



A Product of US Duct, Inc.

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The Ultimate Seal®

Installation Guide

A Few Tips to Make Your Installation Go Smoothly:

- Handle the ducting carefully to avoid damaging the Vanstone edges. Bent or damaged edges can result in system leakage.
- Lay your complete system out on the ground in the order it will be installed. This allows you to:
 - ⇒ Check to see if any system changes or obstructions will necessitate additional parts. If additional parts are needed, contact your US Tubing distributor immediately so that we can get the necessary parts to you quickly.
 - ⇒ Organize and identify all parts at ground-level for a much faster installation.
- Do as much work as possible at ground-level. This includes:
 - ⇒ Attaching a gasket to one end of each pipe section.
 - ⇒ Clamping two pieces together on the ground and then connecting these assemblies to complete the system.
 - ⇒ Be sure and tighten the adjustable clamp bolts before lifting these assemblies.

Tools Required:

- A reciprocating saw or similar tool to cut ducts to length
- A power driver or impact wrench with a 1/4" Allen key for systems
- Tape measure

Installation Instructions

1. Fit the gasket over **ONLY** one of the connecting flanges. The split in the gasket slides over the flange and the standing ribs of the gasket should be facing outward so that they clamp between the two pieces.

NOTE: The gasket is supposed to be very snug.

2. Abut the next piece of pipe against the gasket. There is only one gasket at each joint. (**Installation Tip:** Some installers spray the inside of the clamps with WD-40 or similar lubricant or use dish soap to coat the outside of the gaskets to help avoid any “bunching” or “dimpling” of the gaskets as the clamp is tightened.)

3. Place the clamp over and around the two ends of the connection. Make sure the v-shaped profile of the clamp fully encloses the end of each pipe and the gasket.

5. Close the clamp.

- a. Use a power driver or impact wrench with a 1/4” Allen bit to tighten the adjustment bolt opposite the clamp’s over-center handle securely to ensure a leak-proof seal. **NOTE: IF the gasket begins to bunch before the torque pulls the ends of the pipe together snugly, apply a lubricant such as WD-40 to the outside of the gasket before joining the pipes together.** This allows the clamp to slide over the gasket more easily.
- b. Once the clamp is closed, snap the wire retaining clip over the clamp handle to prevent accidental opening.

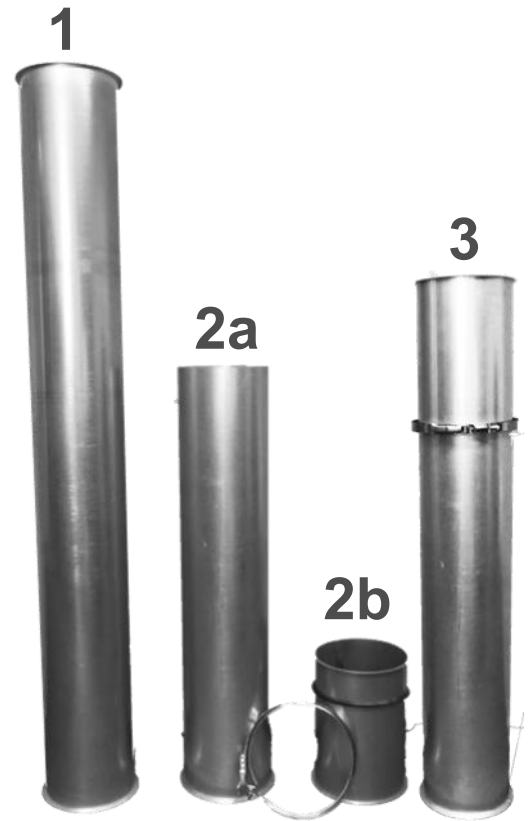


CAUTION: Failure to tighten the bolt on the clamp securely could result in leakage and/or release of the clamps allowing the duct to separate and fall.

US Tubing Adjustable Sleeve

NOTE: Adjustable sleeves provide for easy field fitting where less than 5' of duct is required. Use of a sleeve is for negative systems only and can blow out under positive pressure.

1. Measure the length needed to complete a shorter than 5' connection. For example, if you need 7' of pipe between two branches. As the standard pipe is 5' in length, you will need a 5' section and a two-foot length. Therefore,
2. Take a 5' section (1) and cut it slightly shorter than you need (2a). In this case where we need 2'. Cut it a little shorter than 24". (You can use a reciprocating saw, nibblers, or a grinding wheel). **IMPORTANT: There are two lengths of sleeves: 11" long and 4" long.** The shorter sleeve allow for shorter (under 11") requirements but also has less adjustment so cut carefully AND wisely.
3. Remove any sharp edges.
4. Take the cut piece of pipe and slide it into the adjustable sleeve (2b). **NOTE: Do not use your 4" sleeves where a 11" will work.** They should be reserved for shorter sections—if needed.
5. Slide the sleeve up and down on the pipe until the assembly is the length that you desire.
6. Roll the O-ring (comes with the sleeve) off the sleeve and onto the pipe and then roll it up against the Vanstone edge of the sleeve and clamp (3 is the completed assembly).
NOTE: If the pipe assembly is too long or too short, un-clamp, adjust, and re-clamp.
7. Tighten the adjustable bolt on the clamp to compress.



While extremely tight, the adjustable sleeve is not guaranteed as leak-free for mist or coolant systems. In the event that this part does leak, the customer has two options:

1. Use an off-the-shelf caulk to seal the part.
2. Send US Tubing an exact measurement of the telescoping piece. We will send you an exact length segment that can be snapped in to replace the telescoping adjustable sleeve section. The replacement part will not leak.



Installation Tips For Mist Collection Systems

Horizontal Runs

- Install horizontal runs at a slight incline (preferably towards the collector) to allow liquids to drain out of the duct.
- Install adjustable sleeves upstream (in reference to air movement) of the cut pipe for improved airflow and drainage.
- Ensure the duct is properly supported as liquids pooling in the duct can be extremely heavy.
- On long horizontal runs or where it is not possible to hang the duct with an incline to allow drainage, install taps or drains to keep liquids from pooling on low spots.



Vertical Runs

- Install the adjustable sleeves below the cut sections of the pipe. This allows any liquids running down the inside of the pipe to flow all the way back to the machine without impediment.

Notes on Adjustable Sleeve

- When installing the adjustable sleeve, ensure drainage flows in the direction from the cut pipe towards the adjustable sleeve.
- Make sure that the clamp connecting the adjustable sleeve to the cut pipe fully encloses the o-ring seal. Tighten the adjustable bolt on the clamp to compress the o-ring between the cut pipe and the adjustable sleeve.
- Once the exact lengths are determined, some installers prefer to measure the entire adjustable section and contact us for a made-to-order single length of pipe. An exact length of solid pipe offers the maximum leak security.

We also offers Oil Mist Accumulators. These cost effective units help scrub the oil from the air at the source and lower the volume of liquid in the duct.

Contact Us

Give us a call for more information about our services and products!

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