



A global leader in the market of stainless steel process valves, DEFINOX is known for its ability to innovate and for the quality of its products and services.

Our portfolio revolves around 3 areas of expertise:

- HIGH-TECH PROCESS VALVES**  
A specialist in process valves, DEFINOX designs and manufactures high-quality products capable of meeting the highest demands of modern processes in the food, cosmetics and pharmaceutical industries...
- SPECIFIC EQUIPMENT**  
DEFINOX offers customized technical solutions that can be adapted to the most severe industrial constraints:  
- scraper solutions,  
- safety air vent,  
- manifolds,  
- Star Injection systems.
- PACK SERVICES**  
DEFINOX puts all its expertise at the disposal of its customers, along with an optimum local service  
- maintenance,  
- expert advice,  
- training,  
- spare parts.

To ensure customer satisfaction, DEFINOX develops a relationship of trust with each and every one of them and gets involved with the success of their projects.

## SINGLE SEALING

**ISOLATION**

**Butterfly valve standard version DPX-DPAX**  
Low pressure drop - Flow on line without retention.

**Butterfly valve between compact flanges DPX EBC-DPAX EBC**  
Leak chamber valve. Inter-plug chamber connection to the atmosphere. Flow on line without retention.  
Available with compact flanges DPX DE EBC.

**Automatic shut-off valve standard version DCX3**  
Fitted with pneumatic actuator single or double acting.  
Interchangeability of the subassemblies.

**Shut-off valve Fractional version DCX3 FRACT**  
Fitted with manual handle with visual opening indicator.  
High leak-proof pressure.

**Ball valve DBX-DBAX**  
Full or reduced bore.  
For auxiliary lines.  
Available in manual or automatic version (pneumatic actuator).

**ORIENTATION**

**Divert valve Standard version DCX4**  
Fitted with pneumatic actuator single or double acting.  
Interchangeability of the subassemblies.

**Divert valve Fractional version DCX4 FRACT**  
Fitted with compact pneumatic actuator single or double acting.  
High leak-proof pressure.  
Available in manual or automatic version (pneumatic actuator).

## MIXPROOF

**ISOLATION**

**Double sealing butterfly valve DPAX DE**  
Fitted with single or double acting pneumatic actuator.  
Leak chamber valve. Inter-plug chamber connection to the atmosphere. Flow on line without retention.  
Available with compact flanges DPX DE EBC.

**Double sealing shut-off valve DCX3 DE**  
Fitted with 1 leak indicator and 1 optional cleaning microvalve.  
Supports over pressurization under the plug, with release to the leak chamber.

**Double sealing shut-off valve NEOS**  
Fitted with a flexible PTFE diaphragm, 1 leak indicator and 1 cleaning microvalve, optional.  
Excluding the use of elastomer seals in contact with the process fluid. Physical barrier thanks to a PTFE diaphragm.

**ORIENTATION**

**Double sealing divert valve DCX4 DE**  
Fitted with 1 leak indicator and 1 optional cleaning microvalve.  
Supports overpressures under the plug, with release to the leak chamber.

**Mixproof valve with two independent plugs VDCI MC PFA**  
Fitted with double plugs with PFA floating seal, a main pneumatic actuator and a breakaway actuator.  
Available in SP version "leak free opening".

**Mixproof valve with two independent plugs VDCI MC PMO-C**  
Fitted with a intermediate PEEK plug, 3 identical sliding O-rings on each plug avoiding risk of mixing.  
Physical cutoff between two circuits. Resistance against severe constraints on line. Balancer offering resistance to waterhammer.

## ASEPTIC

**ISOLATION**

**Aseptic diaphragm valve DMX-DMAX**  
Fitted with a plastic or stainless steel handle with visual opening indicator.  
Flow without retention.  
Flow diameter kept constant.  
Reduced pressure drop.  
Available in automatic version (single or double acting actuator).

