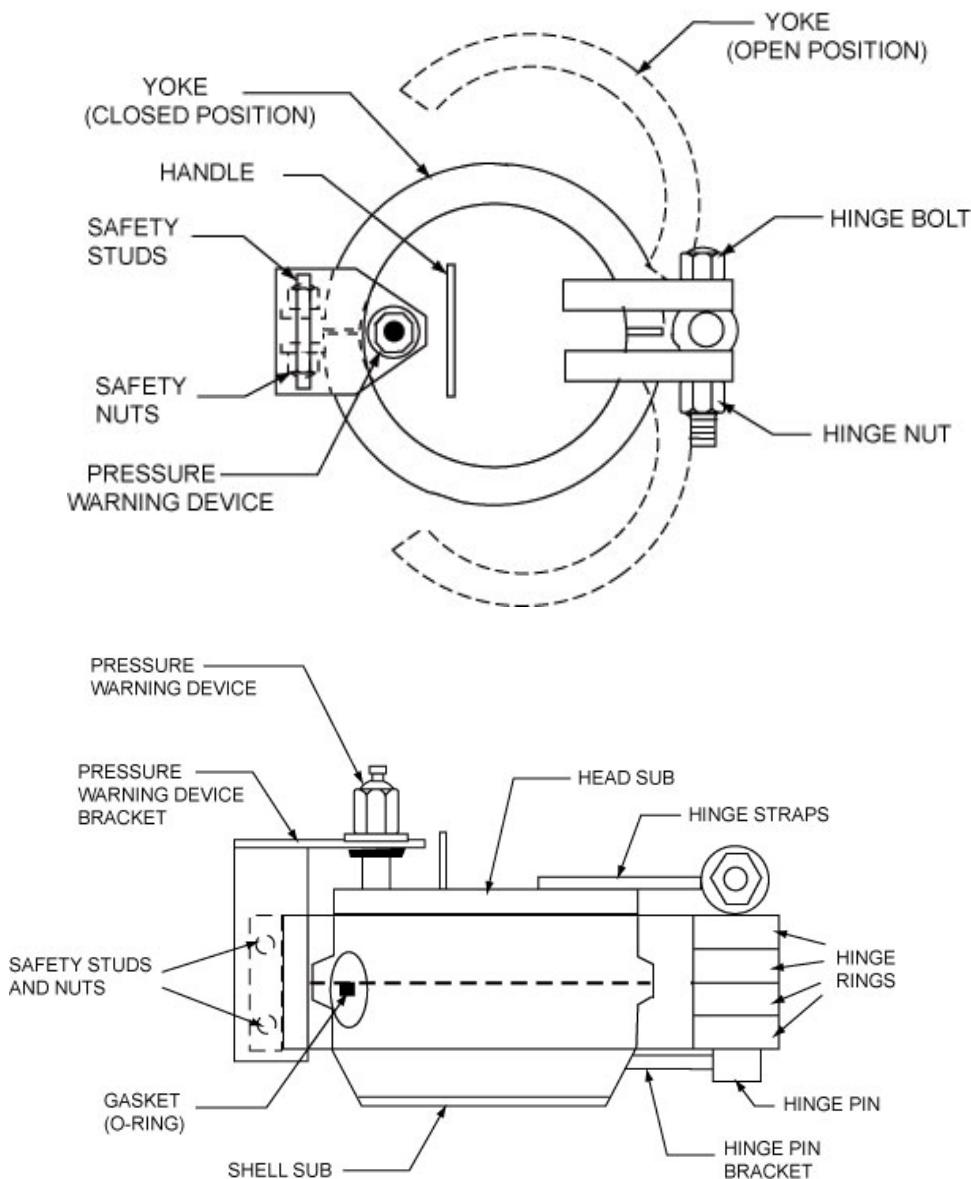




PERRY EQUIPMENT CORPORATION
AN ISO 9001 COMPANY

PECO QUICK OPENING CLOSURE (6" - 8")

The PECO Quick Opening Closure is an inherently safe, easy to operate and reliable closure. Before operating, one must become familiar with the closure and its working parts. Below is a sketch of the PECO Quick Opening Closure with all parts identified to assist you in following the operating procedure.



CAUTION!!

Prior to opening the PECO Quick Opening Closure, the operator must review and follow any applicable Corporate Policy or Procedure concerning the service to which the operator will be exposed.

