

# Fiberglass Roof Ventilators

Series 37

Series 57

Series 58E



# HARTZELL®

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

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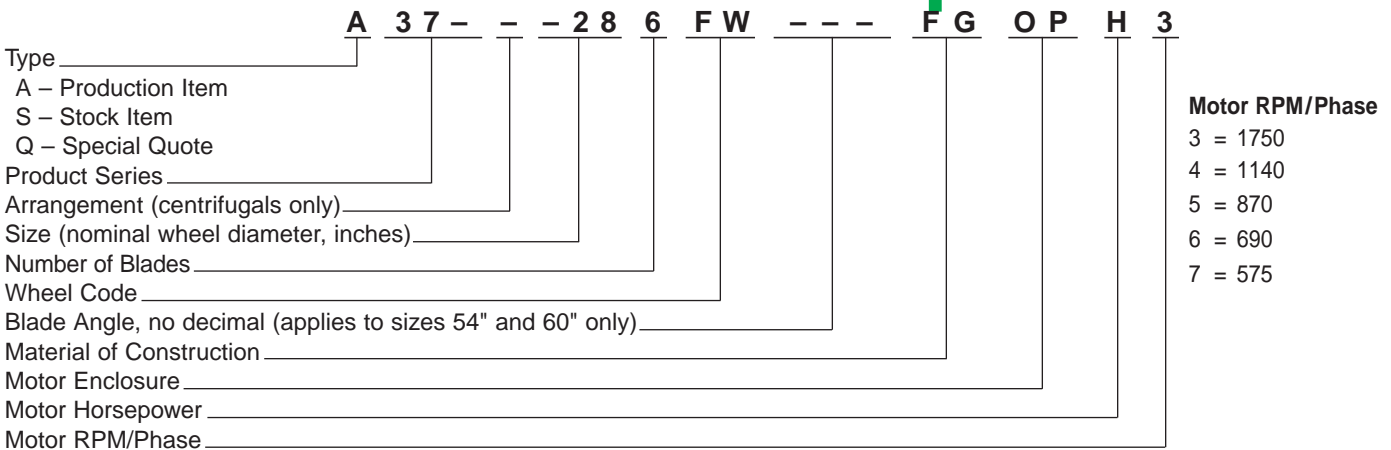
## Certified Ratings for Sound and Air Performance

Hartzell Fan, Inc. certifies that the Fiberglass Belt Drive Upblast Roof Ventilator, Series 37, on pages 6 and 7, is licensed to bear the AMCA Seal for Sound and Air. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311, and comply with the requirements of the AMCA Certified Ratings Program.

Sound performance data is available upon request. Please contact the factory and ask for Engineering Publication SD-141.

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.

# 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	40	50	60	75	100	125	150	200
Code Letter	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z

## How To Use Model Code Index:

### EXAMPLE:

Assume a performance of 7,000 CFM at 1/4" S.P.W.G., at standard conditions is required. Reading Rating Table on page 7, we find Series 37 Belt Drive Upblast Ventilator with a 28" blade diameter and a performance of 7,163 CFM at 1/4" S.P.; 1020 RPM with a Peak Fan BHP of 1.10. In looking at our Model Code, we see this fan has 6 blades, type FW. The fan is constructed of fiberglass and has an Open, Energy Efficient motor enclosure. Motor horsepower required is 1; therefore, horsepower code is "H." Motor RPM required is 1750; therefore, motor RPM code is "3."

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 complete line of Fiberglass Roof 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

The advantages of positive and accurate ventilation, regardless of internal plant and weather conditions, makes powered roof ventilators a practical choice for industrial applications.

Hartzell fiberglass powered roof ventilators are designed and engineered for those applications where corrosive elements exist in fume and vapor form. An added dividend, when using fiberglass units, is its weather-resistant characteristics. Hartzell fiberglass roof vents will not tarnish and will never need painting – fiberglass ventilators are virtually maintenance free. The housings are extremely durable and highly resistant to impact.

The ventilator's design incorporates a highly efficient fiberglass airfoil propeller in a heavy-duty corrosive resistant fiberglass housing.

The resistance to corrosive elements and its weathering characteristics is a major advantage, but the physical properties of fiberglass equipment offer these additional advantages:

- Fiberglass equipment weighs 25% less than comparable equipment made of carbon steel.
- Fiberglass has an extremely high strength-to-weight ratio, stronger than steel on a per-pound basis.
- Dimensional stability of fiberglass is excellent. Fiberglass air moving equipment will not become brittle at low temperatures and at 0° F. the laminated fiberglass will be stronger than at room temperature.
- Fiberglass equipment offers a distinct advantage in price over stainless and Monel (as much as 1/3 in original cost) and offers longer service life and requires less maintenance.

Hartzell Fan, Inc. conforms to ASTM D4167-97, Standard Specification for fiber-reinforced plastic fans and blowers, when optional surfacing veil, electrical grounding, and dynamic balancing to ASTM D4167-97 levels, are added to the fan. The following are standard Hartzell fiberglass construction features:

- Special corrosive resistant polyester resin having a Class I flame spread rate of 25 or less.
- UV Inhibitor added to the final coat of resin.
- All structural parts in the airstream are fiberglass and resin. All taped joints inside the shell or body are three layers of two ounce material. After assembly, internal surfaces are coated with two coats of resin and external parts and surfaces are given one coat of resin.
- Airstream shafts, bolts, and screws are 304 stainless steel. Monel shafting and hardware are available as an extra-cost option for applications such as hydrochloric, hydrofluoric, or sulfuric acids, which attack stainless.  
Where metal is subject to attack by the corrosive elements being handled, all metal parts can be resin-coated after assembly.
- Bearing covers on belt drive ventilators are sealed with plastic foam tape and bolted to the bearing base.
- On belt drive units a fiberglass and neoprene shaft seal is placed where the shaft leaves the bearing cover along with a neoprene shaft slinger on the fan shaft between the propeller and seal. The seal is not gas tight.
- Propellers are of one-piece construction, die formed of individual laminations of cloth mat plus woven roving.

# Installation Data

Hartzell offers three types of fiberglass roof ventilators. Each has been designed with a particular type of installation in mind, combining to meet the majority of industrial corrosive applications:

Series 57 fiberglass upblast roof ventilator, direct drive. Most economical, yet efficient upblast roof ventilator. Best suited for applications where mild corrosive elements exist or for general ventilation.

Series 37 fiberglass upblast roof ventilator, belt drive. Upblast ventilator with motor out of the airstream. A heavy-duty unit, best suited for application where more severe corrosive elements exist or where the versatility of belt drive is required. Can be located at the end of ductwork.

Series 58 fiberglass hooded roof ventilator, belt drive. Provides complete protection from the elements for exhaust operation.

