

General

The following guidelines provide basic assembly and installation instructions for models BD-30-SS backdraft dampers.

Carefully lift the dampers by their frames using multiple lifting points if necessary. **Do not apply excessive force to a single point and NEVER LIFT UNITS BY DAMPER BLADES OR BLADE LINKAGE.**

Preparation

Dampers

1. Locate all crates, boxes, cartons, etc.
2. Remove dampers from packaging, inspect for damage and confirm quantities and sizes with packing list.
3. Notify your Pottorff representative immediately of any shortages or shipping damage.

Openings

1. Inspect openings to ensure they are square and free from any debris.
2. Verify that the damper will properly fit into the opening or into the duct so that it can be installed square and will not be racked.

5. Pre-drill fastener holes in the backdraft damper flange before placing over opening to reduce twisting and binding.
6. It is recommended that a minimum of two fasteners per side be used (top, bottom, left and right jamb). Fasteners should be spaced 12" (305) on center.
7. Do not over tighten fasteners. Over tightening may damage or twist the backdraft damper.

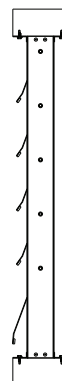


Fig.1 Standard Frame (no flange)

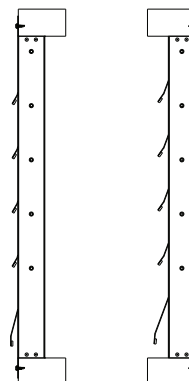


Fig. 2 Front and Rear Flange

Installation for Dampers with Standard Frame (Fig. 1)

1. Verify that the backdraft damper is square, plumb and not racked.
2. Backdraft damper is approximately 1/4" (6.4) smaller than specified duct/opening.
3. Insert entire backdraft damper into duct/opening. Bottom of damper frame must sit flat on bottom of duct/opening to prevent twisting, sagging or uplifting.
4. Install units using mounting clips or angles [3/8" (9.5) high (max.) x 1" (25) wide (min.) x 20 ga. (1.0) thick (min.)]. Arrange clips against the perimeter of the front and back of the damper frame, securing the clips to duct work.
5. Minimum of two fasteners per side to be used (top, bottom, left and right jamb). Fasteners should be spaced 12" (305) on center. (For alternate fastening method securing the frame directly to the duct/opening, see Multiple Section Installation details).

Dampers with Front or Rear Flange (Fig.2)

1. Verify that the backdraft damper is square, plumb and not racked.
2. Inserted frame of backdraft damper is approximately 1/4" (6.4) smaller than specified duct/opening size.
3. Make sure that the backdraft damper's is flat and level when being attached.
4. Secure backdraft damper's flange using appropriate fasteners.

Installation for Multi-Sectioned Dampers (Fig. 3)

Dampers larger than the maximum single section size are manufactured and shipped with 1" wide x 16 gauge (1 x 1.6) splice plates for field assembly.

Assemble sections together using #8 TEK screws 1/2" (51) min. long as shown.

1. Arrange damper sections with frames butted tight together to allow splice plates to be installed. Non-marring woodworking clamps may aid in damper alignment.
2. Vertical splice plates will span the overall height of the damper. Horizontal splice plates will span the width of each damper section.
3. Align the vertical splice plates with the top of the damper and fasten to both the left and right damper frames with the TEK screws specified above a minimum of 1/4" (6.4) and maximum 1" (25.4) from the top and bottom edges, a minimum 1/4" (6.4) and maximum 1/2" (12.7) from side edges of the splice plate, a maximum of 6" (152) on center. Screws may be staggered. See Figure 3 and Details 1 and 2 below.
4. Align the horizontal splice plates with the top and bottom frames of adjacent damper sections and fasten to both damper frames with the TEK screws specified above a minimum of 1/4" (6.4) and maximum 1" (25.4) from the side edges, a minimum 1/4" (6.4) and maximum 1/2" (12.7) from top and bottom edges of the splice plate a maximum of 6" (152) on center. Screws may be staggered. See Figure 3 and Detail 3 below.

Installation for Multi-Sectioned Dampers

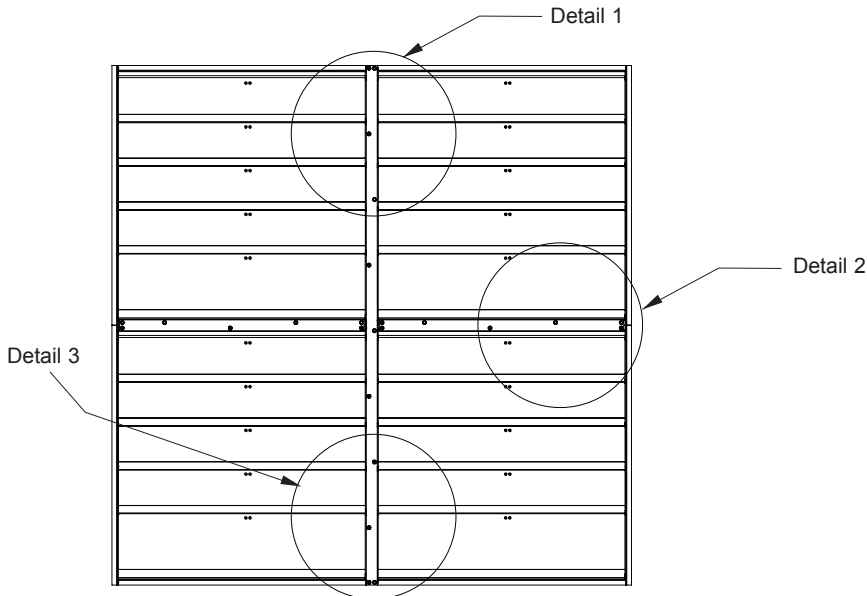
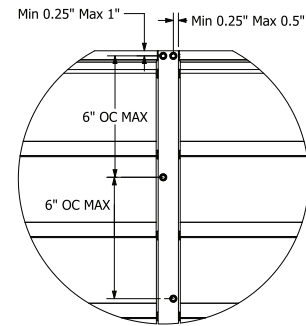
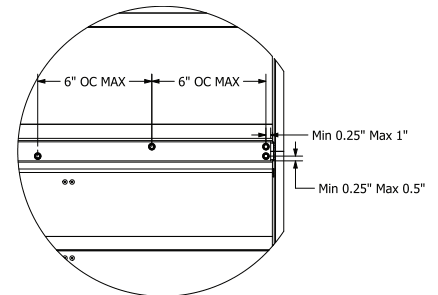


Fig.3 Multi-Section Frame

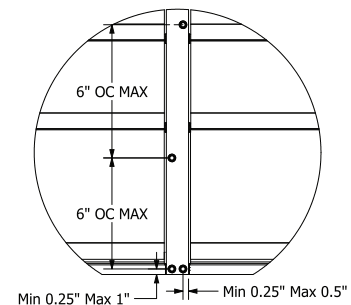
5. Make sure fasteners DO NOT interfere with linkage, axles or axles, blades, or any other moving components.
6. Dampers are designed to be self-supporting in the maximum single section size. When dampers are installed in multiple section assemblies, bracing may be required to support the weight of the dampers and to ensure structural integrity against system pressures.



Detail 1



Detail 2



Detail 3