# **Plenum Fans**

# Models APD, APF, APM, APH and HPA

**Belt and Direct Drive** 





# **Quiet & Efficient Plenum Fans**



Plenum fans are designed and engineered to provide superior performance and reliability in commercial or 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. They are designed for unhoused operation, resulting in a savings of the space normally occupied by the fan housing. Additional space savings are realized when multiple duct takeoffs are required. Ductwork is connected directly to the pressurized plenum without intermediate transitions.

#### Typical applications include:

- · Custom air handlers
- Built-up air handlers
- · Packaged air handlers
- · Parking garages

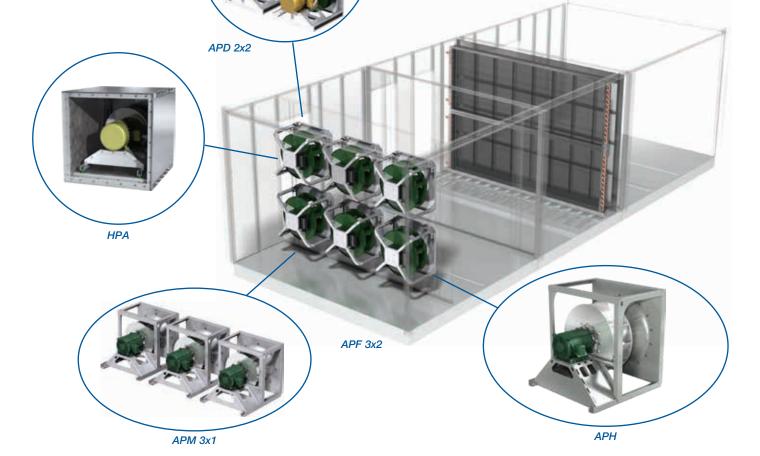
 General supply and return system



Greenheck Fan Corporation certifies that the model APD, APM, APH and HPA plenum 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.



Greenheck Fan Corporation certifies that the model APF plenum 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.



#### Made in U.S.A.

Greenheck plenum fans are designed and built in one of two manufacturing locations, Schofield, WI and Shelby, NC. Multiple manufacturing locations enables us to build fans and get them to you, our customer, faster.





### **Benefits of Greenheck's plenum fans**

- Designed, engineered, and tested prior to shipment to provide years of smooth, vibration-free operation with minimal maintenance.
- Tiered model approach gives you flexibility in size, performance, and construction, matching the appropriate model to your application.
- 7- or 12-bladed wheel options allow you to select a model based on what is important to you. Plenum fans can be selected based on performance, efficiency or price point.
- Quick and easy selection options along with AutoCAD® and Revit® models available for download and integration into plan drawings, custom equipment schedules and specifications.
- CAPS® selection software leads the industry in providing selection details, options, accessories, and full submittal packages. Or use eCAPS®, an easy-to-use cloud based cross-model selection program. eCAPS quickly ranks the tiered models based on performance, providing detailed estimated first cost, operating costs, weights, and dimensions. All fans are selectable with N-1 redundancy.
- Easy installation with integral lifting points.

#### Wheel Performance - 7 Blades vs. 12 Blades

Performance Point: 5,000 cfm @ 5 in. wg

Sound Pressure dBA @ 5 ft.

Performance Point: 10,000 cfm @ 3 in. wg

Sound Pressure dBA @ 5 ft.

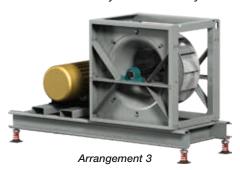
Size	Blades on Wheel	rpm	bhp	Motor Size	Static Eff. (%)	Inlet	Outlet
APD-400 (15.8 in.)	7	3170	5.79	7.5	68	80	85
APH-16	12	2875	5.79	7.5	68	77	82

Size	Blades on Wheel	rpm	bhp	Motor Size	Static Eff. (%)	Inlet	Outlet
APD-630 (24.8 in.)	7	1539	6.82	7.5	69	77	86
APH-24	12	1542	6.77	7.5	70	76	81

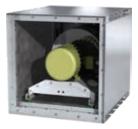
#### **Motor on Base**



\*Available on base by Greenheck or by others



\*Available on base by Greenheck or by others



Arrangement 4, Horizontal

## **Motor on Frame**



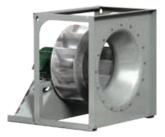
Arrangement 4, Horizontal



Arrangement 3, Motor on Side



Arrangement 3, Motor on Top



Arrangement 4, Horizontal



Arrangement 4, Vertical

# Standard Construction and Features



## Multiple solutions for your plenum design needs.

The APD is a commercial grade plenum fan that incorporates performance and reliability into a lighter duty, economical design. The compact direct drive APD eliminates the cost, maintenance and complexity of belt drive plenum fans. When combined with a variable frequency drive (VFD), air volumes can easily be matched to changing building requirements or overcome increased pressures from dirty filters. APDs are an excellent option as a stand-alone single fan or in parallel fan array applications.

