



The Expansion Joint People

ProFlex Series 700: style 710,720, 730 and 740 Check Valves

Installation, Operation and Maintenance Manual



Thank You!

You have just received one of the worlds best built back flow prevention devices: **the ProFlex 700.**

The virtually indestructible design of the **ProFlex 700** check valve eliminates the requirements for costly maintenance schedules. Each valve is manufactured to exacting specifications ensuring perfect fit and usability.

The series 700, provides outstanding back flow prevention eliminating costly and unwanted back-flow from rivers, oceans, and storm water and is an excellent choice for sewage diffuser systems.

The series 700 is available in a wide spectrum of elastomers with Neoprene or NSF61approved Nitrile being specified as the ProFlex preferred elastomer.

ProFlex check valves are fully inspected at the factory and are carefully packaged to arrive at the job site in good condition. Upon receipt at the job site, inspect for damages that may have occurred during transportation and immediately contact your transportation company to report any damages. Check the item (items) against the packing slip to ensure that all items are accounted for.



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Important

It is to be noted that each check valve installation can be considered as a major pipe installation and the same safety issues as used in pipe contracting installations should be implemented.

Proco Products will accept no responsibility for an improperly installed check valve or the improper use of this product. Incorrect installation may result in injury to personnel, reduced valve life or damage to other mating pipe products.

Please review the following safe installation practices before attempting to install this **ProFlex** product.

If you have any questions or concerns, please call your Agent or the Proco Hotline for immediate assistance (5:30 am-5:15 pm PST). North America 1-800-344-3246, Intl. 1-209-943-6088.



Follow proper piping installations



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Installation

Each check valve regardless of size should be installed in the same fashion. A check valve's operation is simple and concern during installation should be as follows.

Always check your work area for safety hazards which may cause injury or damage to personnel or product. Develop and discuss a safety and exit plan for you and your fellow employees in the event of an emergency.



Safety

+



Exit

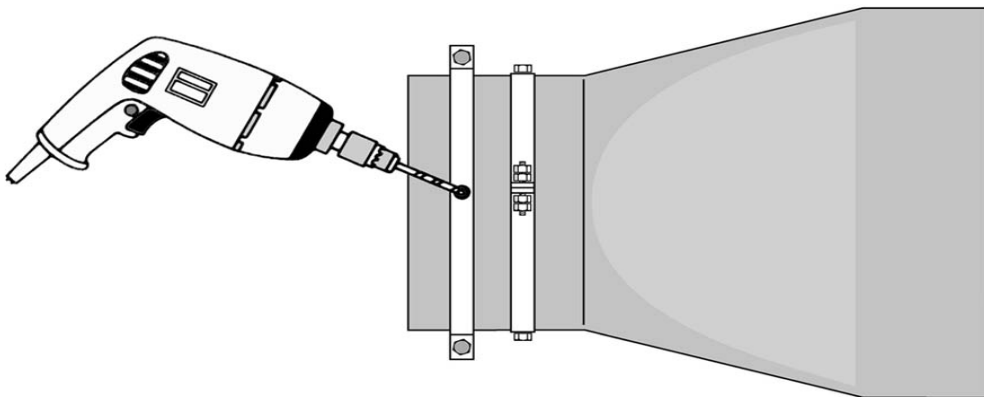
- 1- Mating pipe must be free of sharp edges, which may damage the inside diameter of the rubber check valve, add soapy water to the outside of the pipe prior to attempting the valve installation this will allow for an easier installation.
- 2- The pipe diameter should be as tight as possible to the true I.D of the check valve. If the check valve appears to be too loose because of incorrectly supplied dimensions, strips of rubber may be used to allow a proper "snug" fit. Do not attempt to install a check valve which is obviously not the correct size.
- 3- If this is a slip on unit **Style 730**, always align the valve so the bill is vertical to the ground unless there is a clearance issue, if this is evident you may rotate the valve to a maximum of 30-35 deg to allow clearance from the ground area. If this is a slip on style of valve align the clamp sections in a fashion that will allow you ease while tightening the bolts. If the valve that you are installing has more than 1 fabricated stainless clamp then rotate the additional clamps which will place the clamping section at opposite angles from the first clamp. This will ensure even pressure is applied to the valve.



