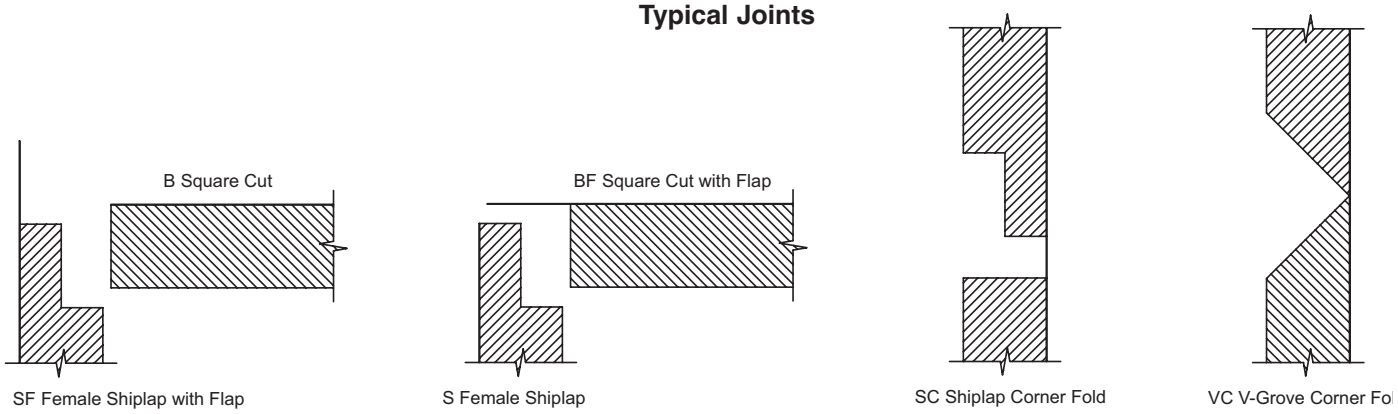
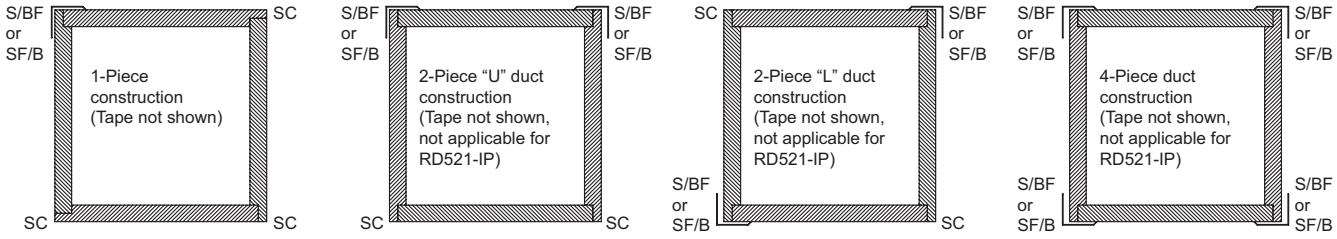
The following installation details apply to the **RD2**, **RD8**, and **RD-521-NP**

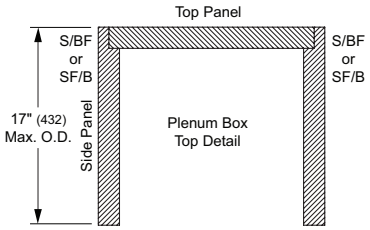
Typical Joints



Plenum Sides Construction



Plenum Top Construction



A. Construct the duct board plenum box utilizing the joints listed above. RD-521-NP square box size limited to 16" I.D. (406) wide x 16" I.D. (406) deep x 17" O.D. (432) high. RD-521-NP rectangular box limited to 24" I.D. (610) wide or 20" I.D. (508) deep with a maximum area of 256 in^2 (1652 cm^2) and a maximum height of 17" O.D. (432).

B. Cut and install the plenum box so that it fits tightly around the damper sleeve. No gaps are allowed between the plenum box and the damper sleeve. Secure the plenum box to the damper using 2-1/2" (64) aluminum tape rated to UL 181.

C. The internal surfaces cannot interfere with the operation of the damper in any way.

D. The plenum box must fit flush with the steel plaster flanges. Gaps between the flanges and the plenum are not allowed.

E. All seams and joints to be taped with UL 181 Listed aluminum tape. In addition to tape at the seams, one row of tape is wrapped around the perimeter of the box at the top.

F. The duct collar hole when mounted on the side panels of the plenum box must maintain proper clearance on the top of the damper and must not interfere with the dampers operation. Trim the collar where needed. Duct collar openings to be no larger than 50.3 in^2 (32,452) and on one side only. No opening allowed at the top.

