



**MarFlex**

**MDPC-200**

Pumphead pressure test

# Service Bulletin

No. 1 - 2019

# Pumphead pressure test Service Bulletin



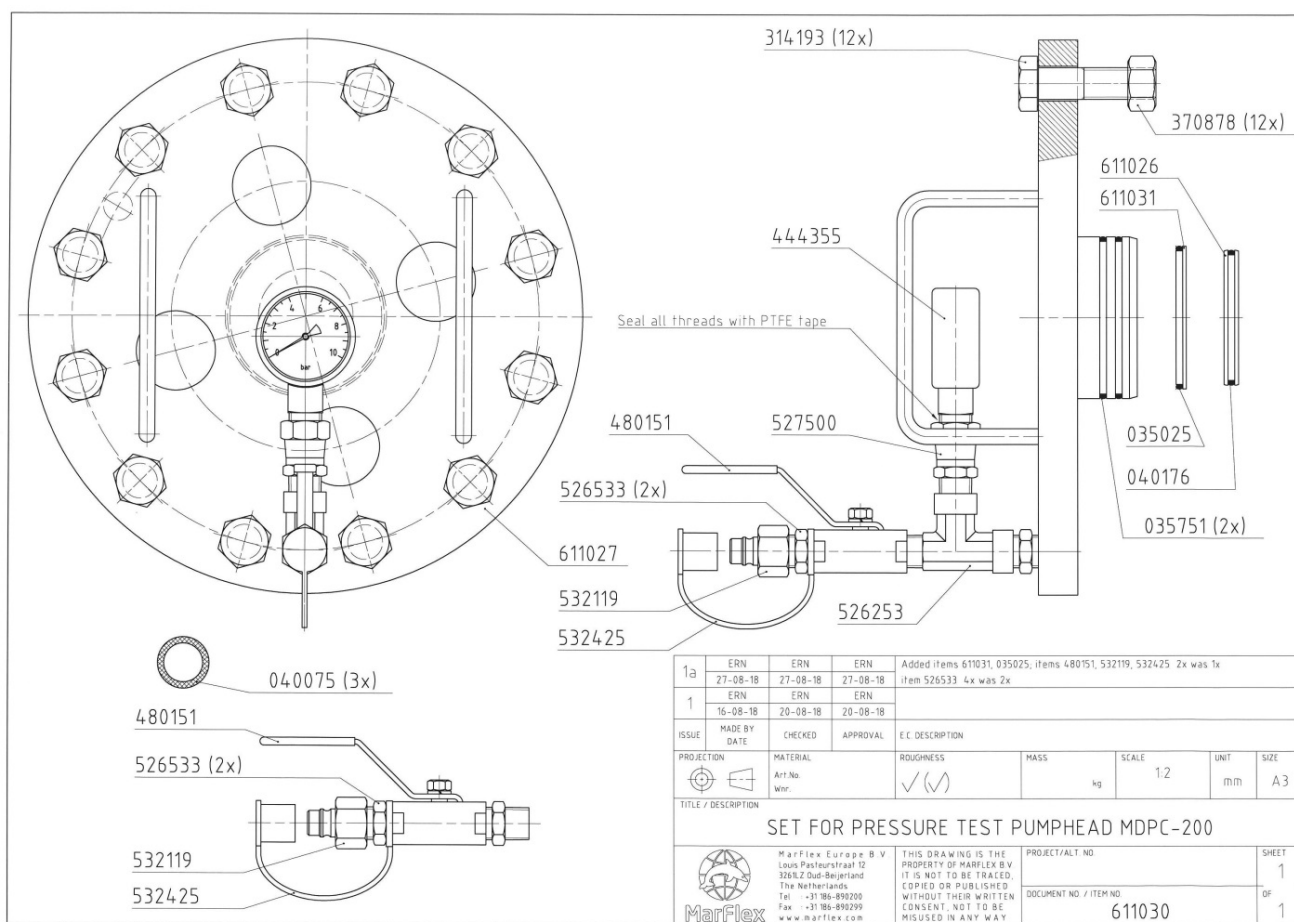
**MarFlex**

## Introduction

MarFlex has prepared a method to pre-test a pumphead prior to shipment back to MarFlex for major service. The pre-test is intended to evaluate the condition of the pumphead and whether a pumphead is viable for a major service. Through such a pre-test, the costs for logistics and inspection will be avoided and can be carried out by the crew on-board. The pre-test is a pressure test of the lubrication oil chamber and the cofferdam. Any leakage (other than sealing surfaces) from the lubrication oil chamber and/or the cofferdam will deem the pumphead to be beyond repair.

