

SD60M SMOKE DAMPER AND VOLUME CONTROL DAMPER UL555S LEAKAGE CLASS 1

APPLICATION

The SD60M is a smoke damper. Designed with airfoil blades (for lowest pressure drop) and equipped with either a modulating electric or pneumatic actuator so it can also be used as a volume control damper. The SD60M is designed for use in HVAC systems with velocities to 2,000 fpm and pressures to 4" w.g.

STANDARD CONSTRUCTION

FRAME

5" x 16 gage (127 x 1.6) galvanized, hat-shaped channel, structurally superior to 13 (2.3) gage channel frame.

BLADES

Airfoil-shaped, double-skin, single piece construction with 14 gage equivalent thickness, maximum 6" (152) wide.

BEARINGS

Stainless steel sleeve, pressed into frame.

JAMB SEALS

Stainless steel, flexible metal compression type.

BLADE SEALS

Silicone edge type for smoke seal to 450°F (232°C) mechanically fastened to the blade edge.

LINKAGE

Concealed in frame.

ACTUATOR

Electric

120VAC - M9182A120.

24VAC - M9182A24.

Both actuators come factory equipped with an interface module (Q7230A) that provides current or voltage control (4 - 20 mA and 2 - 10 Vdc) with adjustable zero and span.

Pneumatic

331-2961P (includes pilot positioner)

DAMPER SIZES

MINIMUM SIZE

8" w x 6" h (203 x 152).

MAXIMUM SIZE

Single Section – 32" w x 48" h (813 x 1219)

Multiple Section

Vertical/Horizontal Installation – 120" w x 48" h (3048 x 1219)

OPTIONS

- **DSDP/DSDN Duct Smoke Detector** (Flow rated or No-Flow).
- **SP100 Switch Package** to remotely indicate damper blade position.
- **Factory Sleeves** of various lengths and gages to insure field compliance with UL installation requirements.

NOTES

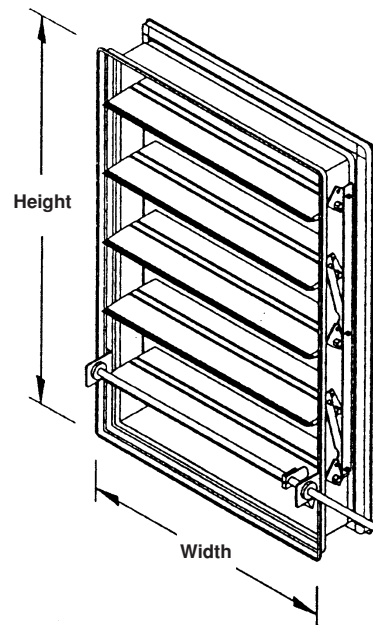
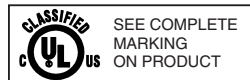
1. Damper are furnished approximately 1/4" (6) smaller than given opening dimensions.
2. Dimensions shown in parentheses () indicate millimeters.

Models FSD60M, FSD60-3M and SD60M meet the requirements for fire, smoke and combination fire and smoke dampers established by:

- **National Fire Protection Association** NFPA Standards 90A, 92A, 92B and 101
- **BOCA National Building Codes**
- **ICBO Uniform Building Codes**
- **SBCCI Standard Building Codes**
- **ICC International Building Codes**
- **CSFM California State Fire Marshal** and Smoke Damper Listing (#3230-245:110)
- **New York City** (BSA Listing #645-84)

