



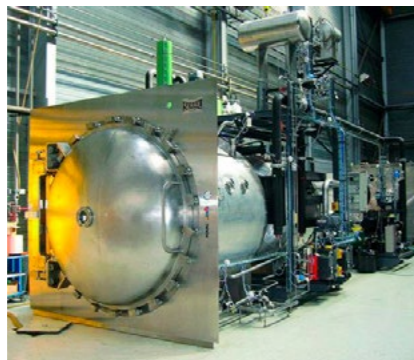
TÜVRheinland®
CERT
ISO 9001

PHARMA & BIOTECH SOLUTIONS



EN-2018/2

Meca-inox
BALL VALVES



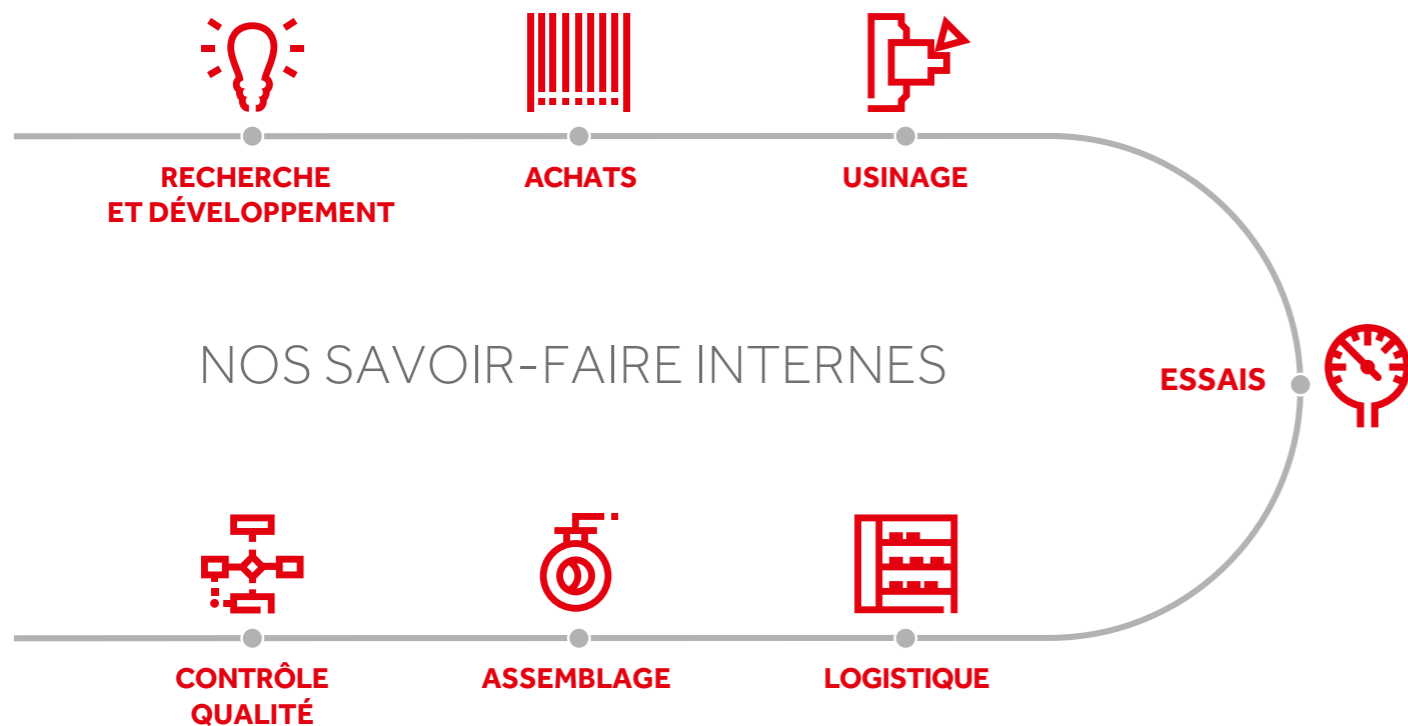
Since more than **40 years**, MECA-INOX is ball valve strategic partner of major actors of **Pharma, Biotech and Cosmetics** in Europe, North America and Asia (molecules synthesis, conditioning, engineering, equipment's ...)

