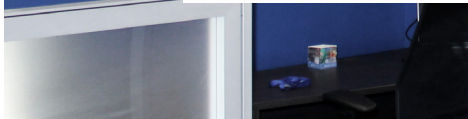




# PRD IOM

## Installation and Operation Manual



**prihoda**®  
Tailor-made Air Ducting & Diffusers  
NORTH AMERICA



# Introducing PRD

PRD is a high induction duct air diffuser designed for specific heating, cooling and ventilation needs. Years of advanced research and development led to a complete software allowing us to tailor a solution for virtually any application.

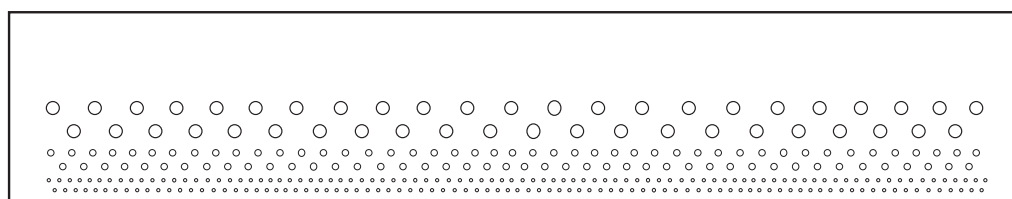
Perforation patterns are carefully selected for your application with our software, then precisely cut into the metal prior to rolling the duct.

The resulting high induction air diffusion ensures homogeneity of air temperature and humidity in the room, thus improving system performance and occupants comfort.

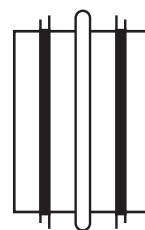
PRD Perforated Duct Diffusers are constructed in diameters ranging from 8 inches (200 mm) up to 38 inches (965 mm). Duct sections are assembled using discreet sleeves with integrated Silicone gasket to ensure a proper seal and circular integrity of the duct.

The overall sleek look of the continuous metal duct, combined with a high quality powder coat, provides great architectural appeal and endless design possibilities.

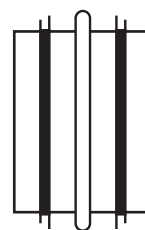
Matching passive duct sections without holes and multiple fittings are also available in order to ensure the uniformity of the duct network.



