RUSKIN®

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

S3G BACKDRAFT DAMPER

APPLICATION

Ruskin's S3G Commercial backdraft damper has a 3" (76) frame and is constructed of galvanized steel. It features a wide operating range with velocities up to 3000 fpm, mechanically locked blade seals and construction designed for performance.

STANDARD CONSTRUCTION

FRAME
20 gauge (1.0) galvanized steel.

BLADES
28 gauge (.50) galvanized steel.

BLADE SEAL
Ruskiprene blade edge seal mechanically locked into blade edges.

LINKAGE
Damper sections up to 24" (610) wide: galvanized steel single tie bar linkage. Damper assemblies larger than 24" (610) wide: galvanized steel double tie bar linkage.

AXLES
Damper sections up to 42" (1067) wide: Zytel synthetic axle assembly mechanically locked onto blade edge. Damper assemblies larger than 42" (1067) wide: stainless steel axle and blade bracket assembly.

FINISH
Mill.

MAXIMUM SIZE
Single Section –
42"w x 64"h (1067 x 1626) with standard construction.
40"w x 48"h (1016 x 1219) with aluminum blades.
72"w x 54"h (1880 x 1372) with center blade support both aluminum and galvanized.
Multiple Section Assembly – Unlimited Size.

MINIMUM SIZE
Single Section – 8"w x 8"h (203 x 203)
Two blades, parallel or opposed action: 8"w x 9"h (203 x 229).

TEMPERATURE LIMITS
-40°F and +200°F (-40°C to +94°C).

FEATURES

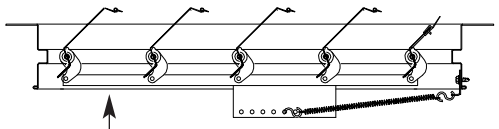
- Wide operating range – velocities up to 3000 fpm (refer to maximum velocity tables)
- Corrosion resistant galvanized steel construction standard
- Pre-punched mounting holes in flange frame units
- Mechanically locked blade seals

NOTES:

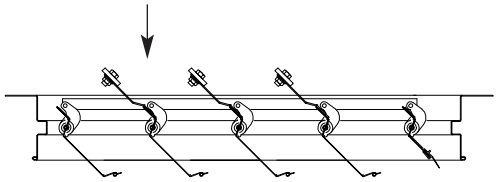
1. Dimensions in inches, parenthesis ( ) indicate millimeters.
2. Units furnished 1/4" (6) smaller than given opening dimensions.

VARIATIONS

- Counterweights and spring-assist kits for vertical airflow and extremely low pressure reliefs
- Factory installed electric actuators
- Aluminum Blades
- Front or rear screens



AIR FLOW UP
(Spring Assist Kit included on vertical air flow galvanized blades)



AIR FLOW DOWN
(Counter Balanced)

PERFORMANCE DATA

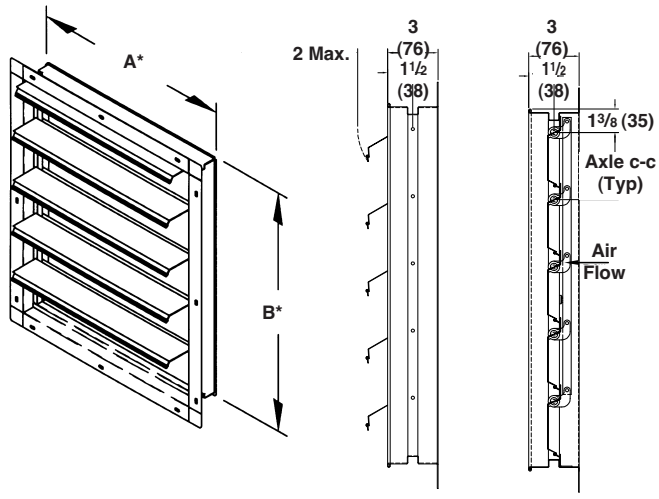
AIR VELOCITY (FPM) THROUGH DAMPER FACE AREA	STATIC PRESSURE DROP (INCHES W.G.)
600	.110
800	.110
1000	.075
1200	.070
1500	.100
1800	.140
2000	.180
2500	.290
3000	.390

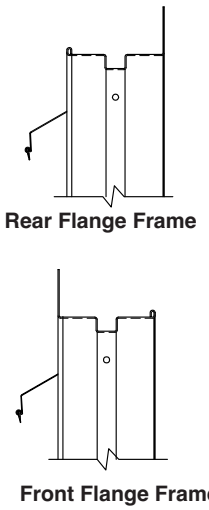
S3G PRESSURE DROP
Based on 36" x 36" (914 x 914) unit.

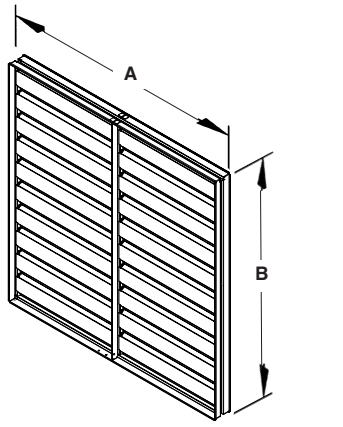
MAXIMUM VELOCITY FOR STANDARD GALVANIZED STEEL BLADE UNITS		
DAMPER WIDTH	MAXIMUM FPM	
	STAINLESS STEEL AXLES	PLASTIC (ZYTEL) AXLES
8" (203) - 24" (610)	3,000	3,000
Over 24" (610) - 36" (914)	3,000	1,200
Over 36" (914) - 42" (1067)	1,500	1,200
Units larger than 42" (1067) wide will be a one-piece unit with center mullion up to 72"w x 54"h (1829 x 1372), and multisection assemblies for dampers larger than 72" (1829) wide.		

MAXIMUM VELOCITY FOR ALUMINUM BLADE UNITS		
DAMPER WIDTH	MAXIMUM FPM	
	STAINLESS STEEL AXLES	PLASTIC (ZYTEL) AXLES
8" (203) - 24" (610)	3,000	3,000
Over 24" (610) - 36" (914)	3,000	1,000
Over 36" (914) - 40" (1016)	1,500	1,000
Units larger than 40" (1016) wide will be assembled as a multisection unit.		

DIMENSIONAL DETAILS







Single section with center blade support. Maximum size of 72" x 54" (1829 x 1372).

SUGGESTED SPECIFICATION

Furnish and install, at locations shown on plans or in accordance with schedules. Backdraft dampers shall be produced in an ISO 9001 Certified factory and meet the following minimum construction standards: Frame shall be 20 gauge (1.0) roll-formed galvanized steel. Backdraft dampers with flange frame, when required, shall have pre-punched mounting holes and welded corner clips for maximum rigidity. Blades shall be 28 gauge (.50) roll-formed galvanized steel. Blade edge seals shall be Santoprene, mechanically locked into blade edge. Blade ends shall overlap for optimum weather protection. Axle material shall be synthetic Zytel for damper up to 42" (1067) wide and stainless steel for damper widths larger than 42" (1067). Dampers up to 24" (610) wide shall have single galvanized steel - tie bar assemblies. Dampers larger than 24" (610) in width shall have double galvanized steel tiebar assemblies. Tie bars shall be concealed in jamb. Backdraft dampers shall be designed for maximum 3,000 fpm face velocities. Dampers shall be in all respects equivalent to Ruskin model S3G.

SPECIFIER SELECT OPTION

Electric actuators shall be (24 VAC, 120 VAC, 220 VAC – specifier select one) and shall be factory furnished and mounted or supplied as a kit for field installation.

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