



MODEL FSD-AF-OW-212

COMBINATION FIRE / SMOKE DAMPER

U.L. 555 CLASSIFIED 1¹/₂ HOURS / U.L. 555S CLASSIFIED CLASS II
LOW PRESSURE DROP AIRFOIL BLADE PER AMCA STANDARD 500-D
OUT OF WALL/PARTITION APPLICATION

U.L. 555S CLASSIFIED
AT 250°F OR 350°F
DEPENDENT UPON
MOTOR/OPERATOR
*SEE MOTOR/OPERATOR SCHEDULE

Standard Construction:

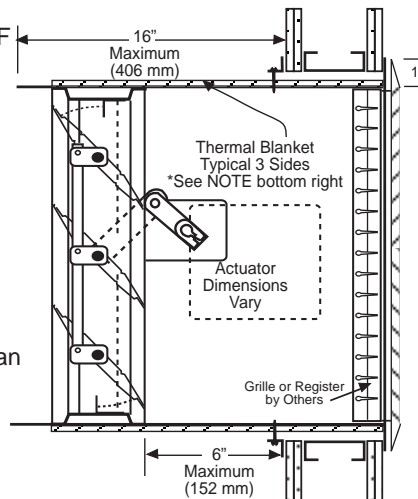
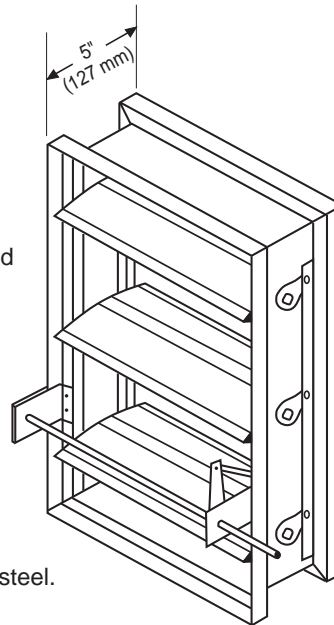
- Frame:** Roll-formed galvanized steel hat-section with staked corners with integral bracing.
- Blades:** Airfoil-shaped, double skin galvanized steel of roll-formed construction. Mechanically joined to form construction equivalent to 14 ga. steel. Minimum 5" (127 mm) wide, maximum 7" (178 mm) wide.
- Bearings:** Bronze Oilite, press-fit into frame.
- Axles:** Square, plated steel.
- Seals:** High temperature inflatable silicone to 450°F. Air pressure assists sealing effects.
- Linkage:** Concealed in frame. Linkage bars are .125" (3.2 mm) thick plated steel.
- Sleeve:** Galvanized, wrapped in thermal blanket.

Heat Responsive Devices:

- Finish:** Mill galvanized.
- Spring:** Stainless steel.
- Sizes:** Minimum Size: 12"w x 10"h (304 mm x 254 mm)
Single Sect. Max: 36"w x 48"h (914 mm x 1219 mm)
Max. Size: 42"w x 48"h (1067 mm x 1219 mm)

- Notes:** Dampers are furnished approximately 1/4" (6.4 mm) smaller than given duct dimensions, (not including thermal blanket).

Wall opening must be oversized by 3/8" (9.5 mm) to accommodate thermal blanket thickness.



Metal Stud Installation

Suggested Specification

Combination Fire/Smoke Dampers shall be Model: FSD-AF-OW-212 by NCA Manufacturing. Damper blades shall be of double-skinned streamlined ("airfoil") construction for minimum pressure drop. Single blade edge and jamb seals shall be of the pressure sensitive type for low leakage. Dampers shall be rated for both Fire Damper (U.L. 555S/U.L.C. S112) and Smoke Damper (U.L. 555S/U.L.C. S112.1) operation. Leakage shall not exceed 20 cfm per sq. ft. at 4.0" static pressure. Linkage shall be of the concealed type for maximum free area. Each damper shall be qualified for mounting outside of the plane of the wall to allow 'through the grille' access to actuators and controls. Dampers shall bear the Underwriters' Laboratories labels.

Manufacturer's Recommendations

All moving parts of the damper must be inspected and cycled at intervals not greater than every six months and in accordance with the latest edition of NFPA 90A, 92A, local codes and the actuator manufacturer. In addition, fuse links shall be removed and inspected for corrosion. Dry lubricants are recommended.

