

Fire/Smoke Damper

Class II · Airfoil Blade · 3 Hour · 250°F · Galvanized Steel · Fire/Smoke Damper
For Volume Control Applications

CT2M

STANDARD MATERIALS AND CONSTRUCTION

- FRAME:** 5½" x ⅝" x 16-GA galvanized steel hat channel; A flat head and sill are used for sizes thru 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:** 24 VAC/DC Electric with heat response device (EHRD) Factory-installed for Power-Open/Spring-Close (fail close) operation; External left hand mounted as viewed from jack shaft side of damper

OPTIONS

- Exact Size (no undercut)
- Right Hand and/or Internal Actuator Mounting Locations (Restrictions Apply)
- Dual Position Indication (IDPI) Switches
- Sensotherm Re-Openable Heat Response Device (ESOT) for Electric Actuator
- 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
- Stainless Steel Bearings
- Stainless Steel Axles
- Sleeves of Various Depths and Gauge Thicknesses (restrictions apply)
- No Sleeve (restrictions apply)
- Round or Oval Transitions
- Security Bars
- Short-Width (<8") and/or Short-Height (<6") Transitions



NOTES

1. Damper frames are provided approximately ¼" undersized. The addition of a sleeve will increase the size of the assembly.
2. Damper >= 12" in height with factory mounted SM-501 smoke detectors require a minimum 19" deep sleeve (10.5" on the actuator side); detectors will be mounted on side of the damper opposite actuator.
3. Damper < 12" in height with factory mounted SM-501 smoke detectors require a minimum 20 deep sleeve (11.5" 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.
5. Dampers for horizontal installation can only be mounted in a fire barrier constructed of masonry/concrete materials.
6. Actuator control signal is 2 -10 VDC or with additional of 500 ohm resistor (by other) is 4-20 mA.

DAMPER SIZES

Damper Style	Temp Rating (°F)	Velocity & Pressure	Horizontal & Vertical Min Panel	Horizontal & Vertical Max Panel	Horizontal & Vertical Max Assy
No Transition	250°	2000 fpm, 4" w.g.	8" x 6" frame	24" x 24" frame	60" x 48" frame
C-Round - or - C-Square			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-Rectangle			4" x 4" duct (8" x 6" frame)	22" x 22" duct	58" x 46" duct

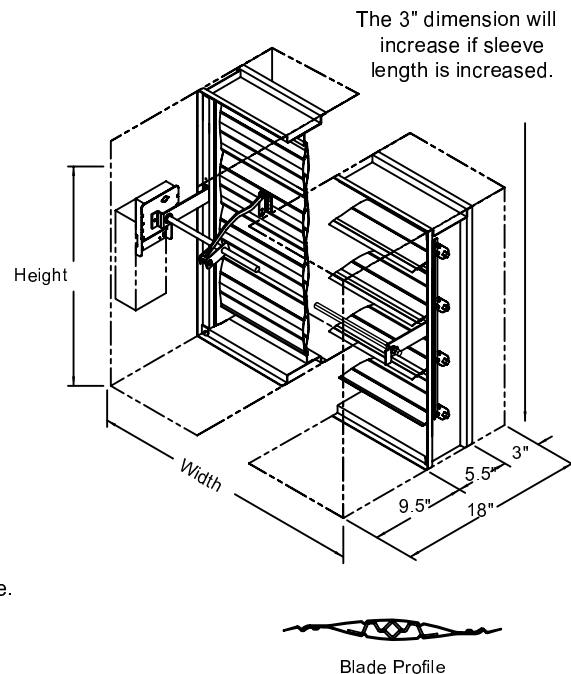
UNDERWRITERS LABORATORIES INC.®
CLASSIFIED DYNAMIC FIRE AND SMOKE DAMPER
FIRE RESISTANCE RATING 3 HR
LEAKAGE RESISTANCE CLASS II

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 and 90A
- 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 3 hours and longer.
- Underwriters Laboratories Inc. Classified for use in smoke control systems for Leakage Class II 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.



all dimensions are shown as width x height for **NO TRANSITION**, order size = frame size = duct size unless otherwise noted, duct size = order size

WITH TRANSITIONS, damper frame size = order width + 2" x order height + 2"

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

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Operations Ratings:

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

Leakage Ratings:

UL Class II
10 cfm per sq. ft. maximum @ 1 in. wg
20 cfm per sq. ft. maximum @ 4 in. wg

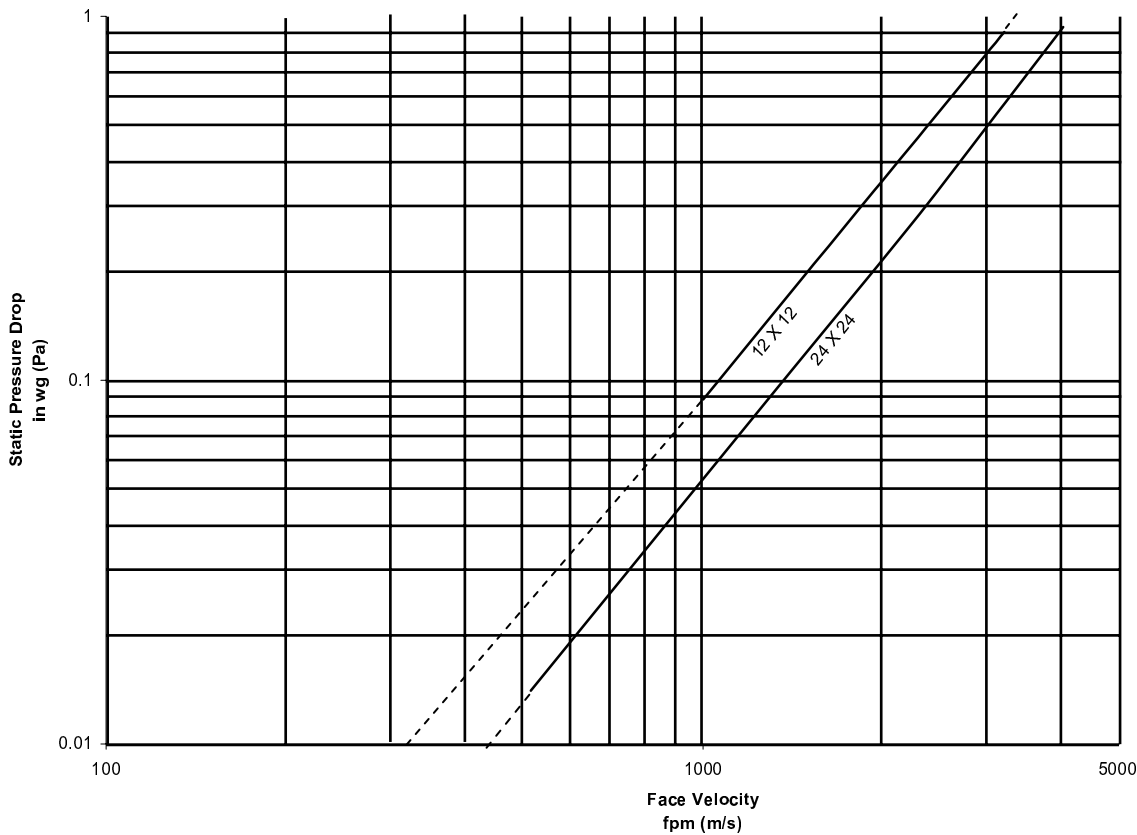
Sound Ratings:

None 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.

TA2M Pressure Drop



This product was tested in accordance with AMCA Standard 500D

AMCA FIGURE 5.3

