RUSKIN®

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

BD6 HEAVY DUTY BACKDRAFT DAMPER

Extruded Aluminum

STANDARD CONSTRUCTION

FRAME
6063T5 extruded aluminum, .125" (3.2) wall thickness.

BLADES
6063T5 extruded aluminum, .070" (1.8) wall thickness, extruded vinyl blade edge seals.

BEARINGS
Synthetic.

LINKAGE
1/2" (13) tie bars.

FINISH
Mill.

TEMPERATURE LIMITS
-40°F to +200°F (-40°C to +93°C).

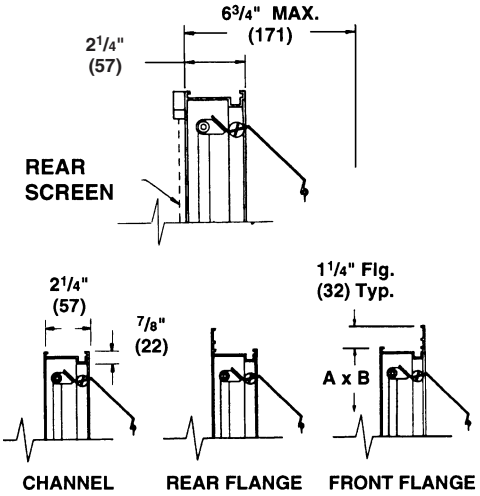
MAXIMUM SYSTEM VELOCITY
2500 fpm.

MAXIMUM SPOT VELOCITY
3500 fpm.

MINIMUM SIZE
6"w x 6"h (152 x 152).

MAXIMUM SIZE
Single section – 48"w x 52"h (1219 x 1321).
Multiple section assembly - Unlimited size.

Dimensions in parentheses ( ) indicate millimeters.



FRAME CONSTRUCTIONS

*Unit is furnished approximately 1/4" (6) smaller than given "opening" dimensions.

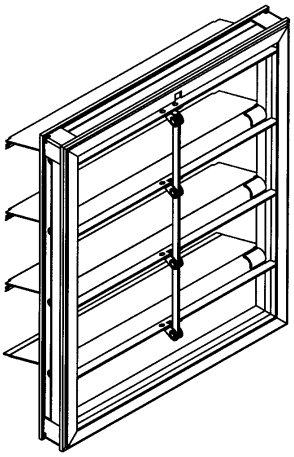
FEATURES

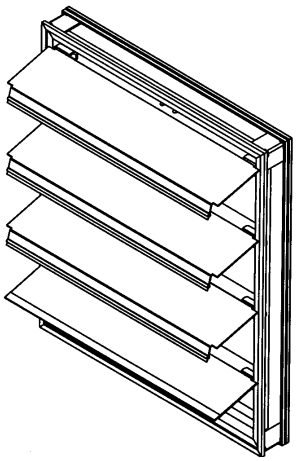
The BD6 backdraft damper is ideally suited to heavy duty applications that demand less than 12 cfm per square foot of leakage at .5" w.g. When the BD6 is equipped with the SPC (static pressure control) option, field adjustment can be made to maintain static pressures in the ranges up to .25" w.g. for dampers up to 17.3 sq. ft. and up to .75" w.g. for dampers up to 6 sq. ft. Aluminum construction helps maintain the damper's good-looking appearance and offers excellent resistance to corrosion. Contemporary styling features blades that overlap the frame for optimum weather resistance.

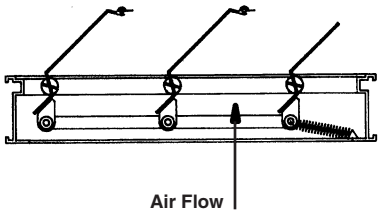
VARIATIONS

The following variations to the BD6 backdraft damper are available at additional cost:

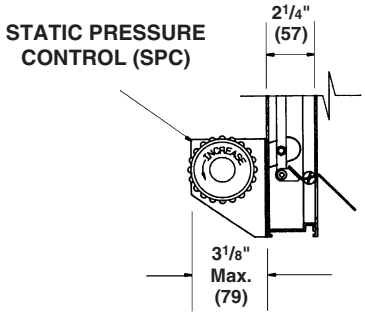
- SPC static pressure control (one SPC per section)
- Rear or front mounted screen
- Special finishes
- Electric and pneumatic actuators







HORIZONTAL MOUNT – AIR FLOW UP
(Not available air flow down)



BD6/SPC

SUGGESTED SPECIFICATION

Furnish and install at locations on plans or in accordance with schedules heavy duty backdraft dampers that meet the following minimum construction standards. Frame shall be .125" (3.2) wall thickness 6063T5 extruded aluminum. Frame shall have galvanized steel braces at all corners.

Blades shall be .070" (1.8) wall thickness 6063T5 extruded aluminum. Blades shall begin to open at approximately .12" w.g. and be fully open at approximately .20" w.g. static pressure. Blade edge seals shall be extruded vinyl mechanically locked into blade edge. Adhesive type seals are unacceptable.

Bearings shall be corrosion resistant long life synthetic for quiet operation. Linkage shall be 1/2" (13) tie bar with stainless steel pivot pins. Damper shall be designed for 3500 fpm maximum spot velocities. Damper shall be in all respects equivalent to Ruskin BD6.

Specifier select damper shall have SPC field-adjustable static pressure control to maintain pressures in ranges from .25" w.g. to .75" w.g. Minimum damper size for BD6 with SPC is 12" x 12" (305 x 305).

PERFORMANCE DATA

AMCA Standard 500 provides a reasonable basis for testing and rating dampers. Testing to AMCA 500 is performed under a certain set of laboratory conditions. This does not guarantee that other conditions will not occur in the actual environment where dampers must operate.

Design should provide a reasonable safety factor for damper performance by selecting at some point below damper leakage or pressure drop system requirements.

DAMPER PERFORMANCE

DAMPER WIDTH	MAXIMUM BACK PRESSURE	MAXIMUM SYSTEM VELOCITY	LEAKAGE % OF MAX. FLOW	LEAKAGE CFM/ SQ. FT.
48"	4" w.g.	2500 fpm	.6	15
36"	8" w.g.	2500 fpm	.6	15
24"	12" w.g.	2500 fpm	.7	17.5
12"	16" w.g.	2500 fpm	1.0	25

OPERATIONAL PRESSURES INCHES W.G.	
BLADES START TO OPEN	BLADES FULLY OPEN
.12" w.g.	.20" w.g.

****LEAKAGE INFORMATION BASED ON PRESSURE DIFFERENTIAL OF 1" W.G.**

INSTALLATION INSTRUCTIONS

1. When used in fan discharge applications, damper should be located at least one-half the fan diameter away from the fan.
2. For proper operation, damper must be installed square and free from racking.
3. Bracing of multiple section assemblies:
   The BD6 is intended to be self supporting only in the largest single section size. Multiple section damper assemblies may require bracing to support the weight of the assembly and to hold against system pressure. Ruskin recommends appropriate bracing to support the damper horizontally at least once for every 8 feet of damper width. Vertical assemblies and higher system pressures may require more bracing.

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