

Centrifugal Fans - Series 21 & 41

- Backward-Inclined and Airfoil Wheels
- Single and Double-Width
- Models BISW, AFSW, BIDW, AFDW



*Commercial &
Industrial Applications*

 **GREENHECK**
Building Value in Air.




BUILDING VALUE IN AIR.

July
2010

Greenheck's airfoil and backward-inclined centrifugal fans are designed to provide efficient and reliable operation for commercial and industrial applications. Our products are manufactured with state-of-the-art laser, forming, spinning and welding equipment, and endure our quality control testing to ensure trouble-free start-up. Greenheck centrifugal models include industry-leading design features to ensure your ventilation equipment has the latest technologies available.

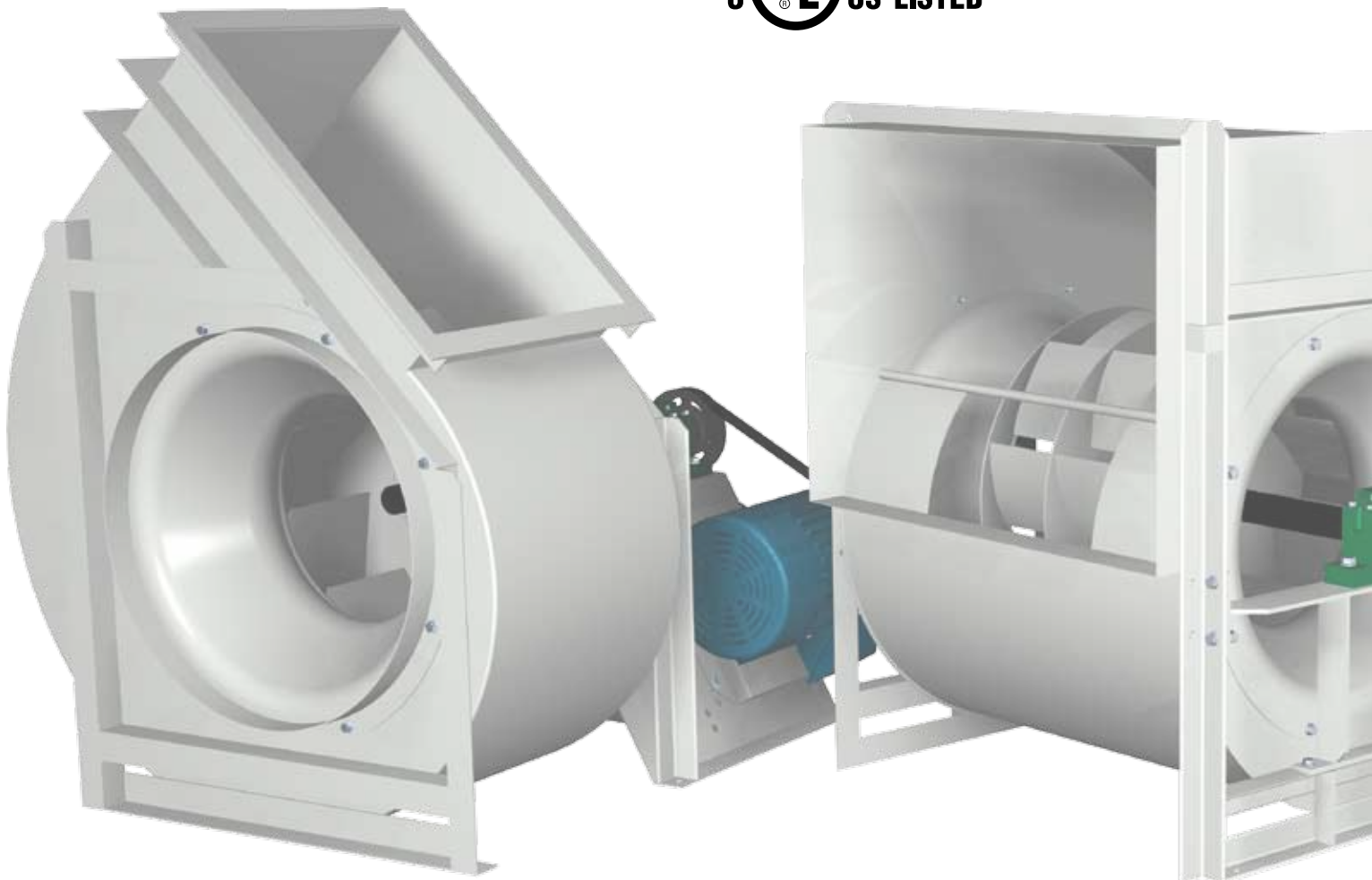
Available with Greenheck Centrifugal Products:

- AMCA Licensed Sound and Air Performance
- All welded designs or Permalock™ construction
- Concentric mount bearings with industries highest cataloged bearing life
- Corrosion-resistant, electrostatically applied and baked powder coatings
- Both belt and direct drive configurations
- Three-plane, six-channel vibration analysis on all manufactured centrifugal models



Greenheck Fan Corporation certifies that the backward-inclined and airfoil centrifugal 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 Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. AMCA Licensed Sound and Air Performance can be found in Greenheck Fan Corporation Supplements:

- Single-Width Centrifugal Fan Supplement, Rev 2, October 2009
- Double-Width Centrifugal Fan Supplement, Rev 2, July 2009



Greenheck's centrifugal products are specified to handle a variety of commercial and industrial projects. Typical applications include:

- General supply, return or exhaust systems
- Emergency smoke exhaust (buildings, car parks, etc.)
- Restaurant grease exhaust
- Stairwell pressurization
- Process heat exhaust
- Filter houses and dust collectors
- Built-up or custom air handlers
- Spark-resistant fume exhaust
- Corrosive fume exhaust
- Grain drying

Our expertise in air movement technology can assist you in improving the operational efficiency of your system.

BISW Size 7-73

50 - 220,000 cfm (85 - 373,780 m³/hr)
 up to 22 in. wg (5.5 kPa)

AFSW 18-73

1,000 - 190,000 cfm (1,700 - 322,810 m³/hr)
 up to 14 in. wg (3.49 kPa)

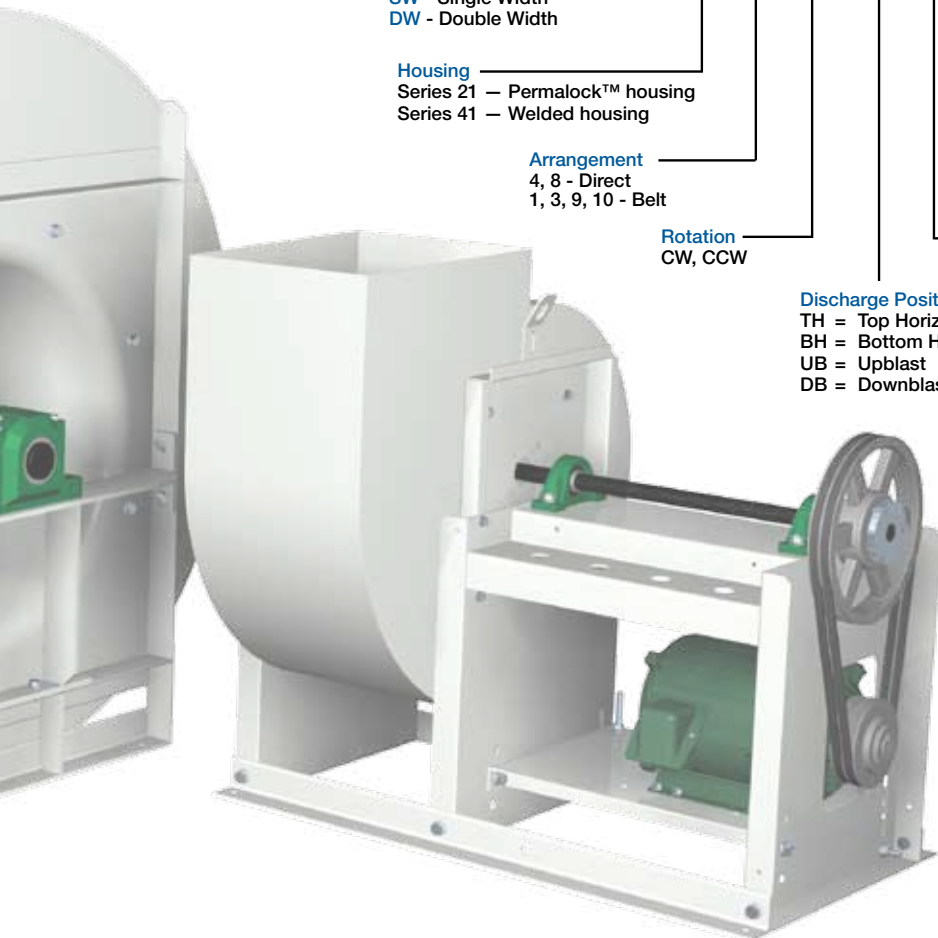
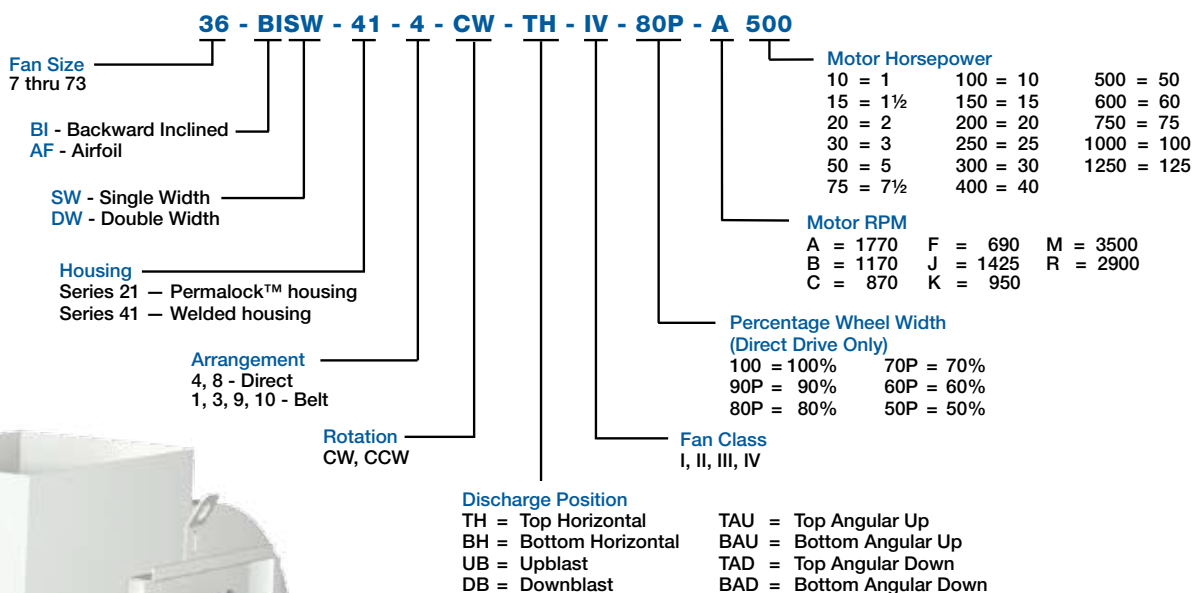
BIDW Size 7-73