In past years the majority of plant ventilation was accomplished by placing ventilation equipment in sidewall locations – sidewall locations proved to be inadequate for two reasons:

- Effectively ventilating a specific location with sidewall ventilation required extensive and expensive ductwork.
- Roof-mounted ventilators proved to use little valuable internal space.

Another factor contributing to the increase in demand for roof ventilators is their flexibility. Powered roof ventilators located systematically about the roof of a facility enable rearrangement of production equipment without reconstructing ventilation systems and moving ductwork. Recognizing the increased need and demand, particularly for adequate ventilation of processes utilizing chemicals, Hartzell has continued to upgrade its powered ventilators, both steel and fiberglass, to offer a complete roof ventilator line.

## Plant Layout

The usual method of designing plant ventilation layout is to first determine the amount of CFM required (see below). Secondly, determine the size and number of units needed to meet requirements. The units are generally symmetrically spaced.

**EXAMPLE: Ventilated Area 120' x 50' x 20'**

**Air Exchange Rate – one change every 5 minutes**

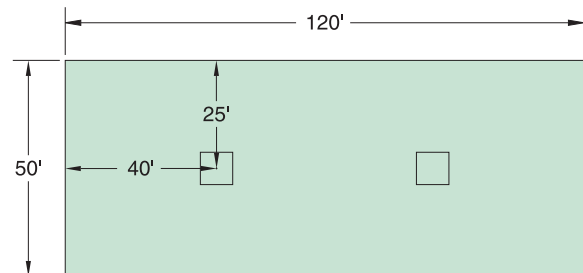
$$\frac{120,000 \text{ cu. ft.}}{5 \text{ min.}} = 24,000 \text{ CFM required}$$

Determine number of ventilators required:

Divide 24,000 CFM (system requirement) by number of units desired – in this case 2.

Capacity requirement for each ventilator = 12,000 CFM.

Symmetrical spacing should be used whenever possible; however, care must be taken to adequately ventilate particularly troublesome areas.



# Corrosion Resistance Guide

Temperature values shown are for immersion or condensate contact applications. Where temperature values are shown, resin is suitable for hood and duct type applications for the full operating temperature range of the product. See product specifications for materials of construction and maximum operating temperature limits.