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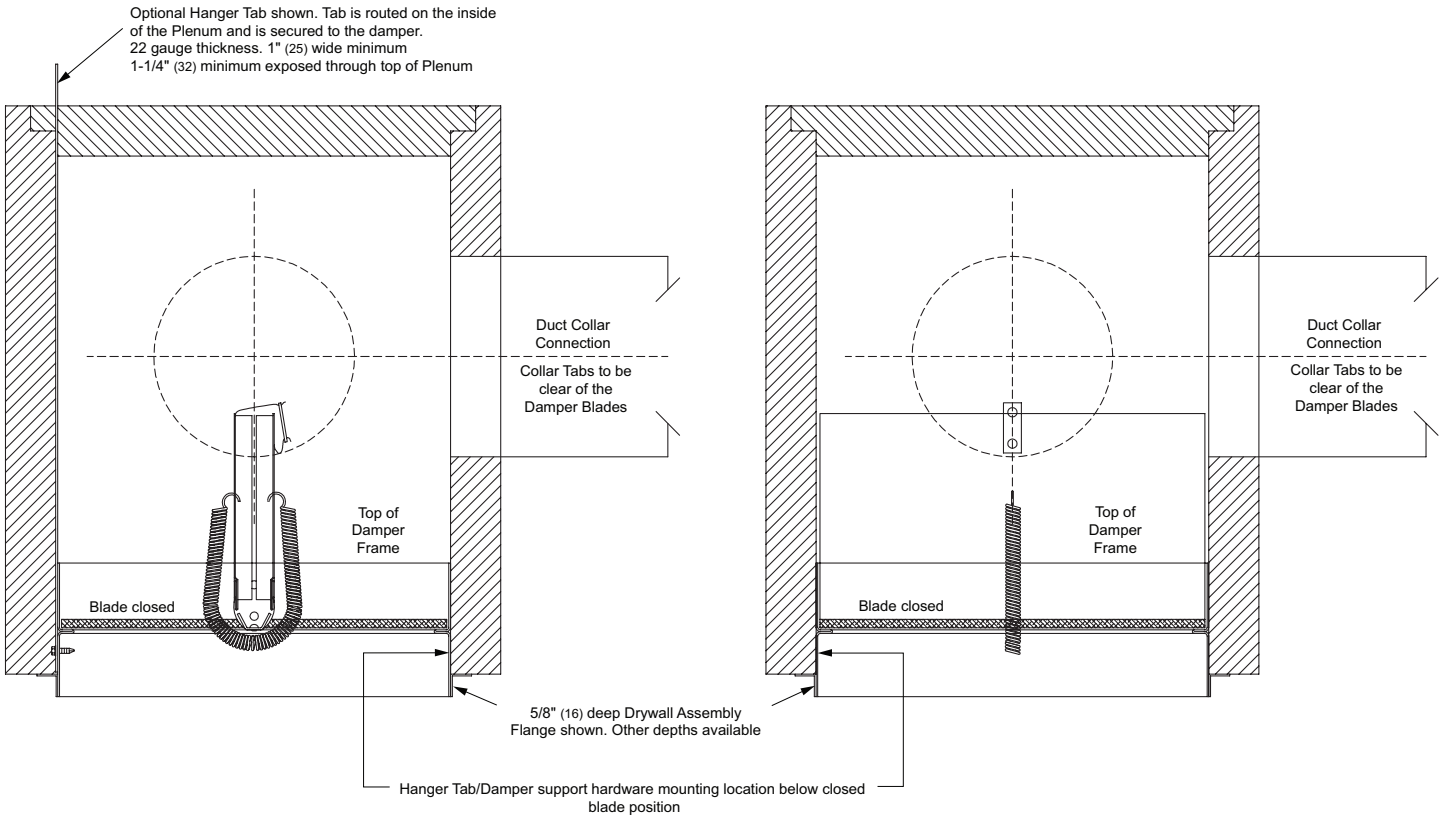
Information is subject to change without notice or obligation.

NOTE: Dimensions in parentheses ( ) are millimeters.

Ceiling Radiation Damper Installation

Damper Assembly

Box Assembly



G. Install support angles to the damper before the plenum is installed. Take note that none of the fasteners used interfere with the operation of the damper. Tape all of the joints created between the support angles and the plenum.

H. Damper model RD-521-NP may be installed with hanger straps or a boot rail system for support in wood truss ceilings.

a. For a hanger strap system, secure the straps to the damper from below the closed damper position as to ensure the fasteners do not interfere with the operation of the damper. A slot will be needed in the top of the plenum box for the hanger to pass through. Once the plenum box is installed to the damper, seal this slot with tape to ensure there are no gaps. Follow the standard RD-521 installation instructions for complete installation.

b. For a boot rail installation, refer to the RD-521-NP Installation Instructions.

I. Before installing the plenum box, test that the damper operates as intended. The plenum box, duct collar and support angles screws must not interfere with the damper operation in any way.

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Notes:

1. Use only UL 181 Listed fiberglass duct board. Thickness of the board may vary from 1" (25) to 2" (51). Minimum density is 4pcf and minimum R-value of 4.3
2. Use only UL 181 Listed aluminum tape, 2-1/2" (64) wide minimum, for sealing all joints and support angles.
3. Install Ceiling Radiation Damper/Plenum Box assemblies according to C&S installation instructions for the damper type being installed. Refer to UL Fire Resistance Directory for details on floor/ceiling and roof/ceiling designs.

Information is subject to change without notice or obligation.

NOTE: Dimensions in parentheses ( ) are millimeters.