## Tools

MarFlex offers a test-kit to perform the pumphead pressure test.  
(Part number: 611030)



**Test procedure**

1. Remove all parts from the pump casing except the lock pin  
(Don't forget to remove the non-return valve in the oil pipe)

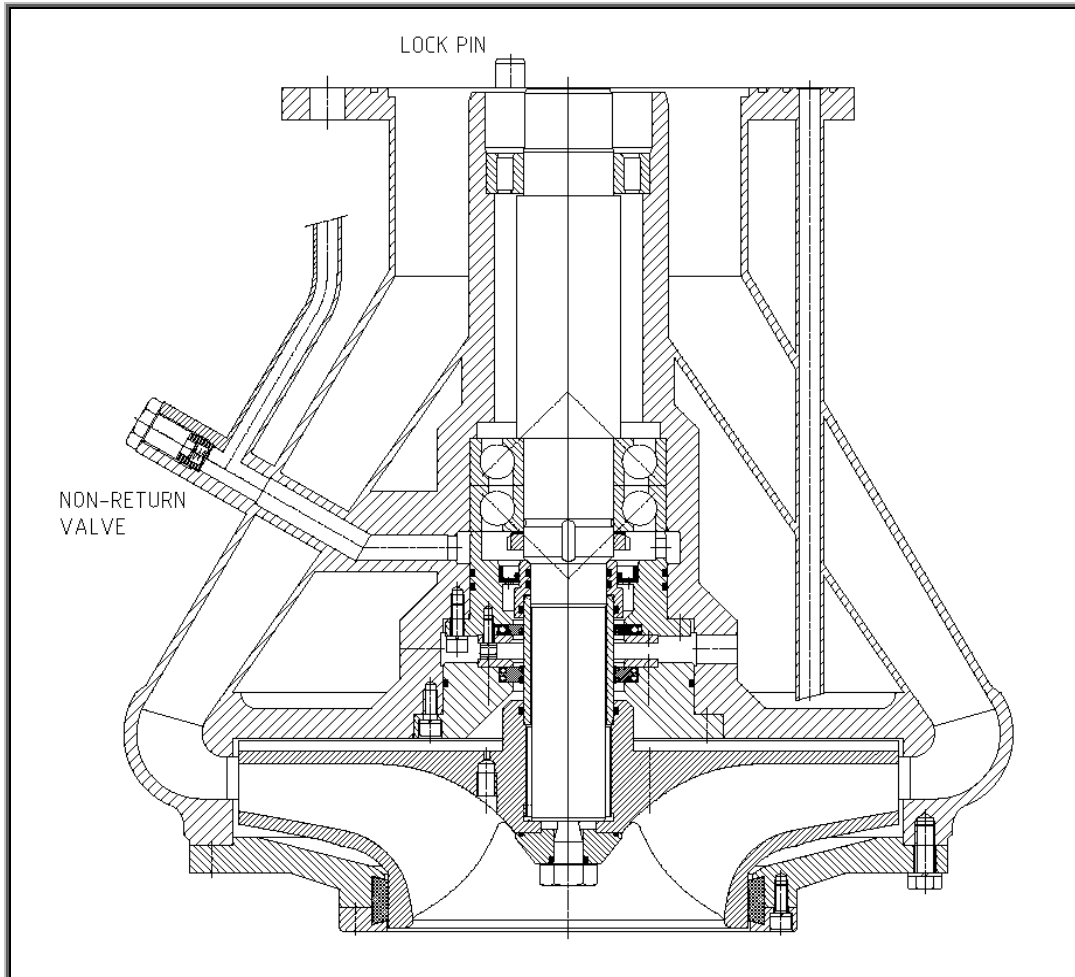


Figure 1



## 2. Mount the upper pressure tool in the upper seal support

- Mount the upper pressure tool (611031) with O-ring (035025) in the upper seal support.
- Mount the upper seal support with the original O-rings into the pump casing. (Original bolts can be used)

