

## 7) ASSEMBLY INSTRUCTIONS FOR DCX3 TANK BOTTOM VALVES WITH LOWERING STEM

Make sure the seal bearing surfaces of the body ( 1 ) are clean. Check the position of seal ( 4 ) on the body and seal ( 5 ) on the operator ( 6 ). Position the body on the flange ( 9 ) and secure using the tank bottom clamp ( 8 ) and nuts ( 10 ). In the body, fit the operator piston assembly ( 3 ) and position the clamp ( 7 ) (make sure the seals are not damaged around the part edges). Supply air to the operator or not to put the valve into the open position. Tighten the clamp. Put the operator into valve closed position and check the piston is centered correctly. Center if necessary by tapping the clamp ( 7 ). When using for the first time, check the valve top connection and the valve bottom connection(s) as well as the operator for leaks (leak at operator).

### NOTE:

- We recommend the use of a **medium threadlocker** to lock the piston during its reassembly to the automatic actuator.
- During sawing operations, avoid getting chips or filings in the pipes and rinse the pipes thoroughly with the valve open to avoid damaging the seals when the valve is put into service.

## 8) WORKING CONDITIONS

The actuator is supplied with dry, filtered air at a pressure of 4.5 to 8 bar. The operator air couplings are designed for a 4/6 diameter hose fitting. The valve has a max. working pressure of 6 bar, a max. temperature of 140°C and a permissible vacuum of 0.4 bar.

## 9) EEC CONFORMITY

A - Our valves comply with European regulations (EEC) within the limits of use described in paragraph B.

The CE mark on the valve indicates conformity to the following regulations :



- 89/336 "Electromagnetic compatibility"
- 97/23 "Pressurized equipment"
- 73/23 "Low pressure"

B - Use limits :

Usage pressure must be lower than 10 bar for all products.

In case of dangerous gas<sup>(1)</sup> valve diameter (line) must be below 100 mm.

For use outside these limits, please contact our technical service.

<sup>(1)</sup>dangerous gas : group 1 gas, identified by a letter on the label and on the security card of the product :

E (for detonating gas), O (for fuel), F+, F and R10 (inflammable), T+ and T (toxic).

For additional information, please see regulation 67/548/EC "Labeling of dangerous products".

## 10) SPARE PARTS AND ACCESSORIES

Please refer to the general documentation or consult us.

Please consult us in the event of a malfunction.



# INSTALLATION GUIDE

## DCX 3 AUTOMATIC TANK BOTTOM CHANGEOVER VALVE

[www.definox.com](http://www.definox.com)

DEFINOX SAS

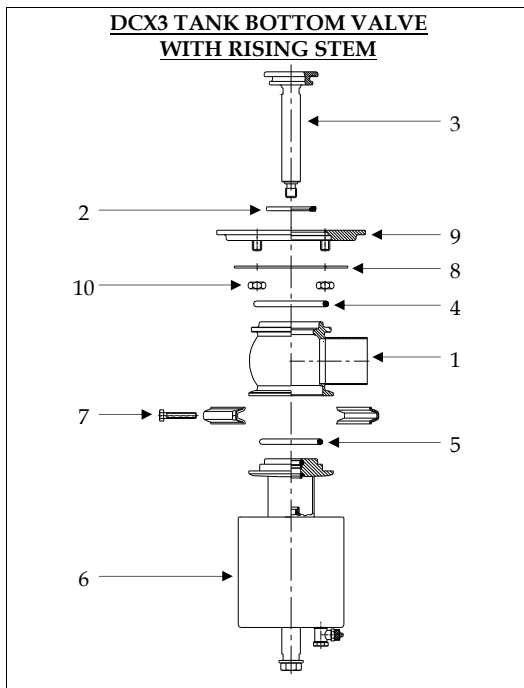
3 Rue des Papetiers - Z.A.C. de Tabari 2

