Model MA2G

Combination Fire/Smoke Damper • 1½ Hr. Rated • Airfoil Blade • Leakage Class II • 250°F or 350°F Rated • Out-of-Barrier • Galvanized Steel

STANDARD CONSTRUCTION

FRAME: 5½" x ⅞" x 16 GA. galvanized steel hat channel.
BLADES: 20 GA. galvanized steel, double skinned (equal to 14 GA.), parallel action
AXLES: Square plated solid steel stub.
BEARINGS: Oil impregnated bronze.
LINKAGE: Plated steel angle and crank plates with stainless steel pivots, in-jamb type.
STOPS: 20 GA. galvanized steel angles at head and sill
BLADE SEALS: Silicone.
JAMB SEALS: Stainless steel.
SLEEVE: 20 GA. galvanized steel by 15" long (1½" grille clearance) or 17" long (3½" grill clearance) with ¹³⁄₁₆" front flange.
INSULATION: Factory installed 0.2" thick intumescent insulation on top and both sides (vertical mount) or all four sides (horizontal mount).
CAULKING: Hardcast Irongrip 601 or UL-listed equivalent.
ACTUATOR: Electric with heat response device (EHRD) or pneumatic with heat response device (PHRD), factory-installed for Power-Open/Spring-Close (fail close) operation, internally mounted and accessible from grille side, or mounted externally or internally for continuous duct applications.
FINISH: Mill or galvanized steel.

OPTIONS

Integral Dual Position Indication (IDPI) Switches
Sensotherm Re-Openable Heat Response Device (ESOT) for Electric Actuator
Sensotherm Re-Openable Heat Response Device (ESOP) for Pneumatic Actuator
Model SM-501 Flow-rated smoke detector
- Shipped Loose
Model 2D51 No-flow smoke detector (14" Minimum Damper Height)
Tab-Lock retaining angles
Stainless steel bearings
Copper tubing (for Pneumatic Actuators)
Sleeves of various gauge thicknesses
Round or oval transitions
Short-width (less than 10") and/or short-height (less than 10") transitions

NOTES

1. Damper frames are provided approximately ¼" undersized. The addition of a sleeve and insulation will increase the size of the assembly. See SI-FAGM or SI-FACD for sizing openings.
2. Dampers smaller than minimum frame size require a transition. Refer to SD-TRFS. When transitioned on one-side only (which will be a damper supplied with a transition on the non-jackshafted side only), the grille size should be selected to match the damper frame size, not the transition collar size.
3. Damper with smoke detector must have a minimum sleeve of 16" (1½" setback) or 18" (3" setback).
4. Dampers for horizontal installation can only be mounted in a fire barrier constructed of masonry/concrete materials.

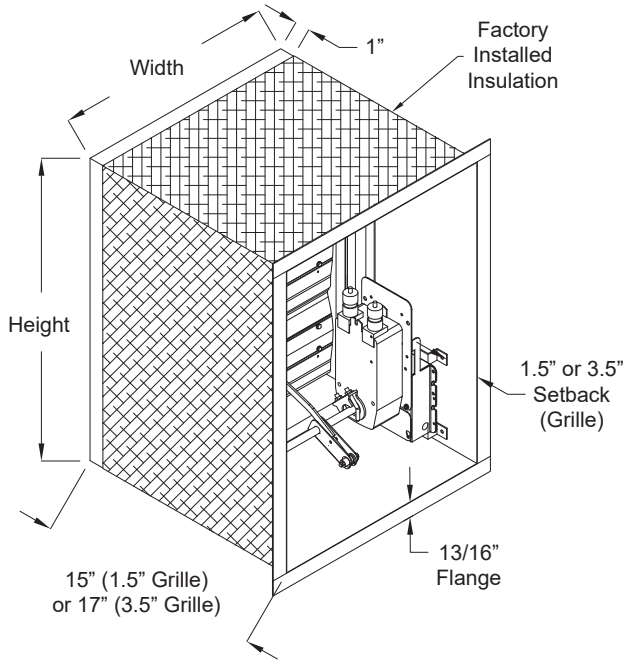
DAMPER SIZES

		2000 fpm, 4 in. w.g.	4000 fpm, 6 in. w.g.
Orientation	Hor & Vert	Hor & Vert	Hor & Vert
Panel	Min Panel	Max Panel	Max Panel
Rectangular	10"W x 8"H (10"W x 8"H frame)	32"W x 42"H	24"W x 20"H
Round	6" dia. (10"W x 8"H frame)	30" dia.	18" dia.
Oval	8"W x 6"H (10"W x 8"H frame)	30"W x 40"H	22"W x 18"H

UNDERWRITERS LABORATORIES INC.®
CLASSIFIED DYNAMIC FIRE AND SMOKE DAMPER
FIRE RESISTANCE RATING 1½ HR
LEAKAGE RESISTANCE CLASS II
Louvers & Dampers
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, 90A, 92, 101, 105
- ICC's International Building Code
- New York City MEA Listing #111-99-M
- California State Fire Marshal Listing #3225-1328:118
- 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 II 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.



