



# MODEL FSD-AF-FA-212 COMBINATION FIRE / SMOKE DAMPER U.L. 555 CLASSIFIED 1 1/2 HOURS / U.L. 555S CLASSIFIED CLASS II FRONT ACCESS AND OUTSIDE WALL / PARTITION APPLICATION

## 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 (Typical 3 sides).

## Heat Responsive Devices:

Fusible Links, 165° F and 212° F  
**Snap Disc**, 250° F and 350° F

**Finish:** Mill galvanized.

**Spring:** Stainless steel.

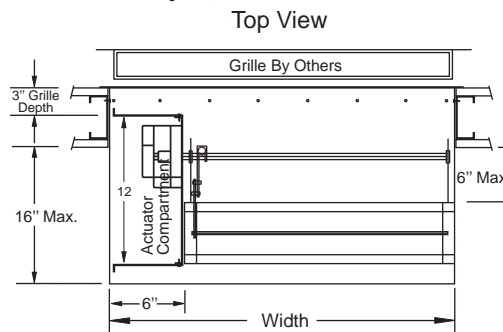
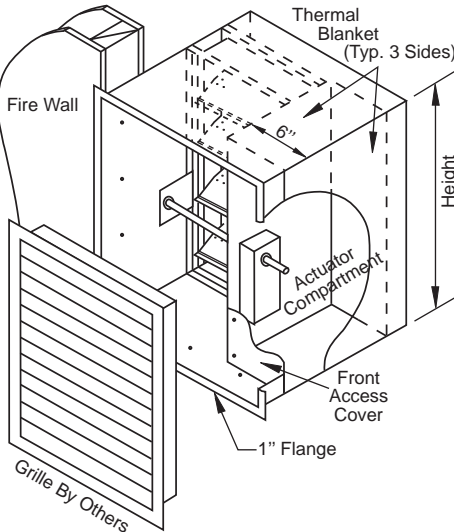
**Sizes:** Minimum Size: 12"w x 10"h  
(305 mm x 254 mm)  
Maximum Size: 42"w x 48"h  
(1067 mm x 1219 mm)

**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.

Not recommended with blades running vertically.

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



PATENTED: U.S. 4,487,214  
CDN. 1,165,661  
U.K. 2,098,475



LISTED AND LABELLED BY:



## FEATURES

- The FSD-AF-FA-212 Combination Fire/Smoke Dampers have been designed and tested to exceed all U.L., U.L.C. and N.F.P.A. requirements for fire dampers as well as smoke dampers. They are intended for use where building codes call for the fire damper to also operate as a smoke damper.
- 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 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.
- Fusible link/actuator (DLT-1) 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 Model 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.

## Suggested Specification

Combination Fire/Smoke Dampers shall be Model: FSD-AF-FA-212 by NCA Manufacturing. Fire/Smoke Dampers shall bear the Underwriters' Laboratories labels for both Fire Dampers and Smoke Dampers. Each damper shall be UL/ULC qualified for mounting outside of the plane of the wall and have concealed actuator access, from grille side, to allow 'through the grille' access to actuator and controls. U.L. 555S rating shall be Class II with leakage not to exceed 20 cfm per sq. ft.. at 4.0 inches static pressure for any size. Linkage shall be of the concealed type for maximum free area.

## 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.

Specifications are correct at time of printing. However, as part of our 'continuous improvement program,' we reserve the right to make further improvements without notice.

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FSD-AF-FA-212 - 02-05

Project:

Contractor:

Location:

Address:

Architect:

P.O. Number:

Engineer:

Date:



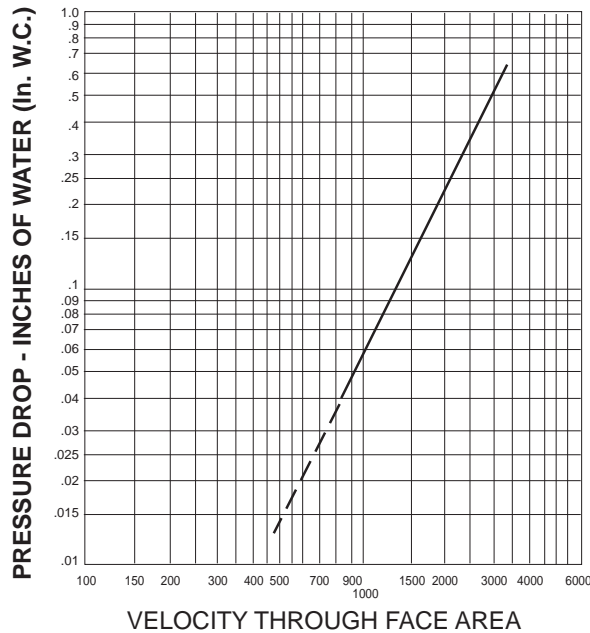
**MODEL FSD-AF-FA-212**  
**COMBINATION FIRE / SMOKE DAMPER**  
**U.L. 555 CLASSIFIED 1 1/2 HOURS / U.L. 555S CLASSIFIED CLASS II**  
**FRONT ACCESS AND OUTSIDE WALL / PARTITION APPLICATION**

**PERFORMANCE DATA**

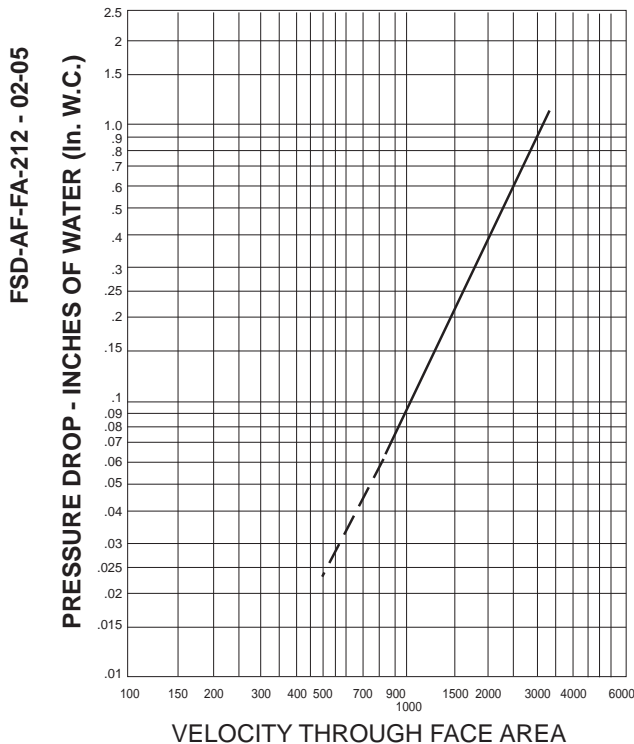
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Pressure drop testing was done by an independent laboratory to the AMCA Standard 500-D, Fig. 5.3 ductwork upstream & downstream.

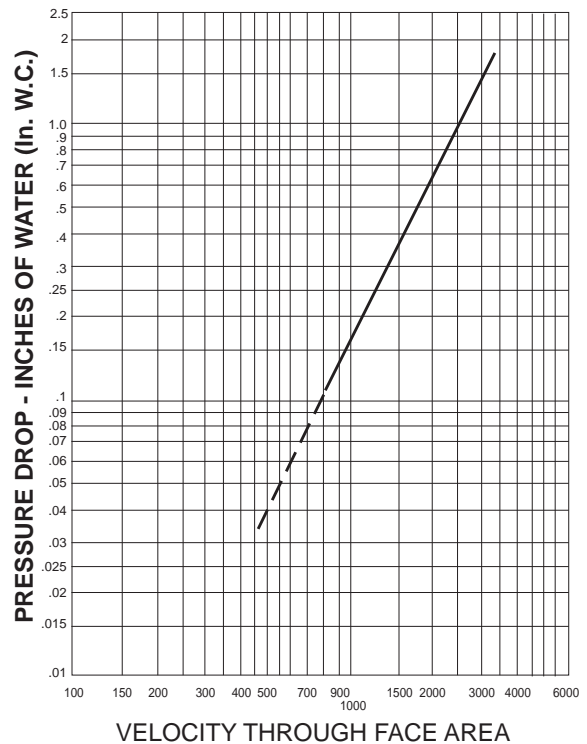
**DAMPER SIZE 36 x 36**



**DAMPER SIZE 24 x 24**



**DAMPER SIZE 12 X 12**



FSD-AF-FA-212 - 02-05