

## FILTERED AIR SUPPLY FANS



**Model FSWD  
Wall Mounted**



**Model FSR  
Roof Mounted**

**MODELS: FSR / FSWD / FSWB**





Model FSR, Hinged



Model FSR, Modular Hood

## Energy Regulations

Aerovent supports energy efficiency regulations enacted by the U.S. Department of Energy (DOE) and specific states. The selection and application of fan products is a significant part of these regulations. Engineers and specifiers must understand how to apply Aerovent products to their specific applications to meet applicable DOE and state regulatory requirements. Aerovent has made significant investments in product testing and development to provide efficient products. Developments in Aerovent's Fan Selector software are in place to aid your decision in product selection to assist with meeting the efficiency requirements as stipulated in the applicable regulations.

## Overview

**FSR | FSWD | FSWB**

Aerovent's Filtered Air Supply Fans are a great choice for non-tempered filtered air. These fans are tailored to supply low pressure filtered outside air to various buildings, including manufacturing plants, warehouses and auditoriums. These fans ensure fresh make-up air, replacing air lost due to industrial processes, fume hood exhaust or general building ventilation needs.

### Typical Applications Include

Filtered Roof/Wall Supply, Clean Air Environments, Stairwell/Elevator Shaft Pressurization

### Arrangements

Model FSWD Available in Arrangement 4 and Model FSR/FSWB Available in Arrangement 9

### Impeller Type

Aluminum 12-Bladed

### Model FSR

24" to 60" impeller diameters  
Airflow to 49,300 CFM  
Static pressure to 0.75" w.g.



### Model FSWD

24" to 48" impeller diameters  
Airflow to 35,700 CFM  
Static pressure to 1" w.g.



### Model FSWB

24" to 60" impeller diameters  
Airflow to 52,600 CFM  
Static pressure to 0.75" w.g.



**AEROVENT**   
INDUSTRIAL VENTILATION SYSTEMS



For complete product performance, drawings and available accessories, download our Fan Selector software at [aerovent.com](http://aerovent.com).



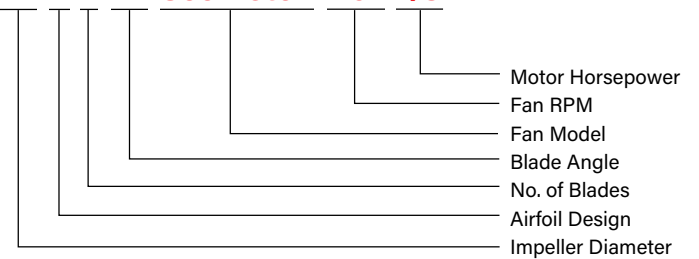
Roof Ventilation Application

## Nomenclature

To identify a specific fan for ordering or engineering specification, it is necessary to show the complete information as shown in the diagram to the right.

Note 1: Specify fan model as FSR (Roof Mounted Filtered Air Supply), FSWD (Direct Drive Wall Mounted Filtered Air Supply) or FSWB (Belted Wall Mounted Filtered Air Supply).

**24 L 4 22 See Note 1 1107 1/3**



## Overview

### FSR



Model FSR

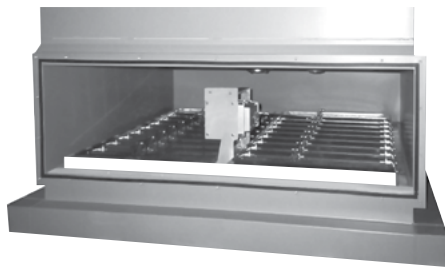
The Aerovent model FSR is a roof mounted, axial flow, belted, filtered supply fan featuring Aerovent's Macheta® impeller. The FSR is specially designed with a steel hood that is well above the roofline, so it will not pick up undesirable hot air from other exhausters or from heat radiating off the roof.

A sturdy steel construction assures frame rigidity, allowing close tolerance between impeller tips and orifice, a must for optimum performance. A specially curved orifice design eliminates turbulence and produces a smooth flow of air, which increases the fan's operating efficiency.

Each FSR unit features an L4 cast aluminum airfoil impeller. The high air moving capacity of the Type L Macheta® impeller allows the fan to operate at reduced speeds to meet low noise requirements. For access to the impeller the hood can be unbolted and removed.

The filters contained in this unit can be cleaned or changed without removing the hood. All units are furnished with aluminum, washable type filters. Disposable filters are also available.

Motor operated shutters and a fan disconnect switch are optional items for roof mounted units. Optional coatings, all aluminum and all galvanized constructions are also available.



Model FSR with Optional  
Motor Operated Dampers

### Sizes and Performance

24" to 60" impeller diameters  
Airflow to 49,300 CFM  
Static pressure to 0.75" w.g.

## Overview

**FSWD | FSWB**

### FSWD/FSWB - Filtered Air Supply Fan

The Aerovent Wall Mounted Filtered Air Supply is an axial flow fan designed for supplying filtered air wherever it is required.

These modular constructed steel units are predrilled for ease of assembly. Each unit consists of a V-bank filter cabinet and a fan section.

The fan section includes a direct drive or belted panel fan and is supplied with a 17" x 22" gasketed access opening. Other panel fans may be selected for use based on 1/8" pressure drop for a face velocity of 520 feet per minute.

The filter cabinet contains aluminum multi-velocity permanent industrial type filters. Disposable filters are available. A filter removal door is supplied.

