



TÜVRheinland®  
**CERT**  
ISO 9001

# FOOD PROCESSING INDUSTRY SOLUTIONS

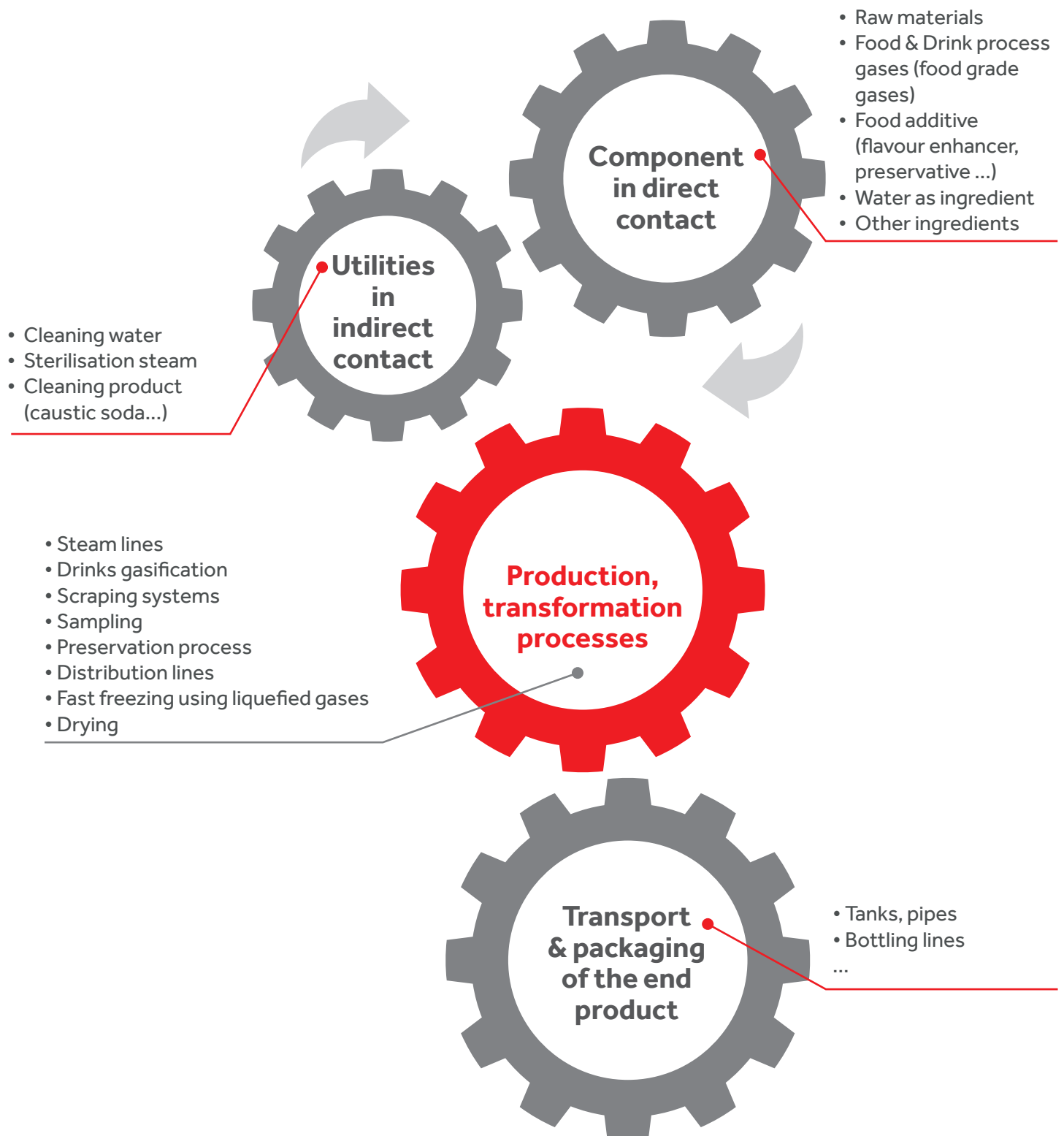


EN - 2017

**Meca-inox**  
BALL VALVES

The **(EC) N°1935/2004** regulation controls the food and beverage industry market. This regulation sets the requirements to be applied for materials and articles intended to come in **contact directly or indirectly** with foodstuffs.