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

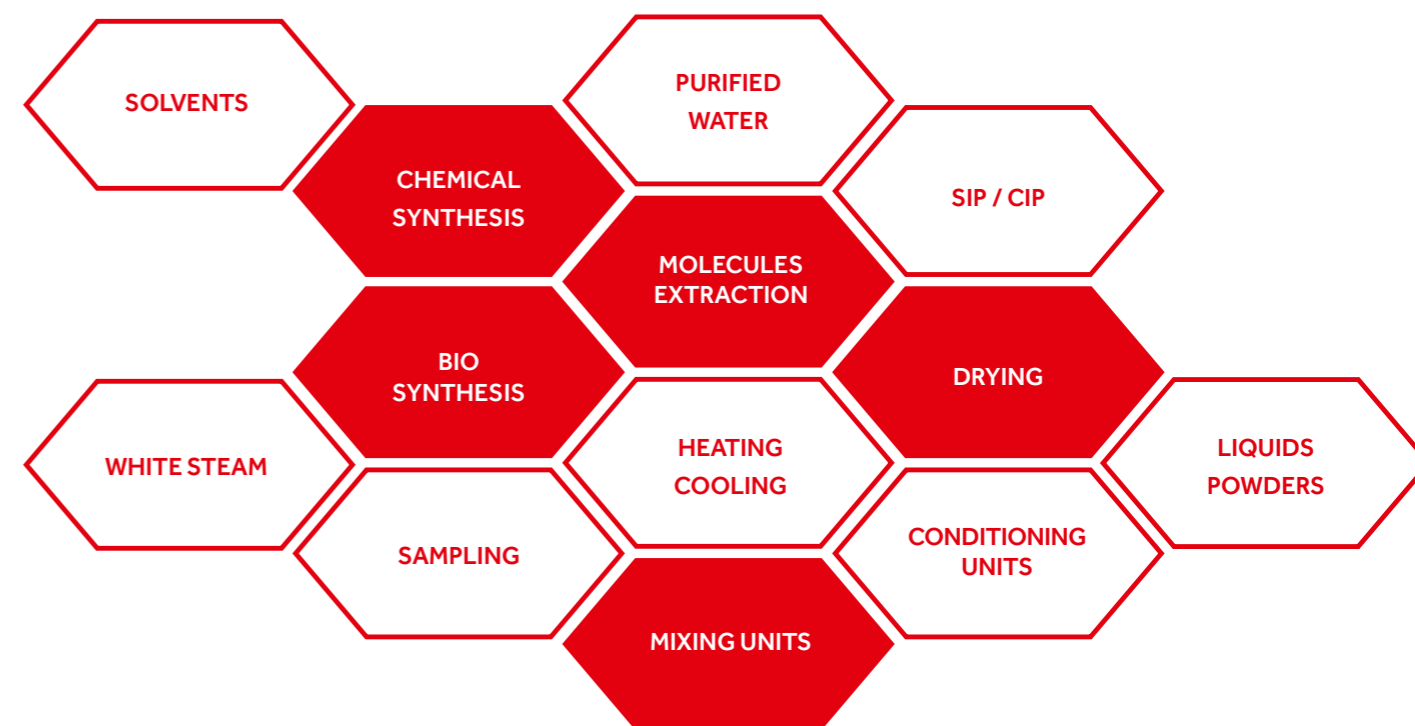


TRACEABILITY & MARKING
TIGHTNESS TESTS

HIGH QUALITY MATERIALS
QUALITY CONTROL



APPLICATIONS



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

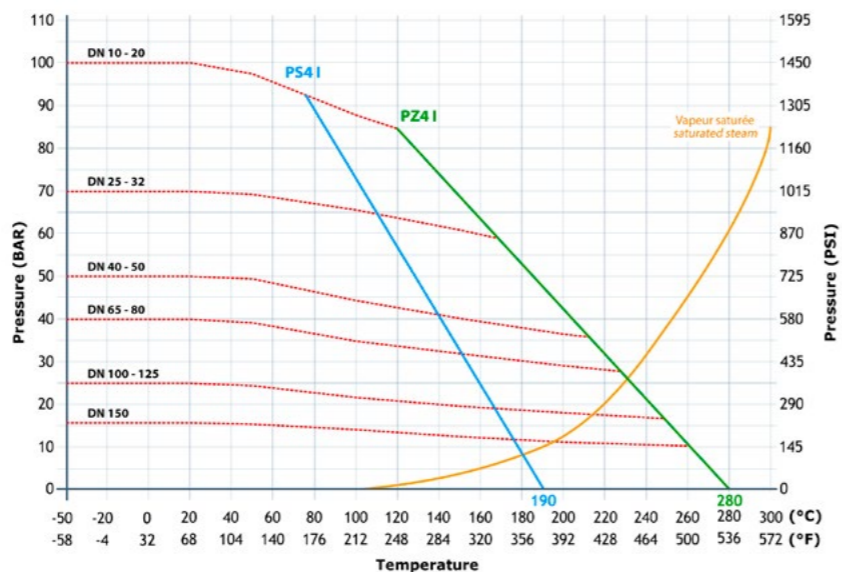
THEY TRUST US

BIOGEN, PFIZER, CSL Behring, CILAG AG, SANOFI, TEVA, ROCHE, ELI LILLY, BOEHRINGER, JANSSEN, LEK Pharmaceutical, NOVARTIS, NOVASEP, NOVO NORDISK, PIERRE FABRE, CARGILL, SOLVAY, SANOFI, ROHM & HAAS, YINGDE BIO (SHINVA) ...

PS4 I & PZ4 I – Standard Utilities & Additives



Pressure & Temperature Performances



316L Body, Ends, Ball & Stem - Environment temperature [-55°C to +80°C]

Valve Type	Seats	Fluids Temperatures @ ΔP 1bar	FLUIDS
PS4 I	PTFE 2 ND GENERATION	-50°C to +190°C	Acids, Bases, Solvents, Alcohols, Gases, Glucose, Enzymes ...
