



EN - 2025



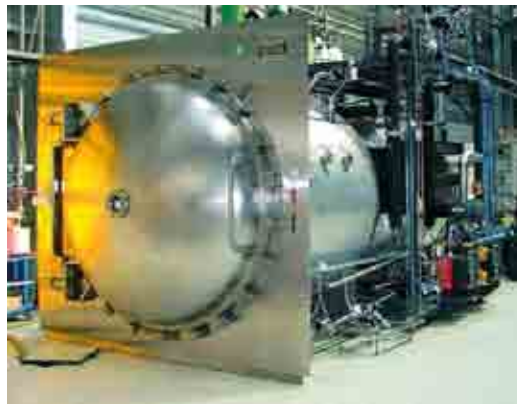
Solutions  
Pharma  
& Biotech

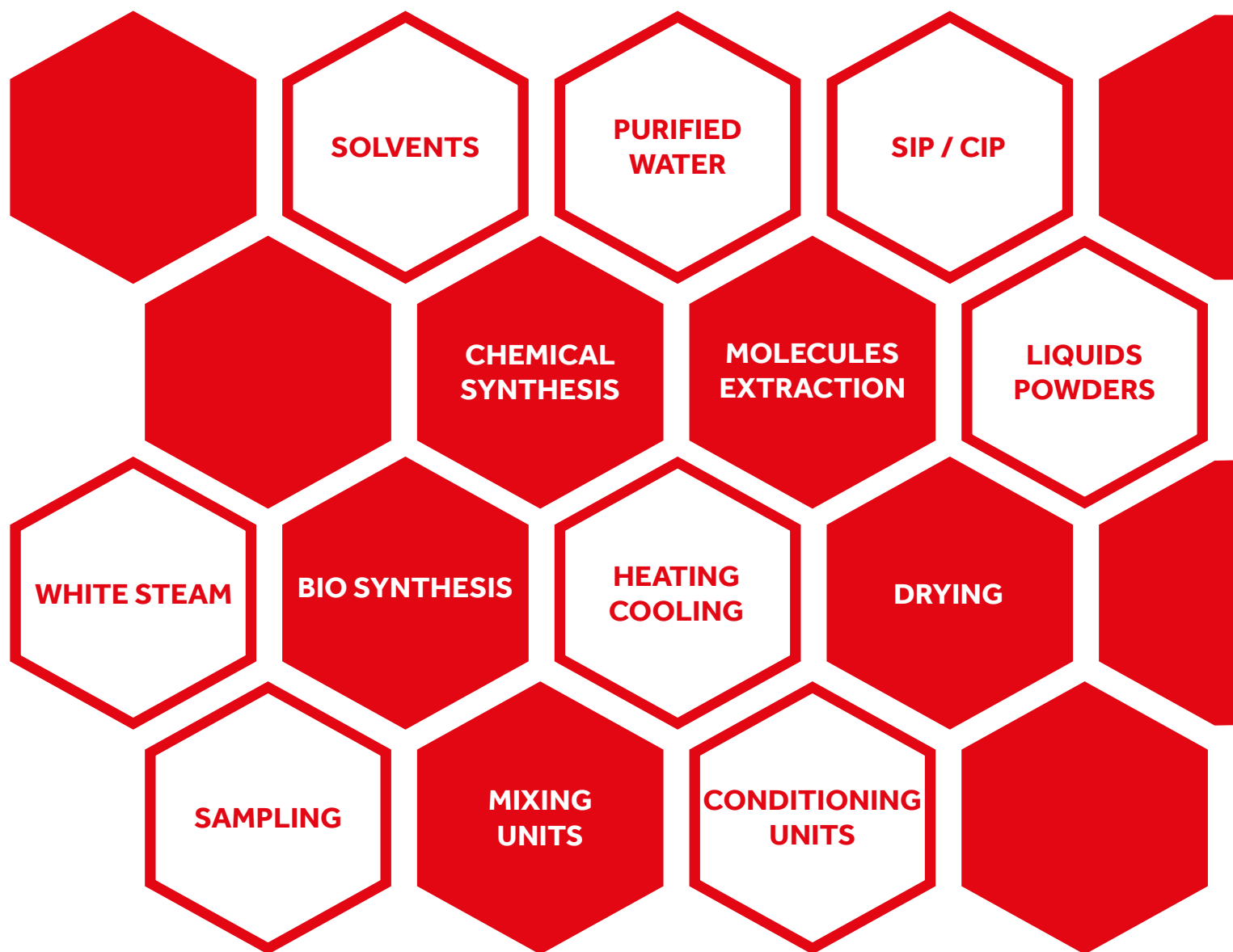
[meca-inox.com.cn](http://meca-inox.com.cn)