Foodstuffs are defined in article 2 of regulation **(EC) n° 178/2002** : beverages, chewing gums and any substance including water that is intentionally incorporated into food during its **production, preparation** or its **processing**.

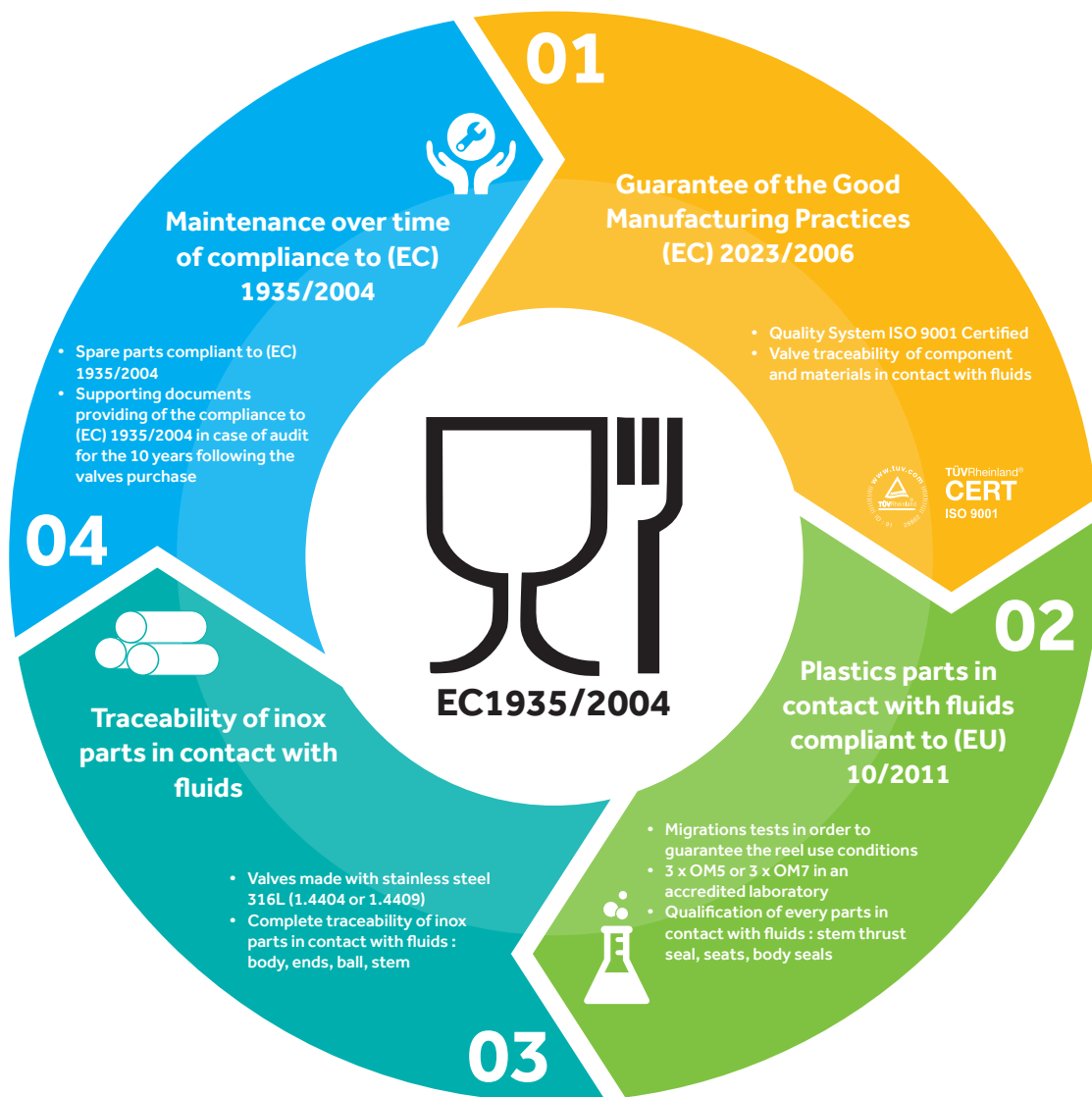


All equipments including valves are used during processes such as **food fast freezing** with liquefied gases, **steam cooking**, or **food sampling**.

