

INSTALLATION INSTRUCTIONS

FDR25 AND FDR25SS ROUND FIRE DAMPER

1 1/2 HOUR UL555 RATED

APPLICATION

The FDR25(SS) are "true" round, single blade dampers. They are designed for use with round duct and the openings may be square or round. The standard installation is with the leading edge of the closed blade within the walls, partitions or masonry floors; with fire resistance rating of less than 3 hours. Installation may be obtained with the "CINCH" plate on one side for metal stud or masonry walls and "CINCH" plate both sides for wood stud wall and masonry floors.

MOUNTING

Vertical or horizontal.

MINIMUM SIZE

6" (152) diameter.

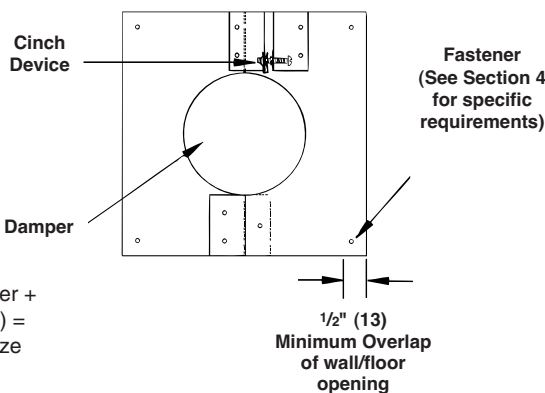
MAXIMUM UL CLASSIFIED SIZE

24" (610) diameter.

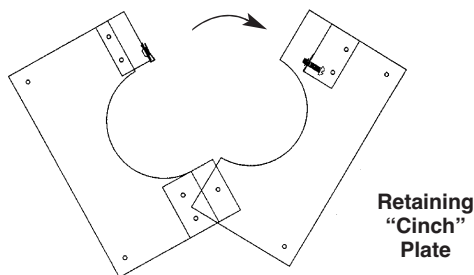
Dimensions shown in parenthesis () indicate millimeters.

RETAINING "CINCH" PLATES (see section 4)

RETAINING "CINCH" PLATE



Note:
Diameter +
6" (152) =
plate size



1. Expansion Gap

A **square** opening in wood or metal stud walls or masonry walls and floors shall be a minimum of 1" (25) and a maximum of 2 1/2" (64) larger than the damper diameter. A **round** opening in masonry walls or floors shall be a minimum of 1" (25) and a maximum of 2 1/2" (64) larger than the damper diameter.

THE RETAINING "CINCH" PLATE MUST OVERLAP THE OPENING A MINIMUM OF 1" (25).

2. Damper Sleeve

The sleeve is integral to the damper and shall be of equal to or heavier than the gage of the duct as described in NFPA90A and as defined by the appropriate SMACNA duct construction standard.

3. Damper Orientation

The leading edge of the blade in the closed position must be within the plane of the wall. Vertical installation is illustrated and horizontal is similar (see General Installation). The damper may be installed with up to a 30 degree variance of the axle being horizontal (see Blade Orientation section). Approved with air-flow in any direction.

4. Retaining "Cinch" Plates

DO NOT PLACE CINCH PLATES IN GROOVE

Place retaining cinch plates around the damper sleeve and "cinch" against the sleeve with the screw provided on the cinching device (see "Cinch" Plate section). The plates are designed to grab and hold the sleeve while mounting flush against the wall or floor retaining the damper securely in the opening. The plates must overlap the opening a minimum of 1" (25) (see "Cinch" Plate section).

The "Cinch" plates are fastened to the wall or floor according to the following:

- Masonry Wall – "Cinch" plate required on only one side of the wall fastened to the wall with a minimum of 1 1/4" (6) #10 masonry screw.
- Masonry Floor – "Cinch" plate required on both sides of the floor fastened to the floor with a minimum of 1 1/4" (6) #10 masonry screw.
- Metal Stud Wall – "Cinch" plate required on only one side of the wall fastened to the wall by engaging the metal stud a minimum of 1/2" (13) with a #10 screw.
- Wood Stud Wall – "Cinch" plate required on both sides of the wall fastened to the wall by engaging the wood stud a minimum of 1 1/2" (38) with a #10 screw.

