



COMBINATION FIRE AND SMOKE DAMPER

UL555 1 ½ Hour Fire Rating

UL555S Leakage Class I

APPLICATION

Model FSD-30 is a combination fire smoke damper designed with 3V style blades and qualified for closure in static and dynamic systems with velocities to 2,000 fpm and pressures to 4" w. g. Model FSD-30 installed vertically.

RATINGS

UL555 Fire Resistance Rating: 1 ½ Hour

UL555S Leakage: Class I

Maximum Velocity: 2000 fpm

Maximum Pressure: 4 in. w.g.

Maximum Temperature: 350°F

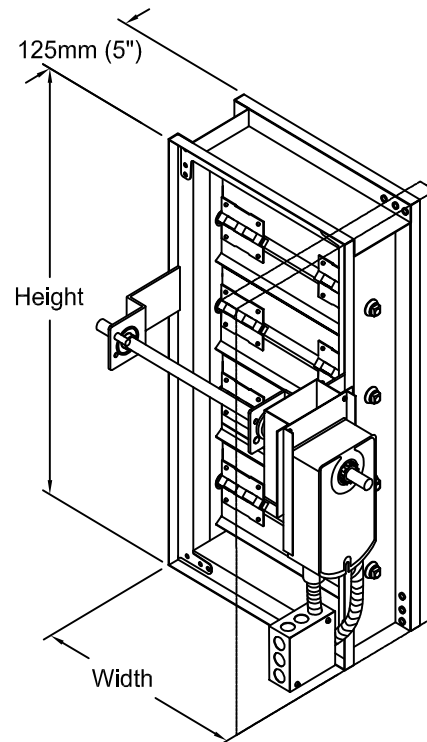
STANDARD CONSTRUCTION

- Frame:** 5" x 16 Ga., roll formed galvanized steel hat-section with stake corners with integral bracing
- Blades:** 16 Ga., roll formed galvanized steel, 3-V groove style
- Linkage** Plated steel, concealed in jamb
- Bearings:** Bronze, pressed into frame
- Jamb Seals:** Stainless steel, flexible metal compression type
- Blade Seals:** Silicone edge type 350°F
- Closure Device:** Electric Fusible Link 165°F

UL CLASSIFIED
UL555 Listing ÜĜ ĘĤ , UL555S Listing ÜĜ ĘĤ

DAMPER SIZES

- Minimum Size** 8" W x 8" H
- Maximum Size** Single Section 36" W x 36" H
Vertical Mount



Width & Height are furnished approximately 1/4" undersized.

