 7.13 | 1.00 | 1.00* | 3.25 |
| 150 | 12.00 | 17.00 | 8.25 | 0.50 | 21.63 | 26.63 | 7.88 | 1.00 | 1.19 | 3.75 |
| 165 | 12.50 | 19.88 | 8.75 | 0.63 | 22.38 | 29.75 | 8.69 | 1.00* | 1.19 | 3.75 |
| 182 | 13.50 | 24.25 | 9.63 | 0.63 | 24.56 | 35.31 | 9.63 | 1.19 | 1.44 | 4.25 |
| 200 | 14.50 | 24.25 | 10.63 | 0.63 | 26.25 | 36.00 | 10.56 | 1.44 | 1.44 | 4.25 |
| 222 | 16.50 | 23.50 | 11.75 | 0.88 | 30.13 | 37.13 | 11.75 | 1.44 | 1.44 | 4.75 |
| 245 | 18.00 | 23.50 | 12.88 | 0.88 | 33.00 | 38.50 | 12.94 | 1.44 | 1.69 | 5.25 |
| 270 | 20.00 | 26.38 | 14.13 | 0.88 | 35.94 | 42.31 | 14.25 | 1.69 | 1.69 | 5.25 |

AC9237E - ARR. 1
AC9239F - ARR. 9

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



Arrangement 1 & 9, SWSI Non-Rotatable, Class I & II Sizes 300-982



NOTES:

1. Discharge angles are included on all discharges.
2. "CW" rotation is shown. "CCW" rotation is similar but opposite.
3. Standard Arr. 9 motor location is on the left for "CW" rotation units and on the right for "CCW" rotation. Dimension "FR" equals max. motor frame.
4. For fans with inlet box at 90° or 270° use "BAU" discharge dimension "DF" for centerline height.

Arrangement 1 & 9, SWSI Non-Rotatable, Class I & II

Sizes 300-982

| | SIZE | A | AH | B | BA | BH | C | DA | DB | DC | DD | DE | DF | DG | DX | FR ARR. 9 |
|--------------------|-------|--------|-------|-------------|-------------|-------|--------|-------|-------|-------|-------|-------|-------|--------|------|-----------|
| ARRANGEMENTS 1 & 9 | 300 | 31.81 | 17.25 | 23.81 | 2.50 x 2.50 | 0.56 | 31.63 | 26.75 | 26.75 | 26.75 | 26.75 | 28.50 | 30.00 | 35.50 | 1.50 | 286T |
| | 330 | 35.13 | 19.06 | 26.06 | 2.50 x 2.50 | 0.56 | 34.75 | 30.00 | 30.00 | 30.00 | 30.00 | 31.00 | 32.75 | 39.00 | 1.50 | 324T |
| | 365 | 38.69 | 21.13 | 28.88 | 2.50 x 2.50 | 0.56 | 38.50 | 29.00 | 30.50 | 29.50 | 31.50 | 33.50 | 35.50 | 41.00 | 1.50 | 324T |
| | 402 | 42.63 | 23.31 | 31.81 | 3.00 x 3.00 | 0.81 | 42.44 | 32.00 | 32.50 | 33.00 | 35.25 | 37.00 | 39.50 | 45.50 | 1.50 | 326T |
| | 445 | 47.13 | 25.81 | 35.19 | 3.00 x 3.00 | 0.81 | 46.88 | 35.38 | 36.25 | 35.50 | 38.50 | 40.00 | 43.25 | 50.00 | 1.50 | 364T |
| | 490 | 51.94 | 28.13 | 38.63 | 3.00 x 3.00 | 0.81 | 51.63 | 39.00 | 38.75 | 39.00 | 42.25 | 44.00 | 47.50 | 54.75 | 2.00 | 364T |
| | 542 | 57.38 | 31.81 | 42.88 | 3.00 x 4.00 | 0.81 | 57.13 | 43.06 | 42.25 | 43.50 | 46.50 | 49.00 | 52.25 | 60.25 | 2.00 | 404T |
| | 600 | 63.50 | 34.94 | 47.31 | 3.00 x 4.00 | 0.81 | 63.13 | 47.69 | 45.00 | 48.00 | 51.25 | 54.00 | 57.50 | 66.25 | 2.00 | 404T |
| | 660 | 69.69 | 39.13 | 52.19 | 3.50 x 5.00 | 0.81 | 69.38 | 52.44 | 49.50 | 52.50 | 55.75 | 59.00 | 63.00 | 73.25 | 2.50 | 405T |
| 730 | 77.25 | 42.63 | 57.56 | 3.50 x 5.00 | 0.81 | 76.75 | 58.00 | 54.25 | 57.00 | 61.75 | 64.50 | 69.50 | 80.75 | 2.50 | 405T | |
| ARR. 1 ONLY | 807 | 85.44 | 47.06 | 63.63 | 3.50 x 5.00 | 0.81 | 84.88 | 64.19 | 59.50 | 63.00 | 67.50 | 72.00 | 76.50 | 89.00 | 2.50 | - |
| | 890 | 94.13 | 50.25 | 70.13 | 3.50 x 5.00 | 0.81 | 93.38 | 70.00 | 65.50 | 69.25 | 73.75 | 78.25 | 85.00 | 97.75 | 2.50 | - |
| | 982 | 104.00 | 53.75 | 77.50 | 4.00 x 6.00 | 0.81 | 103.50 | 77.75 | 71.50 | 76.50 | 80.00 | 86.50 | 92.00 | 108.25 | 2.50 | - |

| | SIZE | G | GA | GB | GC | H | HA | HB | HC | HD | HE | HF | HG | HH | HL | HM | HP |
|--------------------|-------|--------|----|-------|--------|--------|-------|--------|--------|-------|-------|-------|-------|--------|--------|-------|--------|
| ARRANGEMENTS 1 & 9 | 300 | 41.00 | 10 | 12 | 20.50 | 55.75 | 23.81 | 40.31 | 33.25 | 27.44 | 25.75 | 24.25 | 22.75 | 21.25 | 47.13 | 33.44 | 34.25 |
| | 330 | 44.00 | 10 | 12 | 22.00 | 60.63 | 26.25 | 44.44 | 36.56 | 30.13 | 28.38 | 26.69 | 25.00 | 23.31 | 51.00 | 35.56 | 37.56 |
| | 365 | 48.00 | 10 | 12 | 24.00 | 63.38 | 29.00 | 48.88 | 40.13 | 33.50 | 31.50 | 29.63 | 27.75 | 25.88 | 55.50 | 38.38 | 41.13 |
| | 402 | 52.50 | 10 | 12 | 26.25 | 67.88 | 32.00 | 53.81 | 44.06 | 37.00 | 34.69 | 32.63 | 30.56 | 28.50 | 60.50 | 41.56 | 45.56 |
| | 445 | 56.50 | 10 | 12 | 28.25 | 72.88 | 35.38 | 59.38 | 48.56 | 40.88 | 38.25 | 36.00 | 33.75 | 31.50 | 65.69 | 44.38 | 50.06 |
| | 490 | 61.50 | 10 | 12 | 30.75 | 76.63 | 39.00 | 65.69 | 53.88 | 44.88 | 42.19 | 39.69 | 37.19 | 34.69 | 72.31 | 48.44 | 54.88 |
| | 542 | 67.00 | 10 | 12 | 33.50 | 87.50 | 43.06 | 72.38 | 59.31 | 49.75 | 46.69 | 43.94 | 41.19 | 38.44 | 78.88 | 52.31 | 61.31 |
| | 600 | 73.00 | 10 | 12 | 36.50 | 91.75 | 47.69 | 80.00 | 65.44 | 55.00 | 51.69 | 48.63 | 45.56 | 42.50 | 86.25 | 56.56 | 67.44 |
| | 660 | 80.00 | 10 | 12 | 40.00 | 101.25 | 52.44 | 88.06 | 72.13 | 60.38 | 56.81 | 53.38 | 49.94 | 46.50 | 94.81 | 62.00 | 74.63 |
| 730 | 88.00 | 10 | 10 | 44.00 | 109.63 | 58.00 | 97.31 | 79.63 | 66.94 | 62.88 | 59.13 | 55.38 | 51.63 | 104.19 | 67.69 | 82.13 | |
| ARR. 1 ONLY | 807 | 95.50 | 10 | 10 | 47.75 | 118.63 | 64.19 | 107.50 | 87.81 | 74.00 | 69.50 | 65.38 | 61.25 | 57.13 | 113.69 | 73.00 | 90.31 |
| | 890 | 106.50 | 7 | 10 | 53.25 | 128.13 | 70.00 | 117.75 | 96.50 | 81.56 | 76.63 | 72.06 | 67.50 | 62.94 | 125.38 | 80.75 | 99.00 |
| | 982 | 122.00 | 7 | 7 | 61.00 | 140.63 | 77.75 | 130.13 | 106.31 | 90.06 | 84.63 | 79.56 | 74.50 | 69.44 | 140.06 | 91.75 | 109.75 |