5. Duct/Sleeve Connections

Round break-away connections must be used. Either a 4" (102) wide drawband or #10 sheet metal screws spaced equally around the circumference of the ducts as follows:

- Duct diameters 22" (559) and smaller – 3 screws.
- Duct diameters over 22" (559) to 24" (610) – 5 screws.

Note: When optional sealing of these joints is desired, the following sealants may be applied in accordance with the sealant manufacturer's instructions: Hardcast, Inc. - Iron Grip 601, Precision - PA2084T, ECO Duct Seal 44-52 or Design Polymerics - DP 1010

6. Installation and Maintenance

Do not compress or stretch the damper frame into the duct or opening. Lift or handle the damper using sleeve or frame. Do not lift damper using blade. Each fire damper should be examined on a regular basis to ensure it is not rusted or blocked. Consult NFPA for recommendations on maintenance and testing intervals. Care should be exercised to ensure that such tests are performed safely and do not cause system damage.



SEE COMPLETE MARKING
ON PRODUCT

GENERAL INSTALLATION

In 1 and 2 Hr. Rated Masonry Floors and Ceilings or Walls

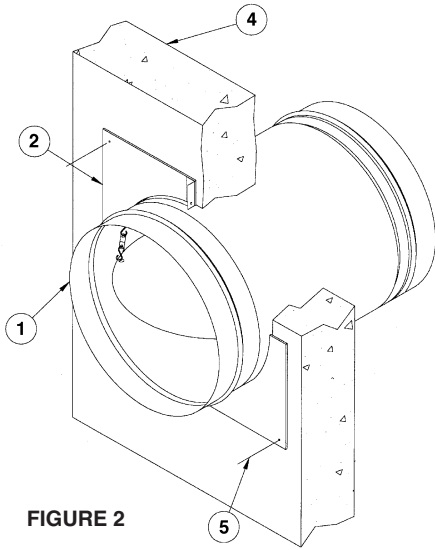


FIGURE 2

ITEM DESCRIPTION

1. FDR25 Round Fire Damper
2. Retaining "Cinch" Plate, 20 ga. steel (only one plate is required on walls, as shown, and two plates are required on floors).
3. Duct
4. Masonry Wall or Floor
5. #10 Concrete Anchor, (min 1 1/4" (31) long)
6. Duct/Sleeve Connection
7. Expansion Gap

Note: Masonry walls only require a "cinch" plate on one side of the wall. Masonry floors require a "cinch" plate on both top and bottom side of the floor.

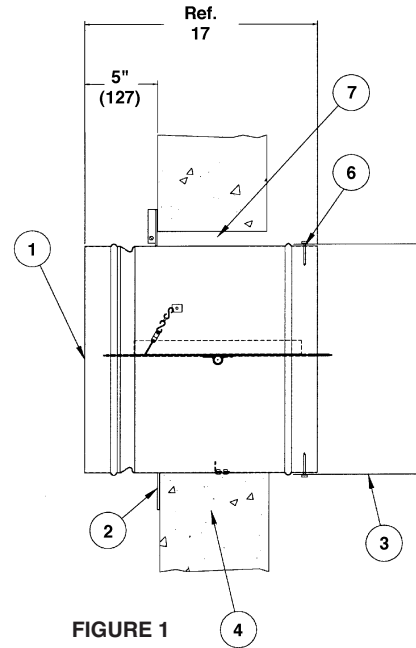
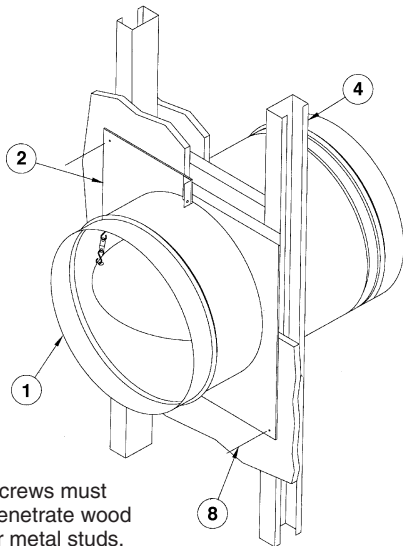


FIGURE 1

Within Square Opening in Metal or Wood Stud Framed 1 and 2 Hr. Rated Drywall Partitions



Screws must penetrate wood or metal studs.