### Sizes and Performance

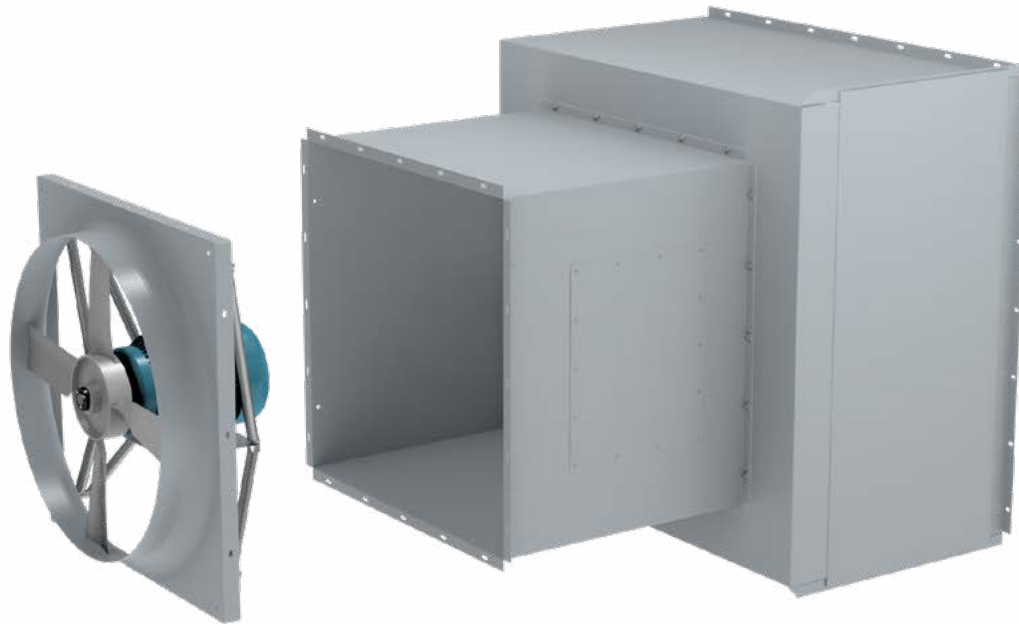
24" to 60" impeller diameters

Airflow to 52,600 CFM

Static pressure to 1" w.g.