For handwritten orders, use the schedule block on page 2.

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

www.louvers-dampers.com

Louvers & Dampers
A Mestek Company

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

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OPERATIONAL RATINGS

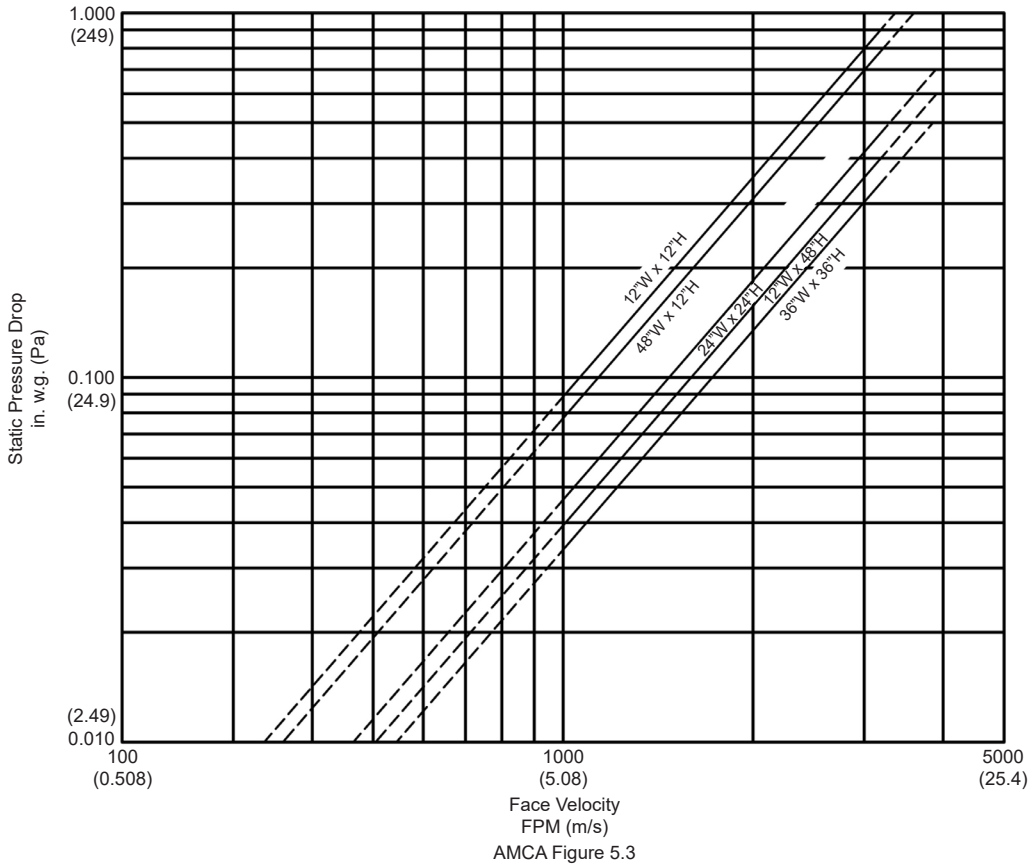
Maximum Differential Pressure: 6 in. w.g.
Maximum Velocity: 4000 fpm

LEAKAGE RATINGS

UL Leakage Class II
20 cfm per sq. ft. maximum @ 4 in. w.g.

PRESSURE DROP

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

Sizes listed on this chart exceed the size limitations of the MA2G. These sizes are based on the model MA2 data.

This product was tested in accordance with AMCA Standard 511.

Intake air converted to standard air density.

Item #	**Qty**	**Damper Size**	Horizontal	Vertical	250°F	350°F	Velocity	Pressure	
			Orientation		**Temp. Rating**		**Operational Rating**		**Union Made**
Arch. / Eng.:					**EDR:**		**ECN:**		**Job:**
Contractor:									
Project:					**Date:**		**DWN:**		**DWG:**

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INSTALLATION CONFIGURATIONS

MA	2	G	2
I	II	III	IV

I. Base Model
- MA = Airfoil Blade Fire-Smoke Damper
- MS = Single-Thickness Blade Fire-Smoke Damper
- 17MA = Airfoil Blade Dynamic Multi-Blade Fire Damper
- 17MD = Single Thickness Blade Dynamic Multi-Blade Fire Damper
- 17MS = Single Thickness Blade Static Multi-Blade Fire Damper