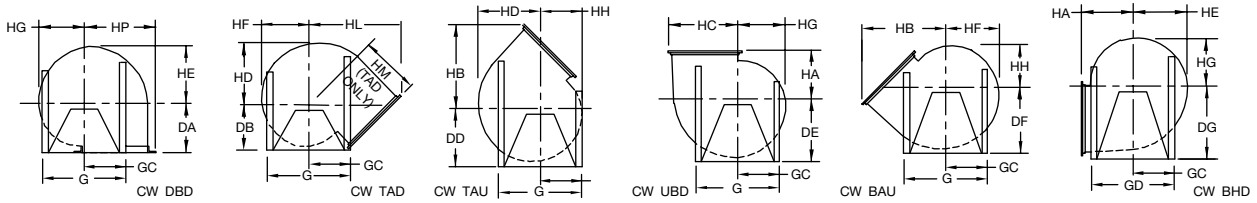
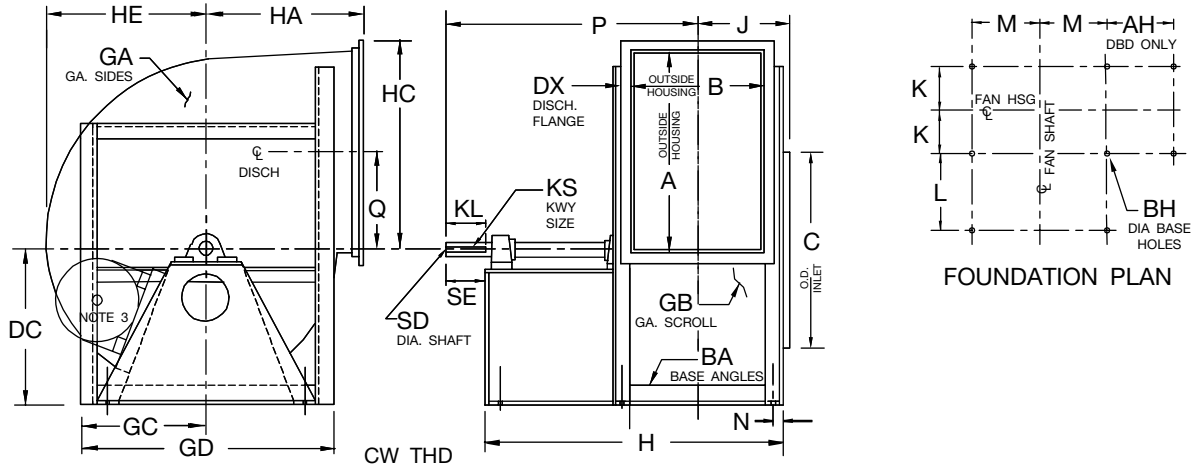
| | SIZE | HQ | J | K | KL | KS | | L | M | N | P | Q | SD | | SE |
|--------------------|-------|--------|-------|-------|-------------|-------------|-------------|-------|-------|-------|-------|-------|------|-------|------|
| | | | | | | CL I | CL II | | | | | | CL I | CL II | |
| ARRANGEMENTS 1 & 9 | 300 | - | 15.50 | 13.31 | 5.00 | 0.50 x 0.25 | 0.50 x 0.25 | 26.88 | 15.88 | 1.13 | 44.56 | 15.81 | 1.94 | 1.94 | 5.75 |
| | 330 | - | 16.63 | 14.44 | 5.00 | 0.50 x 0.25 | 0.50 x 0.25 | 29.50 | 17.38 | 1.13 | 48.31 | 17.50 | 1.94 | 2.19 | 5.75 |
| | 365 | - | 18.00 | 15.81 | 5.00 | 0.50 x 0.25 | 0.63 x 0.31 | 29.50 | 18.88 | 1.13 | 49.69 | 19.25 | 1.94 | 2.44 | 5.75 |
| | 402 | - | 20.00 | 17.56 | 5.00 | 0.50 x 0.25 | 0.63 x 0.31 | 30.00 | 20.88 | 1.38 | 51.69 | 21.25 | 2.19 | 2.44 | 5.75 |
| | 445 | - | 21.69 | 19.25 | 5.50 | 0.63 x 0.31 | 0.63 x 0.31 | 31.63 | 22.88 | 1.38 | 55.50 | 23.50 | 2.44 | 2.69 | 6.25 |
| | 490 | - | 23.38 | 20.94 | 5.50 | 0.63 x 0.31 | 0.75 x 0.38 | 32.00 | 25.38 | 1.38 | 57.56 | 25.88 | 2.69 | 2.94 | 6.25 |
| | 542 | 59.75 | 26.50 | 23.56 | 6.00 | 0.75 x 0.38 | 0.88 x 0.44 | 36.63 | 27.63 | 1.88 | 64.81 | 28.63 | 2.94 | 3.44 | 6.75 |
| | 600 | 65.75 | 28.75 | 25.81 | 6.00 | 0.75 x 0.38 | 0.88 x 0.44 | 36.38 | 30.63 | 1.88 | 66.81 | 31.69 | 2.94 | 3.44 | 6.75 |
| | 660 | 72.25 | 32.19 | 28.75 | 7.00 | 0.88 x 0.44 | 1.00 x 0.50 | 39.00 | 33.13 | 2.38 | 72.88 | 34.75 | 3.44 | 3.94 | 7.75 |
| 730 | 79.75 | 34.94 | 31.44 | 7.50 | 0.88 x 0.44 | 1.00 x 0.50 | 42.00 | 37.13 | 2.38 | 79.06 | 38.50 | 3.44 | 3.94 | 8.25 | |
| ARR. 1 ONLY | 807 | 87.75 | 37.81 | 34.44 | 8.00 | 1.00 x 0.50 | 1.00 x 0.50 | 45.00 | 40.88 | 2.38 | 85.81 | 42.63 | 3.94 | 4.44 | 9.00 |
| | 890 | 96.50 | 41.06 | 37.69 | 8.00 | 1.00 x 0.50 | 1.25 x 0.63 | 48.00 | 46.38 | 2.38 | 92.06 | 46.94 | 3.94 | 4.94 | 9.00 |
| | 982 | 106.75 | 45.75 | 41.88 | 8.00 | 1.25 x 0.63 | 1.25 x 0.63 | 51.13 | 53.13 | 2.88 | 98.88 | 51.81 | 4.94 | 5.44 | 9.00 |

AC9238E - ARR. 1
AC9259G - ARR. 9

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



Arrangement 1 & 9, SWSI Non-Rotatable, Class III Sizes 122-330



NOTES:

1. Discharge angles are included on all discharges.
2. "CW" rotation is shown. "CCW" rotation is similar but opposite.
3. Standard Arr. 9 motor location is on the left for "CW" rotation units and on the right for "CCW" rotation.
4. Arrangement 1 only - For fans Size 182-330 (except TAD 182-200) with inlet box at 90° or 270° use "BAU" discharge dimension "DF" for centerline height.



Arrangement 1 & 9, SWSI Non-Rotatable, Class III

Sizes 122-330

| SIZE | A | AH | B | BA | BH | C | DX | G | GA | GB | GC | GD | FR ARR. 9 | HA | HB |
|------|-------|-------|-------|-------------|------|-------|------|-------|----|----|-------|-------|--------------|-------|-------|
| 122 | 13.13 | 7.63 | 9.88 | 1.50 x 2.00 | 0.44 | 13.25 | 1.25 | 19.75 | 10 | 10 | 9.88 | 18.63 | 215T | 9.75 | 17.00 |
| 135 | 14.44 | 8.31 | 10.94 | 1.50 x 2.00 | 0.44 | 14.56 | 1.25 | 21.00 | 10 | 10 | 10.50 | 19.88 | 256T | 10.75 | 18.63 |
| 150 | 16.00 | 9.00 | 12.06 | 1.50 x 2.00 | 0.44 | 16.19 | 1.25 | 22.75 | 10 | 10 | 11.38 | 21.63 | 256T | 11.94 | 20.56 |
| 165 | 17.56 | 9.81 | 13.31 | 1.50 x 2.00 | 0.44 | 17.75 | 1.25 | 24.25 | 10 | 10 | 12.13 | 23.13 | 256T | 13.13 | 22.50 |
| 182 | 19.50 | 10.88 | 14.63 | 2.00 x 2.00 | 0.56 | 19.50 | 1.25 | 27.00 | 10 | 10 | 13.50 | 27.00 | 286T | 14.50 | 24.81 |
| 200 | 21.31 | 11.69 | 16.00 | 2.00 x 2.00 | 0.56 | 21.38 | 1.25 | 29.00 | 10 | 10 | 14.50 | 29.00 | 326T | 15.81 | 27.06 |
| 222 | 23.69 | 13.44 | 17.75 | 2.50 x 2.50 | 0.56 | 23.75 | 1.25 | 32.25 | 10 | 10 | 16.13 | 32.25 | 326T | 17.69 | 30.06 |
| 245 | 26.19 | 14.63 | 19.63 | 2.50 x 2.50 | 0.56 | 26.06 | 1.50 | 34.50 | 7 | 7 | 17.25 | 34.50 | 326T | 19.50 | 33.25 |
| 270 | 28.88 | 16.19 | 21.56 | 2.50 x 2.50 | 0.56 | 28.50 | 1.50 | 37.00 | 7 | 7 | 18.50 | 37.00 | 365T | 21.44 | 36.50 |
| 300 | 32.00 | 17.81 | 23.94 | 3.00 x 3.00 | 0.81 | 31.63 | 1.50 | 42.00 | 7 | 7 | 21.00 | 42.00 | 365T | 23.81 | 40.38 |
| 330 | 35.31 | 19.63 | 26.19 | 3.00 x 3.00 | 0.81 | 34.75 | 1.50 | 45.00 | 7 | 7 | 22.50 | 45.00 | 365T | 26.25 | 44.44 |

| SIZE | HC | HD | HE | HF | HG | HH | HL | HM | HP | J | K | KS | M | N | Q | SD |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|------|-------|------|
| 122 | 14.25 | 11.25 | 10.63 | 10.00 | 9.38 | 8.75 | 22.94 | 18.19 | 15.00 | 7.94 | 6.06 | 0.38 x 0.19 | 6.50 | 0.88 | 6.44 | 1.44 |
| 135 | 15.56 | 12.38 | 11.69 | 11.00 | 10.31 | 9.63 | 24.50 | 19.06 | 16.31 | 8.50 | 6.63 | 0.38 x 0.19 | 7.13 | 0.88 | 7.13 | 1.44 |
| 150 | 17.13 | 13.81 | 12.94 | 12.19 | 11.44 | 10.69 | 26.50 | 20.31 | 17.88 | 9.06 | 7.19 | 0.38 x 0.19 | 8.00 | 0.88 | 7.88 | 1.69 |
| 165 | 18.69 | 15.13 | 14.19 | 13.38 | 12.56 | 11.75 | 28.31 | 21.38 | 19.44 | 9.69 | 7.81 | 0.38 x 0.19 | 8.75 | 0.88 | 8.69 | 1.69 |
| 182 | 20.63 | 16.75 | 15.75 | 14.81 | 13.88 | 12.94 | 31.06 | 23.31 | 21.38 | 10.31 | 8.44 | 0.38 x 0.19 | 9.63 | 0.88 | 9.63 | 1.69 |
| 200 | 22.44 | 18.38 | 17.38 | 16.31 | 15.25 | 14.19 | 33.31 | 24.69 | 23.19 | 11.00 | 9.13 | 0.50 x 0.25 | 10.63 | 0.88 | 10.56 | 1.94 |
| 222 | 24.81 | 20.50 | 19.13 | 18.00 | 16.88 | 15.75 | 36.69 | 27.06 | 26.06 | 12.38 | 10.25 | 0.50 x 0.25 | 11.50 | 1.13 | 11.75 | 1.94 |
| 245 | 27.50 | 22.50 | 21.13 | 19.88 | 18.63 | 17.38 | 38.88 | 27.50 | 28.50 | 13.31 | 11.19 | 0.50 x 0.25 | 12.63 | 1.13 | 12.94 | 2.19 |
| 270 | 30.19 | 24.81 | 23.31 | 21.94 | 20.56 | 19.19 | 42.06 | 29.25 | 31.19 | 14.31 | 12.19 | 0.50 x 0.25 | 13.88 | 1.13 | 14.25 | 2.19 |
| 300 | 33.31 | 27.50 | 25.81 | 24.31 | 22.81 | 21.31 | 46.75 | 32.81 | 34.81 | 16.00 | 13.63 | 0.63 x 0.31 | 15.63 | 1.38 | 15.81 | 2.44 |
| 330 | 36.63 | 30.19 | 28.44 | 26.75 | 25.06 | 23.38 | 50.63 | 34.94 | 38.13 | 17.13 | 14.75 | 0.63 x 0.31 | 17.13 | 1.38 | 17.50 | 2.69 |

