

Manifold

I Function

Manifolds of the INOXPA valves allow to centralize the functions of one or various tanks in a modular way, enhancing the efficiency of the system and control over the process.

Manifold is an automated alternative to the flexible hoses and the flow divert panels with changeover bends. The automation of the operation results in safety, flexibility and it will pay off its cost very fast. One manifold applied to various lines allows cleaning of one tank while the other is being filled or emptied preventing any risk of product contamination.

This solution has applications in the food-processing industry, for example, in production of dairy products, juices, in breweries, as well as in the wine production, and in the cosmetics and pharmaceutical industries.

I Operating principle

As many valves as functions that the element has to perform are connected to the tank or working line (e.g. filling, emptying, CIP, etc.)

No manual operation is required. The operation is automated, preventing any risk of accidents.

I Design and features

- It consists of a matrix of valves, their quantity depends on the elements to be connected (tanks or lines), and on the functions of each of these elements. The unit is mounted in modules on a skid with adjustable legs.
- The Mixproof pneumatic valves (multi-way double seal valves) prevent any leakage from one body to the other.
- The valves are balanced.
- Every valve is provided with a control box C-TOP with solenoid valves and sensors.
- An air distribution collector is included and provided with the maintenance kit and a shut-off valve for each actuator.
- The cleaning of the Mixproof valves is by Cavity Spray or Seat Lift systems.
- If the Cavity Spray valves are selected, the kit also contains one collector of the cleaning distribution system for the CIP connection. This collector consists of a butterfly valve and a filter.
- Under the manifold of valves and pipes there is a kind of inclined tray that collects drained products (due to leakage or cleaning process) from the manifold.
- The unit is provided with a control panel, pneumatic and electric distribution system to facilitate the installation.



Mixproof valve



I Materials

Parts in contact with the product	AISI 316L
Other metal parts, actuators, skid and drain tray, control panel	AISI 304
Gaskets in contact with the product	EPDM
Inert gas welding	filed and pickled

I Options

There are many possible variants of assembly, the units are custom-made. There are some of them:

Options according to the valve type:

- Single seal multi-way valve.
- Other types.

Control system:

- With a simple C-TOP on every pneumatic actuator (solenoids and sensors)
- With a C-TOP with AS-i field bus
- Without C-TOP, solenoids are installed in the control panel and sensors on the pneumatic actuator.
- PLC control.
- Operator panel to display the states of the valves.

Other variants:

- Connections: weld, Clamp, SMS, RJT, IDF, flanges.
- Gaskets: Viton®, NBR
- Mixed body sizes (bodies with different diameters.)
- Orbital welding
- Pressure tests (PED)
- Actuator pressure up to 10bar

I Technical specifications

Max. temperature (EPDM gaskets) 120°C.

Pneumatic actuator 5 bar.

C-TOP with 1 solenoid valve + 2 sensors for the Cavity Spray.

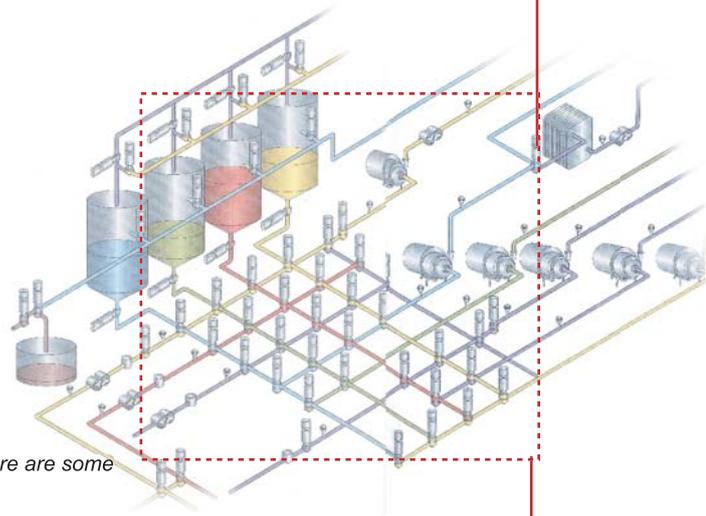
C-TOP with 3 solenoid valves + 2 sensors for the Seat Lift.

DIN connections.

Available sizes: DN40, DN50, DN65, DN80 y DN100.

CIP line for the Cavity Spray system DN25 with an angular filter.