PRD - Perforated Duct Diffuser

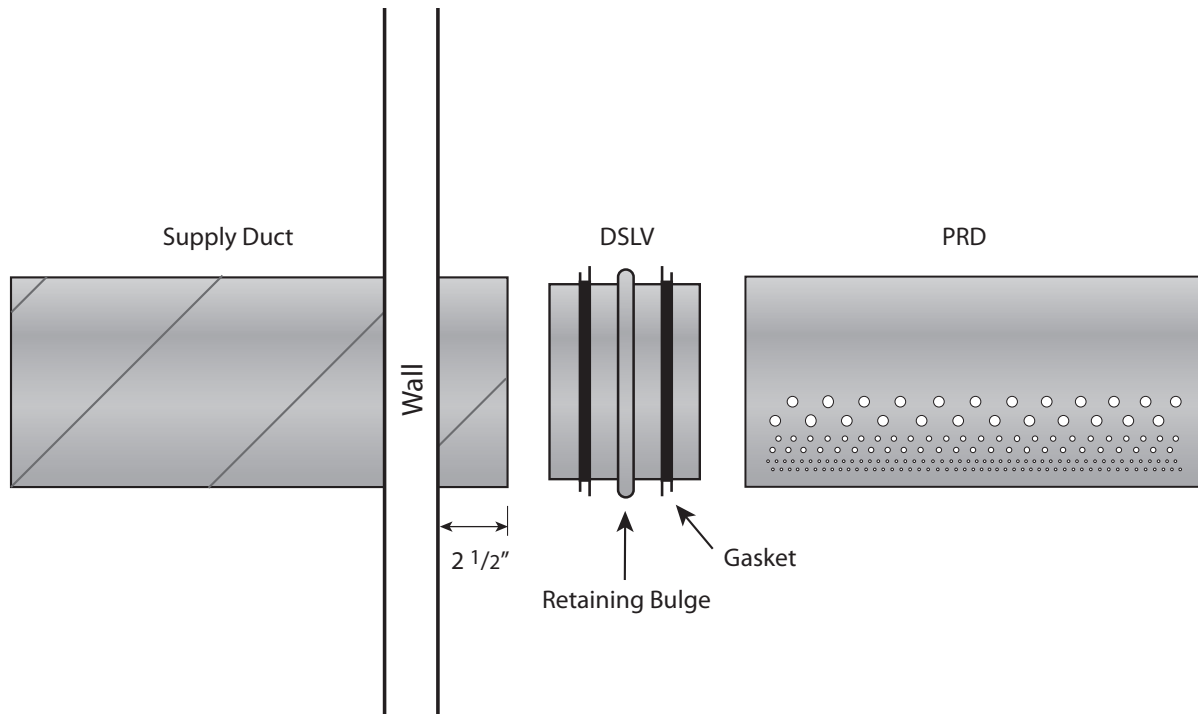


PRD-P - Passive Duct Section

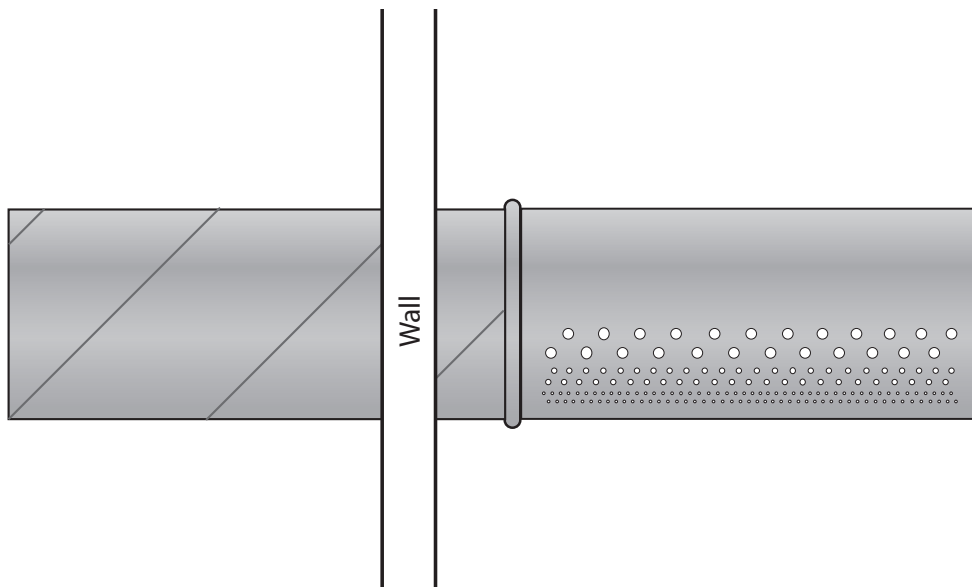


# Connecting to the Supply Duct

When connecting PRD Perforated Duct Diffusers to a supply duct coming out of the wall, it is important that the length of duct coming out of the wall is 2 1/2" long.

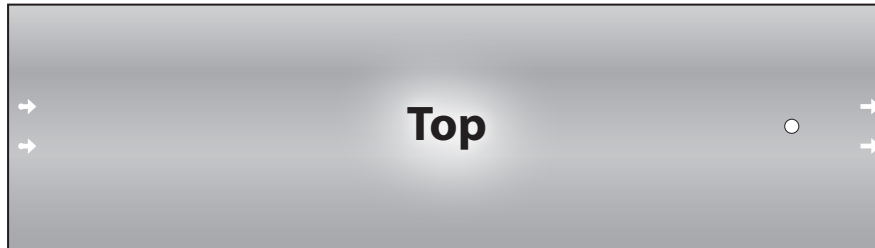


The first PRD section is connected to the supply duct using a DSLV Sleeve. Make sure that the sleeve is fully inserted into the supply duct, meaning that the gasket is inside the duct and that the sleeve's retaining bulge rests on the supply duct's edge.



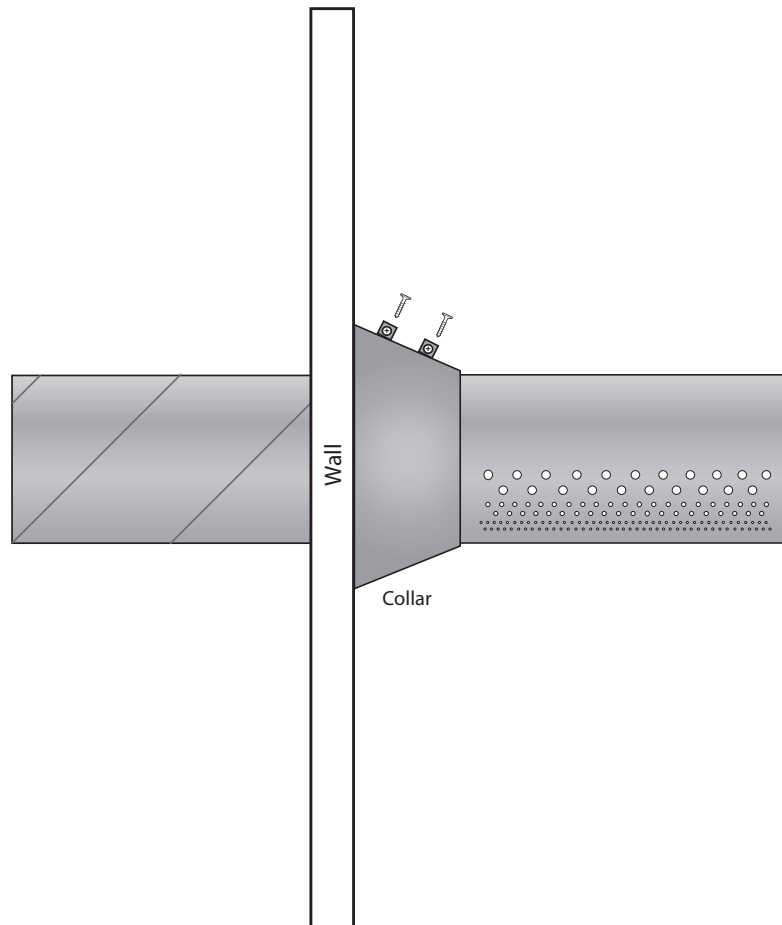
Because the supply duct is not made by Prihoda, it doesn't have an integrated alignment system. It is therefore very important to make sure that the arrows and seam lock lines are facing towards the top. This alignment of the first section must be accurate as it will affect the rest of the length.

*Note: if you are using a Threaded Rod, Ceiling Rail or Suspended Rail mounting system, the top hole used for attachment bolt will automatically be facing the top and proper alignment will therefore be automatic.*



Open the inlet collar and wrap it around the duct, forming a cone with the large end resting on the wall.

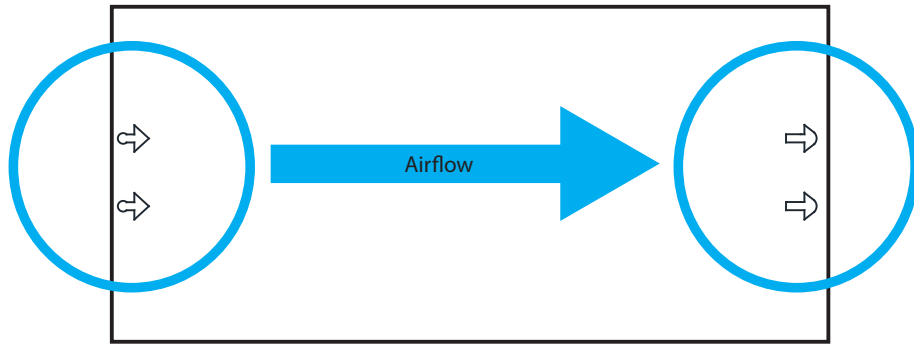
Close the collar with the two bolts and nuts provided.