Being in contact whether direct or indirect with foodstuffs, **these equipments are submitted to the (EC) n°1935/2004**.

To meet the requirements of our clients, we offer a **complete range** of ball valves in **compliance with the (EC) n°1935/2004 regulation**.

We also propose solutions for upgrade to compliance and maintenance of existing plants.



**They trust us : Messer, Air Liquide, Tetrapak, Wrigley, Nestlé, GEA, Definox, SPX Flow, Pierre Guérin, Mars, Saipol, Maisonneuve**



## PROCESS -20 ° C to + 121 ° C - ALL FOOD & INGREDIENTS (Liquids, Gas, Powders)



### 3-piece ball valves - PN4 I

- For piping DN08 to DN200
- PN100 to PN16
- Ball internal roughness Ra 0.4 µm

### Options

- Ends internal roughness Ra 0,4 µm
- True Bore version (pigging system)
- PTFE Cavity fillers
- Actuation

## PROCESS up to + 250°C - STEAM, OVERHEATED WATER, OILS



### 3-Piece Ball Valves - PZ4 I

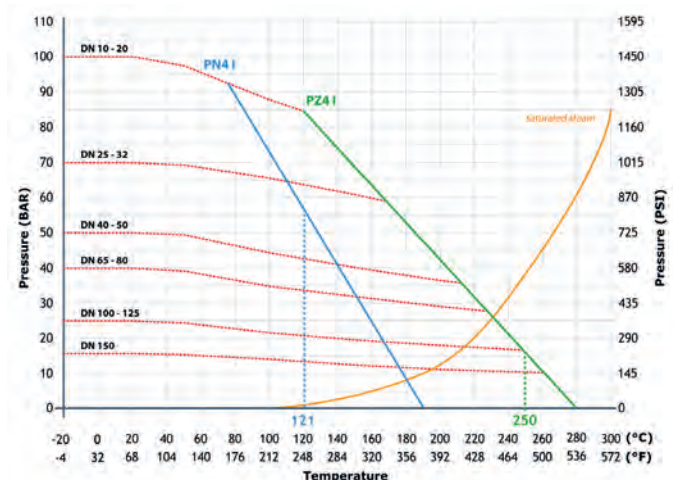
- For piping DN08 to DN200
- PN100 to PN16
- High Temperature Seats

### Options

- Steam Jacket
- V-Ball version for regulation
- Design Double Block & Bleed

Valves	Ball Seats	Body Seal
PN4I	TFM (PTFE)	PTFE
PZ4I	PTFE 20% PEEK	PTFE

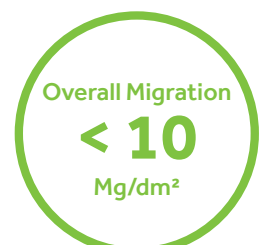
FDA compliant plastic materials  
21 CFR Section 177.1550



## Metallic Parts in Contact with

## TOTAL QUALIFICATION OF PLASTIC COMPONENTS

Test Fluids A, B & D2  
Tests Conditions OM5 & OM7  
Multi-Contact Tests



## CO<sub>2</sub> LIQUID for Gasification of beverages + Other gas between -50°C and + 121°C



### 3-piece Ball Valves - PS4I PG and PY4 I

- For piping DN08 to DN200
- PN100 to PN16
- Functional EN1626 / -50°C
- Ball with upstream vent hole
- Body sealing <10<sup>-5</sup> mbar / L.s-1