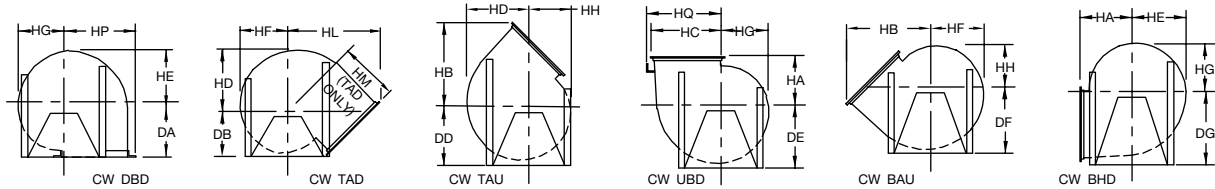
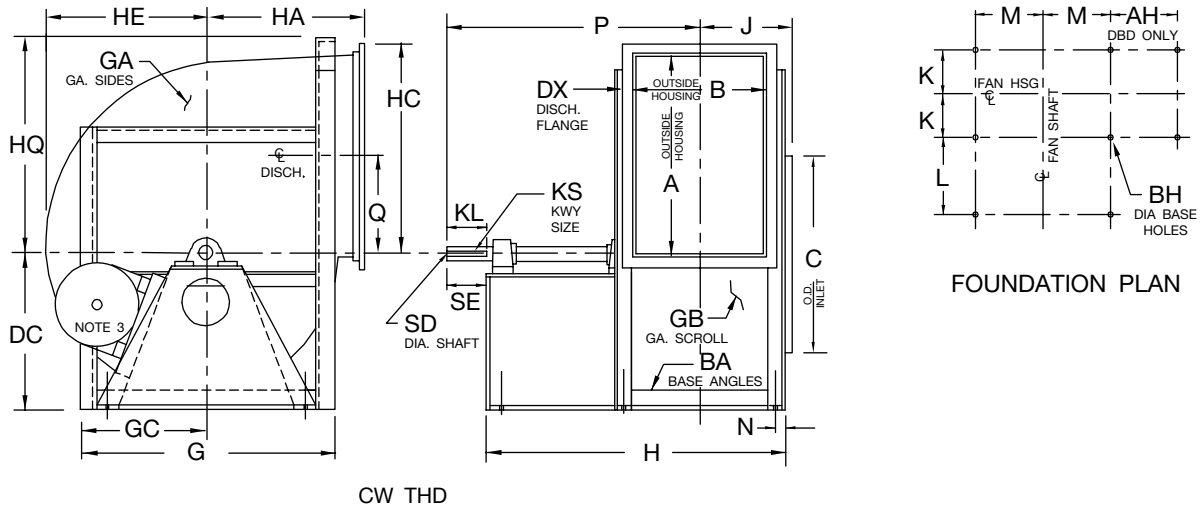
| SIZE | DA | | DB | | DC | | DD | | DE | | DF | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 |
| 122 | 9.75 | 20.75 | 15.25 | 20.75 | 10.25 | 20.75 | 11.00 | 20.75 | 11.50 | 20.75 | 12.25 | 20.75 |
| 135 | 10.75 | 23.50 | 16.00 | 23.50 | 11.25 | 23.50 | 12.00 | 23.50 | 12.75 | 23.50 | 13.25 | 23.50 |
| 150 | 11.94 | 23.75 | 16.75 | 23.75 | 12.25 | 23.75 | 13.25 | 23.75 | 14.00 | 23.75 | 14.75 | 23.75 |
| 165 | 13.13 | 23.75 | 17.50 | 23.75 | 13.50 | 23.75 | 14.50 | 23.75 | 15.25 | 23.75 | 16.25 | 23.75 |
| 182 | 14.50 | 26.25 | 18.50 | 26.25 | 14.75 | 26.25 | 15.75 | 26.25 | 16.75 | 26.25 | 17.75 | 26.25 |
| 200 | 15.81 | 29.50 | 19.50 | 29.50 | 16.25 | 29.50 | 17.25 | 29.50 | 18.25 | 29.50 | 19.25 | 29.50 |
| 222 | 17.69 | 30.00 | 21.00 | 30.00 | 18.00 | 30.00 | 19.25 | 30.00 | 20.50 | 30.00 | 22.00 | 30.00 |
| 245 | 19.50 | 30.25 | 22.00 | 30.25 | 20.00 | 30.25 | 21.25 | 30.25 | 22.50 | 30.25 | 24.00 | 30.25 |
| 270 | 21.44 | 33.00 | 23.50 | 33.00 | 22.00 | 33.00 | 23.50 | 33.00 | 24.75 | 33.00 | 26.25 | 33.00 |
| 300 | 23.81 | 33.50 | 26.00 | 33.50 | 24.50 | 33.50 | 26.00 | 33.50 | 27.50 | 33.50 | 29.50 | 33.50 |
| 330 | 26.25 | 34.00 | 27.75 | 34.00 | 27.00 | 34.00 | 28.50 | 34.00 | 30.00 | 34.00 | 32.25 | 34.00 |

| SIZE | DG | | H | | KL | | L | | P | | SE | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 |
| 122 | 9.75 | 20.75 | 15.25 | 20.75 | 10.25 | 20.75 | 11.00 | 20.75 | 11.50 | 20.75 | 12.25 | 20.75 |
| 135 | 10.75 | 23.50 | 16.00 | 23.50 | 11.25 | 23.50 | 12.00 | 23.50 | 12.75 | 23.50 | 13.25 | 23.50 |
| 150 | 11.94 | 23.75 | 16.75 | 23.75 | 12.25 | 23.75 | 13.25 | 23.75 | 14.00 | 23.75 | 14.75 | 23.75 |
| 165 | 13.13 | 23.75 | 17.50 | 23.75 | 13.50 | 23.75 | 14.50 | 23.75 | 15.25 | 23.75 | 16.25 | 23.75 |
| 182 | 14.50 | 26.25 | 18.50 | 26.25 | 14.75 | 26.25 | 15.75 | 26.25 | 16.75 | 26.25 | 17.75 | 26.25 |
| 200 | 15.81 | 29.50 | 19.50 | 29.50 | 16.25 | 29.50 | 17.25 | 29.50 | 18.25 | 29.50 | 19.25 | 29.50 |
| 222 | 17.69 | 30.00 | 21.00 | 30.00 | 18.00 | 30.00 | 19.25 | 30.00 | 20.50 | 30.00 | 22.00 | 30.00 |
| 245 | 19.50 | 30.25 | 22.00 | 30.25 | 20.00 | 30.25 | 21.25 | 30.25 | 22.50 | 30.25 | 24.00 | 30.25 |
| 270 | 21.44 | 33.00 | 23.50 | 33.00 | 22.00 | 33.00 | 23.50 | 33.00 | 24.75 | 33.00 | 26.25 | 33.00 |
| 300 | 23.81 | 33.50 | 26.00 | 33.50 | 24.50 | 33.50 | 26.00 | 33.50 | 27.50 | 33.50 | 29.50 | 33.50 |
| 330 | 26.25 | 34.00 | 27.75 | 34.00 | 27.00 | 34.00 | 28.50 | 34.00 | 30.00 | 34.00 | 32.25 | 34.00 |

AC9244D - ARR. 1
AC9128E - ARR. 9

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

Arrangement 1 & 9, SWSI Non-Rotatable, Class III Sizes 365-890



NOTES:

1. Discharge angles are included on all discharges.
2. "CW" rotation is shown. "CCW" rotation is similar but opposite.
3. Standard Arr. 9 motor location is on the left for 'CW' rotation units and on the right for 'CCW' rotation. Dim 'FR' equals max. motor frame.
4. For fans with inlet box at 90° or 270° use "BAU" discharge dimension "DF" for centerline height.



Arrangement 1 & 9, SWSI Non-Rotatable, Class III

Sizes 365-890

| SIZE | A | AH | B | BA | BH | C | DX | G | GA | GB | GC | FR ARR. 9 | HA | HB | HC |
|------|-------|-------|-------|-------------|------|-------|-------------|--------|----|----|-------|--------------|-------|--------|-------|
| 365 | 38.88 | 21.69 | 29.00 | 3.00 x 3.00 | 0.81 | 38.50 | 1.50 x 1.50 | 49.00 | 7 | 7 | 24.50 | 405T | 29.00 | 48.94 | 40.19 |
| 402 | 42.81 | 24.38 | 31.94 | 3.00 x 4.00 | 0.81 | 42.44 | 2.00 x 2.00 | 52.50 | 7 | 7 | 26.25 | 405T | 32.00 | 54.19 | 44.63 |
| 445 | 47.31 | 26.88 | 35.31 | 3.00 x 4.00 | 0.81 | 46.88 | 2.00 x 2.00 | 56.50 | 7 | 7 | 28.25 | 405T | 35.38 | 59.75 | 49.13 |
| 490 | 52.13 | 29.19 | 38.75 | 3.00 x 4.00 | 0.81 | 51.63 | 2.00 x 2.00 | 61.50 | 7 | 7 | 30.75 | 405T | 39.00 | 65.69 | 53.94 |
| 542 | 57.56 | 32.88 | 43.00 | 3.50 x 5.00 | 0.81 | 57.13 | 2.50 x 2.50 | 67.00 | 7 | 7 | 33.50 | 405T | 43.06 | 72.81 | 59.88 |
| 600 | 63.69 | 36.00 | 47.44 | 3.50 x 5.00 | 0.81 | 63.13 | 2.50 x 2.50 | 74.00 | 7 | 7 | 37.00 | 405T | 47.69 | 80.38 | 66.00 |
| 660 | 69.88 | 40.19 | 52.31 | 4.00 x 6.00 | 0.81 | 69.38 | 2.50 x 2.50 | 80.00 | 7 | 7 | 40.00 | 405T | 52.44 | 88.13 | 72.19 |
| 730 | 77.38 | 43.69 | 57.69 | 4.00 x 6.00 | 0.81 | 76.75 | 2.50 x 2.50 | 88.00 | 7 | 7 | 44.00 | 405T | 58.00 | 97.38 | 79.69 |
| 807 | 85.56 | 48.13 | 63.75 | 4.00 x 6.00 | 0.81 | 84.88 | 2.50 x 2.50 | 96.50 | 7 | 7 | 48.25 | 405T | 64.19 | 107.50 | 87.88 |
| 890 | 94.25 | 51.31 | 70.13 | 4.00 x 6.00 | 0.81 | 93.38 | 2.50 x 2.50 | 107.50 | 7 | 7 | 53.75 | 405T | 70.00 | 117.75 | 96.56 |