PZ4 I	PTFE 20% PEEK	-30°C to +280°C	Steam, Hot Oils, Hot Chemicals ...

Standard

- ✓ Full Bore / Reduced Bore
- ✓ Manual / Actuated (Pneumatic & Electric)
- ✓ Large choice of ends (BW, SW, NPT, BSP, Schedule, Nipple, PN40 flange ...)
- ✓ Pipe line up to 8"
- ✓ FDA 21CFR Certified Plastics

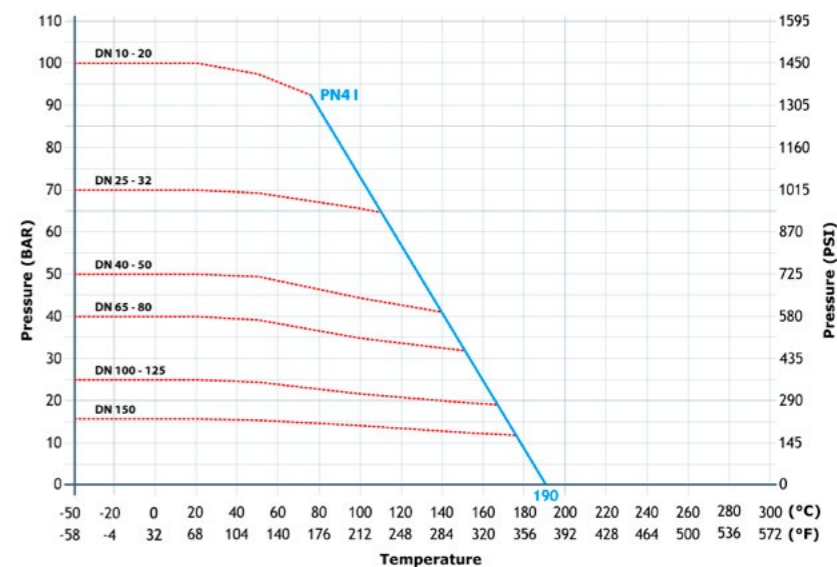
Options

- ✓ PTFE Cavity Fillers (FDA)
- ✓ True Bore design for pigging
- ✓ EN12300 degreased (<50mg/m² Hydrocarbon)

PN4 I - Clean Utilities & Clean Rooms Installation



Pressure & Temperature Performances



316L Body, Ends, Ball & Stem - Environment temperature [-55°C to +80°C]

Valve Type	Seats	Fluids Temperatures @ ΔP 1bar	FLUIDS
PN4 I	TFM1600 [®]	-50°C to +190°C	Acids, Bases, Solvents, Alcohols, Gases, Glucose, Enzymes ...