- 1,000 18,000 cfm, up to 10 in. wg
- · Bolted galvanized frame
- 7-bladed backward curved wheel
- Ideal for light to medium duty applications
- Direct drive

APF plenum fans are the ideal solution for horizontal wall mounting applications that require speed control. The Vari-Green® electronically commutated (EC) motors have integrated controls that only need a 0-10V signal (4-20 mA option), no VFD and no additional wiring required to adjust speeds. APF plenum fans are low maintenance, lightweight and have a shorter, more compact length, making it an excellent choice in multiple fan array applications or as a retrofit option.

- 2,000 14,000 cfm, up to 6.5 in. wg
- Quad-lock, bolt-together galvanized frame
- High-efficiency, 7-bladed backward curved wheel
- Vari-Green® EC motor



**APM** plenum fans are an ideal cost-effective solution for light duty to mid-range performances required in Class I and the majority of Class II ranges. Fans are available in both belt and direct drive designs having the motor mounted directly to the fan to reduce the fan's footprint. This is an excellent selection for retrofit and replacement applications and in variable air volume systems.

- 1,000 41,000 cfm, up to 8 in. wg
- Bolted galvanized or coated steel frame
- 12-bladed aluminum airfoil wheel
- Class I and most of Class II performance ranges
- · Belt and direct drive



APH plenum fans are designed and engineered for superior performance and reliability. It is available in both belt and direct drive with an extensive accessory offering. Quiet and efficient operation is achieved through a 12-bladed, airfoil aluminum wheel. Model APH is ideal for industrial applications that require welded construction, coated framework. Available in multiple configurations and the highest performance capabilities.

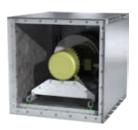
- 1,000 209,000 cfm, up to 12.5 in. wg
- · Welded and coated steel frame
- 12-bladed aluminum airfoil wheel
- Available up to Class III
- · Belt and direct drive



HPA housed plenum fans are designed and engineered to provide superior performance and reliability in commercial or industrial applications. The HPA can be used as a single fan in a sound critical application or in parallel to construct a fan array system. The HPA features a modular design with a structural housing that allows multiple modules to stack side-by-side and on top of one another to form an array.

- 900 45,000 cfm, up to 7 in. wg
- Bolted galvanized frame

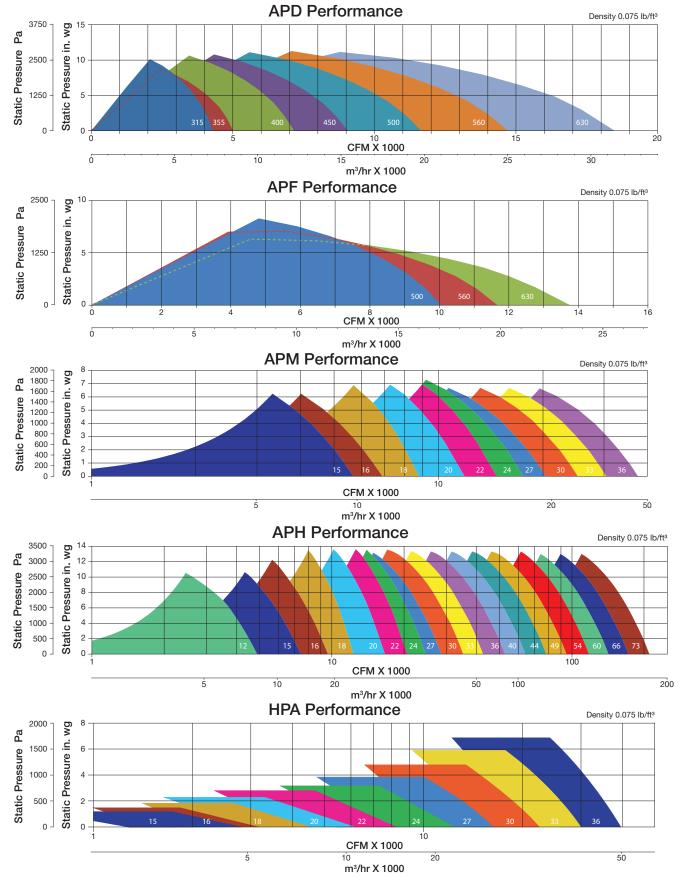
- 12-bladed aluminum airfoil wheel
- Direct drive



## **Model Performance**



Charts show performance capabilities by model and size. For complete AMCA licensed performance, refer to Greenheck's CAPS or eCAPS selection programs.



# Standard Construction and Features



## **Sound Attenuating Housing** (HPA)

The fan assembly is mounted inside a sound attenuating housing. The housing has a perforated galvanized inner liner that directs sound waves into two inches of sound absorbing fiberglass between the inner liner and the solid outer shell. The result is a reduction of sound levels.



# Internal Vibration Isolation (HPA)

Neoprene isolators mounted between the fan assembly and the sound attenuating housing reduce vibration, eliminating the need for isolators and gaskets between modules. Flexible gasket material between the inlet cone and sound attenuating housing creates an airtight seal.



# **Housing Options** (HPA)

Three different sound attenuating housing sizes makes sizing the HPA extremely flexible. The standard housing is sized for optimum performance versus footprint. The compact housing offers a smaller footprint for applications with space constraints and the large housing offers increased air performance for higher efficiencies.

