



13/16" Micro-Aire® Fiber Glass Duct Board Fabrication Instructions

Description:

The following instructions detail hand fabrication of one-piece straight duct sections from one piece of 48" x 120" x 13/16" Type LP Micro-Aire® duct board, when the total of the inside duct dimension is 41 1/2" or less. This section is grooved lengthwise.

Instructions for other thicknesses and for fabricating and joining the other components, such as two-piece straight ducts, elbows, take-offs and transitions for complete Micro-Aire® duct systems are detailed and illustrated in the Pocket Installer, AHS-3 and the current NAIMA / SMACNA Fibrous Glass Duct Construction Standards Manual.

Installation Procedures:

Measurement for Centerline Method. All layout is done on the Micro-Aire® board before fabrication is started, and all measurements are keyed to the corner folds.

In all cases the INSIDE dimension (I.D.) of the duct is the determining factor. The cross section drawing below of a folded Micro-Aire® duct shows how the fabrication allowances are added to the basic I.D. duct dimensions.

Grooving tools, designed for making proper and accurate cuts in Micro-Aire® duct board, are available from several manufacturers.

Fabrication Instructions:

1. Begin at the left edge of the board and mark, near top and bottom edges of the wool side, in this order:

- Centerline for groove AB (first panel)
- Centerline for groove BC (second panel)
- Centerline for groove CD (third panel)
- Line at start of stapling flap
- Cutoff line at right end of duct blank

2. On the left edge of the board (opposite end of board that has stapling flap), cut the rabbet closure joint.

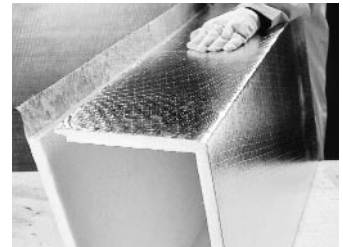


3. Use a V-groove tool to cut the grooves on the first three centerlines for the corner folds.

4. Prepare the stapling flap by stripping the fiber glass insulation from the facing. In making the perpendicular knife cut through the insulation, 1 3/8" minimum from the edge of the board, take care not to cut the facing.



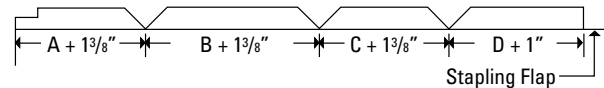
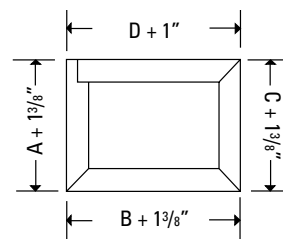
5. Fold the completed duct blank to form the duct section. Be sure that the corners fold at the centerline point or the corner will not form correctly. Also, be sure that the flush edge is properly seated in the rabbet cut at the closure joint.



6. Secure the joint with one of the UL 181A Closure Systems listed on the back. Staples may be eliminated depending on the closure system used.



7. Connect the sections together with one of the UL 181A Closure Systems listed on the back. If staples are required, space approximately 2" on center.



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Fabrication Instructions

Closure Systems

The following 4 types of Closure Systems are to be used on 13/16" Type LP Micro-Aire® duct board as follows:

Closure I- Fortifiber Therm-Lock® or Other Closures

Use tapes which have met the requirements of the UL 181A-H standard and are registered with Underwriters Laboratories. Tapes in compliance with this standard must be imprinted with this information.

Heat seal all longitudinal and circumferential joints with a hot iron (550°-650°F). Center strip over edge of stapling flap. Staples are not required when automatic closure equipment is used for the longitudinal joint.

Source:

Fortifiber Corp., 55 Starkey Ave.
Attleboro, Massachusetts 02703

Closure II- Pressure Sensitive Tapes

Tapes which have met the requirements of the UL 181A-P standard and are registered with Underwriters Laboratories. Tapes in compliance with this standard must be imprinted with this information.

Use 2 1/2" minimum wide tape. Apply to all longitudinal and circumferential joints and rub in carefully. Center tape over the edge of stapling flap. Heat seal if temperature is below 40° F.

The following closure systems (V and VI) are UL approved for fabrication of 13/16" thick Johns Manville Type LP Micro-Aire® duct board only. Johns Manville recommends these closure systems for use by the manufactured housing industry.

Closure V- Pressure Sensitive Tape (no staples) Type LP Duct Only

Tapes which have met the requirements of the UL 181A-P standard and are registered with Underwriters Laboratories. Tapes in compliance with this standard must be imprinted with this information.

Use 2 1/2" minimum wide tape. Apply 8" long cross strips every two feet to the stapling flap and utilize to fasten the flap thereby forming the duct. Apply sufficient length strips to secure all longitudinal and circumferential joints and rub in carefully. Center tape over edge of stapling flap. Heat seal if temperature is below 40° F.

Closure VI- Fortifiber Therm-Lock (no staples) Type LP Duct Only

Tapes which have met the requirements of the UL 181A-H standard and are registered with Underwriters Laboratories. Tapes in compliance with this standard must be imprinted with this information.

Use 3" minimum wide strip. Apply 8" long cross strips every two feet to the stapling flap and utilize to fasten the flap thereby forming the duct. Apply sufficient length strips to secure all longitudinal and circumferential joints by heat sealing with a hot iron (550-650°F). Center strip over edge of stapling flap.

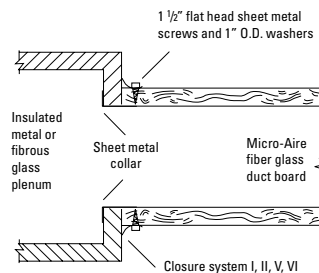
Source:

Fortifiber Corp., 55 Starkey Ave.
Attleboro, Massachusetts 02703

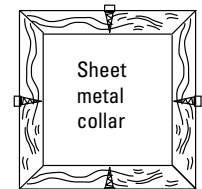
Sheet Metal/Duct Board Joint

Method of joining section of air duct to sheet metal take-off on insulated metal or fibrous glass plenum

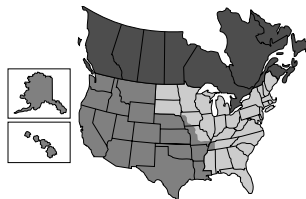
TOP OR SIDE VIEW



END VIEW Plenum



Do not connect to metal. If duct system is to be used for summer air conditioning only, all diffusers and return air grills must be positively sealed during winter to prevent the entry of moisture.



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