

**Věžá**  
equipment

**Veža**  
equipment

**BARDIANI**  
VALVOLE



## BBZP

### SINGLE SEAT VALVE



The BBZP is a single seat valve made with top quality raw materials. Thanks to its versatility, sturdiness and reduced number of seals in contact with the product, it can be installed in all applications requiring maximum reliability in cutting off and directing a fluid.

#### STANDARD FEATURES:

Connections from DN10 to DN150  
(from 1/2" to 6")  
EPDM, FKM, HNBR and PTFE seals  
Maximum temperature 140C,  
minimal - 10C  
Maximum pressure 10 bar.

## B925

### DOUBLE SEAT VALVE – MIXPROOF



The B925 is a double seat valve (mixproof) with an extremely modern and compact design. The valve directs and controls the flow of two different liquids simultaneously, guaranteeing total separation between the two to avoid any risk of contamination. Extremely effective in production plants for health-hygiene applications, this valve allows a reduction of single seat valves required and consequently optimizes the use of available installation space.

#### STANDARD FEATURES:

Connections from DN15 to DN150  
(from 3/4" to 6")  
EPDM, FKM, HNBR seals  
Maximum temperature 140C,  
minimal - 10C  
Maximum pressure 10 bar.

## B935



### B935 DOUBLE SEAT TANK-BOTTOM VALVE

## BBWP1

### ASEPTIC VALVE WITH DIAPHRAGM



The BBWP1 valve has been designed for sterile applications which require safety in cutting off and/or directing of product. The demand of aseptic valves is increasing thanks to the wide range of applications from pharma to tomato and dairy industries. BBWP1 features a new diaphragm in Gylon® which ensures maximum operating performance and improved valve efficiency.

#### STANDARD FEATURES:

Connections from DN15 to DN100  
EPDM, FKM, HNBR and PTFE seals  
Maximum temperature 140C,  
minimal - 10C  
Maximum pressure 10 bar.

## BBZO

### TANK BOTTOM SINGLE SEAT VALVES



BBZO and BBZOG are tank bottom single seat valves made with top quality raw materials. Thanks to versatility, sturdiness and reduced number of seals in contact with the product, they can be installed in all applications requiring maximum reliability in cutting off and directing a fluid. They have been designed to be used as a shut-off valves when closing product flow from a tank or as a reverse acting valve when opening product flow into a tank in hygienic applications.

#### STANDARD FEATURES:

Connections from DN25 to DN150  
EPDM, FKM, HNBR and PTFE seals  
Maximum temperature 140C,  
minimal - 10C  
Maximum pressure 10 bar.

## BBZOG



## BBZK



### REGULATING VALVE WITH MEMBRANE ACTUATOR

BBZK is a regulating valve designed to regulate the flow rate and maintain a constant level, pressure or temperature value. Its special membrane actuator connected to the positioner allows partial opening and closing of the shutter, allowing intermediate flow rates and consequently pressure drop in the valve. Particularly suitable for applications where accurate control of the pressure, temperature and level measurements in the filling tank are required.

#### STANDARD FEATURES:

Connections from DN25 to DN100  
(from 1" to 4")  
EPDM, FKM, HNBR and PTFE seals  
Maximum temperature 140C,  
minimal - 10C  
Maximum pressure 10 bar.

### BBZPM

#### REGULATING VALVE WITH ELECTROPNEUMATIC POSITIONER AND PISTON ACTUATOR

## BBZPM



## BZAW3



### DOUBLE SEAL VALVE

The BZAW3 is a double seal valve designed to guarantee separation between two fluids. The special design of the shutter provides a separation chamber between the two seals. This ensures that any product leaks flow out through the two auxiliary valves located on the separation chamber, avoiding any contact between the two fluids.

#### STANDARD FEATURES:

Connections from DN25 to DN150  
(from 1" to 6")  
EPDM, FKM, HNBR seals  
Maximum temperature 140C,  
minimal - 10C  
Maximum pressure 10 bar.

## BBZS1



### MANUAL BY-PASS VALVE

BBZS1 and BBZS5 by-pass valves have been designed to be highly versatile. These valves are suitable for different types of application and for diverse industrial sectors. Regulation of the retained pressure depends on the loading of the spring in the heart of the valve. This load can be regulated by adjusting ring nut located inside the protective casing on BBZS1. Or by using the adjustment pin on the top back of the actuator on BBZS5 with the possibility to facilitate valve washing by opening the actuator with air injection.