FIGURE 4

ITEM DESCRIPTION

1. FDR25 Round Fire/Smoke Damper
2. Retaining "Cinch" Plate, 20 ga. steel (only one plate is required on metal stud walls, and two plates are required on wood stud walls).
3. Duct
4. Metal Stud Wall (plate required on only one side)
5. Wood Stud Wall (plate required on both sides)
6. Expansion Gap
7. Duct/Sleeve Connection
8. #10 Sheet Metal Screw (refer to section 4 for fastener requirements).

Note: Metal stud walls require retaining "cinch" plates on only one side of the wall. Wood stud walls require retaining "cinch" plates on both sides of the wall.

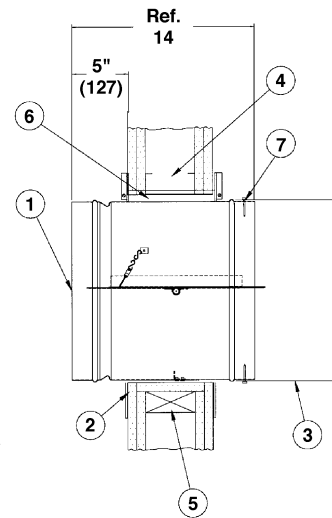
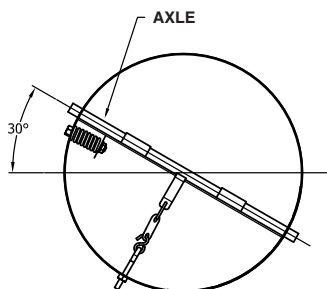
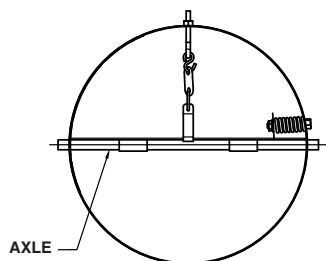


FIGURE 3

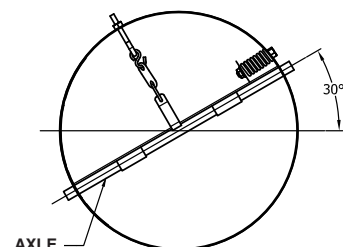
BLADE ORIENTATION



30 Deg. Off Horizontal
Maximum Axle Position



NORMAL
Axle In Horizontal Position



30 Deg. Off Horizontal
Maximum Axle Position

RECOMMENDED FRAMING FOR OPENINGS IN WOOD AND METAL STUD WALLS

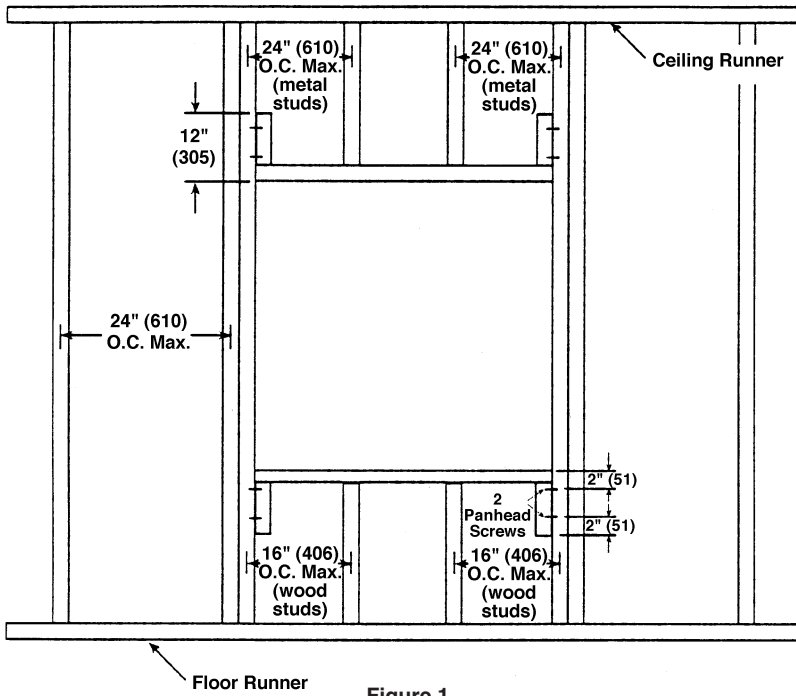


Figure 1

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 plates installed on both sides of the partition. A single cinch plate may be sufficient. Refer to the instructions for single angle installation requirements.

