

**Suggested Specification**  
**For**  
**Class II Fire Smoke Dampers**

**I. AGENCY APPROVALS and RATINGS**

A: Approving Agencies and Standards: UL 555, UL 555 S, NYC Bldg. Code RS-13, NFPA 90A, NFPA 92A.

B: Proof of Compliance By means of the following:

1. Product label indicating at a minimum; manufacturer's name and model number; date of manufacture; fire endurance rating; airflow and closure pressure rating; mounting position; UL file number and logo; and NYC MEA number

C: All Model numbers from the manufacturer must be listed and approved with the UL for the sizes as specified on the drawing by the engineer and may not exceed the limits shown in the UL Online Certifications Directory for that manufacturer.

D: Leakage Ratings CLASS II:

E: Fire Endurance 1 ½ HOUR:

**II. DAMPER CONSTRUCTION**

A: Design: Triple-Vee blade (#16 gauge steel).

B: Galvanized steel.

C: Jambs "Hat channel design" – 5 W x ½ DEEP; # 20 gauge steel.

D: Linkage – parallel blade operation, concealed in jambs.

E: Bushings – flanged design, SS oillite.

F: Side Jamb Seals – compressible SS.

G: Blade Edge Seals – silicone rated to 350° F.

**III. HEAT RESPONSE DEVICE**

A: Electric Heat Sensor, Dual Temperature – primary sensor 160° F minimum, 212° F maximum; secondary sensor minimum greater than primary temperature, 350° F maximum

B: All damper configurations from manufacturer must comply with UL 555 and UL 555 S and must be so labeled. **All Model numbers from the manufacturer must be listed and approved with the UL for the sizes as specified on the drawing by the engineer and may not exceed the limits shown in the UL Online Certifications Directory for that manufacturer.**

**IV. ACTUATOR**

All actuators shall be capable of operating to a degradation temperature of 350° F.

A: Motive Force to be 24 or 120 volt, or Pneumatic as required.

B: Agency Approvals

1. Electric Actuators – UL 873, UL 555, and UL 555-S

C: Design and Construction

1. Electric Actuators – Belimo model #FSNF.

**V. SLEEVES, RETAINING ANGLES and INSTALLATION**

A: As illustrated on detail of drawing or one of the permitted profiles illustrated in UL 555, NFPA 90A, and the SMACNA HVAC DUCT CONSTRUCTION STANDARD.

B: Expansion space – the annular space around the sleeve must not be filled with caulking, fill or firepacking materials; this space must be left for thermal expansion.

C: Maximum Opening – the maximum opening that may be protected with a single damper assembly – whether single or multi section – may not exceed the limits shown in the UL Online Certifications Directory for that manufacturer.

**VI. ACCESSORIES**

A: Blade Position Indicators – Double micro-switch (two single pole, single throw switches) mounted in junction box, four wire leads and connected to drive blade with minimum 1/8" DIAM rod.

**VIII. APPROVED MANUFACTURERS**

Pottorff model #FSD-142 or approved equal.