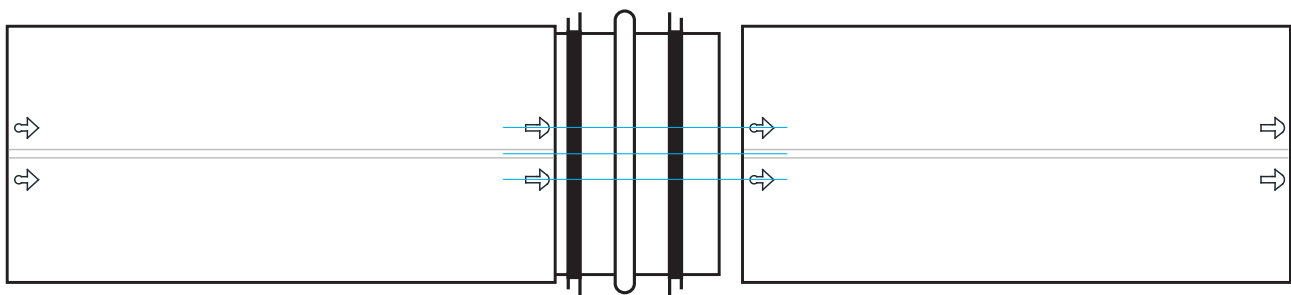
# Alignment and Connection of Duct Sections

PRD sections are connected using special sleeves designed to simultaneously ensure a perfect sealing and alignment of the duct diffusers.

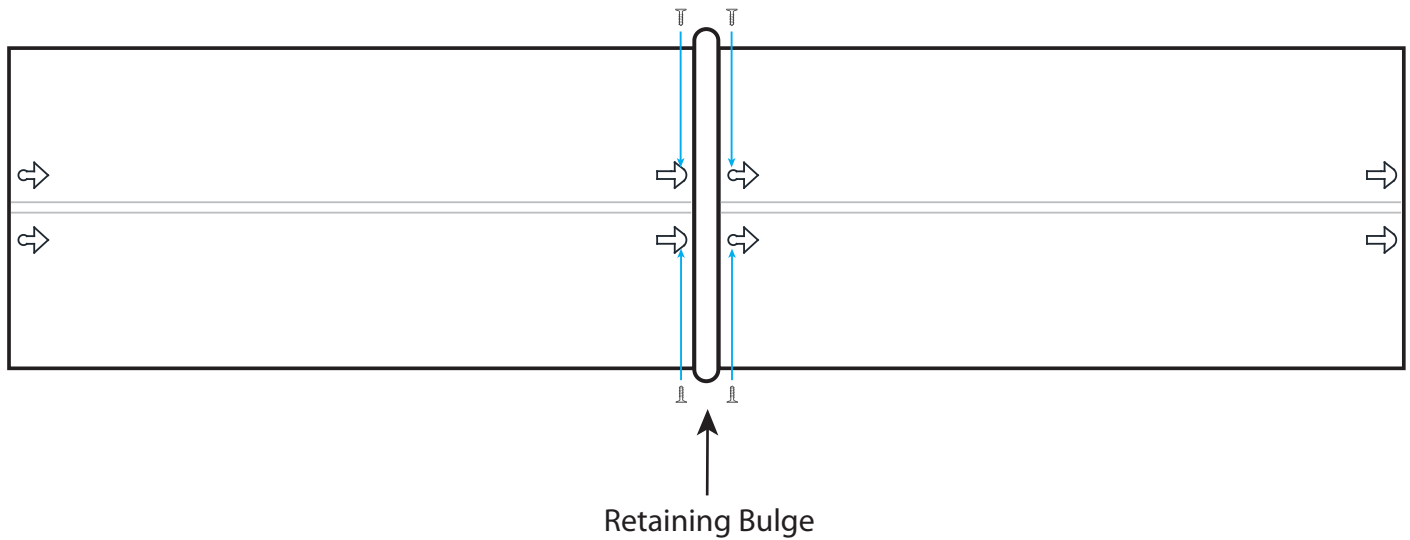
PRD sections have arrows on top showing the direction of the airflow. It is very important to always respect the direction of the airflow when installing new sections as hole patterns may not always be symmetrical.



1. When connecting a PRD duct sections, make sure that the arrows and seam lock lines are properly aligned, therefore ensuring a perfect alignment of diffusion patterns.



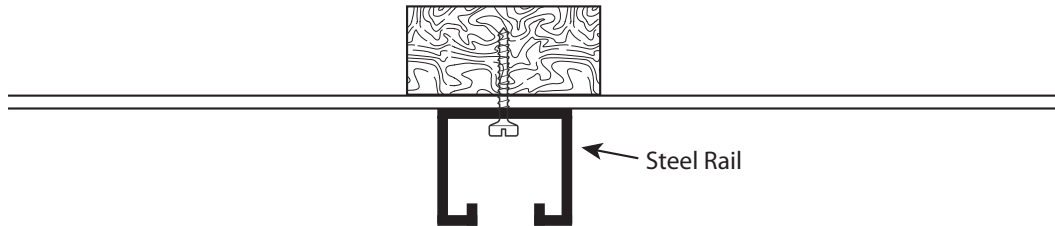
2. Insert the DSLV Sleeve into the first duct section. Make sure that the gasket is fully in and that the duct's edge is resting on the sleeve's retaining bulge.