#### STANDARD FEATURES:

Connections from DN10 to DN100  
(from 1/2" to 4")  
EPDM, FKM, HNBR and PTFE seals  
Maximum temperature 140C,  
minimal - 10C  
Maximum pressure 10 bar

### BBZS5

#### PNEUMATIC BY-PASS VALV

## BBZS5



## ZVF



### BUTTERFLY VALVE

ZVF is a butterfly valve with pneumatic actuator which cuts off and monitors fluids in the process flow by movements of opening and closing. Characterized by a simple and elegant design and engineered to be extremely reliable, it is commonly used in many different applications requiring extensive product passage.

#### STANDARD FEATURES:

Connections from DN10 to DN150 (from 1/2" to 6")  
EPDM, FKM, MVQ and HNBR seals  
Maximum temperature 120C, minimal - 10C  
Maximum pressure 10 bar

### VVF

#### MANUAL BUTTERFLY VALVE



## BBZQ



### HIGH PRESSURE VALVE

BBZQ is the only valve currently available on the market which guarantees 3A certified hygiene. This single seat valve has been designed for application in all health-hygiene sectors with pressures up to 150 bar. Made from top quality raw materials, it is characterized by an extremely modern design and sturdiness and can be installed in all those applications where maximum reliability is required for cutting off and directing a fluid or product. Extremely versatile and flexible, with no increases in dimensions, it can be easily converted to an aseptic valve by inserting a steam barrier (model BBYQ). The connection fittings are totally interchangeable with the previous version (ZQ series).

#### STANDARD FEATURES:

Connections from DN25 to DN100  
(from 1" to 4")

EPDM, FKM, HNBR seals; PTFE or metal seal for the shaft

Maximum temperature 150C,  
minimal - 10C

Maximum pressure 150 bar from DN 25 to DN 80 and 55 bar for DN 100

## VVS



### BALL VALVE

ZVS is a pneumatic sanitary ball valve which allow product passage without restrictions, reducing friction loss to a minimum. It is perfect for viscous liquids or liquids with suspended particles in food, beverage and pharmaceutical industries and in applications with high operating pressures. On request the integral seal version it's available, to reduce product stagnation inside the valve body to a minimum.

#### STANDARD FEATURES:

Connections from DN10 to DN100  
(from 1/2" to 4")

FKM and PTFE seals

Maximum temperature 160C, minimal -10C  
Maximum pressure for two-way valves: 25 – 64 bar (depending on diameters); for three way valves: 16-40 bar (depending on diameters)

#### VVS

### MANUAL BALL VALVE

## ZVS



## BBTRD



### SIGHT GLASS

Valve body with flat glass closure which allows the user to constantly and reliably inspect the product.

#### STANDARD FEATURES:

Connections from DN25 to DN100  
(from 1" to 4")

EPDM, FKM, HNBR and PTFE gaskets

Maximum temperature 140C, minimal - 10C

Maximum pressure 10 bar

## GIOTTO TOP®



### CONTROL UNIT

The new **J-Giotto Top® 360** has been designed to ensure effective control of the various movements of Bardiani Valvole valves. Each control unit can manage all the operations linked to valve functioning: in fact, both the position indicators (proximity switches) and the solenoid valves are installed inside the **J-Giotto Top® 360**, which can be quickly and easily installed on the top of the Bardiani valve actuator. Made from high-resistance materials, the reliability of the electrical components which make up the unit ensures the operator can safely monitor operation, also controllable in remote mode, by means of the illuminated indicators visible on all sides (360°). The high protection rating (IP67) against dust and liquid penetration ensures perfect operation of the various components even in the most arduous operating conditions.

## J-GIOTTO TOP®



## BBZPA

### DIVERT SINGLE SEAT VALVE – EASY MAINTENANCE

BBZPA is a divert single seat valve developed to improve efficiency during maintenance operations. Its **EASY MAINTENANCE** design allows a reduction of maintenance operations, a reduction of contamination points, less gaskets to be replaced, therefore a reduction of time required for service.

#### STANDARD FEATURES:

Connections from DN25 to DN150 (da 1" a 6")  
EPDM, FKM, HNBR, PTFE seals  
Maximum pressure 10 bar.



