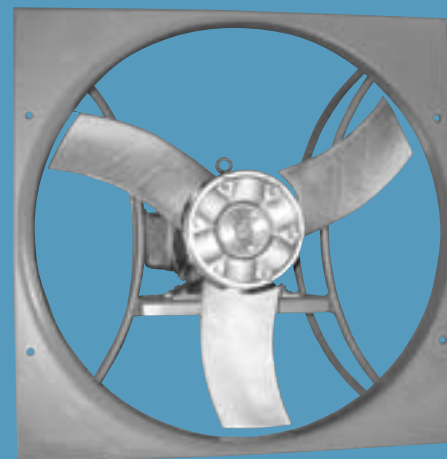
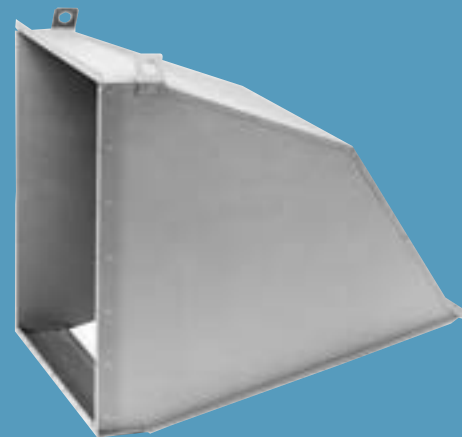
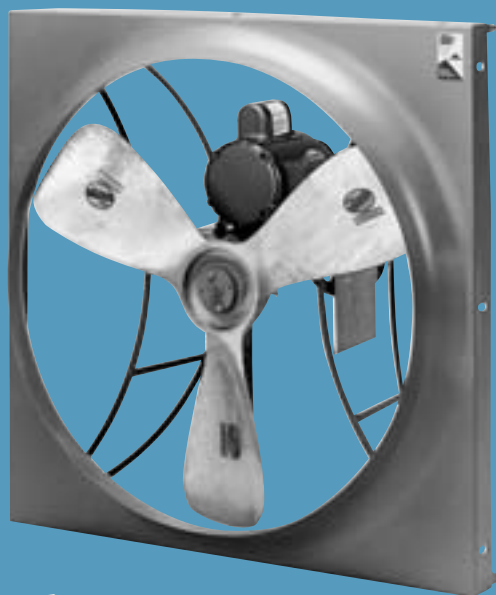
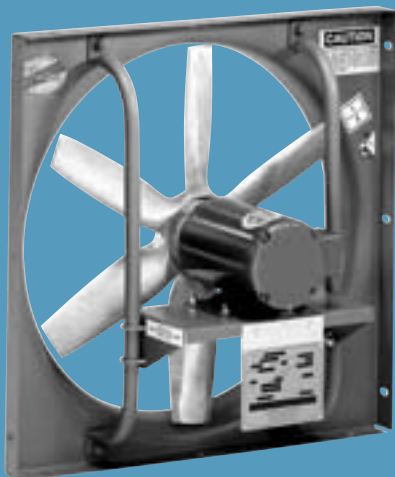


# Propeller Fans and Wall Ventilators

Ring & Panel Fans  
Series 01  
Series 09

Belt & Direct Drive  
Series 02  
Series 10

Series 08  
Series 14



# HARTZELL®

Hartzell Fan, Inc., Piqua, Ohio 45356  
[www.hartzellfan.com](http://www.hartzellfan.com)

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## Certified Ratings for Air Performance

Hartzell Fan, Inc. certifies that the Series 01S and 01R Direct Drive Ring Fan, Standard or Reverse Flow, and the Series 02S and 02R Direct Drive Panel Fan, Standard or Reverse Flow, shown on pages 4-9; Belted Ring Fan, Standard or Reverse Flow, Series 08S and 08R, and Series 09S and 09R, Belted Panel Fan, Standard or Reverse Flow, shown on pages 10-13 are licensed to bear the AMCA seal. The ratings are based on tests and procedures performed in accordance with AMCA Standard 211 and comply with the requirements of the AMCA Certified Ratings Program.

Certificates of Design Assessment are issued by the American Bureau of Shipping. The assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. The certificates, by itself, do not reflect that the products are Type Approved.

# Propeller Fan Selection

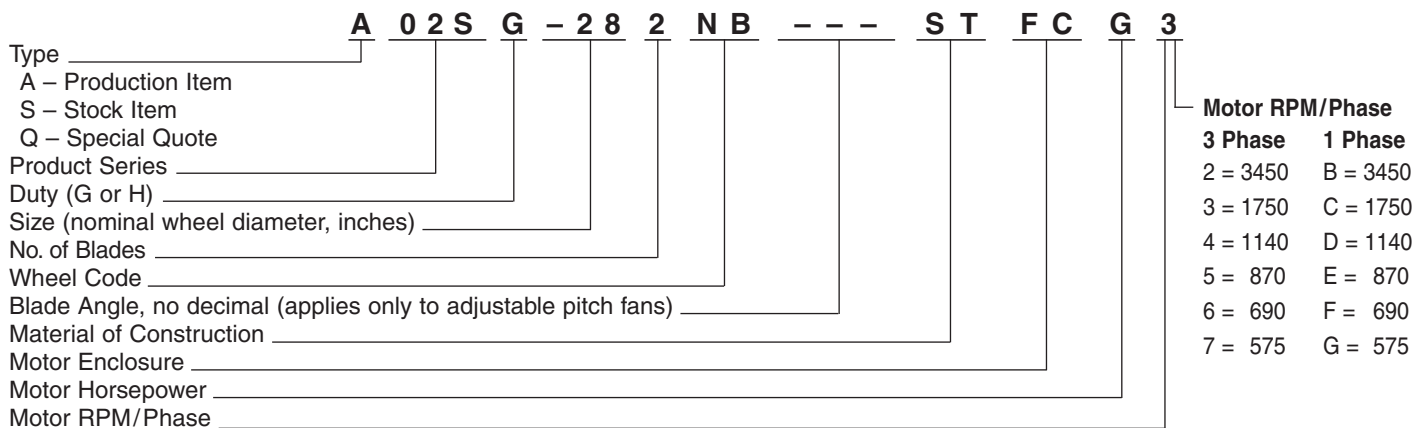
The Hartzell Propeller Fan and Wall Ventilator performances on the following pages are based on standard air-conditions (sea level, 70°F, and 29.92 inches barometric pressure).

When placing your order, be sure to specify the Hartzell Model Code. The following example demonstrates our coding system. The illustrated Series Number specifies a Hartzell Series 02S Standard Flow Panel Fan (Direct Drive).

Be sure to include fan model, performance requirements, operating temperature, motor data (enclosure, voltage, mounting position, etc.) and a list of required accessory items. (See pages 24-26.)

**Contact your local Hartzell Sales Representative for assistance.**

# Hartzell Model Code Explanation



## Motor Horsepower

Horsepower	1/4	1/3	1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30
Code Letter	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R

## How To Use Model Code Index:

**Example:** Assume a required performance of 10,000 CFM, at 0" SP standard air. Reading across the Series 02S Rating Table on page 7, we find the 28" size with fan RPM of 1750 and brake horsepower of .71. This unit has a 2-blade, Type "NB" propeller. Motor horsepower is ¾.

The model code can be constructed as follows: Type will be a production item (code A), product series for the Standard Flow Panel Fan is 02S, size of the wheel is 28", "G" (General Industrial) Duty construction, number of blades is 2, blade is NB, material of construction is steel (code ST), totally enclosed fan cooled (code FC), motor horsepower is ¾ (code G), and motor RPM/phase is 1750 (code 3). This fan is also available in Hartzell HRS.

**Note:** All other informational fields must be filled with hyphens/dashes (-) if they are not applicable to the fan being considered.

This bulletin lists Hartzell's line of Propeller Fans and Wall Ventilators and accessories. More than 70 Hartzell offices can provide specific performance and installation data to meet your requirements. Call your Hartzell representative for assistance. Visit our website ([www.hartzellfan.com](http://www.hartzellfan.com)) or call toll-free for the name of your Hartzell representative...

**1-800-336-3267**



# Construction Features



**Series 01S Ring Fan Direct Drive**

The Hartzell propeller type fan can be manufactured as a ring or panel type fan, standard or reverse flow, direct or belt driven and they are available in a wide range of sizes. The fan shall be packaged completely assembled and ready to install.

The fan propeller shall be an airfoil design, cast of 319 aluminum in compliance with Federal Specification QQ-A-601E and ASTM B26. Propellers shall be retained on the motor shaft utilizing a split taper bushing or a clamp

block arrangement. The propeller shall be mounted in a high efficiency air seal fan orifice with the smaller diameter of the ring overlapping the propeller tips.

“G” (General Industrial) Duty construction features an adjustable steel motor base and tubular steel frame, which are oversized to provide structurally rugged construction. “G” Duty is available as Series 02 and Series 09 in sizes 18” to 48” and will be limited by HP and RPM on certain sizes. Please reference the performance rating tables, the shaded models are those models offered as “G” duty.



**Series 09S Panel Fan Belt Drive**

“H” (Heavy Industrial) Duty construction features solid rolled rod supports, welded to the fan panel and motor mount to provide support for the motor. The steel motor base and solid steel support rods are oversized to provide structurally rugged construction. “H” Duty is available in all sizes and models.

Standard surface coating system shall be phosphatized surface preparation with an industrial grade air dry enamel paint. Motors shall be totally enclosed

air over type. Fans shall be designed for mounting in any position from horizontal to vertical.

The fan assembly shall be dynamically balanced at the Hartzell factory prior to shipping. Fans shall be balanced in accordance with AMCA Standard 204-96, fan application category BV-3 (comparable to Grade G6.3). Fans shall be manufactured in accordance with Hartzell’s standard quality assurance procedures.

## Blade Types...Multiple Designs For Various Application



### Type N

**Single-Propeller** – Has unexcelled efficiency when used in free air or against low pressures. Excellent for general exhaust, ventilation, drying and in roof ventilators. Sizes 12” to 60”.



### Type L

**Lo-Noise** – Airfoil blades operate with full efficiency against low and moderate pressures at slow tip speeds without excessive noise. Reduces noise intensity up to 30%. 18” to 60”.



### Type W

**Four-Blade** – Four-bladed integral cast propeller fans designed for high efficiency and low speed operation. Air delivery is excellent at or near free air. Ideal for general exhaust ventilation. 16” to 44”.



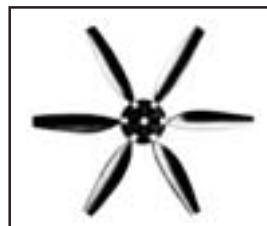
### Type O, P and Q

**Multiblade** – Carries its efficiency farther along the pressure range than the single propeller. Excellent against moderate pressures. Sizes 12” to 44”. Type O-4 blades; type P-6 blades, and type Q-8 blades.



### Type C

**High-Pressure** – Modifications of blade design increase efficiency at higher pressures. Operates successfully against pressures as high as 4” water gauge. 6 or 8 blades. 24” to 60”.



### Type AA

**Multiblade** – Outstanding line of four and six bladed adjustable pitch propeller fans. Performance features low speeds and high efficiency from free air through moderate pressures. 48” to 72”.



### Type AL

**Adjustable pitch** – Swept-back design includes features to reduce noise levels. Excellent for low pressure applications to match performance more closely. Available in two, three, and four bladed configurations, sizes 18” thru 36”. See ESP for selection details.



# Standard Ring Fans (Direct Drive)

- Series 01S – Standard Flow and 01R – Reverse Flow Direct Drive Ring Fans.
- Air Seal Fan Orifice.
- Sizes 12" to 72".



**Series 01S**



Hartzell Fan, Inc. certifies that the 01S-Direct Drive Ring Fan, Standard Flow and 01R-Direct Drive Ring Fan, Reverse Flow, shown hereon is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Standard 211 and comply with the requirements of the Certified Ratings Program.

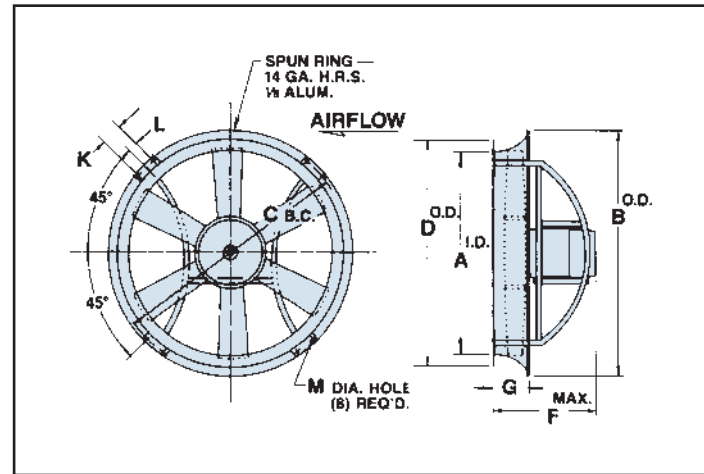
**ABS Certificate  
of Design Assessment  
Received**

## Principal Dimensions

FAN SIZE	A	B	C	C <sub>1</sub>	D	MAX. F	MAX. F <sub>1</sub>	G	K	L	M	MAX. MOTOR FRAME	WT. # LESS MTR. & OPTIONS	
													MAX. WT. # STL. FAN	MAX. WT. # ALUM. FAN
12	12	14 $\frac{1}{4}$	14 $\frac{1}{4}$	16 $\frac{1}{2}$	13 $\frac{1}{2}$	15 $\frac{1}{2}$	14 $\frac{1}{4}$	2 $\frac{3}{16}$	1 $\frac{1}{8}$	1 $\frac{3}{16}$	$\frac{5}{16}$	145T	11	8
14	14	16 $\frac{1}{4}$	16 $\frac{1}{4}$	18 $\frac{1}{2}$	15 $\frac{1}{2}$	16 $\frac{1}{4}$	14 $\frac{1}{4}$	2 $\frac{3}{16}$	1 $\frac{1}{8}$	1 $\frac{3}{16}$	$\frac{5}{16}$	145T	12	8
16	16	18 $\frac{1}{4}$	18 $\frac{1}{4}$	20 $\frac{1}{2}$	17 $\frac{1}{2}$	16 $\frac{1}{4}$	14 $\frac{1}{2}$	2 $\frac{3}{16}$	1 $\frac{1}{8}$	1 $\frac{3}{16}$	$\frac{5}{16}$	145T	15	10
18	18	20 $\frac{1}{4}$	20 $\frac{1}{4}$	22 $\frac{1}{2}$	19 $\frac{1}{2}$	16 $\frac{1}{4}$	14 $\frac{1}{2}$	2 $\frac{3}{16}$	1 $\frac{1}{8}$	1 $\frac{3}{16}$	$\frac{5}{16}$	145T	18	12
20	20	22 $\frac{1}{4}$	22 $\frac{1}{4}$	24 $\frac{1}{2}$	21 $\frac{1}{2}$	16 $\frac{1}{4}$	14 $\frac{1}{2}$	2 $\frac{3}{16}$	1 $\frac{1}{8}$	$\frac{3}{16}$	$\frac{5}{16}$	145T	21	14
22	22	25 $\frac{1}{2}$	24 $\frac{1}{16}$	27 $\frac{1}{2}$	24	16 $\frac{1}{4}$	14 $\frac{1}{2}$	3 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{3}{16}$	$\frac{7}{16}$	145T	27	17
24	24	27 $\frac{1}{2}$	26 $\frac{1}{16}$	29 $\frac{1}{2}$	26	18 $\frac{1}{4}$	17	3 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{3}{16}$	$\frac{7}{16}$	184T	31	19
28	28	31 $\frac{1}{2}$	30 $\frac{1}{16}$	33 $\frac{1}{2}$	30	18 $\frac{1}{4}$	17	3 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{3}{16}$	$\frac{7}{16}$	184T	36	22
32	32	35 $\frac{1}{2}$	34 $\frac{1}{16}$	37 $\frac{1}{2}$	34	23 $\frac{1}{4}$	22 $\frac{1}{2}$	3 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{3}{16}$	$\frac{7}{16}$	256T	44	29
36	36	41	39 $\frac{1}{16}$	43 $\frac{1}{2}$	38	24 $\frac{1}{4}$	22 $\frac{1}{2}$	4 $\frac{1}{8}$	3 $\frac{1}{8}$	1 $\frac{11}{16}$	$\frac{5}{16}$	256T	71	46
40	40	45	43 $\frac{1}{16}$	47 $\frac{1}{2}$	42	25 $\frac{1}{4}$	22 $\frac{1}{2}$	4 $\frac{1}{8}$	3 $\frac{1}{8}$	1 $\frac{11}{16}$	$\frac{5}{16}$	256T	108	68
44	44	49	47 $\frac{1}{16}$	51 $\frac{1}{2}$	46	25 $\frac{1}{4}$	23 $\frac{1}{2}$	4 $\frac{1}{8}$	3 $\frac{1}{8}$	1 $\frac{11}{16}$	$\frac{5}{16}$	256T	124	73
48	48	54	52 $\frac{1}{16}$	58	50	32	30 $\frac{1}{4}$	5 $\frac{1}{8}$	4	2	$\frac{5}{16}$	365T	138	93
54	54	60	58 $\frac{1}{16}$	64	56	34	30 $\frac{1}{4}$	5 $\frac{1}{8}$	4	2	$\frac{5}{16}$	365T	183	115
60	60	66	64 $\frac{1}{16}$	70	62	35 $\frac{1}{2}$	31	5 $\frac{1}{8}$	4	2	$\frac{5}{16}$	365T	244	170
72	72	78	76 $\frac{1}{16}$	82	74	31 $\frac{1}{2}$	31 $\frac{1}{2}$	5 $\frac{1}{8}$	4	2	$\frac{5}{16}$	365T	260	176

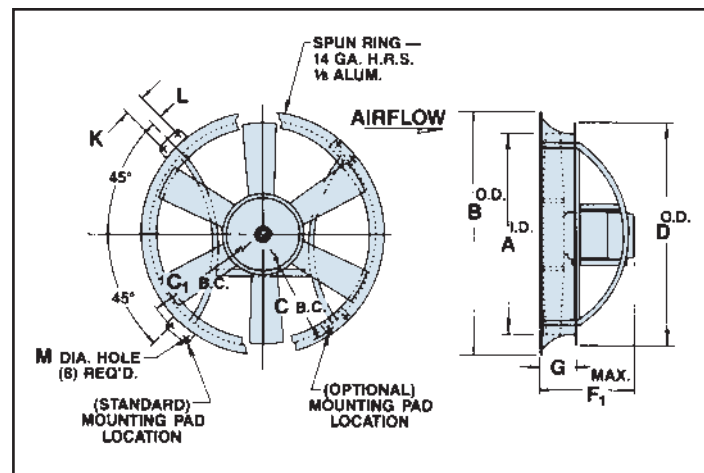
NOTE: Dimensions and specifications are subject to change. Certified prints are available.

## STANDARD AIR FLOW – SERIES 01S



**CONFIGURATION 1 - SF  
FAN ONLY**

## REVERSE AIR FLOW – SERIES 01R



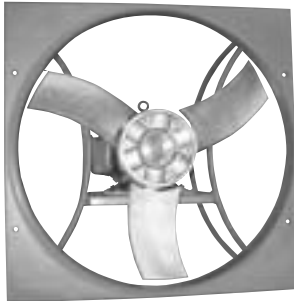
**CONFIGURATION 1 - RF  
FAN ONLY**



# Standard Panel Fan (Direct Drive)



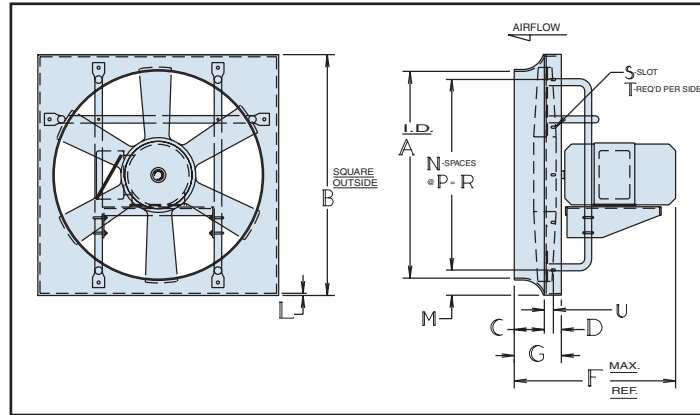
**Series 02S**  
"G" Duty Shown



**Series 02S**  
"H" Duty Shown with  
AL Adjustable Pitch Prop

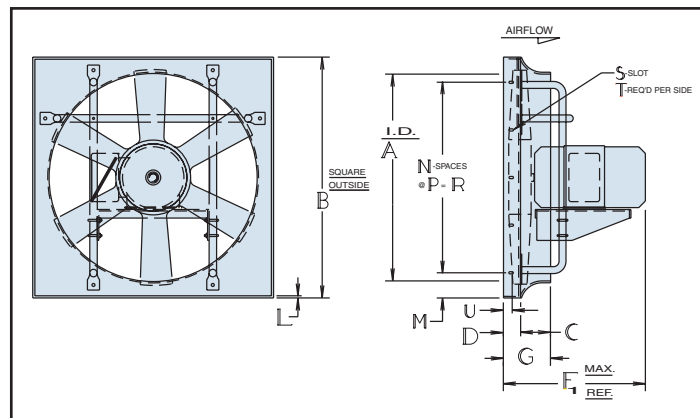
- Series 02S – Standard Flow and 02R – Reverse Flow Direct Drive Panel Fans.
- "G" (General Industrial) Duty and "H" (Heavy Industrial) Duty construction are available. See page 3 and performance rating table.
- Steel spun orifice panel.
- Sizes 12" to 60".