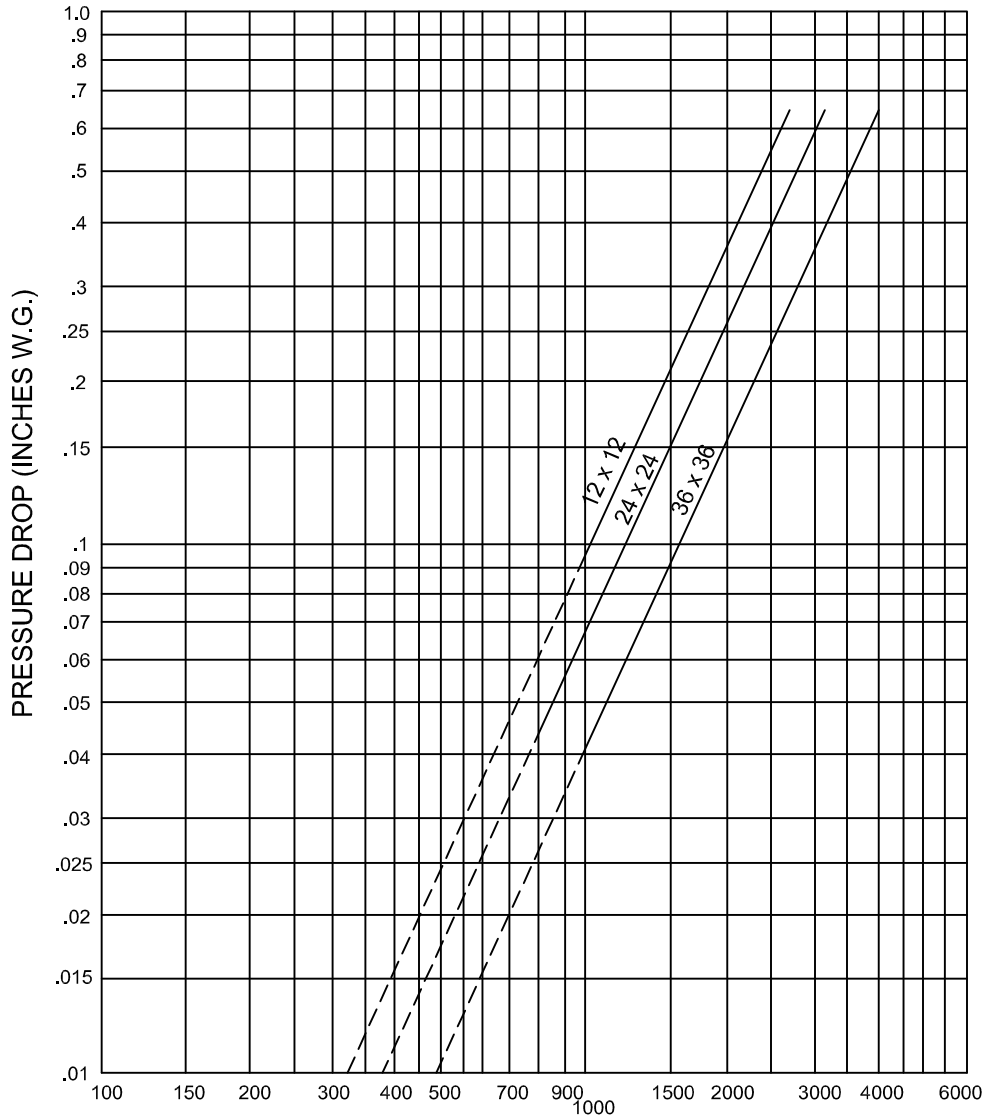
OPTIONS

- Factory Sleeves and Transitions
- Actuators: Electric 24 V, 230 V
- Open Close Indication Switch (Integral Auxiliary Switch)
- Manual Reset Switch
- Retaining Angles

AIR PERFORMANCE DATA: PRESSURE DROP

Pressure drop testing was conducted in accordance with AMCA Standard 500-D.

VELOCITY VS. PRESSURE DROP



VELOCITY THROUGH FACE AREA

In accordance with AMCA Fig. 5.3

Test Figure 5.3 (In accordance with AMCA Standard).

AMCA Test Figure 5.3 illustrates a fully ducted damper. Where entrance and exit losses are minimized by straight duct runs upstream and downstream of the damper.

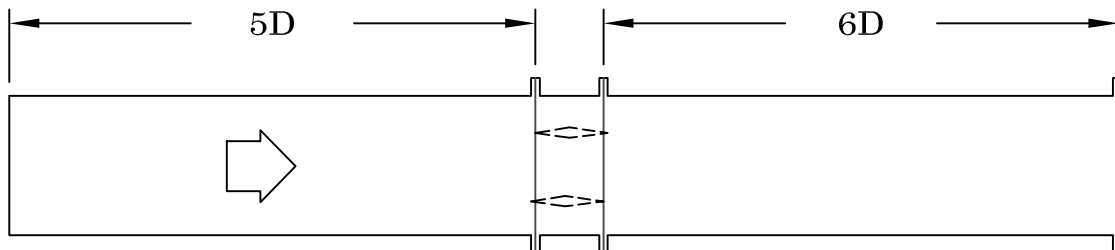
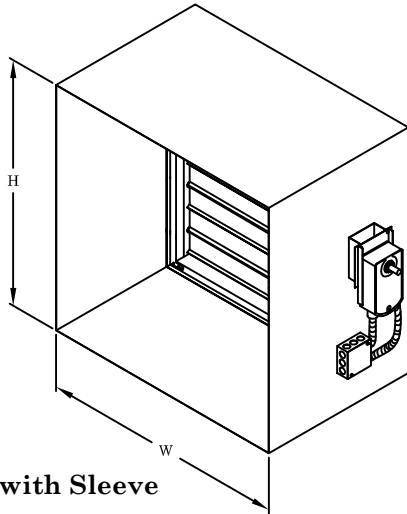
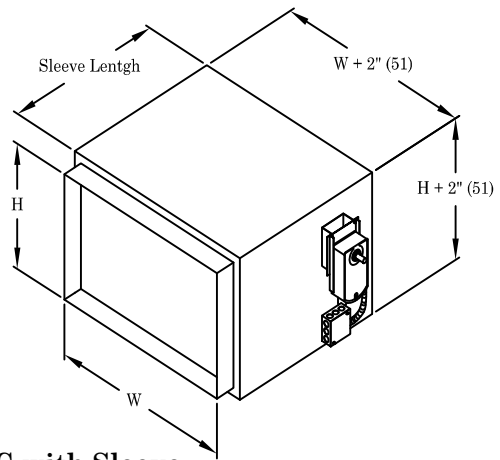