| SIZE | HD | HE | HF | HG | HH | HL | HM | HP | HQ | J | K | KS | M | N | Q | SD |
|------|-------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|-------------|-------|------|-------|------|
| 365 | 33.63 | 31.56 | 29.69 | 27.81 | 25.94 | 55.13 | 37.75 | 41.69 | - | 18.50 | 16.13 | 0.63 x 0.31 | 18.63 | 1.38 | 19.25 | 2.69 |
| 402 | 37.06 | 34.75 | 32.69 | 30.63 | 28.56 | 60.38 | 40.75 | 46.63 | - | 21.00 | 18.13 | 0.75 x 0.38 | 20.38 | 1.88 | 21.25 | 2.94 |
| 445 | 41.00 | 38.31 | 36.06 | 33.81 | 31.56 | 66.56 | 44.94 | 51.13 | - | 22.69 | 19.81 | 0.88 x 0.44 | 22.38 | 1.88 | 23.50 | 3.44 |
| 490 | 44.94 | 42.25 | 39.75 | 37.25 | 34.75 | 72.44 | 48.50 | 55.94 | - | 24.38 | 21.50 | 0.88 x 0.44 | 24.88 | 1.88 | 25.88 | 3.44 |
| 542 | 49.88 | 46.75 | 44.00 | 41.25 | 38.50 | 79.75 | 52.88 | 62.38 | 59.75 | 27.50 | 24.13 | 1.00 x 0.50 | 27.13 | 2.38 | 28.63 | 3.94 |
| 600 | 55.06 | 51.75 | 48.69 | 45.63 | 42.56 | 87.56 | 57.81 | 68.50 | 66.25 | 29.75 | 26.38 | 1.00 x 0.50 | 30.13 | 2.38 | 31.69 | 4.44 |
| 660 | 60.50 | 56.88 | 53.44 | 50.00 | 46.56 | 94.94 | 62.06 | 75.69 | 72.38 | 33.19 | 29.31 | 1.00 x 0.50 | 32.63 | 2.88 | 34.75 | 4.44 |
| 730 | 67.00 | 62.94 | 59.19 | 55.44 | 51.69 | 104.25 | 67.75 | 83.19 | 79.75 | 35.88 | 32.00 | 1.25 x 0.63 | 36.63 | 2.88 | 38.50 | 4.94 |
| 807 | 74.13 | 69.56 | 65.44 | 61.31 | 57.19 | 114.31 | 73.75 | 91.38 | 88.38 | 38.88 | 35.00 | 1.25 x 0.63 | 40.38 | 2.88 | 42.63 | 4.94 |
| 890 | 81.63 | 76.69 | 72.13 | 67.56 | 63.00 | 125.94 | 81.50 | 100.06 | 97.00 | 42.06 | 38.19 | 1.25 x 0.63 | 45.88 | 2.88 | 46.94 | 5.44 |

| SIZE | DA | | DB | | DC | | DD | | DE | | DF | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 |
| 365 | 29.00 | 37.50 | 29.25 | 37.50 | 29.50 | 37.50 | 31.50 | 37.50 | 33.50 | 37.50 | 35.50 | 37.50 |
| 402 | 32.00 | 40.25 | 31.75 | 40.25 | 33.00 | 40.25 | 35.25 | 40.25 | 37.00 | 40.25 | 39.50 | 40.25 |
| 445 | 35.38 | 41.00 | 36.25 | 41.00 | 35.50 | 41.00 | 38.50 | 41.00 | 40.00 | 41.00 | 43.25 | 43.25 |
| 490 | 39.00 | 41.00 | 38.75 | 41.00 | 39.00 | 41.00 | 42.25 | 42.25 | 44.00 | 44.00 | 47.50 | 47.50 |
| 542 | 43.06 | 43.06 | 42.25 | 42.25 | 43.50 | 43.50 | 46.50 | 46.50 | 49.00 | 49.00 | 52.25 | 52.25 |
| 600 | 47.69 | 47.69 | 45.00 | 45.00 | 48.00 | 48.00 | 51.25 | 51.25 | 54.00 | 54.00 | 57.50 | 57.50 |
| 660 | 52.44 | 52.44 | 49.50 | 49.50 | 52.50 | 52.50 | 55.75 | 55.75 | 59.00 | 59.00 | 63.00 | 63.00 |
| 730 | 58.00 | 58.00 | 54.25 | 54.25 | 57.00 | 57.00 | 61.75 | 61.75 | 64.50 | 64.50 | 69.50 | 69.50 |
| 807 | 64.19 | 64.19 | 59.50 | 59.50 | 63.00 | 63.00 | 67.50 | 67.50 | 72.00 | 72.00 | 76.50 | 76.50 |
| 890 | 70.00 | 70.00 | 65.50 | 65.50 | 69.25 | 69.25 | 73.75 | 73.75 | 78.25 | 78.25 | 85.00 | 85.00 |

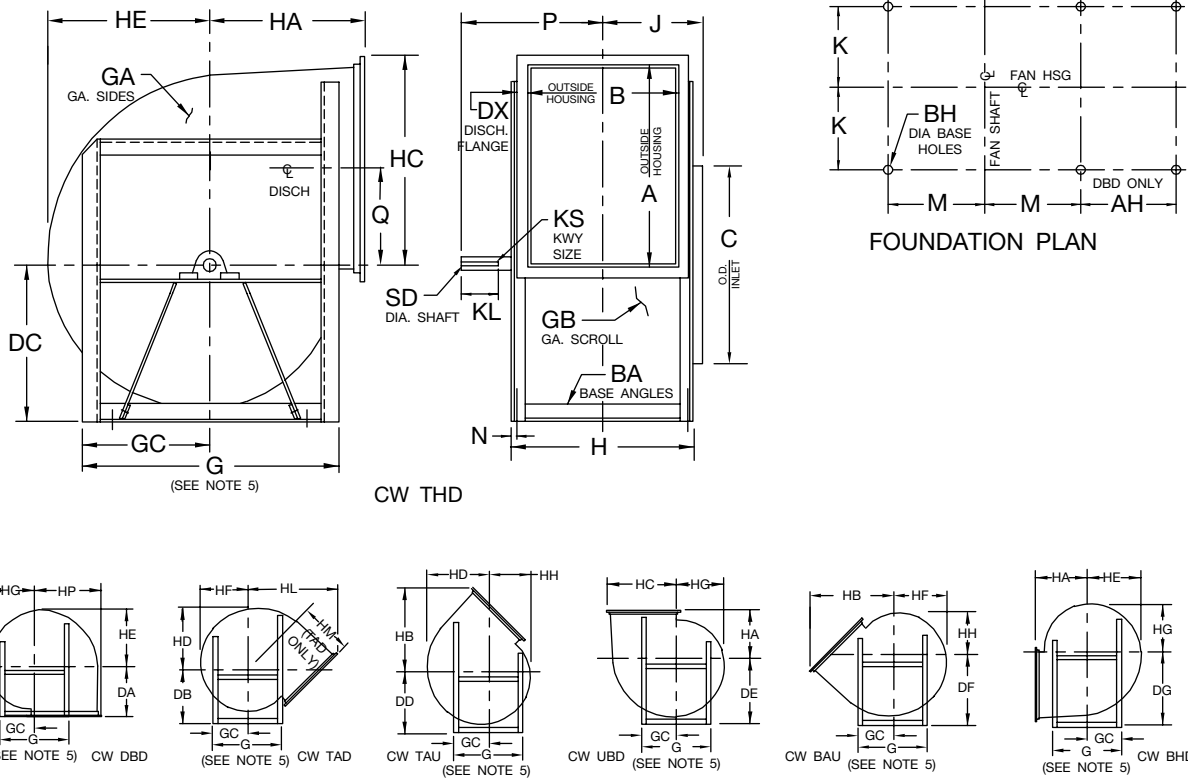
| SIZE | DG | | H | | KL | | L | | P | | SE | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 | ARR. 1 | ARR. 9 |
| 365 | 41.50 | 41.50 | 58.00 | 70.38 | 7.00 | 8.00 | 22.50 | 34.88 | 48.25 | 61.88 | 7.75 | 9.00 |
| 402 | 45.50 | 45.50 | 64.00 | 81.13 | 8.00 | 8.75 | 24.00 | 41.13 | 52.75 | 71.13 | 8.75 | 10.00 |
| 445 | 50.00 | 50.00 | 70.38 | 84.50 | 8.00 | 8.75 | 27.00 | 41.13 | 57.69 | 72.81 | 9.00 | 10.00 |
| 490 | 54.75 | 54.75 | 75.75 | 87.88 | 9.00 | 8.75 | 29.00 | 41.13 | 62.38 | 74.50 | 10.00 | 10.00 |
| 542 | 60.75 | 60.75 | 82.00 | 93.75 | 9.00 | 9.00 | 29.50 | 41.25 | 65.50 | 77.75 | 10.00 | 10.50 |
| 600 | 66.75 | 66.75 | 89.50 | 98.25 | 9.50 | 9.00 | 32.50 | 41.25 | 71.25 | 80.00 | 10.50 | 10.50 |
| 660 | 73.75 | 73.75 | 98.38 | 105.13 | 10.00 | 9.00 | 35.00 | 41.75 | 77.19 | 83.44 | 11.00 | 10.50 |
| 730 | 81.25 | 81.25 | 106.75 | 110.50 | 10.50 | 9.00 | 38.00 | 41.75 | 83.38 | 86.13 | 11.50 | 10.50 |
| 807 | 89.50 | 89.50 | 115.75 | 116.50 | 10.50 | 9.00 | 41.00 | 41.75 | 89.38 | 89.13 | 11.50 | 10.50 |
| 890 | 98.25 | 98.25 | 125.13 | 122.88 | 11.00 | 9.00 | 44.00 | 41.75 | 96.06 | 92.31 | 12.00 | 10.50 |

AC9245E - ARR. 1
AC9129D - ARR. 9

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

Arrangement 3, SWSI Non-Rotatable, Class I & II

Sizes 122-982



NOTES:

1. Discharge angles are included on all discharges.
2. "CW" rotation is shown. "CCW" rotation is similar but opposite.
3. Inlet bearing bar support is removable.
4. Bearing bar supports may extend beyond base angles. See AC1000851 for dimensions if space limitations are required for mounting fan.
5. For Sizes 122, 135 and 150 top horizontal and bottom horizontal discharges, 'G' is 1.25" smaller than indicated in the table.