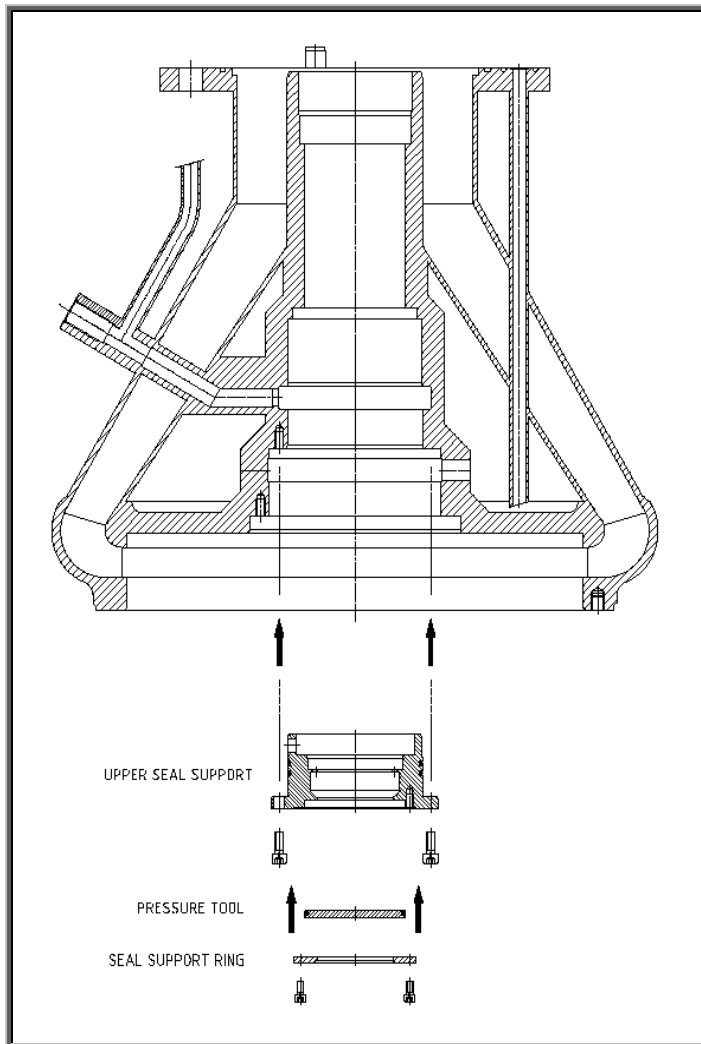


Figure 2

3. Mount the lower pressure tool in the lower seal support

- Mount the lower pressure tool (611026) with O-ring (040176) in the upper seal support.
- Mount the lower seal support with the original O-rings into the pump casing. (Original bolts can be used)