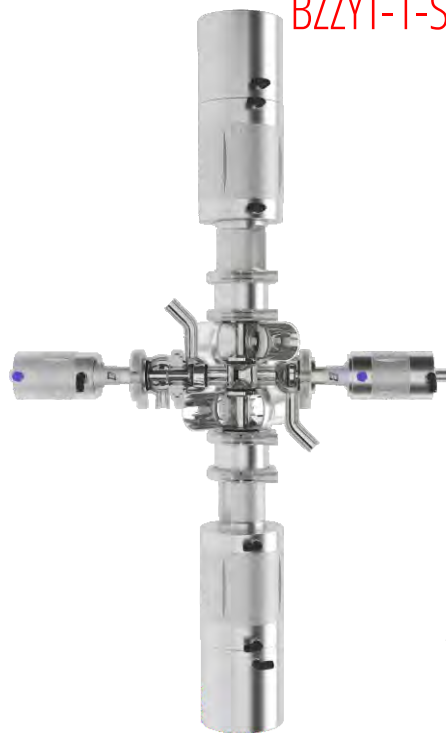
## BZZYT-1-SEZ

### ASEPTIC MIXPROOF VALVE

The aseptic double-seat mixproof valve BZZYT-1 is designed to separate two different products or fluids without the risk of cross-contamination, ensuring the complete aseptic integrity of the process. It meets the highest process requirements and standards in terms of aseptic performance, washability, and safety. BZZYT-1 consists of four single-seat valves: two main valves for product passage, equipped with a single-layer PTFE diaphragm that creates a hermetic seal to ensure process asepticity; two auxiliary valves for leak detection and management of the steam circuit during the sterilization phase. The aseptic double-seat mixproof valve is the optimal solution for use in aseptic process applications in the pharmaceutical, food, dairy, and beverage sectors. It is particularly suitable for use with viscous products or those containing solid particles.

#### STANDARD FEATURES:

Connections from DN25 to DN100  
EPDM, FKM, HNBR and PTFE seals  
Maximum pressure: 10 bar.



## B93JPG

### MIXPROOF DOUBLE SEAT VALVE FOR PIGGING SYSTEMS

**B93JPG** enables complete and safe separation between two fluids and recovery of the product with PIG. The lower body is specially designed to enable the smooth passage of the PIG; the upper body might have one or two horizontal ports. The upper shutter has an axial seal while the lower one has radial seal. **B93JPG** may be installed vertical or suspended. When vertical installed, CIP is draining by the port above the bodies and by auxiliary valve.

#### STANDARD FEATURES:

Connections from DN40 to DN100  
Seals: EPDM, FKM, HNBR  
Maximum pressure: 10 bar.



## BZAW3PG

### DOUBLE SEAL VALVE FOR PIGGING SYSTEMS

BZAW3PG guarantees separation between two fluids and recovery of the product with PIG. The special design of the shutter provides a separation chamber between the two seals. This ensures that any product leaks flows out through the two auxiliary valves located on the separation chamber, avoiding any contact between the two fluids. Two lower body is specially designed to enable the smooth passage of the PIG while the upper body might have 1 or 2 horizontal ports.

#### STANDARD FEATURES:

Connections from DN40 to DN100  
Seals EPDM, FKM, HNBR  
Maximum pressure: 10 bar.



## BBZPPG

### SINGLE SEAT VALVE FOR PIGGING SYSTEMS



Pigging valves enable the smooth passage of the hygienic plug ('pig') thanks to special design of solid bodies and shutter. The valves have a bore the same as that of the pipe and have no obstructions in closed position, too. This enables the pig, when propelled through the pipeline, to easily pass through the valves.

BBZPPG single seat valve enables simple, fast, and effective cleaning and product recovery. Unlike standard valves, it features minimal dead-space which ensures maximum product recovery. It has been specially designed and engineered for applications with extremely high cleaning, sanitizing and hygiene requirements.

Fully passable, the valve offers high levels of performance, reliability and effectiveness.

#### STANDARD FEATURES:

Connections from DN40 to DN100

Seals EPDM, FKM, HNBR

Max pressure 10 bar.