Environment	Hetron 693 Ashland F.	Hetron FR992 Ashland F.	510A Ashland F.	Environment	Hetron 693 Ashland F.	Hetron FR992 Ashland F.	510A Ashland F.	Environment	Hetron 693 Ashland F.	Hetron FR992 Ashland F.	510A Ashland F.
<b>ACIDS</b>				<b>ALKALIES (Synthetic Veil)</b>				<b>SALTS (cont'd.)</b>			
Acetic to 10%	180	200	210	Ammonium Bicarbonate to 50%	140.00	S170	160.00	Sodium Ferricyanide	220.00	220.00	210.00
Acetic to 50%	90	160	180	Ammonium Carbonate	120.00	S140	150.00	Sodium Fluoride	-	S180	S180
Acetic to 100%	-	NR	NR	Ammonium Hydroxide to 5%	S90	S180	S180	Sodium Nitrate	220.00	220.00	210.00
Acrylic to 25%	-	100	100	Ammonium Hydroxide to 10%	S90	S170	S150	Sodium Nitrite	-	220.00	NR
Benzene Sulfonic to 25%	180	210	150	Ammonium Hydroxide to 29%	NR	S100	S100	Sodium Silicate PH less than 1	160.00	210.00	NR
Benzene Sulfonic 25% up	90	210	NR	Barium Carbonate	180.00	S240	210.00	Sodium Sulfate	180.00	240.00	210.00
Benzoic	250	220	210	Barium Hydroxide to 10%	-	S170	150.00	Sodium Sulfite	-	220.00	210.00
Boric	180	220	210	Calcium Hydroxide to 15%	160.00	S210	S180	Stannic Chloride	*180	*220	*210
Butyric to 50%	150	150	210	Magnesium Carbonate	160.00	S210	180.00	Stannous Chloride	*200	*220	*210
Butyric 50% up	-	100	80	Potassium Bicarbonate to 10%	90.00	S170	S150	Zinc Chloride	200.00	*220	*210
Carbonic	160	220	NR	Potassium Carbonate to 10%	90.00	S180	S150	Zinc Nitrate	180.00	220.00	210.00
Chloroacetic to 25%	NR	*180	*150	Potassium Hydroxide to 25%	NR	S120	S150	Zinc Sulfite	150.00	220.00	NR
Chloroacetic 25% to 50%	NR	*150	*120	Sodium Bicarbonate to 10%	140.00	S210	S180				
Chromic to 5%	100	110	150	Sodium Carbonate to 35%	90.00	S180	S180	<b>SOLVENTS</b>			
Chromic to 10% to 20%	-	NR	150	Sodium Hydroxide to 10%	NR	S160	S180	Acetone to 10%	NR	180.00	180.00
Citric	*200	*220	*210	Sodium Hydroxide to 25%	NR	S160	S180	Benzene	90.00	80.00	NR
Fluoboric	*S90	*S220	*S210	Sodium Sulfide	90.00	S220	S210	Carbon Disulfide	NR	NR	NR
Gluosilicic up to 10%	S100	S150	S180	Trisodium Phosphate to 50%	-	S175	210.00	Carbon Tetrachloride	90 VAPOR	110.00	150.00
Formic up to 10%	200	150	180					Chlorobenzene	NR	NR	NR
Gluconic to 50%	120	180	180	<b>SALTS</b>				Ethyl Acetate	NR	NR	NR
Hydrobromic to 25%	*160	*170	*180	Aluminum Chloride	*120	*240	*210	Ethyl Chloride	90 VAPOR	NR	NR
Hydrochloric to 15%	*230	*210	*180	Aluminum Potassium Sulfate	160.00	240.00	210.00	Ethylene Dibromide	NR	NR	NR
Hydrocyanic to 10%	200	170	210	Aluminum Sulfate	250.00	240.00	210.00	Ethylene Glycol	250.00	220.00	210.00
Hydrofluoric to 10%	***S100	***S150	***S150	Ammonium Chloride	*200	*220	*210	n-Heptane	120.00	210.00	210.00
Hydrofluorsilicic up to 10%	*S100	*S150	*S180	Ammonium Nitrate	200.00	220.00	220.00	Hexane	-	150.00	160.00
Hypochlorous to 20%	90	110	NR	Ammonium Persulfate	150.00	200.00	180.00	Methyl Ethyl Ketone to 10%	NR	80.00	NR
Lactic	*200	*220	*210	Ammonium Persulfate, saturate	150.00	NR	NR	Naphtha	200.00	210.00	180.00
Maleic	170	210	210	Ammonium Sulfate	200.00	220.00	220.00	Naphthalene	130.00	220.00	210.00
Nitric to 5%	200	170	150	Aniline Sulfate to 25%	150.00	220.00	210.00	Tetrachloroethylene	NR	100.00	80.00
Nitric 5% to 20%	-	140	120	Aniline Sulfate, saturated	150.00	220.00	NR	Toluene	90.00	NR	80.00
Oleic	200	220	210	Barium Chloride	200.00	240.00	210.00	Xylene	90.00	80.00	80.00
Oxalic	*220	*220	*210	Barium Sulfide	NR	S210	180.00				
Perchloric to 10%	H&D	*150	*150	Calcium Chlorate	180.00	220.00	220.00	<b>BLEACHES</b>			
Phosphoric	*220	*S210	*S210	Calcium Chloride	250.00	240.00	220.00	Calcium Chlorate	180.00	220.00	220.00
Phosphoric, super	-	*S210	*S210	Calcium Sulfate	*200	*240	*210	Calcium Hypochlorite	100.00	NR	S160
Phthalic Anhydride	*150	*210	*210	Copper Chloride	*250	*220	*220	Chlorine Dioxide up to 15%	-	160.00	*200
Picric to 10%	100	170	NR	Copper Chloride	90.00	S220	210.00	Chlorine Water	*125	*210	*200
Silicic	-	220	NR	Copper Fluoride	NR	S170	NR	Hydrogen Peroxide to 30%	120.00	100.00	150.00
Stearic	200	220	210	Copper Sulfate	250.00	240.00	210.00	Sodium Chlorate	90.00	210.00	210.00
Sulfamic to 25%	160	150	NR	Ferric Chloride	*250	*220	*210	Sodium Hypochlorite to 15%	NR	125.00	S180
Sulfuric to 25%	*200	*220	*210	Ferric Nitrate	170.00	220.00	210.00				
Sulfuric to 50%	*200	*200	*180	Ferric Sulfate	200.00	220.00	210.00	<b>OTHERS</b>			
Sulfuric to 70%	*150	*180	*100	Ferrous Chloride	*220	*220	*210	Alum. Chlorohydroxide to 50%	-	220.00	210.00
Sulfuric to 80%	NR	80	NR	Ferrous Nitrate	160.00	220.00	210.00	Ammonium Phosphate	150.00	210.00	210.00
Sulfurous to 10%	90	110	120	Ferrous Sulfate	220.00	220.00	210.00	Aqua Rega	NR	*80	NR
Tannic	200	220	210	Lead Acetate	160.00	220.00	210.00	Detergents	120.00	170.00	150.00
Tartaric	220	220	210	Magnesium Chloride	220.00	240.00	210.00	Glycerine	200.00	220.00	210.00
Trichoroacetic to 50%	*90	*220	*200	Magnesium Hydroxide	-	S210	210.00	Kerosene	120.00	210.00	180.00
				Magnesium Sulfate	200.00	210.00	210.00	Photographic Solutions	-	80.00	NR
<b>ALCOHOLS</b>				Mercuric Chloride	*210	*220	*210	Perchloroethylene	NR	100.00	80.00
Amyl	200	210	120	Mercurous Chloride	210.00	220.00	210.00	Sodium Tetraborate	180.00	S210	180.00
Benzyl	NR	100	NR	Nickel Chloride	220.00	220.00	210.00	Sodium Tripolyphosphate	125.00	210.00	210.00
Butyl	190	150	120	Nickel Nitrate	220.00	220.00	210.00	Sodium Xylene Sulfonate	-	170.00	160.00
Ethyl	90	120	80	Nickel Sulfate	220.00	220.00	210.00	Sorbitol Solutions	180.00	220.00	160.00
Methyl	90	80	NR	Potassium Chloride	200.00	240.00	210.00	Urea	90.00	170.00	150.00
				Potassium Dichromate	200.00	220.00	210.00	Urea-Ammonium-Nitrate	-	120.00	120.00
<b>GASES AND VAPORS</b>				Potassium Ferricyanide	200.00	220.00	210.00	Fertilizer Fumes	100.00	120.00	150.00
Ammonia, Dry	90	170	100	Potassium Nitrate	200.00	220.00	210.00	Shell-D-D	NR	100.00	NR
Ammonia, Wet	90	NR	NR	Potassium Permanganate	150.00	210.00	210.00	Steam Vapor	180.00	210.00	180.00
Bromine, Wet	90	*100	NR	Potassium Persulfate	90.00	220.00	210.00				
Carbon Dioxide	250	250	250	Potassium Sulfate	200.00	240.00	210.00				
Carbon Monoxide	200	250	250	Silver Nitrate	200.00	220.00	210.00				
Chlorine, Dry	*200	*210	NR	Sodium Acetate	150.00	220.00	210.00				
Fluorine	-	NR	80	Sodium Bisulfate	200.00	220.00	210.00				
Hydrogen Fluoride, Vapor	*90	*S180	*S180	Sodium Chloride	200.00	240.00	180.00				
Hydrogen Sulfide to 5%	250	240	180	Sodium Chlorite to 10%	175.00	170.00	150.00				
Sulfur Dioxide, Dry	200	250	210	Sodium Cyanide	100.00	220.00	210.00				
Sulfur Dioxide, Wet	200	250	210	Sodium Dichromate	160.00	220.00	210.00				
Sulfur Trioxide, Wet	-	220	210								

Reference  
C.R.G.13

**NOTES:** NR = Not Recommended S = Synthetic surfacing veil or mat required. Contact factory. "-" = No test data available

- \* Special shaft and hardware required, contact factory.
  - \*\* Special design considerations required (explosive environment), contact factory.
  - \*\*\* Do not use HartKoate. Special shaft and hardware required, contact factory.
- For environments not shown, or when temperatures exceed the maximum listed, contact factory.  
Hydrocarbon fuel environments may require static grounding, contact factory.  
Do not use HartKoate (Alum. Oxide) with Hydrofluoric acid.





