



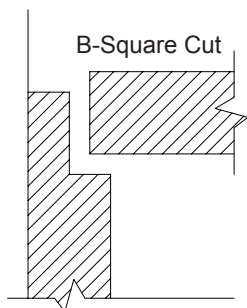
# PLENUM BOX FOR CEILING RADIATION DAMPERS



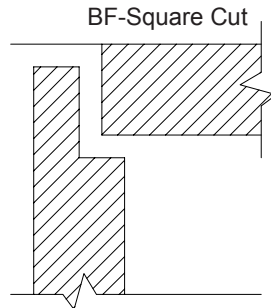
## INSTALLATION:

1. Fabricate the fiberglass ductboard plenum box using joint methods and materials shown below.
2. Cut and install the fiberglass ductboard plenum box to fit accurately on all (4) sides of the damper sleeve.
3. Gaps or spaces between the sleeve surfaces and the ductboard surfaces are not permitted.
4. The inside surfaces of the ductboard must not interfere with the damper blade closure and damper operation.
5. The fiberglass ductboard plenum box must rest flat and evenly on all (4) outboard galvanized steel plaster flange surfaces.
6. Gaps between the sleeve flanges and the ductboard are not permitted.
7. Tape and squeegee all taped seams. Tape and squeegee the connection between the plenum box and the galvanized steel sleeve flange to secure the plenum box assembly to the damper and the galvanized sleeve assembly.
8. Cut the duct collar holes in the ductboard accurately. Center the duct collar holes in the plenum box side to side. Maintain required clearance from the top of the damper frame to the edge of the duct collar including fold-over collar tabs when used. Position collars so that adequate clearance is provided inside the top of the plenum box for collar tabs. If necessary, trim collar assembly tabs to insure clearance for optimum damper blade closure and operation. When attaching ducting insure that collars remain stable. Duct collars must not interfere with damper blades and operation at any time.
9. When standard support angles are used, install support angles prior to the ductboard plenum box installation. Insure that the #8, or #10 steel screws or 3/16" diameter steel rivets are installed below the damper blade closed position. Hardware must not interfere with the damper blade closure and operation.
10. After installing the ductboard plenum box, tape and squeegee all areas around the support angles.
11. When adjustable support angle mounting brackets are used limit the #8, or #10 steel screw or 3/16" diameter steel rivet length to 1/2" long to prevent damaging the fiberglass ductboard insulation.
12. Prior to installation, manually test all dampers for blade closure and operation. The plenum box, duct collars, and support angle mounting screws must not interfere with the damper blade full closure and damper operation.

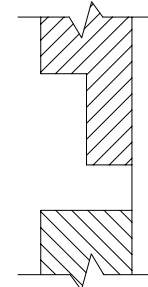
## PLENUM BOX CONSTRUCTION:



