C. Assembling DCX3 automatic valves
Check that the seal-bearing surface inside the body (1) is clean. Check the position of the seal (3) on the actuator (5). Put the valve in the “open” position. With a N.C. configuration, supply the actuator (5) with air and insert the shut-off assembly (2-3-4-5-6-8-9-10) in the body making sure the seals are not damaged around the ends of the parts. Refit the clamp « 7 ». When using for the first time, check the bottom connection and top connection(s) for leaks.

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

8 - STORAGE
We recommend that our valves are stored away from site pollution (abrasive dust, shocks, acid or chlorinated products, U.V., etc.) for as long as possible and are assembled, where possible, to avoid mixing up of components.

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:

- 2014/30/EU "Electromagnetic compatibility"
- 2014/68/EU "Pressurized equipment"
- 2014/35/EU "Low pressure"
- 2006/42/EC "Machines"

B - Use limits:
Usage pressure must be lower than 10 bar for all products.
In case of dangerous gas(1) valve diameter (line) must be below 100 mm.
For use outside these limits, please contact our technical service.
(1) dangerous gas : group I 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 1272/2008 "Labeling of dangerous products".

10 - SPARE PARTS AND ACTUATOR DISASSEMBLY
Note the index number on the valve and refer to the general documentation or contact us. Please contact us in the event of a malfunction.
Actuator disassembly is a simple but delicate operation requiring the use of the appropriate tools and reference to the valve disassembly instructions.
Please contact us for these instructions or to request maintenance operations at our premises or on site.
N.B.: The valve must be out of service prior to any intervention and disassembly of the components with the pretensioned spring must be performed in accordance with the instructions on the maintenance information sheet.

All users of DEFINOX valves must periodically check the condition of the installed equipment, in particular of parts playing a “safety” role (checking interval to be set according to the use and the cleaning applied)
1. DESCRIPTION OF THE CONTROL VALVE:
DEFINOX control valves with position memory are ideal for the control and regulation of flow rates, temperatures, levels, pressure and for use in biotechnology. DEFINOX control valves are currently available in sizes DN 25 to DN 104 in standard food grade and aseptic versions. These valves have a simple loop function.

2. The PID controller (Proportional - Integral - Derived)
The controller processes the control discrepancy. This calculator compares the set point value with the actual value and supplies an output signal depending on this difference (processes the 4-20 mA output). Two types of control are possible:
- Manual control according to system evaluation (valve and service conditions)
- In auto-adaptive mode, the P.I.D. controller calculator automatically performs some of the control functions

3. The valve
The valve can operate in NO or NC with an optional metal/metal seal. The profiled disc facilitates linearization of valve operation. The recommended direction of traffic is from the lower lane to the upper lane.

Putting DEFINOX valve into service
Refer to the attached notice Bürkert:

Follow the fitting and operating instructions carefully. Take account of the actual working conditions and observe the technical specifications for the valve.

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

2. SERVICE CONDITIONS
The working conditions of this valve (pressure, temperature, fluid transported, etc.) must comply with the general technical specifications described in the DEFINOX catalogue available on request.

3. AIR SUPPLY CONDITIONS
The actuator is supplied with dry, filtered air at a pressure of 4.5 to 8 bar. The actuator 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 an acceptable vacuum of 0.4 bar.

4. SEALS
Unless otherwise specified in the order, DCX3 control valves are equipped with the following seals:
- EPDM or FKM for the O-rings
Choosing the right type of seal is critical to correct valve operation. This is not always easy, as all characteristics of the fluids circulating through the valve must be taken into consideration. We can help you make this choice. Ensure that the grease used is compatible with the elastomer seals, particularly EPDM.

5. N.C. - N.O. - AND D.A. CONFIGURATION
DCX3 control valves are supplied as standard in an N.C. configuration and require an air supply to remove the piston. The valves can be supplied in an N.O. or D.A. configuration on request.
Important: Before changing the configuration, consult the maintenance instructions (IT.DFX.036).

6. PRECAUTIONS TO BE TAKEN WHEN CARRYING OUT WELDING OF 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).

7. INSTALLING THE VALVE ON THE PROCESS LINE
To install the valve on the process line, the weld-on body must be separated from the rest of the valve to prevent seal damage. To carry out this simple operation, proceed as follows while referring to the diagrams:
A- DCX3 (single-body valve)
Put the valve in the open position. With an N.C. configuration, the actuator (5) must be supplied with air. Remove the clamp (7). Shut off the air and separate the body (1) from the rest of the valve. Weld the body to the pipes.
Important: For subsequent actuator and piston disassembly, you will need to be able to remove one of the bodies (preferably the top one) from the line. Make sure this body is welded to a removable section or between fittings.