### Options

- ADR Version - EN14432
- For Tanks Transport



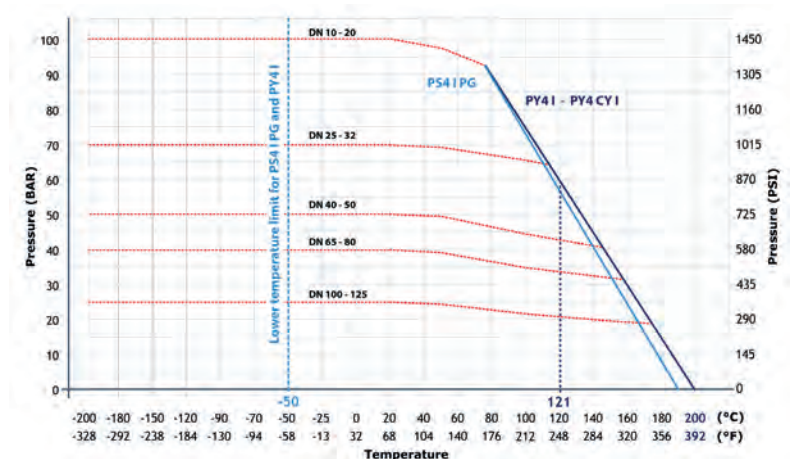
## FAST FREEZING LIQUID NITROGEN -200°C to + 121°C



### 3-Piece Ball Valves - PY4CY I

- For piping DN08 to DN150
- PN100 to PN16
- Functional EN1626 / -196 °C
- Ball with upstream vent hole
- Body sealing <10<sup>-5</sup> mbar / L.s-1

Valves	Ball Seats	Body Seal
PS4 I PG	TFM (PTFE)	PTFE
PY4I	PTFE Carbon (TF3215)	PTFE
PY4CYI		



## Fluids 100% Stainless Steel 316L

### MARKING & TRACEABILITY

**CE1935 label with valve  
batch number  
Delivered with CE1935  
plastic parts certificate**



## ACTUATED VALVES



### For Piloted Process

- Double or Single effect Pneumatic Actuators, 500,000 cycles guaranteed
- Electric Actuators
- Limit switches, Solenoid valves ...

### Options

- CNI® Nickel-PTFE Coated Actuator Aggressive environments (Cleaning agents ...)



## SAFE ISOLATION & PURGE

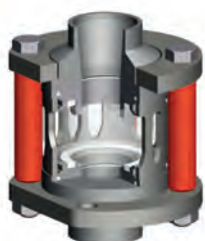


### Double Block & Bleed

- Double isolation & Line Bleeding
- Safe Maintenance
- Steam and high Temperatures lines and / or Dangerous
- Piping DN08 to DN 200



## SIGHT GLASS



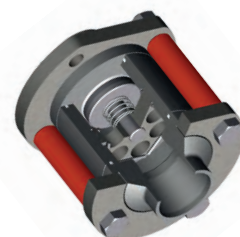
### Visual fluid control - VC4 I

- PYREX glass
- PN7 to PN16
- Piping DN08 to DN65
- All Foods -20°C to +121°C

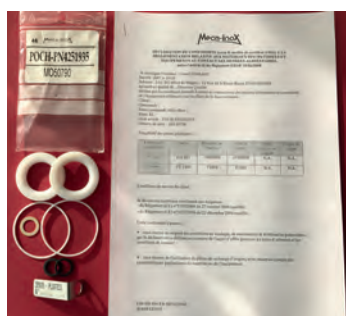
## CHECK VALVES

### Non-return Solution - CL4 I

- Piston 316L & PTFE
- PN80
- Piping DN08 to DN65
- All Foods -20°C to +121°C
- Liquid Nitrogen and CO2 up to -196 ° C



## MAINTENANCE & COMPLIANCE INSTALLATIONS



### CE1935 Maintenance kit

- Plastic Sealing Parts
- Stainless Steel Label with Traceability
- Certificate of conformity CE1935 plastic parts