## EASY GIOTTO

### SUPPORT UNIT



The Easy Giotto holder unit has been designed to meet the need of the customer to protect the operator during the functioning of the valve. Moreover, the compact dimension allows easy installation even in case of limited space. To ensure maximum versatility, customer decides which M12 cylindric sensors install on valves. On B925 can be installed for open and closure only.

#### MAIN BENEFITS:

Guaranteed safety

Extreme versatility

Compact dimensions

Easy installation



## BBVAR

### MULTIFUNCTIONAL HOUSING

BBVAR is a multifunctional housing series for inline pipe application which enables visual control and supervision of fluid processing. It allows the visual control if equipped with metal fused sight glass\* and a direct product control if equipped with special measurement instruments\*.

\*Bardiani Valvole is not supplying any measurement instruments, nor metal fused sight glass.

#### TECHNICAL SPECIFICATIONS:

Connections from DN20 to DN150

(from 1" to 6")

EPDM, FKM, HNBR and VMQ seals

Maximum pressure 10 bar.

## BBNRV

### CHECK VALVE



Check valve BBNRV prevents fluid from flowing backwards. It ensures that fluid flows in only one direction. It can be used to prevent water hammer. Check valve opens when the pressure of the fluid exceeds the pressure applied by the spring. When the two pressures are compensated, the valve closes. A higher counter-pressure will ensure the valve closes. Valve design is optimized for vertical position installation.

#### STANDARD FEATURES:

Connections from DN25 to DN100

(from 1/2" to 4")

EPDM, FKM, VMQ seals

Maximum pressure 10 bar.

## HYGIENIC PUMPS

CSF Inox S.p.A., established in 1970 in Montecchio Emilia, a small town in northern Italy, is today a leading company in both Italy and Europe in the production of pumps primarily designed for the food & beverage, dairy, chemical and pharmaceutical industries. The company, synonymous with quality and high specialization offers the international market an extremely full range of products to meet the needs of numerous applications in these sectors. In fact, CSF Inox offers a series of centrifugal, self-priming, progressive cavity, twin screw, sinusoidal rotor and pneumatic pumps.



## HYGIENIC PUMPS



### A/AS SERIES

Single-block self-priming sanitary pumps with independent support and standard IEC motors. The materials and easy to disassemble construction make these pumps perfect for different production areas. They are widely used in CIP cleaning recovery systems, tank filling/emptying and for transferring various types of clear liquids. The parts in contact with the fluid are made from AISI 316L stainless steel using the lost-wax casting process and electrochemical polishing to guarantee optimum surface finishes. They are especially suited for clear low viscosity fluids: CIP solutions, water, juices, wine, spirits, chemicals and pharmaceutical media, in CIP scavenge/return and tank emptying duties.

### CS/CSA SERIES

The parts in contact with the product are cast in AISI 316L stainless steel using the lost-wax process and are electrochemically polished. They can be supplied (on special request) made from special alloys such as SuperDuplex and Hastelloy for use in particularly aggressive operating environments. The design of the open 6-vane impeller is optimized to guarantee delicate handling of the pumped liquids. The special construction with shaft support bearing means that the “CS” series pumps can be bought with a bare shaft for subsequent quick and easy coupling with standard IEC electric motors. In the hygienic version, they have a stainless-steel housing to protect the motor, supported on adjustable feet. It is possible to install an inducer on the pump intake to reduce the required NPSH value.

### CL/CLC SERIES

CL Made with an open three-vane impeller installed directly on the motor shaft for use in a wide range of applications. Made entirely from AISI 316L polished stainless steel, these pumps guarantee a high level of hygiene and consequently can be used for the low-pressure transfer of juices, creams, ice-cream, dairy cream, milk, wine, alcohol and whey.

CLC With the same features as the “CL” series but with a closed impeller, these pumps are used to transfer clean liquids with medium/high heads (max. 30-50 m) and to deliver liquids to pasteurizers, coolers, concentration filters, washing circuits.