# Construction - Galvanized (APD, APF, APM, HPA)

The fan assembly and sound attenuating housing are constructed of laser cut and die-formed heavy-gauge galvanized material.



# Construction - Coated Steel (APM, APH)

Fully welded design with Permatector™, an electrostatically applied polyester urethane powder coat finish.





### **Drives**

All plenums are available with a direct drive fan.
There are no belts to tension, sheaves to replace, or fan bearings lubricate. Lubricating the motor bearings is the only maintenance required.

APM and APH are available in belt drive configurations with cast iron sheaves and matched belts standard with a 1.5 drive service factor. Installed and aligned to provide reduced vibration levels and minimize installation costs.

# **Modular Construction** (HPA)

The lightweight design makes the HPA plenum fans easy to transport and stack. There are no fasteners on the external casing, making it clean and easy to install. Inlet and outlet flanges makes connecting adjacent units quick and easy.



### Wheels



7-Bladed (APD, APF)

Backward curved centrifugal wheel with seven blades, carbon steel materials and powder coated. Wheel features high efficiency operation with welded construction.



12-Bladed (APM, APH, HPA)

Backward inclined airfoil centrifugal wheel constructed from an aluminum material. The design saves energy and improves overall sound quality by reducing low frequency tones that are difficult to attenuate.

# **Model Comparison**









co	MODEL DMPARISON	APD	APF	
	Volume (CFM max (m3/hr))	18,000 <i>(30,600)</i>	14,000 (23,800)	
Performance	Static Pressure (Ps max)	10 in. wg <i>(2,490 Pa)</i>	6.5 in. wg (1,620 Pa)	
Performance	Sizes	315-630	500 - 630	
	Class	-	-	
	Arrangement, Configuration	4, Horizontal	4, Horizontal for Wall Mounting Only	
	Drive Type	Direct	Direct - Vari-Green®	
	Wheel	7 Blades	7 Blades	
	Wheel Type	Backward Curved	Backward Curved	
	Wheel Material	Coated Steel	Coated Steel	
Standard	Wheel Construction	Welded	Welded	
Construction	Frame Material	Galvanized	Galvanized	
	Frame Construction	Bolted	Bolted	
	Bearings	-	-	
	Bearing Life	-	-	
	Single Pressure Tap	Included	Included	
		Yes	Yes	
	Factory Vibration Test	BV-4	BV-4	
	AMCA Certification	Sound and Air	Air	
	Belt Guard	_	-	
	Extended Life Bearings	_	-	
	Extended Lube Lines Kit	_	-	
	Fan Monitoring System	-	-	
	Inlet Connection	-	-	
	Inlet Guard	Yes	Yes	
	Isolation Base	-	-	
Accessories	Painted Construction	_	-	
	Protective Cage	-	-	
	Shaft Guard	_	-	
	Inlet Damper	-	-	
	Blank-off Panel	-	-	
	Sure-Aire™ Airflow Measurement	Yes	Yes	
	Vibration Isolators	Yes	-	
Options	Warranty	1, 2 or 3 years	1, 2 or 3 years	
•	Quick Build	5, 10, and 15 Day	10 Day	









АРМ	АРН	HPA	MODEL COMPARISON		
41,000 (69,700)	209,000 (355,100)	45,000 (76,500)	Volume (CFM max (m³/hr))		
8 in. wg (1,990 Pa)	12.5 in. wg <i>(3,110 Pa)</i>	7 in. wg (1,740 Pa)	Static Pressure (Ps max)		
15-36	12-73	15-36	Sizes		
I, II	I, II, III	-	Class		
4, Horizontal 3, Motor on Top 3 Motor on Side 4, Vertical	4, Horizontal 3, Motor on Top 3, Motor on Side 3, Motor on Base 1, Motor on Base 4, Vertical	4, Horizontal	Arrangement, Configuration		
Belt / Direct	Belt / Direct	Direct	Drive Type		
12 Blades	12 Blades	12 Blades	Wheel		
Airfoil	Airfoil	Airfoil	Wheel Type		
Aluminum	Aluminum	Aluminum	Wheel Material		
Welded	Welded	Welded	Wheel Construction		
Galvanized / Coated Steel	Coated Steel	Galvanized	Frame Material		
Bolted	Welded	Bolted	Frame Construction		
Set Screw	Concentric Locking	-	Bearings		
L <sub>10</sub> 40,000 Hours	L <sub>10</sub> 80,000 Hours	-	Bearing Life		
Included	Included	Included	Single Pressure Tap		
Optional	Yes	Yes			
BV-3	Belt: BV-3 Direct: BV-5	BV-4	Factory Vibration Test		
Sound and Air	Sound and Air	Sound and Air	AMCA Certification		
Yes	Yes	-	Belt Guard		
L <sub>10</sub> 80,000 Hours	L <sub>10</sub> 200,000 Hours	-	Extended Life Bearings		
Yes	-	Yes	Extended Lube Lines Kit		
Yes	Yes	Yes	Fan Monitoring System		
-	Slip Fit	-	Inlet Connection		
Yes	Yes	Yes	Inlet Guard		
-	Yes	-	Isolation Base		
Yes	Standard	-	Painted Construction		
Yes	Yes	Yes	Protective Cage		
-	Arrangement 1 Only	-	Shaft Guard		
-	-	Yes	Inlet Damper		
-	-	Yes	Blank-off Panel		
Yes, with Electronics	Yes, with Electronics	Yes, with Electronics	Sure-Aire™ Airflow Measurement		
Yes	Yes	Yes	Vibration Isolators		
1, 2 or 3 years	1, 2 or 3 years	1, 2 or 3 years	Warranty		
5, 10, and 15 Day	5 and 10 Day	-	Quick Build		