ENGINEERED FILTRATION TECHNOLOGIES

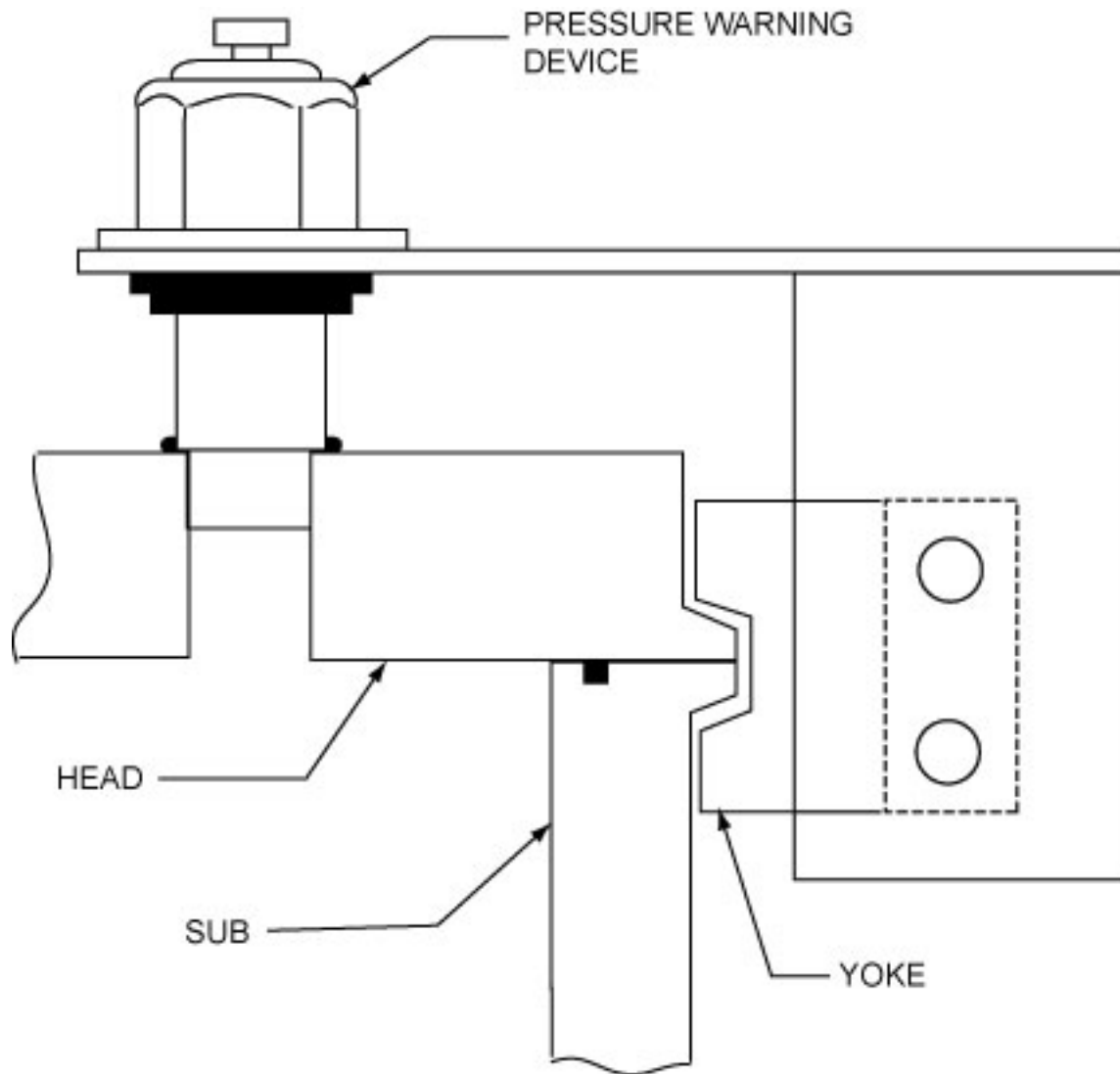


FIG. A

The Pressure Warning Device is designed to warn the operator of internal vessel pressure, which must be fully vented prior to closure opening. This device restricts closure opening until the operator checks for internal pressure. **DO NOT ALTER THIS SEALING ARRANGEMENT.**

CLOSURE OPENING PROCEDURE

TOOLS REQUIRED: Small closures (6" - 8") may be opened and closed using normal hand tools.

VENTING OF INTERNAL PRESSURE

1. Close all block valves to stop flow to the vessel or pipeline.
2. Open blowdown, vent, and/or drain valves as per "owners procedures". Reduce the internal pressure to zero (0) pressure.
3. Once the pressure indicator shows that the vessel internal pressure has reached zero(0) pressure level, slightly open the cap of the "Pressure Warning Device" (PWD) for the closure to insure pressure is down to zero (0) pressure (Refer to FIG. A assembly view).
4. If there is no sound of pressure escaping, completely remove the PWD cap and bracket assembly.
5. Check the bore of the PWD coupling to insure it has not been plugged with internal debris or corrosion.
6. If the PWD indicates that internal pressure still exists, do not attempt to open the closure. If there is any other indication that internal pressure still exists, do not attempt to open the closure.