**Flush aseptic diaphragm valve with cleaning nozzle DMAX**  
Fitted with perforated cleaning nozzle and PTFE diaphragm.  
Safe cleaning and easy maintenance.

**Aseptic shut-off diaphragm valve DCX3**  
Fitted with PTFE diaphragm providing a physical barrier between the inside of the valve and the external environment.  
Interchangeability of the subassemblies.

**Double sealing shut-off valve NEOS**  
Fitted with a flexible PTFE diaphragm, 1 leak indicator and 1 cleaning microvalve, optional.  
Excluding the use of elastomer seals in contact with the process fluid. Physical barrier thanks to a PTFE diaphragm.

**ORIENTATION**

**Shut-off valve with aseptic bearing DCX3**  
Fitted with aseptic guide bearing for steam or fluid flow.  
Ensures sterilization of the parts in contact with the external environment.  
Available with aseptic and cooling bearing.

**Shut-off valve with alcohol barrier DCX3**  
Fitted with PTFE flexible sealing diaphragm.  
Available up to DN 250.

**Aseptic mixproof valve with two independent plugs VDCI MC**  
Double plugs with PFA floating seal and a sterile barrier.  
Guaranteed sterilization of the leak chamber by steam flash or sterile air flow.

## REGULATING

**ISOLATION**

**Regulating butterfly valve DPAX regul**  
Simple regulation (multi-position opening).

**Regulating shut-off valve DCX3 regul**  
Fitted with 4/20mA positioner, to regulate flow.  
Small in size. Facility to program its electronics.

Profiled plug  
Profiled plug reduced cross section  
Profiled plug very reduced cross section  
Tight plug  
Tight plug reduced cross section  
Tight plug very reduced cross section

## SAMPLING

**ISOLATION**

**Sampling valve 1 outlet ; flame sterilization PEX1-PEAX1**  
Various possible connections (including mini and micro-clamp).

**Sampling valve 2 outlets ; steam injection sterilization or cleaning with a sterilizing agent PEX2-PEAX2**  
Various possible connections (including mini and micro-clamp).

Available in manual version (plastic or stainless steel handle) or automatic (single or double acting pneumatic actuator) with or without a removable stainless steel level. It can be fitted with a control top.

**Aseptic diaphragm sampling valve DMX PE - DMAX PE**  
Fitted with a PTFE diaphragm.  
Physical barrier. Washing and sterilization by circulation inside the valve.  
Available in manual version (plastic or stainless steel handle) or automatic (single or double acting pneumatic actuator).

## TANK EQUIPMENT

**ISOLATION**

**Butterfly valve Flush version DPAX**  
Fitted with a wedge-shaped flange suitable for powder and viscous products applications.  
Retention areas minimized.  
Powder flow facilitated.

**Sampling valves PEX1-PEAX1: 1 outlet ; flame sterilization PEX2-PEAX2: 2 outlets ; steam injection sterilization or cleaning with a sterilizing agent**  
Various possible connections (including mini and micro-clamp).

**Single sealing tank bottom shut-off valve DCX3 FdC**  
Flush rising or lowering plug.  
Long stroke or with complete clearance of the plug for fragile or viscous products, or products with particles.

**Single sealing tank bottom shut-off valve for powder application DCX3 FdC**  
Plug completely clears the valve orifices to facilitate powder flow.

**Cleaning diaphragm shut-off valve Flush version DCX3**  
Fitted with a cleaning ball and a PTFE diaphragm.  
Closest possible cleaning of equipment inside the tank.

**Cleaning diaphragm shut-off valve Flush aseptic version DCX3**  
Fitted with a perforated cleaning nozzle, a leak indicator and a PTFE diaphragm.  
Safe cleaning.

**ORIENTATION**

**Tank bottom mixproof with two independent plugs VDCI MC FdC**  
Fitted with machined flange and controlled leak microvalve.  
Secure physical barrier between the tank and the process. Flush lowering plug for viscous products.

