

INSTALLATION & MAINTANANCE MANUAL

FD125



Motorized Fire & Smoke Damper

SD 125



Motorized Fire Damper

MD125



SD125 Motorized Smoke Damper



FD125 / MD125 / SD125
Motorized Fire & Smoke Damper Motorized Fire Damper
Motorized Smoke Damper

INSTALLATION & MAINTANACE MANUAL

READ AND SAVE THESE INSTRUCTIONS

1. Type of Wall & Damper Orientation

Dampers are to be installed vertically in masonry walls or gypsum / steel stud walls or horizontally in floors.

2. Expansion Clearance

The opening in the wall shall be larger than the damper / sleeve assembly to permit installation or expansion. For two angle installations the opening shall be a minimum of 1/8" per foot (3mm per 305mm) larger than the overall size of the damper/sleeve assembly. The maximum opening size shall not exceed 1/8" per foot (3mm per 305mm) plus 2" (51mm), nor shall the opening be less than 1/4" (6mm) larger than the damper / sleeve assembly. Damper must be placed inside the wall opening so that blades in closed position are inside the plane of the wall / barrier.

3. Damper Sleeve

Sleeve thickness must be equal to or thicker than the duct connected to it. Sleeve gauge requirements are listed in the SMACNA Fire, Smoke and Radiation Damper Installation Guide for HVAC Systems and in NFPA90A.

Round duct dia. Or Rectangular duct width		Recommended sleeve thickness for breakaway joints	
inch	mm	gauge	mm
12 or less	305 or less	26	0.5
13 – 30	330 – 762	24	0.6
31 – 54	787 – 1372	22	0.8
55 – 84	1397 – 2134	20	0.9
85 or more	2159 or more	18	1.2

If a breakaway style duct/sleeve connection is not used, then sleeve shall be a minimum of 16 gauge (1.5mm) for dampers up to 36" (914mm) wide by 24" (610mm) high and 14 gauge (2.0mm) for dampers exceeding 36" (914mm) wide by 24" (610mm) high. Damper sleeve shall not extend more than 6" (152mm) beyond the fire wall or floor or partition unless damper is equipped with an actuator and/or factory installed access door. Sleeve may extend up to 16" (406mm) beyond the fire wall or floor or partition on sides equipped with actuator and/or factory installed access door. Sleeve shall terminate at both sides of wall within dimensions as mentioned above.

4. Damper to Sleeve Connection

Damper can be attached with sleeve by a) Φ 4.8mm x 10mm rivets spaced at 3.5" (90mm) o.c., b) 1/4" (6mm) bolts & nuts or c) tuck welds spaced at 6" (152mm) o.c. max and 2" (51mm) max. from each corner.

5. Mounting/Retaining Angles

MS mounting / retaining angles shall be minimum of 1-1/2" x 1-1/2" x 1/12" steel (40 x 40 x 2.3 mm). Minimum 1" (25mm) overlap on all sides and corners. Mounting angles can or cannot to be joined together by welding at the edges.

6. Mounting Angle to Sleeve Connection

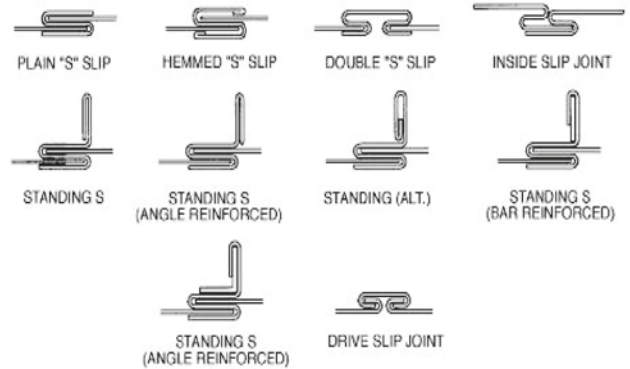
Mounting angles are attached to sleeve by 3/16" (Φ 4.8mm) x 5/8" (16mm) rivets or 1/4" (6mm) bolts or 1/2" (12mm) long welds spaced at 6" (152) o.c. max. and 2" (51mm) min. from damper corners.