1,000 - 360,000 cfm (1,700 - 611,640 m³/hr)
 up to 14 in. wg (3.49 kPa)

AFDW 18-73

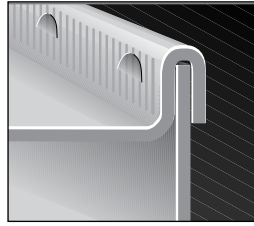
2,000 - 380,000 cfm (1,700 - 645,624 m³/hr)
 up to 13.5 in. wg (3.38 kPa)

Centrifugal Fan Model Number Code:



Series 21 Permalock™ Housings

Series 21 or Permalock™ housings use a mechanically fastened seam instead of welding. This airtight and watertight housing construction uses the same structural support as all welded Series 41 housings. Permalock construction is an excellent value engineering option for applications up to 8.5 inches wg (2.1 kPa).



Series 41 Welded Housings

Greenheck Series 41 centrifugal fans are manufactured with heavy gauge, edge-to-edge welded housing construction. All welded Series 41 construction is common for industrial applications and is suitable for pressures up to 22 inches wg (5.5 kPa). Alternative housing materials such as aluminum or stainless steel are only available with Series 41 construction.



	Size	Class	Housing Material	Wheel Type	Housing Type	Arrangements
Series 21	7–49	I, II	Steel	Backward-Inclined or Airfoil	Single- or Double-width	1, 3, 9, or 10
Series 41	7–73	I, II, III, IV	Steel, Aluminum, Stainless Steel			1, 3, 4, 8, 9 or 10

Standard Construction Features

Housings are manufactured of laser cut and formed steel. Drive frames are manufactured with heavy-gauge, welded steel. Aluminum or stainless steel construction is optional. All steel surfaces are coated with industrial gray (040) Permator™.

Fan shafts are turned and polished steel that is sized so the first critical speed is at least 25% over the maximum operating speed for each pressure class.

Steel housings and wheels are coated with Permator™, an electrostatically applied and baked polyester urethane. Permator™ is an excellent coating for interior or exterior applications. Greenheck offers a wide variety of additional protective coatings. Consult Greenheck’s Product Application Guide, [Performance Coatings for Ventilation Products](#) for a complete listing of coatings and a relative resistance chart.



Example shown is Model BISW-41 Arr. 9 Class III

Wheels

Greenheck centrifugal fans have non-overloading backward-inclined blades. Both our Backward-Inclined (BI) and Airfoil (AF) designs operate efficiently and quietly in single-width or double-width configurations. All wheels are statically and dynamically balanced to grade G6.3 per ANSI S2.19.

	BISW	AFSW	BIDW	AFDW
Wheel Type				
Application	General purpose, clean air or severe environments	Clean air or fume exhaust	Clean air	
Temperature	Up to 1000°F (538°C)	Up to 500°F (260°C)	Up to 180°F (82°C)	
Construction	Steel Aluminum 316 Stainless Steel	Steel Aluminum 316 Stainless Steel	Steel Consult Factory for Alternative Materials	

Premium Bearings

The BI and AF series of centrifugal products are manufactured with “Air Handling Quality” self-aligning ball or roller pillow block bearings. Our standard bearings use concentric lock collars (no set screws) which ensure smooth operation and provide superior grip force between the bearing collar and fan shaft. All bearings are selected for a basic rating fatigue life of L₁₀ in excess of 80,000 hours (L₅₀ at 400,000 hrs.) at the maximum RPM for the selected pressure class. For more critical applications, Greenheck offers bearings with a minimum L₁₀ life in excess of 200,000 hours (L₅₀ at 1,000,000 hrs.). Our bearings include zerk fittings for relubrication.

	L ₁₀ Life	Equal to L ₅₀ or Average Life
Industry Standard	40,000 hrs.	200,000 hrs.
Greenheck Standard	80,000 hrs.	400,000 hrs.
Greenheck Upgrade	200,000 hrs.	1,000,000 hrs.

L₁₀ life implies 90% reliability or 10% failure rate after the stated hours.
 L₅₀ life implies 50% reliability or 50% failure rate after the stated hours.



Vibration Analysis

All Greenheck centrifugal products endure a complete mechanical vibration test after assembly. Our custom data acquisition system uses tri-axial accelerometers to measure the vibration in three planes at the design operating speed. A permanent record for each fan’s performance is kept on file and is available upon request.

The standard “filter-in” vibration levels attained meet the requirements of Fan Application BV-3 as defined in AMCA Standard 204-05 “Balance Quality and Vibration Levels for Fans”. Consult factory if more stringent vibration levels are necessary.

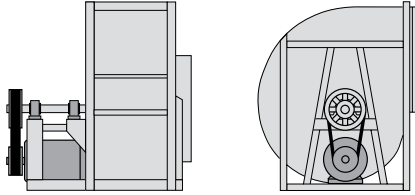
Model	Drive Type	Filter-In Vibration Limit (Rigidly Mounted)
BISW, AFSW	Belt	0.15 in/sec-pk
BISW, AFSW	Direct	0.08 in/sec-pk
BIDW, AFDW	Belt	0.15 in/sec-pk



Arrangement 10 — Belt Drive

Single-Width Backward Inclined or Airfoil Wheel

- Recommended as first choice configuration for belt drive applications.
- Bearings are mounted out of the airstream.
- Motor is mounted beneath the drive frame.
- Available with a weatherhood to cover motor, drives and bearings.
- Moderate dirt and heat tolerance.
- Compact design.
- Available with heat fan packages up to 500°F (260°C).

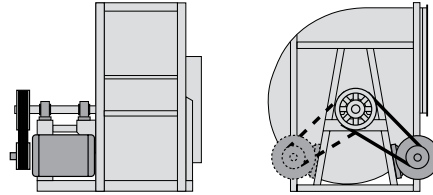


Class I, II

Arrangement 9 — Belt Drive

Single-Width Backward Inclined or Airfoil Wheel

- Bearings are mounted out of the airstream.
- Easy access to large motors mounted on drive frame.
- Standard motor position is on the right side of the drive frame.
- Optional motor position is on the left side of the drive frame.
- Weatherhood is not available on this arrangement. Recommend belt guard and shaft guard.
- Available heat fan packages to 500°F (260°C).

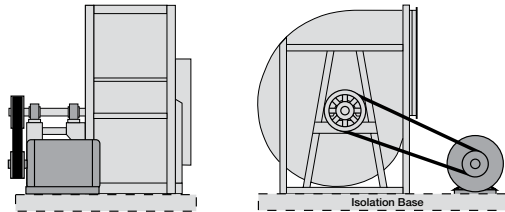


Class I, II, III

Arrangement 1 — Belt Drive

*Single-Width Backward Inclined or *Airfoil Wheel*

- Bearings are mounted out of the airstream.
 - Unlimited motor size.
 - Requires an isolation base (by factory) or structural pad to mount the fan and motor.
 - Choice of motor positions W, X, Y or Z (see page 7).
 - Weatherhood is not available on this arrangement. Recommend belt guard and shaft guard.
 - Suitable for high temperatures or contaminated air.
 - Available heat fan packages to 1000°F (538°C).
- [*Airfoil wheel available to 500°F (260°C)].

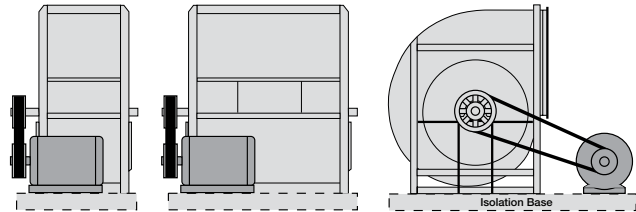


Class I, II, III, IV

Arrangement 3 — Belt Drive

Single & Double-Width Backward Inclined or Airfoil Wheel

- Bearings are mounted in the airstream.
- Unlimited motor size.
- Requires an isolation base (by factory) or structural pad to mount the fan and motor.
- Choice of motor positions W, X, Y or Z (see page 7).
- Weatherhood is not available on this arrangement. Recommend belt guard and shaft guard.
- Recommended for clean air at ambient temperatures.

