

CAVITY SHAFT WALL
SUPPLEMENTARY INSTALLATION
INSTRUCTIONS FOR 1½ HOUR FIRE
DAMPERS SERIES 5100S & 5100D • VERTICAL MOUNT



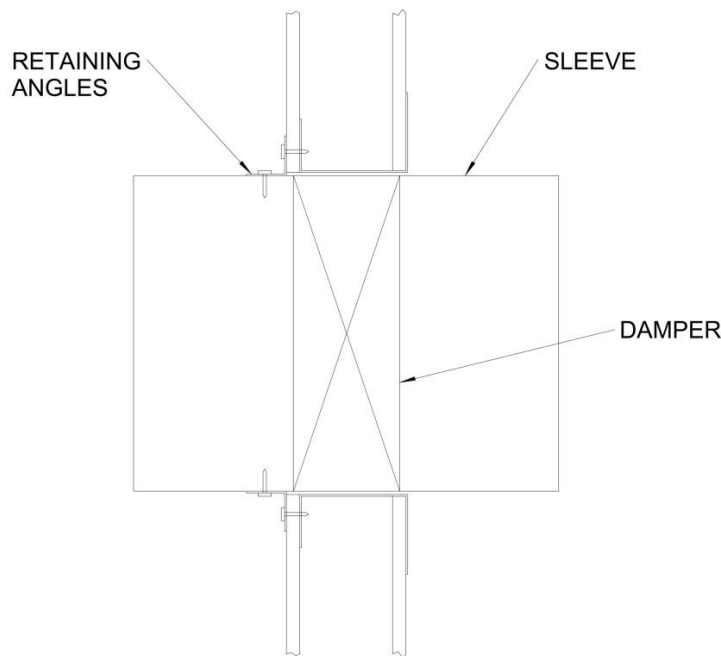
APPLICATION:

These instructions are for UL/ULC 1 or 2 hour rated cavity shaft wall designs including UL design numbers U438, U469 and U497. Fire dampers up to 36" x 36" (914 x 914mm) single section or larger multiple section dampers up to 48" x 36" (1219 x 914mm) may be installed with retaining angles on one side of wall only. Larger sizes must utilize retaining angles on both sides of wall.

INSTALLATION NOTES:

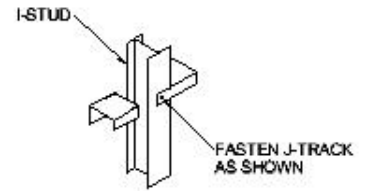
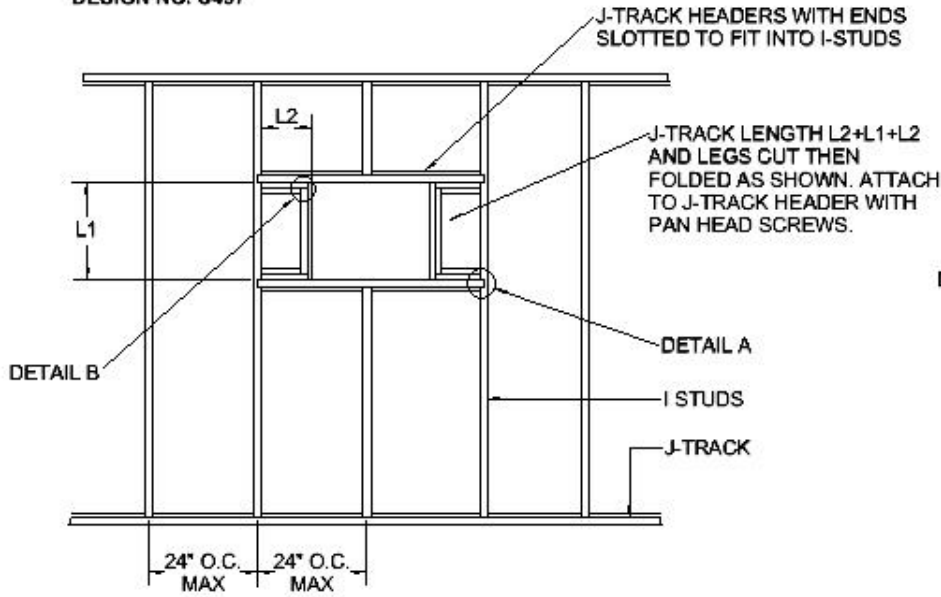
1. For details not specified herein see standard installation instructions for applicable damper model.
2. Gypsum panels must be screwed 12" (305mm) on center maximum to all stud and runner flanges surrounding opening.
3. **Expansion clearance** between the sleeve and the finished wall opening shall be a minimum 1/8" (3.18mm) per linear foot of width and height of sleeved assembly (including any fastener heads) up to a maximum of 1-1/2" (38mm) and a minimum of 1/4" (6mm).
4. **Damper to sleeve attachment:** Attachments must be spaced a maximum of 4" (102mm) on centers and a maximum of 2" (51mm) from the corners. A minimum of 4 attachments (2 on each side of the blade track) per side (16 per damper) are required. Fasteners are not to be located within the blade track. For field assembled sleeves, the inside dimensions of the sleeve shall be the same as the outside dimensions of the damper.
5. **Single-side retaining angles must be attached to both the wall as well as the sleeve (see Figure 1).** For 2 sided retaining angle installation the angles are fastened to the sleeve only.
6. Retaining angles must be a minimum of 1-1/2" x 1-1/2" x 16 ga. (38 x 38 x 1.61mm) and must overlap the wall a minimum of 1" (25mm) all around including at corners. Fasten the retaining angles to the damper sleeve using #10 sheet metal screws, 1/4" (6mm) dia. bolts and nuts, 3/16" (5mm) steel rivets or 1/2" (13mm) tack welds. Attachments must be spaced a maximum of 4" (102mm) on centers and a maximum of 1" (25mm) from corners, with a minimum of two attachments per side/leg. Be sure fasteners do not interfere with damper operation.
7. For single-side retaining angles installation only, fasten the retaining angles to steel stud/gypsum walls using #10 steel screws, 12" (305mm) maximum on center and 1" (25mm) maximum from angle ends. Screws must penetrate the metal stud a minimum of 1/2" (13mm).
8. See page 2 for framing details regarding wall openings. Refer to U.L. Fire Resistance Directory for details on design numbers U438, U469 and U497.