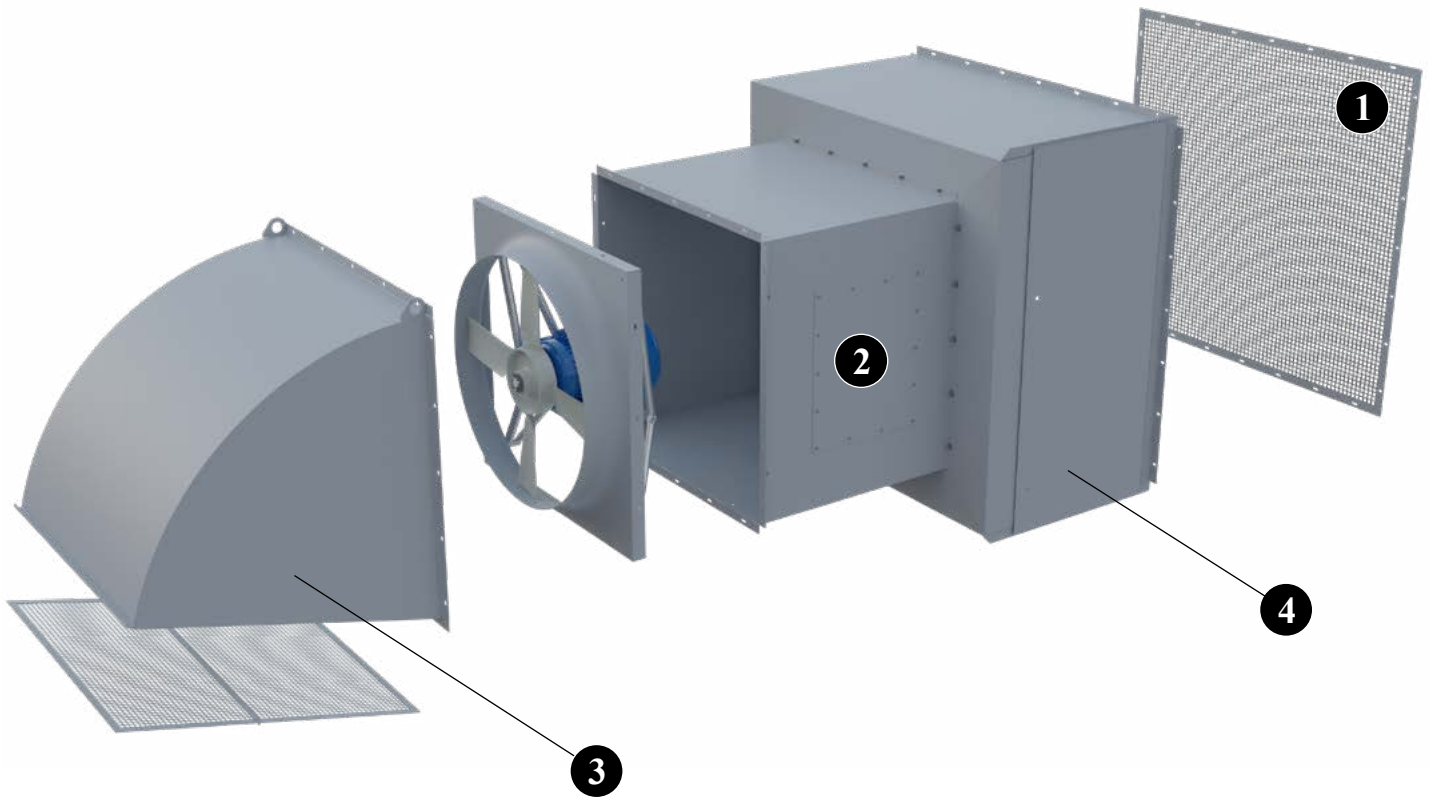


Model FSWB



Model FSWD

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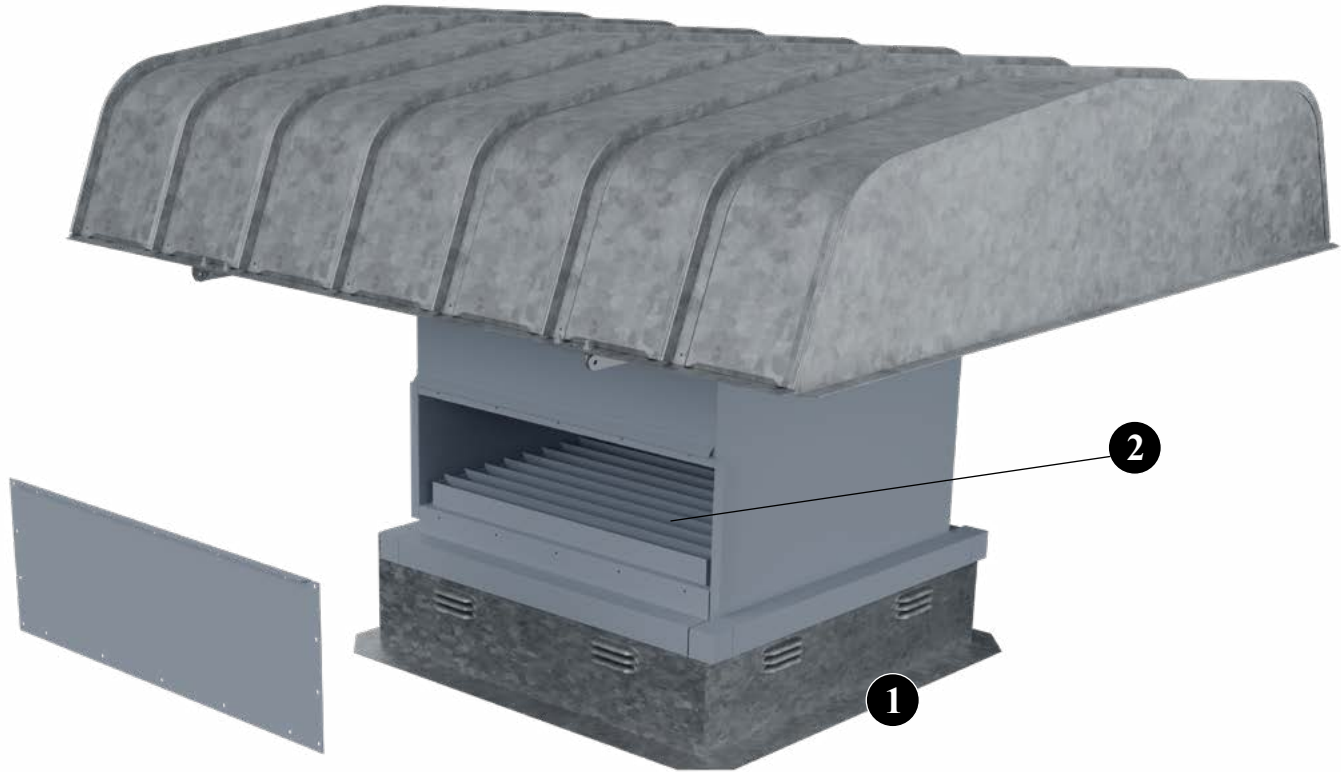


**1 Outlet Safety Guard** Outlet guards are offered to protect personnel from the moving parts. Recommended for use when no ductwork is attached to the inlet and/or outlet. Guards are removable for routine inspection and cleaning of the impeller.

**2 Access Door** Allows for quick inspection, cleaning and maintenance of impeller and internal fan components.

**3 Inlet Weather Hood with Bird Screen** Keeps snow and rain from entering the building and prevents wind from altering the performance of the fan and backdraft damper.

**4 Filter Cabinet** Comes standard with washable aluminum filters. Also available with Merv 8 disposable paper filters.



**1 Vented Roof Curb** Self-flashing style, non-insulated, curbs with ventilation louvers allow ambient air in to cool and dilute grease- or smoke-laden airstreams.

**2 Motor Operated Center Pivoted Shutter** Used to keep unwanted air out of the building when the fan is not in use, dampers are available as either gravity operated or motorized.

## OTHER ACCESSORIES/OPTIONS:

- Raised, Canted Roof Curb (see page 9)
- Self-Flashing Roof Curb (see page 9)
- Merv 8 Disposable Paper Filter
- NEMA 4 Disconnect Switch (see page 8)
- NEMA 3R Disconnect Switch (see page 8)
- Step Down Transformer



**NEMA 3R  
Disconnect Switch**

Disconnect switches provide positive electrical shutoff during fan cleaning or maintenance.

### **NEMA 3R Disconnect Switch**

A NEMA 3R, rain-tight, disconnect is available shipped loose for field mounting and wiring or factory mounted and wired externally when ODP or TEFC motors are used.

### **NEMA 4 Disconnect Switch**

A NEMA 4, water and dust tight, disconnect is available shipped loose for field mounting and wiring or factory mounted and wired externally.



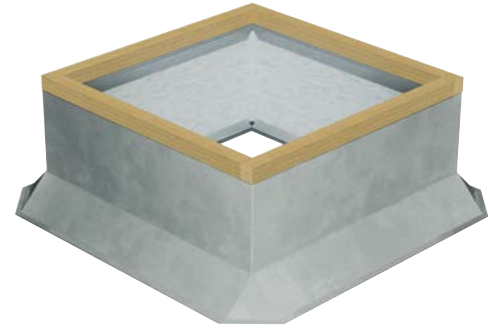
**NEMA 4  
Disconnect Switch**

### **NEMA 7/9 Disconnect Switch**

A NEMA 7/9 disconnect switch is recommended on fans with explosion proof motors. The NEMA 7/9 switch is designed for use with fans operating in hazardous environments. Available shipped loose for field mounting and wiring. (Not shown.)