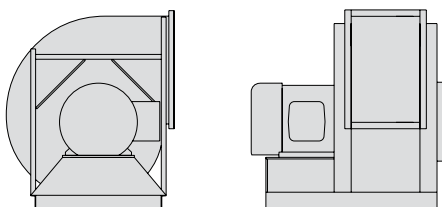


Class I, II, III

Arrangement 4 — Direct Drive

Single-Width Backward Inclined or Airfoil Wheel

- Available with partial width wheel and housing modifications for specific performance.
- Recommended for higher horsepower applications in lieu of belt drive.
- Limited to standard motor speeds, but are available with variable frequency drive compatible motors.
- Provides compact design with low maintenance.
- Suitable for clean or contaminated air applications.

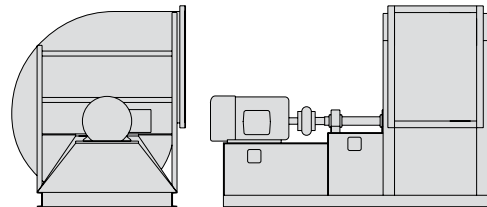


Class I, II, III, IV

Arrangement 8 — Direct Drive

*Single-Width Backward Inclined or *Airfoil Wheel*

- Available with partial width wheel and housing modifications for specific performance.
 - Recommended for higher horsepower applications in lieu of belt drive.
 - Limited to standard motor speeds, but are available with variable frequency drive compatible motors.
 - Bearings located out of the airstream.
 - Suitable for high temperatures or contaminated air.
 - Available heat fan packages to 750°F (400°C).
- [*Airfoil wheel available to 500°F (260°C)].

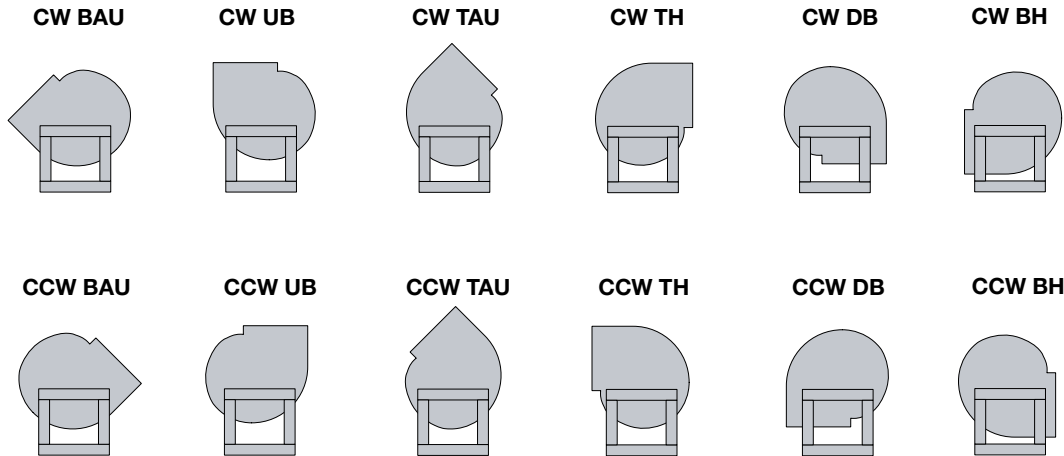


Class I, II, III, IV

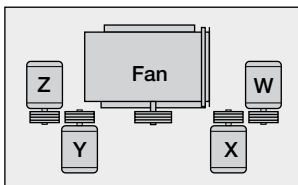
Discharge Positions and Rotatable Housings

All centrifugal fans are available with clockwise (CW) or counterclockwise (CCW) rotation in all standard discharge positions. **Rotation and discharge is always determined from the drive side of the fan.** Rotatable housings are standard on single-width fan sizes 30 and less; arrangements 1, 9 and 10; and Class I and II.

Top Angular Down (TAD) and Bottom Angular Down (BAD) discharge positions are only available with special construction to prevent interference between the drive frame and fan discharge.



Motor Positions – Arrangements 1 and 3 Fans



Motor position and fan rotation are determined from drive side

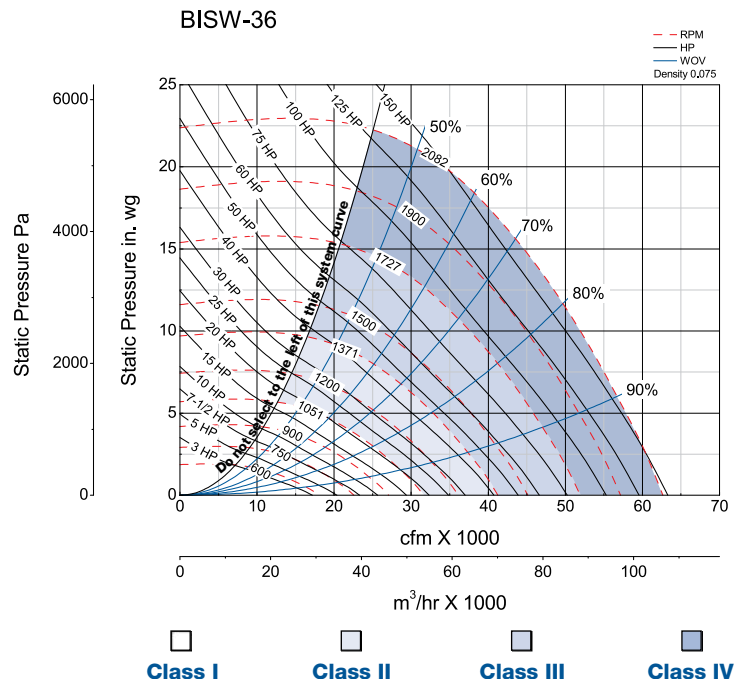
Fan arrangements 1 and 3 require a structural steel base or structural platform to support the fan and motor. The motor can be located in any of four positions around the fan shaft to ensure proper alignment. Motor positions W and Z tend to make a longer footprint from end to end. Positions X and Y tend to make a shorter but wider footprint.

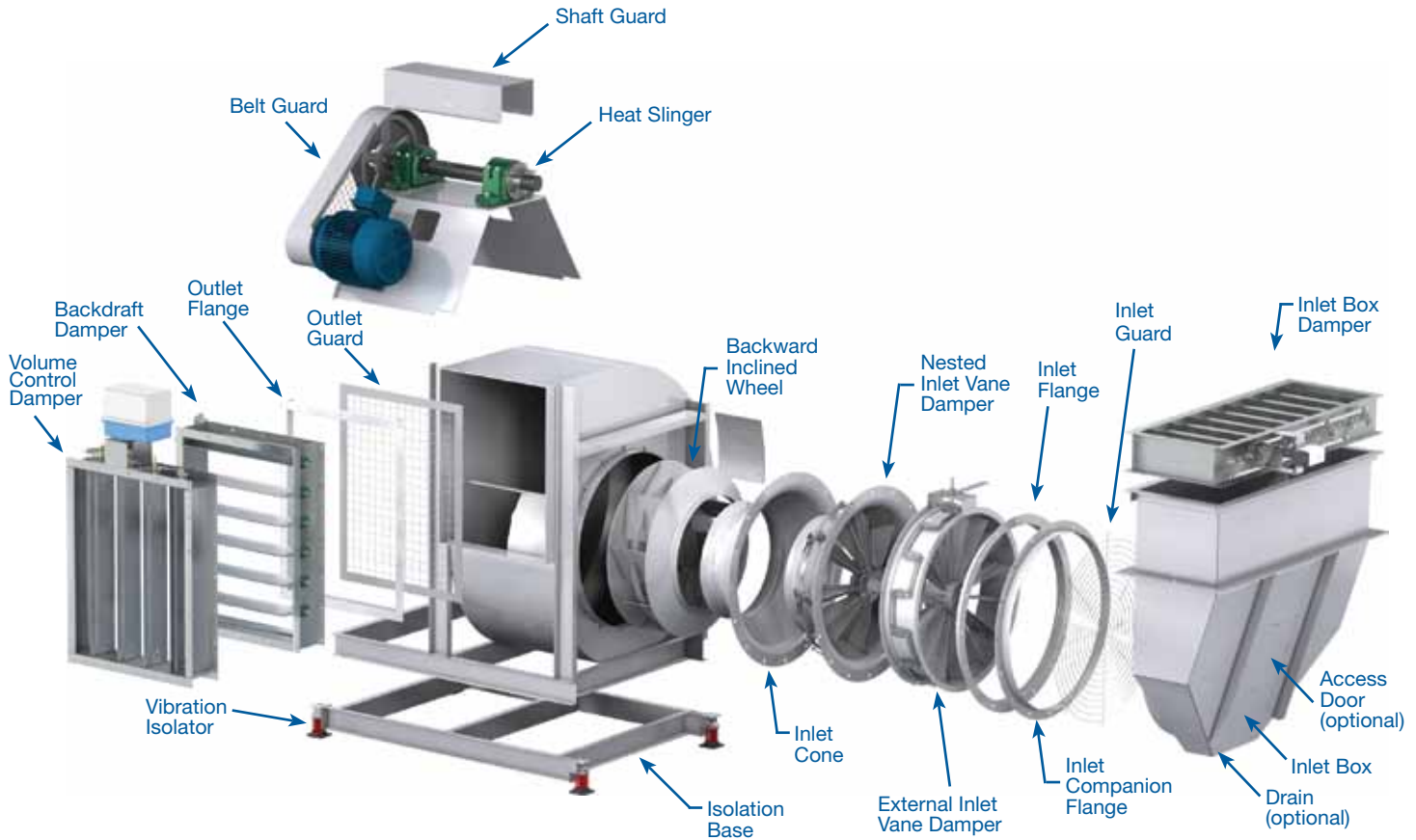
Class of Construction

Fan Class refers to a construction level designed to handle a given fan outlet velocity and pressure. As the fan performance requirements increase, the fan construction (material gauge, shaft diameter, motor size) must also increase to physically handle the new work load.