UL CLASSIFIED

UL555S Listing R5531



AMCA LICENSED AIR PERFORMANCE DATA



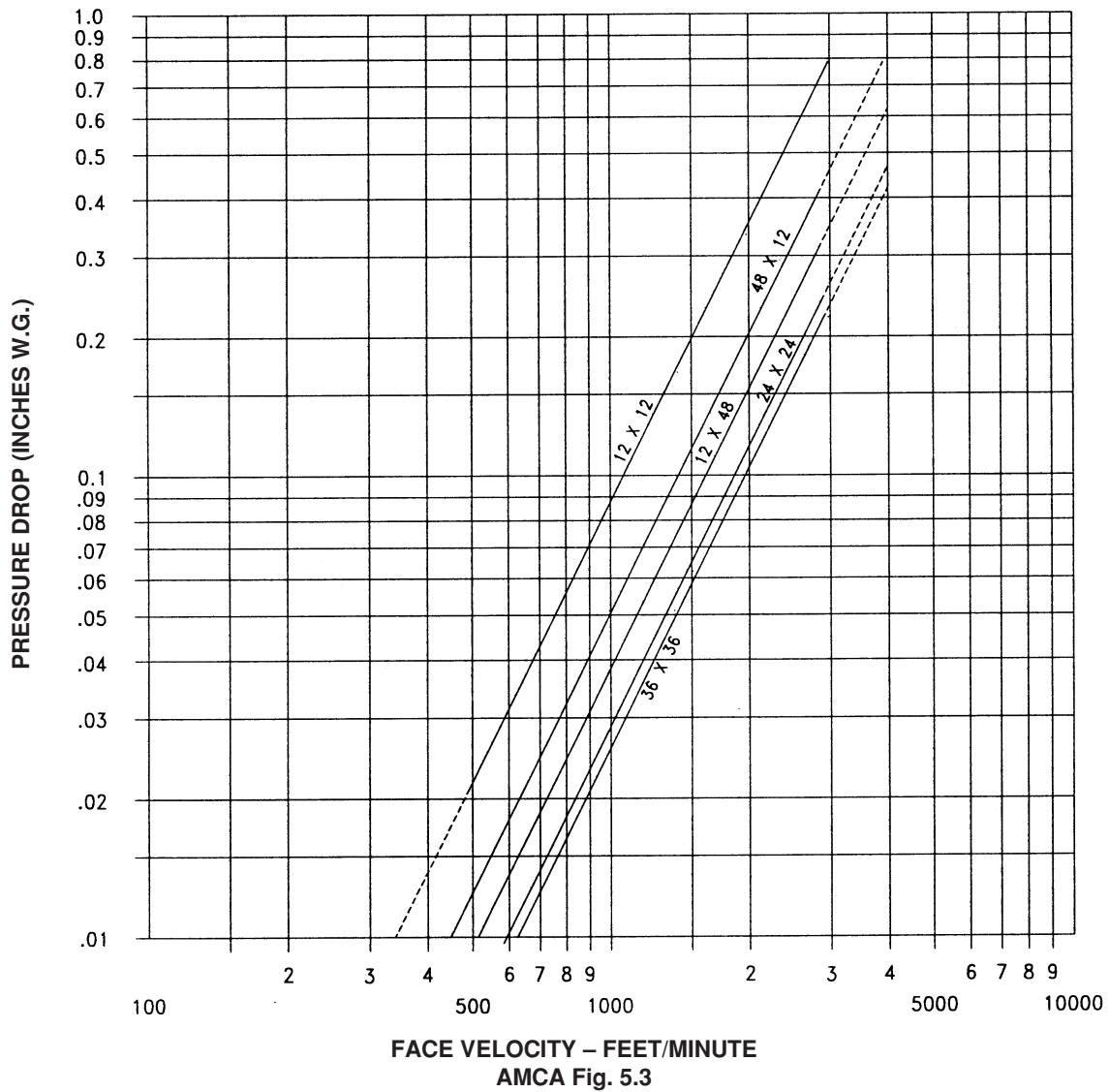
Ruskin Company certifies that the SD60M shown hereon is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance for the SD60M.

To determine the AMCA Licensed air performance:

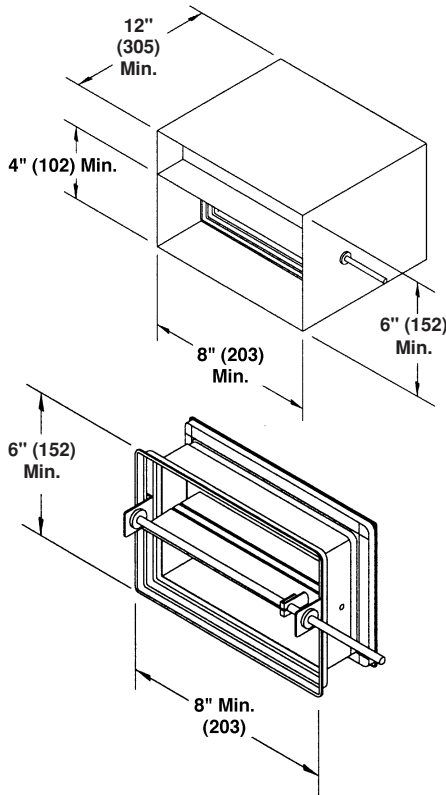
Locate the applicable feet per minute face velocity on the bottom of the velocity vs. pressure drop chart below. Move up the chart to the most appropriate size damper line. From the intersection point, move left to determine the pressure drop on the left side of the chart.