| SIZE | A | AH | B | BA | BH | C | DA | DB | DC | DD | DE | DF | DG | DX | G | GA | GB | GC |
|------|--------|-------|-------|---------|------|--------|-------|-------|-------|-------|-------|-------|--------|------|--------|----|----|-------|
| 122 | 13.00 | 7.06 | 9.75 | 1.5x1.5 | 0.44 | 13.25 | 9.75 | 15.25 | 10.25 | 11.00 | 11.50 | 12.25 | 15.00 | 1.00 | 19.75* | 14 | 14 | 9.88 |
| 135 | 14.31 | 7.75 | 10.81 | 1.5x1.5 | 0.44 | 14.56 | 10.75 | 16.00 | 11.25 | 12.00 | 12.75 | 13.25 | 16.25 | 1.00 | 21.00* | 14 | 14 | 10.50 |
| 150 | 15.88 | 8.44 | 11.94 | 1.5x1.5 | 0.44 | 16.19 | 11.94 | 16.75 | 12.25 | 13.25 | 14.00 | 14.75 | 18.00 | 1.00 | 22.75* | 14 | 14 | 11.38 |
| 165 | 17.44 | 9.75 | 13.19 | 1.5x2.0 | 0.44 | 17.75 | 13.13 | 17.50 | 13.50 | 14.50 | 15.25 | 16.25 | 19.50 | 1.00 | 24.25 | 14 | 14 | 12.13 |
| 182 | 19.38 | 10.81 | 14.56 | 1.5x2.0 | 0.44 | 19.50 | 14.50 | 18.50 | 14.75 | 15.75 | 16.75 | 17.75 | 21.50 | 1.25 | 26.00 | 12 | 14 | 13.00 |
| 200 | 21.19 | 11.63 | 15.94 | 1.5x2.0 | 0.56 | 21.38 | 15.81 | 19.50 | 16.25 | 17.25 | 18.25 | 19.25 | 23.50 | 1.25 | 28.00 | 12 | 14 | 14.00 |
| 222 | 23.56 | 12.88 | 17.69 | 2.0x2.0 | 0.56 | 23.75 | 17.69 | 21.00 | 18.00 | 19.25 | 20.50 | 22.00 | 26.00 | 1.25 | 31.25 | 12 | 14 | 15.63 |
| 245 | 25.94 | 14.13 | 19.44 | 2.0x2.0 | 0.56 | 26.06 | 19.50 | 22.00 | 20.00 | 21.25 | 22.50 | 24.00 | 28.25 | 1.25 | 33.50 | 12 | 14 | 16.75 |
| 270 | 28.63 | 15.56 | 21.38 | 2.0x2.0 | 0.56 | 28.50 | 21.44 | 23.50 | 22.00 | 23.50 | 24.75 | 26.25 | 31.00 | 1.50 | 36.00 | 12 | 14 | 18.00 |
| 300 | 31.81 | 17.25 | 23.81 | 2.5x2.5 | 0.56 | 31.63 | 23.81 | 26.00 | 24.50 | 26.00 | 28.50 | 29.50 | 34.25 | 1.50 | 41.00 | 10 | 12 | 20.50 |
| 330 | 35.13 | 19.06 | 26.06 | 2.5x2.5 | 0.56 | 34.75 | 26.25 | 27.75 | 27.00 | 28.50 | 31.00 | 32.25 | 37.25 | 1.50 | 44.00 | 10 | 12 | 22.00 |
| 365 | 38.69 | 21.13 | 28.88 | 2.5x2.5 | 0.56 | 38.50 | 29.00 | 30.50 | 29.50 | 31.50 | 33.50 | 35.50 | 41.00 | 1.50 | 48.00 | 10 | 12 | 24.00 |
| 402 | 42.63 | 23.31 | 31.81 | 3.0x3.0 | 0.81 | 42.44 | 32.00 | 32.50 | 33.00 | 35.25 | 37.00 | 39.50 | 45.50 | 1.50 | 52.50 | 10 | 12 | 26.25 |
| 445 | 47.13 | 25.81 | 35.19 | 3.0x3.0 | 0.81 | 46.88 | 35.38 | 36.25 | 35.50 | 38.50 | 40.00 | 43.25 | 50.00 | 1.50 | 56.50 | 10 | 12 | 28.25 |
| 490 | 51.94 | 28.13 | 38.63 | 3.0x3.0 | 0.81 | 51.63 | 39.00 | 38.75 | 39.00 | 42.25 | 44.00 | 47.50 | 54.75 | 2.00 | 61.50 | 10 | 12 | 30.75 |
| 542 | 57.38 | 31.81 | 42.88 | 3.0x4.0 | 0.81 | 57.13 | 43.06 | 42.25 | 43.50 | 46.50 | 49.00 | 52.25 | 60.25 | 2.00 | 67.00 | 10 | 12 | 33.50 |
| 600 | 63.50 | 34.94 | 47.31 | 3.0x4.0 | 0.81 | 63.13 | 47.69 | 45.00 | 48.00 | 51.25 | 54.00 | 57.50 | 66.25 | 2.00 | 73.00 | 10 | 12 | 36.50 |
| 660 | 69.69 | 39.13 | 52.19 | 3.5x5.0 | 0.81 | 69.38 | 52.44 | 49.50 | 52.50 | 55.75 | 59.00 | 63.00 | 73.25 | 2.50 | 80.00 | 10 | 12 | 40.00 |
| 730 | 77.25 | 42.63 | 57.56 | 3.5x5.0 | 0.81 | 76.75 | 58.00 | 54.25 | 57.00 | 61.75 | 64.50 | 69.50 | 80.75 | 2.50 | 88.00 | 10 | 10 | 44.00 |
| 807 | 85.44 | 47.06 | 63.63 | 3.5x5.0 | 0.81 | 84.88 | 64.19 | 59.50 | 63.00 | 67.50 | 72.00 | 76.50 | 89.00 | 2.50 | 95.50 | 10 | 10 | 47.75 |
| 890 | 94.13 | 50.25 | 70.13 | 3.5x5.0 | 0.81 | 93.38 | 70.00 | 65.50 | 69.25 | 73.75 | 78.25 | 85.00 | 97.81 | 2.50 | 106.50 | 7 | 10 | 53.25 |
| 982 | 104.00 | 53.75 | 77.50 | 4.0x6.0 | 0.81 | 103.50 | 77.75 | 71.50 | 76.50 | 80.00 | 86.50 | 92.00 | 108.25 | 2.50 | 122.00 | 7 | 7 | 61.00 |

* For Sizes 122, 135 and 150, see note 5.

Arrangement 3, SWSI Non-Rotatable, Class I & II

Sizes 122-982

| SIZE | H | HA | HB | HC | HD | HE | HF | HG | HH | HL | HM | HP | HQ | J | K | KL |
|------|-------|-------|--------|--------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|-------|------|
| 122 | 12.75 | 9.75 | 16.75 | 13.94 | 11.19 | 10.56 | 9.94 | 9.31 | 8.69 | 22.50 | 17.88 | 14.44 | - | 7.44 | 5.75 | 2.50 |
| 135 | 13.88 | 10.75 | 18.38 | 15.25 | 12.31 | 11.63 | 10.94 | 10.25 | 9.56 | 24.06 | 18.75 | 15.75 | - | 8.00 | 6.31 | 2.50 |
| 150 | 15.00 | 11.94 | 20.31 | 16.81 | 13.75 | 12.88 | 12.13 | 11.38 | 10.63 | 26.00 | 20.00 | 17.31 | - | 9.06 | 6.88 | 3.00 |
| 165 | 17.25 | 13.13 | 22.25 | 18.38 | 15.06 | 14.13 | 13.31 | 12.50 | 11.69 | 27.88 | 21.06 | 19.38 | - | 9.69 | 7.75 | 3.00 |
| 182 | 18.63 | 14.50 | 24.81 | 20.56 | 16.69 | 15.69 | 14.75 | 13.81 | 12.88 | 30.44 | 22.50 | 21.31 | - | 10.88 | 8.44 | 3.50 |
| 200 | 20.00 | 15.81 | 27.00 | 22.38 | 18.38 | 17.31 | 16.25 | 15.19 | 14.13 | 32.75 | 23.94 | 23.13 | - | 11.56 | 9.13 | 3.50 |
| 222 | 21.75 | 17.69 | 30.00 | 24.75 | 20.44 | 19.06 | 17.94 | 16.81 | 15.69 | 36.06 | 26.25 | 25.50 | - | 12.44 | 10.00 | 4.00 |
| 245 | 23.50 | 19.50 | 33.00 | 27.13 | 22.38 | 21.00 | 19.75 | 18.50 | 17.25 | 38.88 | 27.81 | 27.88 | - | 13.31 | 10.88 | 4.50 |
| 270 | 25.38 | 21.44 | 36.44 | 30.06 | 24.69 | 23.19 | 21.81 | 20.44 | 19.06 | 42.38 | 29.88 | 30.56 | - | 14.25 | 11.81 | 4.50 |
| 300 | 28.88 | 23.81 | 40.31 | 33.25 | 27.44 | 25.75 | 24.25 | 22.75 | 21.25 | 47.13 | 33.44 | 34.25 | - | 16.00 | 13.31 | 5.00 |
| 330 | 31.13 | 26.25 | 44.44 | 36.56 | 30.13 | 28.38 | 26.69 | 25.00 | 23.31 | 51.00 | 35.56 | 37.56 | - | 17.13 | 14.44 | 5.00 |
| 365 | 33.88 | 29.00 | 48.88 | 40.13 | 33.50 | 31.50 | 29.63 | 27.75 | 25.88 | 55.50 | 38.38 | 41.13 | - | 19.06 | 15.81 | 5.00 |
| 402 | 37.88 | 32.00 | 53.81 | 44.06 | 37.00 | 34.69 | 32.63 | 30.56 | 28.50 | 60.50 | 41.56 | 45.56 | - | 20.50 | 17.56 | 5.00 |
| 445 | 41.25 | 35.38 | 59.38 | 48.56 | 40.88 | 38.25 | 36.00 | 33.75 | 31.50 | 65.69 | 44.38 | 50.06 | - | 22.69 | 19.25 | 5.50 |
| 490 | 44.63 | 39.00 | 65.69 | 53.88 | 44.88 | 42.19 | 39.69 | 37.19 | 34.69 | 72.31 | 48.44 | 54.88 | - | 24.44 | 20.94 | 5.50 |
| 542 | 50.88 | 43.06 | 72.38 | 59.31 | 49.75 | 46.69 | 43.94 | 41.19 | 38.44 | 78.88 | 52.31 | 61.31 | 59.75 | 26.56 | 23.56 | 6.00 |
| 600 | 55.38 | 47.69 | 80.00 | 65.44 | 55.00 | 51.69 | 48.63 | 45.56 | 42.50 | 86.25 | 56.56 | 67.44 | 65.75 | 29.75 | 25.81 | 6.00 |
| 660 | 62.25 | 52.44 | 88.06 | 72.13 | 60.38 | 56.81 | 53.38 | 49.94 | 46.50 | 94.81 | 62.00 | 74.63 | 72.25 | 32.19 | 28.75 | 7.00 |
| 730 | 67.63 | 58.00 | 97.31 | 79.63 | 66.94 | 62.88 | 59.13 | 55.38 | 51.63 | 104.19 | 67.69 | 82.13 | 79.75 | 34.88 | 31.44 | 7.50 |
| 807 | 73.63 | 64.19 | 107.50 | 87.81 | 74.00 | 69.50 | 65.38 | 61.25 | 57.13 | 113.69 | 73.00 | 90.31 | 87.75 | 38.88 | 34.44 | 8.00 |
| 890 | 80.13 | 70.00 | 117.75 | 96.50 | 81.56 | 76.63 | 72.06 | 67.50 | 62.94 | 125.38 | 80.75 | 99.00 | 96.50 | 43.19 | 37.69 | 8.00 |
| 982 | 89.50 | 77.75 | 130.13 | 106.31 | 90.06 | 84.63 | 79.56 | 74.50 | 69.44 | 140.06 | 91.75 | 109.75 | 106.75 | 47.88 | 41.88 | 8.00 |