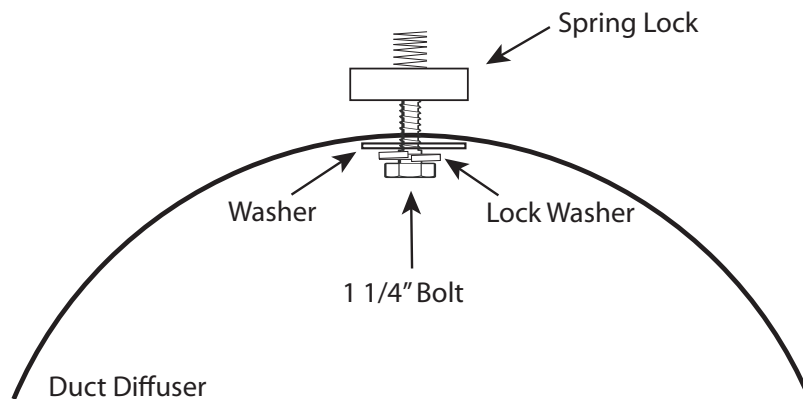
3. Secure each duct section with the sleeve using two metal screws through the duct arrows and sleeve holes. The metal screws are larger than the sleeve holes on purpose, in order to ensure an air tight installation.

# Installation of the Duct Diffuser Using Ceiling Rails

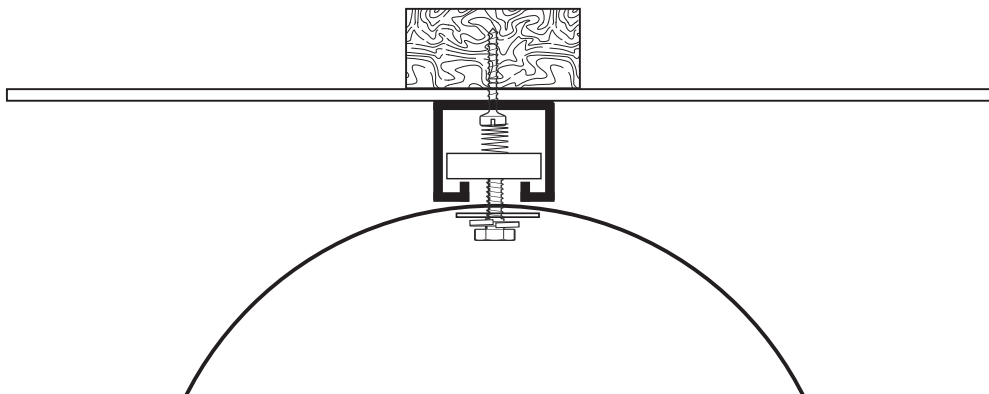
1. Secure DRAILC steel rails to the ceiling using screws or anchors suitable for the ceiling type



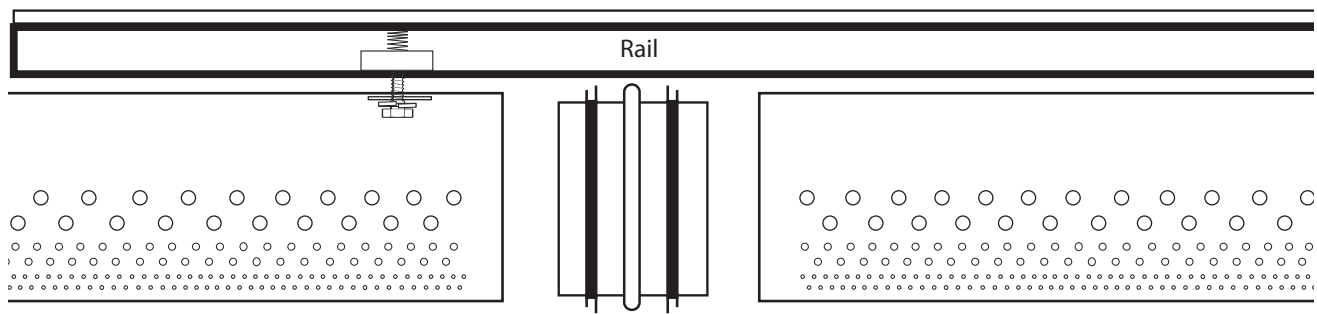
2. Attach the Spring Lock to the Duct Diffuser using a 1 1/4" Bolt through the 3/8" hole on top of the Duct Diffuser. From the inside, tighten the Bolt using a Washer and Lock Washer as illustrated below. Tighten enough to secure the assembly, but do not fully tighten. Some loose is required for the duct to be secured to the rail.



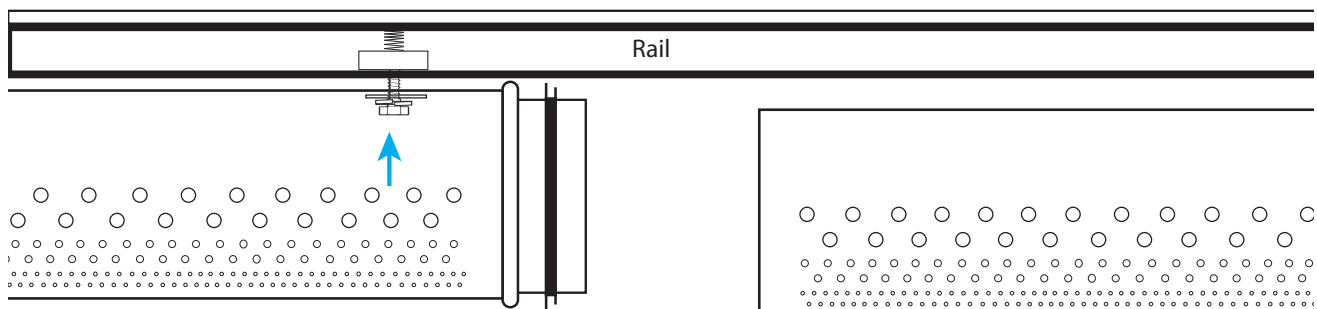
3. Insert the Spring Lock inside the Rail, then turn the Bolt 1/4 turn clockwise in order to lock the Spring Lock in place. Slide the diffuser in the rail to connect to the previous section, then tighten the bolt from inside the duct to secure the assembly.