## **Parts List**



- 1. Bearing, Drive Side
- Bearing, Opposite Drive Side
- 3. Belt Guard
- 4. Belt(s), Shaft Pulley, Motor Pulley
- 5. Drive Frame

- 6. Inlet Cone
- 7. Inlet Guard
- Isolators
- 9. Motor

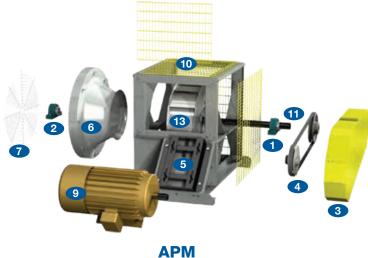
- 10. Protective Cage (4 sided)
- 11. Shaft
- 12. Thrust Isolators
- 13. Wheel

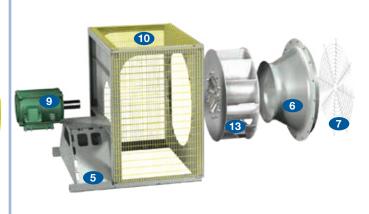




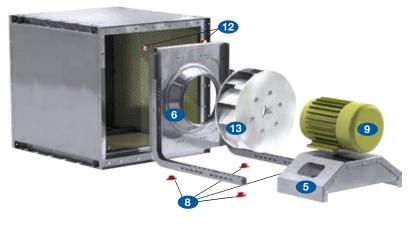


**APF** 





**APH** 

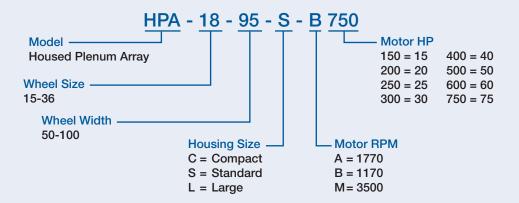


## **Model Codes and Vibration**



## **Model Number Codes:**





## **Vibration Analysis**

All plenum fans are tested at the design speed in the factory after final assembly. Fans are checked for amp draw and levels recorded. APD, APF, APH and HPA (APM optional) are also subjected to a complete vibration analysis in three planes. The recorded filter-in vibration levels at the FRPM meet the requirements of AMCA/ANSI Standard 204-05 (Balance Quality and Vibration Levels for Fans). A permanent record of the test is kept on file at the factory for future reference. A copy of the test report is available upon request.



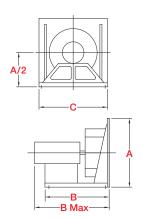
Fan Category	Rigidly Mounted in./s	Flexibly Mounted in./s
BV-1	.50	.60
BV-2	.20	.30
BV-3	.15	.20
BV-4	.10	.15
BV-5	.08	.10





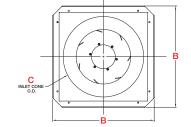
## **APD Arrangement 4, Horizontal**

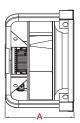
Size	A	A/2	В*	B (max) C		Motor Frame Size	Weight* (lbs)
						Max	
315	17.5	8.8	18.0	21.5	17.5	184	91
355	19.7	9.9	18.9	22.4	19.7	184	100
400	22.2	11.1	22.2	24.2	22.2	215	193
450	25.0	12.5	27.1	30.1	25.0	256	399
500	27.8	13.9	28.3	31.2	27.7	256	417
560	31.0	15.5	29.6	32.6	31.0	256	446
630	35.0	17.5	32.8	38.0	34.9	286	587



## **APF Arrangement 4, Horizontal**

Size	A	В	С	Weight* (lbs)
500	18.34 ±0.5	25.0	20.24	154
560	19.83 ±0.5	28.0	22.21	182
630	21.38 ±0.5	31.5	24.96	206

