



Rated per UL555 & UL555S, UL File R6189

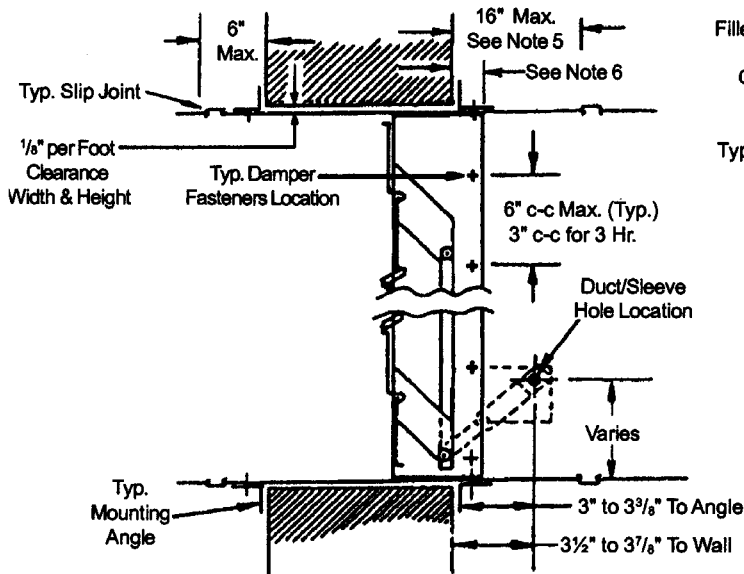
Installation Instructions for 5000 Series Combination Fire & Leakage Rated Dampers For Use in Horizontal & Vertical Ducts in Walls & Floors

1½ Hour Rated

Maximum Single Section Size: 36" x 45"
Maximum Multiple Section Vertical Size: 120" x 84"
Maximum Multiple Section Horizontal Size: 144" x 90"

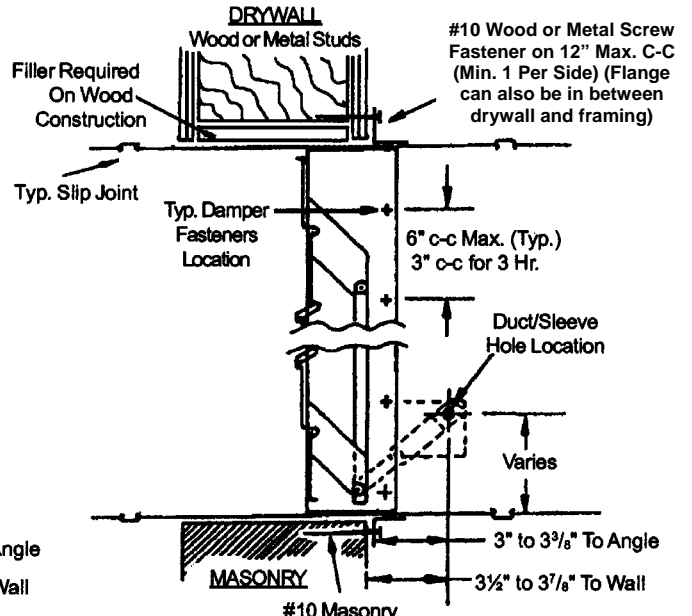
3 Hour Rated

Maximum Vertical Size: 30" x 30"



INSTALLATION 'A'

Damper In Sleeve-duct - Req'd for Extended Shaft and External Operations
Common damper and mounting angle fasteners Option Permitted



INSTALLATION 'A-1'

Single Flange Mount Option
Flange must be attached to wall and sleeve.

THESE INSTRUCTIONS TYPIFY BOTH VERTICAL AND HORIZONTAL INSTALLATIONS EXCEPT AS NOTED, AND APPLY ALSO TO MASONRY AND DRYWALL CONSTRUCTION (REFER TO SHEET Gen II-2).

IMPORTANT

For proper blade operation, the mounting fasteners in the frame must not be located in the blade rotating area.

Installation "A" - Wall or Floor Duct

1. Fabricate sleeve to fit opening as shown. Sleeve may be single or multiple pieces. Seams may be continuously welded or lapped and fastened on 4" c-c.
2. 4" x 14 Ga. flat steel mullion stiffener required at 4 corner intersection (See Sheet 5000SM-II).
3. Locate Damper assembly in sleeve area between mounting angles and fasten damper to sleeve. Be sure knee action lock is closed and locked. Fasten on 6" Max. c-c (no more than 1" from corners) with 3/16" steel rivets, #14 sheet metal screws or #8 bolts or fasten on 8" c-c with tack or spot welds. For 3-hour rated dampers, fasten on 3" max. c-c.
4. Install sleeve and damper assembly in opening and fasten in place with mounting angles. Mounting angles are attached to sleeve/duct on max. 8" c-c with 3/16" tubular steel rivets, #14 sheet metal screws or #8 bolts (welding optional - same spacing). Mounting angle sizes: 1x1x18ga. (under 18") or 1½x1½x16ga. (over 18"). The angles must not be welded or fastened to each other at the corners.
5. Connect to duct with standard slip joint connectors when required - max. 6" from wall or floor. Sleeve extension of 16" between wall or floor and slip joint is allowable on actuator and access door mounting side only - or 16" two sides with actuator and access door on opposite sides of wall/floor.
6. The plane of the damper blades must stay within the wall/floor.