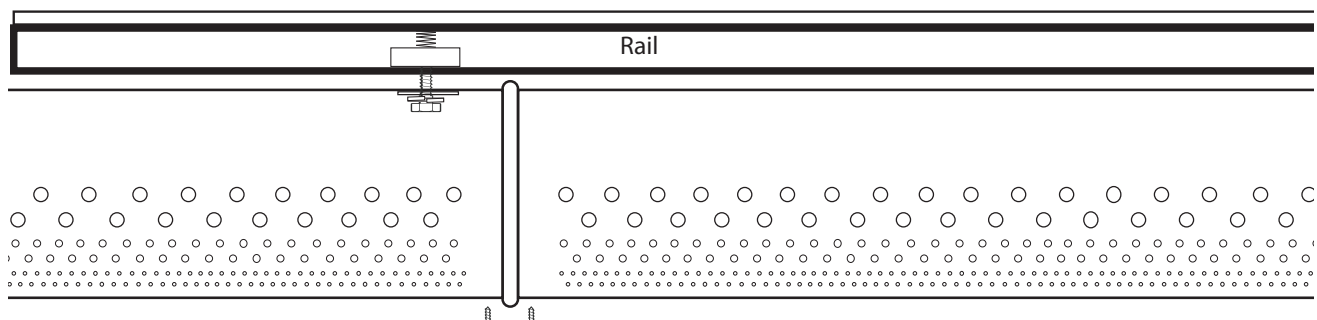
*Note: it is also possible to insert the Spring Lock in the Rail prior to securing it to the Duct Diffuser. The spring will provide enough force to hold the Spring Lock while you insert and tighten the Bolt.*



4. When connecting two PRD sections, fully insert a DSLV Sleeve in the section that is already connected, then tighten the bolt from inside the duct to secure the duct diffuser.



5. Push the new section on the other end of the sleeve, until the edge of the duct fully rests on the sleeve's retaining bulge. Secure metal screws on both sides of the retaining bulge. Place the screws  $\frac{1}{2}$ " away from the bulge on each side.



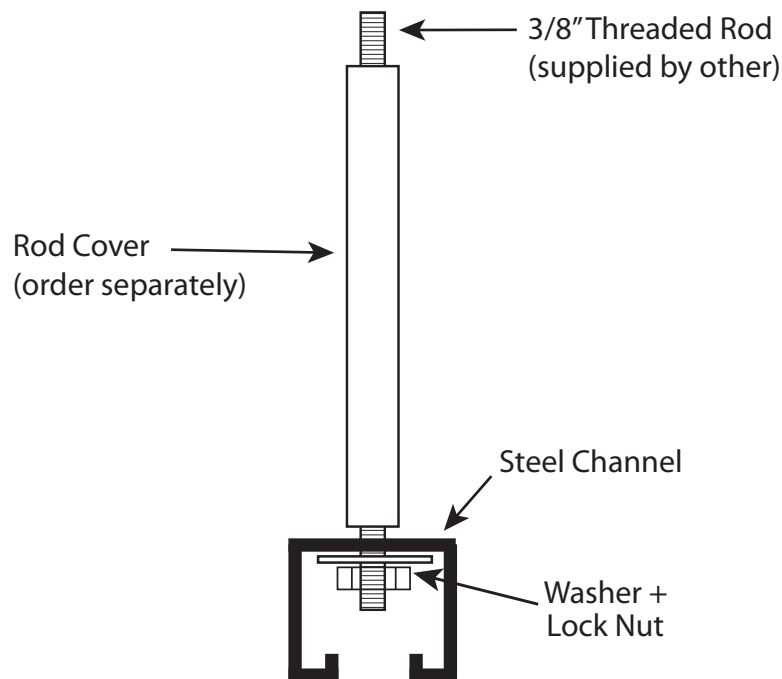


# Installation of the Duct Diffuser Using Rails Suspended From the Ceiling with Threaded Rods

## 1. Installation of the Threaded Rods and Covers

Measure and cut 3/8" Threaded Rods (supplied by others) to ensure proper installation height of the Duct Diffusers. When calculating the length, make sure to plan an extra 1/2" to attach the rail. Rod Covers shall be at least 1 1/2" shorter than the Threaded Rods.

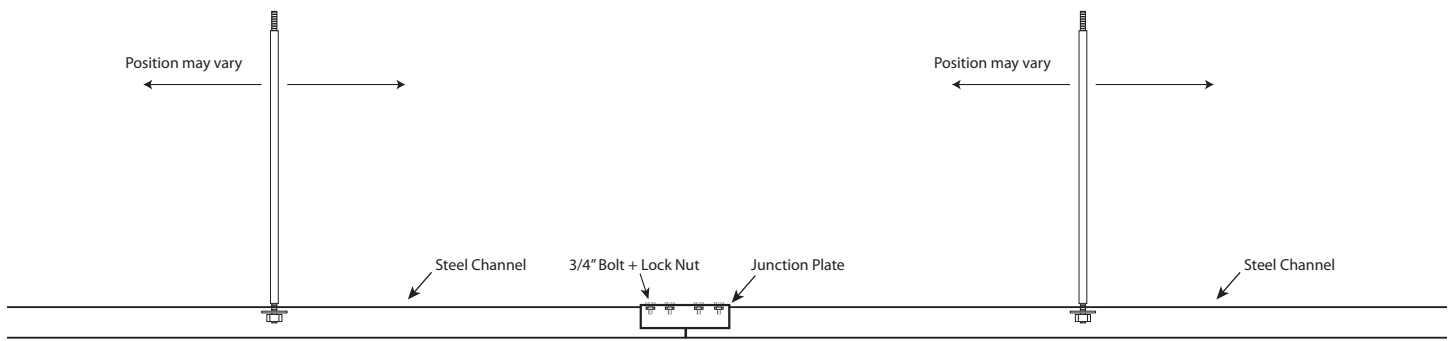
### Attaching rail to the ceiling with a threaded rod



