Combination Fire/Smoke Damper

MR1

Class I • 250˚F or 350˚F • Galvanized Steel • Single Thickness Blade • UL Classified Damper

STANDARD CONSTRUCTION

FRAME: 20-GA galvanized steel flat by 18" long integral sleeve
BLADES: 16-GA galvanized steel single thickness; Parallel action
AXLES: Plated solid steel stub
BEARINGS: Oil impregnated bronze
LINKAGE: Galvanized steel angle interconnect, with plated steel brackets and pivots located on blade
STOPS: 18-GA galvanized steel at head and sill
BLADE SEALS: Silicone
JAMB SEALS: Stainless steel
SLEEVE: Integral 20-GA galvanized steel by 18" long
RETAINING ANGLES: ⅞" x 1½" x 16-GA adjustable perimeter mounting angle
CAULKING: Hardcast Irongrip 601 or UL-listed equivalent
FINISH: Mill on galvanized steel
ACTUATOR: Electric with heat response device (EHRD) or pneumatic with heat response device (PHRD); Factory-installed for Power-Open/Spring-Close (fail close) operation; External left hand mounted as viewed from jackshaft side of damper

OPTIONS

Integral Dual Position Indication (IDPI) switches
Sensotherm re-openable heat response device (ESOT) for electric actuator
Sensotherm re-openable heat response device (PSOT) for pneumatic actuator
Model SM-501 Flow-rated smoke detector shipped loose
Model SM-501 Flow-rated smoke detector mounted and wired (6" minimum damper height with a 20" sleeve - extra 2" on jackshaft side)
Tab-Lock retaining angles
Stainless steel bearings
Copper tubing (for pneumatic actuators)
Optional 19" or 20" sleeve depth - Additional sleeve length is added to the non-jackshaft side unless ordered with mounted smoke detector and/or < 6"H with B-Pan transition
Round or oval transitions
Short-width (<6") and/or short-height (<6") transitions

NOTES

1. "A" width and "B" height are opening dimensions. Damper frames are provided approximately ¼" undersized.
2. Dampers are available in 1" increments only.
3. Dampers for horizontal installation can only be mounted in a fire barrier constructed of masonry/concrete materials.
4. The blades must stay in the fire wall. The adjustable retaining angle may only be adjusted the distance shown on the label or installation instructions.

DAMPER SIZE

Orientation	Horizontal & Vertical	
Panels	Minimum Panel	Maximum Panel
Rectangular	4"W x 4"H (16"W x 6"H frame)	24"W x 24"H
Round	4" dia. (16"W x 6"H frame)	22" dia.
Oval	4"W x 4"H (16"W x 6"H frame)	22"W x 22"H

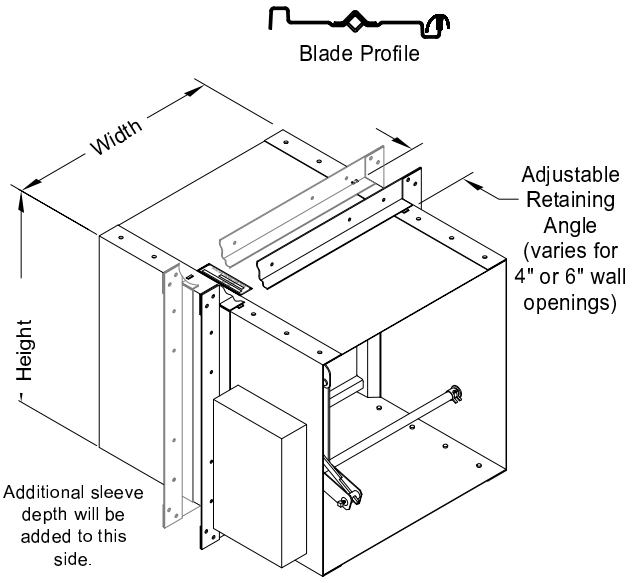
*Dampers smaller than minimum frame size require a transition. Reference SD-TRFS. Dampers < 6"H will have a 20" sleeve with the additional sleeve length on the jackshaft side when a B-Pan type transition is ordered.

UNDERWRITERS LABORATORIES INC.®
CLASSIFIED DYNAMIC FIRE AND SMOKE DAMPER
FIRE RESISTANCE RATING 1½ HR
LEAKAGE RESISTANCE CLASS I
FILE #R16591

This combination fire/smoke damper meets the construction and performance requirements of:

- Underwriters Laboratories Inc. Standards 555 and 555S
- National Fire Protection Association Standards 80 and 90A
- ICC's International Building Code
- California State Fire Marshal Listing #3225-1328:120

- Underwriters Laboratories Inc. Approved for dual direction airflow and dynamic conditions.
- Underwriters Laboratories Inc. Classified for use in fire resistive ratings of less than 3 hours.
- Underwriters Laboratories Inc. Classified for use in smoke control systems for Leakage Class I and 250°F or 350°F.
- Actuators must be arranged to operate automatically, must fail closed upon loss of power, and must be controlled by a smoke detection system.