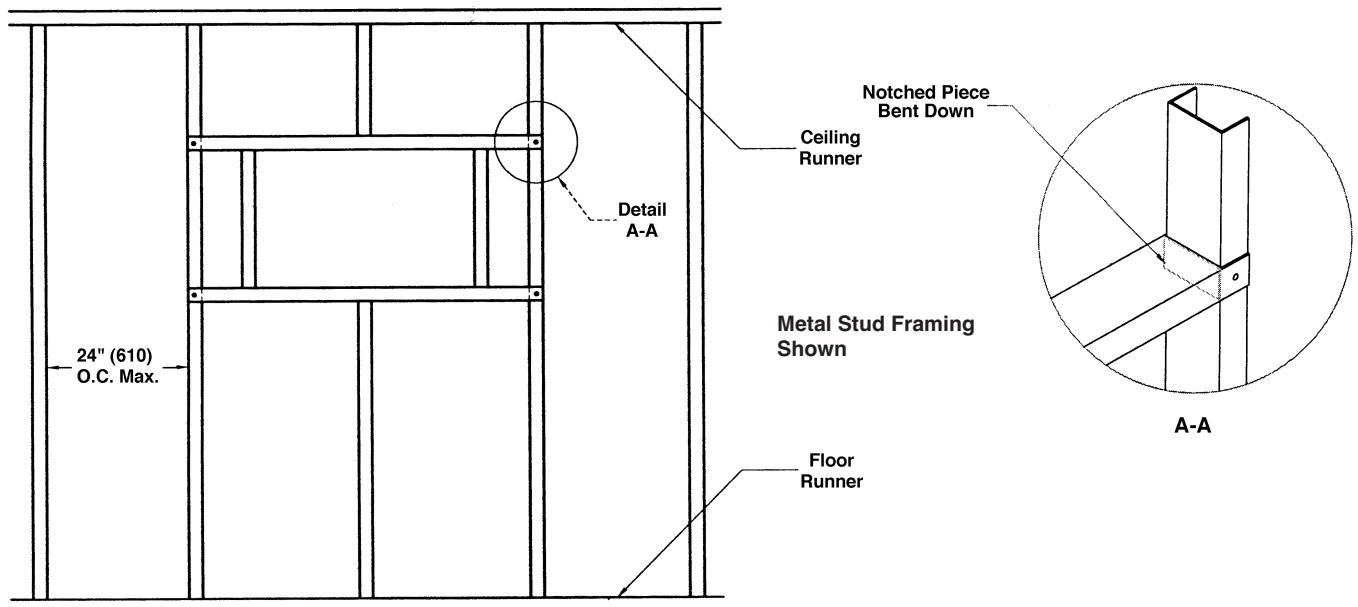
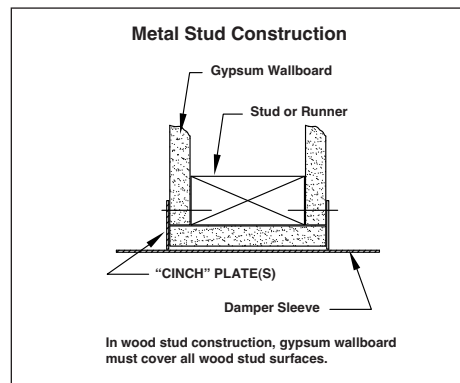
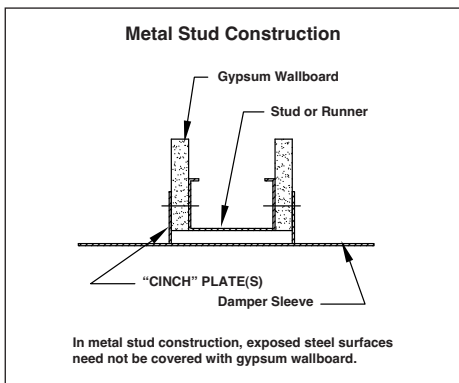


Figure 2



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