## Canted Roof Curbs

- Constructed of 18-gauge galvanized steel with continuously-welded seams
- Large 3" built-in 45° cant to accommodate roofing material to top of curb. Cant is beveled at corners for better support of roofing material
- Wood nailer (1 1/2") secured to top ledge
- Lined with 1 1/2" fiberglass fire-resistant, sound-absorbing insulation
- Damper shelf standard
- Options: Aluminum (16-gauge) construction, burglar security bars, metal liner (galvanized or aluminum), special heights up to 24", single- or double-pitched curbs for sloping roofs



## Self-Flashing & Straight-Sided Roof Curbs

- Constructed of 18-gauge galvanized steel with continuously-welded seams
- Wide base plate (flashing) to ensure watertight seal to roof
- Top ledge covered with 3/16" polystyrene gasket (self-flashing) for weather seal and to reduce metal-to-metal conducted noise
- Wood nailer secured to top ledge (straight-sided)
- Lined with 1 1/2" fiberglass fire-resistant, sound-absorbing insulation
- Damper shelf standard
- Straight-sided roof curbs are constructed with the same features as the self-flashing curbs, but are one dimensional to allow for field supplied cants and roofing material to be brought up to the top of the curb
- Options: Aluminum (16-gauge) construction, burglar security bars, metal liner (galvanized or aluminum), special heights up to 24", single- or double-pitched curbs for sloping roofs



## Self-Flashing Vented Roof Curbs

### For High Temperature Applications

- Completely assembled unit, easier to install and less expensive than a field constructed curb
- Constructed of 18-gauge galvanized steel with continuously-welded seams and wide base flashing for watertight seal to roof
- Meets NFPA-96 code requirements
- Top ledge covered with 3/16" polystyrene gasket
- Furnished with ventilation slots

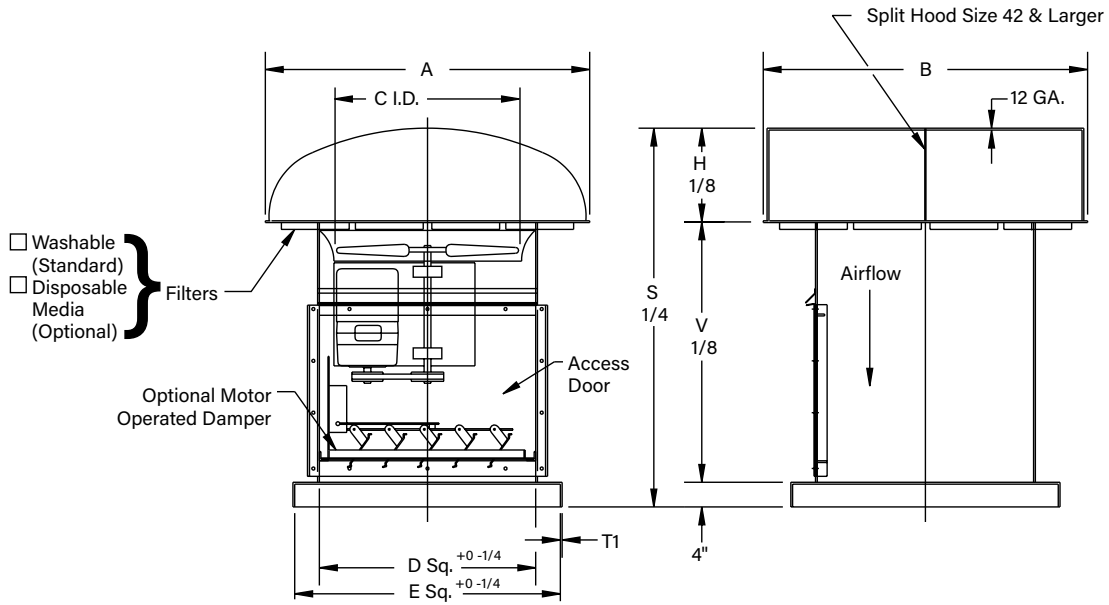


## Curb Adapters

- Constructed of heavy-gauge galvanized steel with continuously-welded seams
- Top ledge covered with 3/16" polystyrene gasket to reduce metal-to-metal conducted noise and act as a weather seal
- Available in enlarger or reducer (shown) models