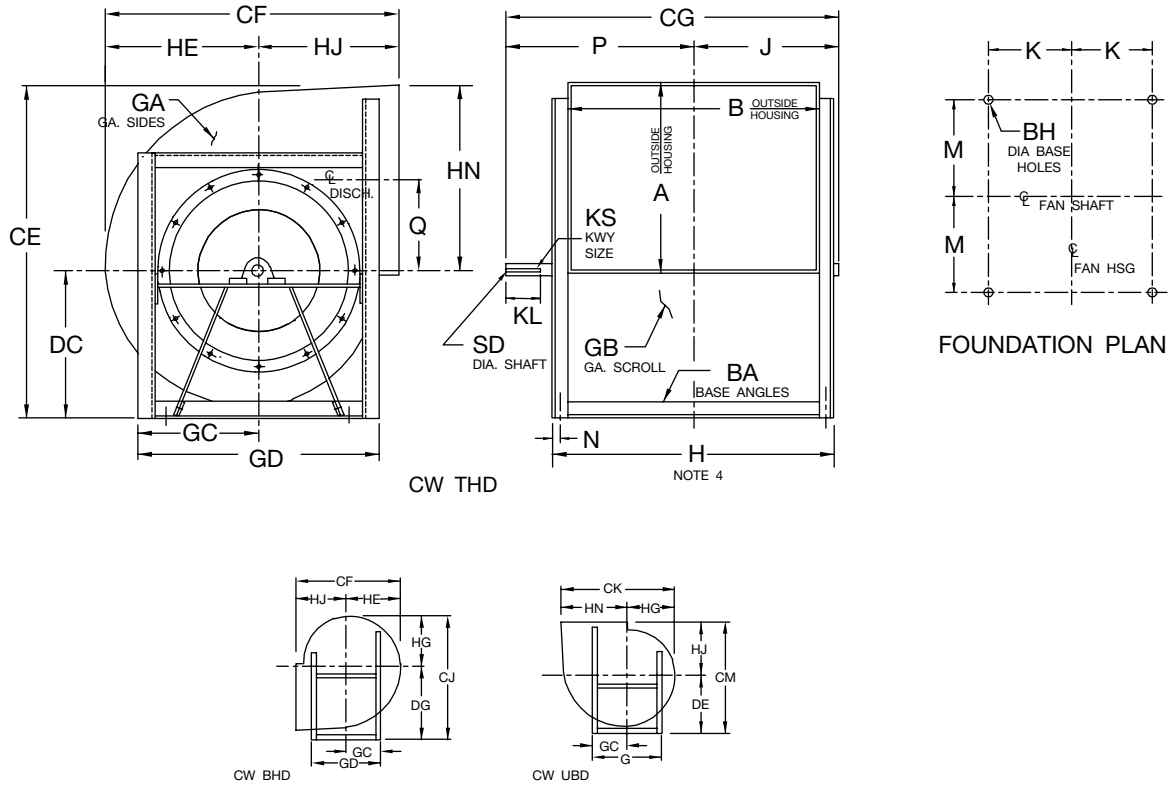
| SIZE | KS | | M | N | P | | Q | SD | |
|------|-------------|-------------|-------|------|-------|-------|-------|------|-------|
| | CL I | CL II | | | CL I | CL II | | CL I | CL II |
| 122 | 0.25 x 0.13 | 0.25 x 0.13 | 6.75 | 0.63 | 10.00 | 10.00 | 6.44 | 1.00 | 1.00 |
| 135 | 0.25 x 0.13 | 0.25 x 0.13 | 7.38 | 0.63 | 10.56 | 10.56 | 7.13 | 1.00 | 1.00 |
| 150 | 0.25 x 0.13 | 0.25 x 0.13 | 8.25 | 0.63 | 11.63 | 12.00 | 7.88 | 1.00 | 1.19 |
| 165 | 0.25 x 0.13 | 0.25 x 0.13 | 8.75 | 0.88 | 12.25 | 12.63 | 8.69 | 1.00 | 1.19 |
| 182 | 0.25 x 0.13 | 0.38 x 0.19 | 9.63 | 0.88 | 13.81 | 14.63 | 9.63 | 1.19 | 1.44 |
| 200 | 0.38 x 0.19 | 0.38 x 0.19 | 10.63 | 0.88 | 15.31 | 15.31 | 10.56 | 1.44 | 1.44 |
| 222 | 0.38 x 0.19 | 0.38 x 0.19 | 11.75 | 0.88 | 16.69 | 16.69 | 11.75 | 1.44 | 1.44 |
| 245 | 0.38 x 0.19 | 0.38 x 0.19 | 12.88 | 0.88 | 18.06 | 18.44 | 12.94 | 1.44 | 1.69 |
| 270 | 0.38 x 0.19 | 0.38 x 0.19 | 14.13 | 0.88 | 19.00 | 19.38 | 14.25 | 1.44 | 1.69 |
| 300 | 0.38 x 0.19 | 0.50 x 0.25 | 15.88 | 1.13 | 21.13 | 21.25 | 15.81 | 1.69 | 1.94 |
| 330 | 0.38 x 0.19 | 0.50 x 0.25 | 17.38 | 1.13 | 22.25 | 22.88 | 17.50 | 1.69 | 2.19 |
| 365 | 0.50 x 0.25 | 0.63 x 0.31 | 18.88 | 1.13 | 23.75 | 24.63 | 19.25 | 1.94 | 2.44 |
| 402 | 0.50 x 0.25 | 0.63 x 0.31 | 20.88 | 1.38 | 25.25 | 26.13 | 21.25 | 1.94 | 2.44 |
| 445 | 0.50 x 0.25 | 0.63 x 0.31 | 22.88 | 1.38 | 27.44 | 29.19 | 23.50 | 1.94 | 2.69 |
| 490 | 0.50 x 0.25 | 0.63 x 0.31 | 25.38 | 1.38 | 30.25 | 30.88 | 25.88 | 2.19 | 2.69 |
| 542 | 0.63 x 0.31 | 0.75 x 0.38 | 27.63 | 1.88 | 33.38 | 33.75 | 28.63 | 2.44 | 2.94 |
| 600 | 0.75 x 0.38 | 0.88 x 0.44 | 30.63 | 1.88 | 35.50 | 36.88 | 31.69 | 2.94 | 3.44 |
| 660 | 0.75 x 0.38 | 1.00 x 0.50 | 33.13 | 2.38 | 39.88 | 40.81 | 34.75 | 2.94 | 3.94 |
| 730 | 0.88 x 0.44 | 1.00 x 0.50 | 37.13 | 2.38 | 43.50 | 44.00 | 38.50 | 3.44 | 3.94 |
| 807 | 1.00 x 0.50 | 1.00 x 0.50 | 40.88 | 2.38 | 47.63 | 49.56 | 42.63 | 3.94 | 4.44 |
| 890 | 1.00 x 0.50 | 1.25 x 0.63 | 46.38 | 2.38 | 50.75 | 53.44 | 46.94 | 3.94 | 4.94 |
| 982 | 1.25 x 0.63 | 1.25 x 0.63 | 53.13 | 2.88 | 56.88 | 57.88 | 51.81 | 4.94 | 5.44 |

AC9834G
AC9241F
AC9257E

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

Arrangement 3, DWDI Non-Rotatable, Class I & II

Sizes 122-270



NOTES:

1. For optional flanged outlet and downblast discharge, see AC14895.
2. "CW" rotation is shown. "CCW" rotation is similar but opposite.
3. Inlet bearing bar support is removable.
4. Bearing bar supports may extend beyond base angles. See AC1000648 for dimensions if space limitations are required for mounting fan.