For other damper sizes refer to **Air Performance Data For All Fire and Smoke Dampers** spec sheet.

VELOCITY vs. PRESSURE DROP



DIMENSIONAL INFORMATION

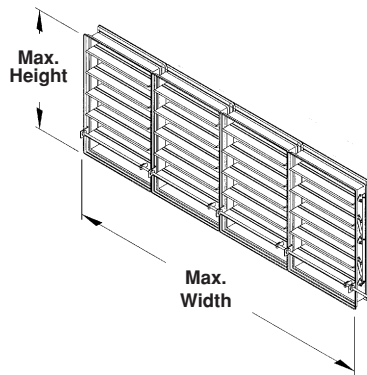


MINIMUM SIZES

Nominal – 8" w x 6" h (203 x 152).

Actual – 7³/₄" w x 6³/₄" h (197 x 171).

Dampers with heights (B dimension) less than 6" (152) require Style B transitions and a sleeve.



MAXIMUM UL CLASSIFIED SIZE

Single Section:

32" w x 48" h (813 x 1219)

Multiple Section Assembly

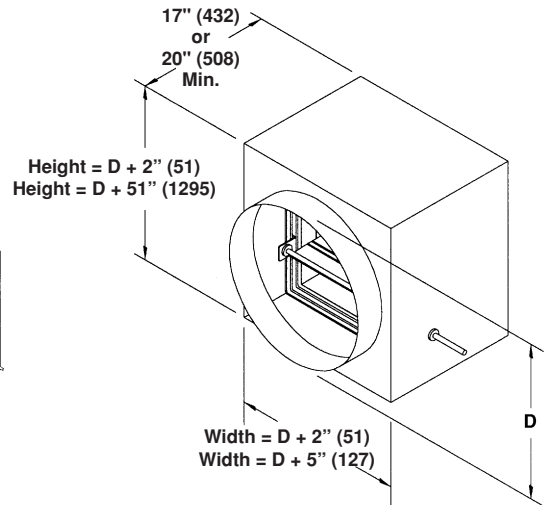
Vertical Installation –

120" w x 48" h (3048 x 1219)

Horizontal Installation

120" w x 48" h (3048 x 1219)

For dampers exceeding these dimensions consult Ruskin.



ROUND, OVAL OR RECTANGULAR DUCT TRANSITION CONNECTION

FSD60 dampers supplied with round connections (R for low pressure, CR for medium pressure or WR welded for high pressure) are:

Minimum 4" (102) in diameter

Maximum 46" (1168) in diameter

The square size of the damper will be 2" (51) larger than the diameter dimension ordered.

FSD60 dampers supplied with rectangular or oval connections (C, CO, LO for low to medium pressure or WC, WO welded for high pressure) are:

Minimum 6" w x 4" h (152 x 102)

Maximum 118" x 46" h (2997 x 1168)

The square size of the damper will be 2" (51) larger than the width and height of the damper A x B dimensions.

SPECIFICATION

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 meet the requirements of NFPA90A, 92A and 92B. Dampers shall be classified as Leakage Class I Smoke Dampers in accordance with the latest version of UL555S. Dampers shall be warranted to be free from defects in material and workmanship for a period of 5 years after date of shipment.

Each smoke damper shall be AMCA licensed and shall bear the AMCA Certified Ratings Seal for air performance. AMCA certified testing shall verify pressure drop does not exceed .03" w.g. at a face velocity of 1,000 fpm on a 24" x 24" damper.

In addition the dampers and their actuators shall have a UL555S elevated temperature rating of 250°F (121°C). Appropriate modulating electric or pneumatic actuators shall be installed by the

damper manufacturer at time of damper fabrication.

Damper frame (when size permits) shall be constructed using the UniFrame Design Concept (UDC) and shall be a roll-formed structural hat channel, reinforced at the corners, formed from a single piece of minimum 16 gage (1.6) galvanized steel. Damper blades shall be airfoil shaped with 13 gage (2.3) equivalent thickness formed from a single piece of galvanized steel. Bearings shall be stainless steel turning in an extruded hole in the frame. Blade edge seals shall be silicone rubber and galvanized steel mechanically locked in to the blade edge (adhesive type seals are not acceptable). Each damper shall be supplied with a factory mounted sleeve of 17" (432) minimum length. Dampers shall be Ruskin model SD60M.

(Consult Ruskin for detailed CSI *MasterFormat* Specification).

RUSKIN®

3900 Dr. Greaves Rd.
Kansas City, MO 64030
(816) 761-7476
FAX (816) 765-8955
www.ruskin.com