INVESTIGATE AND ELIMINATE THE SOURCE OF INTERNAL PRESSURE PRIOR TO OPENING

7. Once the internal pressure has been relieved, do not close the valves used for venting.
8. The closure is ready to be opened.
9. Remove the studs and nuts exposed by removal of the PWD bracket.
10. Check to insure that the threads of the studs are not coated with any paint or solid protective coating. If so, remove the coating.
11. Pull the yokes open such that the head (door) will clear upon opening.
12. Once the yokes are opened to the point that the head (door) is free to open through the yokes, the yokes are opened far enough (Refer to top figure on front cover).

Prior to opening the head (door), check the head for fit-up to the shell sub. The sealing faces must be parallel and the outer periphery of the parts should be even.

CLEANING AND INSPECTION

1. Open the head (door) slowly.
2. Remove the existing gasket and check it for possible points of improper fit. (Refer to fig. B)
3. Clean all of the sealing surfaces and the teeth of the head, shell sub and yoke halves. Inspect these surfaces for pitting, corrosion, scratches, or other surface defects.
4. Lubricate both of the o-ring sealing surfaces as well as all of the unpainted surfaces of the head, sub, and yoke halves. Peco recommends using Molycote G, Selig "Redilube", or equal lubricant.
5. Lightly lubricate and install a new o-ring. The PECO Inventory Control Number (ICN) for the proper gasket is listed on the closure Name Plate (see figure C). On closures built before 1985 the PECO ICN number for the gasket was not included on the Name Plate. If this is the case, consult the factory with the vessel serial number for proper replacement part information.

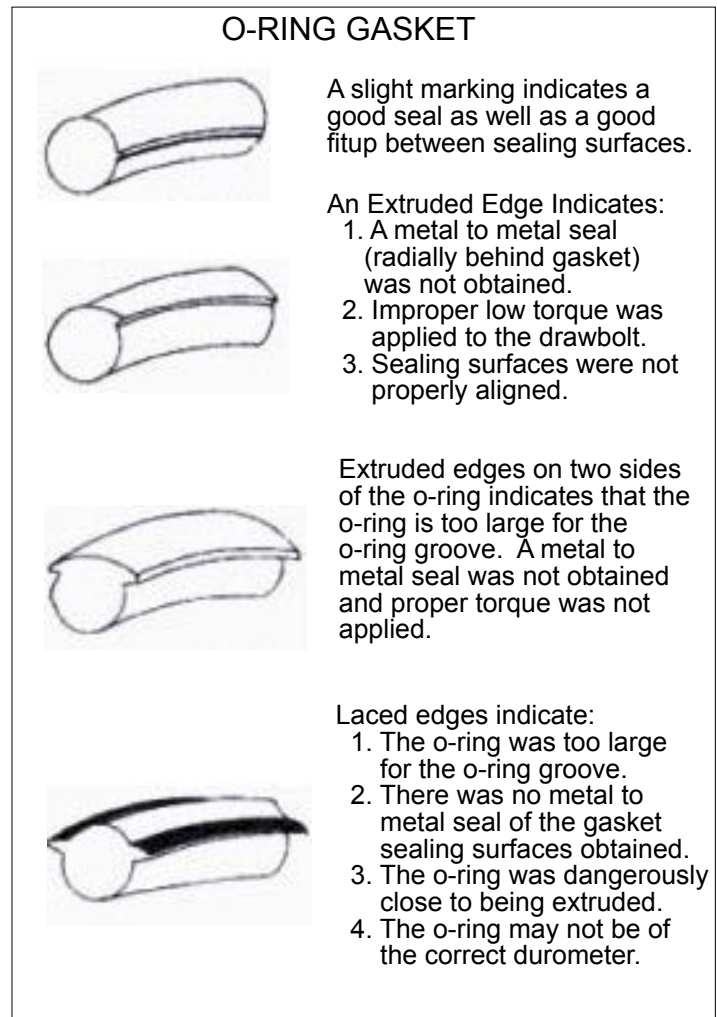


FIG. B

NOTE!

PECO recommends using replacement gaskets supplied by PECO. However, any replacement gasket for the closure, whether purchased from PECO or elsewhere, must be identical in dimension, material, and hardness to the original gasket designed and furnished by PECO. The use of a gasket not identical in dimension, material, and hardness could create serious problems in achieving the seal and fit required for proper closure operation. Do not install silicone or any material other than the lightly lubricated o-ring in the gasket groove.

