

FIRE/SMOKE COMBINATION DAMPERS

Use in Dynamic & Static Systems



CFS1

UL555S Leakage Class 1

1½ Hour UL555 Rated

APPLICATION

The CFS1 is a combination fire/smoke damper that provides point-of-origin fire containment and operations flexibility in static and dynamic smoke management systems. The CFS1 may be installed vertically in walls or horizontally in floors in HVAC systems with velocities to 2,000 fpm and pressures to 4 inches w.g. (consult Lau for proper application if velocity and pressure exceed those listed above).

STANDARD CONSTRUCTION

FRAME

5" x 16 gage galvanized, hat-shaped channel. Structurally superior to 13 gage channel frame.

BLADES

6" wide galvanized steel. Triple V-groove (standard) or airfoil (factory option) shaped approximately 6" on center. Customer may specify airfoil for additional charge.

BEARINGS

Stainless steel sleeve, pressed into frame.

JAMB SEALS

Stainless steel, flexible metal compression type.

BLADE SEALS

Silicone edge type for smoke seal to 450°F and galvanized steel for flame seal to 1,900°F.

LINKAGE

Concealed in frame.

CONTROLLED CLOSURE DEVICE (Heat-Actuated)

165°F standard. 212°F, 250°F or 350°F are available at no additional cost (285°F PFL only).

DAMPER SIZES

MINIMUM SIZE

8"w x 6"h

MAXIMUM SIZE

Single Section

Vertical or Horizontal Installation – 32"w x 48"h

Multiple Section

Vertical Installation – 120"w x 96"h

Horizontal Installation – 144"w x 96"h

OPTIONS

- **TS150 FireStat** for re-openable operation in dynamic smoke management systems.
- **DSDF/DSDN Duct Smoke Detector** (flow rated or no flow).
- **SP100 Switch Package** to remotely indicate damper blade position.
- **FAST Angle** factory supplied for labor saving angle one-side installation.
- **PFMA** Picture Frame Mounting Angles factory matched and shipped with each damper.
- **Factory Sleeve** of various lengths and gages to insure field compliance with UL installation requirements.
- **MCP** control panels for test purposes or smoke management systems.

NOTE

1. Dampers furnished approximately 1/4" smaller than given opening dimensions.

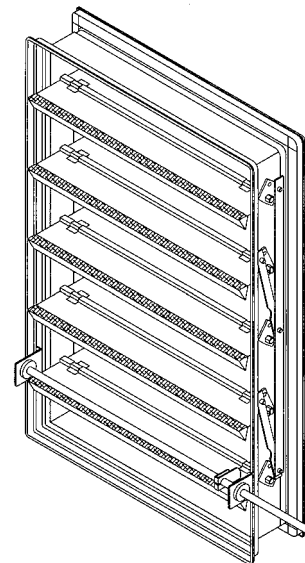
Model CFS1 meets the requirements for fire dampers established by:

- **National Fire Protection Association** NFPA Standards 90A, 92A, 92B and 101
- **BOCA National Building Codes**
- **ICBO Uniform Building Codes**
- **SBCCI Standard Building Codes**
- **ICC International Building Codes**
- **CSFM California State Fire Marshal** (consult Lau for complete list of CSFM listed products)



FEATURES

- EFL (Electric Fuse Link) or PFL (Pneumatic Fuse Link) heat-actuated release devices permit controlled (rather than instantaneous) closure through the damper actuator. The EFL and PFL allow the damper to automatically reopen after a test, smoke detection or power failure condition.
- EFL is standard on dampers with electric actuators.
- PFL is standard on dampers with pneumatic actuators.
- EFL's may be ordered on dampers with pneumatic actuators but require an additional EP switch.



Specifications are subject to change without notice or obligation.