## FSR Roof Mounted Filtered Air Supply



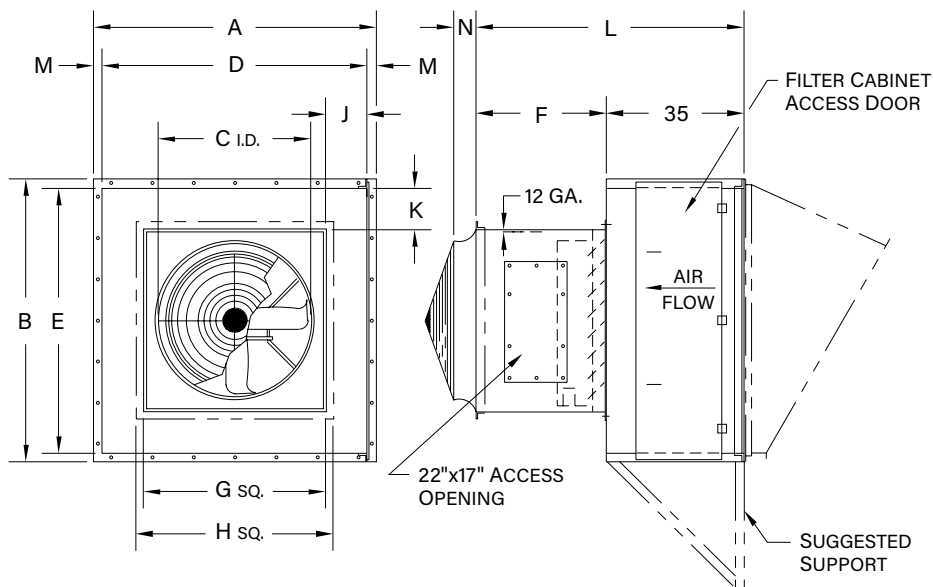
SIZE	A	B	C	D	E	H	V	S	T1	FILTERS		APPROX. WEIGHT (LBS.)
										QTY.	SIZE	
24	66 <sup>1/2</sup>	66 <sup>1/2</sup>	24 <sup>1/4</sup>	28 <sup>3/4</sup>	36 <sup>1/4</sup>	15	35 <sup>9/16</sup>	54 <sup>9/16</sup>	14 GA.	8	16 x 20 x 2	730
30	83	83	30 <sup>3/8</sup>	36 <sup>1/4</sup>	44 <sup>1/4</sup>	18	39 <sup>1/4</sup>	61 <sup>1/4</sup>	14 GA.	14	16 x 20 x 2	1180
36	89	115	36 <sup>3/8</sup>	42 <sup>1/4</sup>	50 <sup>1/4</sup>	22	41 <sup>5/16</sup>	67 <sup>5/16</sup>	14 GA.	22	16 x 20 x 2	1475
42	109 <sup>1/2</sup>	119	42 <sup>3/8</sup>	48 <sup>3/4</sup>	56 <sup>1/4</sup>	24	41 <sup>5/16</sup>	69 <sup>5/16</sup>	14 GA.	22	16 x 25 x 2	1820
48	125 <sup>3/4</sup>	129	48 <sup>3/8</sup>	54 <sup>1/4</sup>	62 <sup>1/4</sup>	24	44 <sup>5/16</sup>	72 <sup>5/16</sup>	14 GA.	28	16 x 25 x 2	2290
54	140 <sup>3/4</sup>	156 <sup>3/4</sup>	54 <sup>3/8</sup>	68 <sup>1/4</sup>	76 <sup>1/4</sup>	26	50 <sup>9/16</sup>	80 <sup>9/16</sup>	12 GA.	44	16 x 20 x 2	3010
60	163 <sup>3/4</sup>	178	60 <sup>3/8</sup>	75 <sup>1/4</sup>	83 <sup>1/4</sup>	28	50 <sup>9/16</sup>	82 <sup>9/16</sup>	12 GA.	36	20 x 25 x 2	4210

Dimensions given are in inches unless otherwise noted.  
Dimensions are not to be used for construction.

R-29134-00C  
R-29796-00B



## FSWD Direct Drive Wall Mounted Filtered Air Supply



SIZE	A	B	C	D	E	F	G SQ.	H SQ.	J	K	L	M	N	20 x 25 x 2 FILTERS		APPR. WEIGHT (LBS)
														QTY	CFM*	
24	43 <sup>1</sup> / <sub>4</sub>	46 <sup>1</sup> / <sub>2</sub>	24 <sup>1</sup> / <sub>4</sub>	40 <sup>1</sup> / <sub>4</sub>	43 <sup>1</sup> / <sub>2</sub>	29	28 <sup>3</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>8</sub>	5 <sup>15</sup> / <sub>16</sub>	7 <sup>11</sup> / <sub>16</sub>	64	1 <sup>1</sup> / <sub>2</sub>	5	6	9,000	630
30	63 <sup>1</sup> / <sub>4</sub>	46 <sup>1</sup> / <sub>2</sub>	30 <sup>3</sup> / <sub>8</sub>	60 <sup>1</sup> / <sub>4</sub>	43 <sup>1</sup> / <sub>2</sub>	33	36 <sup>3</sup> / <sub>8</sub>	39 <sup>3</sup> / <sub>8</sub>	11 <sup>15</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>	68	1 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	9	13,500	830
36	63 <sup>1</sup> / <sub>4</sub>	75 <sup>1</sup> / <sub>2</sub>	36 <sup>3</sup> / <sub>8</sub>	60 <sup>1</sup> / <sub>4</sub>	72 <sup>1</sup> / <sub>2</sub>	35	42 <sup>3</sup> / <sub>8</sub>	45 <sup>3</sup> / <sub>8</sub>	8 <sup>15</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>16</sub>	70	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	15	22,500	1070
42	63 <sup>1</sup> / <sub>4</sub>	75 <sup>1</sup> / <sub>2</sub>	36 <sup>3</sup> / <sub>8</sub>	60 <sup>1</sup> / <sub>4</sub>	72 <sup>1</sup> / <sub>2</sub>	35	48 <sup>3</sup> / <sub>8</sub>	51 <sup>3</sup> / <sub>8</sub>	5 <sup>15</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>16</sub>	70	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	15	22,500	1250
48	84 <sup>1</sup> / <sub>4</sub>	91	48 <sup>3</sup> / <sub>8</sub>	80 <sup>1</sup> / <sub>4</sub>	87	37	54 <sup>3</sup> / <sub>8</sub>	58 <sup>3</sup> / <sub>8</sub>	12 <sup>15</sup> / <sub>16</sub>	16 <sup>7</sup> / <sub>16</sub>	72	2	6	24	36,000	1680
54	84 <sup>1</sup> / <sub>4</sub>	105 <sup>1</sup> / <sub>2</sub>	54 <sup>3</sup> / <sub>8</sub>	80 <sup>1</sup> / <sub>4</sub>	101 <sup>1</sup> / <sub>2</sub>	42	68 <sup>3</sup> / <sub>8</sub>	72 <sup>3</sup> / <sub>8</sub>	5 <sup>15</sup> / <sub>16</sub>	16 <sup>11</sup> / <sub>16</sub>	77	2	6	28	42,000	2150
60	104 <sup>1</sup> / <sub>4</sub>	105 <sup>1</sup> / <sub>2</sub>	60 <sup>3</sup> / <sub>8</sub>	100 <sup>1</sup> / <sub>4</sub>	101 <sup>1</sup> / <sub>2</sub>	42	75 <sup>3</sup> / <sub>8</sub>	79 <sup>3</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>16</sub>	77	2	6	35	52,500	2430

Dimensions given are in inches unless otherwise noted.