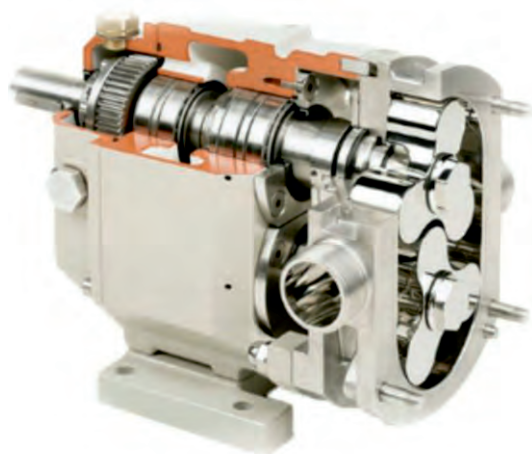
## HYGIENIC PUMPS



### PISTON PUMPS

Piston pneumatic pumps CSF INOX are widely used in the food, cosmetic and pharmaceutical industries, where the high viscosity of the processed products and their tendency to crystallize lead to accelerated wear of other types of pumps. This type of pump is used in case the pumping and dosage of liquids are needed. Piston pneumatic pumps CSF develop pressures in the range from 0 to 150 bar.

When installed on mobile stands, they have proven themselves excellent in pumping liquids from tanks, as well as in working with tomato concentrates and pastes.



### LOBE PUMPS

CSF Inox lobe pumps are designed for pumping food and chemical media with a viscosity from medium to very high, which allows them to be applicable in various industries. The pumps are made of different types of steel. These pumps can be equipped with various additional equipment, such as bypass frequency converter, mechanical variator, etc. Max. capacity of pumps of this series is up to 70 m<sup>3</sup>/h, outlet pressure up to 20 bar.



### SCREW PUMPS

There are different configurations made of steel AISI 304, AISI 316L or cast iron by the method of casting on investment models. The capacity varies from 0,3 to 270 m<sup>3</sup>/h with a pressure from 1 to 24 bar. It is presented also in a vertical version for emptying tanks. They are used for pumping viscous, sensitive, abrasive products or containing solid suspended particles.



## HYGIENIC PUMPS



### PA/PAR SERIES

are designed for pumping, supplying, spraying products with very high viscosity where adjustable capacity is required. The compressed air actuator allows them to be used in explosive environments



### DISSOLVERS

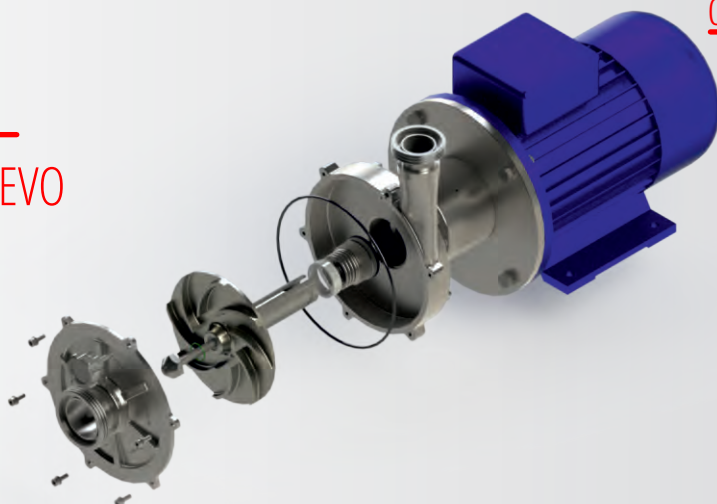
Devices designed for dispersing and dissolving powders and liquids. Made in various configurations, with or without a tank. Capacity up to 70 m<sup>3</sup>/h. Made of stainless steel AISI 316 and food grade polymers.

## CENTRIFUGAL HYGIENIC PUMPS APPLICATION AREAS:

- production of milk and dairy products
- production of beverages, juices, mineral water
- production of beer and beer mixes
- primary and secondary winemaking
- supplying pump for heat exchangers
- pump for industrial reverse osmosis plants
- chemical industry
- pharmaceutical industry



01  
TC.EVO



01 **CENTRIFUGAL PUMPS TC.EVO TYPE** are suitable for various food sectors requiring heavy-duty operation, such as dairy, winemaking, chemical, pharmaceutical and water treatment:

- centrifugal separators
- CIP cleaning cycles
- plate heat exchangers

Capacity up to 250 m<sup>3</sup>/h

Height up to 85 meters of water column

Temperature from +3 to 120°C.

Maximum pressure: 15 bar in standard version.

Maximum liquid viscosity: 300 cP.