## STANDARD AIR FLOW – SERIES 02S



**CONFIGURATION 1 - SF**  
FAN ONLY

## REVERSE AIR FLOW – SERIES 02R



**CONFIGURATION 1 - RF**  
FAN ONLY

ABS Certificate  
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Hartzell Fan, Inc. certifies that the 02S-Direct Drive Panel Fan, Standard Flow and 02R- Direct Drive Panel Fan, Reverse Flow, shown hereon is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Standard 211 and comply with the requirements of the Certified Ratings Program.



Hartzell Fan, Inc. certifies that the Panel Fan, Series 02, herein, are authorized to bear CE Marking in accordance with Machinery Safety Directive 98/37/EC of the European Union. Reference Technical File E.S. 13.2.2.



Drawing for "G" (General Industrial) Duty construction shown, overall envelope dimensions of the "H" (Heavy Industrial) Duty construction will remain the same, except Fmax/F1max dimension, which is significantly larger for "H" Duty Construction.

## Principal Dimensions

FAN SIZE	A	B	C	D	F (MAX)	F <sub>1</sub> (MAX)	G	L	M	N	P	R	S	T	U	MOTOR FRAME		MAX MOTOR HP	MAX WT. STEEL (LESS MOTOR WT.)
																MIN.	MAX.		
12	12 $\frac{3}{8}$	16	1 $\frac{1}{4}$	1 $\frac{1}{4}$	16	15	3 $\frac{1}{2}$	16 GA.	2 $\frac{1}{2}$	1	11.00	11	$\frac{7}{16}$ x $\frac{3}{8}$	2	$\frac{7}{8}$	48	145T	2	15
14	14 $\frac{3}{8}$	18	2	1 $\frac{1}{4}$	16 $\frac{1}{4}$	15	3 $\frac{3}{8}$	16 GA.	2 $\frac{1}{2}$	1	13.00	13	$\frac{7}{16}$ x $\frac{3}{8}$	2	$\frac{7}{8}$	48	145T	2	16
16	16 $\frac{3}{8}$	20	2 $\frac{1}{2}$	1 $\frac{1}{4}$	16 $\frac{1}{4}$	15	3 $\frac{3}{8}$	16 GA.	2 $\frac{1}{2}$	1	15.00	15	$\frac{7}{16}$ x $\frac{3}{8}$	2	$\frac{7}{8}$	48	145T	2	17
18	18 $\frac{3}{8}$	22	2 $\frac{1}{2}$	1 $\frac{1}{4}$	13 $\frac{3}{8}$	14 $\frac{3}{8}$	4 $\frac{1}{4}$	16 GA.	2 $\frac{1}{2}$	1	17.00	17	$\frac{7}{16}$ x $\frac{3}{8}$	2	$\frac{7}{8}$	48	56	$\frac{3}{4}$	51
20	20 $\frac{3}{8}$	25	2 $\frac{1}{2}$	1 $\frac{1}{4}$	14 $\frac{3}{4}$	14 $\frac{3}{8}$	4 $\frac{1}{4}$	16 GA.	2 $\frac{1}{2}$	2	10.00	20	$\frac{7}{16}$ x $\frac{3}{8}$	3	$\frac{7}{8}$	48	143T	1	64
24	24 $\frac{3}{8}$	28	3 $\frac{1}{2}$	2	14 $\frac{3}{4}$	14 $\frac{3}{8}$	5 $\frac{1}{2}$	14 GA.	2 $\frac{1}{2}$	2	11.50	23	$\frac{7}{16}$ x $\frac{3}{8}$	3	1	48	145T	1 $\frac{1}{2}$	78
28	28 $\frac{3}{8}$	33	3 $\frac{1}{2}$	2 $\frac{1}{2}$	20 $\frac{1}{2}$	18 $\frac{3}{8}$	6	14 GA.	2 $\frac{1}{2}$	2	14.00	28	$\frac{7}{16}$ x $\frac{3}{8}$	3	1 $\frac{1}{4}$	48	145T	2	102
32	32 $\frac{3}{8}$	36	3 $\frac{1}{2}$	2 $\frac{1}{2}$	20 $\frac{1}{2}$	18 $\frac{3}{8}$	6 $\frac{1}{4}$	14 GA.	2 $\frac{1}{2}$	2	15.50	31	$\frac{7}{16}$ x $\frac{3}{8}$	3	1 $\frac{1}{2}$	48	184T	2	120
36	36 $\frac{3}{8}$	42	4	2 $\frac{1}{2}$	22 $\frac{1}{2}$	22 $\frac{1}{4}$	6 $\frac{1}{2}$	14 GA.	2 $\frac{1}{2}$	3	12.33	37	$\frac{7}{16}$ x $\frac{3}{8}$	4	1 $\frac{1}{2}$	56	213T	3	147
40	40 $\frac{3}{8}$	46	4 $\frac{1}{2}$	2 $\frac{1}{2}$	22 $\frac{1}{2}$	22 $\frac{1}{4}$	7 $\frac{1}{8}$	14 GA.	2 $\frac{1}{2}$	3	13.66	41	$\frac{7}{16}$ x $\frac{3}{8}$	4	1 $\frac{1}{2}$	56	215T	5	168
44	44 $\frac{3}{8}$	50	4 $\frac{1}{2}$	2 $\frac{1}{2}$	25 $\frac{1}{2}$	23 $\frac{1}{2}$	7 $\frac{1}{2}$	14 GA.	2 $\frac{1}{2}$	3	15.00	45	$\frac{7}{16}$ x $\frac{3}{8}$	4	1 $\frac{1}{2}$	56	254T	5	183
48	48 $\frac{3}{8}$	54	4 $\frac{1}{2}$	2 $\frac{1}{2}$	25 $\frac{1}{2}$	23 $\frac{1}{2}$	7 $\frac{1}{2}$	14 GA.	2 $\frac{1}{2}$	3	16.33	49	$\frac{7}{16}$ x $\frac{3}{8}$	4	1 $\frac{1}{2}$	56	254T	5	192
54	54 $\frac{3}{8}$	60	5	2 $\frac{1}{2}$	32 $\frac{3}{8}$	32	7 $\frac{1}{2}$	14 GA.	2 $\frac{1}{2}$	3	18.33	55	$\frac{7}{16}$ x $\frac{3}{8}$	4	1 $\frac{1}{2}$	213T	365T	20	165
60	60 $\frac{3}{8}$	66	5 $\frac{1}{2}$	2 $\frac{1}{2}$	33 $\frac{3}{8}$	33 $\frac{3}{8}$	8 $\frac{1}{4}$	14 GA.	2 $\frac{1}{2}$	3	20.33	61	$\frac{7}{16}$ x $\frac{3}{8}$	4	1 $\frac{1}{2}$	213T	365T	20	279

NOTE: Dimensions and specifications are subject to change. Certified prints are available. Dimensions for fan sizes 12", 14", 16", 54" and 60" are "H" Duty construction.



# Performance Data

## Rating Table – Series 01S, 01R, 02S, 02R

Size	Model Code	Motor		Peak Fan BHP	CFM @ STATIC PRESSURE										
		HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
12	A____-126-P---STFCD2	1/4	3450	0.24	1,926	1,803	1,688	1,533	1,236	960	765	603			
	A____-124-O---STFCD3	1/4	1725	0.10	1,475	1,263									
14	A____-142-N---STFCD2	1/4	3450	0.22	2,302	2,005	1,715	1,187	592						
	A____-146-P---STFCG2	3/4	3450	0.62	3,647	3,545	3,420	3,282	3,133	2,950	2,680	2,160			
	A____-146-P---STFCD3	1/4	1725	0.08	1,798	1,540	746								
	A____-144-O---STFCD3	1/4	1725	0.16	2,263	1,975	765	493							
	A____-144-O---STFCD4	1/4	1140	0.05	1,478	428									
16	A____-162NA---STFCD3	1/4	1725	0.09	2,124	1,552	400								
	A____-166-P---STFCD3	1/4	1725	0.18	2,657	2,360	1,930	1,123	760	525					
	A____-164-W---STFCD3	1/4	1725	0.27	3,239	2,940	2,650	1,145	813						
	A____-162NB---STFCD4	1/4	1140	0.06	2,046										
	A____-164-W---STFCD4	1/4	1140	0.06	2,128	1,695	433								
18	A____-184WA---STFCE3	1/2	1740	0.35	4,280	3,995	3,675	3,185	1,495	1,095	635				
	A____-182NA---STFCD3	1/4	1725	0.08	2,532	1,800	410								
	A____-188-Q---STFCD3	1/4	1725	0.28	3,346	3,100	2,660	1,985	1,530	1,160					
	A____-183-L---STFCE3	1/2	1750	0.34	3,530	3,170	2,760	2,260	1,395	710					
	A____-184WB---STFCE3	1/2	1725	0.37	4,081	3,735	3,390	2,975	1,335						
	A____-184WA---STFCD4	1/4	1185	0.12	2,915	2,465	960	310							
	A____-182NB---STFCD4	1/4	1140	0.08	2,589	1,720									
	A____-184WA---STFCF5	1/4	850	0.04	2,090	705									
20	A____-208-Q---STFCH3	1	1750	0.98	6,082	5,805	5,515	5,125	2,850	2,350	2,000	1,755			
	A____-202NB---STFCD3	1/4	1725	0.12	3,199	2,363	945								
	A____-202NA---STFCD3	1/4	1725	0.24	4,168	3,495	2,525	785							
	A____-203-L---STFCF3	1/2	1725	0.52	4,905	4,510	4,100	3,665	2,015	1,135	925				
	A____-206-P---STFCF3	1/2	1725	0.50	4,985	4,600	4,175	3,520	2,190	1,445	1,305				
	A____-204-W---STFCG3	3/4	1725	0.78	6,305	5,900	5,525	5,130	4,565	1,970	1,560				
	A____-202NA---STFCD4	1/4	1140	0.07	2,728	945									
	A____-203-L---STFCD4	1/4	1140	0.14	3,238	2,620	875								
	A____-206-P---STFCD4	1/4	1140	0.15	3,316	2,690	1,170	760							
	A____-208-Q---STFCD4	1/4	1140	0.26	3,935	3,480	1,560	1,115							
	A____-204-W---STFCD4	1/4	1140	0.22	4,114	3,525	1,420	830							
	A____-208-Q---STFCD5	1/4	850	0.11	2,934	1,305	660								
22	A____-226-P---STFCH3	1	1750	0.98	7,170	6,775	6,350	5,905	5,425	4,500	2,930	2,450			
	A____-222-N---STFCD3	1/4	1725	0.27	5,029	4,200	3,205	1,130							
	A____-226-P---STFCD4	1/4	1140	0.27	4,647	3,990	2,400	1,555	915						
	A____-226-P---STFCD5	1/4	850	0.11	3,465	2,400	860								

Size 22" not available in Series 02S or 02R.

Performance certified is for installation Type B: Free Inlet, Ducted Outlet.

Speed (RPM) shown is nominal. Performance is based on actual speed of test.

Performance ratings do not include the effects of appurtenances (accessories).

**"G" (General Industrial) Duty construction available for models with shaded performance.**

**"H" (Heavy Industrial) Duty construction available for all models.**



Rating Table – Series 01S, 01R, 02S, 02R

Size	Model Code	Motor		Peak Fan BHP	CFM @ STATIC PRESSURE										
		HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
24	A___-246-C---STFC2	3	3450	3.40	10,679	10,435	10,190	9,945	9,680	9,420	9,140	8,860	8,540	7,900	7,270
	A___-242NA---STFCD3	1/4	1725	0.29	5,529	4,450	2,970								
	A___-246-C---STFCE3	1/3	1725	0.45	5,324	4,820	4,245	3,605	2,955	2,205	1,450				
	A___-242NB---STFCF3	1/2	1725	0.56	7,170	6,300	5,350	3,750	1,750						
	A___-242NC---STFCG3	3/4	1725	0.80	7,936	7,225	6,460	5,490	2,800						
	A___-246PA---STFCH3	1	1750	1.10	8,436	8,075	7,610	7,100	6,605	6,020	5,060	3,825	3,020	2,090	
	A___-246PB---STFCI3	1 1/2	1750	1.50	9,529	9,140	8,740	8,310	7,800	7,085	6,070	4,160	3,500	2,590	1,860
	A___-246PC---STFCJ3	2	1750	2.00	10,630	10,240	9,810	9,385	8,970	8,340	7,550	4,510	3,990	3,150	2,640
	A___-244-W---STFCJ3	2	1750	2.10	11,067	10,610	10,090	9,705	9,225	8,670	7,880	4,100	3,330	2,560	
	A___-242NB---STFCD4	1/4	1140	0.16	4,766	3,350									
	A___-242NC---STFCD4	1/4	1140	0.23	5,245	4,155	1,560								
	A___-243-L---STFCE4	1/3	1140	0.34	5,655	4,985	4,230	1,820							
	A___-244-W---STFCF4	1/2	1140	0.57	7,221	6,540	5,770	2,640	1,790						
	A___-246PC---STFCF4	1/2	1140	0.52	6,929	6,300	5,550	2,920	2,200						
	A___-242NC---STFCD5	1/4	850	0.09	3,910	1,315									
A___-243-L---STFCD5	1/4	850	0.15	4,209	3,235	1,015									
A___-244-W---STFCD5	1/4	850	0.24	5,384	4,420	1,490									
28	A___-282ND---STFCD3	1/4	1725	0.28	6,724	5,000	2,750								
	A___-282NA---STFCF3	1/2	1725	0.45	7,928	6,705	5,385	3,630	1,580						
	A___-282NB---STFCG3	3/4	1725	0.71	10,032	8,910	7,820	6,440	4,260						
	A___-282NC---STFCH3	1	1750	1.00	10,571	9,600	8,590	7,450	5,225	2,900					
	A___-286PB---STFCI3	1 1/2	1750	1.60	10,677	10,205	9,700	9,185	8,620	7,985	7,260	6,340	5,170	3,710	2,370
	A___-286PA---STFCJ3	2	1750	2.30	12,643	12,120	11,600	11,080	10,500	9,870	9,180	8,330	6,730	4,650	3,340
	A___-288-C---STFCK3	3	1750	3.00	14,283	13,790	13,330	12,925	12,430	11,710	10,840	9,800	8,500	4,560	3,590
	A___-282NE---STFCD4	1/4	1140	0.17	5,823	3,530									
	A___-282NC---STFCD4	1/4	1140	0.27	6,860	5,320	2,230								
	A___-283-L---STFCG4	3/4	1140	0.77	8,739	8,035	7,245	6,250	3,700	2,190	1,510				
	A___-284-W---STFCH4	1	1160	1.10	10,991	10,240	9,470	8,630	7,600	3,310	2,600				
	A___-282NC---STFCD5	1/4	850	0.11	5,110	2,200									
	A___-286PB---STFCD5	1/4	850	0.18	5,166	4,105	2,185								
	A___-286PA---STFCD5	1/4	850	0.26	6,155	5,035	2,925	1,435							
	A___-283-L---STFCE5	1/3	850	0.31	6,470	5,450	3,790	1,400							
A___-284-W---STFCF5	1/2	850	0.44	8,040	7,030	5,800	2,150								
A___-284-W---STFCD6	1/4	690	0.23	6,526	5,225	1,825									
32	A___-322NB---STFCH3	1	1750	1.00	12,627	11,320	9,915	8,200	5,130						
	A___-322NA---STFCJ3	2	1750	2.00	16,451	15,390	14,270	13,060	11,750	10,190	6,310				
	A___-326PB---STFCK3	3	1750	3.00	16,054	15,570	14,900	14,085	13,220	12,300	11,220	10,060	8,830	6,880	5,700
	A___-326PA---STFCM3	7 1/2	1750	6.84	23,215	22,705	22,190	21,675	21,155	20,625	20,080	19,515	18,900	17,345	
	A___-322NB---STFCD4	1/4	1140	0.27	8,184	6,040									
	A___-322NA---STFCF4	1/2	1140	0.55	10,692	9,000	6,930	2,350							
	A___-326PB---STFCH4	1	1160	0.94	10,796	9,800	8,630	6,910	5,530	4,170	3,370	2,600	1,900		
	A___-323-L---STFCI4	1 1/2	1160	1.60	13,293	12,370	11,430	10,460	8,900	4,660	3,490				
	A___-324-W---STFCJ4	2	1160	2.30	16,010	15,190	14,280	13,410	12,500	6,375	5,300	4,600	3,850		
	A___-322NA---STFCD5	1/4	850	0.23	7,972	5,550									
	A___-323-L---STFCF5	1/2	850	0.63	9,741	8,470	7,000	2,930							
	A___-326PA---STFCG5	3/4	850	0.73	11,275	10,210	9,025	4,615	3,675						
	A___-324-W---STFCH5	1	870	0.94	12,007	10,870	9,700	4,780	3,400						
	A___-326PB---STFCD6	1/4	690	0.19	6,422	4,380	2,160								
	A___-323-L---STFCE6	1/3	690	0.34	7,907	6,300	2,350								
A___-324-W---STFCF6	1/2	690	0.48	9,523	8,050	3,510	2,060								

Performance certified is for installation Type B: Free Inlet, Ducted Outlet.

Speed (RPM) shown is nominal. Performance is based on actual speed of test.

Performance ratings do not include the effects of appurtenances (accessories).

**"G" (General Industrial) Duty construction available for models with shaded performance.**

**"H" (Heavy Industrial) Duty construction available for all models.**



Rating Table – Series 01S, 01R, 02S, 02R

Size	Model Code	Motor		Peak Fan BHP	CFM @ STATIC PRESSURE										
		HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
36	A___-362ND---STFCH3	1	1750	1.10	15,418	13,500	11,290	8,110	5,210						
	A___-362NC---STFCJ3	2	1750	2.00	18,886	17,420	15,840	14,150	12,070	9,210	6,520				
	A___-362NB---STFCK3	3	1750	2.80	21,922	20,680	19,270	17,830	16,600	15,000	13,100	10,200	5,770		
	A___-368CB---STFCK3	3	1750	3.00	15,666	15,020	14,300	13,600	12,980	12,330	11,700	11,060	10,430	9,150	7,850
	A___-366PC---STFCK3	3	1750	3.00	18,685	18,060	17,300	16,560	15,730	14,770	13,630	12,400	11,290	9,270	6,450
	A___-366PA---STFCL3	5	1750	5.00	24,112	23,350	22,600	21,780	20,930	20,000	18,800	17,600	16,000	13,200	11,000
	A___-368CC---STFCL3	5	1750	4.80	18,575	18,100	17,600	17,020	16,400	15,800	15,200	14,530	14,120	13,280	12,250
	A___-368CD---STFCM3	7 1/2	1750	7.20	22,636	22,080	21,570	21,000	20,400	19,830	19,250	18,610	18,000	16,780	15,430
	A___-368CA---STFCN3	10	1780	9.80	27,800	27,250	26,800	26,300	25,800	25,300	24,700	24,200	23,500	22,100	20,500
	A___-362ND---STFCD4	1/4	1140	0.29	9,952	6,600									
	A___-362NC---STFCF4	1/2	1140	0.54	12,212	9,900	6,380								
	A___-362NA---STFCH4	1	1160	1.10	16,178	14,450	12,600	10,240	5,670						
	A___-366PA---STFCI4	1 1/2	1160	1.50	15,902	14,720	13,360	11,730	9,730	7,640	5,770	4,580	3,720		
	A___-366PB---STFCK4	3	1160	2.40	20,003	18,850	17,970	16,500	14,970	12,340	8,400	6,660	5,400		
	A___-364-W---STFCL4	5	1160	4.20	23,851	22,850	21,870	20,880	19,820	18,540	16,800	8,180	7,470	6,030	4,900
	A___-362NC---STFCD5	1/4	850	0.22	9,105	5,410									
	A___-362NA---STFCF5	1/2	850	0.43	11,784	9,315	4,700								
	A___-363-L---STFCH5	1	870	1.00	14,170	12,970	11,610	9,970	5,600						
	A___-364-W---STFCI5	1 1/2	870	1.60	17,889	16,660	15,210	13,480	6,300	5,040					
	A___-362NA---STFCD6	1/4	690	0.23	9,566	6,300									
A___-363-L---STFCF6	1/2	690	0.53	11,239	9,550	7,570	3,130								
A___-364-W---STFCG6	3/4	690	0.88	14,188	12,530	10,300	4,180	3,130							
40	A___-402NC---STFCJ3	2	1750	2.10	21,648	19,650	17,930	16,030	13,800	11,000	8,000	5,370			
	A___-402NB---STFCK3	3	1750	3.00	24,600	22,820	21,200	19,370	17,200	14,450	10,600	7,200	4,550		
	A___-402ND---STFCH4	1	1160	0.94	17,457	14,880	12,000	7,000							
	A___-402NA---STFCJ4	2	1160	2.20	22,750	20,730	18,750	16,600	13,080	7,400	4,300				
	A___-406PA---STFCK4	3	1160	3.00	23,707	22,500	21,070	19,500	17,700	15,300	12,600	10,200	8,030	6,100	
	A___-406PB---STFCL4	5	1160	4.90	27,454	26,470	25,530	24,560	23,400	22,070	20,200	16,660	12,400	10,030	8,450
	A___-404-W---STFCM4	7 1/2	1160	8.00	33,300	32,220	31,130	30,000	28,800	27,550	26,160	24,730			
	A___-402NA---STFCH5	1	870	0.94	17,077	14,400	11,370	4,670							
	A___-406PA---STFCI5	1 1/2	870	1.30	17,792	16,020	13,880	10,700	7,270	5,410	3,940				
	A___-403-L---STFCJ5	2	870	2.20	20,400	19,080	17,630	16,050	14,030	8,650	6,000	4,800			
	A___-404-W---STFCK5	3	870	3.50	25,200	23,800	22,420	20,780	18,800	9,270	7,990	7,050			
	A___-406PA---STFCG6	3/4	690	0.63	14,111	11,730	8,000	4,530							
A___-403-L---STFCH6	1	690	1.00	16,250	14,400	12,400	9,300	4,350							
A___-404-W---STFCI6	1 1/2	690	1.70	19,800	17,960	15,960	7,330	5,950							
44	A___-442NC---STFCK3	3	1750	2.90	26,250	24,130	21,960	19,610	17,000	14,250	11,630	9,080	6,700		
	A___-442NE---STFCL3	5	1750	5.20	34,427	32,730	30,880	29,000	26,930	24,700	22,350	19,700	16,100	9,530	
	A___-442ND---STFCH4	1	1160	0.97	19,031	16,100	12,950	8,000							
	A___-442NB---STFCJ4	2	1160	2.20	25,400	22,800	20,100	16,970	11,400						
	A___-442NA---STFCK4	3	1160	3.50	30,103	27,550	25,300	23,000	20,540	16,600	9,200				
	A___-446PA---STFCL4	5	1160	5.50	31,323	30,200	28,800	27,630	26,170	24,700	23,050	21,000	17,000	13,300	10,800
	A___-442NB---STFCH5	1	870	0.98	19,400	17,060	11,600	4,900							
	A___-442NA---STFCI5	1 1/2	870	1.50	22,733	19,500	16,550	11,600	5,700						
	A___-446-P---STFCJ5	2	870	2.30	23,223	21,570	19,770	17,700	14,150	11,080	8,950	7,210	5,500		
	A___-443-L---STFCK5	3	870	3.40	26,600	24,950	23,450	21,820	19,970	17,620	14,070	9,200	9,350		
	A___-444-W---STFCL5	5	870	5.50	33,230	31,700	30,150	28,400	26,400	24,270	12,400	11,170	10,050	7,450	
	A___-446-P---STFCH6	1	690	1.20	18,632	16,510	14,000	9,550	6,960						
A___-443-L---STFCI6	1 1/2	690	1.60	20,570	18,730	16,670	14,060	7,730							
A___-444-W---STFCK6	3	690	2.70	26,356	24,450	22,300	19,620	9,250	8,000	6,400					

Performance certified is for installation Type B: Free Inlet, Ducted Outlet.