Louvers & Dampers
A Mestek Company

SD-MR1-13.02

450 Riverside Drive • Wyalusing PA, 18853 • Phone 570-746-1888 • Fax 570-746-9286

February 2013

MR1

Combination Fire/Smoke Damper

Class I • 250˚F or 350˚F • Galvanized Steel • Single Thickness Blade • UL Classified Damper

Operations Ratings:

Maximum Differential Pressure: 4 in. wg
Maximum Velocity: 2000 fpm

Leakage Ratings:

UL Class I
8 cfm per sq. ft. maximum @ 4 in. wg

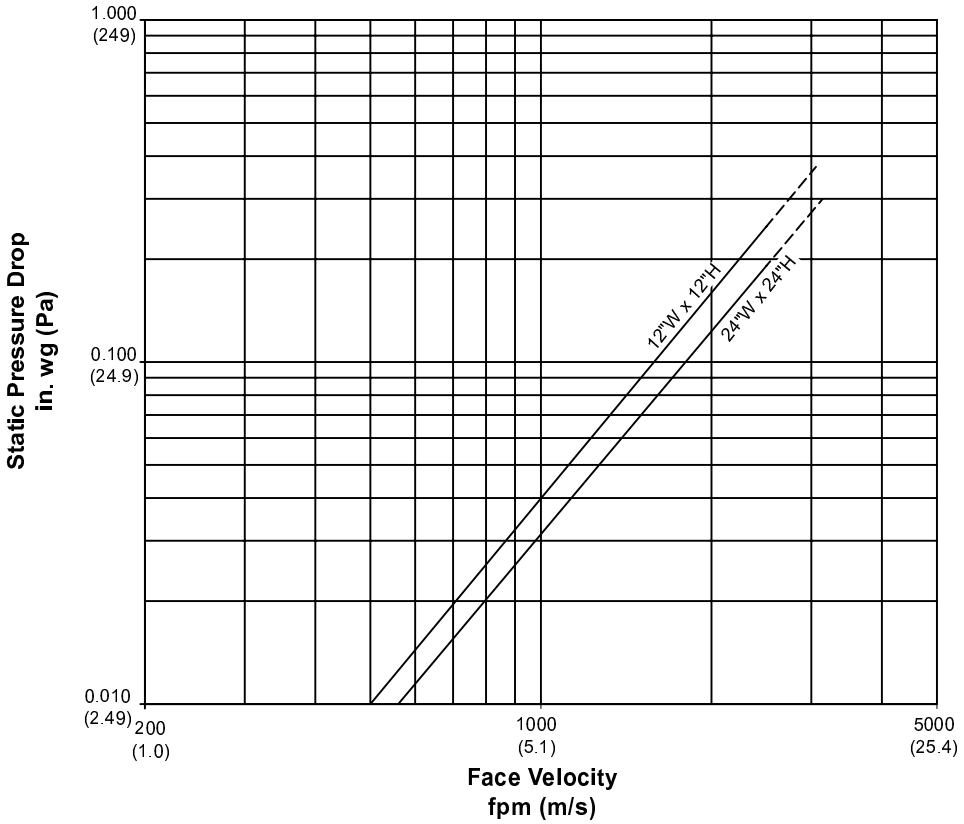
Sound Ratings:

The Noise Criterion data below was tested in accordance with ASTM E477.99 in the center octave band.

Noise Criterion (NC)				
Damper Size	Velocity fpm (m/s)			
	1000 (5.08)	2000 (10.16)	3000 (15.24)	4000 (20.32)
12"W x 12"H (305mm x 305mm)	22dB	44dB	55dB	62dB
24"W x 24"H (610mm x 610mm)	30dB	50dB	62dB	not available

Pressure Drop Ratings:

The pressure drop data shown below is based on laboratory conditions. The test setup does not take into account elbows or other duct fittings that are part of every actual duct system. The configuration of the actual duct system immediately upstream and downstream of the damper often contributes more pressure loss than the damper itself.



AMCA Figure 5.3

Louvers & Dampers certifies that the model MR1 damper shown here is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Performance Ratings only.

Louvers & Dampers
A Metrotek Company

In the interest of product development, Louvers & Dampers reserves the right to make changes without notice.

450 Riverside Drive • Wyalusing PA, 18853 • Phone 570-746-1888 • Fax 570-746-9286

February 2013