# Upblast Ventilator – (Belt Drive)



Series 37

ABS Certificate  
of Design Assessment  
Received

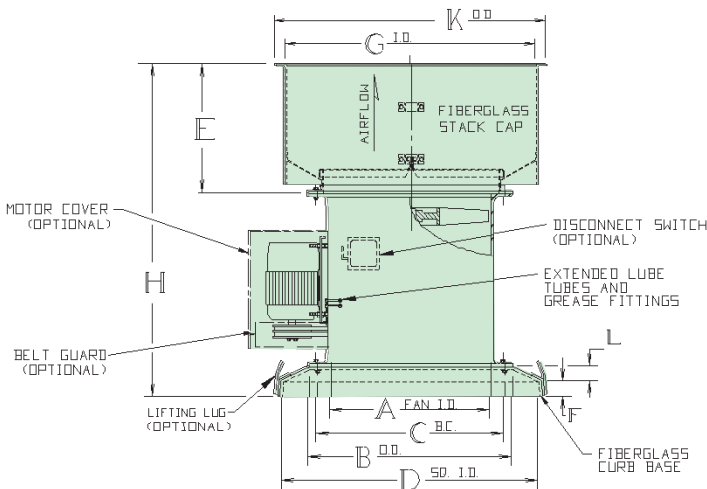


Hartzell Fan, Inc. certifies that the Series 37, Fiberglass Belt Drive Upblast Roof Ventilator, shown hereon, is licensed to bear the AMCA Seal for Sound and Air. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311, and comply with the requirements of the AMCA Certified Ratings Program.

The Series 37 roof ventilator meets the need for a heavy-duty, belt drive, upblast ventilator with the motor out of the airstream. The Series 37 unit is ideal for applications where severe corrosive elements are present. The unit utilizes a fiberglass duct fan and its exterior motor mounting arrangement to provide a ventilator well suited for fume exhaust.

## Features:

- **Sizes 12" to 60" – Performance** from 1195 CFM to 64,410 CFM at free air.
- **Temperature Limitations** – Suitable for temperatures up to 200°F.
- **FRP Construction** – Standard FRP components are constructed of fiberglass and Ashland 693 resin. See Corrosion Resistance guide on page 4 for resin characteristics. Other resins are available.
- **Unit Construction** – Sturdy, three piece unit. Windband, throat and panel are of fiberglass construction. Airstream hardware is stainless steel. Belts, bearings, sheaves and shaft are enclosed and protected from the airstream. Drive compartment is located on the negative pressure (suction) side of the propeller drawing ambient air from outside the fan in and over the belts and bearings. Ensures contaminant-free drive compartment.
- **Motor Out of the Airstream** – Exterior mounting. Propeller shaft rotates in two heavy-duty bearings mounted on fiberglass supports taped to the inner shell with "T" reinforcements. Open end protected motors are standard. Special motors are available upon request.
- **Propellers** – Single piece, solid fiberglass construction.
  - SIZES 12" to 48" – 6-blade - Type-FW.
  - SIZES 54" and 60" – 4 and 6-blade adjustable, Type AF.
- **Drives** – Are variable pitch through 48" fan size. Belts are V-belt, oversized for longer life and continuous duty. Oil, heat, and static resistant type.
- **Bearings** – Deep-row radial ball or roller type, self-aligning shielded and mechanically sealed in cast iron or malleable housings. Long inner race insures load distribution providing a high radial and thrust load capacity. Both are relubricable type for continuous service. Minimum 50,000 hours L-10 bearing life.
- **Lubrication Tubes** – Extended from the bearings through the belt tube to the exterior of the fan housing. Allows ease of maintenance.
- **Stack Cap** – Butterfly dampers open when the unit is on, close weathertight when unit is off. Discharge airstream prevents entry of rain or snow during operation. Fiberglass dampers are mounted on corrosive-resistant rods which turn in longlife plastic bearings. Stack cap is designed with enough height to effectively prevent wind resistance against the operation of the ventilator.
- **Panel** – Provides a convenient method of curb mounting a roof ventilator. Heavy-duty fiberglass construction.
- **Accessories** – see page 10.



Fan Size	A	B	C	D	E	F	G	H	K	L
12	12 <sup>1</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>2</sub>	22	16 <sup>3</sup> / <sub>8</sub>	2	16 <sup>1</sup> / <sub>8</sub>	40 <sup>1</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>
16	16 <sup>1</sup> / <sub>8</sub>	20	18 <sup>1</sup> / <sub>2</sub>	26	18 <sup>3</sup> / <sub>8</sub>	2	20 <sup>1</sup> / <sub>8</sub>	42 <sup>1</sup> / <sub>8</sub>	23 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>
18	18 <sup>1</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>2</sub>	28	20 <sup>1</sup> / <sub>8</sub>	2	24 <sup>1</sup> / <sub>8</sub>	46 <sup>1</sup> / <sub>8</sub>	27 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>
20	20 <sup>1</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>2</sub>	30	20 <sup>3</sup> / <sub>8</sub>	2	24 <sup>3</sup> / <sub>8</sub>	49 <sup>1</sup> / <sub>8</sub>	27 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>
24	24 <sup>1</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>2</sub>	26 <sup>1</sup> / <sub>8</sub>	36	18 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>8</sub>	47 <sup>1</sup> / <sub>4</sub>	31 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>
28	28 <sup>1</sup> / <sub>8</sub>	32 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>8</sub>	42	20 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	33	50 <sup>1</sup> / <sub>8</sub>	36 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>
32	33	36 <sup>1</sup> / <sub>2</sub>	34 <sup>1</sup> / <sub>8</sub>	42	24 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	37	55 <sup>1</sup> / <sub>8</sub>	40 <sup>1</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>
36	37	40 <sup>1</sup> / <sub>8</sub>	38 <sup>1</sup> / <sub>8</sub>	48	26 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	45	58 <sup>1</sup> / <sub>8</sub>	48 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>
40	41	44 <sup>1</sup> / <sub>8</sub>	43 <sup>1</sup> / <sub>8</sub>	50	30 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	49 <sup>1</sup> / <sub>8</sub>	69 <sup>1</sup> / <sub>8</sub>	53 <sup>1</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>
44	45	48 <sup>1</sup> / <sub>8</sub>	47 <sup>1</sup> / <sub>8</sub>	54	31 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	49 <sup>1</sup> / <sub>8</sub>	71 <sup>1</sup> / <sub>8</sub>	53 <sup>1</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>
48	49 <sup>1</sup> / <sub>8</sub>	53 <sup>1</sup> / <sub>8</sub>	51 <sup>1</sup> / <sub>8</sub>	60	33 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	55 <sup>1</sup> / <sub>8</sub>	73 <sup>1</sup> / <sub>8</sub>	59 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>
54	55 <sup>1</sup> / <sub>8</sub>	59 <sup>1</sup> / <sub>8</sub>	57 <sup>1</sup> / <sub>8</sub>	64 <sup>1</sup> / <sub>4</sub>	37 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	61 <sup>1</sup> / <sub>8</sub>	81 <sup>1</sup> / <sub>8</sub>	65 <sup>1</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>
60	61 <sup>1</sup> / <sub>8</sub>	65 <sup>1</sup> / <sub>8</sub>	63 <sup>1</sup> / <sub>8</sub>	70 <sup>1</sup> / <sub>4</sub>	42 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	68	86 <sup>1</sup> / <sub>8</sub>	72	1 <sup>7</sup> / <sub>8</sub>