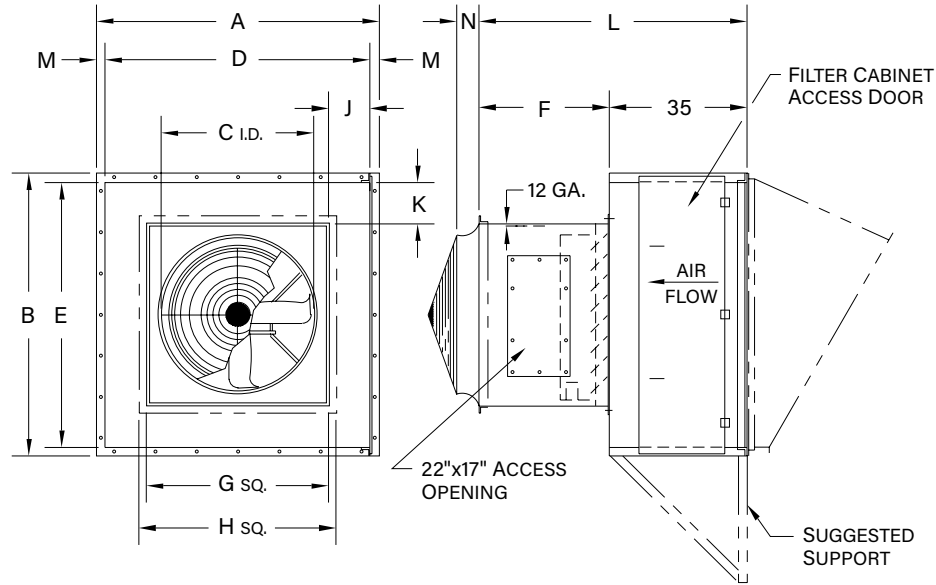
Dimensions are not to be used for construction.

\*Max. CFM thru filters based on 520 feet per minute.

R-14047-00D



## FSWB Belted Wall Mounted Filtered Air Supply



SIZE	A	B	C	D	E	F	G SQ.	H SQ.	J	K	L	M	N	20 x 25 x 2 FILTERS		APPRX. WEIGHT (LBS)
														QTY	CFM*	
24	43 <sup>1</sup> / <sub>4</sub>	46 <sup>1</sup> / <sub>2</sub>	24 <sup>1</sup> / <sub>4</sub>	40 <sup>1</sup> / <sub>4</sub>	43 <sup>1</sup> / <sub>2</sub>	29	28 <sup>3</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>8</sub>	5 <sup>15</sup> / <sub>16</sub>	7 <sup>11</sup> / <sub>16</sub>	64	1 <sup>1</sup> / <sub>2</sub>	5	6	9,000	630
30	63 <sup>1</sup> / <sub>4</sub>	46 <sup>1</sup> / <sub>2</sub>	30 <sup>3</sup> / <sub>8</sub>	60 <sup>1</sup> / <sub>4</sub>	43 <sup>1</sup> / <sub>2</sub>	33	36 <sup>3</sup> / <sub>8</sub>	39 <sup>3</sup> / <sub>8</sub>	11 <sup>15</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>	68	1 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	9	13,500	830
36	63 <sup>1</sup> / <sub>4</sub>	75 <sup>1</sup> / <sub>2</sub>	36 <sup>3</sup> / <sub>8</sub>	60 <sup>1</sup> / <sub>4</sub>	72 <sup>1</sup> / <sub>2</sub>	35	42 <sup>3</sup> / <sub>8</sub>	45 <sup>3</sup> / <sub>8</sub>	8 <sup>15</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>16</sub>	70	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	15	22,500	1070
42	63 <sup>1</sup> / <sub>4</sub>	75 <sup>1</sup> / <sub>2</sub>	36 <sup>3</sup> / <sub>8</sub>	60 <sup>1</sup> / <sub>4</sub>	72 <sup>1</sup> / <sub>2</sub>	35	48 <sup>3</sup> / <sub>8</sub>	51 <sup>3</sup> / <sub>8</sub>	5 <sup>15</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>16</sub>	70	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	15	22,500	1250
48	84 <sup>1</sup> / <sub>4</sub>	91	48 <sup>3</sup> / <sub>8</sub>	80 <sup>1</sup> / <sub>4</sub>	87	37	54 <sup>3</sup> / <sub>8</sub>	58 <sup>3</sup> / <sub>8</sub>	12 <sup>15</sup> / <sub>16</sub>	16 <sup>7</sup> / <sub>16</sub>	72	2	6	24	36,000	1680
54	84 <sup>1</sup> / <sub>4</sub>	105 <sup>1</sup> / <sub>2</sub>	54 <sup>3</sup> / <sub>8</sub>	80 <sup>1</sup> / <sub>4</sub>	101 <sup>1</sup> / <sub>2</sub>	42	68 <sup>3</sup> / <sub>8</sub>	72 <sup>3</sup> / <sub>8</sub>	5 <sup>15</sup> / <sub>16</sub>	16 <sup>11</sup> / <sub>16</sub>	77	2	6	28	42,000	2150
60	104 <sup>1</sup> / <sub>4</sub>	105 <sup>1</sup> / <sub>2</sub>	60 <sup>3</sup> / <sub>8</sub>	100 <sup>1</sup> / <sub>4</sub>	101 <sup>1</sup> / <sub>2</sub>	42	75 <sup>3</sup> / <sub>8</sub>	79 <sup>3</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>16</sub>	77	2	6	35	52,500	2430

Dimensions given are in inches unless otherwise noted.

