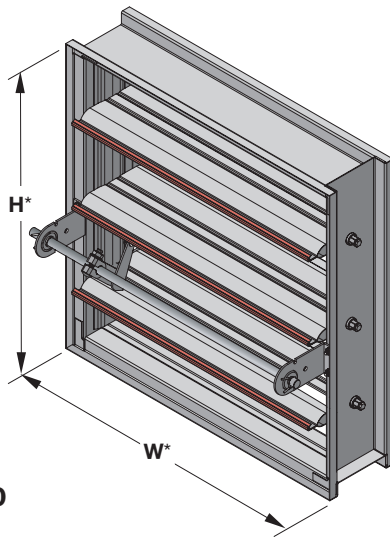




FD-380
(standard)

*Damper dimensions furnished approximately 1/4" (6) undersize.
(sleeve thickness not included)

Options

- **PI-50 — Dual-position indicator switch package**
- **Factory-installed sleeve:**
 - Type: ■ A (Std.) ■ C
 - Gauge: ■ 20 (1.0) ■ 18 (1.3) ■ 16 (1.6)
 - 14 (2.0) ■ 10 (3.4)
 - Length: ■ 12" (305) ■ 16" (406) ■ 24" (610)
 - Other _____
- **Transitions (sleeve required):** ■ Flanged
 - Round ■ Oval
 - Duct connections: ■ 1"(25) S-clip ■ DM-25
 - DM-35 ■ S & Drive ■ WARD
- **Retaining angle systems:**
 - Gauge: ■ 16 (1.6)
 - Picture frame: ■ SSPF (single-side) ■ DSPF (2-sided)
 - Individual angle sets: ■ SS (single-side) ■ DS (2-sided)
- **Alternate fire closure temperature:**
 - 212°F (100°C)
- **Duct access door factory mounted in common sleeve**
- **Burglar Bars**
- **Generic mullion for oversized masonry or concrete openings**
- **Manual locking quadrant**

The FD-380 fire damper employs airfoil blades for point-of-origin control of fire in static and dynamic HVAC systems. The FD-380 is qualified to 4,000 ft/min (20.3 m/s) and 6 in.wg. (1.5 kPa) and may be installed in vertical walls or partitions, or horizontally in floors or assemblies with fire resistance ratings up to 4 hours.

Ratings

UL 555 Fire Resistance Rating: 3 Hour (vertical and horizontal)

Maximum Dynamic Closure Velocity: 4,000 fpm (20.3 m/s)
2,000 fpm (10.2 m/s) Multiple Sections

Maximum UL555S Rated Pressure: 6 in.wg. (1.5 kPa)
4 in.wg. (1.0 kPa) below 8" in height

Listings

UL 555 listing: R14981

CAN/ULC S112 listing: R14981

CSFM listing: 3225-1404:108

Meets NFPA Standards: 90A, 92A, 92B and 101

Meets Building Code Standards: IBC, NBC, NFPA,
SBC and UBC



Standard Construction

Frame: 5" x 1" (127 x 25) galvanized steel hat channel with interlocking corner gusset. Equivalent to 13 gauge (2.4) channel frame. Low profile head and sill are used on sizes less than 13" (330) high.

Blades: 6" x 14 gauge (152 x 2.0) galvanized steel — airfoil

Axles: 1/2" (13) diameter plated steel hex

Linkage: Concealed in frame

Bearings: Stainless steel oilite, sleeve-type

Seals: Silicone blade edge seals integrally rolled and mechanically fastened to blades. Flexible metal jamb seals.

Fire Closure Device: Fusible link

Fire Closure Temperature: 165°F (75°C)

Minimum Size: 8" x 6" (203 x 152)

Type C: 6" x 4" (152 x 102)

Maximum Size: Single Section: Vertical: 30" x 48" (762 x 1219)

Type C: 28" x 46" (711 x 1168)

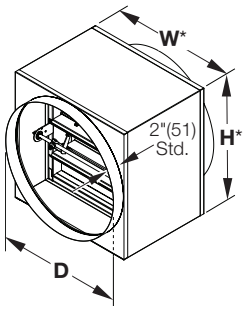
Horizontal: 32" x 48" (813 x 1219)

Type C: 30" x 46" (762 x 1168)

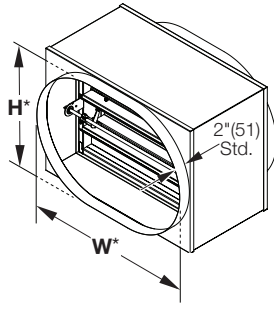
Multiple Section: Vertical: 120" x 96" (3048 x 2438)

Horizontal: 64" x 96" (1626 x 2438)

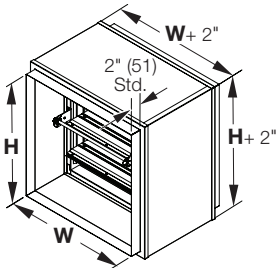
Typical Damper Dimensional Data



Type R (Optional)
Round duct transitions are standard with $D=W=H$. (available with $D<W$ and H)