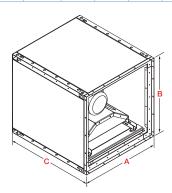




## **HPA Arrangement 4, Horizontal**

		Stan	dard H	lousing				Com	pact l	lousing				Lar	ge Ho	ousing		
Size	Α	В	C^	Maximum Stacked	Motor Frame Size	Weight* (lbs.)	Α	В	C^	Maximum Stacked	Motor Frame Size	Weight* (lbs.)	Α	В	C^	Maximum Stacked	Motor Frame Size	Weight* (lbs.)
				Modules	Max					Modules	Max					Modules	Max	
15	29.00	29.00	32.06	4	215T	215	-	-	-	-	-	-	31.50	31.50	37.00	4	256T	250
16	31.50	31.50	37.00	4	256T	250	29.00	29.00	32.06	4	215T	215	34.38	34.38	38.19		256T	290
18	34.38	34.38	38.19		256T	290	31.50	31.50	37.00		256T	250	37.25	37.25	39.56		256T	340
20	37.25	37.25	39.56	3	256T	340	34.38	34.38	38.19	3	256T	290	41.00	41.00	42.19	3	286T	380
22	41.00	41.00	42.19	3	286T	380	37.25	37.25	39.56	3	256T	340	44.75	44.75	43.75		286T	425
24	44.75	44.75	43.75		286T	425	41.00	41.00	42.19		286T	380	48.94	48.94	47.56		286T	680
27	48.94	48.94	47.56		286T	680	44.75	44.75	43.75		286T	425	53.81	53.81	48.94		326T	820
30	53.81	53.81	48.94	2	326T	820	48.94	48.94	47.56		286T	680	58.81	58.81	51.06	2	326T	960
33	58.81	58.81	51.06		326T	960	53.81	53.81	48.94	2	326T	820	64.56	64.56	51.06	1	326T	1100
36	64.56	64.56	51.06		326T	1100	58.81	58.81	51.06		326T	960	-	-	-	-	-	-

All dimensions are in inches.



All dimensions are in inches.

<sup>\*</sup> Based on maximum motor frame size.

All dimensions are in inches.

<sup>\*</sup> Based on maximum motor frame size.

<sup>^</sup> Does not account for motors or accessories.

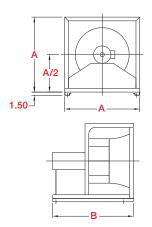
<sup>\*</sup> Weight is less motor.

## **APM Dimensions**



## **APM Arrangement 4, Horizontal**

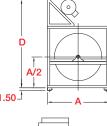
				Moto	or Frame S	ize	Weight* (lbs)				
Size	Α	A/2	В*	N	1in	May	<b>'</b>	veignt" (it	(5)		
				Class I	Class II	Max	Class I	Class II	Class III		
15	21.0	10.5	29.3	143	143	215	85	85	85		
16	23.1	11.6	30.4	143	143	215	94	94	94		
18	25.6	12.8	35.9	143	143	256	116	116	118		
20	28.0	14.0	37.3	182	182	256	131	131	133		
22	31.2	15.6	38.9	182	213	256	151	156	160		
24	34.3	17.2	40.6	182	213	256	194	199	204		
27	37.8	18.9	42.5	213	213	256	229	229	239		
30	42.0	21.0	46.8	213	213	286	315	318	326		
33	46.2	23.1	49.0	254	254	286	371	388	396		
36	46.2	23.1	51.6	254	254	286	416	416	419		

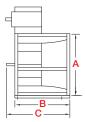


All dimensions are in inches.

## **APM Arrangement 3, Motor on Top**

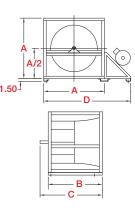
				(		I	D		otor Fra	zes	Weight* (lbs)		
Size	Α	A/2	В	Cla	iss Class I		Min - Class		Max - Class		Class		
				I	II	I	II	I	II	I	II	ı	II
18	25.6	12.8	23.9	27.3	27.9	36.9	36.9	56	145	184	184	165	176
20	28.0	14.0	25.3	28.6	29.3	41.0	41.0	56	182	215	215	199	206
22	31.2	15.6	28.9	32.3	32.9	44.1	44.1	56	182	215	215	238	252
24	34.3	17.2	30.6	34.0	35.3	49.2	49.2	56	184	254	254	334	348
27	37.8	18.9	32.5	35.9	37.1	52.7	52.7	56	213	256	256	378	390
30	42.0	21.0	34.8	38.8	39.4	56.9	58.3	56	213	256	286	498	533
33	46.2	23.1	38.5	42.5	43.8	62.5	62.5	56	215	284	286	621	653
36	46.2	23.1	41.1	45.1	46.4	62.5	64.6	143	215	284	326	666	726





## **APM Arrangement 3, Motor on Side**

			A/2	Λ/2	Δ/2	Δ/2		(	;	L	)	Мс	otor Fra	ıme Siz	zes	Wei (It	ght* os)
Size	A	A/2	В	Cla	Class		Class		Min - Class		IX - ISS	Cla	ass				
				ı	II	I	II	ı	II	ı	II	ı	II				
18	25.6	12.8	23.9	27.3	27.9	36.9	36.9	56	145	184	184	168	179				
20	28.0	14.0	25.3	28.6	29.3	41.0	41.0	56	182	215	215	202	209				
22	31.2	15.6	28.9	32.3	32.9	44.1	44.1	56	182	215	215	242	257				
24	34.3	17.2	30.6	34.0	35.3	49.2	49.2	56	184	254	254	339	354				
27	37.8	18.9	32.5	35.9	37.1	52.7	52.7	56	213	256	256	384	396				
30	42.0	21.0	34.8	38.8	39.4	56.9	58.3	56	213	256	286	507	542				
33	46.2	23.1	38.5	42.5	43.8	62.5	62.5	56	215	284	286	632	663				
36	46.2	23.1	41.1	45.1	46.4	62.5	64.6	143	215	284	326	677	737				



All dimensions are in inches.