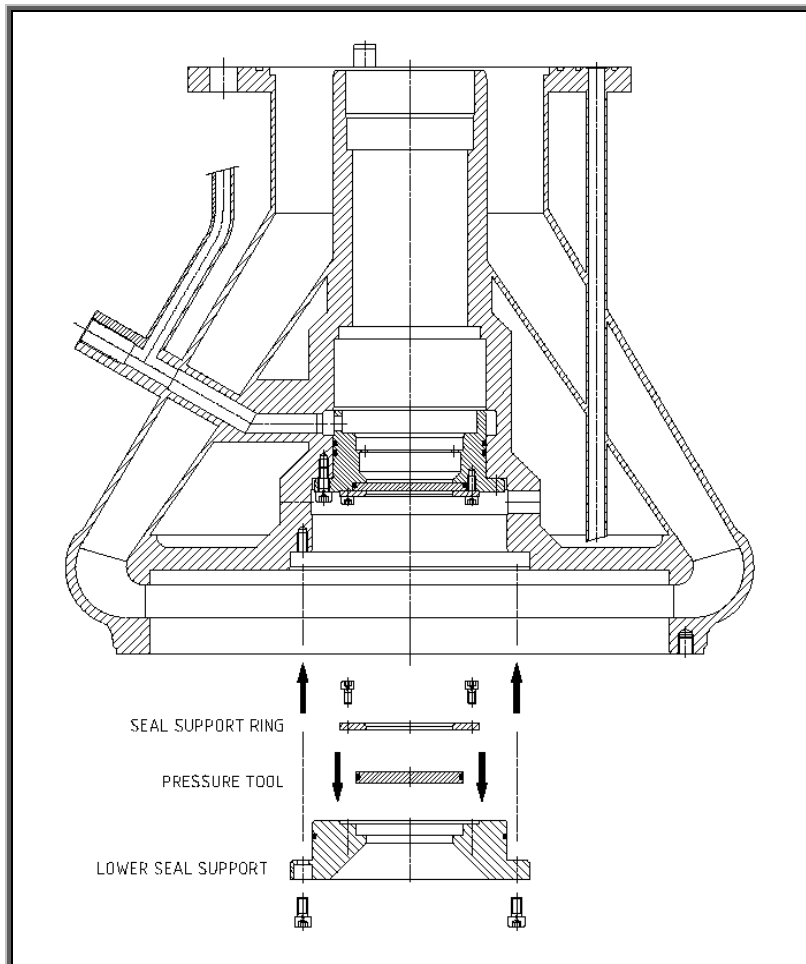


Figure 3

4. Preparing the pumphead flange

Insert the O-rings (x 3) into the grooves in the top flange of the pump casing.

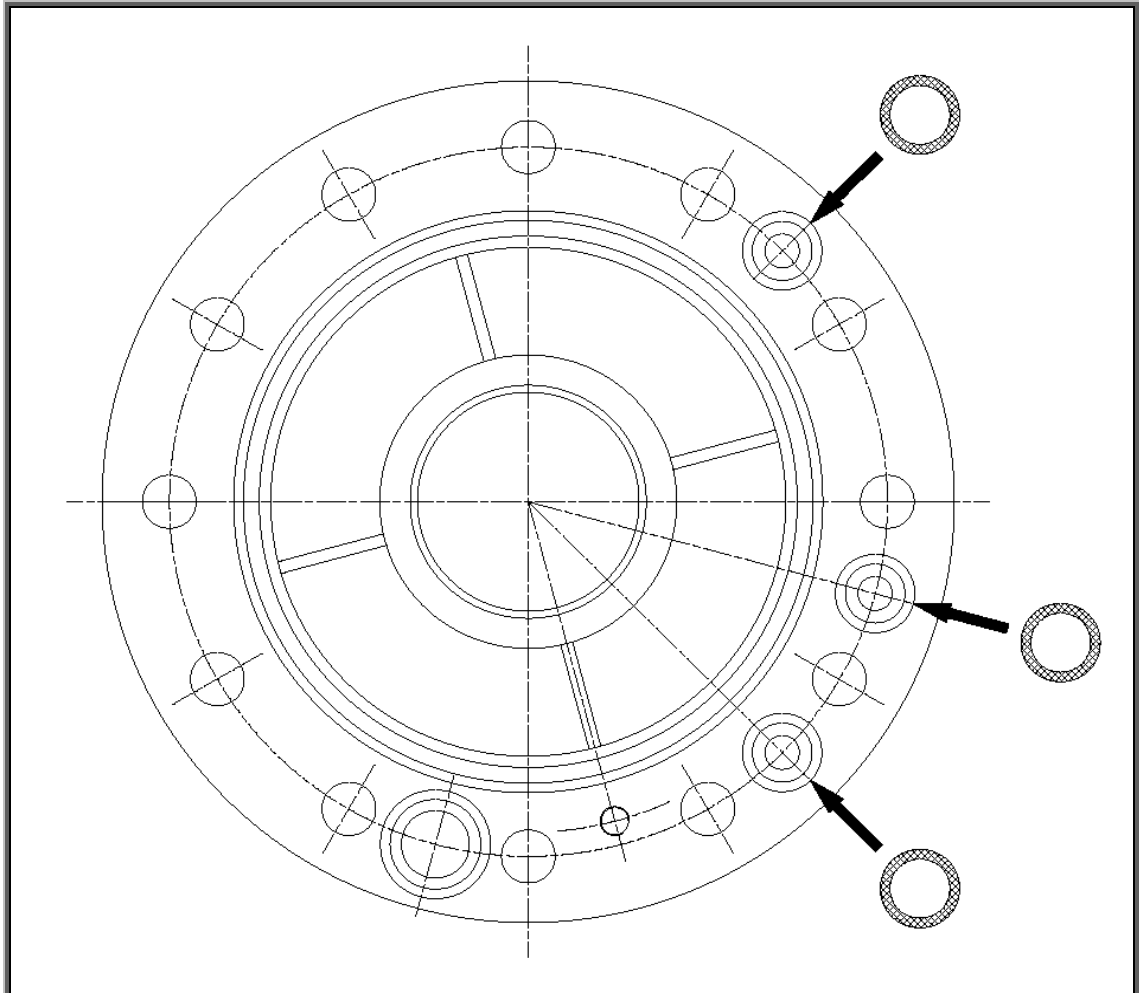


Figure 4

5. Mounting the pressure test flange and accessories

- Mount the pressure test flange (611027) with the O-rings (035751) on the pumphead flange and secure with the supplied bolts and nuts (x 12).
- Mount the valve for the air inlet to the oil pipe connection; use PTFE tape for sealing.