Speed (RPM) shown is nominal. Performance is based on actual speed of test.

Performance ratings do not include the effects of appurtenances (accessories).

**"G" (General Industrial) Duty construction available for models with shaded performance.**

**"H" (Heavy Industrial) Duty construction available for all models.**





Rating Table – Series 01S, 01R, 02S, 02R

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	CFM @ STATIC PRESSURE											
			HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	
48*	A___-482NC---STFCJ4	---	2	1160	2.20	27,871	24,930	22,200	19,050	15,270	9,970						
	A___-482NB---STFCJ4	---	3	1160	3.10	31,426	28,900	26,200	23,200	19,530	13,500	8,430					
	A___-482NA---STFCL4	---	5	1160	5.40	35,612	34,550	33,130	30,660	28,000	24,650	19,470	12,500	9,520			
	A___-486-C---STFCM4	---	7 1/2	1160	7.40	37,700	36,500	35,170	33,680	32,050	30,330	28,530	26,580	24,350	18,050	13,300	
	A___-484AA170STFCM4	17°	7 1/2	1160	8.04	39,093	37,670	36,195	34,510	32,550	30,510	28,487	26,295	18,343	15,199	8,820	
	A___-482NC---STFCH5	---	1	870	1.00	20,779	17,060	12,800	6,100								
	A___-482NA---STFCJ5	---	2	870	2.20	26,709	24,930	21,600	16,950	8,870							
	A___-486-C---STFCJ5	---	3	870	3.30	28,600	27,130	25,150	22,800	20,200	17,200	13,200	9,970	7,700			
	A___-486AA142STFCJ5	14.2°	3	870	3.12	27,642	26,114	24,430	22,640	20,700	18,750	16,115	12,800	10,140	6,950		
	A___-483-L---STFCL5	---	5	870	5.00	32,700	31,530	29,730	27,800	25,800	23,230	14,830	12,170	10,500	6,800		
	A___-482NA---STFCH6	---	1	690	1.10	21,183	18,470	12,900									
	A___-484AA160STFCJ6	16°	1 1/2	690	1.58	22,320	19,744	16,427	12,406	6,750	691						
	A___-484AA200STFCJ6	20°	2	690	2.01	25,518	22,999	19,646	15,932	10,602	1,490						
	A___-486AA230STFCJ6	23°	3	690	3.19	30,013	27,314	24,860	22,542	19,806	15,791	9,864	2,099				
54	A___-542NB---STFCJ4	---	3	1160	2.90	34,300	31,060	27,450	22,850	16,200	11,600	7,200					
	A___-542NA---STFCL4	---	5	1160	5.10	43,200	40,750	37,500	34,300	30,800	26,950	19,500	13,500	9,500			
	A___-542NC---STFCM4	---	7 1/2	1160	7.10	48,500	46,050	43,200	40,250	37,000	33,350	28,750	18,400	13,000			
	A___-544BA090STFCN4	9°	10	1160	11.30	47,950	45,600	43,350	41,000	34,300	28,400	25,700	20,100				
	A___-542NA---STFCJ5	---	2	870	2.10	32,700	28,800	24,330	18,550	10,000							
	A___-542NC---STFCJ5	---	3	870	3.20	36,500	32,950	28,900	24,000	13,200							
	A___-544BA110STFCJ5	11°	5	870	5.50	38,800	35,850	32,650	24,500	18,000	12,050						
	A___-544BA165STFCM5	16.5°	7 1/2	870	8.20	46,930	44,200	41,470	38,530	28,600	19,000	14,150					
	A___-543-L---STFCM5	---	7 1/2	870	8.40	48,785	47,000	45,000	43,000	40,900	38,750	36,000	32,150	20,450			
	A___-546BA175STFCN5	17.5°	10	870	11.00	51,770	49,550	47,250	44,550	40,570	28,480	21,950	17,900	16,200			
	A___-542NA---STFCH6	---	1	690	1.00	25,700	20,500	12,500									
	A___-544BA080STFCJ6	8°	2	690	2.20	27,500	22,970	14,800									
	A___-544BA140STFCJ6	14°	3	690	3.30	34,150	30,600	25,800	13,700								
	A___-544BA175STFCL6	17.5°	5	690	5.50	41,070	38,300	34,830	24,650	16,130							
60	A___-602NB---STFCL4	---	5	1160	5.20	46,750	44,050	41,100	36,200	31,450	26,100	20,500	14,700				
	A___-602NC---STFCM4	---	7 1/2	1160	7.20	54,200	51,370	48,200	44,300	40,350	34,600	27,400	21,100	14,000			
	A___-602NA---STFCN4	---	10	1160	9.80	61,820	58,600	55,300	52,300	49,100	45,400	40,900	34,300	24,700	15,900		
	A___-608-C---STFCP4	---	20	1160	17.60	54,590	53,050	51,550	50,000	48,500	47,000	45,450	44,000	42,650	40,000	37,500	
	A___-602NB---STFCJ5	---	2	870	2.20	35,100	31,370	25,350	17,970	10,600							
	A___-602NC---STFCJ5	---	3	870	3.00	40,520	36,850	31,270	24,150	14,850							
	A___-602BA150STFCL5	15°	5	870	5.60	49,900	45,630	41,430	36,600	30,650	14,850						
	A___-604BA130STFCM5	13°	7 1/2	870	8.40	53,880	51,000	48,500	45,700	42,480	38,050	29,780	23,750				
	A___-608-C---STFCM5	---	7 1/2	870	8.10	40,950	39,050	37,050	34,850	32,700	30,750	29,100	27,700	26,300	21,250	16,050	
	A___-604BA165STFCN5	16.5°	10	870	10.90	61,370	58,300	55,530	52,950	50,050	47,000	42,900	32,150	22,750			
	A___-603-L---STFCO5	---	15	870	15.00	66,850	65,000	62,950	60,600	58,200	55,750	53,700	50,500	43,750	25,700	21,000	
	A___-606BA175STFCO5	17.5°	15	870	16.30	66,670	65,200	63,600	61,950	60,000	57,720	55,000	51,900	47,780	28,600		
	A___-604BA100STFCJ6	10°	3	690	3.30	37,970	34,250	29,950	23,620	16,100							
	A___-604BA165STFCL6	16.5°	5	690	5.50	48,600	44,900	41,400	37,900	31,670	18,500	11,900					
A___-603-L---STFCM6	---	7 1/2	690	7.60	53,000	50,500	47,730	44,950	41,500	37,500	28,400	18,000	15,800				
A___-606BA175STFCM6	17.5°	7 1/2	690	8.10	52,800	50,950	48,780	46,200	42,750	37,850	25,200						
72	A___-724AA140STFCN5	14°	10	870	10.90	80,863	75,750	70,000	63,650	55,750	47,150	40,000	34,100	27,300			
	A___-724AA190STFCO5	19°	15	870	16.80	96,768	92,700	88,250	83,300	77,150	67,650	55,700	48,000	40,500	20,600		
	A___-724AA230STFCP5	23°	20	870	23.20	108,156	104,350	100,000	95,000	89,850	84,000	72,000	54,250	48,850	32,600		
	A___-724AA140STFCL6	14°	5	690	5.40	64,129	58,150	49,300	39,150	29,650	22,650						
	A___-724AA190STFCM6	19°	7 1/2	690	8.40	76,706	71,600	64,500	56,100	42,000	33,000	20,300					
	A___-724AA230STFCN6	23°	10	690	11.20	85,775	80,850	74,600	67,100	48,500	38,550	29,400					
	A___-724AA145STFCJ7	14.5°	3	575	3.30	54,107	46,200	34,100	23,650	12,000							
	A___-724AA205STFCL7	20.5°	5	575	5.50	66,797	60,400	51,350	34,000	22,350							

Performance certified is for installation Type B: Free Inlet, Ducted Outlet.  
 Speed (RPM) shown is nominal. Performance is based on actual speed of test.  
 Performance ratings do not include the effects of appurtenances (accessories).  
**"G" (General Industrial) Duty construction available for models with shaded performance.**  
**"H" (Heavy Industrial) Duty construction available for all models.**

\*48" AA prop data AMCA Certified for the Series 02S and 02R fans only.



# Lo-Noise Ring Fan (Belted)



**Series 08 (ring)**



Hartzell Fan, Inc. certifies that the 08S-Belted Ring Fan, Standard Flow and 08R-Belted Ring Fan, Reverse Flow, shown hereon is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Standard 211 and comply with the requirements of the Certified Ratings Program.

The Hartzell Lo-Noise (slow tip speed) Fan is the result of years of experimentation and research in the Hartzell laboratories. Each unit is designed for quiet operation, low cost per foot of air moved and extra long, trouble-free life.

- Series 08S – Standard Flow and 08R – Reverse Flow belted Lo-Noise Ring Fans.
- Air seal fan orifice.
- Sizes 24" to 72".
- Long life V belts, pillow block ball bearings, ground and polished shaft.

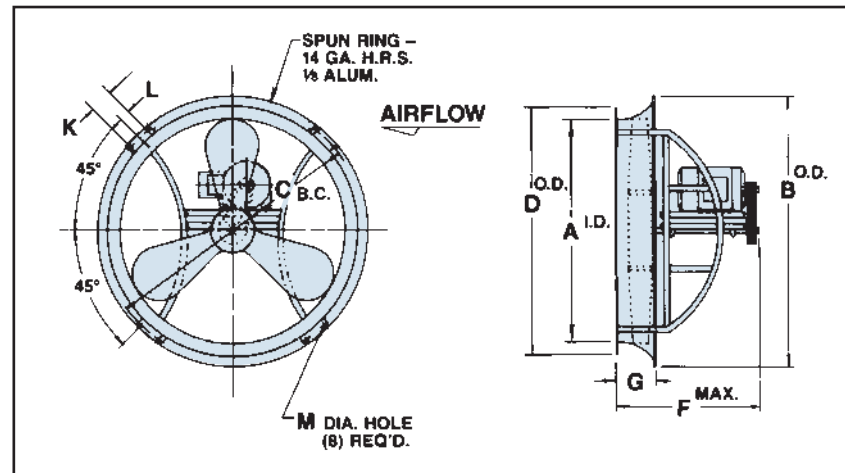
## Principal Dimensions – Series 08

FAN SIZE	A	B	C	C <sub>1</sub>	D	F <sub>MAX</sub>	G	K	L	M	MAX. MOTOR FRAME	WT. # LESS MTR. & OPTIONS	
												MAXIMUM WEIGHT # STL. FAN	MAXIMUM WEIGHT # ALUM. FAN
24	24	27 <sup>1</sup> / <sub>2</sub>	26 <sup>11</sup> / <sub>16</sub>	29 <sup>5</sup> / <sub>8</sub>	26	20	3 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	145T	41	29
28	28	31 <sup>1</sup> / <sub>2</sub>	30 <sup>11</sup> / <sub>16</sub>	33 <sup>5</sup> / <sub>8</sub>	30	21	3 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	145T	46	32
32	32	35 <sup>1</sup> / <sub>2</sub>	34 <sup>11</sup> / <sub>16</sub>	37 <sup>5</sup> / <sub>8</sub>	34	25	3 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	184T	54	39
36	36	41	39 <sup>7</sup> / <sub>16</sub>	43 <sup>3</sup> / <sub>4</sub>	38	26	4 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>11</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	184T	81	56
40	40	45	43 <sup>7</sup> / <sub>16</sub>	47 <sup>3</sup> / <sub>4</sub>	42	26	4 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>11</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	184T	123	83
44	44	49	47 <sup>7</sup> / <sub>16</sub>	51 <sup>3</sup> / <sub>4</sub>	46	32	4 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>11</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	215T	143	92
48	48	54	52 <sup>7</sup> / <sub>16</sub>	58	50	32	5 <sup>15</sup> / <sub>16</sub>	4	2	9 <sup>1</sup> / <sub>16</sub>	215T	183	126
54	54	60	58 <sup>7</sup> / <sub>16</sub>	64	56	34	5 <sup>15</sup> / <sub>16</sub>	4	2	9 <sup>1</sup> / <sub>16</sub>	256T	233	153
60	60	66	64 <sup>7</sup> / <sub>16</sub>	70	62	38 <sup>1</sup> / <sub>4</sub>	5 <sup>15</sup> / <sub>16</sub>	4	2	9 <sup>1</sup> / <sub>16</sub>	256T	299	219
72	72	78	76 <sup>1</sup> / <sub>2</sub>	82	74	38 <sup>1</sup> / <sub>4</sub>	5 <sup>15</sup> / <sub>16</sub>	4	2	9 <sup>1</sup> / <sub>16</sub>	256T	319	227

NOTE: Dimensions and specifications are subject to change. Certified prints are available.

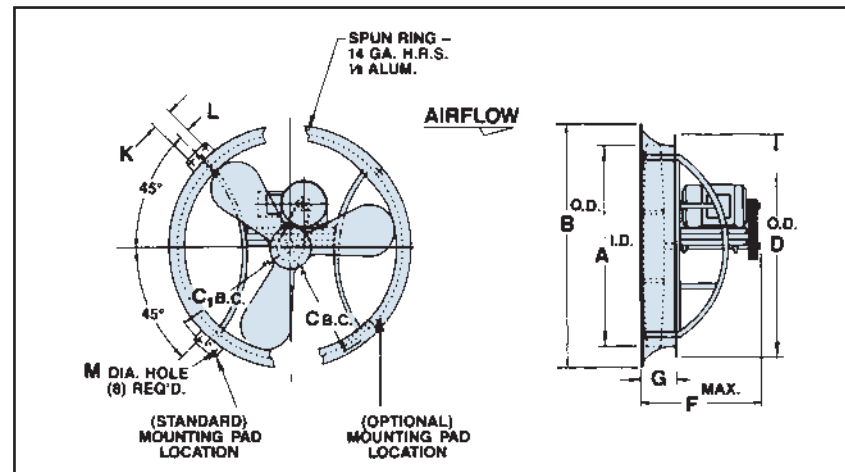
## STANDARD AIR FLOW – SERIES 08S

CONFIGURATION 1 - SF FAN ONLY



## REVERSE AIR FLOW – SERIES 08R

CONFIGURATION 1 - RF FAN ONLY



# Lo-Noise Panel Fan (Belted)



**Series 09 (panel)**  
"G" Duty Shown



**Series 09 (panel)**  
"H" Duty Shown

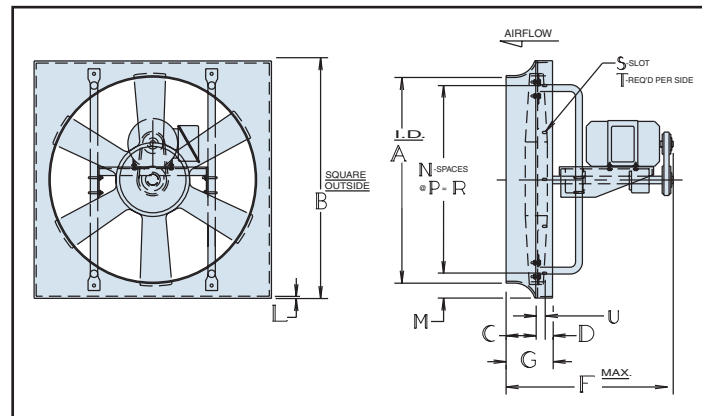


Hartzell Fan, Inc. certifies that the 09S-Belted Panel Fan, Standard Flow and 09R-Belted Panel Fan, Reverse Flow, shown hereon is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Standard 211 and comply with the requirements of the Certified Ratings Program.

The Hartzell Series 09S – Standard Flow and Series 09R – Reverse Flow are Panel Fan versions of the Hartzell Lo-Noise, belted fan. The heavy duty, solid steel panel and frame are designed to be easily mounted, directly into roughed in wall opening or used with a wide variety of Hartzell mounting accessories.

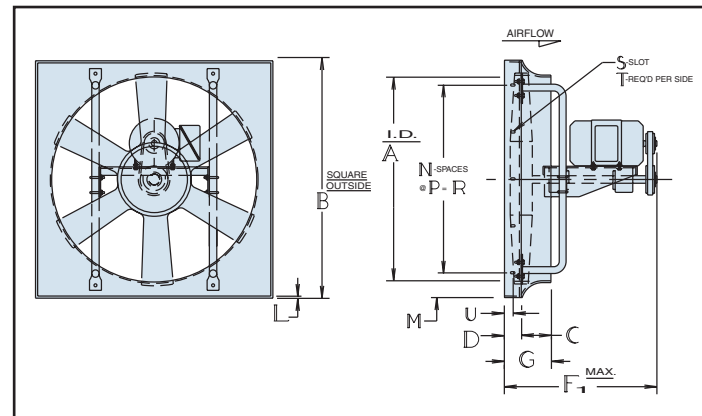
- Series 09S – Standard Flow and 09R – Reverse Flow.
- "G" (General Industrial) Duty and "H" (Heavy Industrial) Duty construction are available. See page 3 and performance rating table.
- Steel spun orifice panel.
- Sizes 24" to 60".
- Long life V belts, pillow block ball bearings, ground and polished shaft.

## STANDARD AIR FLOW – SERIES 09S



**CONFIGURATION 1-SF  
FAN ONLY**

## REVERSE AIR FLOW – SERIES 09R



**CONFIGURATION 1-RF  
FAN ONLY**

Drawing for "G" (General Industrial) Duty construction shown, overall envelope dimensions of the "H" (Heavy Industrial) Duty construction will remain the same, except Fmax/F<sub>1</sub>max dimension, which is significantly larger for "H" Duty Construction.