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- 4- Adjustable hose clamps (T-Bolt style) will be supplied on valves up to 10" dia, 12" – 24" will be supplied with a single fabricated stainless clamp, 26" through 54" will have two fabricated stainless clamps and 60" through 72" and larger will have three fabricated stainless clamps.
- 5- After the valve has been installed drill a hole or holes depending on valve size, through the rubber cuff and into the mating pipe using the center hole on the clamp as a guide. Insert a bolt which will be sufficient in length to completely travel through the clamp, valve and mating pipe. Completely weld or use some other means of ensuring that this bolt will not fall out or be removed. (The bolt only needs to be welded on the head of the bolt) This will create a pinning effect which is all that is required to ensure zero slippage.
(See attached drawing A.)
- 6- Stainless bolts are highly recommended as steel bolts can corrode and eventually fall off.



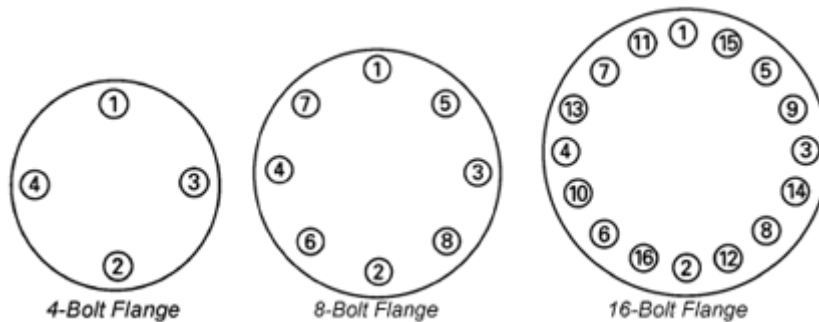
Drawing A



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- 7- If this is a flanged unit, **Style 710** always align the valve so the bill is vertical to the ground unless there is a clearance issue, if this is evident you may rotate the valve to a maximum of 30-35 deg to allow clearance to the ground area. If the Stainless backing ring has been supplied as a split ring use a stainless steel flat washer to properly cover the split area of each backing ring while installing the flange bolts.
- 8- Tighten the flange bolts in a criss- cross pattern until the rubber flange bulges slightly which will ensure proper crush on the flange sealing face.



Typical tightening patterns

- 9- Check both installations for clamp tightness Style 730 as well as flange crush Style 710 periodically, if the application so allows.
- 10-Contact Proco Products, Inc. if bottom clearance is an issue, we will provide you with a proper rotational degree drawing to ensure proper installation.

In Line Series

- 11- If this is an Inline **Style 720** simply insert the valve inside the existing pipe and reattach the 2 mating pipe flanges. Since this is a rubber flange there is no requirement for any gasketing. Torque the flange bolts as shown in the above Typical tightening patterns
- 12- If this is an Inline **Style 740**, insert the valve inside the existing pipe and using an appropriate wrench, tighten the expandable clamp until the Stainless portion of the clamp has imbedded itself into the rubber of the valve. At this point simply tighten the locking nut. Please note that this style relies on external pressure of the clamp to ensure that the valve does not move. Care is to be taken to ensure proper seating.



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Operation

The Proco 700 Series of check valves require little operational requirements, each unit is an elastomeric back flow device which relies solely on inlet flow pressure and back flow pressure to provide operation.

The ProFlex check valve will only be supplied as a "straight bill" design.

Studies have shown that the curved bill design can be subject to failure due to the installation and flow direction. Tidal action can also cause failure with design as there is no proper way to install against flow in a tidal application.

Maintenance

The ProFlex Check valve requires little maintenance; periodic checks can ensure that this valve will provide years of maintenance free service. Check for cuts or gouges which can easily be repaired with self curing rubber compound. (Contact Proco) Ensure that the bill section is free from any debris that may have been lodged in the bill. This will be the only areas of concern that you may periodically check.

Congratulations!

You have just installed the finest back flow prevention device ever manufactured. The **ProFlex 700.**

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