Figure 5.3

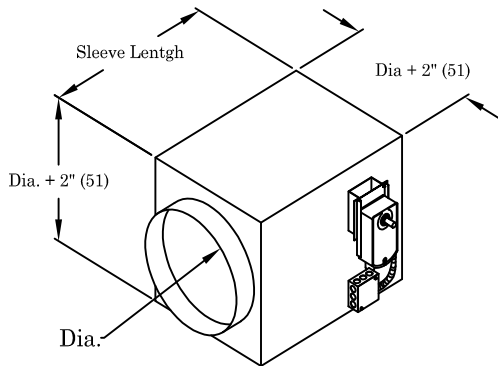
TRANSITION & SECTION DETAILS



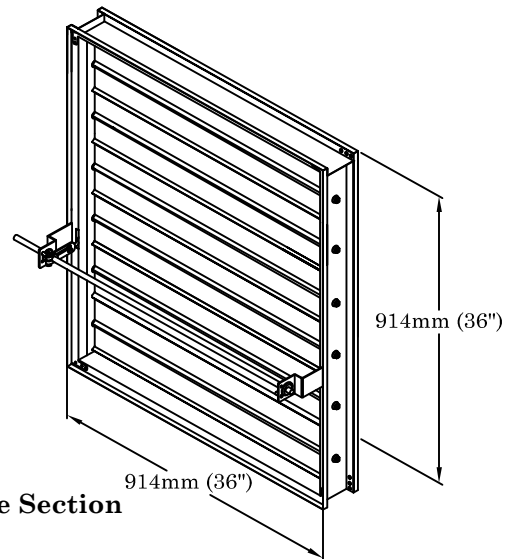
Style A with Sleeve



Style C with Sleeve



Style CR with Sleeve



Single Section

SUGGESTED SPECIFICATION

Combination fire/smoke dampers meeting or exceeding the following specifications shall be furnished and installed at locations shown on plans or as described in schedules. Dampers shall be classified for use for fire resistance ratings of less than 3 hours, in accordance with UL555 and classified as Smoke Dampers in accordance with UL555S Standard. UL555S leakage rating shall be Leakage Class 1.

Dampers and their actuators shall be qualified in accordance with UL555S to elevated temperature of 350°F (177°C) depending upon the actuator. Appropriate electric actuators shall be installed by the damper manufacturer at time of damper fabrication.

Damper blades shall be 16 gauge galvanized steel 3V type with three longitudinal grooves for reinforcement. Damper frame shall be 16 gauge galvanized steel formed into a structural hat channel shape with reinforced corners. Bearings shall be sintered bronze sleeve type rotating in extruded holes in the damper frame. Blade edge seals shall be silicone rubber designed to inflate and provide a tighter seal against leakage as pressure on either side of the damper increases.

Damper must be rated for mounting vertically and be UL 555S rated for leakage and airflow in either direction through the damper. Each damper shall be supplied with a 165°F (74°C) Electric Fusible Link. The basis of design is IGC Model FSD-30.

SLEEVE STANDARD DETAILS

Damper Sizes	Minimum Sleeve Size
203 x 203 to 254 x 254 (8" x 8" to 10" x 10")	559 (22")
254 x 254 to 304 x 304 (10" x 10" to 12" x 12")	508 (20")
304 x 304 to 457 x 457 (12" x 12" to 18" x 18")	457 (18")
457 x 457 to 914 x 914 (18" x 18" to 36" x 36")	330 (13")

Note: Other non-standard sleeves also available.
Please consult IGC for more details.