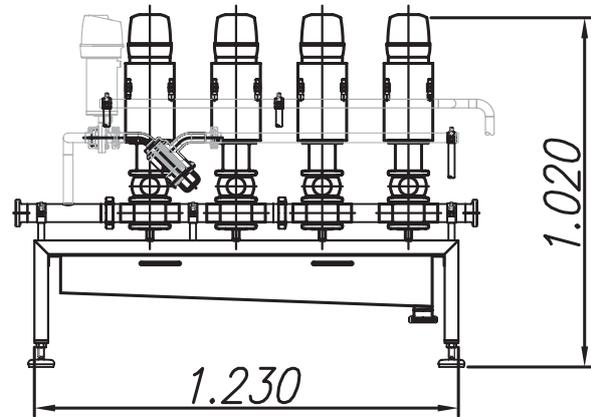
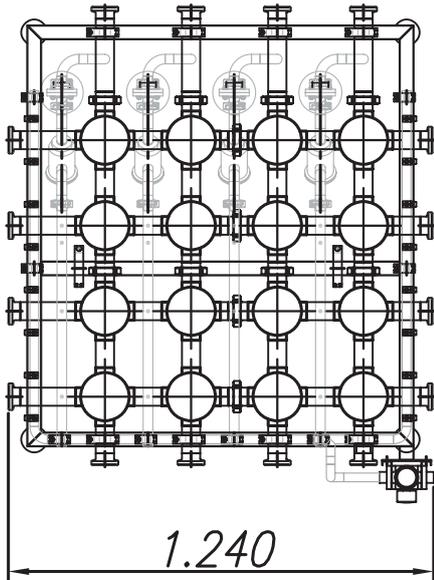
Matrix: from 4 up to 48 valves.



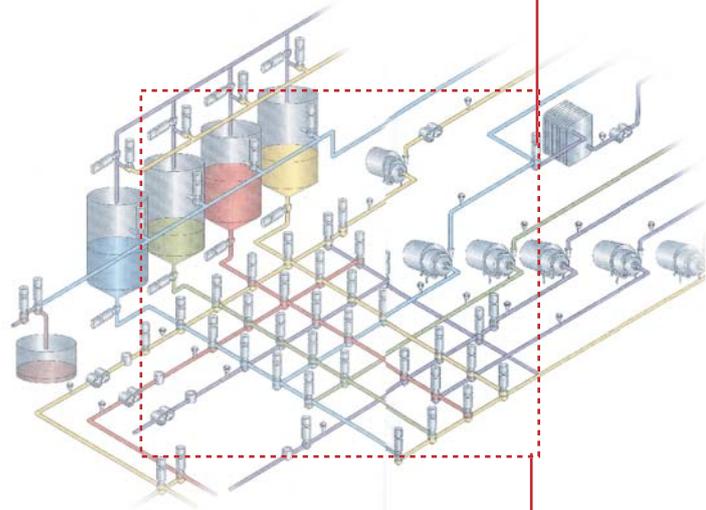
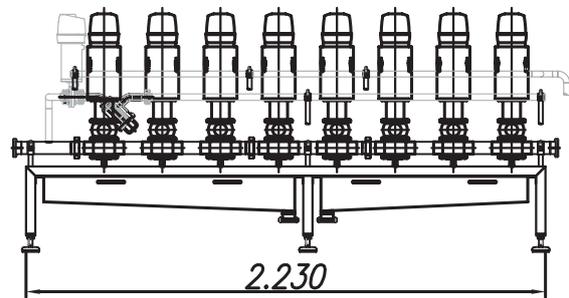
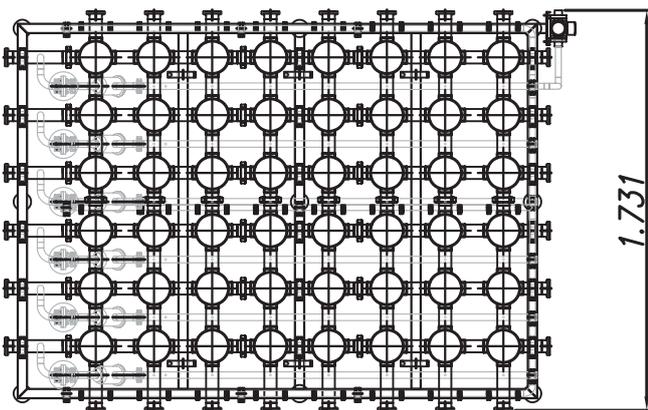
Manifold

Examples of a standard manifold

Manifold 4x4



Manifold 8x6



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FTMF.1.EN-0506