

Application and Design

Model MBD-15 is a manual balancing damper designed to regulate the flow of air in a HVAC system. They are not intended to be used in applications as a positive shut off or for automatic control. Design incorporates heavy gauge galvanized steel construction for durability and longevity. MBD-15 meets SMACNA's recommended construction requirements for manual balancing dampers.

Ratings

Pressure: 2.0 - 4.0 in. w.g. - pressure differential.

Velocity: 2000 fpm.

Temperature: 180°F.

Standard Construction

Frame: 5" x 1" 20 ga. galvanized steel hat channel with reinforced corners.

Blades: 16 ga. galvanized steel reinforced with three longitudinal structurally designed vee's.

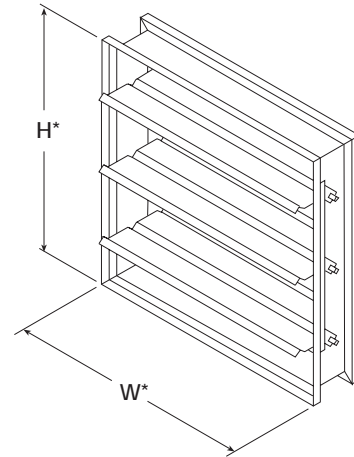
Linkage: Concealed in jamb.

Axles: 1/2" dia. plated steel.

Bearings: Synthetic (acetal) sleeve type.

Control Shaft: 1/2" dia. plated steel extends 6" beyond frame. Comes with 1 1/2" standoff bracket for external insulation (see back page).

Operator: 1/2" dia. locking manual quadrant.



Size Limitations

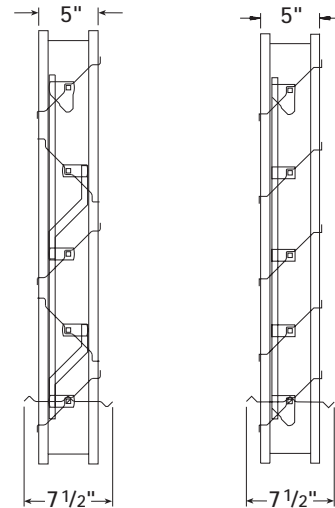
Minimum Size: One blade 6" w x 6" h
Two blades 6" w x 10" h

Maximum Size: Single section 48" w x 60" h
Multiple section 96" w x 96" h

Consider using Model MBD-10 for sizes smaller than 36" w x 12" h.

Options (at additional cost)

- Oil impregnated bronze bearings.
- 16 ga. galvanized steel frame.



Opposed Blade

Parallel Blade

*W&H dimension furnished approximately 1/4" undersize.

Quantity	Size		Blades		
	W	H	Parallel	Opposed	
Project					Location
Contractor					Design Specifier

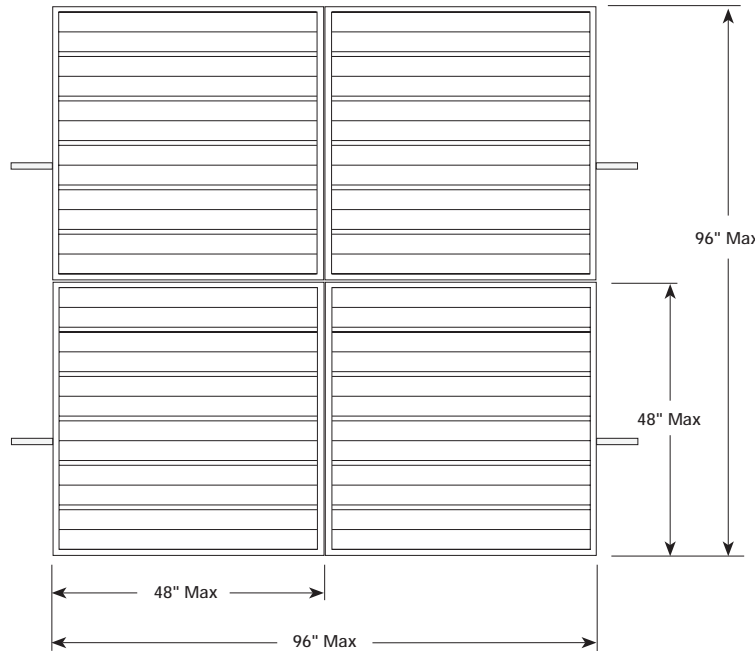
Performance Data

Damper Width	Maximum System Pressure	Maximum System Velocity
48"	2.0" W.G.	2000 fpm
36"	2.5" W.G.	2000 fpm
24"	3.0" W.G.	2000 fpm
12"	4.0" W.G.	2000 fpm

NOTE: Maximum recommended system pressure and velocity ratings are conservative to prevent misapplication. Dampers are structurally capable of withstanding higher limits, however it is recommended that Greenheck be contacted for an engineering evaluation before exceeding these limits.

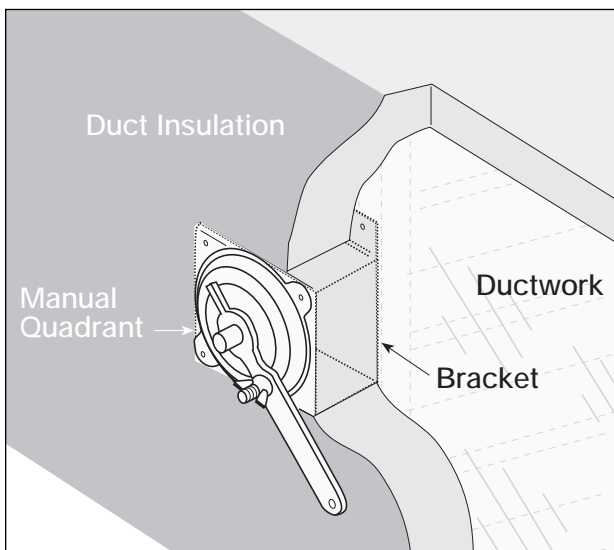
Temperature: Applications above 180°F may require special considerations.

Maximum Size and Installation Information



Maximum size for a MBD-15 is 96" w x 96" h. Dampers over 48" wide and/or 60" high are shipped as 2 equal sections (requiring field assembly). Each section in a multi-section damper requires its own manual quadrant when damper is over 84" wide and/or 60" h. For dampers larger than 96" w x 96" h, use Greenheck model VCD-20 series.

Standoff Bracket



1 1/2" standoff bracket is standard. It is used to extend the manual quadrant away from the ductwork to accommodate external insulation.

Specifications

Manual balancing dampers meeting the following specifications shall be furnished and installed where shown on plans and/or as described in schedules. Dampers shall consist of: a 20 ga. galvanized steel hat channel frame with 5" depth; triple V type blades fabricated from 16 ga. galvanized steel; 1/2" dia. plated steel axles; external (out of the airstream) blade-to-blade linkage. Damper manufacturer's printed application and performance data including pressure, velocity and temperature limitations shall be submitted for approval showing damper suitable for pressures to 4.0" w.g., velocities to 2000 fpm and temperatures to 180°F. Testing and ratings to be in accordance with AMCA Standard 500. Basis of design is Greenheck model MBD-15.

NOTE: Temperatures in excess of 180°F require special consideration.