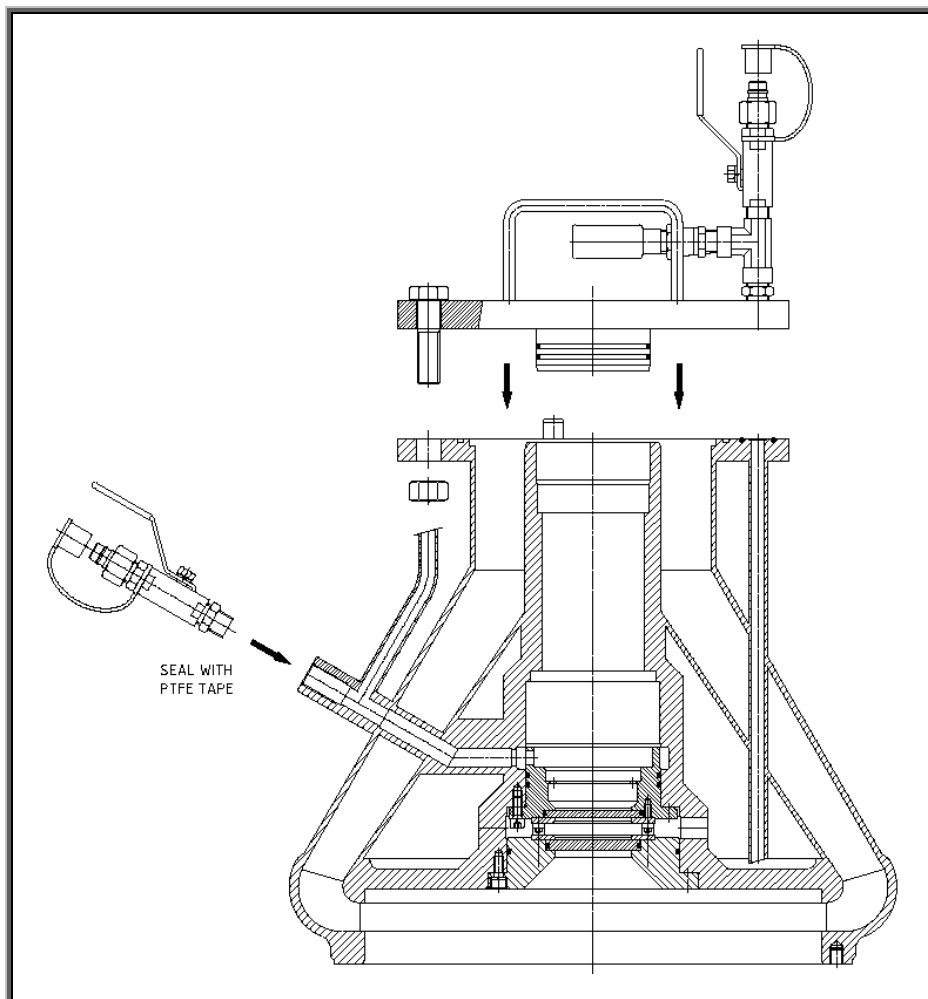


Figure 5

6. Pressure testing cofferdam

- a. Apply air through the air connection on the flange to about 8 bar. When pressurized, close the air supply.
- b. Keep the valve located on the oil pipe open.