Centrifugal products are available in Class I, II, III, or IV, with Class I being the lightest construction and Class IV having the heaviest construction and performance capacity.

A typical fan curve is shown with shaded class limits. Visit www.greenheck.com for complete centrifugal fan performance.

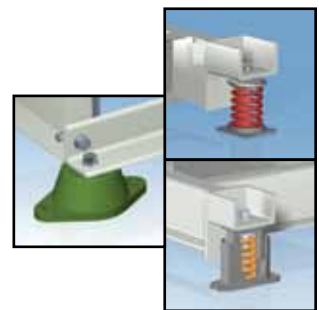




Vibration Isolators and Structural Bases

Greenheck offers a complete package of structural steel isolation bases and vibration isolators to simplify field assembly and reduce transmitted vibrations. All structural isolation bases include a motor slide base for belt adjustments. Additionally, bases are available with height savings brackets to keep the base and fan center of gravity lower to the mounting surface.

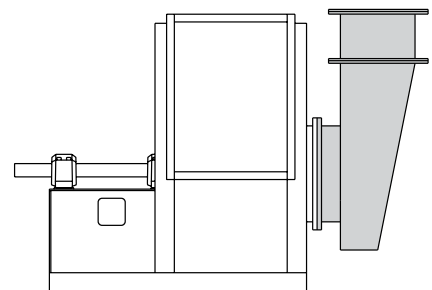
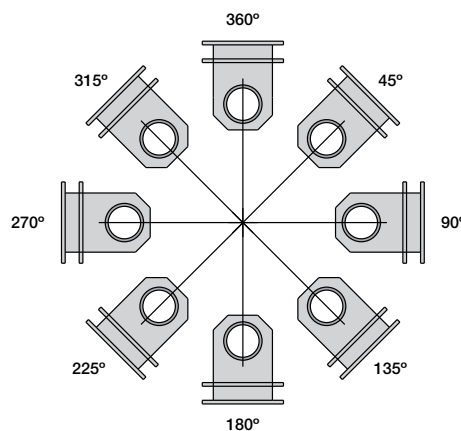
Vibration isolator options include neoprene, free standing spring, housed spring and restrained spring isolators. Seismic isolators and calculations are available on request for all centrifugal configurations. Contact your Greenheck representative if seismic product certification is required.



Inlet Box Orientation Guide

Orientation is determined from the drive side of the fan. Positions start at 360° (see figure) and rotate clockwise in 45° increments.

135°, 180°, and 225° positions have special design considerations in regard to structural clearances, bases and dampers. Consult factory with your application requirements.



Weatherhoods for Arrangement 10*

Vented steel weatherhoods protect the motor and drive components from rain, moisture, dust, and dirt. Weatherhoods meet OSHA guidelines and are easily removed for service access.

Belt Guard*

Belt guards are designed to allow easy access to the belts and pulleys for service. All belt guards include tachometer openings to monitor the fan speed as well as an access panel for testing belt tension. Belt guards meet OSHA guidelines.

Shaft Guard*

Shaft guards are designed to cover shafts and bearings on arrangements 1, 8, 9, or 10 configurations. Extended lube lines are optional for bearing lubrication without removal of the guard. Shaft guards meet OSHA guidelines.

Inlet and Outlet Guards*

Removable inlet and outlet guards provide protection for personnel and equipment in non-ducted installations. Inlet and outlet guards meet OSHA guidelines.

Inlet and Outlet Flanges*

Optional inlet flanges on all single-width fans are pre-punched and welded to the inlet collar. Punched outlet flanges are available for fan sizes 7-73. Punched outlet flanges are standard on fan sizes 33-73, fans with downblast discharges, and all Class III fans.

Inlet Box*

An inlet box is used to minimize entry losses when a 90° turn is required at the fan inlet. Inlet boxes are available with dampers, access doors and drains.

Access Doors*

Bolted or hinged (quick-opening) access doors provide access for cleaning or inspection. Access doors are standard on downblast discharge fans. Raised bolted access doors are also available to allow up to 4 in. (102 mm) of field-applied insulation on the fan housing.

Companion Flanges*

Punched companion inlet flanges are available for all single-width fan sizes.

Drain Connection*

A one-inch (25 mm) threaded drain connection is located at the bottom of the fan housing to drain water that may accumulate.

Heat Slings

The heat slinger is an aluminum cooling disc mounted on the fan shaft between the inboard bearing and the blower housing to dissipate heat conducted along the fan shaft. Heat slingers are not available for Arrangement 3 or 4 fans.

Stainless Steel Shafts

Stainless steel fan shafts are available for applications where standard carbon steel shafts may exhibit excessive corrosion or heat stress.

Shaft Seals

A felt, neoprene, or ceramic shaft seal with an aluminum rub ring is available for operation at high temperatures or for exhausting contaminated air. Stuffing boxes are available upon request.

Extended Life Bearings

Extended life bearings are selected for a basic rating fatigue life L_{10} per ABMA Standards in excess of 200,000 hours at the maximum RPM for the selected pressure class. L_{10} is the life associated with 90% reliability of a bearing.

Extended Lubrication Lines

Single-width fans are available with flexible nylon tubing extending from the bearings to conveniently located grease fittings mounted on the fan drive frame (or on the fan housing if a weatherhood is supplied). Double-width fans can be provided with lube line kits containing 25 ft. (7.6 m) of nylon tubing and grease fittings for field installation.

Nested Inlet Vanes

Nested inlet vanes provide variable inlet volume at reduced horsepower. Nested inlet vanes are built into the inlet cone. Electric or pneumatic actuators are available for fan sizes 12-73. The maximum operating temperature for inlet vanes is 200°F (93°C)

External Inlet Vanes

Inlet vanes are mounted externally on the fan inlet flange and are available for fan sizes 12-60. External inlet vanes extend beyond the fan inlet. Electric or pneumatic actuators are available. The maximum operating temperature for inlet vanes is 200°F (93°C)

Disconnect Switches

Greenheck offers a wide selection of NEMA rated fusible or non-fusible disconnect switches. Switches can be factory mounted or shipped loose for field installation.

**These accessories are also available in Aluminum or Stainless Steel construction.*

Protective Coatings

Greenheck offers a wide variety of protective coatings suitable for corrosive applications. All coatings are electrostatically-applied baked powders that offer a durable, long lasting finish. For more information on our complete offering of coatings, visit www.greenheck.com and navigate to Library/Application Articles. Search for [Performance Coatings for Ventilation Products](#).



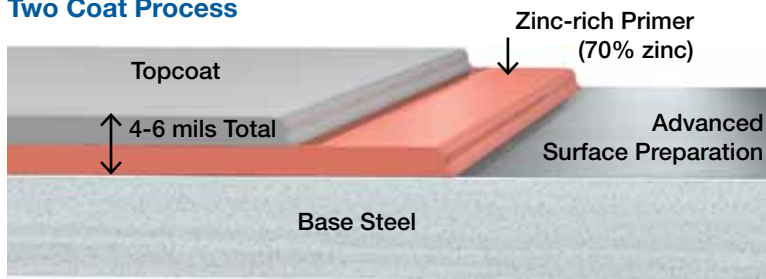
Zinc Advantage

For corrosive environments (outdoor, coastal, laboratory), discover Greenheck's zinc-rich basecoat technology. Our advanced two-coat powder application includes a basecoat of zinc-rich epoxy powder and a topcoat of Greenheck's Permatector™ or Hi-Pro Polyester.

The sacrificial protection offered by the zinc-rich basecoats in Perma-Z and Hi-Pro Z result in extraordinary corrosion resistance. Test data demonstrates our two-coat paint system offers three (Perma-Z) and four (Hi-Pro Z) times the corrosion resistance of other coatings commonly available within the fan industry.

For more information about the zinc advantage, see Greenheck's [Coatings for Extreme Applications](#) catalog, available on-line at www.greenheck.com.

Two Coat Process



Salt Spray ASTM B117				
Hours	1000	2000	3000	4000
Permatector™	██████████			
Hi-Pro Poly	██████████			
Perma-Z	██████████	██████████		
Hi-Pro-Z	██████████	██████████	██████████	
Baked Phenolic	██████████			
Epoxy Phenolic	██████████			
Fluorocarbon	██████████			

Salt Spray ASTM B117 is a comparative test that indicates the corrosion resistance of powder paint coatings.

Sure-Aire™

The Sure-Aire airflow monitoring station measures fan flow within an accuracy of 3%. Unlike traditional flow probes mounted in the fan venturi that create a system effect hindering a fan's performance, Sure-Aire does not interfere with airflow and will not impact the fan's air or sound performance. This option is available on all BI and AF series products and ships completely assembled from our factory. An electronics package with pressure transmitter and digital read out is available with the Sure-Aire system. The electronic kits are available for 50 or 60 Hz power supplies and provide a 4-20 mA output that can be tied into the building's automation system.



Gravity and Volume Control Dampers

Gravity and volume control dampers are available for all centrifugal fan configurations. Backdraft dampers are available in galvanized, painted steel, or aluminum construction and include counterweights for tight closure when the fan is de-energized. Control dampers are available in painted steel, aluminum, or stainless steel. Options include manual quadrants (manual operation), electric actuators, or pneumatic actuators.