## 2. Installation of the DRAILS Suspended Rail

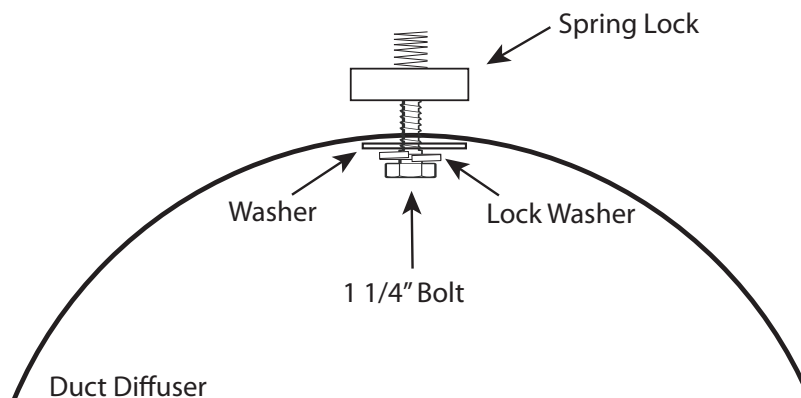
Insert the rod through the proper slot on top of the rail, then secure the assembly using a Washer and a Lock Nut. Secure rail ends with other connecting rails using the Coupler and four (4) 3/4" bolts and nuts provided with the rail.

**Important:** do not rely solely on rail couplers to suspend a rail section. Each 10 ft length must be attached to at least one Threaded Rod.

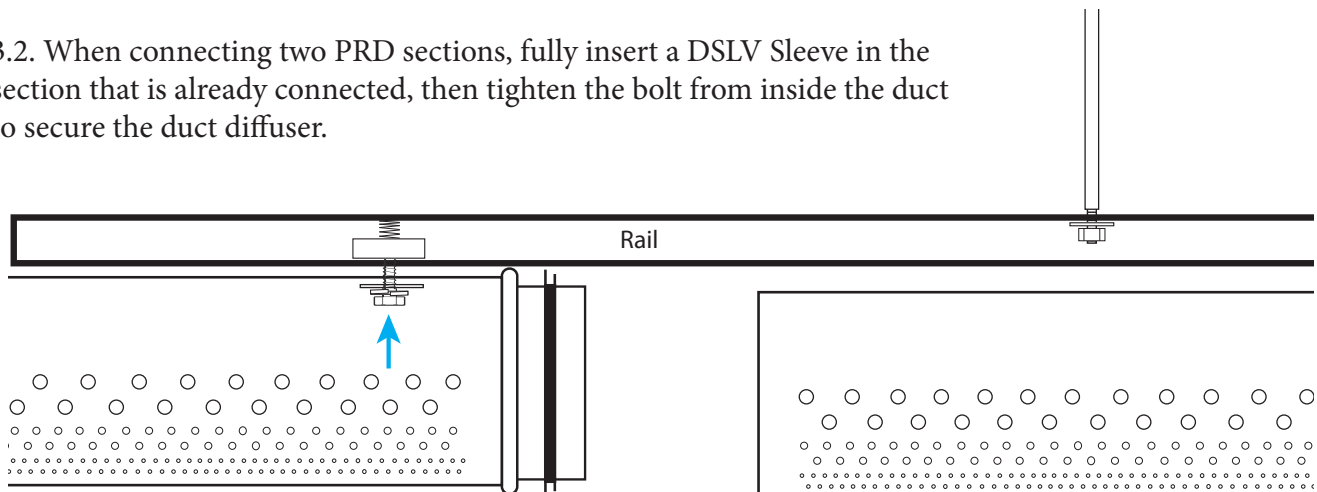


### 3. PRD Installation

3.1. Attach the Spring Lock to the Duct Diffuser using a 1 1/4" Bolt through the 3/8" hole on top of the Duct Diffuser. From the inside, tighten the Bolt using a Washer and Lock Washer as illustrated below. Tighten enough to secure the assembly, but do not fully tighten. Some loose is required for the duct to be secured to the rail.