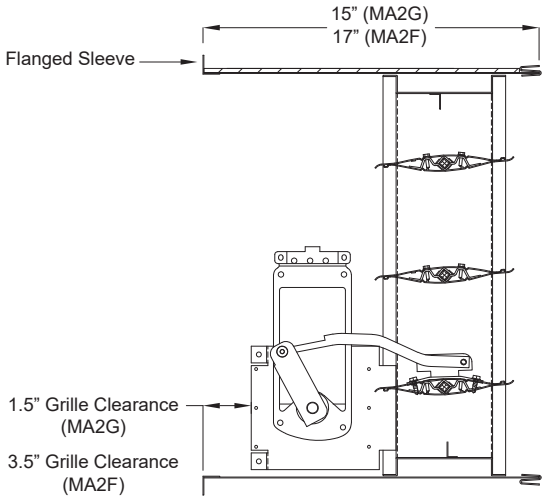
II. Leakage Class (Fire-Smoke Dampers Only)
- 1 = UL Class-I Leakage
- 2 = UL Class-II Leakage
- Blank = Leakage Class Not Applicable (Fire Dampers)

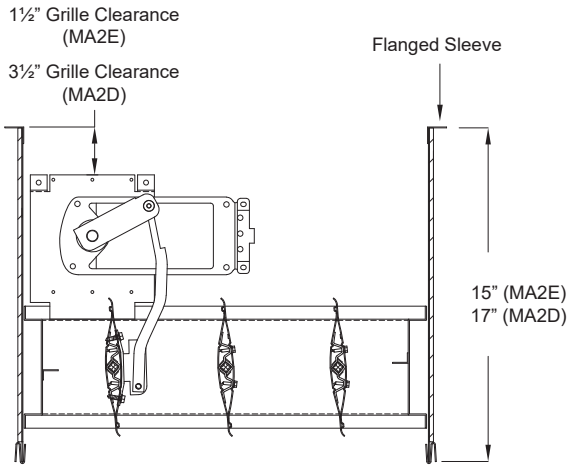
III. Installation Configuration
- D = Out-of-barrier Horizontal Grille Application, 3½" Grille Clearance
- E = Out-of-barrier Horizontal Grille Application, 1½" Grille Clearance
- F = Out-of-barrier Vertical Grille Application, 3½" Grille Clearance
- G = Out-of-barrier Vertical Grille Application, 1½" Grille Clearance
- J = Out-of-barrier Horizontal, Continuous Duct
- K = Out-of-barrier Vertical, Continuous Duct

IV. Temperature Rating (Fire-Smoke Dampers Only)
- 2 = 250°F
- 3 = 350°F
- Blank = Temperature Rating Not Applicable (Fire Dampers)

NOTE
- All Installations must be in accordance with SI-FAGM or SI-FACD
- Horizontal installations are only approved for masonry/concrete.