Dimensions are not to be used for construction.

\*Max. CFM thru filters based on 520 feet per minute.

R-14047-00D



## Model

**FSR**



Roof mounted, filtered supply, axial flow fans are specially designed with a steel hood that is far enough above the roof line that it will not pick up undesirable hot air from other exhausters or from heat radiating off the roof. A sturdy steel construction assures frame rigidity, allowing close tolerance between impeller tips and orifice, a must for optimum performance. A specially curved orifice design eliminates turbulence and produces a smooth flow of air, which increases the fan's operating efficiency.

**CONSTRUCTION** — The filters contained in this unit can be cleaned or changed without removing the hood. All units are furnished with aluminum multi-velocity permanent industrial type filters. Disposable filters are also available.

**IMPELLERS** — Each FSR unit features an L4 cast aluminum airfoil impeller. The high air moving capacity of the Macheta® impeller allows the fan to be belted down to operate at speeds lower than standard cataloged RPMs, assuring quieter operation.

**BEARINGS** — All belted impeller fans are to be supplied with sealed pillow block bearings. Bearings shall have a minimum L-10 life as defined by AFBMA of at least 20,000 hours (100,000 hours average life). External grease fittings with extended grease lines shall be supplied for lubrication of the pillow block bearings. Sheaves shall be cast iron with static conducting belts. The adjustment of the belt tension is accomplished with an adjustable motor base.

**MOTORS** — Belt driven fan motors shall be NEMA Design B, standard industrial, continuous-duty (ODP/TEFC/FCXP), ball bearing, variable torque and shall be provided with the enclosure type, voltage, phase and hertz as listed in the fan schedule. If motors have regreaseable bearings, external grease fittings with extended grease lines shall be supplied for lubrication of the motor bearings.

**BALANCING** — The impeller assembly shall be statically and dynamically balanced in accordance with ANSI / AMCA 204 - 96 "Balance Quality and Vibration Levels for Fans" To Fan Application Category BV - 3, Balance Quality Grade G6.3. In addition, belt driven fan impellers shall be balanced on their fan shaft after final assembly in the fan casing, in the manufacturing facility, to the following peak velocity values, filter - in, at the fan test speed:

Fan Application Category	Rigidly Mounted (in./s)	Flexibly Mounted (in./s)
BV-3	0.15	0.20

**FINISH** — The entire fan assembly, excluding the shaft, impeller and hood shall be properly washed and pretreated before application of a rust-preventative primer, if called out on the order. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly, if called out on the order. The fan shaft shall be coated with a petroleum-based rust protectant. Aluminum and galvanized components shall be unpainted.

**ACCESSORIES** — Units shall be complete with:

- Motor Operated Shutter
- Disconnect Switch
- Bird Screen
- Prefabricated Curb





## Model FSWD

Direct Drive, Wall Mounted, Filtered, Air Supply fans, where indicated on drawings and schedules, shall be model FSWD, as manufactured by Aerovent, Minneapolis, Minnesota, and shall be designed for supplying filtered air wherever it is required. The fans shall be of the size and capacity indicated in the fan schedule. Model FSWD fans shall be tested and certified with industry test codes and shall be guaranteed by the manufacturer to deliver at the rated published performance levels. In addition, each unit shall be factory run tested prior to shipment.

Performance shall be based on 520 feet per minute through clean filters.

**CONSTRUCTION** — These modular constructed steel units are predrilled for ease of assembly. Each unit consists of a V-bank filtered cabinet and a fan section. The fan section shall include a direct drive panel fan and supplied with a 17" x 22" gasketed access opening.

**IMPELLERS** — Precision Macheta® tipped airfoil fan blades and hub shall be cast of aluminum alloy. The impeller shall be mounted directly on the motor shaft with a split taper lock bushing on all sizes.

**MOTOR** — Fan motors shall be foot-mounted NEMA Design B, standard industrial, continuous-duty, ball bearing, variable torque type suitable for operation on voltage, phase and hertz as listed in the fan schedule. Motor bearings shall have a minimum L-10 life, as defined by AFBMA, of at least 40,000 hours (200,000 hours average life).

**BALANCING** — The impeller assembly shall be statically and dynamically balanced in accordance with ANSI / AMCA 204 - 96 "Balance Quality and Vibration Levels for Fans" To Fan Application Category BV - 3, Balance Quality Grade G6.3. In addition, direct drive fan impellers shall be balanced on the motor shaft after final assembly in the fan casing, in the manufacturing facility, to the following peak velocity values, filter - in, at the fan test speed:

Fan Application Category	Rigidly Mounted (in./s)	Flexibly Mounted (in./s)
BV-3	0.15	0.20

**FINISH** — The entire fan assembly, excluding the shaft and impeller, shall be properly washed and pretreated before application of a rust-preventative primer, if called out on the order. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly, if called out on the order. The fan shaft shall be coated with a petroleum-based rust protectant.

**ACCESSORIES** — Units shall be complete with:

- Directional discharge grille
- Inlet weather hood with bird screen
- PMS outlet guard
- Predrilled discharge flange
- Motor operated center pivoted shutter
- Flat inlet bird screen (no weather hood on inlet)



## Model

### FSWB



Belted, Wall Mounted, Filtered, Air Supply fans, where indicated on drawings and schedules, shall be model FSWB, as manufactured by Aerovent, Minneapolis, Minnesota, and shall be designed for supplying filtered air wherever it is required. The fans shall be of the size and capacity indicated in the fan schedule. Model FSWB fans shall be tested and certified with industry test codes and shall be guaranteed by the manufacturer to deliver at the rated published performance levels. In addition, each unit shall be factory run tested prior to shipment.

Performance shall be based on 520 feet per minute through clean filters.