## Principal Dimensions

FAN SIZE	A	B	C	D	F (MAX)	F <sub>1</sub> (MAX)	G	L	M	N	P	R	S	T	U	MOTOR FRAME		MAX MOTOR HP	MAX WT. STEEL (LESS MOTOR WT.)
								STEEL								MIN.	MAX.		
24	24 <sup>3</sup> / <sub>16</sub>	28	3 <sup>1</sup> / <sub>2</sub>	2	18 <sup>1</sup> / <sub>2</sub>	16 <sup>3</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	14 GA.	2 <sup>1</sup> / <sub>2</sub>	2	11.50	23	7 <sup>1</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>8</sub>	3	1	48	56	3/4	74
28	28 <sup>3</sup> / <sub>16</sub>	33	3 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	19 <sup>1</sup> / <sub>2</sub>	18	6	14 GA.	2 <sup>1</sup> / <sub>2</sub>	2	14.00	28	7 <sup>1</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>8</sub>	3	1 <sup>1</sup> / <sub>4</sub>	48	56	3/4	93
32	32 <sup>3</sup> / <sub>16</sub>	36	3 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	20 <sup>1</sup> / <sub>2</sub>	18 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>4</sub>	14 GA.	2 <sup>1</sup> / <sub>2</sub>	2	15.50	31	7 <sup>1</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>8</sub>	3	1 <sup>1</sup> / <sub>2</sub>	48	145T	2	111
36	36 <sup>3</sup> / <sub>16</sub>	42	4	2 <sup>1</sup> / <sub>2</sub>	21 <sup>1</sup> / <sub>4</sub>	18 <sup>3</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>16</sub>	14 GA.	2 <sup>1</sup> / <sub>2</sub>	3	12.33	37	7 <sup>1</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>8</sub>	4	1 <sup>1</sup> / <sub>2</sub>	48	145T	2	149
40	40 <sup>3</sup> / <sub>16</sub>	46	4 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	23	19 <sup>3</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	14 GA.	2 <sup>1</sup> / <sub>2</sub>	3	13.66	41	7 <sup>1</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>8</sub>	4	1 <sup>1</sup> / <sub>2</sub>	48	182T	3	164
44	44 <sup>3</sup> / <sub>16</sub>	50	4 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	23	20 <sup>3</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	14 GA.	2 <sup>1</sup> / <sub>2</sub>	3	15.00	45	7 <sup>1</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>8</sub>	4	1 <sup>1</sup> / <sub>2</sub>	48	184T	5	180
48	48 <sup>3</sup> / <sub>16</sub>	54	4 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	23	20 <sup>3</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	14 GA.	2 <sup>1</sup> / <sub>2</sub>	3	16.33	49	7 <sup>1</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>8</sub>	4	1 <sup>1</sup> / <sub>2</sub>	48	184T	5	201
54	54 <sup>3</sup> / <sub>16</sub>	60	5	2 <sup>1</sup> / <sub>2</sub>	34	34	7 <sup>1</sup> / <sub>2</sub>	14 GA.	2 <sup>1</sup> / <sub>2</sub>	3	18.33	55	7 <sup>1</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>8</sub>	4	1 <sup>1</sup> / <sub>2</sub>	56	256T	7 <sup>1</sup> / <sub>2</sub>	215
60	60 <sup>3</sup> / <sub>16</sub>	66	5 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	38 <sup>3</sup> / <sub>16</sub>	38 <sup>3</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>	14 GA.	2 <sup>1</sup> / <sub>2</sub>	3	20.33	61	7 <sup>1</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>8</sub>	4	1 <sup>1</sup> / <sub>2</sub>	56	256T	15	334

NOTE: Dimensions and specifications are subject to change. Certified prints are available. Dimensions for fan sizes 54" and 60" are "H" Duty construction.



# Ring Fan (Series 08S and 08R) Panel Fan (Series 09S and 09R)

Rating Table (Lo-Noise Fan)

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	Fan RPM	Cubic Feet Per Minute vs. Static Pressure													
			HP	RPM			0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 3/8"	1 1/2"	
24	A___-243-L---STFCD3	---	1/4	1750	0.19	862	4,217	3,321	1,213											
	A___-243-L---STFCD3	---	1/4	1750	0.25	960	4,696	3,917	2,077											
	A___-243-L---STFCE3	---	1/2	1750	0.36	1071	5,239	4,558	3,706	1,568										
	A___-243-L---STFCF3	---	1/2	1750	0.53	1220	5,968	5,383	4,702	3,501	1,719									
28	A___-283-L---STFCD3	---	1/4	1750	0.27	765	5,774	4,551	1,458											
	A___-283-L---STFCE3	---	1/2	1750	0.36	820	6,189	5,083	1,951	702										
	A___-283-L---STFCF3	---	1/2	1750	0.55	938	7,079	6,163	4,674	1,797	745									
	A___-283-L---STFCG3	---	3/4	1750	0.82	1082	8,166	7,401	6,437	3,121	2,063	1,085								
32	A___-323-L---STFCF3	---	1/2	1750	0.55	825	9,146	7,919	6,420	2,642										
	A___-323-L---STFCG3	---	3/4	1750	0.84	945	10,477	9,435	8,227	5,189	2,963									
	A___-323-L---STFCH3	---	1	1750	1.14	1045	11,585	10,660	9,600	8,456	4,862	3,186								
	A___-323-L---STFCI3	---	1 1/2	1750	1.64	1190	13,193	12,395	11,498	10,529	9,497	5,972	4,061							
	A___-323-L---STFCJ3	---	2	1750	2.23	1305	14,468	13,746	12,952	12,095	11,201	10,165	6,577	4,699	3,845					
36	A___-363-L---STFCE3	---	1/2	1750	0.36	575	9,196	7,211	2,568											
	A___-363-L---STFCF3	---	1/2	1750	0.58	666	10,651	9,056	5,585	2,616										
	A___-363-L---STFCG3	---	3/4	1750	0.88	764	12,218	10,869	9,098	4,125	2,941									
	A___-363-L---STFCH3	---	1	1750	1.07	837	13,386	12,160	10,703	8,099	3,947									
	A___-363-L---STFCI3	---	1 1/2	1750	1.79	980	15,673	14,624	13,532	12,144	9,970	5,189	4,235							
40	A___-403-L---STFCJ3	---	2	1750	2.21	1050	16,792	15,813	14,824	13,627	12,137	8,633	5,237	4,459						
	A___-403-L---STFCH3	---	1	1750	1.12	690	15,996	14,213	12,231	5,288										
	A___-403-L---STFCI3	---	1 1/2	1750	1.64	780	18,083	16,534	14,851	12,705	5,701									
44	A___-403-L---STFCK3	---	3	1750	3.20	980	22,719	21,513	20,210	18,869	17,429	15,213	7,587							
	A___-443-L---STFCF3	---	1/2	1750	0.52	474	14,142	11,376	4,728											
	A___-443-L---STFCH3	---	1	1750	1.07	580	17,304	15,302	12,282	5,768	3,572									
	A___-443-L---STFCI3	---	1 1/2	1750	1.67	680	20,287	18,545	16,491	13,618	7,138	4,863								
	A___-443-L---STFCJ3	---	2	1750	2.16	738	22,018	20,386	18,757	16,234	11,632	6,980	5,118							
	A___-443-L---STFCK3	---	3	1750	3.33	853	25,449	24,004	22,718	21,016	18,781	15,885	9,801	7,453	5,935					
48	A___-443-L---STFCL3	---	5	1750	5.26	1010	30,133	28,895	27,764	26,683	25,250	23,325	21,510	18,852	12,974	10,235	8,540			
	A___-483-L---STFCH3	---	1	1750	1.15	525	19,633	16,862	11,982	5,622										
	A___-483-L---STFCJ3	---	2	1750	2.31	660	24,682	22,556	20,156	16,681	8,674	6,590								
	A___-483-L---STFCK3	---	3	1750	3.33	740	27,674	25,801	23,739	21,379	16,421	9,790	7,859	6,009						
	A___-483-L---STFCL3	---	5	1750	5.85	895	33,470	31,945	30,318	28,580	26,699	24,278	17,194	12,455	10,650	9,201	7,729			

Power rating (BHP) includes transmission losses.

Performance certified is for Installation type B: Free Inlet, Ducted Outlet.

Performance ratings do not include the effects of appurtenances (accessories).

"G" (General Industrial) Duty construction available for models with shaded performance.

"H" (Heavy Industrial) Duty construction available for all models.



**Rating Table (Lo-Noise Fan)**

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	Fan RPM	CFM @ STATIC PRESSURE												
			HP	RPM			0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 3/8"	1 1/2"
54	A___-543-L---STFCJ3	---	2	1750	2.01	497	27,349	24,292	19,105	8,728									
	A___-543-L---STFCK3	---	3	1750	3.09	573	31,531	28,944	25,820	14,739	10,029								
	A___-543-L---STFCL3	---	5	1750	5.10	671	36,924	34,753	32,344	29,402	18,527	13,078	10,595						
	A___-543-L---STFCM3	---	7 1/2	1750	8.13	786	43,252	41,423	39,464	37,310	34,772	30,235	18,198	14,952	12,850				
60	A___-603-L---STFCJ3	---	2	1750	2.11	437	32,457	28,400	22,816	10,199									
	A___-603-L---STFCK3	---	3	1750	3.12	496	36,839	33,260	29,252	16,224	11,147								
	A___-603-L---STFCL3	---	5	1750	5.46	595	44,191	41,171	38,212	34,586	28,502	15,625	12,798						
	A___-603-L---STFCM3	---	7 1/2	1750	7.96	672	49,910	47,224	44,635	41,832	38,394	33,502	19,032	15,916	13,804				
	A___-603-L---STFCN3	---	10	1750	10.97	747	55,481	53,058	50,711	48,356	45,675	42,473	38,242	23,106	19,288	16,936	15,153		
	A___-603-L---STFCO3	---	15	1750	16.18	858	63,725	61,611	59,529	57,518	55,453	53,146	50,558	47,458	43,550	27,908	23,597	21,159	19,228
72	A___-724AA250STFCK3	25°	3	1750	3.27	432	55,031	45,611	23,310										
	A___-724AA250STFCL3	22°	5	1750	5.60	538	65,004	58,168	49,022	28,322									
	A___-724AA250STFCM3	25°	7 1/2	1750	8.31	588	74,903	68,592	60,894	37,542	29,090	19,087							
	A___-724AA250STFCN3	25°	10	1750	11.02	646	82,292	76,820	69,876	60,247	38,434	30,273	21,239						
	A___-724AA250STFCO3	25°	15	1750	16.54	740	94,266	89,771	83,752	77,715	67,122	45,631	39,025	30,761	23,481				

Series 72" not available in Series 09S and 09R.  
 Power rating (BHP) includes transmission losses.  
 Performance certified is for Installation type B: Free Inlet, Ducted Outlet.  
 Performance ratings do not include the effects of appurtenances (accessories).  
**"G" (General Industrial) Duty construction available for models with shaded performance.**  
**"H" (Heavy Industrial) Duty construction available for all models.**



# Reversible Ring Fan (Double Ring)



ABS Certificate of Design Assessment Received

## Series 14 (Direct Drive)

The Series 14, Direct Drive and 14B, Belt Drive Reversible Ring Fans are ideal for ventilating applications where varying conditions may call for intake during some periods and exhaust during others, or periodic reversal of airflow for drying purposes.

- **Fully reversible welded construction** – This design utilizes two curved orifices welded face-to-face to provide efficient airflow in both directions. The streamlined arc-welded motor mount combines minimum resistance to airflow with exceptional strength and ability to withstand vibration.
- **Reversible airfoil propellers** – Cast aluminum reversible airfoil blades. The leading edges and trailing edges of the blades are identical in either direction of rotation ... 100% airflow in either direction.
- **Motors** – Totally enclosed motors conservatively rated for continuous duty.
- **Direct Drive Model shown** – Also available in belt drive, lo-noise type belted or extension shaft construction.
- **Manual or Automatic Reversal** – The unit can be furnished with or without customer specified controls.

### Rating Table (Reversible Fan)

Size	Model Code	Motor		Peak Fan BHP	CFM @ Free Air	CFM vs. S.P. (Wall Inst.)						
		HP	RPM			.10	.20	.30	.40	.50	.75	1.00
18	A14 --186RA---STFCD3	¼	1725	0.263	3,350	3,140	2,910	2,620	2,190	1,780		
24	A14 --246RB---STFCH3	1	1750	1.100	7,850	7,500	7,150	6,850	6,550	6,250		
	A14 --246RA---STFCI3	1½	1750	1.550	8,850	8,550	8,300	8,000	7,650	7,300		
28	A14 --284-R---STFCE4	½	1140	0.350	6,650	5,510	4,440	2,075				
	A14 --282-R---STFCF3	½	1725	0.650	8,500	7,300	6,050	4,810	2,640			
	A14 --284-R---STFCH3	1	1725	1.300	10,080	9,310	8,560	7,840	7,140	6,400	2,630	
36	A14 --362-R---STFCF4	½	1140	0.680	11,890	9,600	7,210	3,250				
	A14 --364-R---STFCH4	1	1140	1.400	14,130	12,620	11,200	9,820	8,130	4,320		
	A14 --366RA---STFCJ4	2	1160	2.850	15,250	14,680	14,050	13,250	12,550	12,030	10,150	6,750
	A14 --366RB---STFCJ4	3	1160	3.200	16,050	15,800	15,020	14,400	13,800	13,200	11,200	6,800
	A14 --362-R---STFCJ3	2	1725	2.530	18,000	16,480	14,900	13,250	11,780	10,240	3,550	
42	A14 --426-R---STFCK5	3	870	3.400	23,300	22,300	21,300	20,300	19,350	18,450		
44	A14 --446-R---STFCH6	1	675	1.320	17,000	15,140	13,160	10,770	6,350	3,630		
	A14 --446-R---STFCJ5	2	860	2.580	21,700	21,350	18,800	17,200	15,600	13,900	6,000	
	A14 --446-R---STFCL4	5	1150	6.000	28,900	28,000	26,950	25,850	24,700	23,550	20,600	13,700
48	A14 --482-R---STFCI5	1½	860	1.500	21,800	18,640	15,190	6,920				
	A14 --482-R---STFCK4	3	1160	3.500	29,650	27,300	24,800	22,250	19,500	11,600		
54	A14 --542-R---STFCK4	3	1160	3.400	32,150	30,000	27,600	25,120	22,300	18,800	6,900	
60	A14 --602RB---STFCK5	3	860	2.800	30,400	27,000	23,300	19,200	13,850	7,500		
	A14 --602RA---STFCL5	5	860	4.400	33,800	32,400	30,700	26,850	21,100	13,700		
	A14 --602RB---STFCM4	7½	1160	7.100	40,600	38,100	35,500	32,750	30,000	27,000	16,750	5,700
	A14 --602RA---STFCN4	10	1160	10.700	45,580	44,700	43,600	42,250	39,700	37,100	30,000	14,600

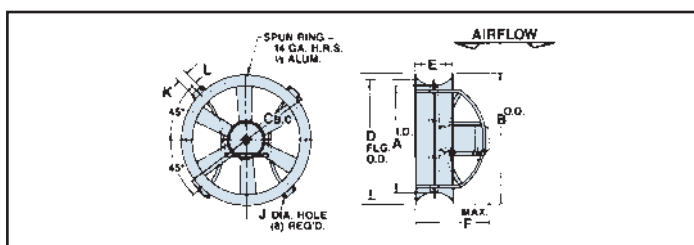
Performance certified is for Installation Type B: Free Inlet, Ducted Outlet.  
Speed (RPM) shown is nominal. Performance is based on actual speed of test.

### Principal Dimensions

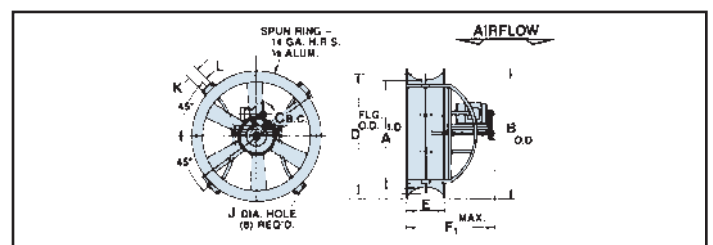
FAN SIZE	A	B	C	D	E	MAX. F	MAX. F <sub>1</sub>	J	K	L	MAX. MOTOR FRAME	
											DIRECT DRIVE	BELT DRIVE
18	18	20%	22%	19½	4%	18 <sup>5</sup> / <sub>16</sub>	26 <sup>15</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	1%	1 <sup>3</sup> / <sub>16</sub>	145T	145T
24	24	27½	29%	26	6½	21%	24	7 <sup>1</sup> / <sub>16</sub>	3%	1 <sup>9</sup> / <sub>16</sub>	184T	145T
28	28	31½	33%	30	6½	21%	24	7 <sup>1</sup> / <sub>16</sub>	3%	1 <sup>9</sup> / <sub>16</sub>	184T	145T
36	36	41	43%	38	9%	29	26%	9 <sup>1</sup> / <sub>16</sub>	3%	1 <sup>11</sup> / <sub>16</sub>	256T	184T
42	42	47	49%	44	9%	30%	27%	9 <sup>1</sup> / <sub>16</sub>	3%	1 <sup>11</sup> / <sub>16</sub>	256T	215T
44	44	49	51%	46	9%	30%	27%	9 <sup>1</sup> / <sub>16</sub>	3%	1 <sup>11</sup> / <sub>16</sub>	256T	215T
48	48	54	58	50	11%	37 <sup>9</sup> / <sub>16</sub>	27 <sup>11</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	4	2	365T	215T
54	54	60	64	56	11%	39 <sup>9</sup> / <sub>16</sub>	29 <sup>11</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	4	2	365T	256T
60	60	66	70	62	11%	41 <sup>9</sup> / <sub>16</sub>	35 <sup>11</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	4	2	365T	256T

NOTE: Dimensions and specifications are subject to change. Certified prints are available.

### Direct Drive – Series 14



### Belt Drive – Series 14B



# Lo-Speed, High Volume Fans (Belted)



**Series 10S**

Where you have a really big air moving job, Hartzell Lo-Speed, High Volume Fans can handle it with amazing economy. Often one of these big fans can be used in place of several small fans. Maintenance costs are practically zero because these heavy-duty units are designed and built specifically for long life and reliable operation in demanding industrial applications. Series 10S – Standard Flow and Series 10R – Reverse Flow.

Performance data shown is based on fan tip speed of 11,000 FPM. These fans can also be furnished to operate at tip speeds of 10,000 or 12,000 FPM.

- **Airfoil Blades** – Aluminum alloy castings ground to a satin finish.
- **Hub** – Cast aluminum threaded to accept the blades which are locked into position at the desired blade angle setting by tension bolts.
- **Split Taper Bushing** – Sizes 85" to 144", hub is furnished with split taper bushing.
- **Balance** – Blades are statically balanced against a master blade. Hub is dynamically balanced.
- **Belted Units shown** – Also available in direct connected or pulley drive (less motor) construction or in belt drive models with motor mounted completely out of the airstream.

## Rating Table (Belted, Lo-speed, High Volume Fans)

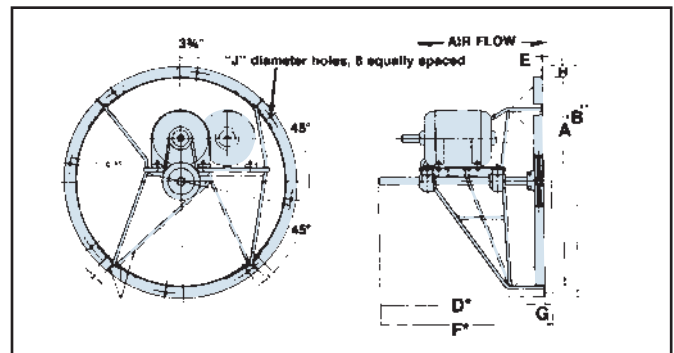
Size	Model Code	Blade Angle	Motor		Fan BHP	Peak Fan RPM	CFM Free Delivery	CFM at Various Static Pressures (Duct Installation)				
			HP	RPM				1/8"	1/4"	3/8"	1/2"	5/8"
72	A___-724-A172STFCL3	17.2°	5	1750	5.5	584	63,000	57,500	51,000	43,500	33,200	
	A___-724-A232STFCM3	23.2°	7½	1750	8.1	584	74,000	69,400	63,600	56,500	45,000	
	A___-724-A284STFCN3	28.4°	10	1750	10.9	584	82,300	77,600	72,000	64,500	52,000	
85	A___-854-A130STFCL3	13.0°	5	1750	5.5	495	74,800	66,000	56,500	45,200	28,000	
	A___-854-A180STFCM3	18.0°	7½	1750	8.0	495	89,800	82,600	74,400	64,300	48,000	
	A___-854-A227STFCN3	22.7°	10	1750	11.0	495	102,000	95,200	87,200	77,500	61,500	
96	A___-854-A234STFCO3	23.4°	15	1750	16.5	495	113,000	107,500	101,500	95,000	87,000	75,500
	A___-964-A150STFCM3	15.0°	7½	1750	8.2	438	103,000	93,000	82,000	68,000	48,000	
	A___-964-A189STFCN3	18.9°	10	1750	11.0	438	117,000	108,000	97,500	85,000	65,000	
103	A___-964-A250STFCO3	25.0°	15	1750	16.5	438	137,500	129,000	119,000	106,000	87,000	
	A___-966-A241STFCP3	24.1°	20	1750	22.0	438	147,000	139,000	131,500	123,000	113,000	99,000
	A___-1034-A171STFCN3	17.1°	10	1750	11.0	408	128,000	116,000	104,000	88,500	66,000	
108	A___-1034-A230STFCO3	23.0°	15	1750	16.5	408	151,500	141,500	130,000	115,000	93,000	
	A___-1034-A280STFCP3	28.0°	20	1750	22.0	408	168,000	158,000	146,000	131,000	106,000	
	A___-1036-A220STFCQ3	22.0°	25	1750	26.6	445	174,000	167,000	159,000	151,000	140,000	128,000
120	A___-1084-A227STFCO3	22.7°	15	1750	16.5	390	164,000	152,000	139,500	124,500	100,000	
	A___-1084-A274STFCP3	27.4°	20	1750	22.0	390	183,000	172,000	159,000	144,000	118,000	
	A___-1086-A247STFCQ3	24.7°	25	1750	27.5	390	187,000	178,000	169,000	160,000	148,000	128,000
144	A___-1086-A278STFCR3	27.8°	30	1750	33.0	390	198,000	194,000	185,000	175,000	162,500	145,000
	A___-1204-A197STFCO3	19.7°	15	1750	16.5	350	186,000	172,000	156,000	138,000	106,000	
	A___-1204-A242STFCP3	24.2°	20	1750	22.0	350	222,000	197,500	181,000	163,000	132,500	
144	A___-1204-A279STFCQ3	27.9°	25	1750	27.5	350	230,000	216,000	198,000	179,000	144,000	
	A___-1206-A245STFCR3	24.5°	30	1750	33.0	350	229,000	218,000	206,000	194,000	180,000	158,000
	A___-1444-A171STFCP3	17.1°	20	1750	22.0	292	247,500	227,000	202,000	172,000	127,500	
144	A___-1444-A202STFCQ3	20.2°	25	1750	27.5	292	270,000	252,000	230,000	203,000	157,000	
	A___-1444-A232STFCR3	23.2°	30	1750	33.0	292	294,000	275,000	252,000	223,000	178,000	
	A___-1444-A280STFCS3	28.0°	40	1750	44.0	292	327,000	312,000	287,500	257,500	208,000	

Power rating (BHP) includes transmission losses.  
 Performance certified is for Installation Type B: Free Inlet, Ducted Outlet.  
 Speed (RPM) shown is nominal. Performance is based on actual speed of test.