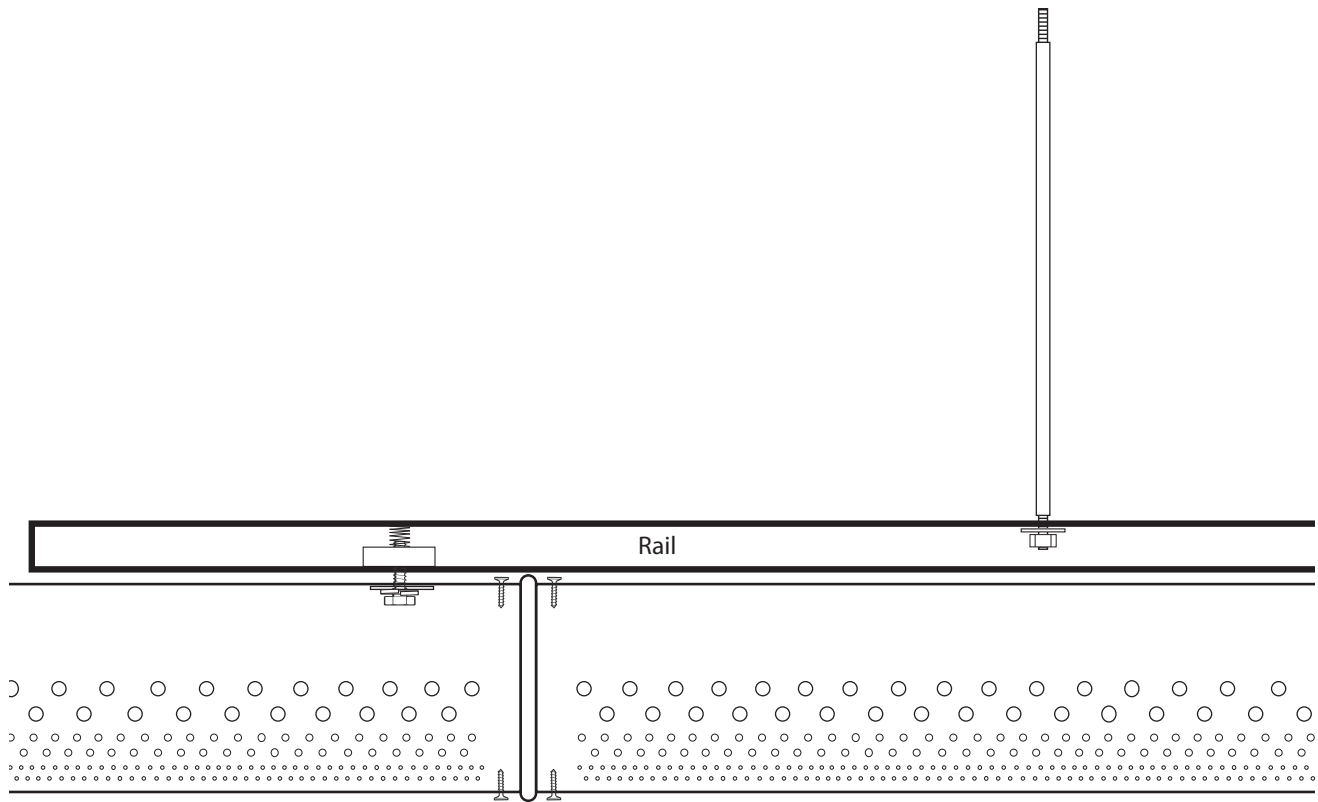


3.2. When connecting two PRD sections, fully insert a DSLV Sleeve in the section that is already connected, then tighten the bolt from inside the duct to secure the duct diffuser.

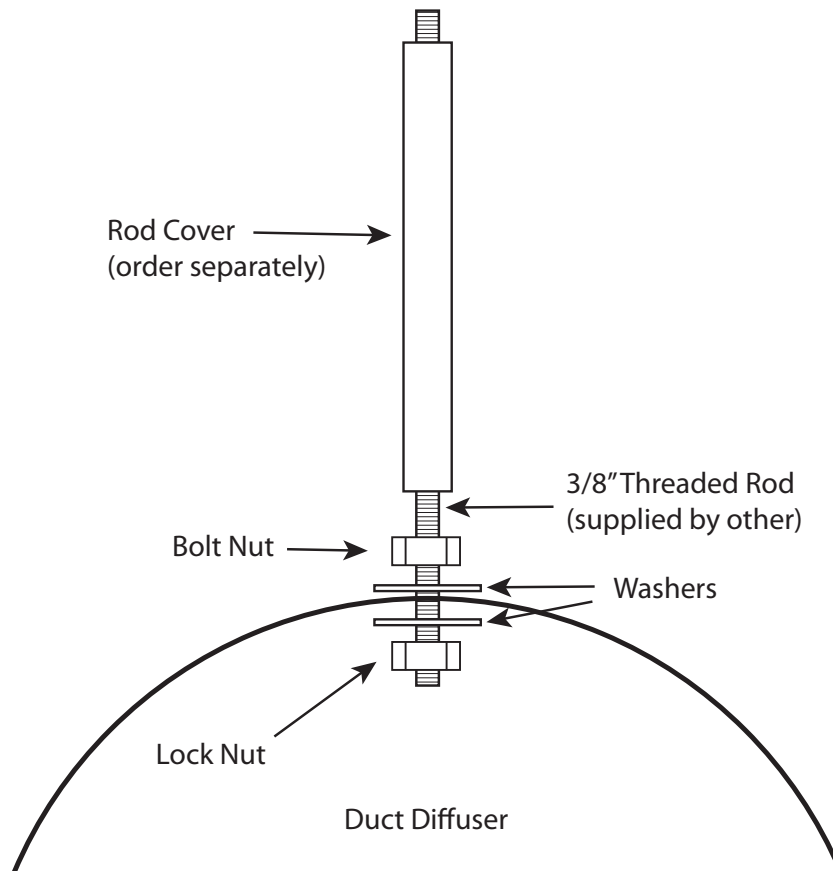


3.3. Push the new section on the other end of the sleeve, until the edge of the duct fully rests on the sleeve's retaining bulge. Secure with two metal screws on both sides of the rail, through the arrows and sleeve holes. Add additional metal screws as needed in order to ensure a perfect alignment of larger sleeves and duct diameters.

***Important: use the matching painted metal screws provided with the duct diffuser.***



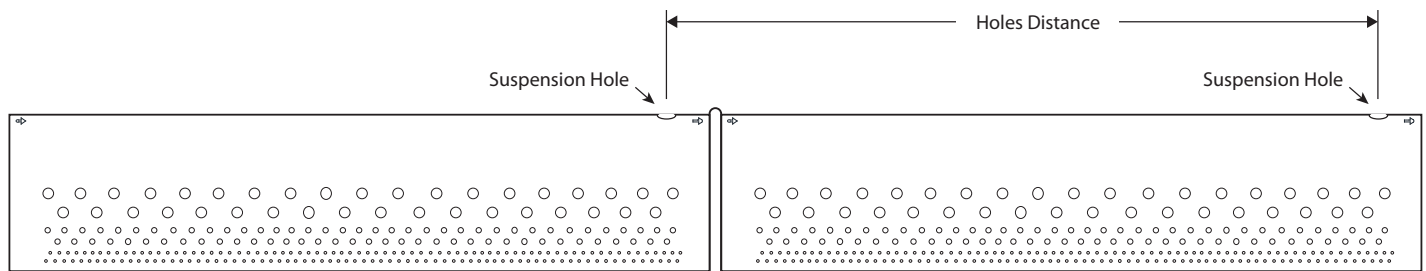
# Suspension of the Duct Diffuser Using Threaded Rods Only



## 1. Installation of the Threaded Rods and Covers

### 1.1. Spacing the Rods

Anchor 3/8" threaded rods to the ceiling. Threaded rods and anchors are not supplied by Prihoda. PRD sections have pre-cut suspension holes on top. Each section has one hole located 4 inches away from the end of the duct through which the air exits. The distance between the holes for two standard 60" sections including the connecting sleeve is exactly 60". However some sections can be less than 60", therefore we highly recommended measuring the distance between the holes prior to anchoring the rods to the ceiling.