Industrial Control Dampers HCD



Industrial Backdraft Dampers HB

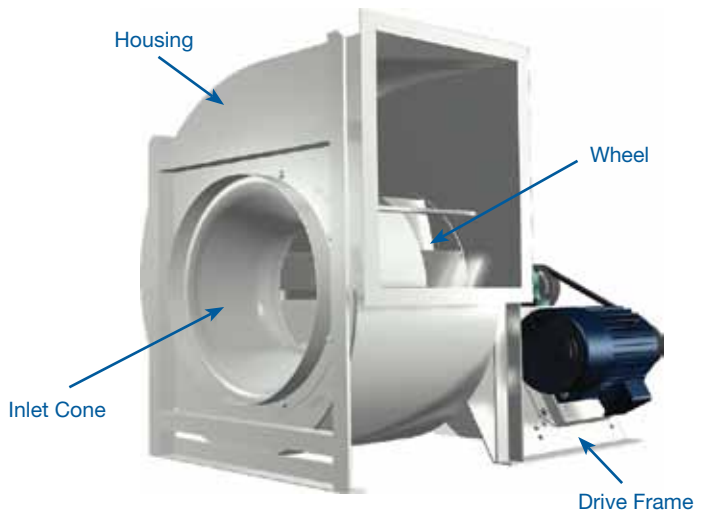
Alternative Materials

Greenheck offers all centrifugal models in aluminum or stainless construction as an alternative to coated steel. Aluminum construction provides advantages for applications with high moisture and various chemicals. Aluminum also reduces the weight of the fan if there are structural concerns. Stainless steel (316L) construction is used for environments subject to continuous high heat up to 1,000°F (538°C) or severe corrosives. Both aluminum or stainless steel construction can be applied to the entire fan (housing, wheel, inlet cone and drive frame) or the airstream components (housing, wheel and inlet cone) only.

Spark-Resistant Construction

Greenheck centrifugal fans are available with spark-resistant designs suitable for applications that involve flammable particles, fumes or vapors. Spark resistant construction options adhere to guidelines defined within AMCA Standard 99-0401-86.

Spark A	All parts in contact with the airstream are constructed of nonferrous material (usually aluminum).
Spark B	The fan wheel is constructed of a nonferrous material (usually aluminum). A nonferrous (aluminum) rub ring surrounds the fan shaft where it passes through the fan housing.
Spark C	The inlet cone is constructed of nonferrous material (usually aluminum). A nonferrous (aluminum) rub ring surrounds the fan shaft where it passes through the fan housing.



Material Availability by Model and Configuration

Construction	Model	Construction	Size	Class	Arrangement
Steel	BISW/AFSW BIDW/AFDW	21/41	7 – 73	I, II, III, IV,	Any – 1, 3, 4, 8, 9, 10
Aluminum, entire	BISW/AFSW	41	7 – 30	I, II	10
Aluminum, airstream	BISW/AFSW	41	7 – 49	I, II	1, 9, 10
316 Stainless, entire	BISW	41	7 – 49	I, II, III	1, 9, 10
316 Stainless, airstream	BISW	41	7 – 49	I, II, III	1, 9, 10
Spark A	BISW/AFSW	41	7 – 49	I, II, III	1, 8, 9, 10
Spark B	BISW/AFSW	21/41	7 – 49	I, II, III	1, 4, 8, 9, 10
Spark C	BISW/AFSW	21/41	7 – 73	I, II, III	1, 4, 8, 9, 10

*Consult factory for sizes and options beyond what is cataloged.

Split Housings

Split housings can solve many space limitation problems in both retrofit and new construction situations. The standard split is horizontal, through the centerline of the fan shaft. Split housings are available on single and double-width fans sizes 33 and larger. Vertical splits are available upon request.



Emergency Smoke Options (UL Listed)

Greenheck model BISW is available with the UL Power Ventilators for Smoke Control Systems Listing which indicates it is designed and tested to exhaust heat and smoke in an emergency situation. The emergency high temperature option is suitable for the following temperatures:

Operating Temperature	Time Duration
500°F (260°C)	4 hours
572°F (300°C)	2 hours
750°F (400°C)	2 hours
1000°F (538°C)	15 minutes

Model BISW offers:



High temperature options include a heat slinger and shaft seal.

High Temperature Process Construction

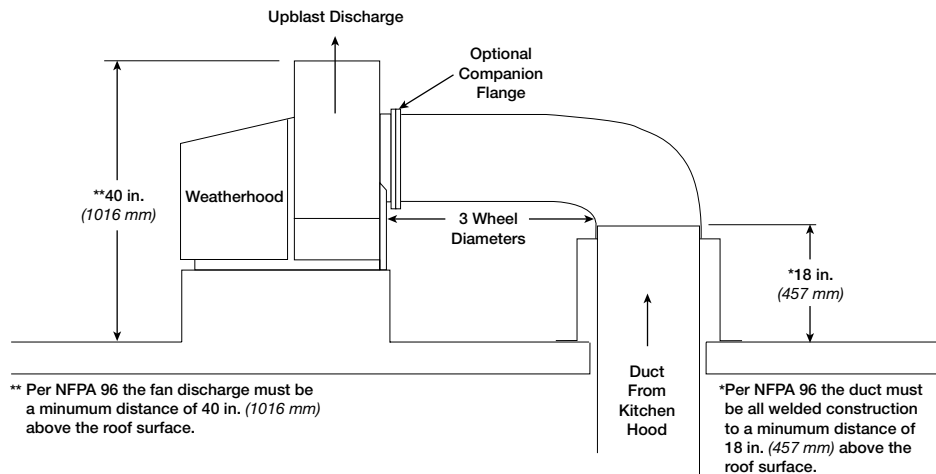
The BISW and AFSW models are available in a wide variety of configurations to meet continuous high temperature exhaust requirements. Our high temperature process packages include a heat slinger, high temperature fan bearing grease, and high temperature paint for steel housed fans.

Temperature Option	Model	Arrangement	Material
251–500°F (121–260°C)	BISW, AFSW	1, 8, 9, 10	Steel, 316 Stainless Steel*
501–750°F (261–400°C)	BISW	1, 8	316 Stainless Steel
751–1000°F (401–538°C)	BISW	1	316 Stainless Steel

Note: Aluminum construction is suitable up to 250° F (121°C)
* AFSW wheels are steel construction only.

UL Listed for Restaurant Grease Exhaust

The BISW centrifugal fan is designed for high pressure restaurant grease exhaust applications. Both the welded and Permalock™ versions of the BISW are available with the UL Listing of Power Ventilators for Restaurant Exhaust Appliances. The welded housing is suitable for indoor or outdoor mounting locations whereas the Permalock housing is suitable for only outdoor kitchen ventilation installations. UL 762 selections require a drain connection and access door.



Commercial Kitchen Installation Guide

Due to high temperatures and grease-laden airstreams in commercial kitchen ventilation, system designers must be aware of governing codes and guidelines. The National Fire Protection Association (NFPA) is the primary source for many local codes for commercial kitchen ventilation systems. Local code authorities should be consulted before proceeding with any kitchen ventilation project.

- Installation must include a means for inspecting, cleaning and servicing the exhaust fan.
- Fans selected for grease removal must include a weatherhood, bolted access door, and 1 in. (25 mm) drain connection. For grease applications where the fan is mounted indoors, the welded scroll option (Series 41) must be selected.
- An outlet guard is strongly recommended when the fan discharge is accessible.
- An upblast discharge is recommended.
- The fan must discharge a minimum of 40 in. (1016 mm) above the roof line and the exhaust duct must be fully welded to a minimum distance of 18 in. (457 mm) above the roof surface.
- No dampers are to be used in the system.

Selection data for centrifugal products can be found at www.greenheck.com. BISW and AFSW models can be found in “Single-Width Centrifugal Fan Performance Supplement” and BIDW and AFDW data is available in “Double-Width Centrifugal Fan Performance Supplement.”

Selection

The first consideration in any fan selection is the amount of air to be moved and the resistance to this air movement. Air volume requirements are established through specific codes or accepted industry standards. Once the air volume is known, system resistance can be determined by summing up the losses through the system components. Duct layout, duct size, coil, filters, dampers and fan accessories all affect system resistance. “ASHRAE Guide and Data Books” and manufacturer’s data on individual system components are common sources of information available to the system designer.

In most applications, several fans may meet the required airflow and system resistance conditions. An optimum fan selection requires evaluation of alternative fan types and fan sizes, as they relate to initial cost, operating cost, available space and allowable sound levels. The relative importance of these facts varies with each system.

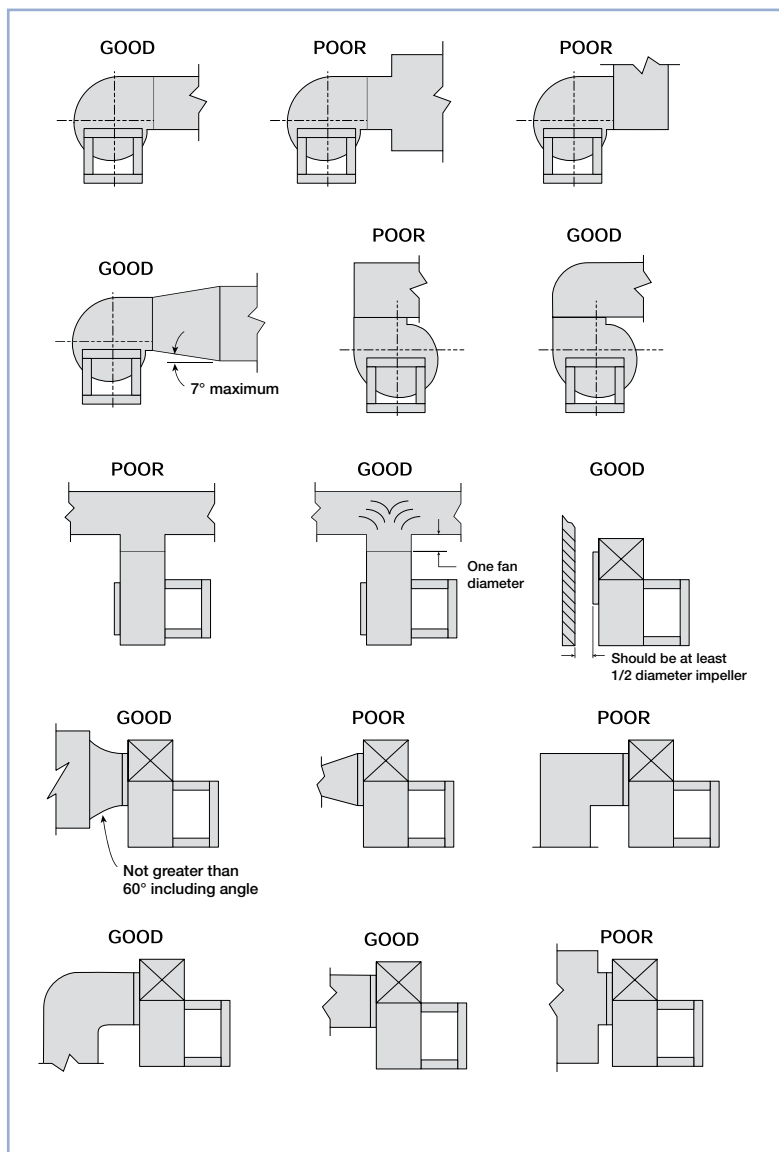
When deciding on a specific fan size, consider selections that allow for adjustments after installation. Avoid selecting fans that are within 10% of the maximum fan RPM or max motor horsepower capacity. If a selection is within 10% of capacity, upgrade to the next class of construction if possible. Avoid selections near the fan “stall” if there is potential variability in pressure. Operation in stall conditions will result in low fan performance and potential vibration issues. Watch for fan selections with excessive fan RPM’s (above 2700 fan RPM) as these can generate higher sound levels. Select a slower running fan (typically a larger diameter wheel) if possible. Please contact your local Greenheck Representative if you need any assistance in reviewing fan selections.