# Pharma & Biotech **Solutions**

Since more than **40 years**, MECA-INOX is ball valve strategic partner of major actors of **Pharma, Biotech and Cosmetics** in Europe, North America and Asia (molecules synthesis, conditioning, engineering, equipment's ...)

Designed, produced & tested in our plants, our ball valves are in compliance with **International Standards** and are qualified and used for their **Quality, Reliability & Performance.**





**ANTIBODIES, BLOOD PRODUCTS, VACCINES,  
HOMEOPATHIC MEDECINES, COSMETICS, CREAMS ...**

## **They trust us**

Biogen | Pfizer | CSL Behring | Cilag AG | Sanofi | TEVA | Roche | Eli Lilly  
Boehringer | Janssen | LEK Pharmaceutical | Novartis | Novasep | Novo Nordisk  
Pierre Fabre | Cargill | Solvay | Rohm & Haas | Yingde Bio (Shinva)



### 3-piece valve PS4/PN4

- Pipes DN08 to DN150
- Full bore
- Pressure class PN16 to PN100
- Internal surface finish Ra 0.4 (ball and ends)
- Ball in low ferrite stainless steel (1.4435)
- Orbital welding end in low ferrite stainless steel (1.4435)
- USP Class VI seats (TFM1600®)
- Option: USP Class VI cavity fillers, degreased for O<sub>2</sub> application acc. to EN12300

### Special lines

- True bore version
- 3-way versions



## Line PS4 H



**Solutions for corrosive media**  
SIP/CIP lines, chlorinated fluids, ...

### 3-piece valve PS4 H

- CIP lines and corrosive media, all wetted parts in Alloy C22
- Pipes DN08 to DN65
- Full bore and reduced bore
- Pressure class PN50 to PN100
- **Option:** cavity fillers, degreased for O<sub>2</sub> application acc. to EN12300



#### Other Alloy C22 lines of product available:

##### MS4 H

- PED 2014/68/EU category 3
- DN65 to DN150 ; PN16 to PN40

##### PN4 H

- PED 2014/68/EU category 1
- DN08 to DN65 ; PN50 to PN100
- Internal surface finish Ra 0.4 (ball and ends)
- USP Class VI seats (TFM1600®)

## Line MN4 F



**Solutions for clean room**

### 3-piece valve MN4 F

- Installation in clean room
- USP Class VI seats (TFM1600®)
- All wetted parts in low ferrite stainless steel 1.4435 (ball, body and ends)
- Internal surface roughness Ra 0.4
- External surface roughness Ra 2.4
- Pipes DN08 to DN50
- Full bore
- Pressure class PN50 to PN100
- Orbital welding ends or tri-clamp ends
- **Option:** USP Class VI cavity fillers, degreased for O<sub>2</sub> application acc. to EN12300



## Line CL4

**Solutions for clean room**

### 3-piece check valve CL4

- Pipes DN08 to DN65
- Pressure Class PN80
- Any stainless steel end connection available (BW,orbital,clamp, ...)
- CE1935 spare parts

#### Option

- Degreased for O<sub>2</sub> application acc. to EN12300 for cryogenic applications



# Solutions for **steam and thermal fluids**

## Line **R2Z**

*Short pattern*



**Solution for black utilities**  
Saturated steam

### 2-piece valve R2Z

- Flange connection acc. to EN1092-1
- Face-to-face EN558 Series 14 short pattern
- Pipes DN15 to DN200
- Pressure rating;
  - ➔ PN40 (DN15 to DN80)
  - ➔ PN16 (DN100 to DN200)
- Pneumatic and electrical actuation
- **Option:** extended stem for insulation



**Service temperature @  $\Delta P$  1 bar 0°C to 280°C**

## Line **PZ4**



**Solution for black utilities**  
Saturated steam

### 3-piece valve PZ4

- Pipes DN08 to DN200
- Full bore and reduced bore
- Pressure class PN16 to PN100
- Pneumatic and electrical actuation
- Any stainless steel end connection available (BW, orbital, clamp, ...)



