



3900 Dr. Greaves Rd. • Kansas City, MO 64030 • (816) 761-7476 • FAX (816) 765-8955

**INDUSTRIAL SWARTWOUT FIBERGLASS SERIES
MODEL 426AF FIBERGLASS BACKDRAFT DAMPER**

Airfoil Blade

STANDARD CONSTRUCTION

FRAME

Fiberglass Channel, Vinyl Ester Resin. See table for dimensions.

BLADES

Airfoil Shape, Vinyl Ester Resin, 7 1/2" (191) wide.

AXLES

3/4" (19) diameter axles. 316SS axles on blades with counterweights; pultruded fiberglass axles on all other blades (vinyl ester resin).

BEARINGS

Molded PTFE.

LINKAGE

316SS out of airstream.

COUNTERBALANCE ASSEMBLY

316SS out of airstream.

MAXIMUM TEMPERATURE

200°F (94°C).

MINIMUM SIZE

6"w x 8"h (152 x 203).

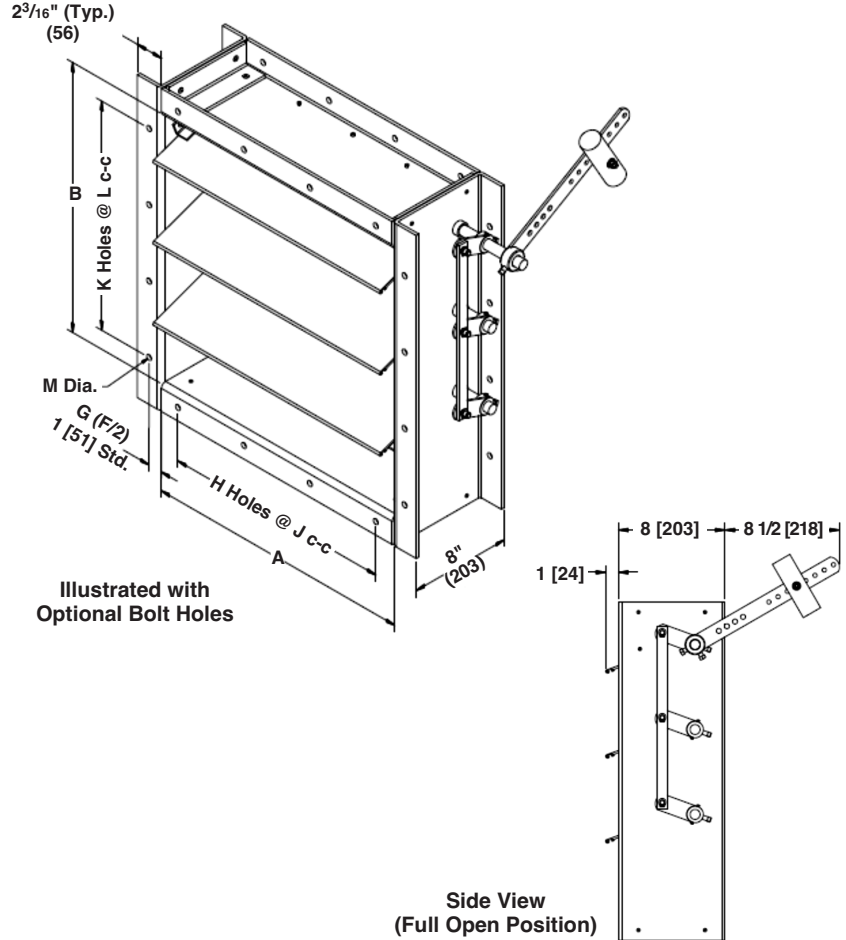
MAXIMUM SIZE

48"w x 72"h (1219 x 1829).

Consult Ruskin for dampers larger than maximum size shown.

Dimensions in parenthesis () indicate millimeters.

All options at additional cost.