Effects of Installation on Performance

Fan ratings presented in the performance tables and curves are in accordance with AMCA Standard 210 “Laboratory Methods of Testing Fans for Aerodynamic Performance Rating”. The AMCA test procedure utilizes an open inlet and a straight outlet duct to assure maximum static regain.

Any installation with inlet or discharge configurations that deviate from this standard may result in reduced fan performance. Restricted or unstable flow at the fan inlet can cause pre-rotation of incoming air or uneven loading of the fan wheel yielding large system losses and increased sound levels. Free discharge or turbulent flow in the discharge ductwork will also result in system effect losses.

The examples below show system layouts and inlet and discharge configurations which can affect fan performance.



Series 21 – Class I

Fan Size	Scroll Gauge		Wheel Weight				Arr. 1, 9 & 10 (BISW, AFSW)				Arr. 3 (BISW, AFSW)		Arr. 3 (BIDW, AFDW)					
							Shaft Dia.	Arr. 1, 9 Weight		Arr. 10 Weight		Shaft Dia.	Fan Weight		Shaft Dia.	Fan Weight		
	Side	Wrap	BISW	BIDW	AFSW	AFDW		BISW	AFSW	BISW	AFSW		BISW	AFSW		BIDW	AFDW	
7-10	14	16	9	NA	NA	NA	1	125	NA	107	NA	NA	NA	NA	NA	NA	NA	NA
12	14	16	16	20	NA	NA	1	144	NA	145	NA	1	111	NA	1 ³ / ₁₆	136	NA	NA
13	14	16	18	21	NA	NA	1	151	NA	151	NA	1	123	NA	1 ³ / ₁₆	153	NA	NA
15	14	16	22	29	NA	NA	1	164	NA	165	NA	1	143	NA	1 ⁷ / ₁₆	188	NA	NA
16	14	16	33	41	NA	NA	1 ³ / ₁₆	214	NA	221	NA	1 ³ / ₁₆	174	NA	1 ⁷ / ₁₆	222	NA	NA
18	14	14	40	50	43	58	1 ³ / ₁₆	280	283	285	288	1 ³ / ₁₆	220	223	1 ¹ / ₁₆	280	288	288
20	14	14	45	56	47	66	1 ³ / ₁₆	300	302	305	307	1 ³ / ₁₆	250	252	1 ¹ / ₁₆	316	326	326
22	14	14	68	85	71	98	1 ⁷ / ₁₆	438	441	448	451	1 ⁷ / ₁₆	325	328	1 ⁹ / ₁₆	417	430	430
24	14	14	77	95	79	111	1 ⁷ / ₁₆	474	476	485	487	1 ⁷ / ₁₆	380	382	2 ¹ / ₁₆	502	518	518
27	14	14	87	112	92	130	1 ¹ / ₁₆	598	603	623	628	1 ¹ / ₁₆	490	495	2 ³ / ₁₆	632	650	650
30	14	14	130	162	137	176	1 ⁵ / ₁₆	691	698	716	723	1 ⁵ / ₁₆	602	609	2 ¹ / ₁₆	782	796	796
33	14	14	146	186	154	203	1 ⁹ / ₁₆	752	760	752	760	1 ⁹ / ₁₆	678	686	2 ¹ / ₁₆	919	936	936
36	14	14	189	242	191	248	1 ⁹ / ₁₆	870	872	870	872	1 ⁹ / ₁₆	837	839	2 ¹ / ₁₆	1094	1100	1100
40	14	14	249	325	251	328	2 ¹ / ₁₆	1059	1061	1058	1060	1 ⁹ / ₁₆	1032	1034	2 ¹ / ₁₆	1328	1331	1331
44	14	14	287	379	285	377	2 ¹ / ₁₆	1344	1342	1344	1342	1 ⁹ / ₁₆	1198	1196	2 ¹ / ₁₆	1657	1655	1655
49	14	14	373	486	403	547	2 ¹ / ₁₆	1594	1624	1593	1623	2 ¹ / ₁₆	1471	1501	3 ¹ / ₁₆	2028	2089	2089
54	10	12	477	704	479	708	2 ¹ / ₁₆	2241	2243	2239	2241	2 ¹ / ₁₆	2116	2118	3 ¹ / ₁₆	2923	2927	2927
60	10	12	697	929	757	1020	2 ¹ / ₁₆	2720	2780	2717	2777	2 ¹ / ₁₆	2688	2748	3 ¹ / ₁₆	3551	3642	3642
66	10	12	858	1200	852	1190	3 ¹ / ₁₆	3525	3519	3508	3502	2 ¹ / ₁₆	3322	3316	4 ¹ / ₁₆	4445	4435	4435
73	10	10	1020	1470	1007	1450	3 ¹ / ₁₆	4253	4240	4232	4219	3 ¹ / ₁₆	4119	4106	4 ¹ / ₁₆	5678	5658	5658

Series 21 – Class II

Fan Size	Scroll Gauge		Wheel Weight				Arr. 1, 9 & 10 (BISW, AFSW)				Arr. 3 (BISW, AFSW)		Arr. 3 (BIDW, AFDW)					
							Shaft Dia.	Arr. 1, 9 Weight		Arr. 10 Weight		Shaft Dia.	Fan Weight		Shaft Dia.	Fan Weight		
	Side	Wrap	BISW	BIDW	AFSW	AFDW		BISW	AFSW	BISW	AFSW		BISW	AFSW		BIDW	AFDW	
7-10	14	16	9	NA	NA	NA	1	125	NA	126	NA	NA	NA	NA	NA	NA	NA	NA
12	14	16	18	23	NA	NA	1	146	NA	172	NA	1	113	NA	1 ¹ / ₁₆	145	NA	NA
13	14	16	20	34	NA	NA	1	153	NA	179	NA	1	125	NA	1 ¹ / ₁₆	180	NA	NA
15	14	16	23	38	NA	NA	1 ³ / ₁₆	167	NA	192	NA	1 ³ / ₁₆	148	NA	1 ¹ / ₁₆	207	NA	NA
16	14	16	37	45	NA	NA	1 ³ / ₁₆	219	NA	262	NA	1 ³ / ₁₆	179	NA	1 ⁵ / ₁₆	246	NA	NA
18	14	14	44	54	47	62	1 ⁷ / ₁₆	291	294	296	299	1 ⁷ / ₁₆	231	234	1 ⁵ / ₁₆	295	303	303
20	14	14	50	61	52	72	1 ⁷ / ₁₆	312	314	317	319	1 ⁷ / ₁₆	263	265	2 ³ / ₁₆	347	358	358
22	14	14	68	85	71	98	1 ⁷ / ₁₆	440	443	450	453	1 ⁷ / ₁₆	328	331	2 ¹ / ₁₆	454	467	467
24	14	14	81	103	79	111	1 ¹ / ₁₆	490	488	501	499	1 ¹ / ₁₆	399	397	2 ¹ / ₁₆	533	541	541
27	14	14	92	153	92	161	1 ¹ / ₁₆	606	606	631	631	1 ¹ / ₁₆	498	498	2 ¹ / ₁₆	725	733	733
30	14	14	146	194	148	197	1 ⁵ / ₁₆	710	712	735	737	1 ⁵ / ₁₆	621	623	2 ¹ / ₁₆	843	846	846
33	14	14	165	224	180	254	2 ¹ / ₁₆	785	800	785	800	2 ¹ / ₁₆	706	721	2 ¹ / ₁₆	985	1015	1015
36	14	14	204	272	224	312	2 ¹ / ₁₆	921	941	921	941	2 ¹ / ₁₆	886	906	2 ¹ / ₁₆	1127	1167	1167
40	14	14	268	363	291	408	2 ¹ / ₁₆	1101	1124	1100	1123	2 ¹ / ₁₆	1087	1110	3 ¹ / ₁₆	1404	1449	1449
44	14	14	337	504	331	493	2 ¹ / ₁₆	1429	1423	1429	1423	2 ¹ / ₁₆	1318	1312	3 ¹ / ₁₆	1815	1804	1804
49	14	14	434	647	432	643	2 ¹ / ₁₆	1677	1675	1676	1674	2 ¹ / ₁₆	1591	1589	3 ¹ / ₁₆	2254	2250	2250
54	10	12	552	820	549	813	3 ¹ / ₁₆	2374	2371	2372	2369	2 ¹ / ₁₆	2245	2242	4 ¹ / ₁₆	3174	3167	3167
60	10	12	778	1050	744	977	3 ¹ / ₁₆	2914	2880	2911	2877	3 ¹ / ₁₆	2881	2847	4 ¹ / ₁₆	3992	3919	3919
66	10	12	895	1230	852	1140	3 ¹ / ₁₆	3681	3638	3664	3621	3 ¹ / ₁₆	3563	3520	5 ¹ / ₁₆	4798	4708	4708
73	10	10	1060	1560	1007	1450	3 ¹ / ₁₆	4416	4363	4395	4342	3 ¹ / ₁₆	4298	4245	5 ¹ / ₁₆	6105	5995	5995