**Service temperature @  $\Delta P$  1 bar -30°C to 280°C**

## Line **PJ4**



**Solution for thermal fluids**  
Heat transfer oil

### 3-piece valve PJ4

- Pipes DN08 to DN200
- Full bore and reduced bore
- Pressure rating PN16 to PN100
- Pneumatic and electrical actuation
- Any stainless steel end connection available (BW, orbital, clamp, ...)
- Gland packing and body seal in fluorosilicon to increase tightness during thermal shocks
- **Option :** extended stem for insulation



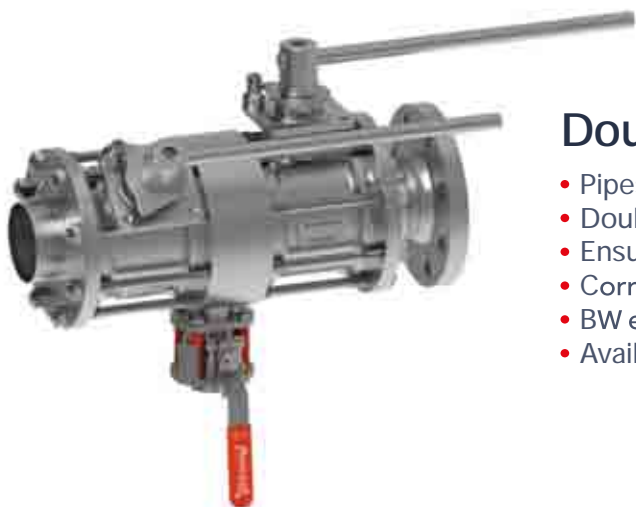
**Service temperature @  $\Delta P$  1 bar -80°C to 190°C**

## Special Designs

### Design PS4 DBB



**Solution for black utilities**  
Double Isolation



#### Double Block & Bleed Design

- Pipes DN08 to DN150
- Double block for isolation and bleed for drain
- Ensure the safety of your operators and installations
- Corrosive and dangerous fluids (steam lines, acids & bases, ...)
- BW ends or flanged ends
- Available with lockable lever and/or actuation. Mix possible.



Service temperature @  $\Delta P$  1 bar **-50°C to 190°C**

### Design PS4 AFL / PS4 FC



**Solution for black utilities**  
Ingredients

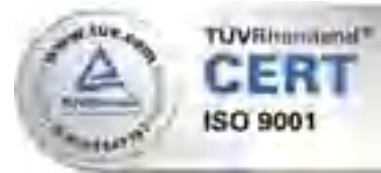


#### Flush design / Tank bottom

- Reduced retention zone
- For tank bottom installation and flushing lines (collection and injection)
- Any stainless steel end connection available (BW, orbital, clamp, ...)



Service temperature @  $\Delta P$  1 bar  
**-50°C to 190°C**



## Your reference for large-scale international projects

Since 1967, MECA-INOX has manufactured ball valves and is a European leading signature for high quality ball valves dedicated to Chemistry Pharma & Cosmetic, Cryogenic fluids, Food & Beverage and Industry with more than 3 million valves installed all over the world and 150 000 ball valves yearly production.

Expert in stainless steel and carbon steel ball valves technology, we have developed over the years a complete products offer internationally recognized for its reliability performance, and flexibility of use. Combining high quality materials and our specific knowhow of design and manufacturing, our products meet the most stringent requirements

From our industrial sites of Gisors (France) and Dalian (China), our teams can support you anywhere in the world. Our network of distributors provide an optimal availability of our valves and equipment for your international projects.

**3 000 000** valves installed  
in 150 countries

**150 000** valves produced  
per year

**100** official stocking  
distributors

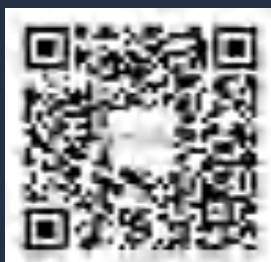
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BALL VALVES MADE IN FRANCE

WORLDWIDE AVAILABLE