## Principal Dimensions

FAN SIZE	A	B	C	D*	E	F*	G	H	J
72	73	79	77	41	¼	46	3	3	19/16
85	86¼	92¼	90¼	46	3/8	51	3	3	1 1/16
96	97¾	103¾	101¾	46	3/8	51	3	3	1 1/16
103	104½	110½	108¼	45	3/8	51	3	3	1 1/16
108	110	116	114	45	3/8	51	3	3	1 1/16
120	121½	127½	125	45	3/8	51	3	3	1 1/16
144	146	154	150½	54	½	60	4	4	1 1/16

\*Maximum – varies with motor size.  
 NOTE: Dimensions and specifications are subject to change.  
 Certified prints are available.



# Type LV Filter Box



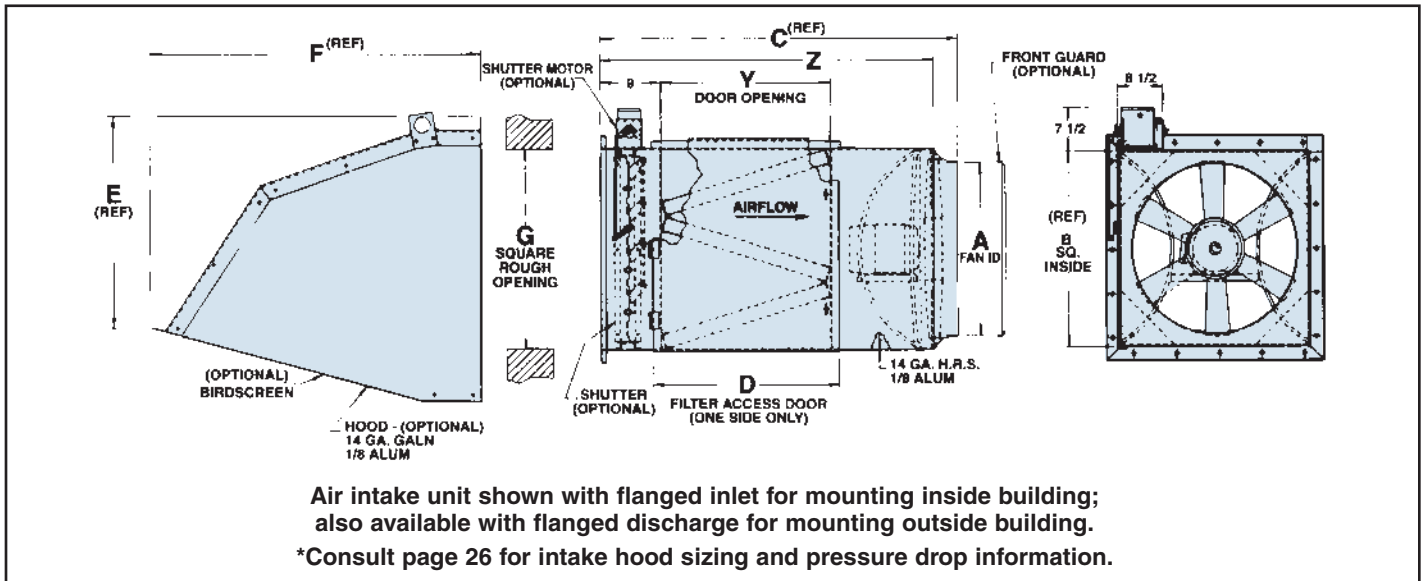
Discharge end of Series 02S Panel Fan with Type LV filter box.



Intake end of Series 02S Panel Fan with Type LV filter box, less shutter and weather hood.

The Type LV (low-volume) filter box is available as an accessory with Hartzell Direct Drive Series 02S – Standard Flow panel fans. This short profile unit is available with disposable or permanent, washable type filters and is designed to maximize efficient utilization of space.

- **Compact unit** – Draw-through design with fan frame mounted inside the filter box efficiently utilizes available space and facilitates ease of installation. The perimeter mounting flange about the filter box is supplied as standard. Structural members to support the weight of the unit are supplied by others.
- **Sizes** – 12" - 48".
- **Quick access to filters** – A gasketed, hinged access door with quick release latches is supplied to provide easy access to the filters for maintenance into the fan for inspection.
- **Use with other Hartzell accessories** – This modular unit is designed to be completely compatible with other Hartzell panel fan accessories such as hoods, shutters, and guards. See pages 24 - 26.
- **Easy selection** – The Hartzell Type LV filter box supplied with Hartzell Series 02S and 02R direct drive panel fan provides an economical intake filtered wall ventilator. The draw-through arrangement maximizes fan and filter efficiency. Panel fan performance including losses for filters is provided on the following page.



## Principal Dimensions

FAN SIZE	NOMINAL HOOD SIZE	A	B	C	D	E	F	G	Y	Z	MAX. MOTOR FRAME	WT. # LESS MTR. & OPTIONS	
												SIZE	ALUM.
12	24	12 <sup>3</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	48 <sup>3</sup> / <sub>8</sub>	23 <sup>5</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>8</sub>	31 <sup>9</sup> / <sub>16</sub>	16 <sup>3</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>8</sub>	46 <sup>5</sup> / <sub>8</sub>	145T	155	70
16	24	16 <sup>3</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>8</sub>	45 <sup>1</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>8</sub>	31 <sup>9</sup> / <sub>16</sub>	20 <sup>3</sup> / <sub>4</sub>	18 <sup>3</sup> / <sub>4</sub>	43 <sup>1</sup> / <sub>8</sub>	145T	170	80
18	24	18 <sup>1</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>8</sub>	42 <sup>5</sup> / <sub>8</sub>	17 <sup>5</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>8</sub>	31 <sup>9</sup> / <sub>16</sub>	22 <sup>3</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>8</sub>	40 <sup>1</sup> / <sub>8</sub>	56	180	85
20	36	20 <sup>3</sup> / <sub>16</sub>	25 <sup>1</sup> / <sub>8</sub>	45	20	28 <sup>15</sup> / <sub>16</sub>	44 <sup>7</sup> / <sub>16</sub>	25 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	42 <sup>1</sup> / <sub>2</sub>	143T	225	115
24	36	24 <sup>3</sup> / <sub>16</sub>	28 <sup>1</sup> / <sub>8</sub>	48 <sup>3</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>4</sub>	28 <sup>15</sup> / <sub>16</sub>	44 <sup>7</sup> / <sub>16</sub>	28 <sup>3</sup> / <sub>4</sub>	19 <sup>3</sup> / <sub>4</sub>	44 <sup>7</sup> / <sub>8</sub>	145T	280	140
28	36	28 <sup>3</sup> / <sub>16</sub>	33 <sup>1</sup> / <sub>8</sub>	50 <sup>3</sup> / <sub>8</sub>	23 <sup>1</sup> / <sub>2</sub>	28 <sup>15</sup> / <sub>16</sub>	44 <sup>7</sup> / <sub>16</sub>	33 <sup>3</sup> / <sub>4</sub>	22	46 <sup>7</sup> / <sub>8</sub>	145T	325	160
32	36	32 <sup>3</sup> / <sub>16</sub>	36 <sup>1</sup> / <sub>8</sub>	55 <sup>1</sup> / <sub>4</sub>	22 <sup>3</sup> / <sub>8</sub>	28 <sup>15</sup> / <sub>16</sub>	44 <sup>7</sup> / <sub>16</sub>	36 <sup>3</sup> / <sub>4</sub>	20 <sup>7</sup> / <sub>8</sub>	51 <sup>3</sup> / <sub>4</sub>	184T	385	195
36	48	36 <sup>3</sup> / <sub>16</sub>	42 <sup>1</sup> / <sub>8</sub>	52	19 <sup>1</sup> / <sub>8</sub>	37 <sup>7</sup> / <sub>8</sub>	56 <sup>3</sup> / <sub>4</sub>	42 <sup>3</sup> / <sub>4</sub>	17 <sup>5</sup> / <sub>8</sub>	48	213T	385	195
40	48	40 <sup>3</sup> / <sub>16</sub>	46 <sup>1</sup> / <sub>8</sub>	51 <sup>1</sup> / <sub>8</sub>	18	37 <sup>7</sup> / <sub>8</sub>	56 <sup>3</sup> / <sub>4</sub>	46 <sup>3</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>2</sub>	46 <sup>3</sup> / <sub>4</sub>	215T	515	280
44	60	44 <sup>3</sup> / <sub>16</sub>	50 <sup>1</sup> / <sub>8</sub>	49 <sup>3</sup> / <sub>4</sub>	16 <sup>5</sup> / <sub>8</sub>	46 <sup>11</sup> / <sub>16</sub>	69 <sup>3</sup> / <sub>8</sub>	50 <sup>3</sup> / <sub>4</sub>	15 <sup>1</sup> / <sub>8</sub>	45	254T	535	290
48	60	48 <sup>3</sup> / <sub>16</sub>	54 <sup>1</sup> / <sub>8</sub>	62 <sup>5</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>4</sub>	46 <sup>11</sup> / <sub>16</sub>	69 <sup>3</sup> / <sub>8</sub>	54 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>4</sub>	57 <sup>7</sup> / <sub>8</sub>	254T	670	380





**Rating Table – Series 02S Panel Fans with Type “LV” Filter Boxes...Direct Drive**

Size	Model Code	Motor		Peak Fan BHP	CFM @ STATIC PRESSURE					
		HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	3/4"
12	A02S_-126-P---STFCD3	¼	1725	0.03	725	430	142			
16	A02S_-166-P---STFCD3	¼	1725	0.17	1,675	1,360	1,090	860	640	
18	A02S_-186-P---STFCD3	½	1725	0.36	2,050	1,680	1,310	1,020	840	
20	A02S_-206-P---STFCD4	¼	1140	0.15	2,420	1,580	920			
	A02S_-202NB---STFCD3	¼	1725	0.14	2,240	1,480	710			
	A02S_-202NA---STFCD3	¼	1725	0.24	2,935	2,130	1,290	680		
	A02S_-203-L---STFCF3	½	1725	0.55	3,820	3,500	2,840	2,075	1,375	875
	A02S_-206-P---STFCF3	½	1725	0.50	3,800	3,300	2,590	2,150	1,650	1,230
24	A02S_-242NB---STFCD4	¼	1140	0.25	3,655	2,225	1,280			
	A02S_-243-L---STFCE4	⅓	1140	0.37	4,405	3,760	2,460	1,590	1,050	
	A02S_-242NA---STFCD3	¼	1725	0.28	3,900	3,060	1,765	780		
	A02S_-246-C---STFCE3	⅓	1725	0.44	4,400	3,930	3,480	2,985	2,470	1,320
	A02S_-242NB---STFCF3	½	1725	0.56	5,090	4,430	3,220	2,370	1,390	
28	A02S_-242NC---STFCG3	¾	1725	0.80	5,790	5,150				
	A02S_-286PB---STFCD5	¼	850	0.18	3,750	2,760	1,690	820		
	A02S_-286PA---STFCD5	¼	850	0.27	4,250	3,060	2,090	1,160		
	A02S_-283-L---STFCE5	⅓	850	0.31	4,470	3,430	2,010	1,200		
	A02S_-282NC---STFCD4	¼	1140	0.27	4,200	2,870	1,400			
	A02S_-283-L---STFCG4	¾	1140	0.78	6,330	5,620	4,650	3,420	2,480	1,350
	A02S_-282ND---STFCD3	¼	1725	0.26	4,090	3,000	1,810			
32	A02S_-282NA---STFCF3	½	1725	0.45	5,140	4,310	3,420	2,450	1,300	
	A02S_-322NA---STFCD5	¼	850	0.22	4,360	2,500				
	A02S_-323-L---STFCF5	½	850	0.64	6,020	4,450	3,200	2,350		
	A02S_-326PA---STFCG5	¾	850	0.76	7,030	5,150	4,275	3,660	2,900	
	A02S_-322NB---STFCD4	¼	1140	0.25	4,600	3,050	1,350			
36	A02S_-322NA---STFCF4	½	1140	0.62	6,130	4,600	3,130	1,630		
	A02S_-363-L---STFCF6	½	690	0.53	7,540	5,830	3,970	2,360		
	A02S_-362NA---STFCF5	½	850	0.42	6,800	4,870	2,900			
	A02S_-363-L---STFCH5	1	870	1.14	9,850	8,500	6,740	5,350	4,030	2,200
	A02S_-362NC---STFCF4	½	1140	0.52	7,120	5,500	3,630			
	A02S_-362NA---STFCH4	1	1160	1.08	10,000	8,370	6,870	5,280	3,730	
40	A02S_-362ND---STFCH3	1	1750	1.02	9,240	7,720	6,250	5,100	3,150	
	A02S_-406PA---STFCG6	¾	690	0.64	8,350	6,730	4,850	3,700		
	A02S_-403-L---STFCH6	1	690	1.07	10,500	8,730	6,350	4,800	3,630	
	A02S_-402NA---STFCH5	1	870	0.88	9,320	7,150	5,150	3,100		
44	A02S_-402ND---STFCH4	1	1160	0.87	9,850	7,940	6,100	4,170	2,000	
	A02S_-446-P---STFCH6	1	690	1.18	11,450	9,500	7,920	6,700	5,300	
	A02S_-442NB---STFCH5	1	870	0.93	10,050	7,850	5,600	3,500		
	A02S_-442NA---STFCI5	1½	870	1.46	12,150	9,800	7,400	5,870	3,550	
48	A02S_-442ND---STFCH4	1	1160	0.93	10,730	8,950	7,100	5,100		
	A02S_-482NA---STFCH6	1	690	1.10	12,700	9,600	6,430	3,600		
	A02S_-484AA---STFCI6	1½	690	1.57	15,130	12,200	9,200	6,730		
	A02S_-482NC---STFCH5	1	870	1.00	12,730	10,450	7,400	4,350		

Performance certified is for installation Type B: Free Inlet, Ducted Outlet.  
 Speed (RPM) shown is nominal. Performance is based on actual speed of test.  
 Performance is based on clean filters.

**"G" (General Industrial) Duty construction available for models with shaded performance.**

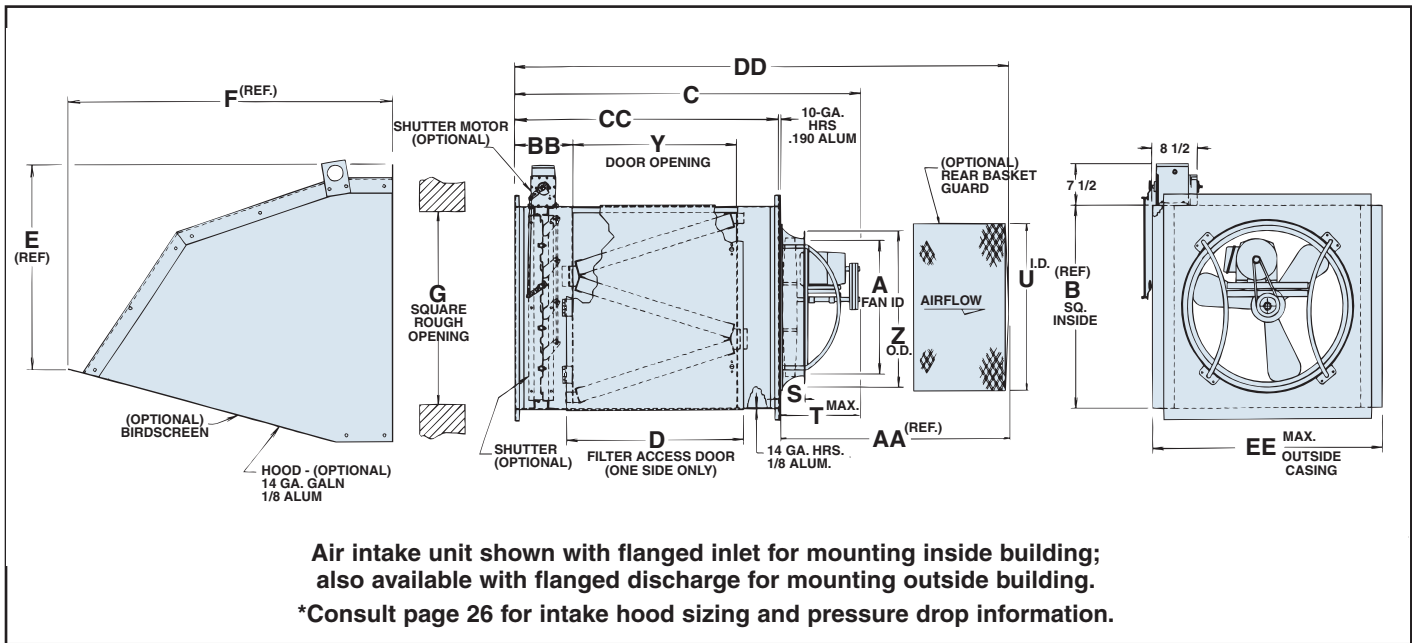
**"H" (Heavy Industrial) Duty construction available for all models.**



# Type HV Filter Box

The Type HV (high-volume) filter box is available as an accessory with Hartzell Series 01R (direct drive) and Series 08R (belted) ring fans. This accessory offers maximum utilization of available space to supply high volumes of filtered intake air to industrial applications. Hartzell high volume filter boxes are available with direct and belted fans and are mounted in a draw-through arrangement to provide maximum filter and fan efficiencies. This unit is available with disposable or permanent, washable type filters.

- **Draw-through design** – standard Hartzell Series 01R or 08R ring fans are mounted externally to the high volume filter box. This minimizes the overall length required for the filter box and accommodates easy access to the fan. The fan is bolted to a flat mounting panel. A perimeter mounting flange is supplied to the Type HV filter box as standard.
- **Sizes** – 24" - 72".
- **Quick access to filters** – a gasketed hinged access door is supplied with quick release latches for easy access and maintenance to the filters for maintenance into the fan for inspection.
- **Use with other Hartzell accessories** – the Hartzell Type HV high volume filter box is available with other Hartzell ring fan accessories such as hoods, shutters, and guards.
- **Easy Selection** – the Hartzell Type HV filter box provides an economical intake filtered wall ventilator. Ring fan performance including losses for the filters is provided on the following two pages.