Standard

- ✓ USP Class VI (121°C) Seats
- ✓ Ball and ends in 1.4435 (low ferrite)
- ✓ Internal Surfaces Ra 0,4µm
- ✓ Full Bore
- ✓ Lockable lever & CNI Coated Actuators
- ✓ Orbital Ends (ISO, DIN, SMS, BSOD...)
- ✓ Tri clamps ends (all standards)
- ✓ Pipes Up to 6"
- ✓ FDA 21CFR Certified Plastics

Options

- ✓ PTFE Cavity Fillers (FDA)
- ✓ True Bore design for pigging
- ✓ EN12300 degreased (<50mg/m² Hydrocarbon)

EUROPEAN REFERENCE BALL VALVES

FOR PERFORMANCE & RELIABILITY

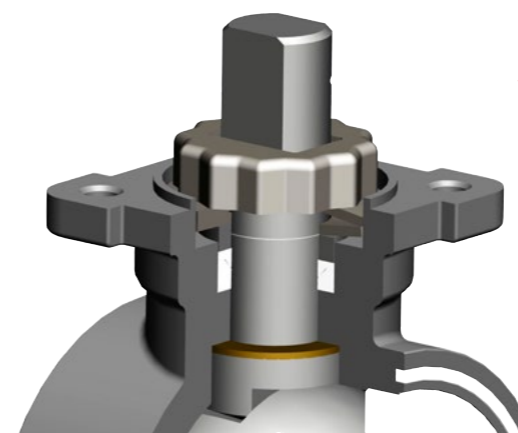


Design

- ✓ 360° Loose Body Flanges (Meca-Inox Patent 1966)
- ✓ All Ends Produced In House
- ✓ Low Flow Restriction
- ✓ Easy Mounting (-30% time)

Performances

- ✓ High Performance PTFE Modified Gland Packing
- ✓ EN12266-1 "Class A"
- ✓ Helium Tightness 20°C < 10-5 mbar/l.s-1
- ✓ Chemical Resistance



Reliability

- ✓ Self Compressed Gland by Spring Washers
- ✓ TA LUFT "Class BH" (Helium) 2500 actuation
- ✓ Low & Constant Operating Torques

Maintenance

- ✓ Spare Kits of Seals Permanent Stock
- ✓ Valve Body KIT BOX
- ✓ Easy Disassembling (MTTR <5minutes)

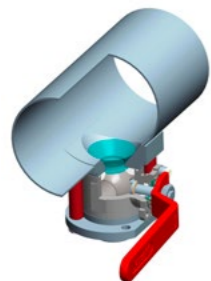
LIQUIDS & POWDERS STORAGE – TANK BOTTOM VALVE



Minimum Retention Area Connections for body CIP on demand

- ✓ Tanks,
- ✓ Mixing Reactors,
- ✓ ...

SAMPLING & INJECTION – FLUSH MOUNTING VALVE



Minimum Dead Volume

- ✓ Quality Control,
- ✓ SIP/CIP Injection,
- ✓ ...

LINE PROTECTION – DOUBLE BLOCK & BLEED VALVE



Double Line Tightness

- ✓ Steam Lines,
- ✓ Dangerous Fluids,
- ✓ ...

THERMAL MANAGEMENT – JACKETED VALVES



Fluid Line Heating

- ✓ Glucose,
- ✓ Hot ingredients,
- ✓ ...

CORROSIVE FLUIDS – SPECIAL ALLOYS VALVES



**904L (UB6)
Alloy C22**

- ✓ SIP/CIP lines
- ✓ Chlorinated Fluids
- ✓ ...

REGULATION – V BALL VALVE



**±10% Accuracy
Tight in Close Position**

- ✓ Level Regulation,
- ✓ Temperature Management,
- ✓ ...

