

ADAPTING PLASTIC DUCT TO OTHER DUCT MATERIALS

This standard details installation procedures for using plastic duct to replace or adapt to other duct materials such as single or multiple square bore tile, multiple round bore concrete, asbestos cement, or bituminous fiber. Also, included are installation procedures for installing split duct around existing cables. The following recommendations are separated into two major sections: I. Occupied Duct and II. Unoccupied Duct.


I. Occupied Duct

Joining or replacing existing occupied ducts with manufactured split duct and fittings.

A. Existing Duct Material

1. When joining 3-1/4" or 3-1/2" square bore plastic adapters to existing tile duct, use 3-1/2" split duct (non-stock) or when joining 3-3/4", use 4" split duct (See Figure 1) and proceed as follows:
 - a. Open up a split square bore adapter and snap over cable.
 - b. Square end of adapter must butt or fit snugly into tile duct. Seal joint as detailed in A-2.
 - c. Butt round end of adapter to the split duct. Remove the white inner liner from the wraparound heat shrink sleeve. Position the wraparound sleeve centrally over the butt joint (2" min. overlap). Slide the metal channel into position along the rails of the wraparound sleeve. Shrink the wraparound sleeve starting in the middle and move the torch with a brushing motion around the sleeve. When the center area is completely shrunk, move toward one end. Then shrink from the center toward the other end. Be sure to heat the whole circumference of the wraparound during shrinking. The joint is now complete. Allow to cool before moving.
 - d. For recommendations on assembling split duct, see Page 3.
 - e. Repeat operations described in paragraphs (a) through (c) if you reconnect to square bore tile duct.

2. When joining square bore plastic adapters to single or multiple tile duct, a hand placed grout should be used to assure a tight joint. Preparation shall be as follows:
 - a. Clean off all loose and foreign materials which would prevent bond between the grout and the surfaces contacting the grout.
 - b. Place 2" X 2" welded wire fabric under tile duct.

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