## Principal Dimensions – Series 08R (Belted) Shown

FAN SIZE	NOMINAL HOOD SIZE	A	B	C	D	E	F	G	S	T	U	Y	Z	AA	BB	CC	DD	EE	MAX. MOTOR FRAME	WT. # LESS MTR. & OPTIONS	
																				STEEL	ALUM.
24	36	24	33 <sup>1</sup> / <sub>8</sub>	64 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>4</sub>	28 <sup>5</sup> / <sub>16</sub>	44 <sup>7</sup> / <sub>16</sub>	33 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	20	27 <sup>3</sup> / <sub>4</sub>	24 <sup>3</sup> / <sub>4</sub>	26	22	9 <sup>5</sup> / <sub>8</sub>	44	66 <sup>1</sup> / <sub>8</sub>	39 <sup>7</sup> / <sub>8</sub>	145T	400	185
28	42	28	36 <sup>1</sup> / <sub>8</sub>	65 <sup>1</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>2</sub>	33 <sup>3</sup> / <sub>8</sub>	52 <sup>5</sup> / <sub>8</sub>	36 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	21	31 <sup>3</sup> / <sub>4</sub>	20	30	23	12	44	67 <sup>1</sup> / <sub>8</sub>	49 <sup>7</sup> / <sub>8</sub>	145T	495	225
32	42	32	42 <sup>1</sup> / <sub>8</sub>	69 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	33 <sup>3</sup> / <sub>8</sub>	52 <sup>5</sup> / <sub>8</sub>	42 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	25	35 <sup>3</sup> / <sub>4</sub>	25	34	27	9 <sup>1</sup> / <sub>2</sub>	44	71 <sup>1</sup> / <sub>8</sub>	59 <sup>3</sup> / <sub>8</sub>	184T	620	280
36A	48	36	42 <sup>1</sup> / <sub>8</sub>	70 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	37 <sup>7</sup> / <sub>8</sub>	56 <sup>3</sup> / <sub>4</sub>	42 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	26	41 <sup>1</sup> / <sub>4</sub>	25	38	28	9 <sup>1</sup> / <sub>2</sub>	44	72 <sup>1</sup> / <sub>8</sub>	59 <sup>3</sup> / <sub>8</sub>	184T	635	300
36B	60	36	50 <sup>1</sup> / <sub>8</sub>	70 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	46 <sup>11</sup> / <sub>16</sub>	69 <sup>1</sup> / <sub>8</sub>	50 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	26	41 <sup>1</sup> / <sub>4</sub>	25	38	28	9 <sup>1</sup> / <sub>2</sub>	44	72 <sup>1</sup> / <sub>8</sub>	59 <sup>3</sup> / <sub>8</sub>	184T	720	325
40	60	40	50 <sup>1</sup> / <sub>8</sub>	70 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	46 <sup>11</sup> / <sub>16</sub>	69 <sup>1</sup> / <sub>8</sub>	50 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	26	45 <sup>1</sup> / <sub>4</sub>	25	42	28	9 <sup>1</sup> / <sub>2</sub>	44	72 <sup>1</sup> / <sub>8</sub>	59 <sup>3</sup> / <sub>8</sub>	184T	755	350
44	60	44	50 <sup>1</sup> / <sub>8</sub>	76 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	46 <sup>11</sup> / <sub>16</sub>	69 <sup>1</sup> / <sub>8</sub>	50 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	32	49 <sup>1</sup> / <sub>4</sub>	25	46	34	9 <sup>1</sup> / <sub>2</sub>	44	78 <sup>1</sup> / <sub>8</sub>	59 <sup>3</sup> / <sub>8</sub>	215T	760	350
48	72	48	54 <sup>1</sup> / <sub>8</sub>	76 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	55 <sup>5</sup> / <sub>8</sub>	80 <sup>3</sup> / <sub>4</sub>	54 <sup>1</sup> / <sub>4</sub>	5 <sup>15</sup> / <sub>16</sub>	32	54 <sup>1</sup> / <sub>4</sub>	25	50	39 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>2</sub>	44	83 <sup>5</sup> / <sub>8</sub>	79	215T	960	450
54	72	54	60 <sup>1</sup> / <sub>8</sub>	82 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	55 <sup>5</sup> / <sub>8</sub>	80 <sup>3</sup> / <sub>4</sub>	60 <sup>1</sup> / <sub>4</sub>	5 <sup>15</sup> / <sub>16</sub>	34	60 <sup>1</sup> / <sub>4</sub>	25	56	41 <sup>13</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>2</sub>	48	89 <sup>15</sup> / <sub>16</sub>	79	256T	1200	555
60	84	60	70 <sup>3</sup> / <sub>8</sub>	86 <sup>3</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	64 <sup>1</sup> / <sub>2</sub>	95 <sup>1</sup> / <sub>4</sub>	70 <sup>1</sup> / <sub>2</sub>	5 <sup>15</sup> / <sub>16</sub>	38 <sup>1</sup> / <sub>4</sub>	66 <sup>1</sup> / <sub>4</sub>	25	62	46 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	48	94 <sup>5</sup> / <sub>8</sub>	98 <sup>5</sup> / <sub>8</sub>	256T	1570	750
72	84	72	84	98 <sup>3</sup> / <sub>8</sub>	27 <sup>3</sup> / <sub>8</sub>	64 <sup>1</sup> / <sub>2</sub>	95 <sup>1</sup> / <sub>4</sub>	84 <sup>1</sup> / <sub>8</sub>	5 <sup>15</sup> / <sub>16</sub>	38 <sup>1</sup> / <sub>4</sub>	78 <sup>1</sup> / <sub>4</sub>	25 <sup>7</sup> / <sub>8</sub>	74	47 <sup>9</sup> / <sub>16</sub>	17	60	107 <sup>11</sup> / <sub>16</sub>	118 <sup>3</sup> / <sub>8</sub>	256T	2260	1035

NOTE: Dimensions and specifications are subject to change. Certified prints are available.



**Rating Table – Series 01R Propeller Fans with Type “HV” Filter Boxes...Direct Drive**

Size	Model Code	Motor		Peak Fan BHP	CFM @ STATIC PRESSURE						
		HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	5/8"	1"
24	A01R -243-L---STFCE4	1/3	1140	0.33	5,415	4,780	4,020				
	A01R -246PC---STFCF4	1/2	1140	0.52	6,610	6,020	5,200				
	A01R -244-W---STFCF4	1/2	1140	0.57	6,855	6,190	5,430				
	A01R -242NB---STFCF3	1/2	1725	0.56	6,710	5,900	5,000	3,250			
	A01R -242NC---STFCG3	3/4	1725	0.77	7,490	6,830	6,070	5,070			
	A01R -246PA---STFCH3	1	1750	1.07	8,150	7,730	7,290	6,820	6,360	4,660	
	A01R -246PB---STFCI3	1 1/2	1750	1.50	9,140	8,760	8,380	7,930	7,390		
	A01R -246PC---STFCJ3	2	1750	1.86	10,130	9,780	9,370	8,960	8,470		
A01R -244-W---STFCJ3	2	1750	2.03	10,490	10,090	9,660	9,220	8,730			
28	A01R -283-L---STFCG4	3/4	1140	0.68	8,425	7,730	6,950	5,900			
	A01R -284-W---STFCH4	1	1160	1.10	10,470	9,750	9,020	8,240			
	A01R -286PB---STFCI3	1 1/2	1750	1.58	10,340	9,870	9,400	8,860	8,350	6,960	
	A01R -286PA---STFCJ3	2	1750	2.11	12,150	11,670	11,200	10,650	10,100	8,770	6,300
A01R -288-C---STFCK3	3	1750	2.80	13,700	13,300	12,900	12,400	11,780	10,100	7,850	
32	A01R -322NA---STFCF4	1/2	1140	0.55	10,140	8,550	6,500				
	A01R -326PB---STFCH4	1	1160	0.91	10,490	9,480	8,300	6,630	5,350		
	A01R -323-L---STFCI4	1 1/2	1160	1.51	12,860	11,970	11,060	10,060	8,100		
	A01R -324-W---STFCJ4	2	1160	2.20	15,430	14,560	13,700	12,960	11,830		
	A01R -322NA---STFCJ3	2	1750	2.01	16,060	15,020	13,930	12,750	11,450		
	A01R -326PB---STFCCK3	3	1750	3.00	15,710	15,130	14,370	13,600	12,770	10,800	8,400
36A*	A01R -362NC---STFCF4	1/2	1140	0.54	11,350	9,150					
	A01R -362NA---STFCH4	1	1160	1.12	15,020	13,450	11,900	9,000			
	A01R -366PA---STFCI4	1 1/2	1160	1.40	15,170	14,050	12,600	11,000	8,950		
	A01R -366PB---STFCJ4	2	1160	2.42	18,800	17,970	16,750	15,400	13,900		
36B*	A01R -366PB---STFCJ4	2	1160	2.42	19,400	18,430	17,360	15,970	14,530		
	A01R -363-L---STFCCK4	3	1160	2.40	18,370	17,470	16,500	15,520	14,420	10,500	
	A01R -364-W---STFCL4	5	1160	3.86	23,070	22,150	21,200	20,200	19,200	15,800	
	A01R -362NC---STFCJ3	2	1750	2.01	18,300	16,850	15,250	13,680	11,550		
	A01R -362NB---STFCCK3	3	1750	2.82	21,200	19,930	18,600	17,270	16,070	12,570	
	A01R -366PC---STFCCK3	3	1750	2.97	18,400	17,750	17,000	16,400	15,380	13,300	11,100
	A01R -366PA---STFCL3	5	1750	4.83	23,500	22,730	22,000	21,200	20,400	18,220	15,500
	A01R -368CD---STFCM3	7 1/2	1750	6.25	21,930	21,400	20,870	20,350	19,800	18,700	17,600
A01R -368CA---STFCN3	10	1750	9.00	27,530	27,000	26,550	26,100	25,700	24,800	23,800	
40	A01R -402NA---STFCH5	1	870	0.94	16,200	13,700	10,700				
	A01R -406PA---STFCI5	1 1/2	870	1.25	17,160	15,370	13,270	10,100			
	A01R -403-L---STFCJ5	2	870	1.90	19,750	18,450	17,030	15,450	13,300		
	A01R -404-W---STFCCK5	3	870	3.48	24,130	22,800	21,350	19,650	17,750		
	A01R -402NA---STFCJ4	2	1160	2.25	21,550	19,700	17,900	15,800	11,800		
	A01R -406PA---STFCCK4	3	1160	2.88	22,830	21,580	20,200	18,650	16,900	12,150	
	A01R -406PB---STFCL4	5	1160	4.87	26,550	25,600	24,700	23,800	22,500	18,650	12,000
	A01R -403-L---STFCL4	5	1160	4.50	26,350	25,300	24,300	23,200	22,100	19,600	14,800
A01R -404-W---STFCM4	7 1/2	1160	7.95	31,900	29,850	28,750	27,600	25,000			

Performance certified is for installation Type B: Free Inlet, Ducted Outlet.

Speed (RPM) shown is nominal. Performance is based on actual speed of test.

Performance shown is based on permanent filters.

\*Within the 36" size, two different HV filter box designs are available. See Page 18.

Non-shaded performance requires Type A HV filter box; shaded performance requires Type B HV filter box.



**Rating Table – Series 01R Propeller Fans with Type “HV” Filter Boxes...Direct Drive**

Size	Model Code	Blade Angle	Motor		Peak Fan RPM	CFM @ STATIC PRESSURE							
			HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	3/4"	1"	
44	A01R_-442NB---STFCH5	---	1	870	0.98	18,070	16,000	10,400					
	A01R_-442NA---STFCI5	---	1½	870	1.51	20,830	18,200	15,500					
	A01R_-446-P---STFCJ5	---	2	870	2.24	22,200	20,600	18,870	16,920	13,500	8,600		
	A01R_-443-L---STFCK5	---	3	870	3.24	25,200	23,850	22,400	20,800	18,900	12,500		
	A01R_-444-W---STFCL5	---	5	870	5.10	31,200	29,900	28,300	26,550	24,900			
	A01R_-442ND---STFCH4	---	1	1160	0.97	17,730	15,150	12,000					
	A01R_-442NB---STFCJ4	---	2	1160	2.17	23,460	21,200	17,650	15,400	10,600			
	A01R_-442NA---STFCK4	---	3	1160	3.50	27,600	25,600	23,650	21,500	19,300			
	A01R_-446-P---STFCL4	---	5	1160	5.21	30,000	29,150	28,100	27,150	26,200	23,850	21,000	
	A01R_-443-L---STFCM4	---	7½	1160	6.9	33,150	32,700	32,150	31,550	31,050	29,900	28,750	
A01R_-442NE---STFCL3	---	5	1750	5.17	32,100	30,500	28,800	27,000	25,100	20,900	15,000		
48	A01R_-482NA---STFCJ5	---	2	870	2.18	26,150	23,700	20,350	15,600				
	A01R_-484AA190STFCK5	19°	3	870	3.26	30,920	28,700	26,400	23,550	19,500			
	A01R_-484AA220STFCL5	22°	5	870	4.85	35,750	33,550	31,200	28,750	24,800			
	A01R_-482NB---STFCJ4	---	3	1160	3.11	29,750	27,400	24,900	22,000	18,400			
	A01R_-482NA---STFCL4	---	5	1160	5.36	35,250	33,550	31,300	29,050	26,400	18,000		
	A01R_-484AA145STFCL4	14.5°	5	1160	5.45	36,200	34,250	32,350	30,500	28,600	23,000		
	A01R_-484AA160STFCM4	16°	7½	1160	8.11	41,750	38,500	34,800	30,000	21,200			
	A01R_-484AA160STFCM4	16°	7½	1160	8.40	40,000	38,550	37,000	35,200	33,500	29,200	22,600	
	A01R_-484AA200STFCN4	20°	10	1160	10.80	44,600	43,100	41,570	39,850	38,350	34,800	28,800	

**Rating Table – Series 08R Propeller Fans with Type “HV” Filter Boxes...Belted**

Size	Model Code	Motor		Peak Fan RPM	Fan RPM	CFM @ STATIC PRESSURE							
		HP	RPM			0"	1/8"	1/4"	3/8"	1/2"	3/4"	1"	
24	A08R_-243-L---STFCD3	¼	1750	0.25	960	4,575	3,800						
	A08R_-243-L---STFCE3	⅓	1750	0.36	1071	5,110	4,430	3,400					
	A08R_-243-L---STFCF3	½	1750	0.54	1220	5,810	5,640	5,225	3,100				
	A08R_-244-W---STFCF3	½	1750	0.55	1091	6,565	5,900	5,020					
	A08R_-244-W---STFCG3	¾	1750	0.82	1249	7,500	6,940	6,290					
28	A08R_-283-L---STFCD3	¼	1750	0.24	806	5,890	4,770						
	A08R_-283-L---STFCE3	⅓	1750	0.36	883	6,440	5,450	3,400					
	A08R_-283-L---STFCF3	½	1750	0.55	1035	7,560	6,730	5,770	3,100				
	A08R_-283-L---STFCG3	¾	1750	0.77	1165	8,500	7,815	7,040	6,050	3,270			
32	A08R_-323-L---STFCF3	½	1750	0.52	825	8,925	7,700	6,000					
	A08R_-323-L---STFCG3	¾	1750	0.75	945	10,240	9,190	8,000					
	A08R_-323-L---STFCH3	1	1750	1.03	1045	11,340	10,420	9,360	8,120				
	A08R_-323-L---STFCI3	1½	1750	1.50	1190	12,910	12,100	11,200	10,250	9,000			
36A*	A08R_-363-L---STFCF3	½	1750	0.52	666	10,250	8,700						
	A08R_-363-L---STFCG3	¾	1750	0.80	764	11,770	10,420	8,650					
	A08R_-363-L---STFCH3	1	1750	1.07	837	12,900	11,680	10,200					
	A08R_-363-L---STFCI3	1½	1750	1.70	980	15,100	14,100	12,950	11,500	8,700			
	A08R_-363-L---STFCJ3	2	1750	2.08	1050	16,200	15,250	14,180	13,000	11,370			
36B*	A08R_-363-L---STFCF3	½	1750	0.51	666	10,500	8,900						
	A08R_-363-L---STFCG3	¾	1750	0.80	764	12,080	10,700	8,900					
	A08R_-363-L---STFCH3	1	1750	1.10	837	13,240	12,000	10,500	7,800				
	A08R_-363-L---STFCI3	1½	1750	1.70	980	15,500	14,450	13,280	11,870	9,300			
	A08R_-363-L---STFCJ3	2	1750	2.08	1050	16,600	15,640	14,570	13,370	11,850			
40	A08R_-403-L---STFCH3	1	1750	1.17	690	15,720	14,000	11,950					
	A08R_-403-L---STFCI3	1½	1750	1.67	780	17,790	16,230	14,560	12,230				
	A08R_-403-L---STFCJ3	2	1750	2.29	870	19,800	18,450	16,940	15,300	11,800			
	A08R_-403-L---STFCK3	3	1750	3.30	980	22,330	21,100	19,850	18,500	16,950			
	A08R_-403-L---STFCL3	5	1750	4.95	1160	26,350	25,300	24,300	23,200	22,100	19,600	14,800	

Performance certified is for installation Type B: Free Inlet, Ducted Outlet.

Speed (RPM) shown is nominal. Performance is based on actual speed of test.

\*Within the 36" size, two different HV filter box designs are available. See Page 18.

Non-shaded performance requires Type A HV filter box; shaded performance requires Type B HV filter box.



**Rating Table – Series 08R Propeller Fans with Type “HV” Filter Boxes...Belted**

Size	Model Code	Blade Angle	Motor		Peak Fan RPM	Fan RPM	CFM @ Static Pressures							
			HP	RPM			0"	1/8"	1/4"	3/8"	1/2"	3/4"	1"	
44	A08R_-443-L---STFCF3	---	1/2	1750	0.50	474	13,650	11,000						
	A08R_-443-L---STFCH3	---	1	1750	0.97	580	16,600	14,700	11,550					
	A08R_-443-L---STFCI3	---	1 1/2	1750	1.53	680	19,600	18,000	15,730	12,250				
	A08R_-443-L---STFCJ3	---	2	1750	1.99	738	21,300	19,850	17,900	15,500	10,500			
	A08R_-443-L---STFCK3	---	3	1750	3.02	853	24,600	23,300	21,850	20,000	17,900			
	A08R_-443-L---STFCL3	---	5	1750	5.06	1010	29,100	28,000	26,900	25,600	23,900	20,400	12,200	
48	A08R_-483-L---STFCH3	---	1	1750	1.07	525	19,250	16,600	12,000					
	A08R_-483-L---STFCI3	---	1 1/2	1750	1.50	600	21,850	19,600	16,500					
	A08R_-483-L---STFCJ3	---	2	1750	2.06	660	24,000	22,000	19,600	16,100				
	A08R_-483-L---STFCK3	---	3	1750	3.00	740	26,950	25,100	23,000	20,500	16,100			
	A08R_-483-L---STFCL3	---	5	1750	5.20	895	32,620	31,100	29,430	27,600	25,900	17,300		
	A08R_-483-L---STFCM3	---	7 1/2	1750	7.68	1020	36,650	35,170	33,600	32,050	30,850	27,650	18,200	
	A08R_-486AA220STFCM3	22°	7 1/2	1750	7.51	870	39,350	37,550	35,600	33,600	31,200	17,600		
	A08R_-484AA160STFCM3	16°	7 1/2	1750	7.83	1160	39,930	38,200	36,350	34,650	32,800	28,200	18,700	
	A08R_-484AA250STFCN3	25°	10	1750	10.90	1160	44,900	43,650	42,050	40,300	38,450	34,330	26,900	
54	A08R_-543-L---STFCI3	---	1 1/2	1750	1.46	456	24,230	20,800						
	A08R_-543-L---STFCJ3	---	2	1750	2.01	497	26,430	23,200	15,400					
	A08R_-543-L---STFCK3	---	3	1750	3.00	573	30,450	27,900	24,600	14,200				
	A08R_-543-L---STFCL3	---	5	1750	4.86	671	35,680	33,600	31,200	28,100	17,800			
	A08R_-543-L---STFCM3	---	7 1/2	1750	7.79	736	41,800	39,950	38,000	35,900	33,300	17,500		
	A08R_-544AW190STFCL3	19°	5	1750	5.55	690	37,900	36,000	33,800	31,200	27,100			
	A08R_-544AW250STFCM3	25°	7 1/2	1750	8.00	690	45,850	43,700	41,600	38,800	35,700			
	A08R_-544AW280STFCN3	28°	10	1750	11.30	690	53,000	50,700	48,200	45,400	41,400			
	60	A08R_-603-L---STFCJ3	---	2	1750	2.10	437	31,500	27,500	21,200				
A08R_-603-L---STFCK3		---	3	1750	3.00	496	35,750	32,100	28,200					
A08R_-603-L---STFCL3		---	5	1750	5.15	595	42,700	39,900	37,000	33,100	27,000			
A08R_-603-L---STFCM3		---	7 1/2	1750	7.50	672	48,250	45,700	43,100	40,000	36,500			
A08R_-603-L---STFCN3		---	10	1750	10.20	747	53,600	51,500	49,250	46,650	43,900	36,000		
A08R_-604AW190STFCM3		19°	7 1/2	1750	8.45	690	49,700	47,700	45,350	42,700	39,500	25,600		
A08R_-604AW190STFCN3		19°	10	1750	11.00	690	57,900	55,600	52,800	50,200	47,300	27,000		
A08R_-604BA160STFCL3		16°	5	1750	5.71	690	45,050	41,400	37,400	35,000	27,100			
A08R_-604BA220STFCM3		22°	7 1/2	1750	8.66	690	53,000	49,900	47,300	48,700	39,750			
A08R_-604BA160STFCN3		16°	10	1750	11.40	870	57,000	54,400	52,000	49,400	46,650	36,500		
72	A08R_-724AA190STFCL3	19°	5	1750	5.48	513	61,500	53,300	34,000					
	A08R_-724AA220STFCM3	22°	7 1/2	1750	8.26	588	70,900	64,300	56,400	36,000				
	A08R_-724AA220STFCN3	22°	10	1750	11.00	646	77,700	72,800	65,500	49,000	37,400			
	A08R_-724AA220STFCO3	22°	15	1750	16.50	740	89,050	84,000	78,500	72,500	52,000	38,000		

Performance certified is for installation Type B: Free Inlet, Ducted Outlet.

Power rating (BHP) includes transmission losses.

Speed (RPM) shown is nominal. Performance is based on actual speed of test.

\*Within the 36" size, two different HV filter box designs are available. See Page 18.

Non-shaded performance requires Type A HV filter box; shaded performance requires Type B HV filter box.