Figure 1:

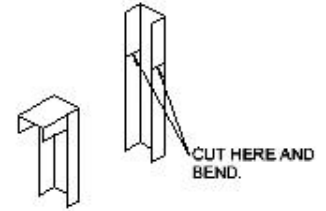


1 HOUR RATED PARTION SHOWN

**FRAMING DETAIL FOR
DESIGN NO. U497**

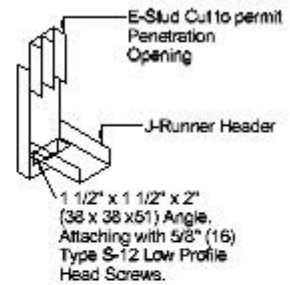
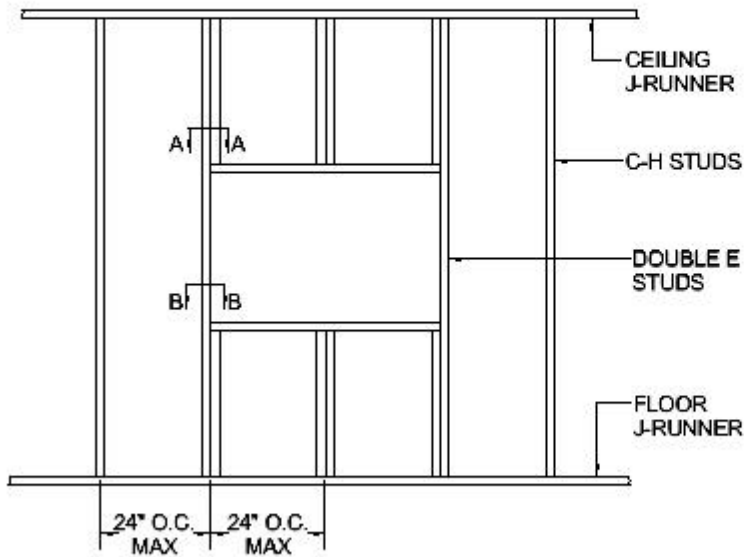


DETAIL A

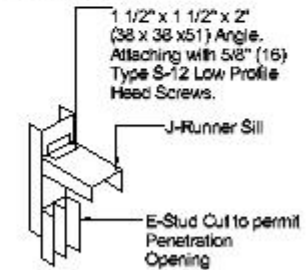


DETAIL B

**FRAMING DETAIL FOR
DESIGN NO. U438 & U469**



SECTION A-A



SECTION B-B