

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Dayton® Fire Dampers Round

Description

DYNAMIC FIRE DAMPERS

Dayton dynamic fire dampers are designed for use in HVAC systems that are operational in the event of a fire up to 1½ hours. Airflow through these dampers may be in either direction. May be mounted either horizontally or vertically and close with the aid of a steel spring. They are rated up to 4" wg pressure and 2,000 fpm velocity.

Dimensions and Specifications (See Figure 1)

Item No.	Nominal Duct Dia.	Damper Free Area (Sq. Ft.)
2TFZ4	4"	0.064
2TFZ5	6"	0.160
2TFZ6	8"	0.301
2TFZ7	10"	0.485
2TFZ8	12"	0.649
2TFZ9	14"	0.910

NOTE: Actual damper size is undersized 1/8"



DFDRHV1 model is classified for fire barrier and smoke applications (UL 555). File No. R26094

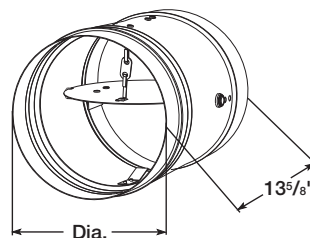


Figure 1 — Dimensions

Unpacking

1. Inspect for any damage that may have occurred during transit and file shipping damage claim with carrier.
2. Check all parts of shipment, including accessories, are accounted for.
3. Dampers must be kept dry and clean. Indoor storage and protection from dirt, dust and weather is highly recommended. Do not store at temperature in excess of 100° F.

General Safety Information

⚠ WARNING *Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death.*

1. Read and follow all instructions and cautionary markings.

NOTE: Specific requirements in these instructions are mandatory. These instructions meet the requirements of UL 555.

2. Installation shall comply with the requirements of NFPA 90A Standard for the Installation of Air Conditioning and Ventilating Systems.

Installation

⚠ CAUTION *Installation, troubleshooting and parts replacement is to be performed only by a qualified personnel.*

1. Cut wall/floor opening so that it is a minimum of 7/8 inch larger than the outside diameter of your fire damper to allow for expansion during periods of intense heat. Refer to Figure 2.
2. Prepare your opening.
 - a. Frame wall opening as shown in Figure 3.
 - b. Fasten gypsum wall board 12 inches on center to all stud and runner flanges surrounding opening. Refer to Figure 4.

Optional Accessories

Description	Item No.
165°F Fusible Link:	2TGJ3

Models are intended for installation in accordance with fire damper requirements established by:

- NFPA - National Fire Protection Association
- BOCA - National Building Codes
- ICBO - Uniform Building Codes
- SBCCI - Standard Building Codes
- CSFM - California State Fire Marshal

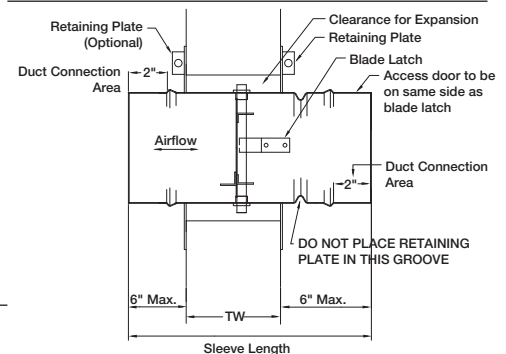


Figure 2 — Clearance Requirements

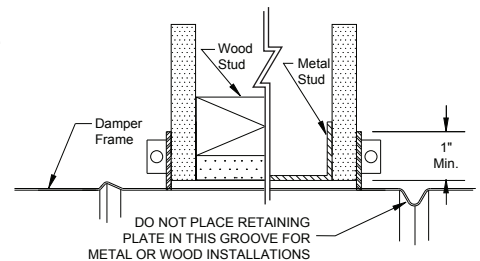


Figure 3 — Wall Opening

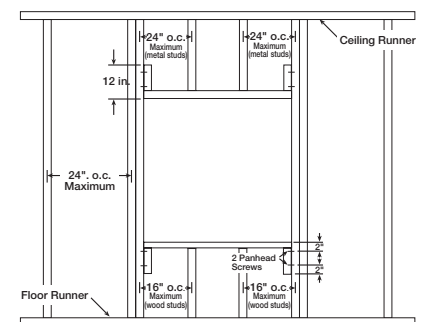


Figure 4 — Fasten Gypsum Wall Board

Dayton® Fire Dampers Round

Installation (Continued)

3. Insert your damper/sleeve assembly into the prepared opening to appropriate depth. Refer back to Figure 2 for recommended depth.

NOTE: Recommended maximum and minimum insertion depth can be exceeded as long as the center line of damper blade remains within the plane of the wall/floor.

⚠ WARNING Do not insert screws into the damper frame unless used for duct connection within 2 inches of frame end.

NOTE: All dampers are supplied with a factory mounted sleeve and can be installed without the need for additional field installed sleeves.

NOTE: The sleeve may extend a maximum of 6 inches beyond both sides of the wall/floor.

4. Secure damper/sleeve assembly to the wall/floor opening using the single retaining plate supplied.

- a. Use hardware provided to assemble the (2) halves of the retaining plate together on the side opposite the clamping screw. Refer to Figure 5.

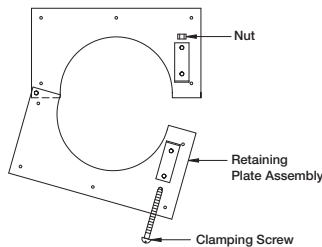


Figure 5 — Retaining Plate

- b. Slip the retaining plate over the damper with the clamping screw facing away from the wall or floor. Retaining plate is designed to mount flush to the wall/floor to hold damper in the opening.

NOTE: Do not position the retaining plate in the damper frame groove. Refer back to Figure 2.

- c. Verify damper position and blade orientation, tighten the retaining plate clamping screw. Retaining plate must overlap the wall/floor opening a minimum of 1 inch.
- d. Secure retaining plate at all (4) corners and within 3/4 inch of center to the wall/floor using appropriate fasteners (minimum #8 sheet metal screws).

5. Connect duct to damper sleeve using the appropriate connection type.

NOTE: Gauge of factory furnished sleeve determines type of duct to sleeve connection required. See Figure 6.

Type of Duct to Sleeve Connection	Maximum Duct Dimension	Sleeve Gauge
Rigid or Breakaway	24"	10
		14
		16
Breakaway	24"	20

Important: Sleeve thickness must not be less than the gauge of the connection duct. UL Standard 555 requires all ducts to terminate at the fire damper sleeves or the damper frames.

Figure 6 — Minimum Sleeve Thickness

- a. For duct diameters $\leq 22"$ use (3) #8 sheet metal screws. For duct diameters $> 22"$ use (5) #8 sheet metal screws.

NOTE: All breakaway connections described may have duct sealant, PA2084T duct sealant adhesive manufactured by Precision DP1010 water base duct sealant by Design Polymetrics, in accordance with SMACNA recommendations.

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