**Hygienic safety air vent AVX1**  
Full options air vent  
Pressure 0,1 to < 0,5 bar  
Vacuum from 0,5 mbar.  
Tank protection against vacuum and overpressure, optimising line and equipment cleaning.

**Tank top module**  
Various protecting and cleaning devices mounted on a flange.  
Canalized and cleanable by forced opening.

## PROTECTING DEVICE

**ISOLATION**

**Adjustable relief shut-off valve DCX3**  
Fitted with standard or balanced plug.  
High response accuracy in case of overpressure.  
Precise adjustment of the setpoint value.  
Available in fractional version.

**Shut-off valve Relief version with additional air DCX3**  
Fitted with special spring inside the actuator and a control top with pressure reducer.  
Shedding load from the main circuit by predefined pressure to protect closest equipment.

**3 functions shut-off valve DCX3**  
Control top with a pressure reducer.

**Adjustable relief valve**  
Fitted with stainless steel removable handle.  
Calibration from 0 to 13 bars according to the spring.

**Preset relief valve**  
Cover to protect the preadjusted setting.  
Calibration from 0 to 13 bars according to the spring.

**Vacuum pressure relief valve**  
2" compact version or 4" version with device for manual forced opening.  
No clogging thanks to PTFE plug and VMQ seal.

**Non return valve CAR**  
Full bore.  
Low pressure drop.  
Available in metal/metal version or between flange.

## PIGGING

**ISOLATION**

**Shut-off valve Double sealing DCX3 DE**  
Used as a block-plug on piggable lines.  
Line can be cleaned without risk of pollution of the equipment.

**Mixproof valve Piggable version VDCI MC**  
Based on technology of mixproof valve with leak chamber.  
Reduced leakage chamber which limits sediments and facilitates the cleaning.

**ORIENTATION**

**Single secured pigging stations Non crossing-body version**  
Many modular possible configurations and options. Can be easily adapted to various processes. Fitted with security devices (sensor - manual decompression valve,...).  
Increasing operational flexibility and line operating time. Reducing downtime.

**Double secured pigging stations Crossing-body version**  
Double secured pigging stations  
Crossing-body version.  
Physical barrier between two different products without any risk of mixing.

## INJECTION

**ORIENTATION**

**Injection mixproof valve with two independent plugs VDCI MC**  
Based on piggable mixproof valve.  
Perfectly cleanable. No risk of mixing between the secondary line for injecting a syrup or dye and the main line carrying the basic flow.

**Injection solution STARWHEEL**  
Interchangeable injection valves.  
Customizable injection system.  
Combining multi injection points.

**Injection solution STARMANIFOLD**  
Non-interchangeable injection valves.  
Injection through the main pipe wall.

## SPECIFIC

**ISOLATION**

**Automatic butterfly valve electric version DPAX**  
Fitted with an electric actuator.  
Low pressure drop.  
Flow on line without retention.

**Metal / metal shut-off valve DCX3**  
Fitted with single or double actuator.  
Plug and body pairing.  
Suitable for crystallized products.

**High pressure shut-off valve DCX3**  
Automatic (single acting actuator) with balanced plug.  
Waterhammer effects minimized thanks to the balanced plug. Working pressure > 12 bars.

**Dosing shut-off valve DCX3**  
Fitted with a plunging cone.  
Dosing small flow / high flow.

**Long stroke shut-off valve DCX3**  
Single or double acting pneumatic actuator. Extended actuator and plug.  
Plug completely clears the valve orifice. Suitable for fibrous products or with particles.  
Available in tank bottom version.

### REMOTE VALVE COMMAND, CONTROL AND FEEDBACK

- Definox control tops are available in a variety of versions:
- Point-to-point, with terminal block
  - ASI 2.1 or 3.0 module
  - Multi-voltage module
  - Linear sensor
  - ATEX version

The reinstated electronic modules give the ICS - ACS tops unique characteristics in terms of strength and protection of the components.