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



**Rating Table – Series 37 – Fiberglass Belt Drive Upblast Ventilator A37---FG**

Size	Model	Motor		Peak Fan BHP	Fan RPM	Cubic Feet Per Minute vs. Static Pressure						
		HP	RPM			0"	1/8"	1/4"	3/8"	1/2"		
12	A37---126FW---FGOPE3	1/2	1750	0.33	2095	1259						
	A37---126FW---FGOPF3	1/2	1750	0.50	2410	1448	1256					
	A37---126FW---FGOPE3	3/4	1750	0.75	2765	1662	1486	1334				
16	A37---166FW---FGOPF3	1/2	1750	0.50	1800	2716	2460	2157				
	A37---166FW---FGOPG3	3/4	1750	0.75	2060	3108	2888	2649	2300			
	A37---166FW---FGOPH3	1	1750	1.10	2340	3530	3339	3134	2910	2556		
18	A37---186FW---FGOPF3	1/2	1750	0.50	1510	3281	3078	2797				
	A37---186FW---FGOPG3	3/4	1750	0.75	1720	3737	3564	3350	3039			
	A37---186FW---FGOPH3	1	1750	1.10	1955	4248	4099	3926	3712	3398		
20	A37---206FW---FGOPI3	1 1/2	1750	1.65	2240	4867	4739	4597	4434	4240		
	A37---206FW---FGOPF3	1/2	1750	0.49	1410	4115	3779	3383				
	A37---206FW---FGOPG3	3/4	1750	0.74	1610	4698	4407	4085	3707	3225		
24	A37---246FW---FGOPH3	1	1750	1.10	1345	6846	6424	5993	5506	4677		
	A37---246FW---FGOPJ3	2	1750	2.20	1695	8628	8296	7954	7613	7255		
	A37---246FW---FGOPK3	3	1750	3.30	1940	9875	9586	9290	8989	8692		
28	A37---286FW---FGOPI3	1 1/2	1750	1.64	910	11898	11104	10251	9224			
	A37---286FW---FGOPH3	1	1750	1.10	1020	8361	7873	7163	6312			
	A37---286FW---FGOPJ3	2	1750	2.20	1285	10533	10163	9730	9150	8410		
32	A37---326FW---FGOPH3	1	1750	1.08	795	10394	9474	8439				
	A37---326FW---FGOPI3	1 1/2	1750	1.64	910	11898	11104	10251	9224			
	A37---326FW---FGOPJ3	2	1750	2.18	1000	13075	12357	11593	10767	9637		
36	A37---366FW---FGOPH3	1	1750	1.09	705	13103	11918	10376				
	A37---366FW---FGOPI3	1 1/2	1750	1.64	805	14962	13948	12739	11172			
	A37---366FW---FGOPJ3	2	1750	2.18	885	16449	15538	14498	13241	11577		
40	A37---406FW---FGOPH3	1	1750	1.08	795	10394	9474	8439				
	A37---406FW---FGOPI3	1 1/2	1750	1.64	910	11898	11104	10251	9224			
	A37---406FW---FGOPJ3	2	1750	2.18	1000	13075	12357	11593	10767	9637		
44	A37---446FW---FGOPH3	1	1750	1.09	705	13103	11918	10376				
	A37---446FW---FGOPI3	1 1/2	1750	1.64	805	14962	13948	12739	11172			
	A37---446FW---FGOPJ3	2	1750	2.18	660	19941	18468	16853				
48	A37---486FW---FGOPH3	1	1750	1.08	795	10394	9474	8439				
	A37---486FW---FGOPI3	1 1/2	1750	1.64	910	11898	11104	10251	9224			
	A37---486FW---FGOPJ3	2	1750	2.18	660	19941	18468	16853				
54	A37---544AF250FGOPK3	3	1750	3.26	500	33284	29483	25800				
	A37---544AF250FGOPL3	5	1750	5.49	595	39608	36368	33276	30186	26898		
	A37---544AF250FGOPM3	7 1/2	1750	8.20	680	45266	42386	39691	36972	34277		
60	A37---604AF250FGOPL3	5	1750	5.43	520	45786	41523	37489	33140			
	A37---604AF250FGOPM3	7 1/2	1750	8.14	595	52390	48588	45099	41499	37624		
	A37---604AF250FGOPN3	10	1750	10.86	610	54606	51381	48609	45847	42958		

Performance certified is for installation Type C: ducted inlet/free outlet.  
 CFM shown is net flow at the inlet and includes static pressure loss through ventilator.  
 Power rating (BHP) includes transmission losses.  
 Performance ratings do not include the effects of appurtenances (accessories).

**CFM Limitations for Damper Lids Operation**

CFM	Fan Size												
	12	16	18	20	24	28	32	36	40	44	48	54	60
FRP Minimum ①	1195	2080	2615	3210	4586	6200	8065	10175	12525	15120	17960	22890	28180
Maximum ②	2726	4750	6976	7335	10475	14175	18435	23250	28630	34560	41055	52315	64410

① Minimum CFM to open lids

② Maximum CFM to prevent lid damage



# Hooded Ventilator – (Belt Drive)



Series 58E

ABS Certificate  
of Design Assessment  
Received

The fiberglass hooded ventilator's design provides complete protection from the elements for exhaust operation. The unit's belt drive configuration, exterior motor mounting, makes the Series 58 unit the logical choice where corrosive elements exist and protection from weather is essential.

## Features:

- **Sizes** 12" to 60" – **Performance** from 1260 CFM to 63,470 CFM at free air.
- **Temperature Limitations** – Suitable for temperatures up to 200°F.
- **FRP Construction** – Standard FRP components are constructed of fiberglass and Ashland 693 resin. See Corrosion Resistance Guide on page 4 for resin characteristics. Other resins are available.
- **Hood** – Constructed of fiberglass. Attaches to and is removable from fan casing. Sizes through 32" are 1-piece construction. Sizes 36" through 60" are 2-piece construction. Hinged construction available. Provides access to ventilator without complete removal of hood, 1-piece hinged hood through 32". 2-piece hinged hood on sizes 36" through 60".
- **Panel** – Provides a convenient method of curb mounting a roof ventilator. Heavy-duty, fiberglass construction.
- **Motor Out of the Airstream** – Exterior mounting. Propeller shaft rotates in two heavy-duty bearings mounted on fiberglass supports taped to the inner shell with "T" reinforcements.
- **Corrosion Duty Construction** – Belts, bearings, sheaves and shaft are enclosed and protected from the airstream. Drive compartment is located on the negative pressure (suction) side of the propeller drawing ambient air from outside the fan in and over the belts and bearings. Ensures contaminant-free drive compartment.
- **Propellers** – Single piece, solid fiberglass construction.  
SIZES 12" to 48" – 6-blade, Type FW.  
SIZES 54" and 60" – 6-blade adjustable, Type AF.
- **Motors** – Open end protected are standard. Special motors are available upon request.
- **Drives** – Are variable pitch through 48" fan size. Belts are V-belt, oversized for longer life and continuous duty. Oil, heat, and static resistant type.
- **Bearings** – Deep-row radial ball or roller type, self-aligning shielded and mechanically sealed in cast iron or malleable housings. Long inner race insures load distribution providing a high radial and thrust load capacity. Both are re-lubricable type for continuous service. Minimum 50,000 hours L-10 bearing life.
- **Lubrication Tubes** – Extended from the bearings through the belt tube to the exterior of the fan housing. Allows ease of maintenance.
- **Accessories** – See page 11.
- **Construction Options** – The Series 58E (Exhauster) can be supplied in Series 58I (Intake) configuration. Contact factory for additional information.