Materials: AISI 316/304

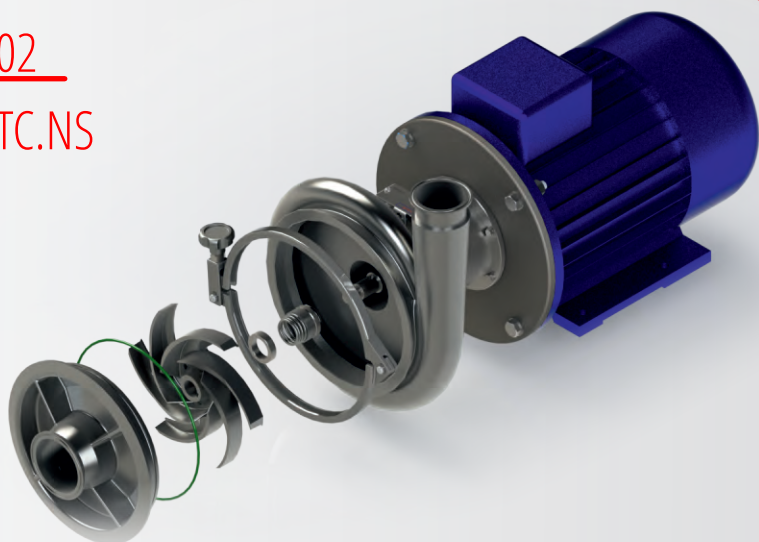
Impeller: semi-open, maximum diameter 260 mm.

Connection: DIN11851, Clamp, GAS-BSP, DIN11864, etc.

Motor: 2-4 poles, flange 1EC B5, aluminum.

Mechanical seal: internal or double flush.

02  
TC.NS



02 **CENTRIFUGAL PUMPS TC.NS TYPE** are suitable for various food sectors requiring heavy-duty operating conditions, such as dairy, winemaking, chemical, pharmaceutical and water treatment:

- centrifugal separators
- CIP cleaning cycles
- osmosis and filtration processes
- plate heat exchangers

Capacity up to 140 m<sup>3</sup> /h

Height 40-100 meters of water column

Temperature from +3 to 120°C.

Maximum pressure: 21 bar

Maximum liquid viscosity: 5000 cP

Maximum diameter of solid particles 8 mm in execution

Maximum liquid viscosity: 300 cP

Materials AISI 316/304

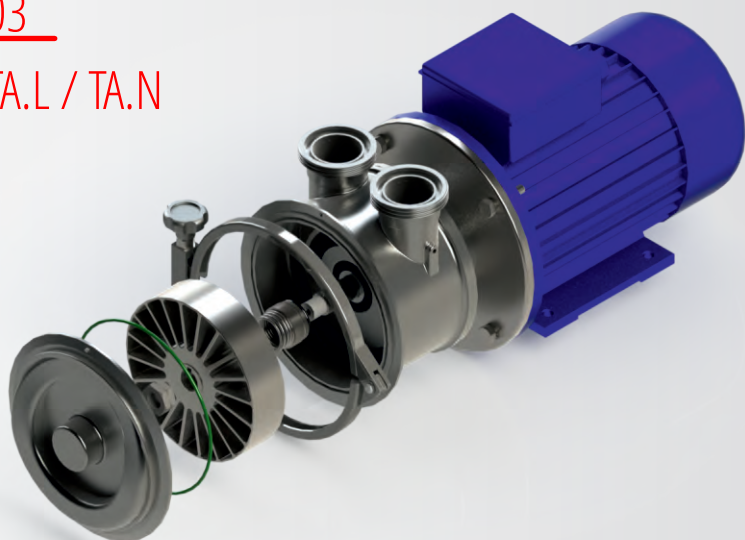
Impeller: semi-open, with a maximum diameter of 260 mm.

Connection: DIN11851, Clamp, GAS-BSP, DIN11864, etc.

Motor: 2-4 poles, IEC B5 flange, aluminum.

Mechanical seal: internal or double flush

03  
TA.L / TA.N



03 **CENTRIFUGAL SELF-PRIMING PUMPS TA.L/TA.N** are used in food, dairy and wine industries for:

- pumping between tanks
- pumping from underground tanks
- CIP cleaning cycles
- in cases when the liquids absorption is needed

Capacity up to 45 m<sup>3</sup>/h

Height 50 meters of water column

Suction height up to 4 meters

Temperature from +3 to 120°C.