44190 Clisson - France

☎ : +33 (0)2 28 03 98 50

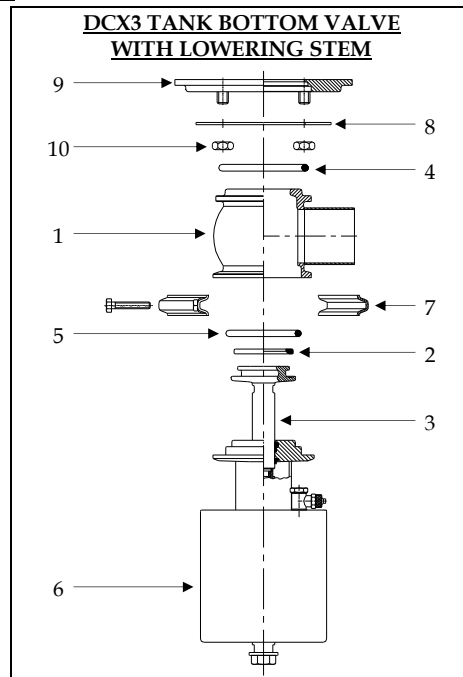
📠 : +33 (0)2 28 03 88 00

E-mail : [info@definox.com](mailto:info@definox.com)



- 1 : DCX3 valve body
- 2 : PFA seal
- 3 : Piston
- 4 : Seal
- 5 : Seal
- 6 : Actuator
- 7 : Clamp
- 8 : Tank bottom clamp
- 9 : Flange
- 10 : Nut

PFA seals are supplied as standard for the piston seals (2), but elastomer seals may be fitted instead. If this is the case, the plug (3) must be replaced by a two or three-part plug.



Follow the fitting and operating instructions carefully. Take account of the actual working conditions and comply with the valve specifications indicated in the DEFINOX catalogue.

#### 1) VALVE IDENTIFICATION

DEFINOX changeover valves have an identification number. You will need this number in order to identify the spare parts you may request.

#### 2) USUABLE SEALS

The following seal types can be mounted on your valve :

NEOPRENE                      EPDM  
 SILICONE                      FOOD GRADE VITON                      ACID-RESISTANT VITON

Please contact our Technical Department to find the seal type best suited to your process.

Make sure that the grease used is compatible with elastomer seals, particularly EPDM.

#### 3) INSTALLING DCX3 TANK BOTTOM VALVES WITH RISING STEM

Store your valve in its original packaging to prevent damage. Loosen the nuts (10) to separate the flange assembly (8 - 9) from the rest of the valve. **Welding the flange** : Make sure the weld is even around the edge with the metal filler, the seam thickness must not exceed 1 mm in relation to the flange lip to be welded (9). The parts must be clean and any grease removed prior to welding. The permissible play before welding between the tank and the flange is 0.5 mm. After welding, the default flatness is 0.3 mm and for out-of-roundness 0.1 mm per flange. Put the operator (6) into valve open position by supplying with air or not. Unscrew the piston (3) from the operator using the flat areas on the piston rod and the operator rod. Shut off the air supply and remove the piston from the body (1). Disassemble the clamp (7). Separate the body from the rest of the valve. Make sure the seals are not on the body. Secure the flange (9) under the tank and fit the body to the pipes.

#### 4) PRECAUTIONS TO BE TAKEN WHEN CARRYING OUT WELDING ON THE BODIES

Adjust the pipes : check the straightness, the out-of-roundness and the offset (play < 0.5 mm), to limit the restrictions created by welding.

Any modification to the valve body for the purpose of welding must be carried out with the agreement of Definox.

Support the pipes at least 10D from the valve (valve nominal diameter).

#### 5) INSTALLING DCX3 TANK BOTTOM VALVES WITH LOWERING STEM

Store your valve in its original packaging to prevent damage. Loosen the nuts (10) to separate the flange assembly (8 - 9) from the rest of the valve. **Welding the flange** : Make sure the weld is even around the edge with the metal filler, the seam thickness must not exceed 1 mm in relation to the flange lip to be welded (9). The parts must be clean and any grease removed prior to welding. The permissible default flatness is 0.3 mm and for out-of-roundness 0.1 mm per flange. Put the operator (6) into valve open position by supplying with air or not. Disassemble the clamp (7). Shut off the air and remove the body (1) from the rest of the valve. Fit the body to the pipes and secure the flange (9) under the tank.

#### 6) ASSEMBLING DCX3 TANK BOTTOM VALVES WITH RISING STEM

Make sure the seal bearing surfaces of the body (1) are clean. Check the position of seals (4) and (5) on the body and on the operator (6). Secure the body to the flange (9) using the tank bottom clamp (8) and nuts (10). Position the operator on the body, making sure the seal (5) is not damaged. Tighten the clamp (7). Fit piston (3) in the body and the operator (pay attention to the seals and to the actuator rings). Supply air to the operator or not to put the valve into the open position and tighten the piston in the operator (use the flat areas on the piston and on the operator rod). When using for the first time, check the valve top connection and the valve bottom connection(s) as well as the operator for leaks (leak at operator).