## Principal Dimensions – Series 58

Fan Size	A	B	C	D	E	F	G	H	H <sub>1</sub>	J	K	L	M	P
12	12 <sup>7</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>2</sub>	22	36 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	14 <sup>15</sup> / <sub>16</sub>	38 <sup>5</sup> / <sub>16</sub>	39 <sup>3</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	22	2	20	1 <sup>1</sup> / <sub>2</sub>
18	18 <sup>7</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>2</sub>	28	36 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	14 <sup>15</sup> / <sub>16</sub>	40 <sup>5</sup> / <sub>16</sub>	41 <sup>3</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	22	2	22	1 <sup>1</sup> / <sub>2</sub>
24	24 <sup>7</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>2</sub>	26 <sup>5</sup> / <sub>8</sub>	36	58 <sup>1</sup> / <sub>2</sub>	4	24	53	55	7 <sup>1</sup> / <sub>16</sub>	34 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>16</sub>	25	2
28	28 <sup>7</sup> / <sub>8</sub>	32 <sup>3</sup> / <sub>8</sub>	30 <sup>5</sup> / <sub>8</sub>	42	58 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>8</sub>	24	53 <sup>3</sup> / <sub>8</sub>	55 <sup>3</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>16</sub>	34 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>16</sub>	25	2
32	33	36 <sup>1</sup> / <sub>2</sub>	34 <sup>7</sup> / <sub>8</sub>	42	58 <sup>1</sup> / <sub>2</sub>	3 <sup>9</sup> / <sub>16</sub>	24	55 <sup>9</sup> / <sub>16</sub>	57 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	34 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	28	2
36	37	40 <sup>5</sup> / <sub>8</sub>	38 <sup>7</sup> / <sub>8</sub>	48	76 <sup>1</sup> / <sub>2</sub>	3 <sup>15</sup> / <sub>16</sub>	29 <sup>3</sup> / <sub>4</sub>	61 <sup>11</sup> / <sub>16</sub>	63 <sup>11</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	53 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	28	2
40	41	44 <sup>1</sup> / <sub>8</sub>	43 <sup>1</sup> / <sub>8</sub>	50	76 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub>	29 <sup>3</sup> / <sub>4</sub>	69 <sup>3</sup> / <sub>8</sub>	71 <sup>3</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>16</sub>	53 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	36	2
44	45	48 <sup>1</sup> / <sub>8</sub>	47 <sup>1</sup> / <sub>8</sub>	54	91 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub>	33 <sup>3</sup> / <sub>4</sub>	73 <sup>3</sup> / <sub>8</sub>	75 <sup>3</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>16</sub>	62 <sup>11</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	36	2
48	49 <sup>1</sup> / <sub>8</sub>	53 <sup>3</sup> / <sub>8</sub>	51 <sup>5</sup> / <sub>8</sub>	60	91 <sup>1</sup> / <sub>2</sub>	3 <sup>15</sup> / <sub>16</sub>	33 <sup>3</sup> / <sub>4</sub>	73 <sup>11</sup> / <sub>16</sub>	76 <sup>3</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	62 <sup>11</sup> / <sub>16</sub>	2 <sup>9</sup> / <sub>16</sub>	36	2 <sup>1</sup> / <sub>2</sub>
54	55 <sup>3</sup> / <sub>8</sub>	59 <sup>5</sup> / <sub>8</sub>	57 <sup>5</sup> / <sub>8</sub>	64 <sup>1</sup> / <sub>4</sub>	113	3 <sup>7</sup> / <sub>8</sub>	39 <sup>3</sup> / <sub>4</sub>	83 <sup>5</sup> / <sub>8</sub>	86 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>16</sub>	77	2 <sup>9</sup> / <sub>16</sub>	40	2 <sup>1</sup> / <sub>2</sub>
60	61 <sup>3</sup> / <sub>8</sub>	65 <sup>5</sup> / <sub>8</sub>	63 <sup>5</sup> / <sub>8</sub>	70 <sup>1</sup> / <sub>4</sub>	113	3 <sup>7</sup> / <sub>8</sub>	39 <sup>3</sup> / <sub>4</sub>	83 <sup>5</sup> / <sub>8</sub>	86 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>16</sub>	77	2 <sup>9</sup> / <sub>16</sub>	40	2 <sup>1</sup> / <sub>2</sub>

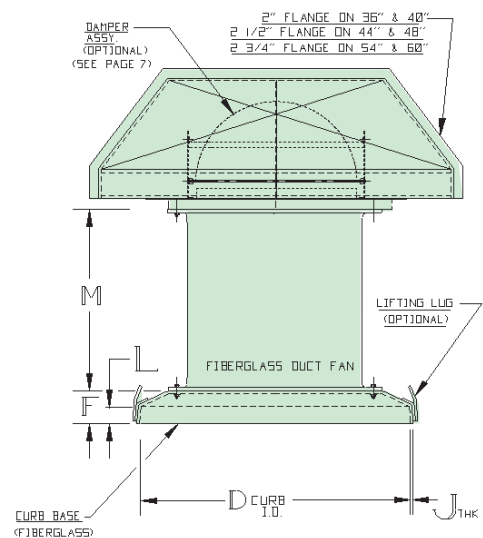
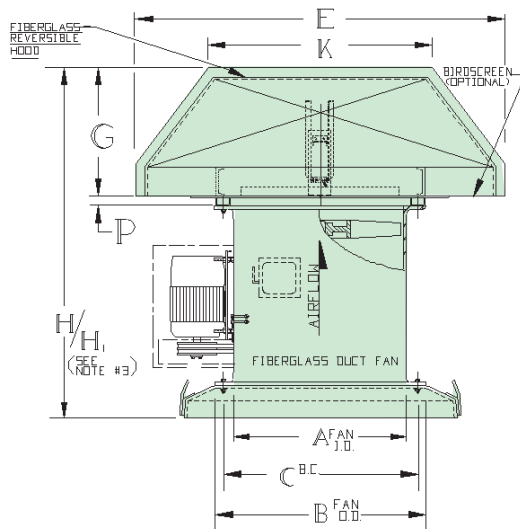
Note: Specifications are subject to change. Certified prints are available.



