

Installation instructions PDPG

Foreword

When ordering type approved duct systems manufactured by Bevego indicate the airtightness class to be achieved. This can be class C or D; our duct systems always have a pressure rating of 2. Unless the airtightness class is specified, duct systems will be manufactured in class C and with a pressure rating of 2.

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Inspection and storage

On delivery components must be inspected visually for transit damage. Duct components are delivered with all corners pre-sealed, see sealant instructions below.

Components with a longest side of 1400 mm come with a neoprene gasket installed. Only one side of the duct will have a neoprene gasket. This means that the duct can be stored upright on the side without the neoprene gasket.

NOTE! Ensure that debris and dirt do not collect on the side on which the duct is standing, and that the sealant is not damaged. To be absolutely sure the duct should be stored horizontally or on a clean surface.

If the duct is delivered without a pre-assembled frame for installation in a lead-in, the frame is to be installed according to the instructions "Installation of additional PDPG", "Sealant instructions" and "Installing neoprene gaskets" below.

Safety



When handling components we recommend wearing cut resistant work gloves, as some components may have sharp edges.

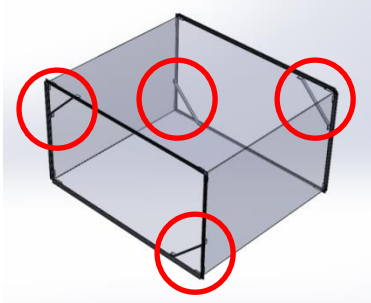
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When drilling or spot welding components we recommend wearing safety goggles. This applies to all types of cutting work.

Transport braces

Components may sometimes need to be braced internally to prevent damage in transit. In that case a brace is installed in the corner of the component, see the figure below. This brace must be removed before installation.



Sealant instructions

Sealant is to be applied to the corners of duct components as illustrated below. Sealant is applied at the factory, and need only be reapplied if the sealant has been damaged during transport or handling, or if a separate PDPG frame is being installed. If sealant is applied after gasket is mounted, sealant is not needed on the following below marking.



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Installing neoprene gaskets

To achieve a good result the installation of a neoprene gaskets is important. Check that the neoprene gasket is in contact with the flange and in contact with the opposite side. See Figure 1 below for installation. For best additives performance use T-red on a rag, use proper safety equipment. If product not is pre sealed its recommended to put gasket on before sealant.

Figure 1

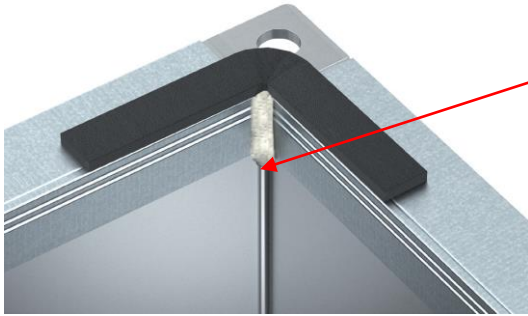


Figure 2

Cover hole in the corner and down in the angle aprox. 1cm below PG profile.

The neoprene gasket is mounted along the inner edge of the duct and folded around the corner with a radius of approximately 10 mm.

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Joining

Position the duct components against each other, use a bolt or tool to align them. Check that the components are aligned and that the neoprene gasket has not been displaced. Lock the components together using one of the connectors below. PDPG joints are supplied with the duct, others can be purchased separately.

The following can be used to join components.

Drive cleats

Lock the joint by tapping the drive cleat over the components using a mallet or something similar. Take care not to deform the drive cleat. When the drive cleat is in place, lock it by twisting the end slightly or crimping it a bit, see the figure below. When installing drive cleats, a duct stretcher can be used to facilitate assembly.



Part number 9500535

Profile clamp

If, due to a lack of space, it is difficult to install a drive cleat, a profile clamp can be used.



Bolts

Ducts with a longest side of 350 mm can be installed with bolts just at the corners. NOTE! If bolts are used to align ducts, and these are then to be secured using a drive cleat, it is important only to use diagonal holes before the drive cleat is inserted into the profile, as otherwise the bolts will be in the way.



Illustration showing the crimping of a drive cleat.



Other installation tools

Impact tool for installing a drive cleat with an SDS bracket.



Part number 9646001

537102400	JOINT PROFILE EU FZ 2.4 M
537202400	DRIVE CLEAT PROFIDUCT FZ 2.4 M
537301000	INNER CORNER EU D20/3 FZ
537991508	SEALING STRIP EU 15X8 MM 8 M EPDM WITH ADHESIVE EDGE

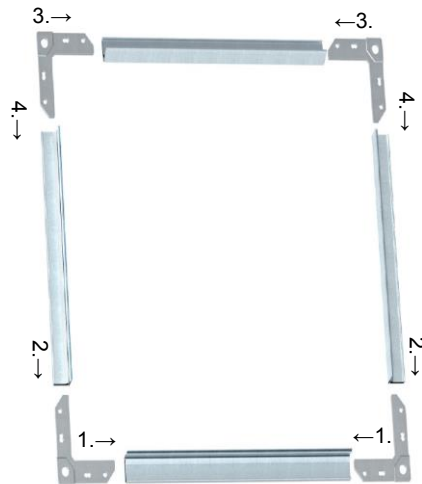
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PDPG frame installation

A frame is installed in the following order:

1. Insert 2 corner pieces in the bottom profile.
2. Install the left and right profiles in the bottom profile.
3. Install 2 corner pieces in the upper profile.
4. Install the upper profile into the lower U-shaped frame.

Use a rubber mallet to tap the corners into place.



Installation of a PDPG frame onto a component

Secure the frame to the component by tapping it using a rubber or plastic mallet that will not mark the PDPG profile. If no rubber or plastic mallet is available, use a block of wood or something similar to protect the profile, see the illustration below.

Secure the frame starting in one corner. Select a corner without a fold and tap the frame down without bottoming it out. Tap the frame into place, going around to the right and left until the opposite corner is reached.

Check each corner to ensure that the profile is in the correct position and not on the wrong side of the metal sheet, which would damage it.



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Attachment of the frame to a component

The frame can be attached to a component in many ways. At the factory we use clinching whenever possible. The frame can also be spot welded, blind rivetted (seal-link) and bolted into place.

Frames are secured by clinching or spot welding as follows:

Each end of the frame is secured at 2 points at approximately 10 mm intervals.

For ducts of up to 200 mm only the ends of the profile need be secured (i.e. at 4 points).

For ducts of between 200 and 400 mm, one point in the middle of the duct is also secured (i.e. at 5 points).

Larger sizes are secured at points with an approximately 200-300 mm spacing, evenly distributed according to the following pattern.



Attachment using blind rivets or bolts is according to the above sequence, but only one attachment on the outer edge (1 and 2, see the figure above) is required.



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