Maximum pressure: 15 bar

Maximum liquid viscosity: 1000 cP

Materials AISI 316/304

Impeller: open star-shaped 18/20 blades, max. diameter 250 mm,

Connection: DIN11851, Clamp, GAS-BSP, DIN11864, etc.

Motor: stainless steel, IEC B5 flange, aluminum.

Mechanical seal: internal

## STERILE FILTERS

The manufacturer Ultrafilter GmbH is a world leader in modern filtration technologies. Today it produces adsorption dryers and filters for the preparation of compressed air, industrial liquids and technical gases. The products of this company are used in various industries, including the most critical and responsible areas of the pharmaceutical and food industries.



Only high-quality materials are used in the production of filters and adsorption dryers. All products intended for sterile production are made of inert gases without any binders, additives or adhesives. It should be noted that the products manufactured by Ultrafilter are tested and controlled from the start of selection of the source material for production.

# STERILE FILTERS



## PF-PT | PF-PES | PF-PP

For filtering aggressive liquids and gases.

Filtration efficiency is from 0.1 to 1  $\mu\text{m}$  (for gases up to 0.01  $\mu\text{m}$ ). The Teflon® filter medium is water-repellent, with a highly porous membrane structure. All components meet FDA requirements for contact with food according to CFR (Code of Federal Regulations) part 21.

**PF-PT** filter elements have passed toxicological tests in accordance with USPXX Class VI for plastic. In particular, these filters meet the requirements of the chemical, biological, cosmetic, electronic and pharmaceutical industries. **PF-PT** is designed to remove particles, microorganisms and colloids from aggressive solvents, caustic liquids or gases.

**PF-PT** is a pleated membrane filter. It features maximum chemical resistance, a long service life, and high performance under the most severe process conditions. The filter element is manufactured exclusively using Teflon® and polypropylene.

## PF-EG | PG-EG | P-BE

**PF-EG** housing is made of high-quality steel and is designed to filter beverages such as beer, wine, mineral water, soft drinks and drinking water in many areas of application. They have connectors according to DIN 11851 with a threaded nipple (outlet), a groove union nut with a conical connection (inlet).

AREAS OF APPLICATION:

- Brewing production
- Chemical, pharmaceutical industry
- Milk processing and dairy production
- Food and beverage industry

## P-SRF | P-GS | P-BE

Sterile filters for compressed air, process air and technical gases.

AREAS OF APPLICATION:

- Brewing production
- Chemical, pharmaceutical industry
- Milk processing and dairy production
- Food and beverage industry
- Biotechnology





## MEASURING INSTRUMENTS:

- pressure gauges
- pressure gauges with diaphragm (with separating membrane)
- flow meters
- level indicators
- thermometers
- aphrometers

Which can be used in the following industries:

- food
- chemical
- pharmaceutical
- paper
- petrochemical

## SPARE PARTS FOR PUMPS AND VALVES

Alfa Laval | Gea Tuchenhagen | Pentair Sudmo  
SPX APV | FRISTAM | Thomsen | Waukesha

- All the materials and parts intended to come into contact with food comply with the requirements set out in Regulation (UE) No 1935/2004 of the European Parliament and of the Council Commission Regulation EU 10/2011.

- A wide range of valves for operation in a wide range of production conditions with high hygienic requirements.

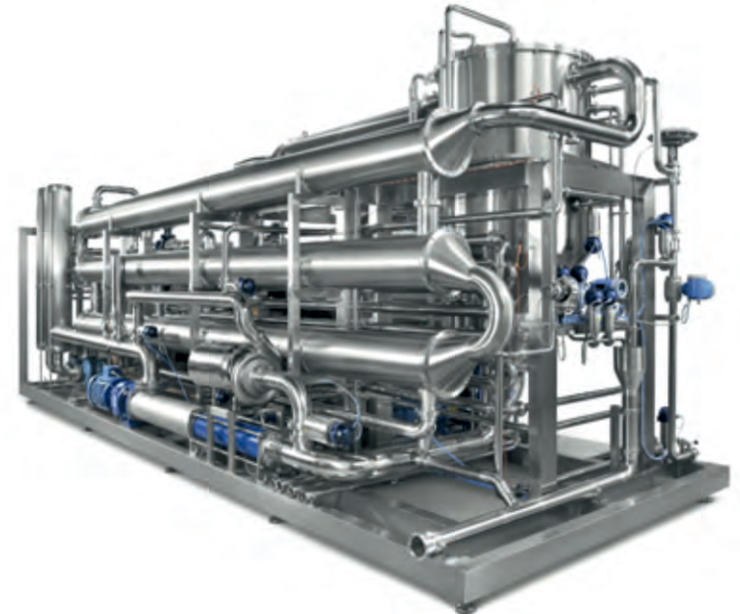
- A wide range of wear parts for all major OEMs.