**Rating Table – Series 58E – Fiberglass Belt Drive Hooded Ventilator A58E--\_6\_ FG**

Size	Model	Motor		Fan BHP	Peak Fan RPM	Cubic Feet Per Minute vs. Static Pressure					(Approx.) Net Installation Weight (lbs.)
		HP	RPM			0"	1/8"	1/4"	3/8"	1/2"	
12	A58E--126FW---FGOPD3	1/4	1750	0.25	1935	1084	909	707	533	364	175
	A58E--126FW---FGOPE3	1/3	1750	0.33	2140	1199	1050	857	693	535	176
	A58E--126FW---FGOPF3	1/2	1750	0.50	2460	1379	1254	1087	932	792	179
18	A58E--186FW---FGOPD3	1/4	1750	0.25	1175	2516	2301	2001	1005	648	195
	A58E--186FW---FGOPF3	1/2	1750	0.50	1480	3169	3000	2821	2579	1655	199
	A58E--186FW---FGOPG3	3/4	1750	0.75	1695	3629	3481	3332	3161	2936	202
	A58E--186FW---FGOPH3	1	1750	1.00	1865	3993	3858	3724	3582	3412	206
24	A58E--246FW---FGOPH3	1	1750	1.00	1315	6157	5872	5582	5223	4621	356
	A58E--246FW---FGOPJ3	2	1750	1.99	1655	7749	7522	7297	7065	6805	363
	A58E--246FW---FGOPK3	3	1750	2.99	1900	8896	8698	8502	8305	8101	400
28	A58E--286FW---FGOPH3	1	1750	1.00	990	7821	7418	7003	6523	5631	406
	A58E--286FW---FGOPJ3	2	1750	1.98	1245	9836	9515	9194	8863	8503	413
	A58E--286FW---FGOPK3	3	1750	2.99	1435	11337	11058	10781	10500	10211	450
32	A58E--326FW---FGOPJ3	2	1750	1.99	970	11862	11373	10878	10348	9717	498
	A58E--326FW---FGOPK3	3	1750	2.98	1110	13574	13146	12718	12278	11807	535
	A58E--326FW---FGOPL3	5	1750	4.96	1320	16142	15781	15423	15062	14693	553
	A58E--326FW---FGOPM3	7 1/2	1750	7.49	1520	18588	18274	17962	17651	17337	575
36	A58E--366FW---FGOPK3	3	1750	2.98	995	16465	15892	15317	14713	14022	690
	A58E--366FW---FGOPL3	5	1750	4.96	1180	19527	19042	18561	18073	17566	708
	A58E--366FW---FGOPM3	7 1/2	1750	7.45	1355	22423	21999	21580	21161	20734	730
40	A58E--406FW---FGOPJ3	2	1750	1.98	720	15653	14898	14129	13236	11842	703
	A58E--406FW---FGOPK3	3	1750	2.95	825	17935	17276	16616	15920	15113	740
	A58E--406FW---FGOPL3	5	1750	4.99	990	21523	20971	20425	19873	19299	758
	A58E--406FW---FGOPM3	7 1/2	1750	7.49	1140	24784	24303	23829	23354	22873	780
	A58E--406FW---FGOPN3	10	1750	9.99	1260	27392	26957	26527	26099	25668	800
44	A58E--446FW---FGOPK3	3	1750	3.00	735	20318	19483	18644	17754	16730	1005
	A58E--446FW---FGOPL3	5	1750	4.94	875	24188	23485	22787	22076	21331	1023
	A58E--446FW---FGOPM3	7 1/2	1750	7.46	1010	27920	27310	26705	26098	25480	1045
	A58E--446FW---FGOPN3	10	1750	9.93	1115	30823	30269	29721	29173	28620	1065
48	A58E--486FW---FGOPJ3	2	1750	1.99	570	19419	18268	17061	15553	11105	1188
	A58E--486FW---FGOPK3	3	1750	2.94	650	22145	21135	20111	18986	17560	1225
	A58E--486FW---FGOPL3	5	1750	5.00	780	26574	25730	24890	24027	23102	1243
	A58E--486FW---FGOPM3	7 1/2	1750	7.42	895	30492	29755	29025	28288	27531	1265
	A58E--486FW---FGOPN3	10	1750	9.90	990	33728	33062	32401	31739	31068	1285
54	A58E--546AF250FGOPL3	5	1750	4.99	525	32718	31525	30330	28858	25296	1308
	A58E--546AF220FGOPM3	7 1/2	1750	7.45	630	36268	35190	34125	33014	31665	1330
	A58E--546AF250FGOPN3	10	1750	10.00	665	41443	40493	39565	38621	37614	1350
	A58E--546AF250FGOP03	15	1750	14.74	760	47363	46528	45714	44901	44069	1450
60	A58E--606AF220FGOPL3	5	1750	4.93	480	36308	34752	32912	30519	26196	1363
	A58E--606AF250FGOPM3	7 1/2	1750	7.50	520	43225	41827	40438	38930	36410	1385
	A58E--606AF250FGOPN3	10	1750	9.78	570	47381	46102	44844	43534	41931	1405
	A58E--606AF250FGOP03	15	1750	14.93	660	54863	53752	52667	51573	50433	1505

Performance certified is for installation Type C: ducted inlet/free outlet.  
 CFM shown is net flow at the inlet and includes static pressure loss through ventilator.  
 Power rating (BHP) includes transmission losses.  
 Performance ratings do not include the effects of appurtenances (accessories).



# Options and Accessories

## General Construction Options

### Abrasive/Erosive Resistant Coating

HartKoate is an abrasive/erosive resistant coating developed by Hartzell Fan for application in environments where abrasive/erosive conditions may exist. HartKoate helps prevent premature deterioration of equipment in environments where uncoated fans may fail.

Impact resistant HartKoate is applied to a 50-60 mil thickness suitable for temperatures to 200°F.

HartKoate is particularly appropriate for use when water mist and/or abrasive particles exist in the airstream.

Contact your Hartzell representative for further details concerning the application of HartKoate coating to fiberglass fans in corrosive atmospheres.

### Hi-Cor Construction

All airstream surfaces exposed to corrosive environment will be protected with a layer of Synthetic (Nexus) surfacing veil. An additional final coat of resin will be applied for extra corrosion resistance.

When Hi-Cor construction is required, the factory should be consulted concerning the corrosive environment involved.