Arrangement 3, DWDI Non-Rotatable, Class I & II

Sizes 122-270

| SIZE | A | B | BA | BH | CE | CF | CG | | CJ | CK | CM | DC | DE | DG |
|------|-------|-------|-------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | | | CL I | CL II | | | | | | |
| 122 | 13.00 | 17.44 | 1.50 x 1.50 | 0.44 | 23.19 | 19.81 | 26.69 | 28.63 | 24.31 | 22.25 | 20.75 | 10.25 | 11.50 | 15.00 |
| 135 | 14.31 | 19.44 | 1.50 x 1.50 | 0.44 | 25.50 | 21.88 | 28.69 | 30.63 | 26.50 | 24.50 | 23.00 | 11.25 | 12.75 | 16.25 |
| 150 | 15.88 | 21.44 | 1.50 x 1.50 | 0.44 | 28.06 | 24.32 | 33.13 | 33.13 | 29.38 | 27.19 | 25.44 | 12.25 | 14.00 | 18.00 |
| 165 | 17.44 | 23.56 | 1.50 x 2.00 | 0.44 | 30.88 | 26.76 | 35.25 | 35.62 | 32.00 | 29.88 | 27.88 | 13.50 | 15.25 | 19.50 |
| 182 | 19.38 | 26.00 | 1.50 x 2.00 | 0.44 | 34.06 | 29.69 | 38.13 | 38.50 | 35.31 | 33.13 | 30.75 | 14.75 | 16.75 | 21.50 |
| 200 | 21.19 | 28.50 | 1.50 x 2.00 | 0.56 | 37.38 | 32.62 | 40.63 | 42.12 | 38.69 | 36.31 | 33.56 | 16.25 | 18.25 | 23.50 |
| 222 | 23.56 | 31.63 | 2.00 x 2.00 | 0.56 | 41.50 | 36.25 | 44.62 | 46.88 | 42.81 | 40.31 | 37.69 | 18.00 | 20.50 | 26.00 |
| 245 | 25.94 | 34.81 | 2.00 x 2.00 | 0.56 | 45.88 | 40.00 | 49.62 | 50.75 | 46.75 | 44.38 | 41.50 | 20.00 | 22.50 | 28.25 |
| 270 | 28.63 | 38.25 | 2.00 x 2.00 | 0.56 | 50.56 | 44.13 | 53.00 | 54.75 | 51.44 | 49.00 | 45.69 | 22.00 | 24.75 | 31.00 |

| SIZE | G | GA | GB | GC | GD | H | HE | HG | HJ | HN | J | | K | KL |
|------|-------|----|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | | | | | | | | | | | CL I | CL II | | |
| 122 | 19.75 | 14 | 14 | 9.88 | 18.50 | 20.50 | 10.56 | 9.31 | 9.25 | 12.94 | 11.44 | 12.38 | 9.63 | 3.00 |
| 135 | 21.00 | 14 | 14 | 10.50 | 19.75 | 22.50 | 11.63 | 10.25 | 10.25 | 14.25 | 12.44 | 13.38 | 10.63 | 3.00 |
| 150 | 22.75 | 14 | 14 | 11.38 | 21.50 | 24.50 | 12.88 | 11.38 | 11.44 | 15.81 | 14.38 | 14.38 | 11.63 | 3.50 |
| 165 | 24.25 | 14 | 14 | 12.13 | 24.25 | 27.63 | 14.13 | 12.50 | 12.63 | 17.38 | 15.44 | 15.56 | 12.94 | 3.50 |
| 182 | 26.00 | 12 | 14 | 13.00 | 26.00 | 30.00 | 15.69 | 13.81 | 14.00 | 19.31 | 16.63 | 16.75 | 14.13 | 4.00 |
| 200 | 28.00 | 12 | 14 | 14.00 | 28.00 | 32.50 | 17.31 | 15.19 | 15.31 | 21.13 | 17.88 | 18.56 | 15.38 | 4.00 |
| 222 | 31.25 | 12 | 14 | 15.63 | 31.25 | 35.63 | 19.06 | 16.81 | 17.19 | 23.50 | 19.56 | 20.63 | 16.94 | 4.50 |
| 245 | 33.50 | 12 | 14 | 16.75 | 33.50 | 38.88 | 21.00 | 18.50 | 19.00 | 25.88 | 21.81 | 22.31 | 18.56 | 5.00 |
| 270 | 36.00 | 12 | 14 | 18.00 | 36.00 | 42.25 | 23.19 | 20.44 | 20.94 | 28.56 | 23.50 | 24.31 | 20.25 | 5.00 |

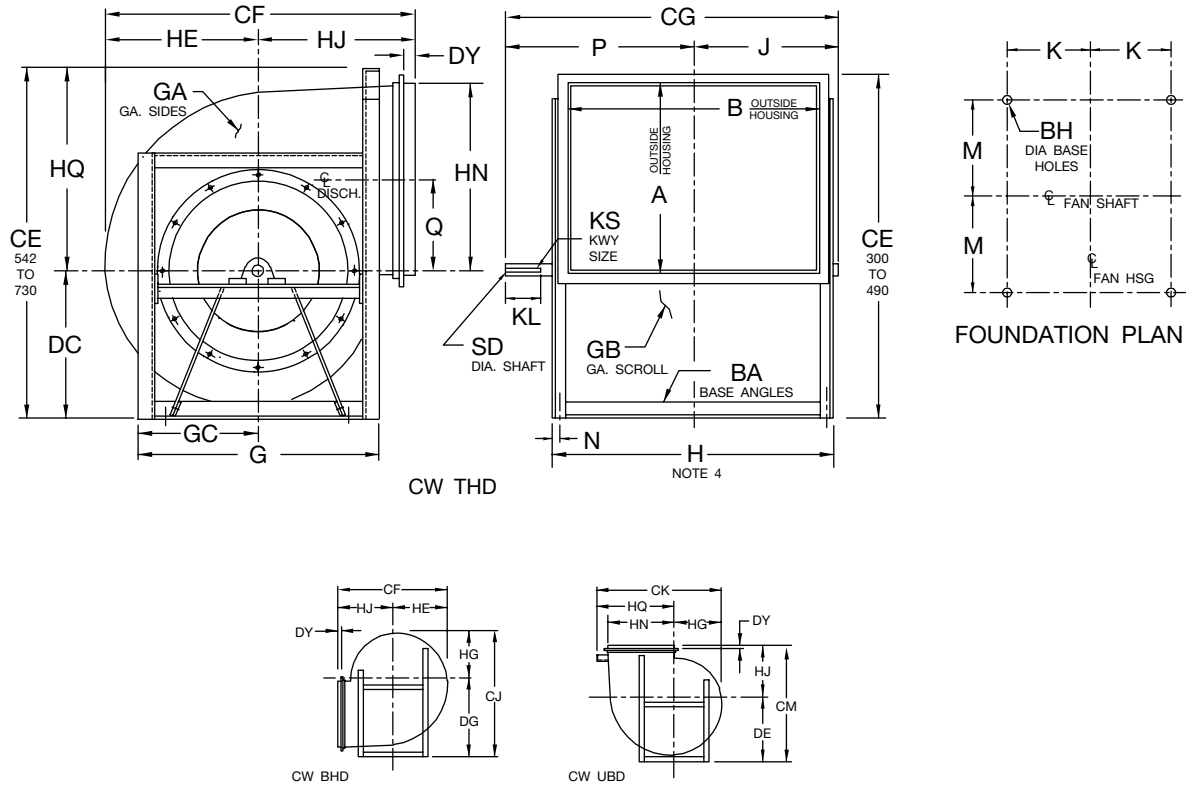
| SIZE | KS | | M | N | P | | Q | SD | |
|------|-------------|-------------|-------|------|-------|-------|-------|------|-------|
| | CL I | CL II | | | CL I | CL II | | CL I | CL II |
| 122 | 0.25 x 0.13 | 0.38 x 0.19 | 6.75 | 0.63 | 15.25 | 16.25 | 6.44 | 1.19 | 1.44 |
| 135 | 0.25 x 0.13 | 0.38 x 0.19 | 7.38 | 0.63 | 16.25 | 17.25 | 7.13 | 1.19 | 1.69 |
| 150 | 0.38 x 0.19 | 0.38 x 0.19 | 8.25 | 0.63 | 18.75 | 18.75 | 7.88 | 1.44 | 1.69 |
| 165 | 0.38 x 0.19 | 0.50 x 0.25 | 8.75 | 0.88 | 19.81 | 20.06 | 8.69 | 1.44 | 1.94 |
| 182 | 0.38 x 0.19 | 0.50 x 0.25 | 9.63 | 0.88 | 21.50 | 21.75 | 9.63 | 1.69 | 1.94 |
| 200 | 0.38 x 0.19 | 0.50 x 0.25 | 10.63 | 0.88 | 22.75 | 23.56 | 10.56 | 1.69 | 2.19 |
| 222 | 0.50 x 0.25 | 0.63 x 0.31 | 11.75 | 0.88 | 25.06 | 26.25 | 11.75 | 1.94 | 2.44 |
| 245 | 0.50 x 0.25 | 0.63 x 0.31 | 12.88 | 0.88 | 27.81 | 28.44 | 12.94 | 2.19 | 2.44 |
| 270 | 0.50 x 0.25 | 0.63 x 0.31 | 14.13 | 0.88 | 29.50 | 30.44 | 14.25 | 2.19 | 2.69 |

AC14967D

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

Arrangement 3, DWDI Non-Rotatable, Class I & II

Sizes 300-730



NOTES:

1. For optional flanged outlet and downblast discharge, see AC14896.
2. "CW" rotation is shown. "CCW" rotation is similar but opposite.
3. Inlet bearing bar support is removable.
4. Bearing bar supports may extend beyond base angles. See AC1000648 for dimensions if space limitations are required for mounting fan.



Arrangement 3, DWDI Non-Rotatable, Class I & II

Sizes 300-730

| SIZE | A | B | BA | BH | CE | CF | CG | | CJ | CK | CM | DC | DE | DG |
|------|-------|--------|-------------|------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| | | | | | | | CL I | CL II | | | | | | |
| 300 | 31.81 | 42.69 | 2.50 x 2.50 | 0.56 | 57.75 | 49.06 | 59.13 | 59.13 | 57.00 | 56.00 | 51.81 | 24.50 | 28.50 | 34.25 |
| 330 | 35.13 | 46.69 | 2.50 x 2.50 | 0.56 | 63.56 | 54.13 | 63.13 | 63.13 | 62.25 | 61.56 | 56.75 | 27.00 | 31.00 | 37.25 |
| 365 | 38.69 | 51.81 | 2.50 x 2.50 | 0.56 | 69.63 | 60.00 | 68.88 | 68.88 | 68.75 | 67.88 | 62.00 | 29.50 | 33.50 | 41.00 |
| 402 | 42.63 | 57.19 | 3.00 x 3.00 | 0.81 | 77.06 | 66.19 | 74.13 | 74.75 | 76.06 | 74.62 | 68.50 | 33.00 | 37.00 | 45.50 |
| 445 | 47.13 | 63.13 | 3.00 x 3.00 | 0.81 | 84.06 | 73.13 | 80.00 | 80.37 | 83.75 | 82.31 | 74.88 | 35.50 | 40.00 | 50.00 |
| 490 | 51.94 | 69.44 | 3.00 x 3.00 | 0.81 | 92.88 | 80.69 | 88.00 | 90.57 | 91.94 | 91.07 | 82.50 | 39.00 | 44.00 | 54.75 |
| 542 | 57.38 | 76.94 | 3.00 x 4.00 | 0.81 | 103.25 | 89.25 | 94.75 | 95.69 | 101.44 | 100.94 | 91.56 | 43.50 | 49.00 | 60.25 |
| 600 | 63.50 | 85.00 | 3.00 x 4.00 | 0.81 | 113.75 | 98.88 | 107.07 | 108.63 | 111.81 | 111.31 | 101.19 | 48.00 | 54.00 | 66.25 |
| 660 | 69.69 | 93.69 | 3.50 x 5.00 | 0.81 | 124.75 | 108.75 | 115.81 | 117.44 | 123.19 | 122.19 | 110.94 | 52.50 | 59.00 | 73.25 |
| 730 | 77.25 | 103.38 | 3.50 x 5.00 | 0.81 | 136.75 | 120.38 | 128.00 | 128.00 | 136.13 | 135.13 | 122.00 | 57.00 | 64.50 | 80.75 |