<sup>\*</sup> Based on maximum motor frame size.

All dimensions are in inches.

<sup>\*</sup> Based on maximum motor frame size.

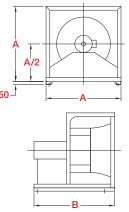
<sup>\*</sup> Based on maximum motor frame size.

## **APH Dimensions**



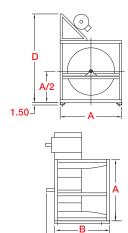
## **APH Arrangement 4, Horizontal**

				В*			Мо	tor Fra	ame Si	zes		Weight* (lbs)*			
Size	Α	A/2		Class		Mi	n - Cla	ISS	Ma	ıx - Cla	ass		Class		
			I	Ш	Ш	I	Ш	III	I	Ш	III	I	Ш	III	
15	21.0	10.5	29.3	29.3	33.0	143	143	143	215	215	256	82	82	87	
16	23.1	11.6	34.1	34.1	34.1	143	143	143	256	256	256	96	96	96	
18	25.6	12.8	35.9	35.9	37.4	143	143	143	256	256	286	117	117	139	
20	28.0	14.0	37.3	37.3	40.3	182	182	182	256	256	326	131	131	184	
22	31.2	15.6	38.9	40.4	41.9	182	213	213	256	286	326	152	183	216	
24	34.3	17.2	40.6	42.1	43.6	182	213	213	256	286	326	178	212	248	
27	37.8	18.9	42.5	44.0	45.5	213	213	213	256	286	326	267	306	351	
30	42.0	21.0	46.8	48.3	49.1	213	213	213	286	326	365	382	432	437	
33	46.2	23.1	50.5	51.4	51.4	254	254	254	326	365	365	507	521	529	
36	46.2	23.1	54.0	54.0	56.3	254	254	254	365	365	405	549	549	556	
40	51.1	25.6	56.8	56.8	62.7	284	284	284	365	365	445	711	711	757	
44	56.4	28.2	62.3	62.3	65.9	284	284	284	405	405	445	857	868	905	
49	62.3	31.2	69.8	69.8	69.8	324	324	324	445	445	445	1162	1181	1233	
54	68.6	34.3	73.7	73.7	73.7	324	324	324	445	445	445	1340	1396	1406	
60	76.0	38.0	78.5	78.5	78.5	364	364	364	445	445	445	1324	1683	1755	