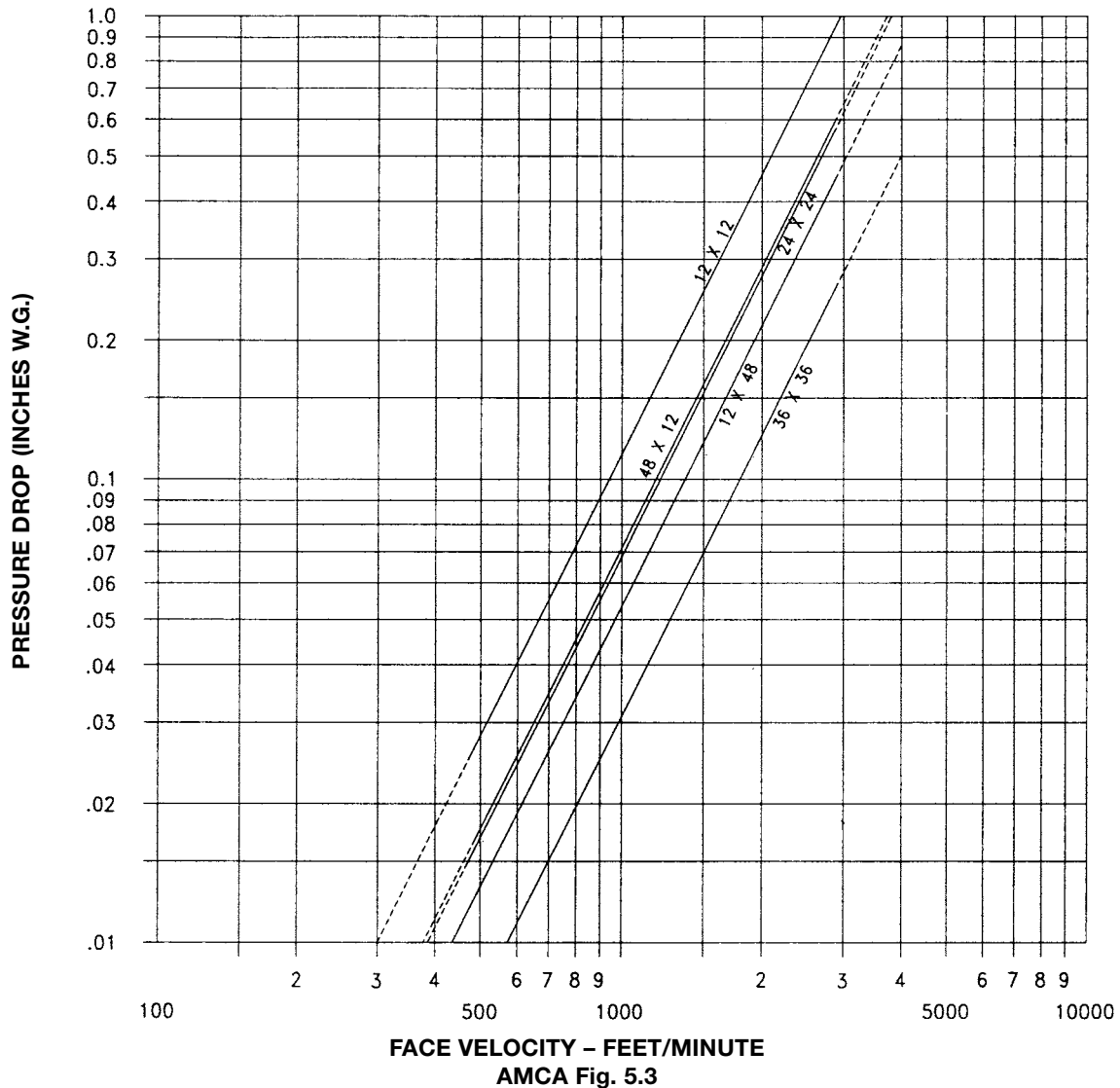
AIR PERFORMANCE DATA

To determine the air performance:

Locate the applicable feet per minute face velocity on the bottom of the velocity vs. pressure drop chart below. Move up the chart to the most appropriate size damper line. From the intersection point, move left to determine the pressure drop on the left side of the chart.

For other damper sizes refer to **Air Performance Data For All Fire and Smoke Dampers** spec sheet.

VELOCITY vs. PRESSURE DROP



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