7. Duct-to-Sleeve Connection

Connecting ducts shall not be continuous and shall terminate at sleeve on both sides of the damper.

a. Breakaway duct-to-sleeve connection

Rectangular ducts must use one or more of below mentioned (UL recognized breakaway joint):



b. Round / oval breakaway duct-to-sleeve connection

For connection with Round or flat oval ducts, round or flat oval duct transitions of thickness similar to sleeve thickness are installed on one or both sides of sleeve of damper using either Φ 4.8mm x 10mm rivets or no: 10 sheet metal screws as per below criteria:

- Ducts 22 in. (559mm) wide (or dia.) and smaller may use up to 3 screws.
- Ducts over 22 in. (559mm) wide (or dia.) and including 36 in. (914) may use up to 5 screws.

NOTE: All breakaway connections described may have approved duct sealant applied in accordance with SMACNA recommendations.

c. Non-breakaway duct-to-sleeve connection

If other duct to sleeve connections are used, the sleeve shall be a minimum of 16 gauge (1.5mm) for dampers up to 36" (914mm) wide by 24" (610mm) high and 14 gauge (2.0mm) for dampers exceeding 36" (914mm) wide by 24" (610mm) high.

8. Electrical Connections

All wiring shall be done in accordance with any local codes, ordinances or regulations that may apply.

9. Safety Caution

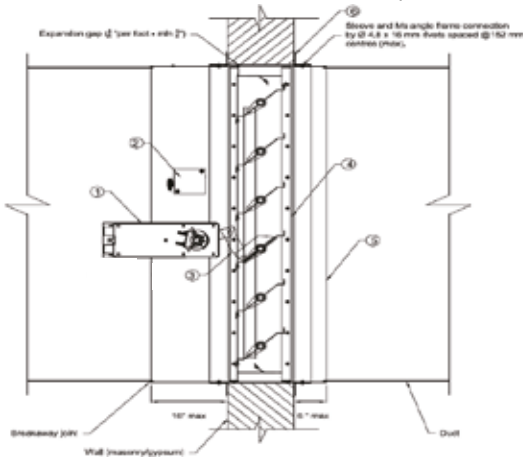
Dampers are supplied with factory installed actuators for which electrical input is required. This work should be performed by a qualified electrician. Verify the power before wiring the actuator. Aldes is not responsible for any damage to, or failure of the unit caused by incorrect field wiring.

10. Installation & Maintenance

To ensure optimum operation and performance, the damper must be installed so that it is square and free from racking. Each fire damper should be inspected, cleaned and tested on a regular basis and in accordance with the latest editions of NFPA 90A, 92A, local codes and actuator manufacturer recommendations. Care should be exercised to ensure that such tests are performed safely and do not cause system damage. Aldes recommends at least one inspection yearly.

Vertical Installation (MFSD / MFD):

Damper can be installed on either side of the wall in accordance with the airflow label on damper.

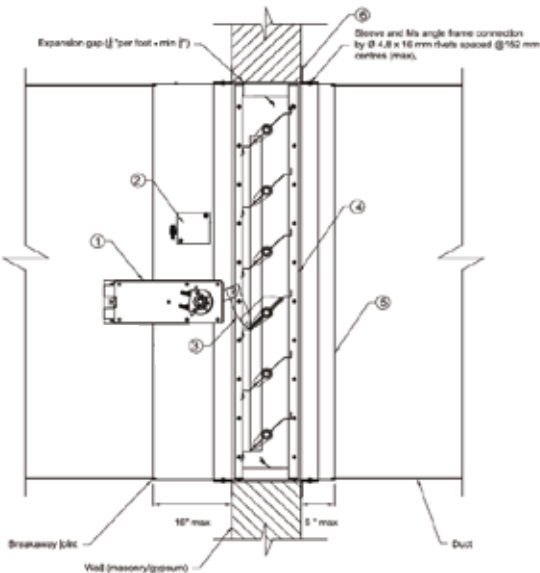


DESCRIPTION

1. Spring return actuator
FSNF-S US (24V/230V)
2. (TRD)Thermal responsive device
3. Jackshaft lever
4. Casing
5. Sleeve
6. Retaining angle (40 x 40 x 2.3 mm)

Vertical Installation: (MSD)

Damper can be installed on either side of the wall in accordance with the airflow label on damper.