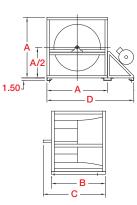
## **APH Arrangement 3, Motor on Top**

	A/2	В	C Class		D Class		M	lotor Fr	Weight (lbs)*			
Α							Min - Class		Max - Class		Class	
			I	II	I	II	- 1	II	ı	II	I	II
25.6	12.8	23.9	27.3	27.9	36.9	36.9	143	145	184	184	141	152
28.0	14.0	25.3	28.6	29.3	41.0	41.0	143	182	215	215	168	175
31.2	15.6	28.9	32.3	32.9	44.1	44.1	143	182	215	215	205	219
34.3	17.2	30.6	34.0	35.3	49.2	49.2	143	184	254	254	281	295
37.8	18.9	32.5	35.9	37.1	52.7	52.7	143	213	256	256	324	336
42.0	21.0	34.8	38.8	39.4	56.9	58.3	143	213	256	286	449	475
46.2	23.1	38.5	42.5	43.8	62.5	62.5	143	215	284	286	564	596
46.2	23.1	41.1	45.1	46.4	62.5	64.6	143	215	284	326	607	654
51.1	25.6	43.9	48.6	49.2	67.4	69.5	145	254	286	326	844	886
56.4	28.2	49.4	54.0	55.3	74.8	74.8	145	256	324	326	1065	1115
	25.6 28.0 31.2 34.3 37.8 42.0 46.2 46.2 51.1 56.4	25.6 12.8 28.0 14.0 31.2 15.6 34.3 17.2 37.8 18.9 42.0 21.0 46.2 23.1 46.2 23.1 51.1 25.6 56.4 28.2	25.6 12.8 23.9 28.0 14.0 25.3 31.2 15.6 28.9 34.3 17.2 30.6 37.8 18.9 32.5 42.0 21.0 34.8 46.2 23.1 38.5 46.2 23.1 41.1 51.1 25.6 43.9	25.6     12.8     23.9     27.3       28.0     14.0     25.3     28.6       31.2     15.6     28.9     32.3       34.3     17.2     30.6     34.0       37.8     18.9     32.5     35.9       42.0     21.0     34.8     38.8       46.2     23.1     38.5     42.5       46.2     23.1     41.1     45.1       51.1     25.6     43.9     48.6       56.4     28.2     49.4     54.0	25.6         12.8         23.9         27.3         27.9           28.0         14.0         25.3         28.6         29.3           31.2         15.6         28.9         32.3         32.9           34.3         17.2         30.6         34.0         35.3           37.8         18.9         32.5         35.9         37.1           42.0         21.0         34.8         38.8         39.4           46.2         23.1         38.5         42.5         43.8           46.2         23.1         41.1         45.1         46.4           51.1         25.6         43.9         48.6         49.2           56.4         28.2         49.4         54.0         55.3	25.6         12.8         23.9         27.3         27.9         36.9           28.0         14.0         25.3         28.6         29.3         41.0           31.2         15.6         28.9         32.3         32.9         44.1           34.3         17.2         30.6         34.0         35.3         49.2           37.8         18.9         32.5         35.9         37.1         52.7           42.0         21.0         34.8         38.8         39.4         56.9           46.2         23.1         38.5         42.5         43.8         62.5           46.2         23.1         41.1         45.1         46.4         62.5           51.1         25.6         43.9         48.6         49.2         67.4           56.4         28.2         49.4         54.0         55.3         74.8	I         II         I         II           25.6         12.8         23.9         27.3         27.9         36.9         36.9           28.0         14.0         25.3         28.6         29.3         41.0         41.0           31.2         15.6         28.9         32.3         32.9         44.1         44.1           34.3         17.2         30.6         34.0         35.3         49.2         49.2           37.8         18.9         32.5         35.9         37.1         52.7         52.7           42.0         21.0         34.8         38.8         39.4         56.9         58.3           46.2         23.1         38.5         42.5         43.8         62.5         62.5           46.2         23.1         41.1         45.1         46.4         62.5         64.6           51.1         25.6         43.9         48.6         49.2         67.4         69.5           56.4         28.2         49.4         54.0         55.3         74.8         74.8	I         II         I         II         I         II         II         III         III         III         IIII         IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	I         II         I         II         I         II           25.6         12.8         23.9         27.3         27.9         36.9         36.9         143         145           28.0         14.0         25.3         28.6         29.3         41.0         41.0         143         182           31.2         15.6         28.9         32.3         32.9         44.1         44.1         143         182           34.3         17.2         30.6         34.0         35.3         49.2         49.2         143         184           37.8         18.9         32.5         35.9         37.1         52.7         52.7         143         213           42.0         21.0         34.8         38.8         39.4         56.9         58.3         143         213           46.2         23.1         38.5         42.5         43.8         62.5         62.5         143         215           51.1         25.6         43.9         48.6         49.2         67.4         69.5         145         254           56.4         28.2         49.4         54.0         55.3         74.8         74.8         145	I         II         I         II         I         II         II         III         IIII         IIIIIII         IIII         IIII         I	I         II         I         II         I         II         II         III         IIII         IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	A         A/2         B         Class         Class         Min - Class         Max - Class         Class           1         II         I         II         I         II         I         II         II         II         III         III </td



## **APH Arrangement 3, Motor on Side**

	A	A/2	В	C Class Cla		)	Motor Frame Size			ze	Weight (lbs)*		
Size						Class		Min - Class		Max - Class		Class	
					Ш	I	II	ı	П	1	II	ı	II
18	25.6	12.8	23.9	27.3	27.9	36.9	36.9	143	145	184	184	147	158
20	28.0	14.0	25.3	28.6	29.3	41.0	41.0	143	182	215	215	175	182
22	31.2	15.6	28.9	32.3	32.9	44.1	44.1	143	182	215	215	212	227
24	34.3	17.2	30.6	34.0	35.3	49.2	49.2	143	184	254	254	293	308
27	37.8	18.9	32.5	35.9	37.1	52.7	52.7	143	213	256	256	337	348
30	42.0	21.0	34.8	38.8	39.4	56.9	58.3	143	213	256	286	467	493
33	46.2	23.1	38.5	42.5	43.8	62.5	62.5	143	215	284	286	584	616
36	46.2	23.1	41.1	45.1	46.4	62.5	64.6	143	215	284	326	628	675
40	51.1	25.6	43.9	48.6	49.2	67.4	69.5	145	254	286	326	873	915
44	56.4	28.2	49.4	54.0	55.3	74.8	74.8	145	256	324	326	1102	1152



All dimensions are in inches.

<sup>\*</sup> Based on maximum motor frame size.

All dimensions are in inches.

<sup>\*</sup> Based on maximum motor frame size.

All dimensions are in inches.

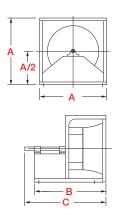
<sup>\*</sup> Based on maximum motor frame size.