FUSE AUTOMATIC SHUT OFF – FIRE BLOCK ACTUATOR



**Energy Free
90°C ± 3°C Calib.
0,1s Shut Off**

- ✓ Alcohol storage protection,
- ✓ Flammable solvents lines,
- ✓ ...

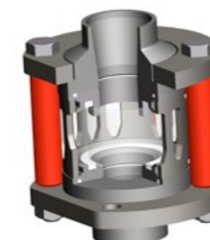
THERMAL SHOCK – PJ4 I VALVE



**-80°C to +180°C
Special Design
Vacuum Tightness**

- ✓ Heat Transfer Fluids (Syltherm) for Freeze Dryers
- ✓ ...

FLOW VIEWING – SIGHT GLASS VIEWER VC4



**DN08 to DN65
Pressure Resistance
PN7, PN11, PN17**

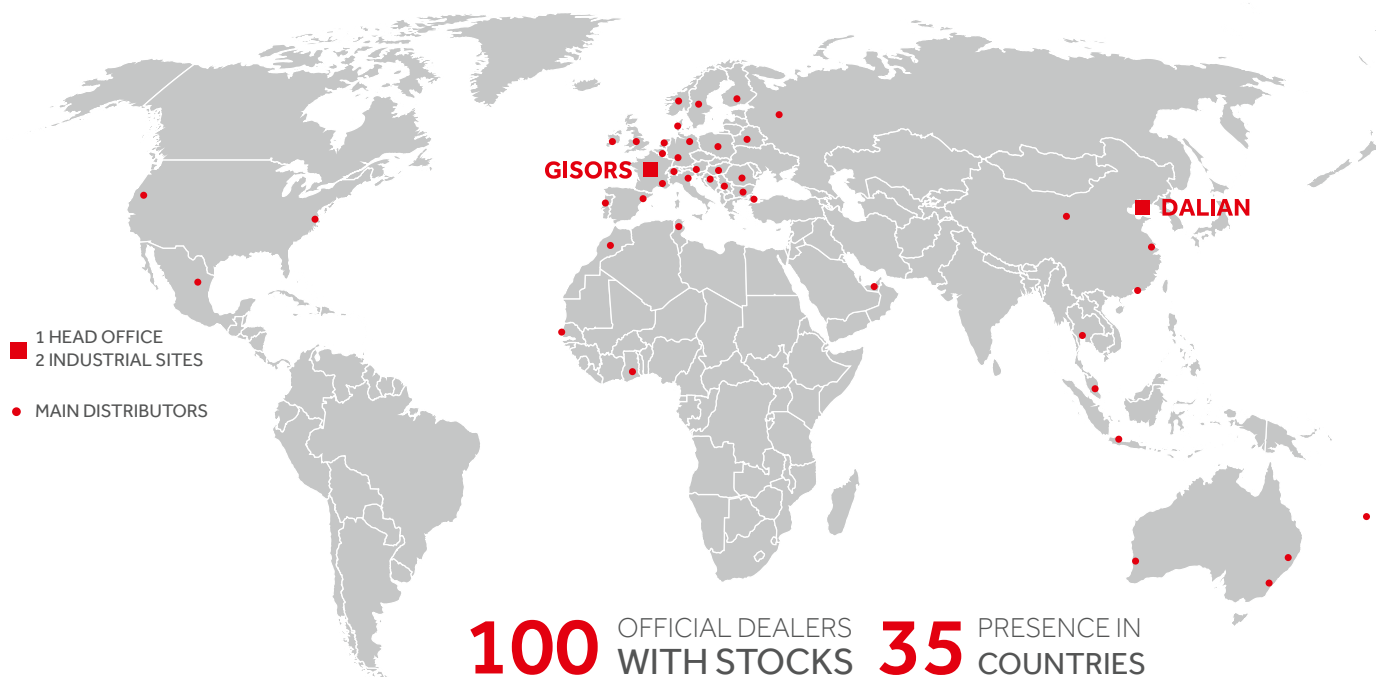
- ✓ Reactor injection lines,
- ✓ ...

Meca-inox

BALL VALVES

HIGH QUALITY BALL VALVES

BORN IN FRANCE, WORLDWIDE AVAILABLE



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.

meca-inox.com

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A BRAND OF GROUP

Meca-inox
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