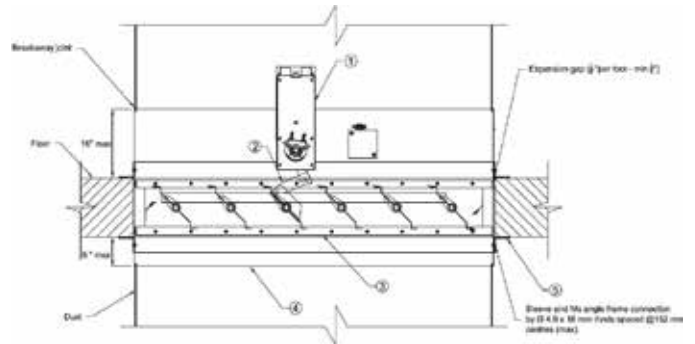


DESCRIPTION

1. Spring return actuator
FSNF-S US (24V/230V)
2. Jackshaft lever
3. Casing
4. Sleeve
5. Retaining angle (40 x 40 x 2.3 mm)

Horizontal Installation (MFSD / MFD):

Damper can be installed on either side of the floor in accordance with the airflow label on damper.

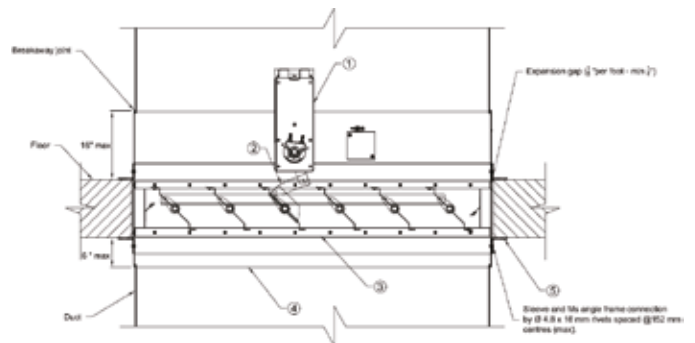


DESCRIPTION

1. Spring return actuator
FSNF-S US (24V/230V)
2. Jackshaft lever
3. Casing
4. Sleeve
5. Retaining angle (40 x 40 x 2.3 mm)

Horizontal Installation (MSD):

Damper can be installed on either side of the floor in accordance with the airflow label on damper.



DESCRIPTION

1. Spring return actuator
FSNF-S US (24V/230V)
2. Jackshaft lever
3. Casing
4. Sleeve
5. Retaining angle (40 x 40 x 2.3 mm)

RECOMMENDED FRAMING FOR OPENINGS IN WOOD & METAL STUD WALLS

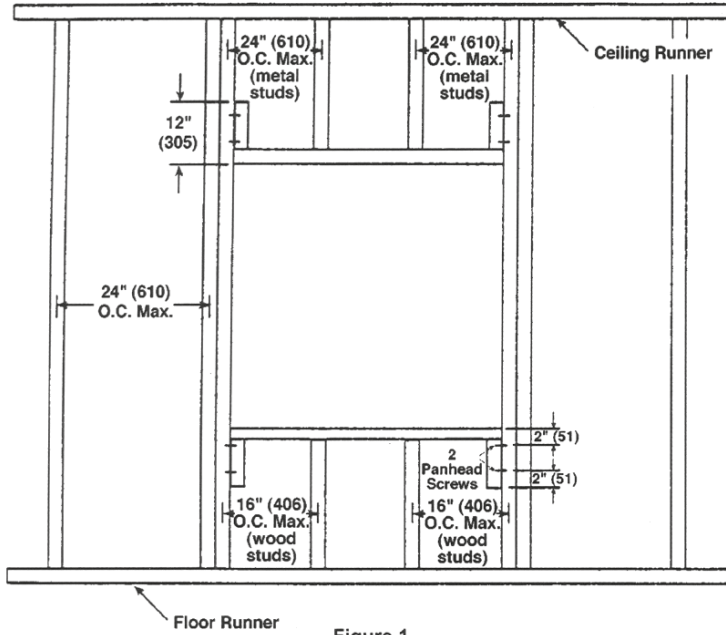


Figure 1

INSTRUCTIONS

1. Frame wall openings as shown.
2. Double vertical studs are not required for openings 36" w x 36" h (914 x 914) or smaller.
3. All construction and fasteners must meet the requirements of the appropriate wall design and/or local codes.
4. Consult the authority having jurisdiction for other acceptable framing methods.