Type O (Optional)
Oval duct transitions are standard with W and H equal to damper width and height dimensions. (available with W and H smaller than damper width and height)

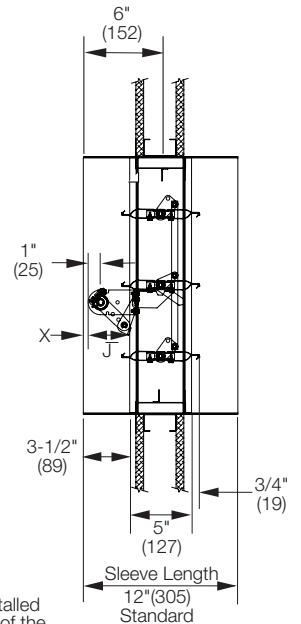
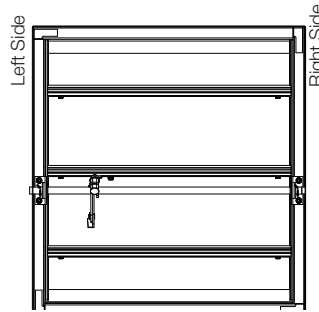


Type C (Optional)
Damper is oversized and uses rectangular transitions to remove damper frame from airstream

*Damper dimensions furnished approximately 1/4" (6) undersize. (sleeve thickness not included)

The drawings and corresponding table show the position of the damper when mounted in a factory sleeve. The standard mounting locations provide enough space for installation of retaining angles and duct connections.

Damper Height	J	X
<8"	2"	1-1/2"
≥ 8"	3-3/8"	1/8"

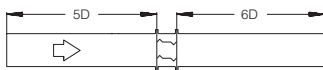
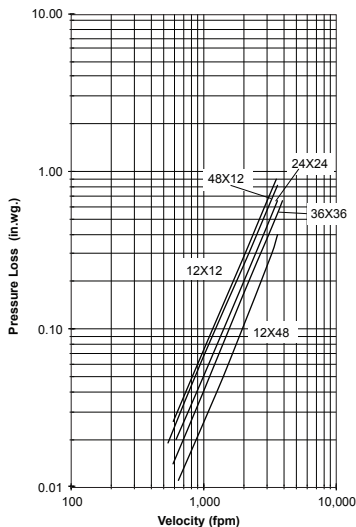


Note: 1. The entire damper frame is not required to be installed within the wall, partition or floor. However, the closed plane of the damper blades must be inside the wall, partition or floor.

Airflow Performance Data

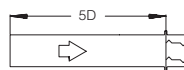
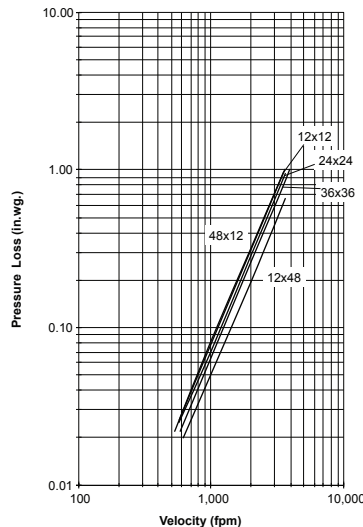
Pressure Loss vs. Velocity

Figure 5.3 — Ducted Inlet and Outlet



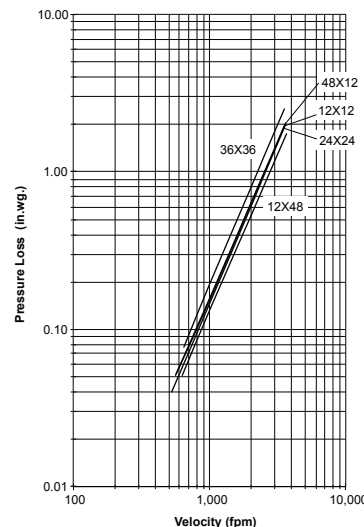
Ducted Inlet and Outlet
AMCA Figure 5.3 illustrates a fully ducted damper. This configuration represents the lowest pressure drop of the three test configurations because entrance and exit losses are minimized by straight duct runs upstream and downstream of the damper.

Figure 5.2 — Ducted Inlet



Ducted Inlet
AMCA Figure 5.2 illustrates a ducted damper exhausting air into an open area. This configuration has a lower pressure drop than Figure 5.5 because entrance losses are minimized by a straight duct run upstream of the damper.

Figure 5.5 — Plenum Mount



Plenum Mount
AMCA Figure 5.5 illustrates a plenum mounted damper. This configuration has the highest pressure drop because of extremely high entrance and exit losses due to the sudden changes of area in the system.

Pressure drop testing was performed in accordance with AMCA Standard 500-D using the three configurations shown. All data has been corrected to represent air density of 0.075 lb./ft. Actual pressure drop in any ducted HVAC system is a combination of many elements. This information, along with analysis of other system influences, should be used to estimate actual pressure losses for a damper installed in a given HVAC system.