### Electrostatically Grounded Fiberglass Fans

For applications in which fiberglass fans are handling gas fumes that are not only corrosive but also potentially explosive, the equipment should be specially constructed to control and remove static electricity. Interior airstream surfaces can be coated with a "carbon rich" resin coat and grounding straps secured from the side of the housing to the fan's steel base. All that remains to effectively ground the airstream is to ground the fan base at the time of installation.

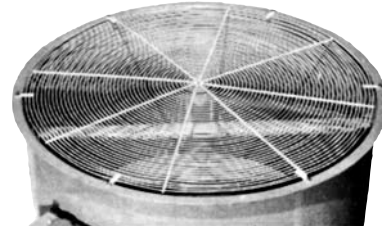
### ASTM D4167-97 Construction

(ASTM D4167-97, Standard Specification for Fiber-Reinforced Plastic Fans and Blowers.) For corrosive systems where ASTM construction is specified this construction option adds: Synthetic veil and electrostatically conductive surface coating applied to airstream housing and impeller surfaces, special nameplates, and special final dynamic balancing to fan.

## Upblast Ventilator Accessories

### Bird Screen

Epoxy coated steel spiral guard, available on all ventilators. Located on top of ventilator discharge to keep birds and other large debris from falling into the roof ventilator.



### Safety Guard

Protective half inch wire mesh, sixteen gauge, galvanized, epoxy coated. Protects floor area from falling debris and the ventilator from vandalism. Available on all ventilators.

### Combination Motor Cover and Belt Guard

Provides weather protection as well as guarding of the drive sheaves and belts. Covers are vented. Hot rolled steel, epoxy coated construction. Available on Series 37 and 58 ventilators.

### Fiberglass Motor Cover

Designed to fit fiberglass roof ventilators. Covers are solid fiberglass, die-formed, with injection molded louvers.



### Lifting Lugs

Facilitate installation.

### Disconnect Switch

Mounted and wired, provides safety during maintenance.



## Hooded Ventilator Accessories

### Hinged Hood

Stationary removable fiberglass hood is standard. The hood can be modified to be hinged for easier access to fan without removal. One-piece construction through size 32". Two-piece construction, sizes 36" through 60".



### Backdraft Dampers

Available on hooded type ventilators, Series 58. Dampers are mounted in the hood. Two semi-circular lids open when unit is on, close when unit is off. Exhaust operation only. When backdraft dampers are required, a hinged hood must also be furnished. For damper lid limits, see page 7.

**NOTE: General construction options and standard fan accessories such as motor covers, lifting lugs, disconnect switches and birdscreens are suitable for both hooded and upblast ventilator types. (See page 10 for details.)**

## Prefabricated Curbs

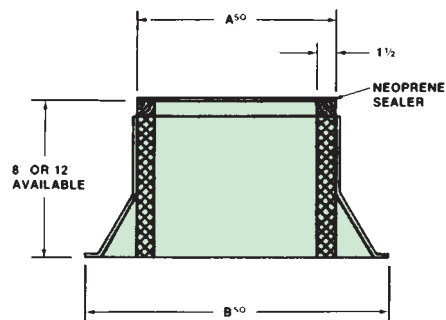
The CT-1 fiberglass prefabricated curb shown is for flat roof installation of Hartzell roof ventilators. The curb is designed for metal, concrete or wood roof decks that are not surface insulated. The curb is available either 8" or 12" high.

Model IRC-1 prefabricated curb constructed of galvanized steel is also available with identical features as Model CT-1. Galvanized models can be furnished with epoxy coating. Aluminum construction also available.

All prefabricated curbs can be furnished for slope or peak bases. Prefabricated curbs are designed to support the weight of the fans cataloged herein, and attachments not exceeding over 100 additional pounds in a 40 mph wind. Nonstandard curb construction is available.

### Features:

- Nailer Strip – with a built-in cant strip facilitates fastening the ventilator to the curb.
- Glass Fiber Insulation - a rigid 1½" thick 3 lbs. density liner eliminates condensation problems.
- Neoprene Sealer – 1/4" strip.
- Construction – CT-1 - Isophthalic resin, no pigmentation.  
IRC-1 - Galvanized steel (18 ga.).  
IRC-1 - Aluminum (.063 ga.).



### Principal Dimensions for Series 37, 57, 58

Fan Size	12	16	18	20	24	28	32	36	40	44	48	54	60
A	21¼	25¼	27¼	29¼	35¼	41¼	41¼	47¼	49¼	53¼	59¼	63½	69½
B	29¼	33¼	35¼	37¼	43¼	49¼	49¼	55¼	57¼	61¼	67¼	71½	77½

Specifications are subject to change. Certified prints are available.

## 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 Occupation 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.



# 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 (6) 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 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.

## LIMITATION OF LIABILITY

To the extent the above limitation of liability for breach of warranty is not applicable, the liability of Hartzell on any claim of any kind, including negligence, for any loss or damage arising out of or connected with, or resulting from the sale and purchase of the goods or services covered by these Terms and Conditions of Sale or from the performance or breach of any contract pertaining to such sale or purchase or from the design manufacture, sale, delivery, resale, installation, technical direction installation, inspection repair, operation or use of any goods or services covered by these Terms and Conditions shall, in no case exceed the price allocable to the goods or services which gave rise to the claim and shall terminate one year after tender of delivery of said goods or services.

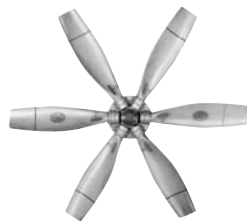
In no event whether as a result of breach of contract, or warranty or alleged negligence, defects incorrect advice or other causes, shall Hartzell be liable for special or consequential damages, including, but not limited to, loss of profits or revenue, loss of use of the equipment or any associated equipment, cost of substitute equipment, facilities or services, down time costs, or claims of customers of the Buyer for such damages. Hartzell neither assumes nor authorizes any person to assume for it any other liability in connection with the sale of its goods or services.

## NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS

HARTZELL DOES NOT WARRANT THAT SAID GOODS ARE OF MERCHANTABILITY QUALITY OR THAT THEY ARE FIT FOR ANY PARTICULAR PURPOSE. THERE IS NO IMPLIED WARRANTY OF MERCHANTABILITY AND THERE IS NO IMPLIED WARRANTY OF FITNESS.



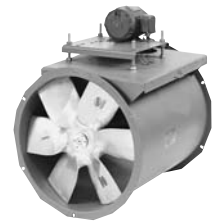
Propeller Fans



Cooling Tower &  
Heat Exchanger Fans



Duct Fans



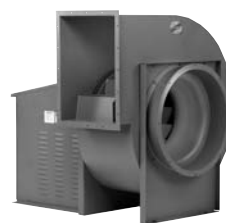
Duct Axial Fans



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.