NOTE

The Metal Stud Construction and Wood Stud Construction figures at the bottom of the page depict mounting angles installed on both sides of the partition. A single angle may be sufficient. Refer to the instructions for single angle installation requirements.

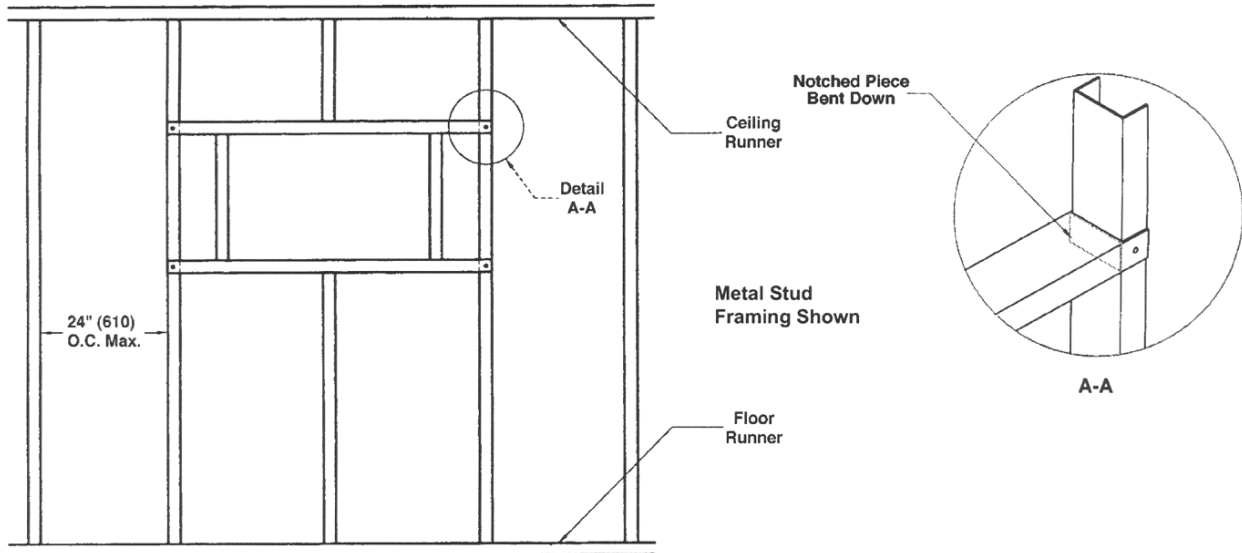
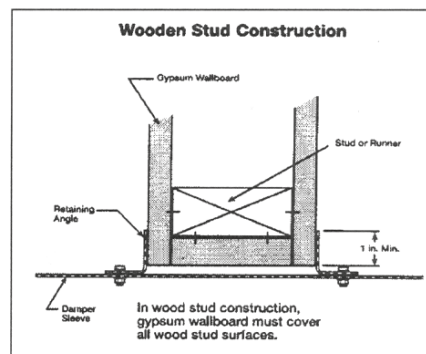
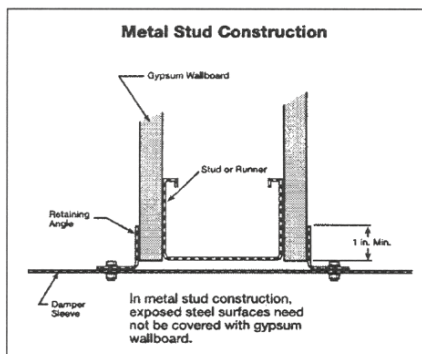


Figure 2



ALDES MIDDLE EAST

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