## 1.2. Rods and Rod Cover Lengths

Measure and cut the 3/8" Threaded Rods to ensure proper installation height of the Duct Diffusers. Threaded Rods shall be 1 ½" longer than the desired height and Rod Covers shall be 1" shorter than the desired height (2 ½" shorter than the Threaded Rods). Secure Threaded Rods to the ceiling, then slide Rod Covers in and secure with bolt nut.

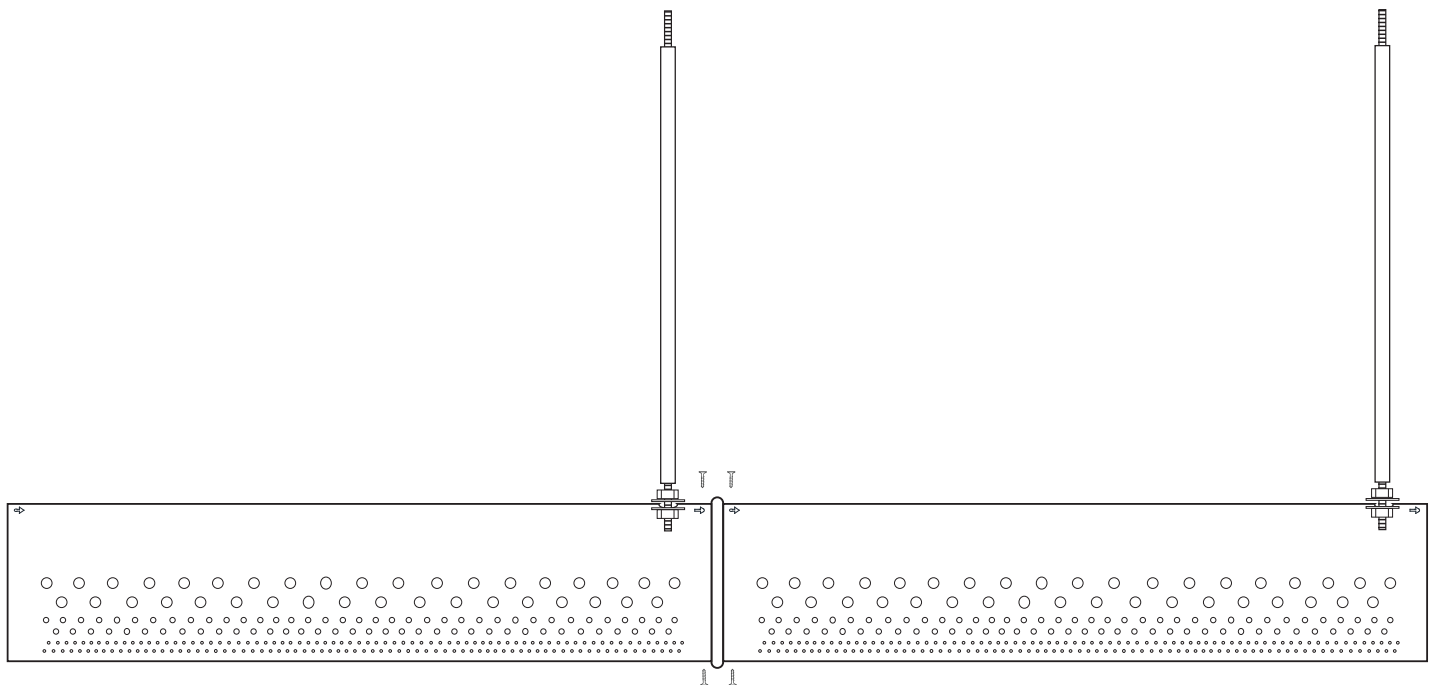
## 2. PRD Installation

Install the PRD section by inserting a disc in the threaded rod, and then the threaded rod into the suspension hole located on the top of the diffuser. Insert another disc and the lock nut. Tighten the lock nut, raising the duct section until the desired height is achieved.

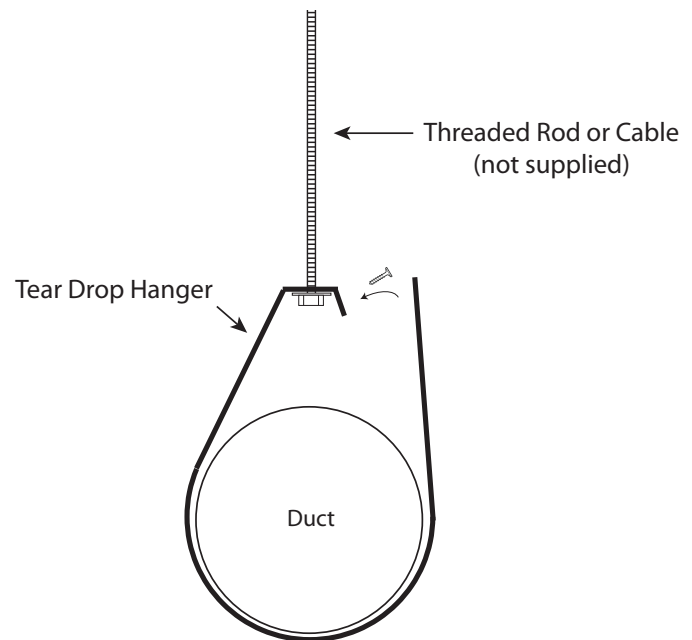
Once the section is properly installed, secure to the previously installed section with two metal screws on both sides of the rail, through the arrows and sleeve holes. Add and secure the new sleeve, then proceed to the next section.

Add additional metal screws as needed in order to ensure a perfect alignment of larger sleeves and duct diameters.

***Important: use the matching painted metal screws provided with the duct diffuser.***



# Suspension of the Duct Diffuser Using Tear Drop Hangers



1. Suspend the Tear Drop Hangers to the desired duct height using threaded rod or cable (not supplied by Prihoda). Use one hanger per PRD section.
2. Insert the PRD duct section into the Tear Drop Hanger. Make sure the PRD section is properly aligned and connected with the previously installed section, secure the section with the sleeve using screws, then close and secure the Tear Drop Hanger.