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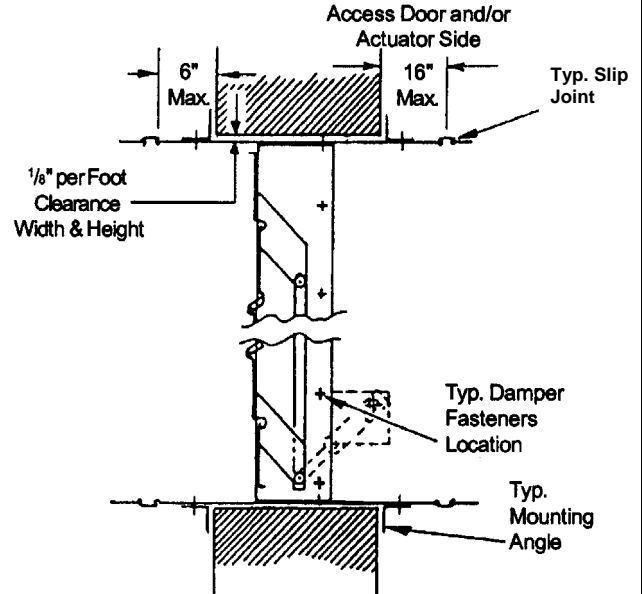


Installation Instructions for 5000 Series Dampers (Continued)

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Installation "B" - Wall or Floor Duct

1. Fabricate sleeve to fit opening as shown. Sleeve may be single or multiple pieces. Seams may be continuously welded or lapped and fastened on 4" c-c.
2. Locate damper assembly in sleeve area between mounting angles and fasten damper to sleeve. Be sure knee action lock is closed and locked. Fasten on 6" max. c-c (no more than 1" from corners) with 3/16" steel rivets, #14 sheet metal screws or #8 bolts or fasten on 8" c-c with tack or spot welds. For 3-hour rated dampers fasten on 3" max. c-c.
3. Install sleeve and damper assembly in opening and fasten in place with mounting angles. Mounting angles are attached to duct/sleeve on max. 8" c-c with 3/16" tubular rivets, #14 sheet metal screws or #8 bolts (welding optional - same spacing). Mounting angles sizes: 1x1x18 ga. (under 18") or 1½x1½x16ga. (over 18"). The angles must not be welded or fastened to each other at the corners.
4. Connect to ducts with standard slip joint connectors when required - maximum 6" from wall or floor. Sleeve extension of 16" between wall or floor and slip joint is allowable on actuator and access door mounting side only - or 16" on two with actuator and access door on opposite sides of wall/floor.



OPTIONAL INSTALLATION 'B'
Damper Centered in Sleeve/Duct
(For Internal Operation)

IMPORTANT NOTES:

Sleeve Thickness: For all installations, sleeve can be standard duct thickness and construction if UL approved slip joint connections are used. For rigid connection minimum gauge shall be .053 in. (16 Ga.) for uncoated steel and .056 in. (16 Ga.) for coated steel for fire dampers with dimensions not exceeding 24 in. in height or 36 in. in width, and a min. of .067 in. (14 Ga.) for uncoated steel and .070 in. (14 Ga.) for coated steel for larger size dampers.

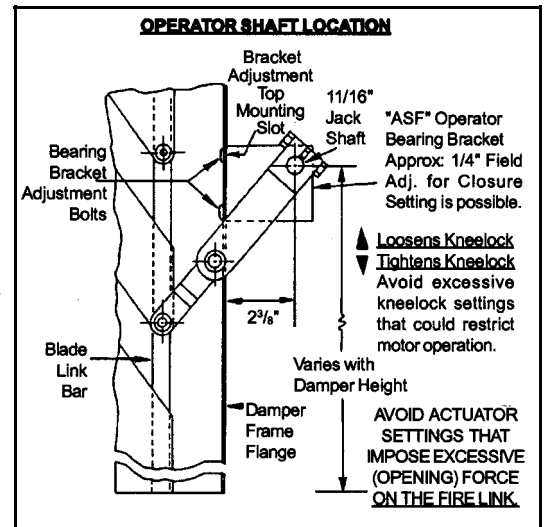
Mounting angles: Mounting angles or flanges are located within 1/2" of wall or floor surfaces all around the duct perimeter or circumference. Prefco's EZ Mount mounting angles can be utilized on 1½-Hour rated dampers up to 96" x 45" assemblies, including single side mounting as detailed in Installation "A-1".

Minimum Clearance: Minimum clearance between the wall/floor opening and the damper/sleeve assembly shall be 1/8" per foot of width and height. Minimum clearance shall be 1/4" for any size damper/sleeve assembly.

Sealant: Sealant must be used to meet UL555S requirements to create an airtight seal between the damper and the duct/sleeve and also the joint between sections in multiple section assemblies. Sealant shall be applied in a 1/8" bead minimum on the jackshaft side of the damper. After application, press surface of sealant to dispel any trapped air. Any of the following rated sealants are acceptable for use:

1. Carborundum Fiberfrax 'LDS' Moldable
2. Dow Corning Silicone #999
3. Dow Corning Silicone #732 RTV
4. GE RTV Silicone Rubber

Multiple Sections: When multiple sections are used, they could be shipped disconnected. Set the two joined dampers in the closed and locked position and tighten the coupler set screws. (Refer to Sheet 5000SM-II for details).



"ASF" Operator Bearing Bracket Approx: 1/4" Field Adj. for Closure Setting is possible.

▲ Loosens Kneelock
▼ Tightens Kneelock
Avoid excessive kneelock settings that could restrict motor operation.

AVOID ACTUATOR SETTINGS THAT IMPOSE EXCESSIVE (OPENING) FORCE ON THE FIRE LINK.