## **APH Dimensions**



## **APH Arrangement 1, Motor on Base**

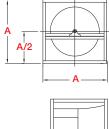
	A	A/2	В		C*		Weights (lbs)*			
Size					Class		Class			
				1	II	III	ı	II	III	
12	21.0	10.5	21.2	24.0	24.6	-	64	68	-	
15	21.0	10.5	23.1	25.8	26.4	27.1	72	81	81	
16	23.1	11.6	24.7	27.5	28.1	28.7	80	86	89	
18	25.6	12.8	27.2	30.6	31.2	31.8	100	107	110	
20	28.0	14.0	29.2	32.5	33.2	34.4	121	126	130	
22	31.2	15.6	31.7	35.1	35.7	36.9	143	153	165	
24	34.3	17.2	34.2	37.6	38.8	39.4	168	179	202	
27	37.8	18.9	37.0	40.4	41.6	42.2	243	252	272	
30	42.0	21.0	40.9	44.9	45.5	46.7	300	312	338	
33	46.2	23.1	44.2	48.2	49.5	50.1	367	395	431	
36	46.2	23.1	48.1	52.1	53.4	55.4	414	435	458	
40	51.1	25.6	52.3	57.0	57.6	59.6	541	554	597	
44	56.4	28.2	57.1	61.7	63.0	65.6	619	656	696	
49	62.3	31.2	62.6	67.9	68.5	71.1	851	890	980	
54	68.6	34.3	68.5	73.8	75.8	77.0	1134	1212	1235	
60	76.0	38.0	75.5	80.7	84.0	84.0	1394	1475	1606	
66	84.0	42.0	82.2	88.1	90.7	90.7	1741	1864	1877	
73	92.4	46.2	90.0	95.9	98.5	98.5	1953	2075	2128	



All dimensions are in inches.

## **APH Arrangement 3, Motor on Base**

	A	A/2	В		C*		Weights (lbs)*			
Size					Class		Class			
				ı	II	III	ı	II	III	
18	25.6	12.8	20.9	24.3	24.9	25.6	109	120	124	
20	28.0	14.0	22.3	25.6	26.3	27.5	127	134	137	
22	31.2	15.6	25.9	29.3	29.9	31.2	160	174	187	
24	34.3	17.2	27.6	31.0	32.3	32.9	218	233	261	
27	37.8	18.9	29.5	32.9	34.1	34.8	260	272	293	
30	42.0	21.0	31.8	35.8	36.4	37.6	370	386	417	
33	46.2	23.1	35.5	39.5	40.8	41.4	471	502	543	
36	46.2	23.1	38.1	42.1	43.4	45.4	513	540	566	
40	51.1	25.6	40.9	45.6	46.2	48.2	722	740	785	
44	56.4	28.2	46.4	51.0	52.3	54.9	905	954	996	
49	62.3	31.2	49.8	55.0	55.6	58.3	1069	1112	1221	
54	68.6	34.3	53.7	58.9	60.9	62.2	1223	1311	1350	
60	76.0	38.0	58.0	63.3	66.5	66.5	1446	1539	1682	
66	84.0	42.0	62.5	68.4	71.0	71.0	1794	1863	1944	
73	92.4	46.2	67.8	73.6	76.3	76.3	2112	2188	2318	





All dimensions are in inches.

<sup>\*</sup> Based on maximum motor frame size.

<sup>\*</sup> Based on maximum motor frame size.

## **Plenum Fan Offering**

APD - straight forward design that is compact, low maintenance and efficient. Utilizing a bolted framework that is galvanized, the APD features a 7-bladed, backward curved wheel. Model designed for light and medium duty applications.

APF - utilizing a backward curved centrifugal wheel and an Vari-Green® electronically commutated (EC) motor brings cutting edge, high-efficiency operation to a fan that also has a reduced weight and a shorter, more compact length.

**APM** - provides higher efficiency while maintaining a compact size. This is an excellent selection for retrofit and replacement applications and in variable air volume systems. Utilizing a bolted framework that is either galvanized or coated, the APM, has a cost

effective price point for light and medium duty applications. Quiet and efficient operation is achieved through a 12-bladed, airfoil aluminum wheel. This design saves energy and improves the overall sound quality by reducing low frequency tones that are difficult to attenuate. APM units are available in belt and direct drive with basic accessory options.

APH - designed and engineered for superior performance and reliability. With welded construction, coated framework, multiple configurations and the highest performance capabilities, model APH is ideal for industrial applications. APH features the

exact same high efficiency / low sound 12-bladed wheel as the APM plenum. The APH is available in both belt and direct drive with an extensive accessory offering.

**HPA** - a direct drive plenum fan mounted inside a sound attenuating housing designed and engineered to provide superior performance and reliability in commercial and industrial applications. Model HPA can be used as a single fan in a sound critical application

or in parallel to construct a fan array system. The HPA features a modular design with a structural housing that allows multiple modules to stack side-by-side and on top of one another to form an array or fan wall. Typical applications include packaged, built-up and custom air handlers, general supply and return systems and retrofit projects

**Our Commitment** 

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

Product warranties can be found online at Greenheck.com, either on the specific product page or in the literature section of the website at Greenheck.com/Resources/Library/Literature.



Prepared to Support Green Building Efforts

Maximum Volume 18,000 cfm

Maximum Pressure 10 in. wg

AMCA Sound and Air Performance

Maximum Volume 14,000 cfm
Maximum Pressure 6.5 in. wg
AMCA Air Performance

Maximum Volume 41,000 cfm
Maximum Pressure 8 in. wg
AMCA Sound and Air Performance

Maximum Pressure 12.5 in. wg

Maximum Pressure 7 in. wg

AMCA Sound and Air Performance

AMCA Sound and Air Performance

209,000 cfm

45,000 cfm

Maximum Volume

Maximum Volume



