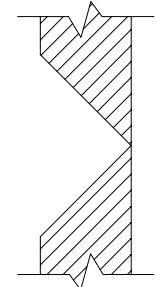
SF Female Shiplap with Flap



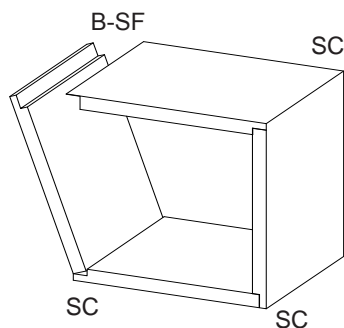
S Female Shiplap



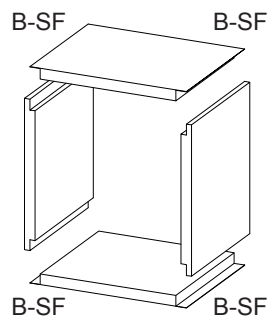
SC Shiplap Corner Fold



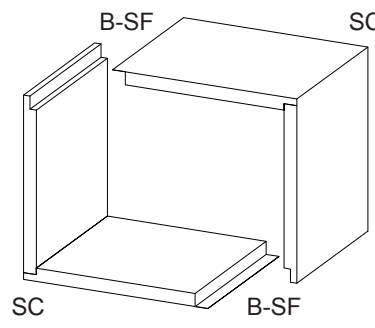
VC V-Groove Corner Fold



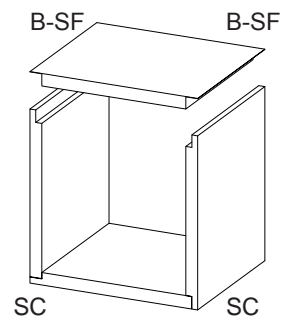
1-Piece Construction Tape



4-Piece Construction with (4) Foil Flaps

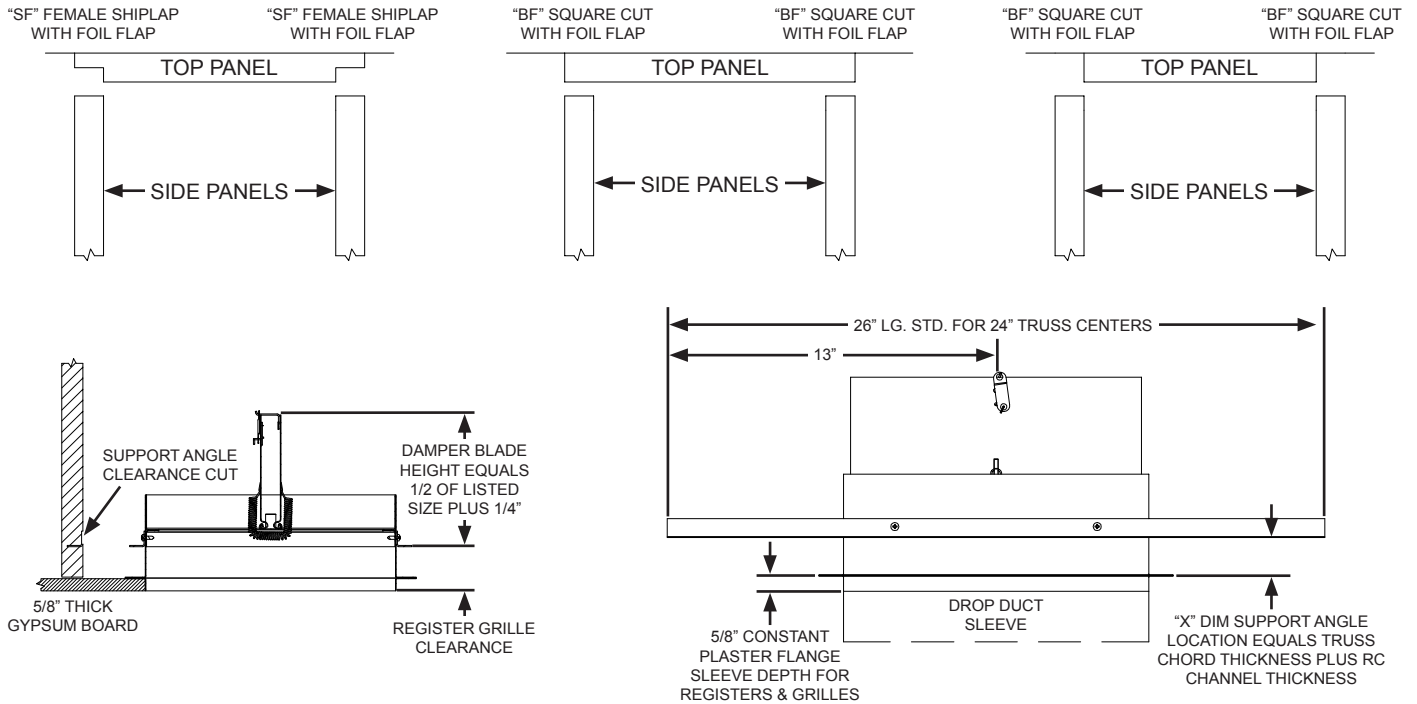


2-Piece "L" Construction with (2) Foil Flaps



2-Piece "U" Duct and Closure Panel with (2) Foil Flaps

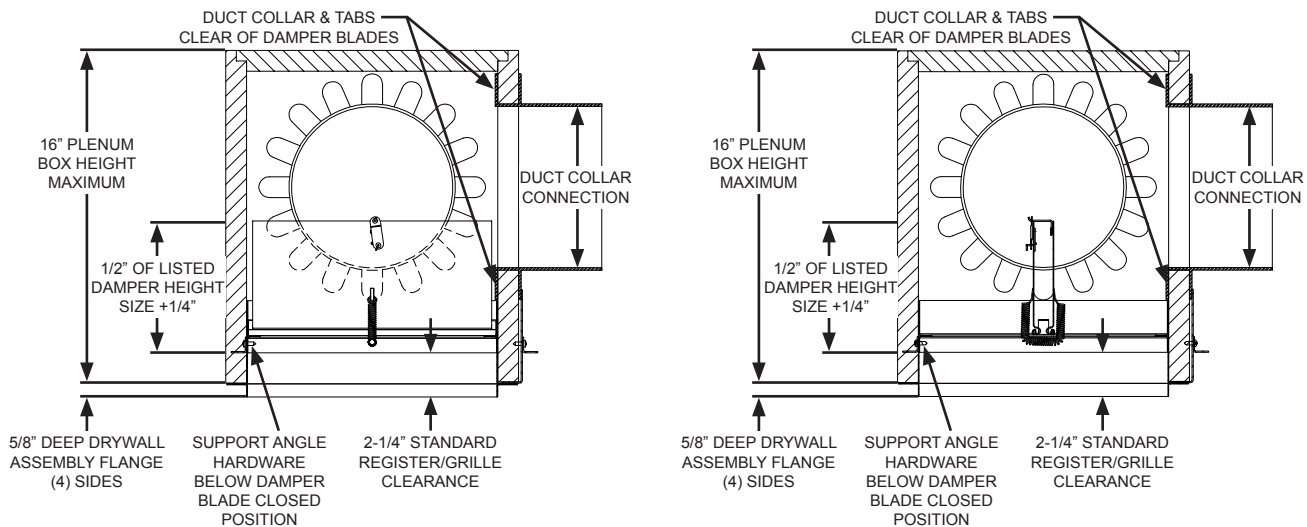
## TOP PANEL CONSTRUCTION OF FIBERGLASS DUCTBOARD PLENUM JOINTS:



### NOTES:

1. Use only UL 181 Listed fiberglass ductboard with a density of 4 lbs/cubic foot and minimum thickness of 1" nom. (25.4mm).  
Use only UL 181 Listed fiberglass ductboard with a density of 6 lbs/cubic foot and minimum thickness of 1-3/8" (35mm).
2. Joint preparation shall be in accordance with the joint construction and ductboard foil backing overlap shown above.
3. Use only UL 181 Listed aluminum tape 2" wide minimum sealing all corners, joints, and support angle penetrations.
4. Secure the plenum box to the damper sleeve and support angles using UL 181 Listed tape.
5. Install Ceiling Radiation Damper/Plenum Box Assemblies in accordance with instruction sheet L2831 and UL 181A.
6. Outlet - Round, oval, or rectangular. Total area not to exceed 78.5 sq. in. (max. 10" dia.). Max. one outlet per box.

### FINAL ASSEMBLY:



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