## CONTROL & REGULATION



### Flow / Pressure Control Solution - V-Bal

- V30° or V60° ball
- Manual or Actuated
- Tight in closed position
- 2 times less pressure drop than a standard control valve

## JACKETED VALVE



### Solution for Maintaining temperature (Chocolate, chewing gum ...)

- Steam Jacket up to 25bar
- Compatible with Steam and Thermal Oils
- Available in PZ4I CE1935 range

## FLUSHING VALVES



### Tank Bottom Solution

- No dead volume in the tank
- Available in PN4I and PZ4I CE1935 series
- Also available in steam jacket version



### Pick-up valve

- No dead volume in the line
- Available in PN4I and PZ4I CE1935 series



### Valve Body Kit Boxes CE1935 (PN4 I, PZ4 I, ...)

- Stainless steel valve body ready to install
- 100% compatible with Meca-Inox body in place
- Certificate of conformity CE1935 plastic parts

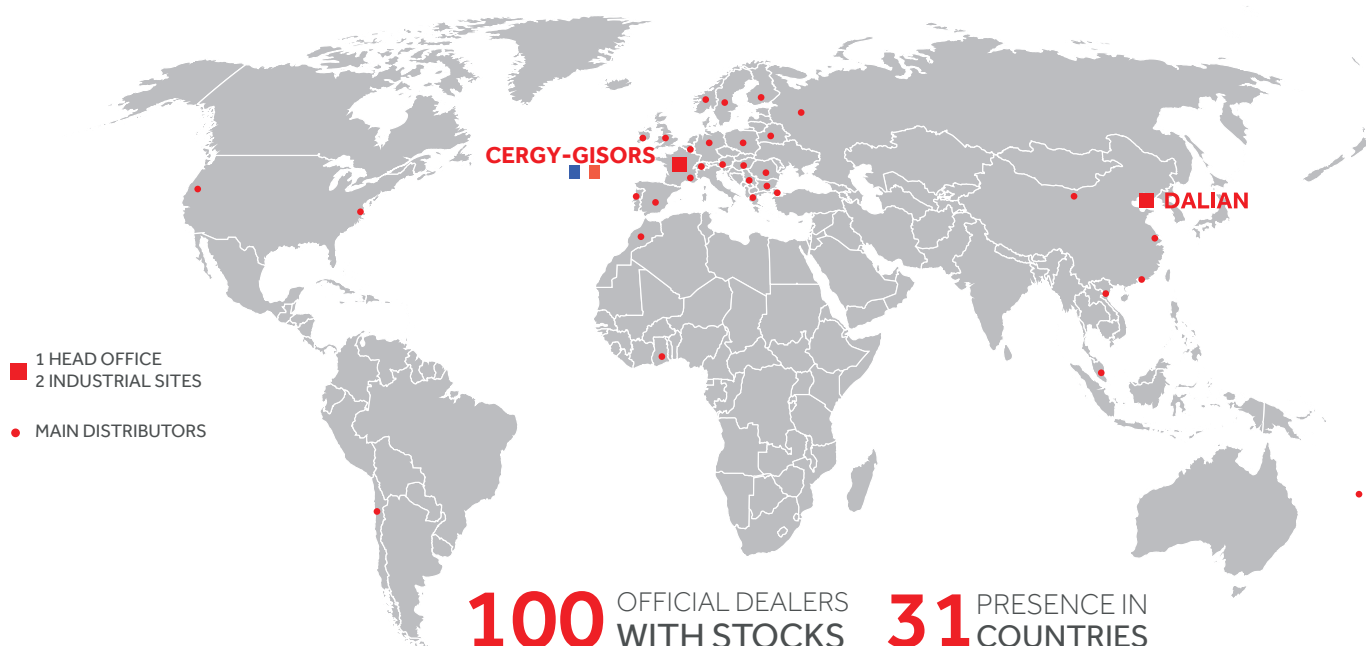
**Meca-Inox Body CE1935 compatible**  
 with others marks of valves for conformity of installations, consult us.

# 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](http://meca-inox.com)

A BRAND OF GROUP

**Meca-inox**  
SINCE 1955