PATENT APPLIED FOR

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LISTED AND LABELLED BY:



Features

- The FSD-AF-OW-212 series Combination Fire/Smoke Dampers have been designed and tested to provide a complete range of performance features when used in engineered smoke control systems.
- U.L. 555 and U.L.C. S112 listed and labelled as a 1-1/2 hour fire damper.
- U.L. and U.L.C. listed for vertical & horizontal mounting.
- U.L. 555S and U.L.C. S112.1 listed and labelled as a Leakage Class II rated Smoke Damper with airflow in both directions. Class II provides for a maximum leakage of 20 cfm per sq. ft. at 4.0 inches static pressure. As we are constantly expanding our U.L./U.L.C. listings, we suggest you contact the factory for current information.
- Streamlined "airfoil" blades to provide low pressure drop and reduced air turbulence for quiet operation.
- Fusible link/actuator provides an automatic override system to close and latch damper in the fire mode. **Also available with automatic resettable/override release options: Model STO/R (single thermostat) or DTO/R (double thermostat) to provide the fire fighter with complete discretionary control of smoke functions during a fire/smoke emergency. (See STO/R and DTO/R submittal drawings for complete details).** Spring return type damper motor controlled by a smoke detector is recommended to provide proper operation in the smoke mode.
- Also available are options EFL (Electric Fusible Link) and PFV (Pneumatic Fusible Valve). These options provide quick and economical ways to check damper operations and also provide a Systematic Closure Control. Option PFV allows damper operation without the need/cost for an E-P valve and electrical connection at the damper.

*NOTE: Typical 4 sides when horizontal mounted.

FSD-AF-OW-212 - 02-05

Project:

Contractor:

Location:

Address:

Architect:

P.O. Number:

Engineer:

Date:



MODEL FSD-AF-OW-212

COMBINATION FIRE / SMOKE DAMPER

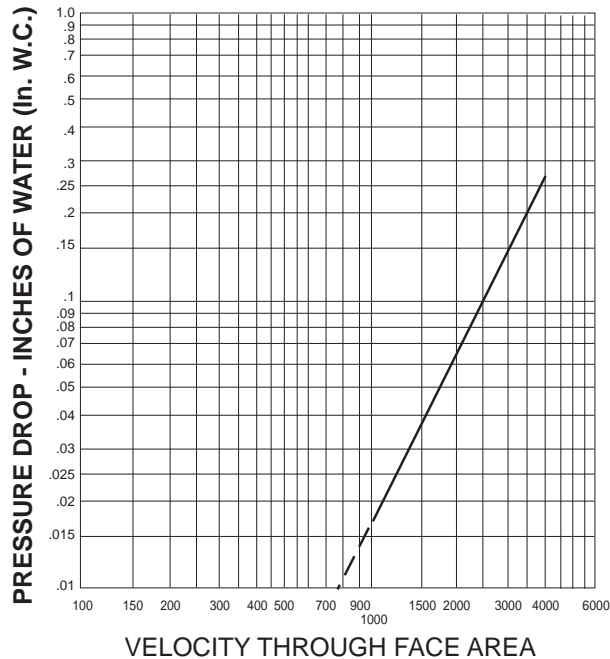
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PERFORMANCE DATA

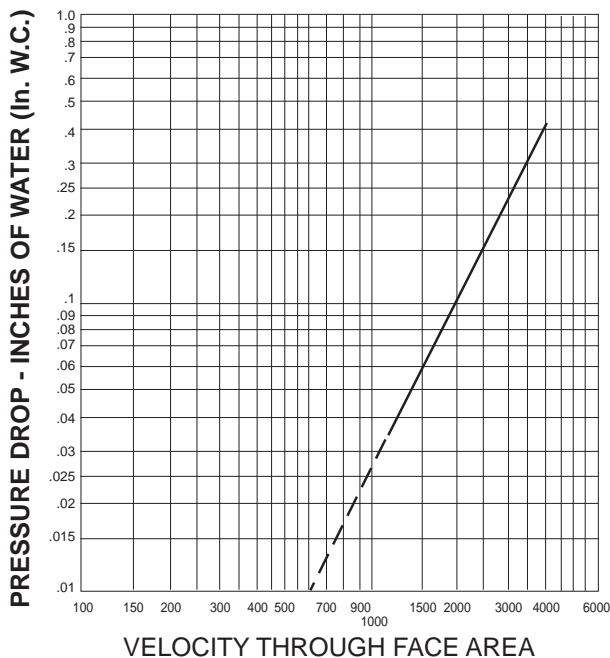
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Pressure drop testing was done by an independent laboratory to the AMCA 500-D Standard, Fig. 5.3 ductwork upstream & downstream.

DAMPER SIZE 36 x 36



DAMPER SIZE 24 x 24



DAMPER SIZE 12 x 12