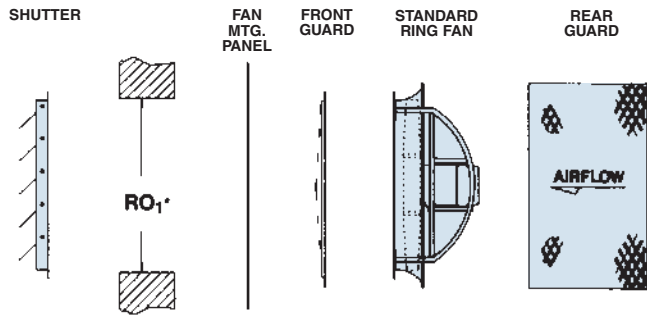


# Accessory Mounting Configurations

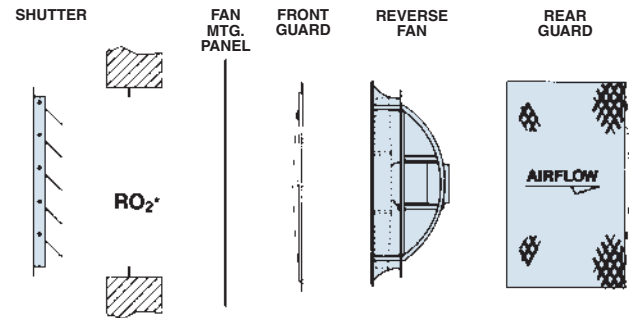
## Ring Fans (Direct Drive or Belted)

### Standard Flow

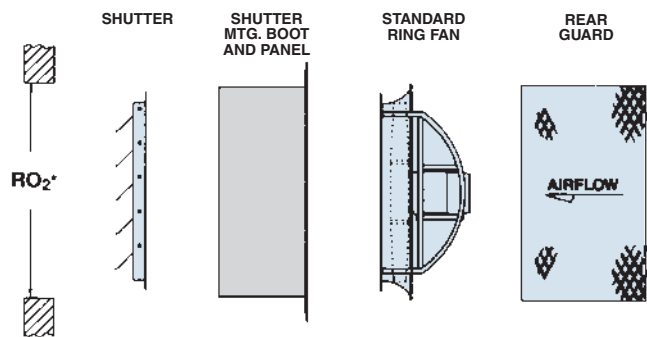
### Reverse Flow



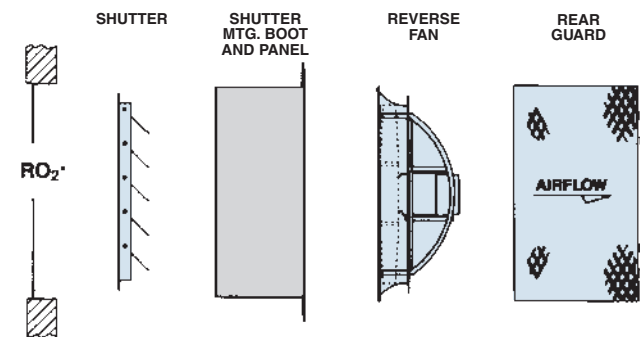
Configuration 2 - SF



Configuration 2 - RF

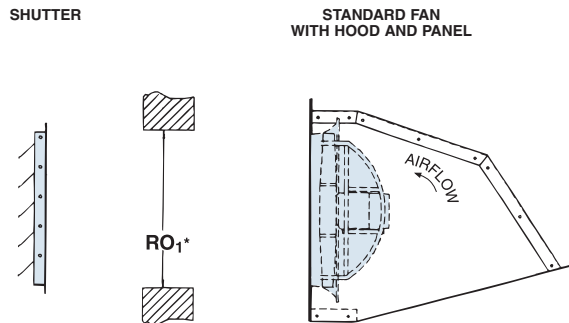


Configuration 3 - SF

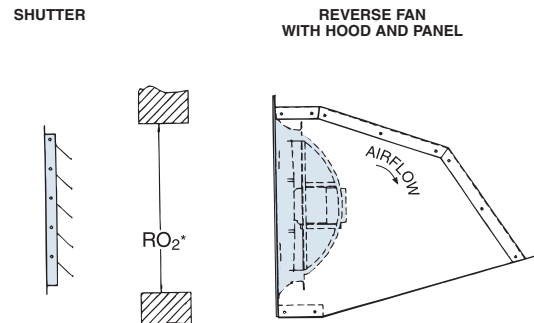


Configuration 3 - RF

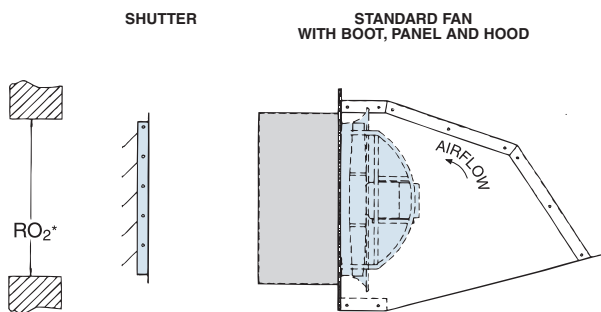
NOTE: Birdscreen may be used in lieu of shutter.



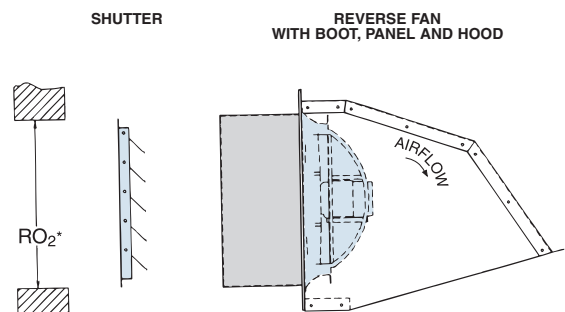
Configuration 4 - SF



Configuration 4 - RF



Configuration 5 - SF



Configuration 5 - RF

\* Refer to page 24 for rough opening dimensions

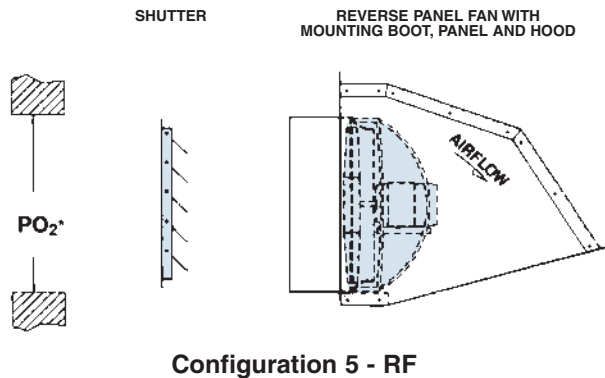
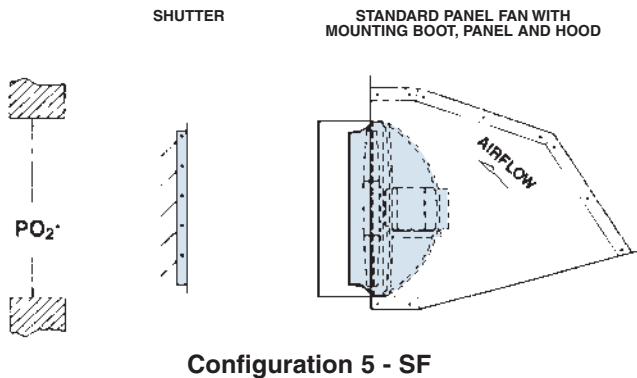
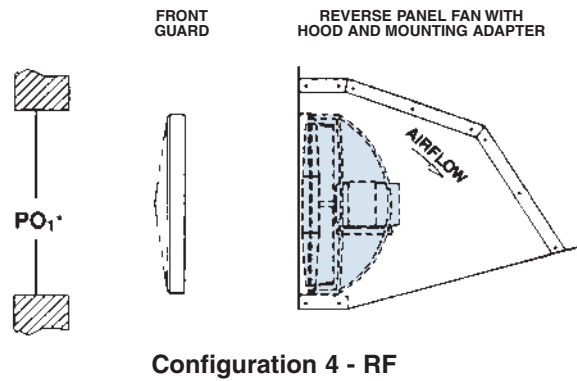
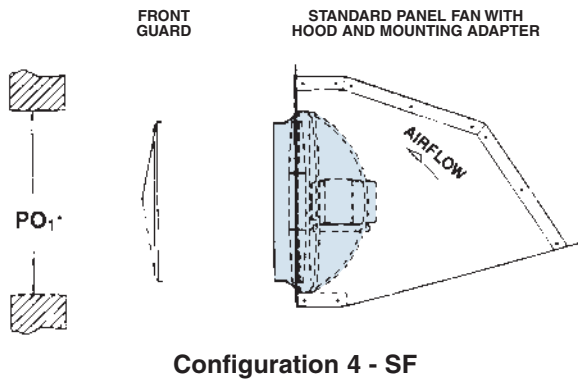
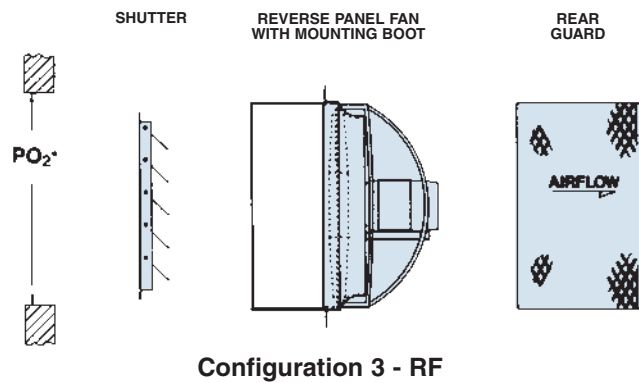
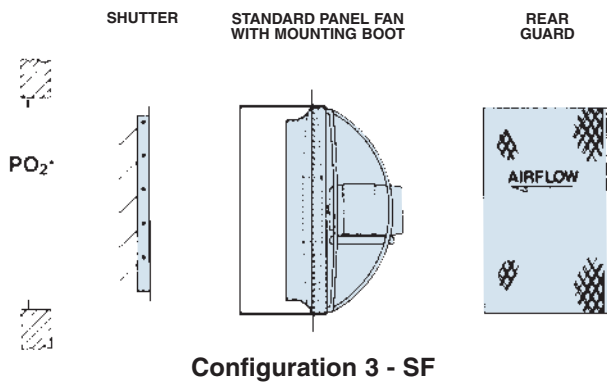
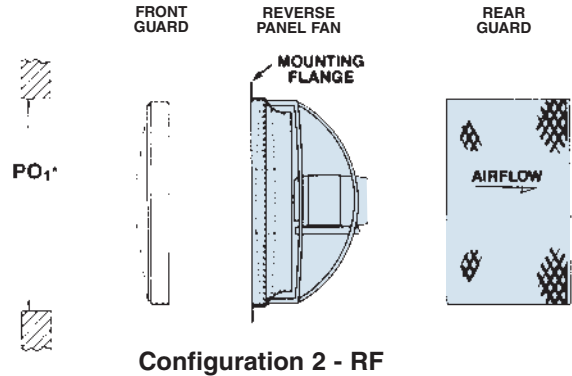
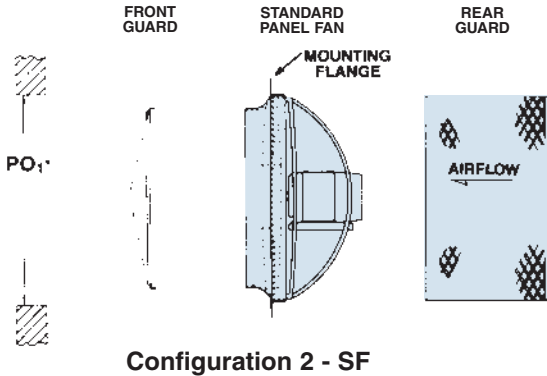
**CAUTION:** When the periphery of the blades of a fan is less than seven (7) feet above the floor or working level, the blades must be guarded to comply with OSHA requirements.



# Panel Fans (Direct Drive or Belted)

## Standard Flow

## Reverse Flow



\* Refer to page 24 for rough opening dimensions

**CAUTION:** When the periphery of the blades of a fan is less than seven (7) feet above the floor or working level, the blades must be guarded to comply with OSHA requirements.



# Options and Accessories

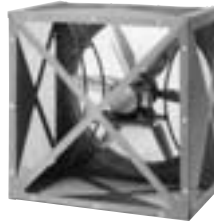
## Guards



Front Guard



Ring Fan Rear Guard



Panel Fan Rear Guard

Front and rear safety guards for Hartzell propeller and panel fans are available as shown.

**CAUTION:** When the periphery of the blades of a fan is less than seven (7) feet above the floor or working level, the blades must be guarded to comply with OSHA requirements.

### SAFETY ACCESSORIES, APPLICATION AND USE WARNING

The safe application and use of equipment supplied by Hartzell Fan, Inc. is the responsibility of the installer, the user, the owner, and the employer. Since the application and use of its equipment can vary greatly, Hartzell Fan, Inc. offers various product types, optional safety accessories, and sound performance data per laboratory tests. Hartzell Fan, Inc. sells its equipment with and without safety accessories, and accordingly, it can supply such safety accessories only upon receipt of an order. The need for safety accessories will frequently depend upon the type of system, fan location and operating procedures being employed. The proper protective safety accessories to meet company standards, local codes, and the requirements of the Occupational Safety and Health Act must be determined by the user since safety requirements vary depending on the location and use of the equipment. If applicable local conditions, standards, codes or OSHA rules require the addition of the safety accessories, the user should specify and obtain the required safety accessories from Hartzell Fan, Inc. and should not allow the operation of the equipment without them.

Owners, employers, users and installers should read "RECOMMENDED SAFETY PRACTICES FOR USERS AND INSTALLERS OF INDUSTRIAL AND COMMERCIAL FANS" published by the Air Movement and Control Association International, Inc., 30 West University Drive, Arlington Heights, Illinois 60004. A copy of this publication is enclosed with each fan shipped from Hartzell Fan, Inc., and is available upon request at Hartzell's office in Piqua, Ohio 45356.

Please contact Hartzell Fan, Inc. or your local Hartzell representative for more information on product types, safety accessories, and sound performance estimates

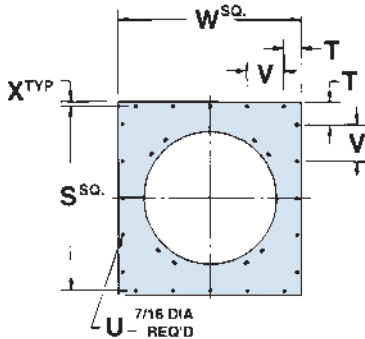
Remember, the selection of safety accessories and the safe application and use of equipment supplied by Hartzell Fan, Inc. is your responsibility.

## Mounting Accessories

**Ring fan mounting panels** are available to facilitate the mounting of the ring fan (Series 01R, 01S, 08R, 08S, and 14B) to the wall opening. **Panel fan mounting flanges** are available if a vertical flange is required to mount a panel fan (Series 02R, 02S, 09R and 09S) to the wall opening. **Shutter mounting boots** are available to insure proper spacing between the fan

and optional shutters. For use with ring fans (Series 01R, 01S, 08R, 08S and 14B) ring fan mounting panels are required. For use with panel fans (Series 02R, 02S, 09R and 09S) the shutter mounting boot is furnished with an integral mounting flange. Please refer to the drawings and dimensions on the bottom of this page and page 25 for additional information

## Mounting Dimensions – Ring Fans



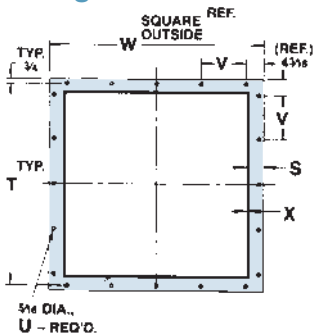
Detail – Mounting Holes Panel Shown

### Mounting Panel

Size	12	14	16	18	20	22	24	28	32	36	40	44	48	54	60	72
RO <sub>1</sub>	12 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	18 <sup>1</sup> / <sub>2</sub>	20 <sup>1</sup> / <sub>2</sub>	22 <sup>1</sup> / <sub>2</sub>	24 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>2</sub>	32 <sup>1</sup> / <sub>2</sub>	36 <sup>1</sup> / <sub>2</sub>	40 <sup>1</sup> / <sub>2</sub>	44 <sup>1</sup> / <sub>2</sub>	48 <sup>1</sup> / <sub>2</sub>	54 <sup>1</sup> / <sub>2</sub>	60 <sup>1</sup> / <sub>2</sub>	72 <sup>1</sup> / <sub>2</sub>
RO <sub>2</sub>	17	19	21	23	26	27	29	34	37	43	47	51	55	61	67	79
S	17 <sup>1</sup> / <sub>2</sub>	19 <sup>1</sup> / <sub>2</sub>	21 <sup>1</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>2</sub>	27	28 <sup>3</sup> / <sub>4</sub>	30 <sup>3</sup> / <sub>4</sub>	35 <sup>1</sup> / <sub>4</sub>	38 <sup>3</sup> / <sub>4</sub>	44 <sup>1</sup> / <sub>4</sub>	48 <sup>3</sup> / <sub>4</sub>	52 <sup>1</sup> / <sub>4</sub>	56 <sup>3</sup> / <sub>4</sub>	62 <sup>1</sup> / <sub>4</sub>	68 <sup>3</sup> / <sub>4</sub>	80 <sup>1</sup> / <sub>4</sub>
T	3 <sup>7</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	5	4 <sup>15</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	5	5 <sup>1</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>32</sub>	4 <sup>21</sup> / <sub>32</sub>
U	8	8	8	8	12	12	12	12	12	16	16	16	16	16	16	16
V	11	13	15	17	10	10 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	14	15 <sup>1</sup> / <sub>2</sub>	12 <sup>3</sup> / <sub>8</sub>	13 <sup>5</sup> / <sub>8</sub>	15	16 <sup>5</sup> / <sub>16</sub>	18 <sup>5</sup> / <sub>16</sub>	20 <sup>5</sup> / <sub>16</sub>	24 <sup>5</sup> / <sub>16</sub>
W	18 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>4</sub>	22 <sup>3</sup> / <sub>4</sub>	24 <sup>3</sup> / <sub>4</sub>	28 <sup>3</sup> / <sub>4</sub>	30 <sup>1</sup> / <sub>4</sub>	32 <sup>1</sup> / <sub>4</sub>	37 <sup>3</sup> / <sub>4</sub>	41	47	51	55	59	65	71	82 <sup>1</sup> / <sub>4</sub>
X	5 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	1	1	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1

NOTE: Dimensions and specifications are subject to change. Certified prints are available.

## Mounting Dimensions – Panel Fans



Detail – Showing Mounting Hole Location on Optional Mounting Flange and on Mounting Boot

### Mounting Panel

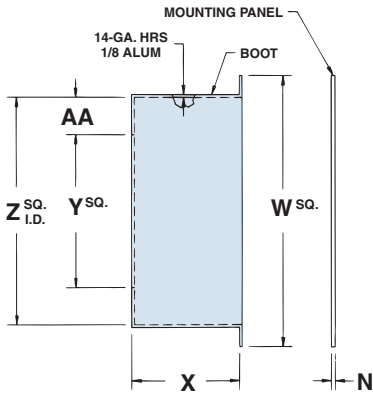
Size	12	14	16	18	20	22	24	28	32	36	40	44	48	54	60	
PO <sub>1</sub>	16 <sup>1</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>4</sub>	25 <sup>1</sup> / <sub>4</sub>	26 <sup>1</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>4</sub>	33 <sup>1</sup> / <sub>4</sub>	36 <sup>1</sup> / <sub>4</sub>	42 <sup>1</sup> / <sub>4</sub>	46 <sup>1</sup> / <sub>4</sub>	50 <sup>1</sup> / <sub>4</sub>	54 <sup>1</sup> / <sub>4</sub>	60 <sup>1</sup> / <sub>4</sub>	66 <sup>1</sup> / <sub>4</sub>	
PO <sub>2</sub>	16 <sup>3</sup> / <sub>4</sub>	18 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>4</sub>	22 <sup>3</sup> / <sub>4</sub>	25 <sup>3</sup> / <sub>4</sub>	26 <sup>3</sup> / <sub>4</sub>	28 <sup>3</sup> / <sub>4</sub>	33 <sup>3</sup> / <sub>4</sub>	36 <sup>3</sup> / <sub>4</sub>	42 <sup>3</sup> / <sub>4</sub>	46 <sup>3</sup> / <sub>4</sub>	50 <sup>3</sup> / <sub>4</sub>	54 <sup>3</sup> / <sub>4</sub>	60 <sup>3</sup> / <sub>4</sub>	66 <sup>3</sup> / <sub>4</sub>	
S	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	2	
T	17 <sup>7</sup> / <sub>8</sub>	19 <sup>7</sup> / <sub>8</sub>	21 <sup>7</sup> / <sub>8</sub>	23 <sup>7</sup> / <sub>8</sub>	26 <sup>7</sup> / <sub>8</sub>	27 <sup>7</sup> / <sub>8</sub>	29 <sup>7</sup> / <sub>8</sub>	34 <sup>7</sup> / <sub>8</sub>	37 <sup>7</sup> / <sub>8</sub>	43 <sup>7</sup> / <sub>8</sub>	47 <sup>7</sup> / <sub>8</sub>	51 <sup>7</sup> / <sub>8</sub>	55 <sup>7</sup> / <sub>8</sub>	62 <sup>7</sup> / <sub>8</sub>	68 <sup>7</sup> / <sub>8</sub>	
U	8	8	8	8	12	12	20	20	20	20	20	20	20	24	28	
V	11	13	15	17	10	10 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>4</sub>	7	7 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>5</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>16</sub>	
W <sub>MAX</sub>	19 <sup>3</sup> / <sub>8</sub>	21 <sup>3</sup> / <sub>8</sub>	23 <sup>3</sup> / <sub>8</sub>	25 <sup>3</sup> / <sub>8</sub>	28 <sup>3</sup> / <sub>8</sub>	29 <sup>3</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>8</sub>	36 <sup>3</sup> / <sub>8</sub>	39 <sup>3</sup> / <sub>8</sub>	45 <sup>3</sup> / <sub>8</sub>	49 <sup>3</sup> / <sub>8</sub>	53 <sup>3</sup> / <sub>8</sub>	57 <sup>3</sup> / <sub>8</sub>	64 <sup>3</sup> / <sub>8</sub>	70 <sup>3</sup> / <sub>8</sub>	
X	STL.	10 GA.	10 GA.	10 GA.	10 GA.	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>
	ALUM.	.125	.125	.125	.125	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>

NOTE: Dimensions and specifications are subject to change. Certified prints are available.