| SIZE | DY | G | GA | GB | GC | H | HE | HG | HJ | HN | HQ | J | | K | KL |
|------|------|-------|----|----|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | | | | | | | | | | | | CL I | CL II | | |
| 300 | 1.25 | 41.00 | 10 | 12 | 20.50 | 47.75 | 25.75 | 22.75 | 23.31 | 31.75 | - | 26.25 | 26.25 | 22.75 | 5.50 |
| 330 | 1.50 | 44.00 | 10 | 12 | 22.00 | 51.75 | 28.38 | 25.00 | 25.75 | 35.06 | - | 28.25 | 28.25 | 24.75 | 5.50 |
| 365 | 1.50 | 48.00 | 10 | 12 | 24.00 | 56.88 | 31.50 | 27.75 | 28.50 | 38.63 | - | 31.13 | 31.13 | 27.31 | 5.50 |
| 402 | 1.50 | 52.50 | 10 | 12 | 26.25 | 63.25 | 34.69 | 30.56 | 31.50 | 42.56 | - | 33.50 | 33.81 | 30.25 | 6.00 |
| 445 | 1.50 | 56.50 | 10 | 12 | 28.25 | 69.13 | 38.25 | 33.75 | 34.88 | 47.06 | - | 36.44 | 36.56 | 33.19 | 6.00 |
| 490 | 1.50 | 61.50 | 10 | 12 | 30.75 | 75.50 | 42.19 | 37.19 | 38.50 | 51.88 | - | 39.94 | 41.13 | 36.38 | 7.00 |
| 542 | 1.50 | 67.00 | 10 | 12 | 33.50 | 85.00 | 46.69 | 41.19 | 42.56 | 57.31 | 59.75 | 43.75 | 44.19 | 40.63 | 6.00 |
| 600 | 1.50 | 73.00 | 10 | 12 | 36.50 | 93.00 | 51.69 | 45.56 | 47.19 | 63.44 | 65.75 | 48.88 | 49.63 | 44.63 | 8.00 |
| 660 | 1.50 | 80.00 | 10 | 12 | 40.00 | 103.75 | 56.81 | 49.94 | 51.94 | 69.63 | 72.25 | 53.25 | 54.06 | 49.50 | 8.00 |
| 730 | 1.50 | 88.00 | 10 | 10 | 44.00 | 113.38 | 62.88 | 55.38 | 57.50 | 77.13 | 79.75 | 58.81 | 58.81 | 54.31 | 9.00 |

| SIZE | KS | | M | N | P | | Q | SD | |
|------|-------------|-------------|-------|------|-------|-------|-------|------|-------|
| | CL I | CL II | | | CL I | CL II | | CL I | CL II |
| 300 | 0.63 x 0.31 | 0.63 x 0.31 | 15.88 | 1.13 | 32.88 | 32.88 | 15.81 | 2.44 | 2.44 |
| 330 | 0.63 x 0.31 | 0.63 x 0.31 | 17.38 | 1.13 | 34.88 | 34.88 | 17.50 | 2.44 | 2.44 |
| 365 | 0.63 x 0.31 | 0.63 x 0.31 | 18.88 | 1.13 | 37.75 | 37.75 | 19.25 | 2.69 | 2.69 |
| 402 | 0.63 x 0.31 | 0.63 x 0.31 | 20.88 | 1.38 | 40.63 | 40.94 | 21.25 | 2.44 | 2.69 |
| 445 | 0.63 x 0.31 | 0.75 x 0.38 | 22.88 | 1.38 | 43.56 | 43.81 | 23.50 | 2.44 | 2.94 |
| 490 | 0.63 x 0.31 | 0.88 x 0.44 | 25.38 | 1.38 | 48.06 | 49.44 | 25.88 | 2.69 | 3.44 |
| 542 | 0.75 x 0.38 | 0.88 x 0.44 | 27.63 | 1.88 | 51.00 | 51.50 | 28.63 | 2.94 | 3.44 |
| 600 | 0.88 x 0.44 | 1.00 x 0.50 | 30.63 | 1.88 | 58.19 | 59.00 | 31.69 | 3.44 | 3.94 |
| 660 | 0.88 x 0.44 | 1.00 x 0.50 | 33.13 | 2.38 | 62.56 | 63.38 | 34.75 | 3.44 | 3.94 |
| 730 | 1.00 x 0.50 | 1.00 x 0.50 | 37.13 | 2.38 | 69.19 | 69.19 | 38.50 | 3.94 | 3.94 |

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

SWSI

Fans shall be Model CAE-SW Airfoil, as manufactured by Aerovent, Minneapolis, Minnesota.

PERFORMANCE — Performance ratings shall conform to AMCA Standard 205 (fan efficiency grade), 211 (air performance) and 311 (sound performance). Fans shall be tested in accordance with ANSI/AMCA Standard 210 (air performance) and 300 (sound performance) in an AMCA accredited laboratory. Fans shall be licensed to bear the AMCA certified ratings seal for both sound and air, and fan efficiency grade (FEG).

Fans shall have a sharply rising pressure characteristic extending through the operating range and continuing to rise beyond the peak efficiency to ensure quiet and stable operation. Fans shall have a non-overloading design with self-limiting horsepower characteristics and shall reach a peak in the normal selection area. All fans shall be capable of operating over the minimum pressure class limits as specified in AMCA Standard 99.

HOUSING — CAE fan housings shall be of heavy gauge, continuously welded construction. Housings with lock seams or partially welded construction are not acceptable. Discharge flanges are to be provided for rigidity and duct connection. Housings shall be suitably braced to prevent vibration or pulsation. Housings shall have tapered spun, aerodynamically designed inlet cones or shrouds providing stable flow and high rigidity.

Class I and II sizes 270 and smaller, excluding Arrangement 3, shall be of the rotatable design, convertible to 8 standard discharge configurations.

WHEEL — Wheels shall be of the non-overloading type. Wheels shall have a precision spun, flat inlet cone to allow higher efficiencies over the performance range of the fan. Sizes 245 and smaller shall have airfoil-shaped, extruded aluminum blades. Sizes 270 and larger shall have die-formed airfoil steel blades with the option of extruded aluminum blades. All hollow blade wheels shall be continuously welded around all edges. All wheels shall be statically and dynamically balanced on precision electronic balancers to a Balance Quality Grade G6.3 per ANSI/AMCA 204 or better.

SHAFT — Shafts shall be AISI 1040 or 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 — Bearings shall be heavy duty, grease lubricated, spherical roller or adapter mounted anti-friction ball, 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.

DRIVE — Motor sheaves shall be cast iron, variable pitch on applications 10 HP and smaller, and fixed pitch on 15 HP and larger. Drives and belts shall be located external to the fan casing and rated for 150% of the required motor HP.

FINISH AND COATING — The entire fan assembly, excluding the shaft, shall be thoroughly degreased and de-burred 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.

ACCESSORIES — When specified, accessories such as belt guards, weather covers, access doors, companion flanges, variable inlet vanes, outlet dampers, inlet boxes, shaft coolers, shaft seals, inlet screens, etc., shall be provided by Aerovent to maintain one source responsibility.

When specified, fans shall be supplied with internal or nested type variable inlet vanes for wheel diameters 16 1/2" and larger. Cantilevered vane blades are to be used through Size 660 to minimize air performance insertion losses and noise. The operating mechanism shall be out of the inlet airstream.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at the specified operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204 "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 — The manufacturer shall guarantee the workmanship and materials for its CAE airfoil fans for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.

DWDI

Fans shall be Model CAE-DW Airfoil, as manufactured by Aerovent, Minneapolis, Minnesota.

PERFORMANCE — Performance ratings shall conform to AMCA Standard 205 (fan efficiency grade), 211 (air performance) and 311 (sound performance). Fans shall be tested in accordance with ANSI/AMCA Standard 210 (air performance) and 300 (sound performance) in an AMCA accredited laboratory. Fans shall be licensed to bear the AMCA certified ratings seal for both sound and air, and fan efficiency grade (FEG). Sound certification shall apply to both inlet and outlet sound power levels.

Fans shall have a sharply rising pressure characteristic extending through the operating range and continuing to rise beyond the peak efficiency to ensure quiet and stable operation. Fans shall have a non-overloading design with self-limiting horsepower characteristics and shall reach a peak in the normal selection area. All fans shall be capable of operating over the minimum pressure class limits as specified in AMCA Standard 99.

HOUSING — CAE fan housings shall be of heavy gauge, continuously welded construction. Housings with lock seams or partially welded construction are not acceptable. Housings shall be suitably braced to prevent vibration or pulsation. Housings shall have spun, aerodynamically designed inlet cones or inlet venturies for smooth airflow into the wheels.

WHEEL — Wheels shall have a precision spun, flat inlet cone to allow higher efficiencies over the performance range of the fan. Sizes 245 and smaller shall have airfoil-shaped, extruded aluminum blades. Sizes 270 and larger shall have die-formed airfoil steel blades with the option of extruded aluminum blades. All hollow blade wheels shall be continuously welded around all edges. All wheels shall be statically and dynamically balanced on precision electronic balancers to a Balance Quality Grade G6.3 per ANSI/AMCA 204 or better.

SHAFT — Shafts shall be AISI 1040 or 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 — Bearings shall be heavy duty, grease lubricated, spherical roller or adapter mounted anti-friction ball, 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.

DRIVE — Motor sheaves shall be cast iron, variable pitch on applications 10 HP and smaller, and fixed pitch on 15 HP and larger. Drives and belts shall be located external to the fan casing and rated for 150% of the required motor HP.

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.

ACCESSORIES — When specified, accessories such as belt guards, weather covers, access doors, companion flanges, variable inlet vanes, outlet dampers, inlet boxes, shaft coolers, shaft seals, inlet screens, etc., shall be provided by Aerovent to maintain one source responsibility.

When specified, fans shall be supplied with internal or nested type variable inlet vanes for wheel diameters 161/2" and larger. Cantilevered vane blades are to be used through Size 660 to minimize air performance insertion losses and noise. The operating mechanism shall be out of the inlet airstream. Double width fans shall have interconnecting linkage to ensure operation in unison.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at the specified operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204 "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 — The manufacturer shall guarantee the workmanship and materials for its CAE airfoil fans for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.

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