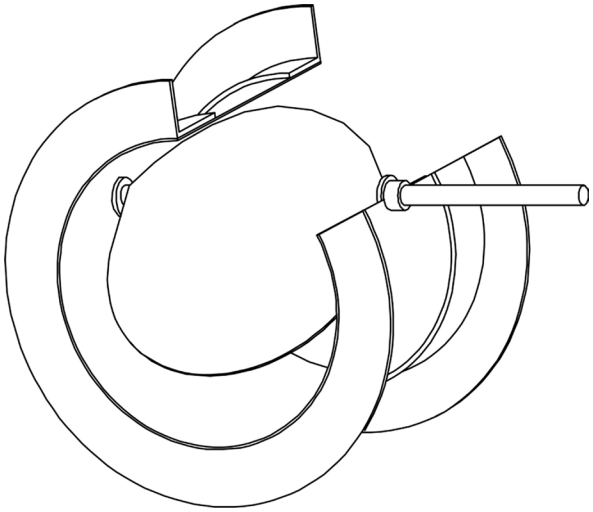
MODEL 580-BD

Backdraft Damper • Single Thickness Blade • Round • 200°F Max Temperature

Standard Materials and Construction

FRAME: Fabricated steel channel.
BLADE: Single thickness with reinforcing gussets welded to blade parallel to air flow as required.
SHAFT: Plated steel continuous length welded to blade.
BEARINGS: Sintered stainless steel flanged sleeve, pressed into the frame.
STOP: Angle stops to prevent over-rotation of blade.
OPERATOR: Extended shaft 6" long beyond frame flanges with counterbalance to assist or resist airflow.
FINISH: Mill / Galvanized / Zinc rich touch up.
TEMP. LIMIT: 200°F
Consult the factory for temperature limits over 200°F.



The construction described above is conservative. There are applications where this design may be used in sizes that can operate satisfactorily when static pressures are above 8 in w.g.

Options

Materials - stainless steel and others
Ball bearings
Finishes - Acrylic, baked enamel, etc.
Perimeter holes: one flange or two flanges
Low leakage seal systems

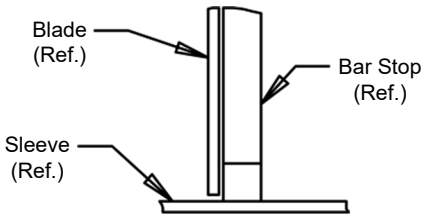
Notes

1. Construction may be with other materials when required to meet special conditions, such as: temperature, pressure, velocity, system environment, or other specifications.
2. ¼" nominal deduction will be made to the opening size given.
3. Approximate shipping weight is 5 lbs./in. of inside diameter.

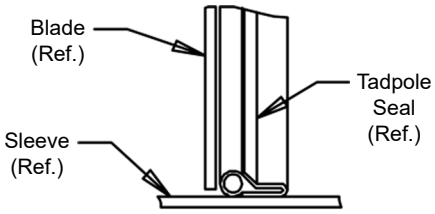
Damper Sizes

Inside Diameter		Frame		Blade Thickness	Shaft Diameter
Above	Through	Depth	Flanges		
10"	12"	10" 10 GA.	1¼" x 1¼" x ⅛" for 10" & 11" dia. 1½" x 1½" x ⅛" for 12" dia.	12 GA.	½"
12"	24"	10" 10 GA.	1½" x 1½" x ⅛" for 12" to 15" dia.	10 GA. to 36" dia.	¾"
24"	48"		1½" x 1½" x 3⁄16" for 16" to 24" dia. 2" x 2" x 3⁄16" for 25" to 48" dia.	10 GA. w/ (2) gussets for 37" to 48" dia.	1"

Optional Seal Systems



¼" x ½" or ½" x ½" steel bar stop.



Ept. Fiberglass or Inconel tadpole seal in steel U-clip frame.

							Union Made
Item #	**Qty**	**Damper Size I.D.**	**Tagging**		**Remarks**		
Arch. / Eng.:			**EDR:**		**ECN:**	**Job:**	
Contractor:							
Project:			**Date:**		**DWN:**	**DWG:**	

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Division of Mestek
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450 Riverside Dr • Wyalusing PA, 18853 • Phone 570-746-1888 • Fax 570-746-9286

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Performance Data

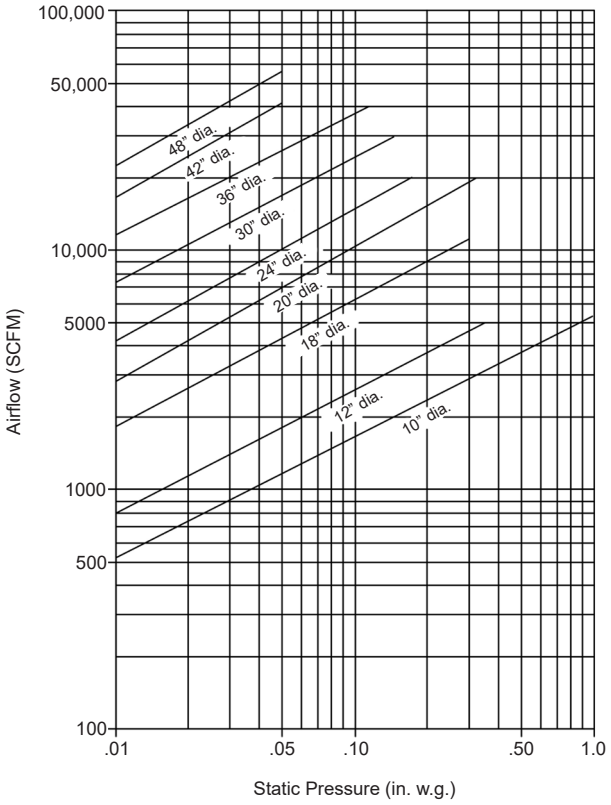
Pressure and Velocity Limitations

The model 580-BD damper has been designed to operate satisfactorily within the limits shown below. Consult the factory when applications exceed the limits shown.

Damper Diameter	Max System Static Pressure	Max System Velocity
10” to 12”	8”	6000 FPM
13” to 24”	8"	5500 FPM
25” to 36”	8"	5000 FPM
37” to 48”	8”	4000 FPM

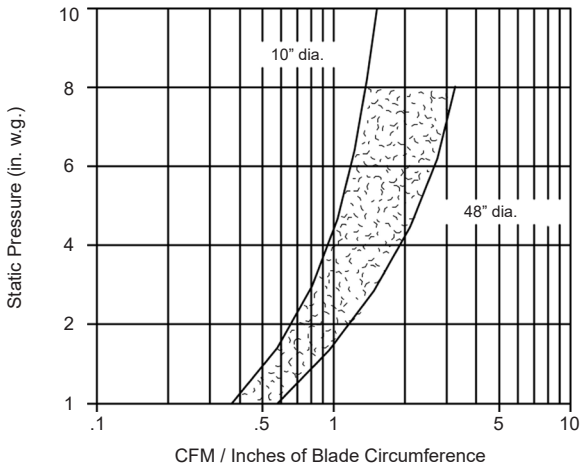
Damper performance for pressure drop and air leakage is based on AMCA Standard 500 using fig. 5.3 (damper installed with duct upstream and downstream for pressure drop) and fig. 5.4 for air leakage. Static pressure and CFM are corrected to .075 lbs./cu.ft. air density.

Pressure Drop



Damper Leakage Chart

Modified Construction
using metal bar stop



Leakage results shown are based on tests using various damper sizes. The shaded area between the graph lines indicate normal expected leakage range for a standard damper operating conditions and sizes.

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