# MODEL CG1G/F

Combination Fire/Smoke Damper • 1½ Hr. Rated • Single Thickness Blade • Leakage Class I • 250°F or 350°F Rated • Front Access Grille • Galvanized Steel

## Standard Construction and Materials

**FRAME:** 5½" x ⅞" x 16 GA. galvanized steel hat channel.
**BLADES:** 16 GA. galvanized steel single thickness, 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
**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.

## 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 (< 16") and/or Short-height (< 8") 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 II-FAGM for sizing openings.
2. Damper with smoke detector must have a minimum sleeve of 16" (1½" setback) or 18" (3" setback).
3. Dampers for horizontal installation can only be mounted in a fire barrier constructed of masonry/concrete materials.

## Damper Sizes

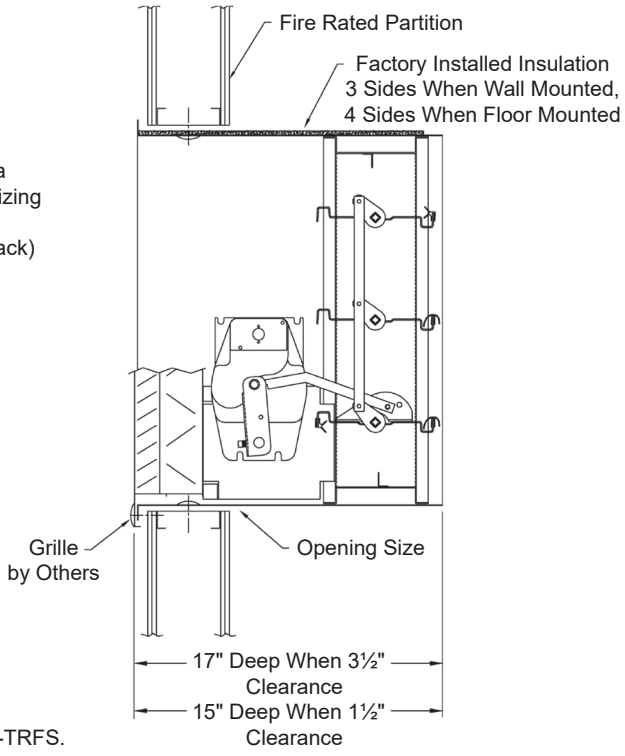
| | 2000 fpm, 4 in.wg | | |
|---|---|---|---|
| Orientation | Hor & Vert | Horizontal | Vertical |
| Panel | Min Panel | Max Panel | Max Panel |
| Rectangular | 10"W x 10"H (16"W x 10"H frame) | 36"W x 42"H | 36"W x 42"H |
| Round | 8" dia. (16"W x 10"H frame) | 34" dia. | 34" dia. |
| Oval | 8"W x 8"H (16"W x 10"H frame) | 34"W x 40"H | 34"W x 40"H |

*Dampers smaller than minimum frame size require a transition. Reference SD-TRFS.

**UNDERWRITERS LABORATORIES INC.®**
CLASSIFIED DYNAMIC FIRE AND SMOKE DAMPER
FIRE RESISTANCE RATING 1½ HR
LEAKAGE RESISTANCE CLASS I
**FILE # R6462**

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 #3225-1328:119
- 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 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.






Division of Mestek
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## Operational Ratings

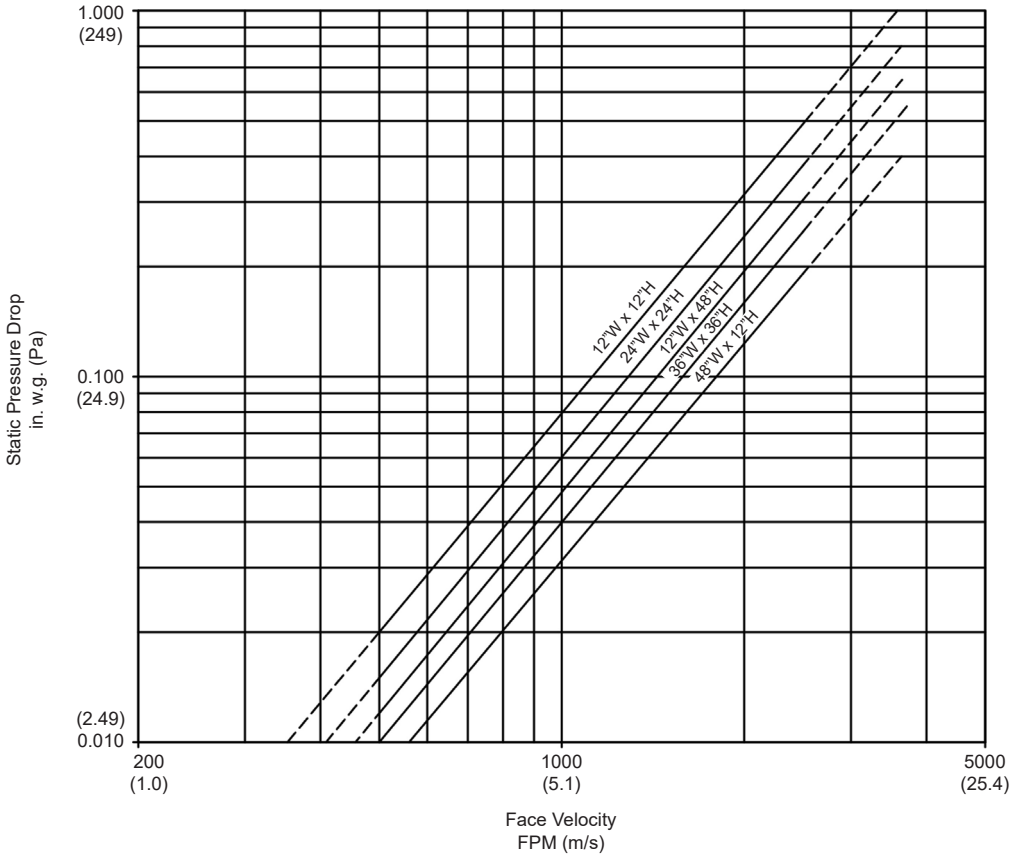
Maximum Differential Pressure: 4 in. w.g.
Maximum Face Velocity: 2000 fpm

## Leakage Ratings

UL Leakage Class I
4 cfm per sq.ft. maximum @ 1 in.wg
8 cfm per sq.ft. maximum @ 4 in.wg

## 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.




This product was tested in accordance with AMCA Standard 511, Figure 5.3.

Intake air converted to standard air density.

Sizes listed on this chart exceed the size limitations of the CG1GF. These sizes are based on the model CG1 approval.

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

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