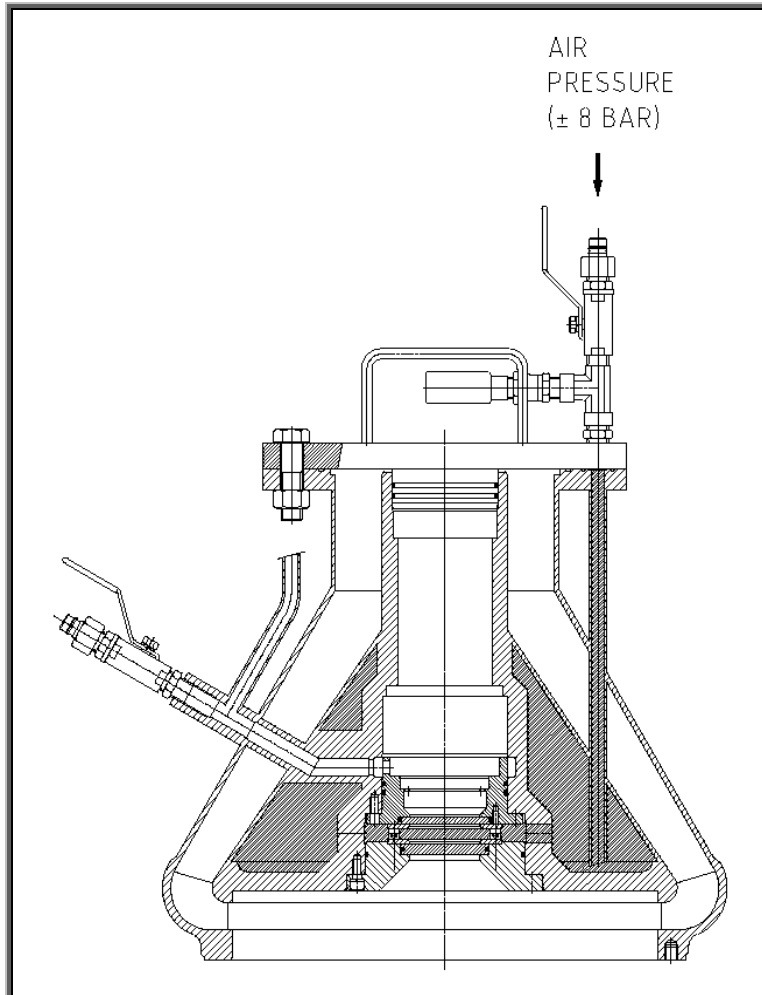


Figure 6





- c. Submerge the assembly into water.