Series 41 – Class I

Fan Size	Scroll Gauge		Wheel Weight				Arr. 1, 9 & 10 (BISW, AFSW)				Arr. 3 (BISW, AFSW)		Arr. 3 (BIDW, AFDW)					
							Shaft Dia.	Arr. 1, 9 Weight		Arr. 10 Weight		Shaft Dia.	Fan Weight		Shaft Dia.	Fan Weight		
	Side	Wrap	BISW	BIDW	AFSW	AFDW		BISW	AFSW	BISW	AFSW		BISW	AFSW		BIDW	AFDW	
7-10	14	16	9	NA	NA	NA	1	125	NA	107	NA	NA	NA	NA	NA	NA	NA	NA
12	14	14	16	20	NA	NA	1	144	NA	145	NA	1	111	NA	1 ³ / ₁₆	138	NA	NA
13	14	14	18	23	NA	NA	1	151	NA	151	NA	1	123	NA	1 ³ / ₁₆	156	NA	NA
15	14	14	22	29	NA	NA	1	164	NA	165	NA	1	143	NA	1 ⁷ / ₁₆	192	NA	NA
16	14	14	33	41	NA	NA	1 ³ / ₁₆	214	NA	221	NA	1 ³ / ₁₆	174	NA	1 ⁷ / ₁₆	226	NA	NA
18	14	14	40	50	43	58	1 ³ / ₁₆	280	283	285	288	1 ³ / ₁₆	220	223	1 ¹ / ₁₆	280	288	288
20	14	14	45	56	47	66	1 ³ / ₁₆	300	302	305	307	1 ³ / ₁₆	250	252	1 ¹ / ₁₆	316	326	326
22	12	14	68	85	71	98	1 ⁷ / ₁₆	449	452	459	462	1 ⁷ / ₁₆	336	339	1 ⁵ / ₁₆	424	437	437
24	12	14	77	95	79	111	1 ⁷ / ₁₆	488	490	499	501	1 ⁷ / ₁₆	394	396	2 ¹ / ₁₆	512	528	528
27	12	14	87	112	92	130	1 ¹ / ₁₆	615	620	640	645	1 ¹ / ₁₆	507	512	2 ¹ / ₁₆	644	662	662
30	10	12	130	162	137	176	1 ⁵ / ₁₆	777	784	802	809	1 ⁵ / ₁₆	688	695	2 ¹ / ₁₆	879	893	893
33	10	12	146	186	154	203	1 ⁵ / ₁₆	856	864	856	864	1 ⁵ / ₁₆	782	790	2 ¹ / ₁₆	1035	1052	1052
36	10	12	189	242	191	248	1 ⁹ / ₁₆	997	999	997	999	1 ⁹ / ₁₆	964	966	2 ¹ / ₁₆	1236	1242	1242
40	10	12	249	325	251	328	2 ¹ / ₁₆	1214	1216	1213	1215	1 ⁹ / ₁₆	1187	1189	2 ¹ / ₁₆	1502	1505	1505
44	10	12	287	379	285	377	2 ¹ / ₁₆	1534	1532	1534	1532	1 ⁹ / ₁₆	1388	1386	2 ¹ / ₁₆	1870	1868	1868
49	10	12	373	486	403	547	2 ¹ / ₁₆	1825	1855	1824	1854	2 ¹ / ₁₆	1702	1732	3 ¹ / ₁₆	2287	2348	2348
54	10	12	477	704	479	708	2 ¹ / ₁₆	2241	2243	2239	2241	2 ¹ / ₁₆	2116	2118	3 ¹ / ₁₆	2923	2927	2927
60	10	12	697	929	757	1020	2 ¹ / ₁₆	2720	2780	2717	2777	2 ¹ / ₁₆	2688	2748	3 ¹ / ₁₆	3551	3642	3642
66	10	12	858	1200	852	1190	3 ¹ / ₁₆	3525	3519	3508	3502	2 ¹ / ₁₆	3322	3316	4 ¹ / ₁₆	4445	4435	4435
73	10	10	1020	1470	1007	1450	3 ¹ / ₁₆	4253	4240	4232	4219	3 ¹ / ₁₆	4119	4106	4 ¹ / ₁₆	5678	5658	5658

Series 41 – Class II

Fan Size	Scroll Gauge		Wheel Weight				Arr. 1, 9 & 10 (BISW, AFSW)				Arr. 3 (BISW, AFSW)		Arr. 3 (BIDW, AFDW)					
							Shaft Dia.	Arr. 1, 9 Weight		Arr. 10 Weight		Shaft Dia.	Fan Weight		Shaft Dia.	Fan Weight		
	Side	Wrap	BISW	BIDW	AFSW	AFDW		BISW	AFSW	BISW	AFSW		BISW	AFSW		BIDW	AFDW	
7-10	14	16	9	NA	NA	NA	1	125	NA	126	NA	NA	NA	NA	NA	NA	NA	NA
12	14	14	18	23	NA	NA	1	146	NA	172	NA	NA	1	113	NA	1 ⁷ / ₁₆	147	NA
13	14	14	20	34	NA	NA	1	153	NA	179	NA	NA	1	125	NA	1 ¹¹ / ₁₆	183	NA
15	14	14	23	38	NA	NA	1 ¹ / ₁₆	167	NA	193	NA	NA	1 ¹ / ₁₆	148	NA	1 ¹¹ / ₁₆	211	NA
16	14	14	37	45	NA	NA	1 ¹ / ₁₆	219	NA	262	NA	NA	1 ³ / ₁₆	179	NA	1 ⁵ / ₁₆	250	NA
18	14	14	45	54	47	62	1 ¹ / ₁₆	292	294	297	299	1 ¹ / ₁₆	232	234	1 ⁵ / ₁₆	295	303	
20	14	14	50	61	52	71	1 ¹ / ₁₆	312	314	311	313	1 ⁷ / ₁₆	263	265	2 ¹ / ₁₆	348	358	
22	12	14	68	85	71	98	1 ¹ / ₁₆	451	454	461	464	1 ¹ / ₁₆	339	342	2 ¹ / ₁₆	461	474	
24	12	14	81	103	79	111	1 ¹ / ₁₆	504	502	515	513	1 ¹¹ / ₁₆	413	411	2 ¹ / ₁₆	543	551	
27	12	14	92	153	92	161	1 ¹¹ / ₁₆	623	623	648	648	1 ¹¹ / ₁₆	515	515	2 ¹ / ₁₆	737	745	
30	10	12	146	194	148	197	1 ⁵ / ₁₆	796	798	821	823	1 ⁵ / ₁₆	707	709	2 ¹ / ₁₆	940	943	
33	10	12	165	224	180	254	2 ¹ / ₁₆	889	904	889	904	2 ¹ / ₁₆	810	825	2 ¹ / ₁₆	1101	1131	
36	10	12	204	272	224	312	2 ¹ / ₁₆	1048	1068	1048	1068	2 ¹ / ₁₆	1013	1033	2 ¹ / ₁₆	1269	1309	
40	10	12	268	363	291	408	2 ¹ / ₁₆	1256	1279	1255	1278	2 ¹ / ₁₆	1242	1265	3 ¹ / ₁₆	1578	1623	
44	10	12	337	504	331	493	2 ¹ / ₁₆	1619	1613	1619	1613	2 ¹ / ₁₆	1508	1502	3 ¹ / ₁₆	2028	2017	
49	10	12	434	647	432	643	2 ¹ / ₁₆	1908	1906	1907	1905	2 ¹¹ / ₁₆	1822	1820	3 ¹ / ₁₆	2513	2509	
54	10	12	552	820	549	813	3 ¹ / ₁₆	2374	2371	2372	2369	2 ¹⁵ / ₁₆	2245	2242	4 ¹ / ₁₆	3174	3167	
60	10	12	778	1050	744	977	3 ¹ / ₁₆	2914	2880	2911	2877	3 ¹ / ₁₆	2881	2847	4 ¹ / ₁₆	3992	3919	
66	10	12	895	1230	852	1140	3 ¹ / ₁₆	3681	3638	3664	3621	3 ¹⁵ / ₁₆	3563	3520	5 ¹ / ₄	4798	4708	
73	10	10	1060	1560	1007	1450	3 ¹ / ₁₆	4416	4363	4395	4342	3 ¹⁵ / ₁₆	4298	4245	5 ¹ / ₄	6105	5995	