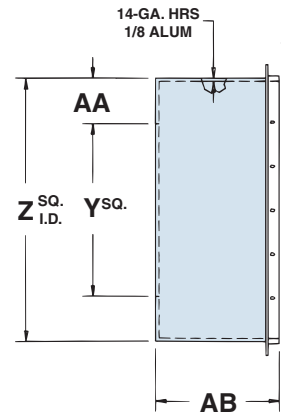


# Shutter Mounting Boots



Ring Fan Boot

FAN SIZE	N		W	X	Y	Z	AA	AB
	STL	ALUM						
12	7 GA	1/4	18 <sup>3/4</sup>	18 <sup>3/4</sup>	12 <sup>1/2</sup>	16 <sup>1/8</sup>	1 <sup>13/16</sup>	20
14	7 GA	1/4	20 <sup>3/4</sup>	18 <sup>3/4</sup>	14 <sup>1/2</sup>	18 <sup>1/8</sup>	1 <sup>13/16</sup>	NA
16	7 GA	1/4	22 <sup>3/4</sup>	18 <sup>3/4</sup>	16 <sup>1/2</sup>	20 <sup>1/8</sup>	1 <sup>13/16</sup>	20
18	7 GA	1/4	24 <sup>3/4</sup>	18 <sup>3/4</sup>	18 <sup>1/2</sup>	22 <sup>1/8</sup>	1 <sup>13/16</sup>	20
20	7 GA	1/4	28 <sup>3/4</sup>	18 <sup>3/4</sup>	20 <sup>1/2</sup>	25 <sup>1/8</sup>	2 <sup>5/16</sup>	20
22	7 GA	1/4	30 <sup>3/4</sup>	18	22 <sup>1/2</sup>	26 <sup>1/8</sup>	1 <sup>13/16</sup>	NA
24	7 GA	1/4	32 <sup>3/4</sup>	18	24 <sup>1/2</sup>	28 <sup>1/8</sup>	1 <sup>13/16</sup>	20
28	7 GA	1/4	37 <sup>3/4</sup>	17 <sup>3/4</sup>	28 <sup>1/2</sup>	33 <sup>1/8</sup>	2 <sup>5/16</sup>	20
32	7 GA	1/4	41	17 <sup>5/8</sup>	32 <sup>1/2</sup>	36 <sup>1/8</sup>	1 <sup>13/16</sup>	20
36	7 GA	1/4	47	17 <sup>5/8</sup>	36 <sup>1/2</sup>	42 <sup>1/8</sup>	2 <sup>13/16</sup>	20
40	7 GA	1/4	51	17 <sup>5/8</sup>	40 <sup>1/2</sup>	46 <sup>1/8</sup>	2 <sup>13/16</sup>	20
44	7 GA	1/4	55	17 <sup>5/8</sup>	44 <sup>1/2</sup>	50 <sup>1/8</sup>	2 <sup>13/16</sup>	20
48	7 GA	1/4	59	17 <sup>5/8</sup>	48 <sup>1/2</sup>	54 <sup>1/8</sup>	2 <sup>13/16</sup>	20
54	7 GA	1/4	65	17 <sup>5/8</sup>	54 <sup>1/2</sup>	60 <sup>1/8</sup>	2 <sup>13/16</sup>	20
60	7 GA	1/4	71	17 <sup>5/8</sup>	60 <sup>1/2</sup>	66 <sup>1/8</sup>	2 <sup>13/16</sup>	20
72	7 GA	1/4	82 <sup>1/4</sup>	18	72 <sup>1/2</sup>	78 <sup>1/8</sup>	2 <sup>13/16</sup>	NA



Panel Fan Boot

# Shutters



Automatic Shutter



Manual Shutter

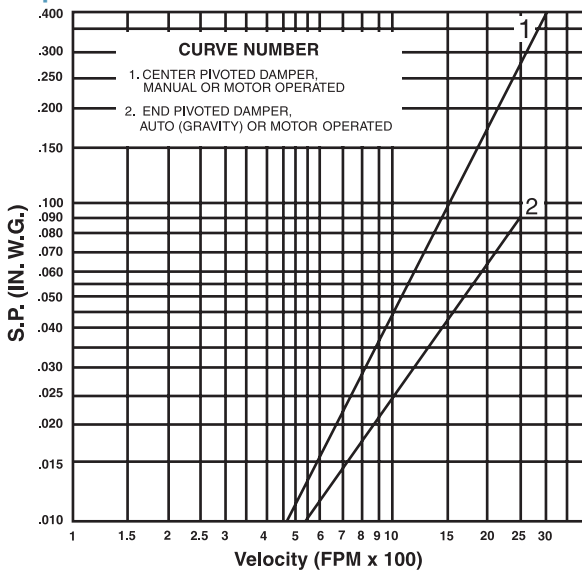


Motor Operated Shutter

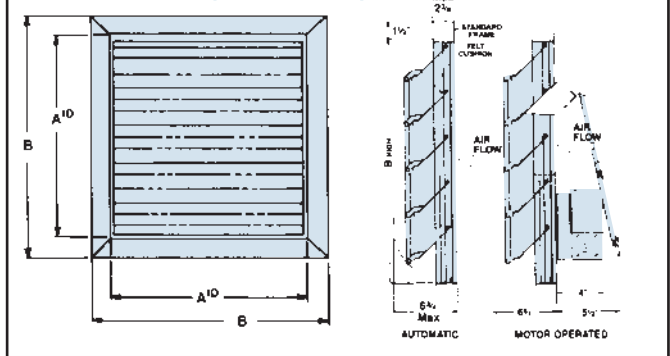
Heavy-duty automatic shutters, opening with the air velocity from the fan and closing by gravity when the fan is not in operation, are available to prevent backdraft from all openings with either standard ring or panel fans.

Center-pivoted, motor operated, or manual shutters are also available. Sketches are shown below. Please refer to the Resistance Curve at the right which shows resistance to airflow in terms of static pressure for shutters mounted in the airstream.

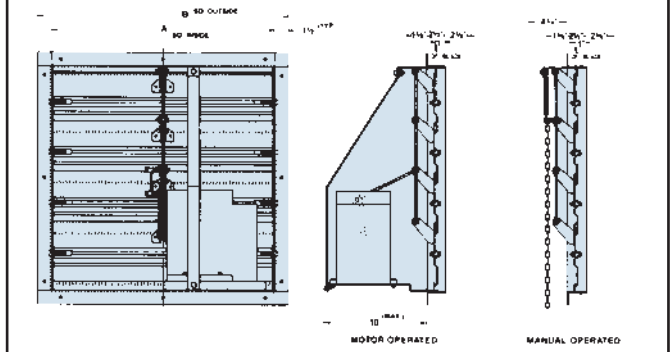
## Damper Resistance Curve



## End Pivoted (Automatic)



## Center Pivoted (Manual or Motor Operated)



## Principal Dimensions

SIZE	12	14	16	18	20	22	24	28	32	36	40	44	48	54	60	72
A	12	14	16	18	20	22	24	28	32	36	40	44	48	54	60	72
B	15	17	19	21	23	25	27	31	35	39	43	47	51	57	63	75

NOTE: Specifications are subject to change. Certified prints are available.



# Wall Hood



Wall Hoods are available to protect the fan and equipment as well as the building opening from the elements. Hartzell wall hoods are fabricated of heavy gauge galvanized steel and are designed for minimum resistance to air flow. Lifting lugs are standard and bird screens are available as an option. The exterior is finished with an industrial grade enamel. Wall hoods are bolted together, shipping knocked down as standard (factory assembly is available). Wall hoods are also available with continuous weld assembly.

The wall hood is designed to either (a) mount directly to the wall or (b) interface directly with Hartzell fans and other accessories. When the wall hood interfaces with other Hartzell products, a panel fan adapter or ring fan adapter panel is required. Please refer to the drawing and dimensions below.

Note that the wall hoods may be used with a variety of different fan sizes. Information detailing which fans should be used with which hoods is included in the dimensional table below.

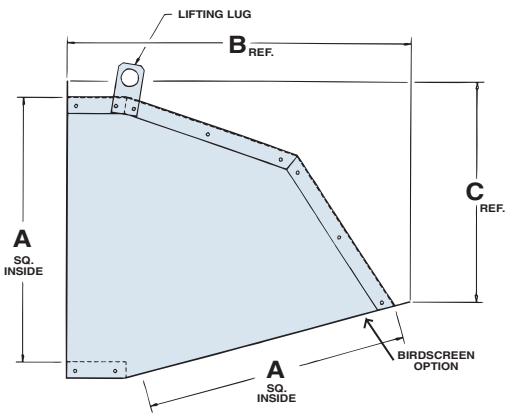
For intake air configurations, the fan should be selected based on air flow performance and total system static pressure (resistance associated with appurtenances and external static pressure). Once the flow is determined, the velocity should be calculated for a given hood. Divide CFM by square foot open area for the wall hood (see table below). **To prevent entrainment of water, intake velocities through the wall hood should not exceed 1,000 feet per minute.**

Fan resistance associated with the use of the wall hood varies with air velocity and fan configuration (intake or exhaust). Please refer to the wall hood resistance curves at the bottom of this page to determine system static pressure associated with the application of a wall hood.

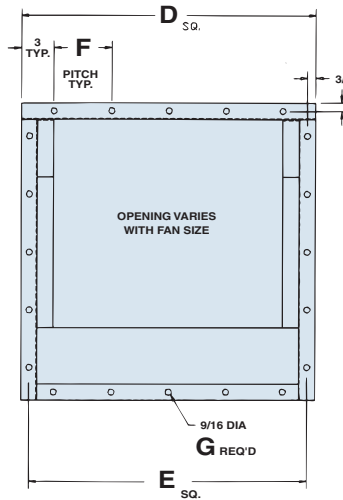
## Wall Hood Birdscreen

Painted steel wire mesh (1/2" by 1/2") easily installed and removable, with mounting hardware (included). Fan resistance is effected by velocity through the birdscreen and fan configuration (intake or exhaust). Please see resistance curve at the bottom of this page.

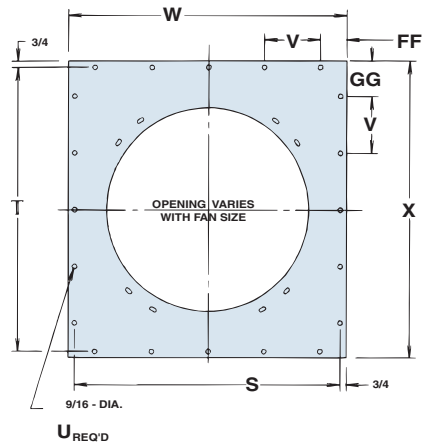
HOOD SIZE	A	B	C	D	E	F	G	R <sup>01</sup>	R <sup>02</sup>	S	T	U	V	W	X	FF	GG	AREA (FT <sup>2</sup> )	FAN SIZES AVAILABLE PER HOOD SERIES 01, 08	FAN SIZES AVAILABLE PER HOOD SERIES 02, 09
24	24	31 <sup>9</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>8</sub>	27	25 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>4</sub>	20	24 <sup>1</sup> / <sub>2</sub>	24 <sup>1</sup> / <sub>2</sub>	25 <sup>1</sup> / <sub>2</sub>	25 <sup>1</sup> / <sub>2</sub>	20	5 <sup>1</sup> / <sub>4</sub>	27	27	3	3	4	12, 14, 16, 18	12, 16
36	36	44 <sup>7</sup> / <sub>16</sub>	28 <sup>29</sup> / <sub>32</sub>	39	37 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>4</sub>	20	36 <sup>1</sup> / <sub>2</sub>	36 <sup>1</sup> / <sub>2</sub>	37 <sup>1</sup> / <sub>2</sub>	37 <sup>1</sup> / <sub>2</sub>	20	8 <sup>1</sup> / <sub>4</sub>	39	39	3	3	9	20, 22, 24, 28, 30	18, 20, 24
42	42	52 <sup>5</sup> / <sub>8</sub>	33 <sup>11</sup> / <sub>32</sub>	45	43 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	20	42 <sup>1</sup> / <sub>2</sub>	42 <sup>1</sup> / <sub>2</sub>	43 <sup>1</sup> / <sub>2</sub>	43 <sup>1</sup> / <sub>2</sub>	20	9 <sup>3</sup> / <sub>4</sub>	45	45	3	3	12 <sup>1</sup> / <sub>4</sub>	24, 28, 30, 32	24, 28, 30, 32
48	48	56 <sup>3</sup> / <sub>4</sub>	37 <sup>7</sup> / <sub>8</sub>	51	49 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>4</sub>	20	48 <sup>1</sup> / <sub>2</sub>	48 <sup>1</sup> / <sub>2</sub>	49 <sup>1</sup> / <sub>2</sub>	49 <sup>1</sup> / <sub>2</sub>	20	11 <sup>1</sup> / <sub>4</sub>	51	51	3	3	16	32, 36	32, 36
60	60	69 <sup>1</sup> / <sub>8</sub>	46 <sup>11</sup> / <sub>16</sub>	63	61 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>2</sub>	28	60 <sup>1</sup> / <sub>2</sub>	60 <sup>1</sup> / <sub>2</sub>	61 <sup>1</sup> / <sub>2</sub>	61 <sup>1</sup> / <sub>2</sub>	28	9 <sup>1</sup> / <sub>2</sub>	63	63	3	3	25	36, 40, 42, 44, 48	36, 40, 42, 44, 48
72	72	80 <sup>23</sup> / <sub>32</sub>	55 <sup>19</sup> / <sub>32</sub>	75	73 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	28	72 <sup>1</sup> / <sub>2</sub>	72 <sup>1</sup> / <sub>2</sub>	73 <sup>1</sup> / <sub>2</sub>	73 <sup>1</sup> / <sub>2</sub>	28	11 <sup>1</sup> / <sub>2</sub>	75	75	3	3	36	48, 54, 60	48, 54, 60
84	84	95 <sup>5</sup> / <sub>32</sub>	64 <sup>1</sup> / <sub>2</sub>	87	85 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>8</sub>	36	84 <sup>1</sup> / <sub>2</sub>	84 <sup>1</sup> / <sub>2</sub>	85 <sup>1</sup> / <sub>2</sub>	85 <sup>1</sup> / <sub>2</sub>	36	10 <sup>1</sup> / <sub>8</sub>	87	87	3	3	49	54, 60, 72	54, 60



Wall Hood

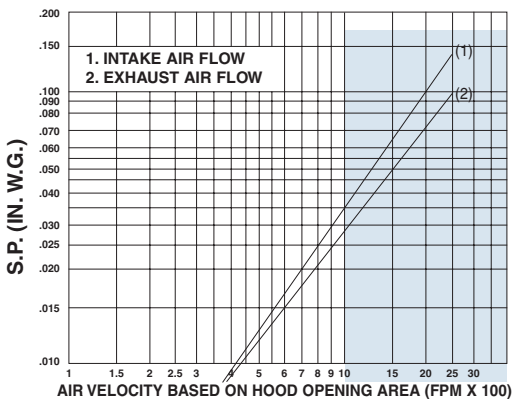


Panel Fan Adapter

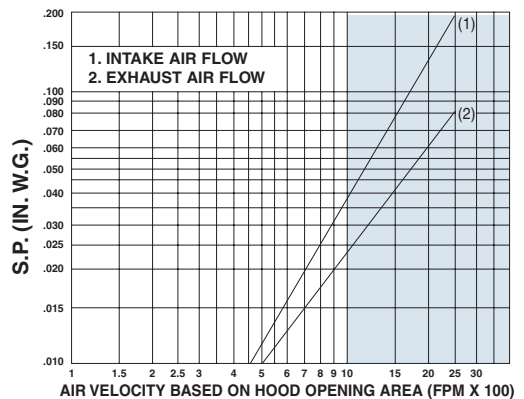


Ring Fan Adapter Panel

## Wall Hood Resistance Curves

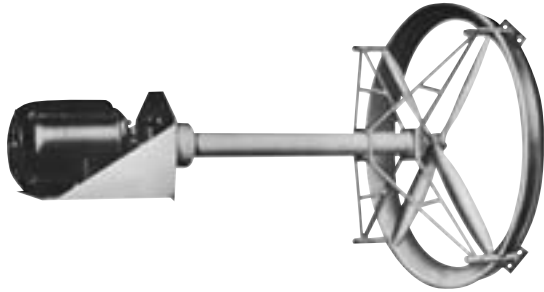


## Wall Hood Birdscreens Resistance Curve



# Other Propeller Fans

## Extension Shaft Fan



This fan is designed for use where it is desirable to mount the motor outside of a duct because of flammable fumes, corrosive elements, excessive heat or abrasive dust in the airstream.

Simple, sturdy, trouble-free. Rigid construction and oversize shaft prevent any possibility of shaft whip. Mechanically sealed ball bearings with grease retainers.

This model is furnished without housing. Housing of any type can be furnished at extra cost. Pulley drive units also available.

Performance data on propeller fans (pages 4 through 9) apply to those fans in extension shaft models. When ordering, use catalog numbers on those pages and specify "Extension Shaft Fan."

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## Pulley Drive Fan



Designed for operation from separate motor or line shaft. Two sets of self-aligning ball bearings, mechanically sealed, insure a smooth running shaft which will not bind.

Improved strong, vibration-absorbent welded truss-type shaft support. Extra-strength Hartzell propeller with extra efficiency against pressure. Curved orifice retains a 10% gain in air delivery when compared to non-venturi construction.

Performance data on propeller fans (pages 4 through 9) apply to pulley drive models. When ordering, use catalog numbers on those pages and specify "Pulley Drive Fan." Furnished without motor or pulley.

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## Belt Drive Fan



This fan is particularly desirable for use in paint spray booths and other locations where fire constitutes a hazard. Especially valuable where ordinances prohibit the use of a fan with motor located in the airstream even though it is explosion-proof.

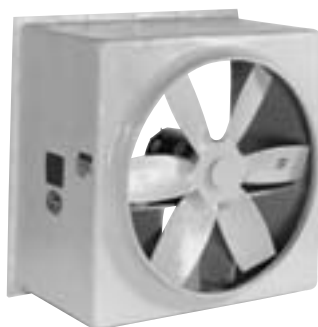
The heavier, wider Hartzell propeller, which is extra-efficient against pressure, and the curved orifice Air Seal Ring are built into this fan. The curved orifice retains a 10% gain in air delivery when compared to non-venturi construction.

Simple, long lived construction. Belt easily adjusted or changed. Self-aligning, felt-sealed ball bearings. Complete with motor, pulley and belt.

Available with all propeller fans and sizes listed on pages 4 through 9. When ordering, use catalog numbers on those pages and specify "Belt Driven Fan." Performance data available on request.

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## Fiberglass Wall Ventilator



This fan is constructed of fiberglass and Ashland 693FR with other resins available. It is suitable for temperatures up to 180°F. (specially insulated motors are required for temperatures above 104°F.) The fiberglass wall ventilator is available in sizes ranging from 12" to 60" with performance from 1315 CFM to 55,500 CFM at free air.



# Hartzell Warranty

## LIMITED WARRANTIES

Hartzell represents to Buyer that any goods to be delivered hereunder will be produced in compliance with the requirements of the Fair Labor Standards Act of 1938 as amended.

Hartzell also warrants to Buyer its goods to be free from defects in workmanship and material under normal use and service for one (1) year after tender of delivery by Hartzell, plus six months allowance for shipment to approved stocking dealers and distributors. No warranty extends to future performance of goods and any claims for breach of warranty or otherwise accrues upon tender of delivery. The foregoing constitute Hartzell's sole and exclusive warranties and are in lieu of all other warranties, whether written, oral, express, implied or statutory.

## LIMITATION OF LIABILITY FOR BREACH OF WARRANTY

Hartzell's obligation for any breach of warranty is limited to repairing or replacing, at its option, without cost to Buyer at its factory any goods which shall, within such a warranty period, be returned to it with transportation charges prepaid, and which its examination shall disclose to its satisfaction to have been defective. Any request for repair or replacement should be directed to Hartzell Fan, Inc., P.O. Box 919, Piqua, Ohio 45356. Hartzell will not pay for any repairs made outside its factory without its prior written consent. This does not apply to any such Hartzell goods which have failed as a result of faulty installation or abuse, or incorrect electrical connections or alterations, made by others, or use under abnormal operating conditions or misapplication of the goods.

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Propeller Fans



Cooling Tower &  
Heat Exchanger Fans



Duct Fans



Duct Axial Fans



Vaneaxial Blowers



Cool Blast & Utility Fans



Steel Centrifugal Blowers



Roof Ventilators –  
Steel & Fiberglass



Heating Equipment –  
Gas & Steam



Fiberglass  
Axial Flow Fans



Fiberglass Centrifugal  
Blowers



Marine –  
Mine Duty Blowers

Hartzell Fan, Inc., Piqua, Ohio 45356 • Plants in Piqua, Ohio and Portland, Indiana.