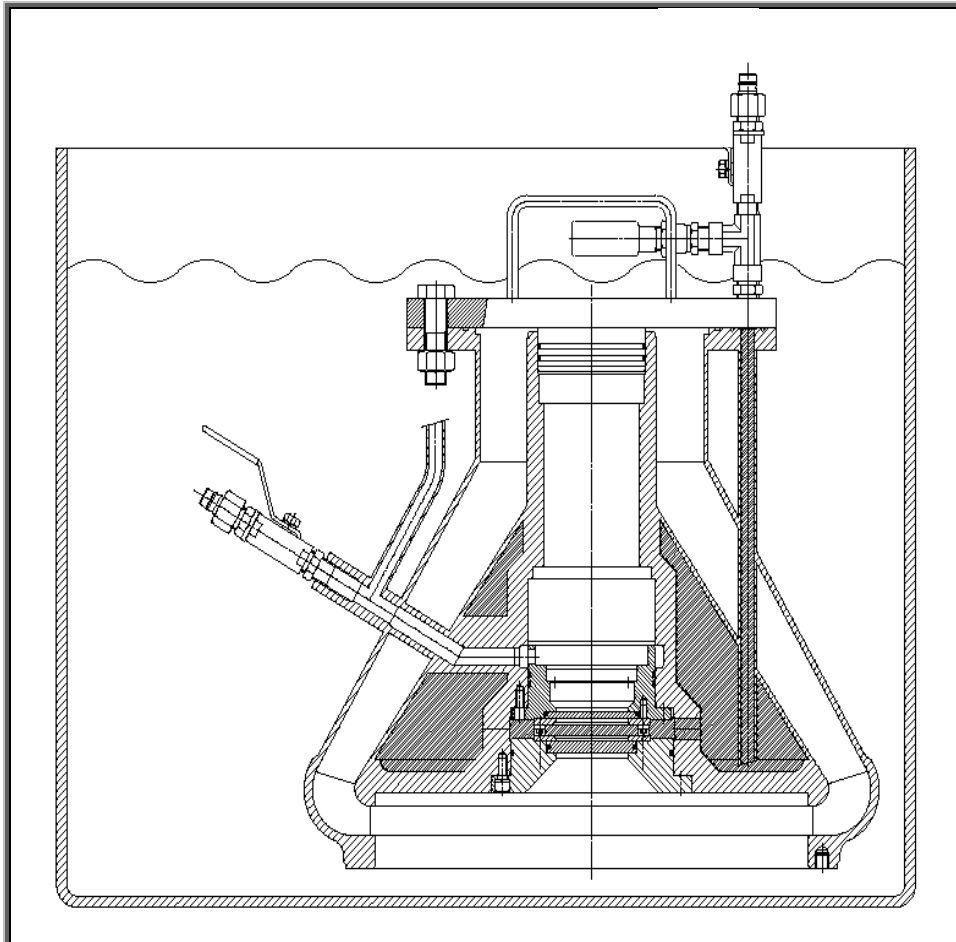


Figure 7

- Check the pressure whether the pressure decreases (it must remain at approx. 8 bar).
- Check whether any bubbles appear for at least 30 seconds. Locate the source of any leakage.

If no loss of air pressure or no air bubbles are observed, release the compressed air from the cofferdam.

7. Pressure testing - lubrication oil chamber

- a. Apply air to the air connection of the oil pipe about 8 bar. When pressurized, close the air supply.
- b. Keep the valve located at the pressure flange open.

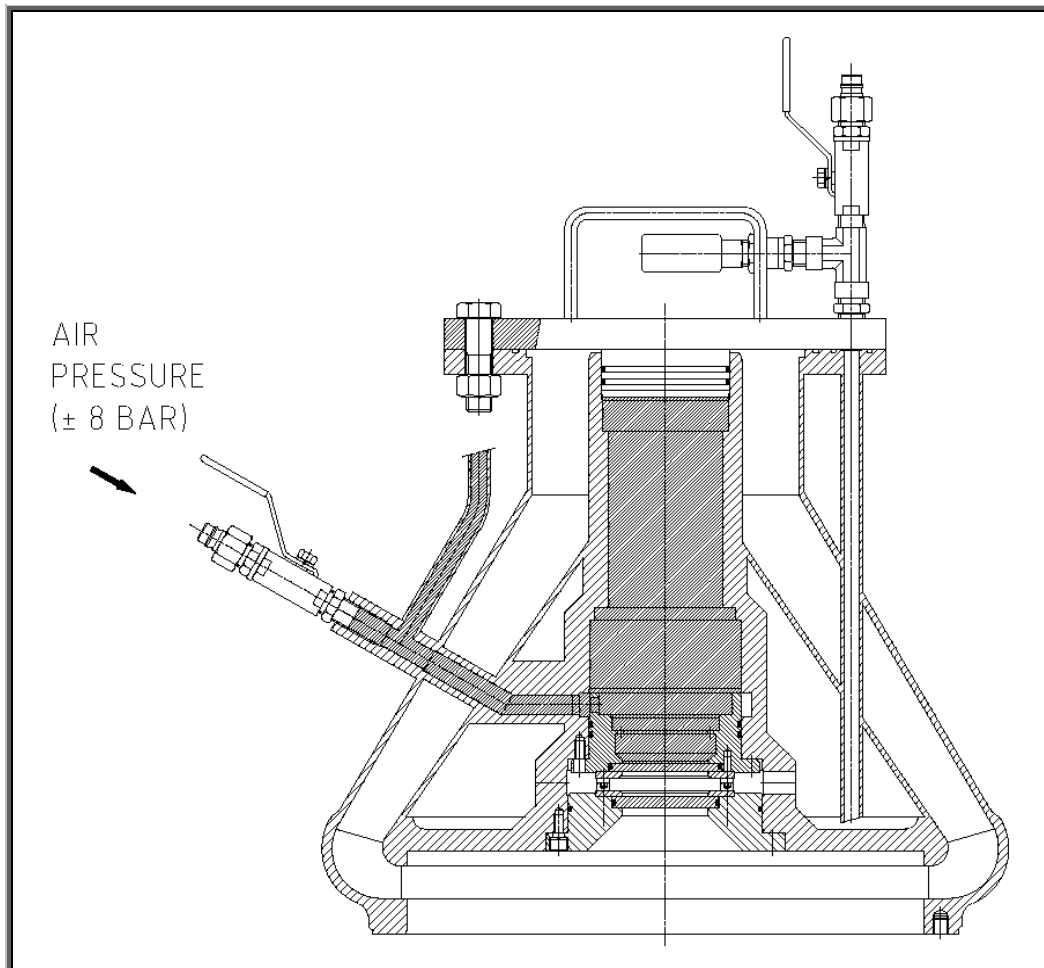


Figure 8

- c. Submerge the assembly into water.