FRAME	BLADES	SEALS (Optional)	AXLES	BEARINGS	LINKAGE	ACCESSORIES (Optional)
8" x 2 3/16" x 1/4" (203 x 56 x 6) Fiberglass Channel	7 1/2" (191) wide, Airfoil shape	Silicone Blade Seal Vitopn Blade Seal	3/4" (19) diameter fiberglass rod		316SS side linkage	Bolt Holes - 1 Flange Bolt Holes - 2 Flanges
		EPDM Blade Seal SS Jamb Series	3/4" (19) diameter 316 SS			
		Polycarbonate Jamb Seal				
		Axle Shaft Seal				

QTY.	DIMENSIONS										TEMP. °F	COMMENTS	TAG
	A	B	C	F	G	H	J	K	L	M			

PROJECT:	LOCATION:
ARCH/ENGR:	CONTRACTOR:
REPRESENTATIVE:	DATE:

MODEL 426AF PERFORMANCE DATA

Damper Width	Maximum System Back Pressure	Maximum System Velocity	Leakage with Seals*		Leakage without Seals*	
			% of max. flow	CFM/sq. ft.	% of max. flow	CFM/sq. ft.
48" (1219)	5.5" w.g.	4000 fpm	0.18	7	1.00	40
36" (914)	9.0" w.g.	4000 fpm	0.18	7	1.25	50
24" (610)	14.0" w.g.	4000 fpm	0.25	10	1.50	60
12" (305)	16.0" w.g.	4000 fpm	0.30	12	2.50	100

Damper may tolerate higher pressures and velocities than those listed here. Conservative ratings are presented intentionally in an effort to avoid misapplication. Consult Ruskin or your Ruskin representative when a damper is to be applied in conditions exceeding recommended maximums.

*Leakage information based on pressure differential of 1" w.g. tested per AMCA Std. 500.

LEAKAGE CORRECTION FACTOR

Static Pressure (in. w.g.)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction Factor	1.0	1.4	1.7	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.6	3.7	3.9	4.0

DETERMINING LEAKAGE:

To determine leakage at static pressure differentials higher than one inch water gage, multiply leakage at one inch (determined from appropriate table above) by correction factor for higher static pressure (determined from the Leakage Correction Factor Table).

Example:

Find leakage for a 36" (914) wide damper equipped with optional blade and jamb seals at 3 inches water gage: 7 CFM/sq. ft. x 1.7 = 11.9 CFM/sq. ft. leakage at 3 inches water gage.

MODEL 426AF SUGGESTED SPECIFICATION

Furnish and install, at locations shown on plans or in accordance with schedules, fiberglass airfoil blade design backdraft dampers. Dampers shall be of the pultruded construction and comply with ASTM D4385-84 and ASTM E-84. Material used in construction shall be a flame retardant vinyl ester based resin. All materials in the airstream must meet or exceed required contamination concentrations. Bearing design shall be based on system pressure and shall be of a Teflon based material with graphite impregnation. All exposed glass shall be coated with resin compatible to that used in the pultrusion process. No exposed or non-coated edges are acceptable. Damper blade skins shall be a minimum of $\frac{5}{32}$ " (4) thick hollow airfoil shape and be complete with a full length pultruded axle pocket. Axle pockets shall be reinforced to meet or exceed the required loading. Blade shape shall also include a pultruded slot for insertion of optional blade seals. All inside surfaces shall utilize the same surfacing veils incorporated on the service side of

the blade. Single skin, open contact, or hand lay-up blades are not acceptable. Damper frame shall be 8" deep x $2\frac{3}{16}$ " (203 x 56) flanged style minimum $\frac{1}{4}$ " (6) thick. Fiberglass axles shall be minimum $\frac{3}{4}$ " (19) diameter pultruded construction of a vinyl ester based resin combined with continuous strand roving and complete with surfacing veil. Damper linkage shall be located out of airstream and constructed of 316SS. Face linkage in airstream is not acceptable. Standard damper construction shall withstand 14" WG and 4000 FPM based on a 24" (610) blade length. Submittal information shall include published performance data based on AMCA Standard 500 testing illustrating maximum pressure data, flow ratings, and leakage characteristics for a full range of damper sizes. Data illustrating one size damper only is not acceptable. Manufacturer shall submit a sample damper for construction review and approval. Damper shall be Ruskin Swartwout Series model 426AF.



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