**CONSTRUCTION** — These modular constructed steel units are predrilled for ease of assembly. Each unit consists of a V-bank filtered cabinet and a fan section. The fan section shall include a belted panel fan and supplied with a 17" x 22" gasketed access opening.

**BEARINGS** — All FSWD fans are to be supplied with sealed pillow block bearings. The bearings shall have a minimum L-10 life as defined by AFBMA of at least 20,000 hours (100,000 hours average life).

**MOTOR** — Fan motors shall be foot-mounted NEMA Design B, standard industrial, continuous-duty, ball bearing (ODP/TEAO/TEFC/FCXP), variable torque type suitable for operation on voltage, phase and hertz as listed in the fan schedule. Motor bearings shall have a minimum L-10 life, as defined by AFBMA, of at least 40,000 hours (200,000 hours average life).

**DRIVE** — All drive selections on FSWB fans shall be designed with a 1.4 service factor unless otherwise specified. Sheaves shall be cast iron with static conducting belts. The adjustment of the belt tension is accomplished with an adjustable motor base.

**BALANCING** — The impeller assembly shall be statically and dynamically balanced in accordance with ANSI / AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV - 3, Balance Quality Grade G6.3. In addition, belt driven fan impellers shall be balanced on the fan shaft after final assembly in the fan casing, in the manufacturing facility, to the following peak velocity values, filter-in, at the fan test speed:

Fan Application Category	Rigidly Mounted (in./s)	Flexibly Mounted (in./s)
BV-3	0.15	0.20

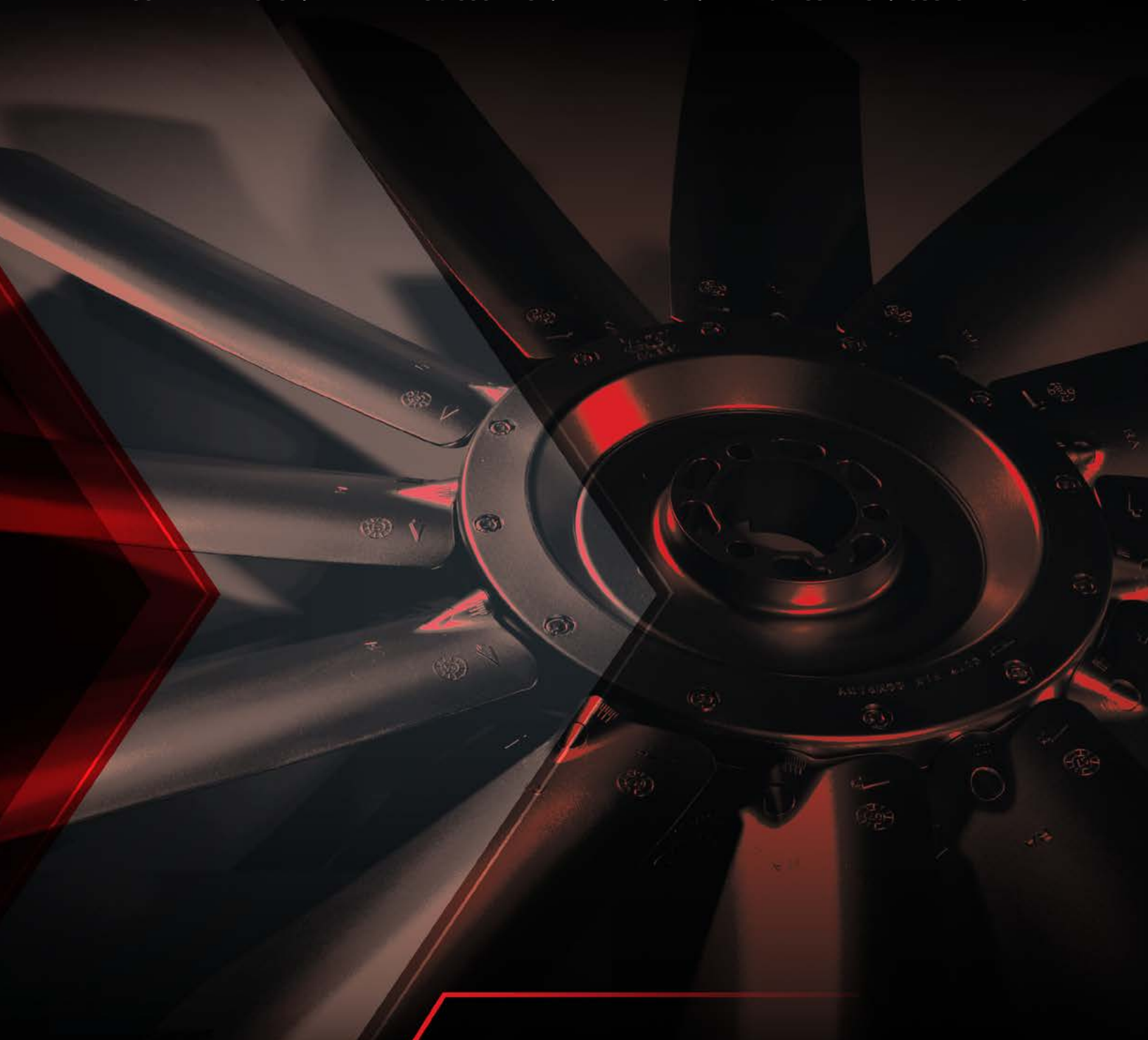
**FINISH** — The entire fan assembly, excluding the shaft and impeller, shall be properly washed and pretreated before application of a rust-preventative primer, if called out on the order. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly, if called out on the order. The fan shaft shall be coated with a petroleum-based rust protectant.

**ACCESSORIES** — Units shall be complete with:

- Directional discharge grille
- Inlet weather hood with bird screen
- PMS outlet guard
- Flat inlet bird screen (no weather hood on inlet)
- Motor operated center pivoted shutter
- Predrilled discharge flange



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