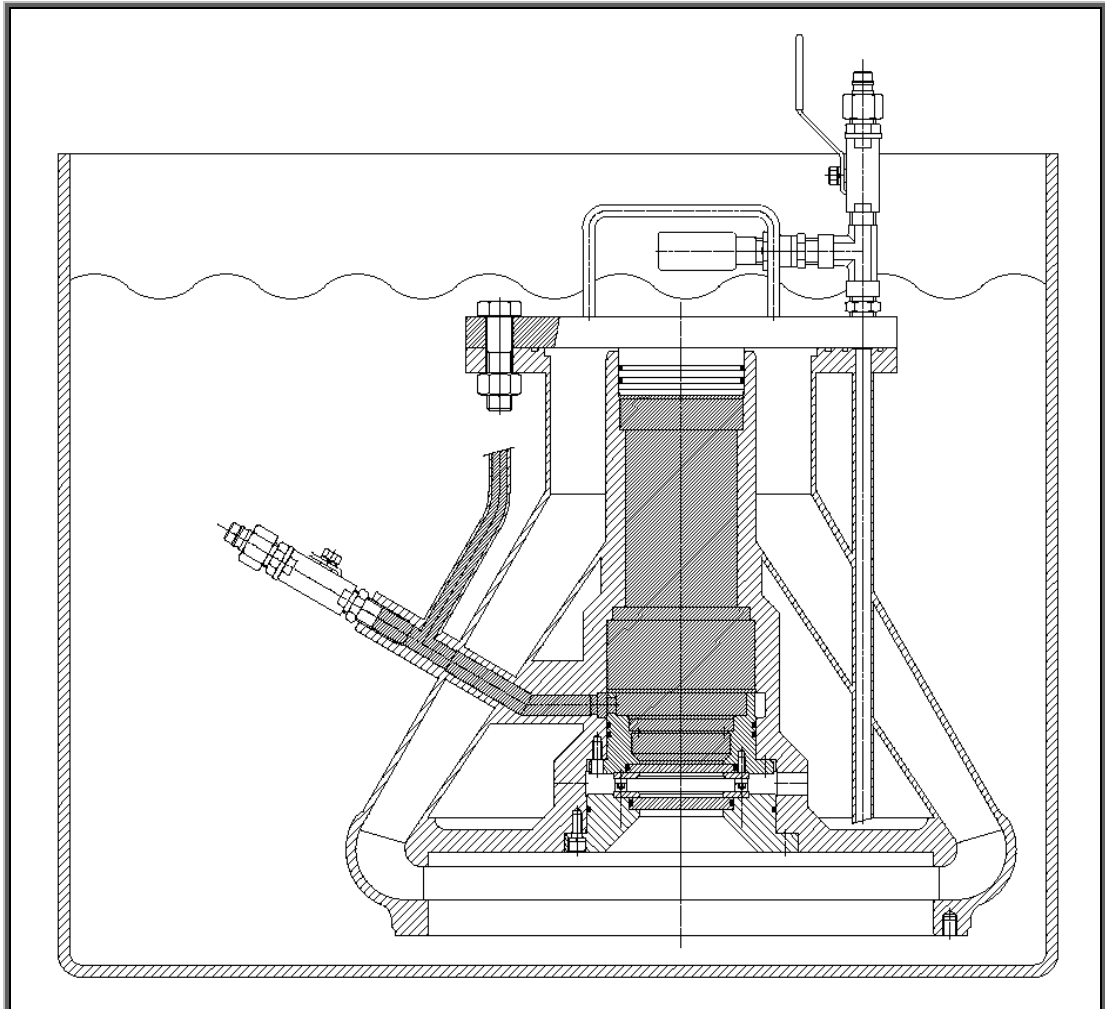


Figure 9

- Check whether the pressure decreases (it must remain at approx. 8 bar).
- Check whether any bubbles appear for at least 30 seconds. Locate the source of any leakage.

If no loss of air pressure or no air bubbles observed, release the compressed air from the lubrication oil chamber.

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### **Evaluation**

As per common practice, any leakage from the pump casing must result in discarding the pump casing concerned. Repairing a pump casing generally exceeds the costs of a new pump casing.

Leakages from sealing surfaces require a review as to whether a repair is possible.

For requesting the pressure test-kit (Part number: 611030), or any queries or technical advice, please contact MarFlex at:

[service@marflex.com](mailto:service@marflex.com)

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