Smoke Damper • Airfoil Blades • Leakage Class II • 250°F • Galvanized Steel • For Volume Control Applications

#### Standard Construction and Materials

**FRAME:**  $5\frac{1}{2}$ " x  $\frac{7}{8}$ " x 16 GA. galvanized steel hat channel. A flat

head and sill are used for sizes up to 13" high.

BLADES: 20 GA. galvanized steel double skinned (equal to 14-GA),

parallel action.

AXLES: Plated solid steel stub.

BEARINGS: Oil impregnated bronze.

LINKAGE: Plated steel angle and crank plates with stainless steel

pivots, in-jamb type.

STOPS: 18 GA. galvanized steel at head and sill.

BLADE SEALS: Silicone.
JAMB SEALS: Stainless steel.

SLEEVE: Minimum 20 GA. galvanized steel by 18" long. CAULKING: Hardcast Irongrip 601 or UL-listed equivalent.

FINISH: Mill on galvanized steel.

ACTUATOR: 24VAC/DC Electric: factory-installed for power-open/

spring-close (fail close) operation. External left-hand mounted as viewed form jackshaft side of damper.

#### **Options**

Exact Size (no undercut)

Flange - Front, Rear or Both

Right Hand and/or Internal Actuator Mounting Locations (restrictions apply)

Dual Position Indication (IDPI) Switches Model SM-501 Flow-Rated Smoke Detector

Model 2151 No-Flow Smoke Detector (12" minimum damper height)

Remote test box

Momentary test switch

**Transformers** 

Tab-Lock retaining angles - 1 or 2 sets

Stainless steel bearings Stainless steel axles

Security bars

Sleeves of various depths and gauge thickness (restrictions apply)

No sleeves or side plates only (restrictions apply)

Round or oval transitions

Short-width (less than 8") and/or short-height (less than 6") transitions

#### Notes

- 1. Nominal deductions will be made to the opening size given.
- 2. Dampers greater than or equal to 12" in height with factory mounted SM-501 smoke detectors require a minimum 19" deep sleeve ( $10\frac{1}{2}$ " on the actuator side). Detectors will be mounted on the side of the damper opposite actuator.
- 3. Dampers less than 12" in height with factory mounted SM-501 smoke detectors require a minimum 20 deep sleeve ( $11\frac{1}{2}$ " on the actuator side). Detectors will be mounted on the bottom or top of damper.
- 4 Smoke detectors can be ordered for field mounting with standard 18" deep sleeve.
- Actuator control signal is 2-10 VDC or with addition of 500 ohm resistor (by others) is 4-20 mA.

# UNDERWRITERS LABORATORIES INC.® CLASSIFIED DYNAMIC SMOKE DAMPER

LEAKAGE RESISTANCE CLASS II

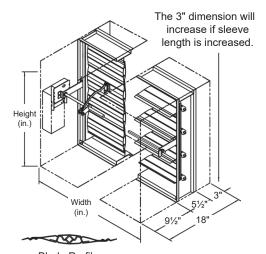


FILE # R6462



This smoke damper meets the construction and performance requirements of:

- Underwriters Laboratories Inc. Standards 555S
- National Fire Protection Association Standards 80, 90A, 92, 101, 105
- ICC's International Building Code
- New York City MEA Listing #112-99-M
- California State Fire Marshal Listing #3230-1328:111
- Underwriters Laboratories Inc. Approved for dual direction airflow and dynamic conditions.
- Underwriters Laboratories Inc. Classified for use in smoke control systems for Leakage Class II and 250°F.
- · Actuators must be controlled by a smoke detection system.



Blade Profile

All dimensions are shown as width x height.

For dampers with no transition, the order size will equal frame size, which should equal duct size.

Unless notes, duct size will be the order size.

For dampers with transitions, the damper's frame size will equal the order width + 2 inches  $\boldsymbol{x}$  the order height plus 2 inches.

When using a true 6" high damper, width is limited to 16". If damper is ordered as 6" high and width is less than 16", an 8" high damper with 2" short-height transition will be supplied.

#### Damper Sizes

Damper Style	Temp Rating	Velocity & Pressure	Horizontal and Vertical Min Panel	Horizontal and Vertical Max Panel	Horizontal and Vertical Max Assembly	
No Transition		2000 FPM, 4 in. w.g.	8" x 6" frame	22" x 22" frame	96" x 48" frame	
C-Round -or- C-Square	250°F		4" dia. duct -or- 4" x 4" duct (8" x 6" frame)	22" dia. duct -or- 22" x 22" duct	46" dia. duct -or- 46" x 46" duct	
C-Oval -or- C-Rectangular			4" dia. duct (8" x 6" frame)	22" x 22" duct	94" x 46" duct	

In the interest of product development, Cesco Products reserves the right to make changes without notice.



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## Operational Rating

Maximum Differential Pressure: 4 in. w.g. Maximum Velocity: 2000 fpm

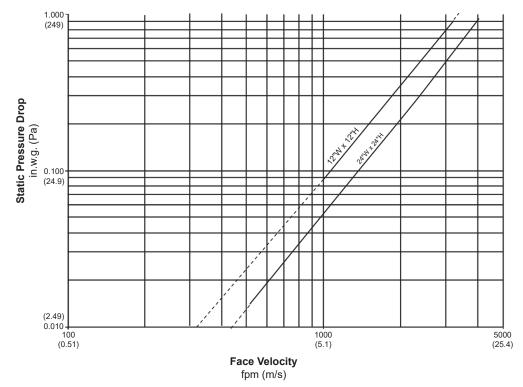
## Leakage Rating

UL Class II

10 cfm per sq. ft. maximum @ 1 in. w.g. 20 cfm per sq. ft. maximum @ 4 in. w.g.

### Pressure Drop Rating

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.



OMCO WORLDWIDE GERTIFIED RATINGS

PERFORMANCE

AIR
MOVEMENT
AND CONTROL
ASSOCIATION
INTERNATIONAL INC. 9

Cesco Products certifies that the GA2M 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 Program to AMCA Certified Ratings Ceal applies to Air Performance Ratings only.

Tested in accordance with AMCA Standard 500D, Figure 5.3 Intake air converted to standard air density.

Item #	01	Damper Size	Horizontal	Vertical	25	0°F	Velocity	Pressure	Ob S	
	Qty		Orientation		Temp.	Rating	Operational Rating		<u>Uni</u>	on Made
Arch.	/ Eng.:				EDR:		ECN:		Job:	
Cont	ractor:									
Р	roject:				Date:		DWN:		DWG:	