Series 41 – Class III

Fan Size	Scroll Gauge		Wheel Weight				Arr. 1, 9 & 10 (BISW, AFSW)				Arr. 3 (BISW, AFSW)		Arr. 3 (BIDW, AFDW)				
							Shaft Dia.	Arr. 1, 9 Weight		Arr. 10 Weight		Shaft Dia.	Fan Weight		Shaft Dia.	Fan Weight	
	Side	Wrap	BISW	BIDW	AFSW	AFDW		BISW	AFSW	BISW	AFSW		BISW	AFSW		BIDW	AFDW
12	10	10	21	34	NA	NA	1 ¹ / ₁₆	186	NA	NA	NA	1 ⁷ / ₁₆	155	NA	1 ¹ / ₁₆	208	NA
13	10	10	24	40	NA	NA	1 ¹ / ₁₆	209	NA	NA	NA	1 ¹ / ₁₆	178	NA	1 ¹ / ₁₆	237	NA
15	10	10	36	45	NA	NA	1 ¹ / ₁₆	260	NA	NA	NA	1 ¹¹ / ₁₆	222	NA	1 ¹ / ₁₆	291	NA
16	10	10	39	50	NA	NA	1 ¹¹ / ₁₆	294	NA	NA	NA	1 ¹¹ / ₁₆	253	NA	1 ¹ / ₁₆	330	NA
18	10	10	52	76	57	90	1 ¹ / ₁₆	342	347	NA	NA	1 ¹¹ / ₁₆	314	319	2 ¹ / ₁₆	432	446
20	10	3 ¹ / ₁₆	64	126	64	133	1 ¹¹ / ₁₆	416	416	NA	NA	1 ¹¹ / ₁₆	384	384	2 ¹ / ₁₆	589	596
22	10	3 ¹ / ₁₆	86	145	86	154	1 ⁵ / ₁₆	524	524	NA	NA	1 ⁵ / ₁₆	528	528	2 ¹ / ₁₆	742	751
24	3 ¹ / ₁₆	3 ¹ / ₁₆	99	161	97	172	2 ¹ / ₁₆	684	682	NA	NA	1 ⁵ / ₁₆	641	639	3 ¹ / ₁₆	907	918
27	3 ¹ / ₁₆	3 ¹ / ₁₆	109	176	123	218	2 ³ / ₁₆	814	828	NA	NA	1 ⁵ / ₁₆	728	742	3 ¹ / ₁₆	1069	1111
30	3 ¹ / ₁₆	3 ¹ / ₁₆	156	202	175	238	2 ¹ / ₁₆	995	1014	NA	NA	2 ¹ / ₁₆	894	913	3 ¹ / ₁₆	1276	1312
33	3 ¹ / ₁₆	3 ¹ / ₁₆	178	234	200	279	2 ¹ / ₁₆	1184	1206	NA	NA	2 ¹ / ₁₆	1128	1150	3 ¹ / ₁₆	1468	1513
36	3 ¹ / ₁₆	3 ¹ / ₁₆	244	353	255	376	2 ¹¹ / ₁₆	1404	1415	NA	NA	2 ¹ / ₁₆	1339	1350	3 ¹ / ₁₆	1772	1795
40	3 ¹ / ₁₆	3 ¹ / ₁₆	308	444	321	470	2 ¹ / ₁₆	1757	1770	NA	NA	2 ¹¹ / ₁₆	1648	1661	4 ¹ / ₁₆	2293	2319
44	3 ¹ / ₁₆	3 ¹ / ₁₆	359	523	368	540	3 ¹ / ₁₆	2185	2194	NA	NA	2 ¹⁵ / ₁₆	1933	1942	4 ¹ / ₁₆	2625	2642
49	3 ¹ / ₁₆	3 ¹ / ₁₆	460	642	477	676	3 ¹ / ₁₆	2557	2574	NA	NA	2 ¹⁵ / ₁₆	2368	2385	4 ¹ / ₁₆	3394	3428
54	3 ¹ / ₁₆	3 ¹ / ₁₆	603	831	647	919	3 ¹ / ₁₆	3168	3212	NA	NA	3 ¹ / ₁₆	2958	3002	5 ¹ / ₄	4283	4371
60	3 ¹ / ₁₆	3 ¹ / ₁₆	817	1100	814	1100	4 ¹ / ₁₆	4502	4499	NA	NA	3 ¹⁵ / ₁₆	3673	3670	5 ¹ / ₄	5256	5256
66	3 ¹ / ₁₆	3 ¹ / ₁₆	945	1400	939	1390	4 ¹ / ₁₆	5019	5013	NA	NA	3 ¹⁵ / ₁₆	4411	4405	5 ¹ / ₁₆	6758	6748
73	3 ¹ / ₁₆	3 ¹ / ₁₆	1120	1660	1110	1640	4 ¹ / ₁₆	5795	5785	NA	NA	4 ⁷ / ₁₆	5344	5334	6 ¹ / ₁₆	7943	7923

Series 41 – Class IV

Fan Size	Scroll Gauge		Wheel Weight				Arr. 1, 9 & 10 (BISW)				Arr. 4 (BISW)		Arr. 8 (BISW)				
							Shaft Dia.	Arr. 1, 9 Weight		Arr. 10 Weight		Shaft Dia.	Fan Weight		Shaft Dia.	Fan Weight	
	Side	Wrap	BISW	BIDW	AFSW	AFDW		BISW	AFSW	BISW	AFSW		BISW	AFSW			
18	3 ¹ / ₁₆	3 ¹ / ₁₆	60	NA	NA	NA	1 ¹¹ / ₁₆	540	NA	NA	NA	NA	CF	CF	CF	CF	CF
20	3 ¹ / ₁₆	3 ¹ / ₁₆	67	NA	NA	NA	2 ¹ / ₁₆	550	NA	NA	NA	NA	CF	CF	CF	CF	CF
22	3 ¹ / ₁₆	3 ¹ / ₁₆	93	NA	NA	NA	2 ³ / ₁₆	700	NA	NA	NA	NA	CF	CF	CF	CF	CF
24	3 ¹ / ₁₆	3 ¹ / ₁₆	119	NA	NA	NA	2 ⁵ / ₁₆	840	NA	NA	NA	NA	CF	CF	CF	CF	CF
27	3 ¹ / ₁₆	3 ¹ / ₁₆	138	NA	NA	NA	2 ¹¹ / ₁₆	1030	NA	NA	NA	NA	CF	CF	CF	CF	CF
30	3 ¹ / ₁₆	3 ¹ / ₁₆	195	NA	NA	NA	2 ¹⁵ / ₁₆	1275	NA	NA	NA	NA	1120	CF	2 ¹ / ₁₆	1465	CF
33	1 ¹ / ₄	1 ¹ / ₄	222	NA	NA	NA	3 ¹ / ₁₆	1825	NA	NA	NA	NA	1600	CF	3 ¹ / ₁₆	2100	CF
36	1 ¹ / ₄	1 ¹ / ₄	298	NA	NA	NA	3 ¹ / ₁₆	2125	NA	NA	NA	NA	1870	CF	3 ¹ / ₁₆	2444	CF
40	1 ¹ / ₄	1 ¹ / ₄	371	NA	NA	NA	3 ¹ / ₁₆	2640	NA	NA	NA	NA	2320	CF	3 ¹ / ₁₆	3030	CF
44	1 ¹ / ₄	1 ¹ / ₄	442	NA	NA	NA	3 ¹ / ₁₆	3300	NA	NA	NA	NA	2900	CF	3 ¹ / ₁₆	3800	CF
49	1 ¹ / ₄	1 ¹ / ₄	580	NA	NA	NA	3 ¹ / ₁₆	3900	NA	NA	NA	NA	3430	CF	3 ¹ / ₁₆	4480	CF
54	1 ¹ / ₄	1 ¹ / ₄	685	NA	NA	NA	4 ¹ / ₁₆	4700	NA	NA	NA	NA	NA	NA	4 ¹ / ₁₆	5410	CF
60	1 ¹ / ₄	1 ¹ / ₄	1100	NA	NA	NA	4 ¹ / ₁₆	6930	NA	NA	NA	NA	NA	NA	4 ¹ / ₁₆	7970	CF
66	1 ¹ / ₄	1 ¹ / ₄	1270	NA	NA	NA	5 ¹ / ₁₆	7740	NA	NA	NA	NA	NA	NA	5 ¹ / ₁₆	8900	CF
73	1 ¹ / ₄	1 ¹ / ₄	1500	NA	NA	NA	5 ¹ / ₁₆	8910	NA	NA	NA	NA	NA	NA	5 ¹ / ₁₆	10250	CF

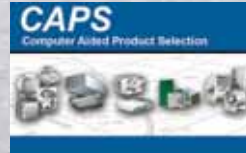
Weights, shown in pounds, are for steel fans and do not include motors, drives or accessories.
 Fan weights include the wheel weight and may vary up to 5% based on the discharge position.
 Arrangement 8 fan weights will vary with motor frame size.
 CF – Consult Factory

Design and Selection Support

Computer Aided Product Selection — CAPS

All Greenheck products are supported by the industry's best product literature, electronic media, and Computer Aided Product Selection program, CAPS. Online, you can also find electronic copies of our product literature as well as storage, installation and maintenance information in our Installation and Operation Manuals.

And, of course, you can always count on the personal service and expertise of our national and international representative organization. To locate your nearest Greenheck representative call 715-359-6171 or visit our website at www.greenheck.com



To-Scale Drawings and Fan Specifications

To-scale CAD drawings and Revit models along with detailed centrifugal specifications can be found online at www.greenheck.com or within our Computer Aided Product Selection program (CAPS).

Building Value in Air

Greenheck delivers value to mechanical engineers by helping them solve virtually any air quality challenges their clients face with a comprehensive selection of

top quality, innovative air-related equipment. We offer extra value to contractors by providing easy-to-install, competitively priced, reliable products that arrive on time.

And building owners and occupants value the energy efficiency, low maintenance and quiet dependable operation they experience long after the construction project ends.

Our Warranty

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the shipment date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by Greenheck prove defective during this period, they should be returned to the nearest authorized motor service station. Greenheck will not be responsible for any removal or installation costs.

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.



Prepared to Support
Green Building Efforts