6. Confirm alignment of the head and sub prior to closing the yokes. This is done by closing the head (door) slowly. Do not bump the head against the shell sub. With the head and shell subs together, the match-up of the shell and head is then checked at the 12, 3, 6, and 9 o'clock positions. The head tooth should be even with the sub tooth within +/- 0.020 inches. If the closure alignment is not correct, consult PECO for closure adjustment. If the closure alignment is okay, then proceed to "Closing the Yokes".

NOTE!

Failing to align the closure prior to closing the yokes can result in failing to achieve the seal and fit required for proper closure operation.

CLOSING THE YOKES

1. Confirm alignment of the head and sub prior to closing the yokes. (See step 6 under "Cleaning and Inspection").
2. Pull yokes together until studs and nuts will fit through their respective holes.
3. Continue closing yokes by tightening studs and nuts until the gap is 1/4" or less and the torque on the studs and nuts is equal at 25 ft-lbs.**
4. Once the yoke end gap is within the specified distance +/- 0.0625" (Refer to FIG. C) the yokes are fully closed.

<input style="width: 80%; height: 40px;" type="text"/> W PART		C.R.N. <input style="width: 80%; height: 20px;" type="text"/>			
CERTIFIED BY PERRY EQUIPMENT CORP. MINERAL WELLS, TEXAS USA					
MAWP	<input style="width: 80%; height: 20px;" type="text"/>	PSIG	AT	<input style="width: 80%; height: 20px;" type="text"/>	°F
MDMT	<input style="width: 80%; height: 20px;" type="text"/>	°F	AT	<input style="width: 80%; height: 20px;" type="text"/>	PSIG
S/N	<input style="width: 100%; height: 20px;" type="text"/>			YR.BLT	<input style="width: 80%; height: 20px;" type="text"/>
CA.	<input style="width: 80%; height: 20px;" type="text"/>	INCH			
<input style="width: 80%; height: 20px;" type="text"/>		QUICK OPENING CLOSURE			
GASK	<input style="width: 80%; height: 20px;" type="text"/>	MATERIAL	<input style="width: 100%; height: 20px;" type="text"/>		
					YOKE END GAP
					<input style="width: 80%; height: 20px;" type="text"/>
					PRESS. WARNING DEVICE
					<input style="width: 80%; height: 20px;" type="text"/>
					DRAWBOLT TORQUE
					<input style="width: 80%; height: 20px;" type="text"/>
FT. LBS PRIOR TO PRESSURIZING, CAUTION: SEE INSTRUCTION MANUAL PRIOR TO OPERATION					

FIG. C

THE STUDS AND NUTS MUST BE INSTALLED IN PLACE PRIOR TO APPLYING INTERNAL PRESSURE FOR ANY REASON. THIS IS MANDATORY PER ASME SECTION VIII, DIVISION I.

5. Clean, lubricate, and install pressure warning device cap. The cap must be wrench tight. Excessive torque should not be applied to this cap to obtain a seal. If the cap does not seal, remove the cap and check the sealing surfaces for solids buildup or damage. As noted in figure "A", there must be a gap between the cap and plate which is attached to the yoke. The purpose of this pressure warning device is to warn the operator if there is still pressure on the vessel as the operator follows proper procedures prior to attempting to open the yokes. It is not designed to assure proper alignment and fit. Therefore, the installation of the pressure warning device cannot be relied upon as a check against failing to follow the proper instructions.

WARNING!

CHANGE OR MODIFICATION TO THE ORIGINAL DESIGN, MATERIALS OF CONSTRUCTION, ELASTOMER, SEALING DEVICES OR OPERATION WITHOUT WRITTEN AUTHORIZATION OF PERRY EQUIPMENT CORPORATION, VOIDS PECO'S WARRANTY AND THE ASME "U" STAMP IF SO FURNISHED.

PECO disclaims responsibility for any damage sustained from violation of any and all of the written instructions of operation, maintenance, or safety.

CHECK LIST

Review all of the work performed to insure that all the items are as specified above. Use the following check list.

1. Are the o-ring gasket sealing surfaces free from injurious defects such as scratches, pitting, corrosion, or crusty buildup?
2. Are all uncoated, machined surfaces well lubricated? Careful, you don't want to have excess lubricant.
3. Is the o-ring/gasket installed properly?
4. Is the door aligned properly with the sub?
5. Are the yokes closed to within the specified end gap?
6. Torque properly applied to studs and nuts?
7. Is the Pressure Warning Device cap installed?
8. Was the visual inspection satisfactory?

Once the responsible party is satisfied that all of the items are completed as per above, the closure is ready for applying internal pressure.



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