GRILLE ACCESS APPLICATIONS

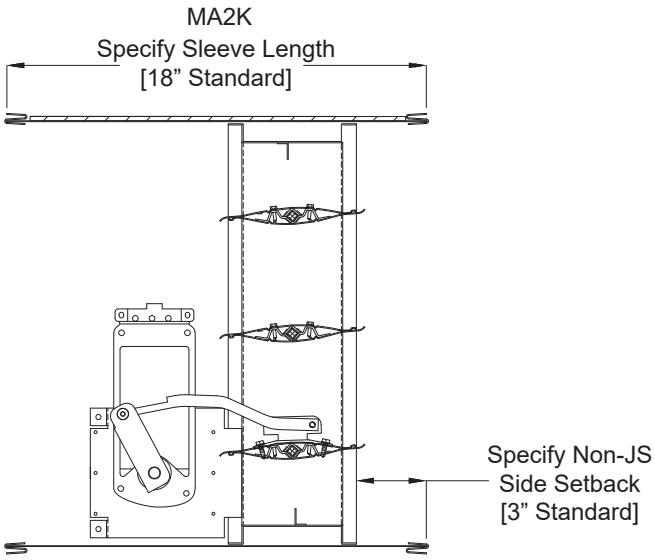


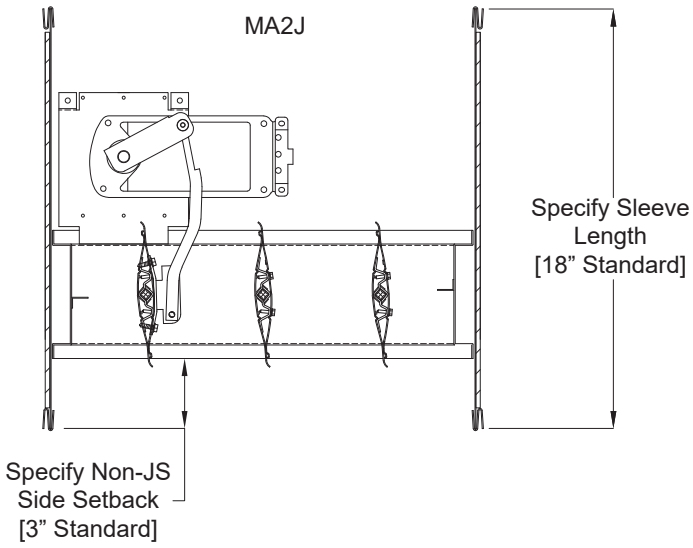


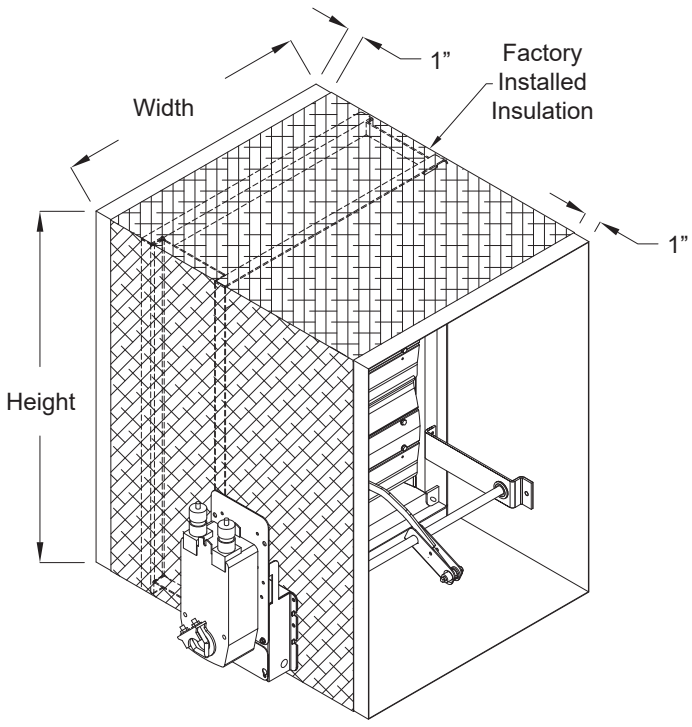
NOTE

- All Installations must be in accordance with SI-FAGM or SI-FACD.
- Horizontal installations are only approved for masonry/concrete.

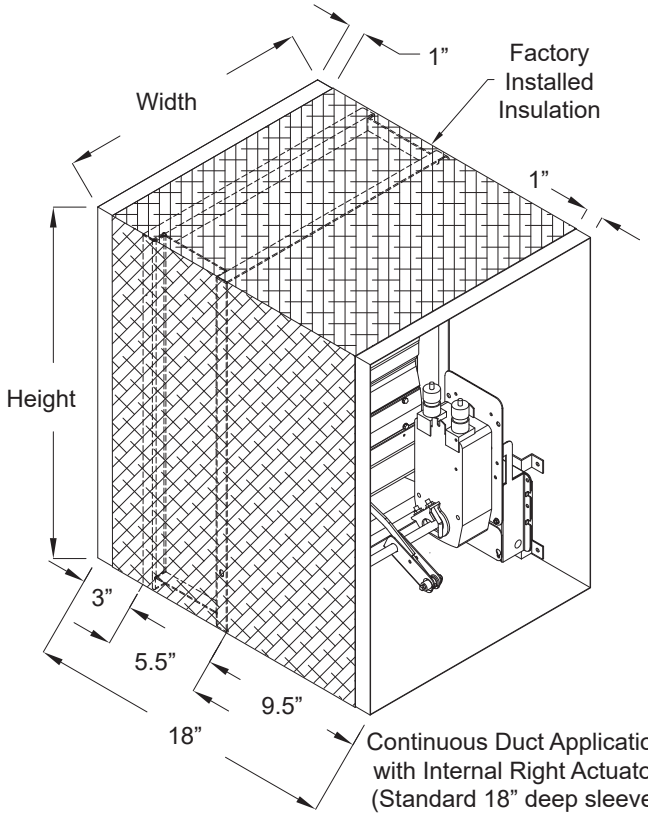
CONTINUOUS DUCT APPLICATIONS







Continuous Duct Application
with External Left Actuator



Continuous Duct Application
with Internal Right Actuator
(Standard 18” deep sleeve)