Combination Fire/Smoke Damper • 11/2 Hr. Rated • Single Thickness Blade • Leakage Class I • 250°F or 350°F Rated • Stainless Steel

MODEL CG1(SS)

### Standard Construction and Materials

FRAME: 51/2" x 7/8" x 16 GA. 304 stainless steel hat channel. A flat

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

BLADES: 16 GA. galvanized steel single thickness, parallel action.

AXLES: 304 stainless steel stub.

BEARINGS: Stainless steel.

LINKAGE: 304 stainless steel angle and crank plates with stainless

steel pivots, in-jamb type.

STOPS: 18 GA. 304 stainless steel at head and sill.

BLADE SEALS: Silicone. JAMB SEALS: Stainless steel.

SLEEVE: Minimum 20 GA. 304 stainless steel by 18" long (sizes greater

than 84" wide or 84" high require minimum 18 GA.)

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. External left hand

mounted as viewed from jackshaft side of damper.

FINISH: Mill on 304 stainless steel.

### **Options**

Type 316 Stainless Steel (where available)

External right hand actuator mounting location.

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 (10" minimum damper height) Tab-Lock retaining angles.

Copper tubing (for pneumatic actuators)

Sleeves of various depths and gauge thicknesses.

Round or oval transitions

Short-width (less than 16") and/or short-height (less than 8") transitions.

#### Notes

- 1. Damper frames are provided approximately 1/2" undercut. The addition of a sleeve will increase the size of the assembly.
- 2. Damper with smoke detector must have a minimum sleeve of 19"  $(10\frac{1}{2})^{2}$  on the actuator side and 3" on the non-actuator side).
- 3. Dampers for horizontal installation can only be mounted in a fire barrier constructed of masonry/concrete materials.
- 4. On dampers with all internal actuators, minimum height for factory mounted smoke detectors to be 14".

#### **UNDERWRITERS LABORATORIES INC.®**

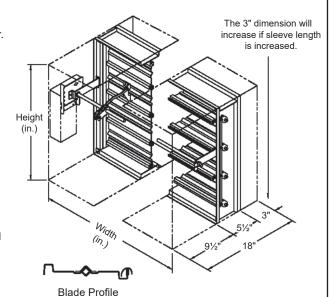
CLASSIFIED DYNAMIC FIRE AND SMOKE DAMPER FIRE RESISTANCE RATING 11/2 HR LEAKAGE RESISTANCE CLASS I



**FILE # R6462** 



- Underwriters Laboratories Inc. Standards 555 and 555S
- · National Fire Protection Association Standards 80 and 90A,
- ICC's International Building Code
- New York City MEA Listing #111-99-M
- California State Fire Marshal Listing #3225-1328:119
- 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.
- Actuators must be arranged to operate automatically, must fail closed upon loss of power, and must be controlled by a smoke detection system.



Damper Sizes

		2000 fpm, 4 in. w.g.			3000 fpm, 4 in. w.g.			
Orientation	Horz & Vert	Horizontal	Ver	tical	Horizontal	Vertical		
Panels	Min Panel	Max Panel	Max Panel	Max Assembly	Max. Panel	Max Panel	Max Assembly	
Rectangular	4"W x 4"H (16"W x 8"H frame)	24"W x 24"H	36"W x 32"H	108"W x 32"H	24"W x 24"H	36"W x 32"H	108"W x 32"H	
Round	4" dia. (16"W x 6"H frame)	22" dia.	30" dia.	N/A	22" dia.	30" dia.	N/A	
Oval	4"W x 4"H (16"W x 6"H frame)	22"W x 22"H	34"W x 30"H	106"W x 30"H	22"W x 22"H	34"W x 30"H	106"W x 30"H	

<sup>\*</sup> Dampers smaller than the minimum frame size require a transition. Reference SD-TRFS for details.

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

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 Face Velocity: 2000 FPM (3000 FPM for selected size/actuator combinations)

# Leakage Rating

UL Leakage Class I

- 4 CFM per sq.ft. maximum @ 1 in. w.g.
- 8 CFM per sq.ft. maximum @ 4 in. w.g.

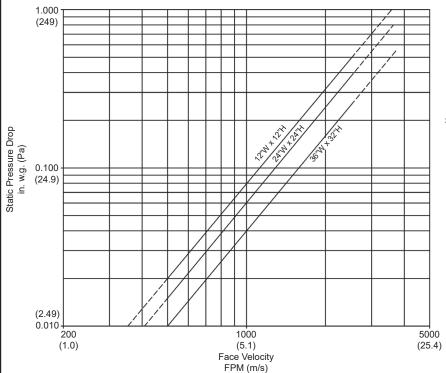
## Sound Rating

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)						
	1000	2000	3000	4000			
12"W x 12"H	31	53	64	71			
24"W x 24"H	33	54	65	-			

## 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.



This product was tested in accordance with AMCA Standard 500D, Figure 5.3.

Intake air converted to standard air density.



Cesco Products certifies that the CG1(SS) 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.

									6	TAL WOOD
l+ a #	Qty	Damper Size	Horizontal	Vertical	250°F	350°F	Velocity	Pressure	NAL D	
ltem #			Orientation		Temp. Rating		Operational Rating		<u>Union Made</u>	
Arch. / Eng.:					EDR:		ECN:		Job:	
Contractor:										
Project:					Date:		DWN:		DWG:	



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