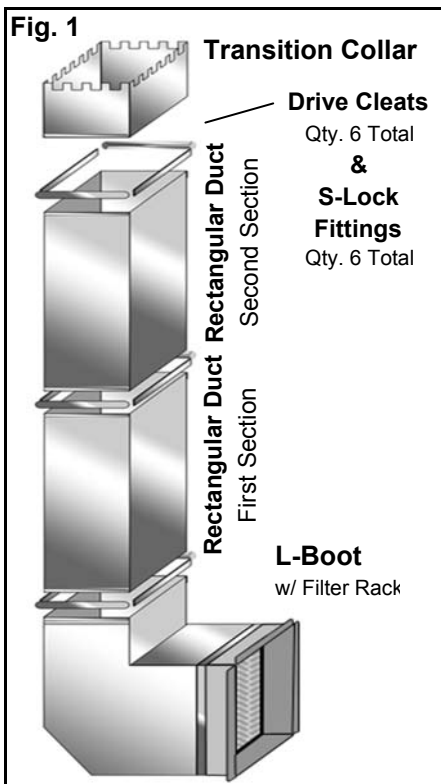


# Installation Instructions for RA 16 Return Air Drop

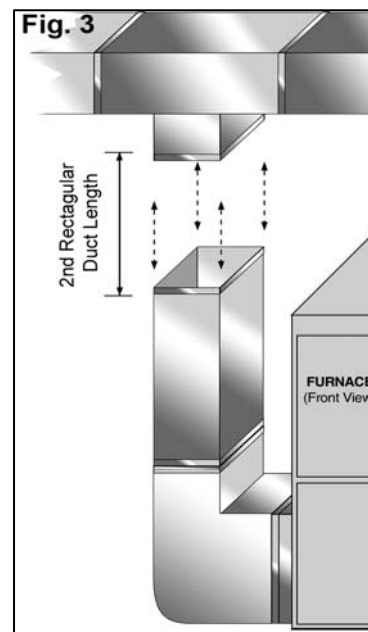
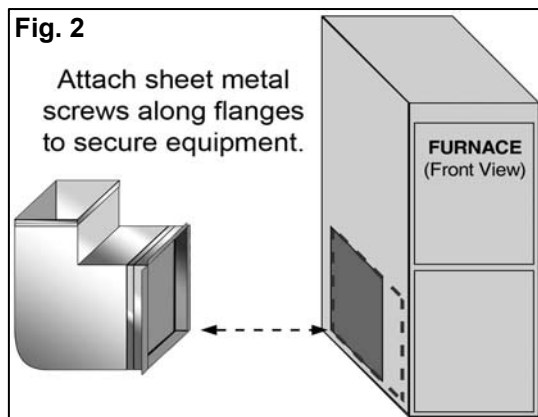
This assembly is designed for *UPFLOW* forced air systems with *SIDE* return air applications. Please read all directions including the equipment manufacturer's installation manual before installation of the side return air assembly.

**CAUTION:** Handle sheet metal carefully as the edges are very sharp and cut easily.

- Verify the contents of the assembly using Fig. 1 and determine the appropriate height and positioning for the return air drop assembly.
- After cutting the opening for the side air return in the approved location on equipment per the manufacturer's installation instructions, align the L-Boot with the bottom, rear corner of the equipment return air opening as shown in Fig. 2. Should the L-Boot overlap the return air opening of the equipment, note and mark the location(s).
- With the L-Boot pressed firmly against the equipment opening, use sheet metal screws (field supplied) along the perimeter of the flanges on the L-Boot to secure the L-Boot to the equipment. Silicone or aluminum tape may be used to further seal the connection. **PLEASE NOTE:** Refer to equipment manufacturer's installation manual, before attaching screws to HVAC equipment, to ensure safe placement.
- Assemble one section of 29"h x 10"w x 25"d Rectangular Duct, and attach it to the top of the L-Boot using 2 Drive Cleats and 2 S-Lock Fittings. Once secure, place 2 S-Lock Fittings on the top of the Rectangular Duct. (These will be used later to determine the height of the second Rectangular Duct.) Refer to Fig. 3, 4, and 5.
- Attach the 2.75"h x 10"w x 25"d Transition Collar to the overhead opening where the return air drop will be leading to folding over the tabs to attach the Transition Collar securely. Place 2 S-Lock Fittings on the bottom of the Transition Collar. Position the equipment, with the L-Boot and first section of Rectangular Duct attached, making sure to align the Transition Collar as closely as possible with the top of the Rectangular Duct to ensure a straight and level installation as shown in Fig. 3. (**HINT:** A plumb bob is very useful for alignment of the return air drop)
- Determine the length of the second Rectangular Duct by carefully measuring the distance from the *TOP* of the S-Lock fitting attached to the Transition Collar to the *BOTTOM* of the S-Lock fitting attached to the first Rectangular Duct as seen in Fig. 3. Prior to assembly, trim the second Rectangular Duct to the required height using care to *not* cut too short. The flanges of the second Rectangular Duct are designed to slide into the S-Lock fittings of the connecting duct sections. In addition, the 10"w sides of the sheet metal must be bent to form a channel for secure connection of the Drive Cleats.



- Slide the flanges of the second Rectangular Duct into the S-Lock Fittings of the first Rectangular Duct and Transition Collar. Secure all the Duct Sections with the Drive Cleats.
- Seal all seams with silicone or aluminum tape to ensure leak-free connections.

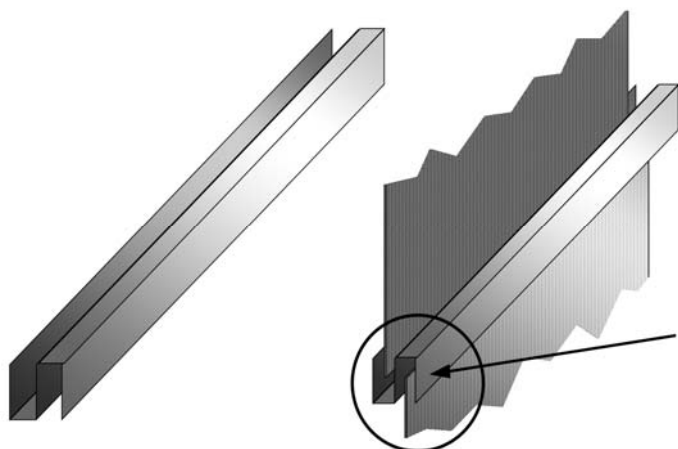


## Installation Instructions for RA 16 Return Air Drop

The following information is provided as a reference and guideline only. Carefully read all directions, including equipment manufacturer's installation manual *BEFORE* beginning installation of the Return Air Drop Assembly

**CAUTION:** Handle sheet metal carefully as the edges are very sharp and cut easily.

**Fig. 4**



S-Lock fittings are designed to connect two Duct Sections together in a fairly quick and simple manner.

The wide, straight edges of one section of Rectangular Duct fit into one side of the S-Lock fitting and the adjoining Duct Section fits into the other side of the S-Lock fitting as shown.

*Exaggerated for illustration.*

**Fig.5**

Drive Cleat Fittings provide the final step in locking the two Duct Sections together.

Once the duct pieces have been joined using the S-Lock fittings along the 25" depth of the duct, the Drive Cleats are driven onto the 10" width of both Duct Sections (edges with bent flanges). The rounded ends of the Drive Cleats are then bent inward, toward the duct, to prevent the Drive Cleat from slipping.

Sheet metal screws are not required to finalize the connection of the two Duct Sections, however, it is recommended that silicone or aluminum tape be used to seal all seams.