## SPARE PARTS

REDA's expertise and knowledge are used in the creation and heat treatment of a wide range of specialized food products:

- soy and rice milk
- baby food
- non-alcoholic drinks
- sports drinks (isotonic)
- tea
- natural extracts
- essential oils
- liquid egg products
- honey



### PRODUCTION EQUIPMENT:

- dairy products
- juices and drinks
- wine and spirits
- specialized products

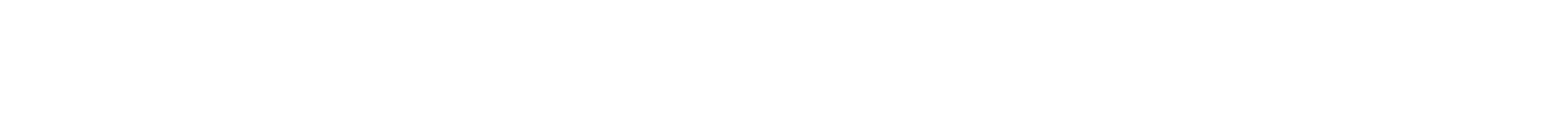


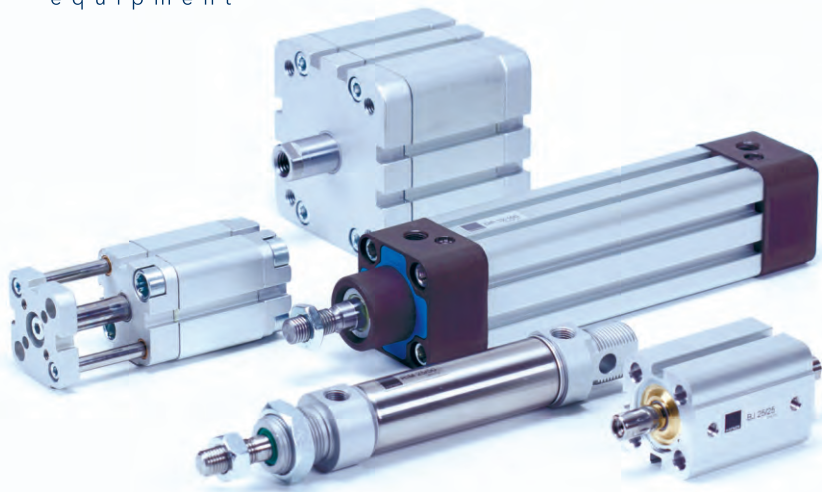
Mebra Plastik Italia Spa produces pneumatic and hydraulic hoses for various industries:

- industrial sector
- food industry
- automotive industry (for braking systems, fuel and coolant supply)

Mebra Plastik Italia Spa produces hoses of the following materials:

- **polyethylene** (LLDPE, LDPE, HDPE) {1}
- **polyamide** (PA11, PA12, PA10.12, PPA, Nylon PA6.6) {2}
- **polyurethane** (ester polyurethane) {3}
- **fluoropolymer** (PVDF, PTFE, FEP, PFA) {4}
- **other materials** (PVC, silicone, etc.) {5}
- **accessories** (cutters, plugs, holders, spiral protection) {6}





#### PNEUMATIC CYLINDERS

- MINI CYLINDERS
- ROUND CYLINDERS ISO 6432
- LARGE DIAMETER ROUND CYLINDERS
- COMPACT CYLINDERS ISO 21287
- UNITOP COMPACT CYLINDERS
- SHORT STROKE CYLINDERS
- ISO 15552 CYLINDERS
- CLAMP CYLINDERS
- ADDITIONAL ACCESSORIES FOR CYLINDERS
- STAINLESS STEEL CYLINDERS



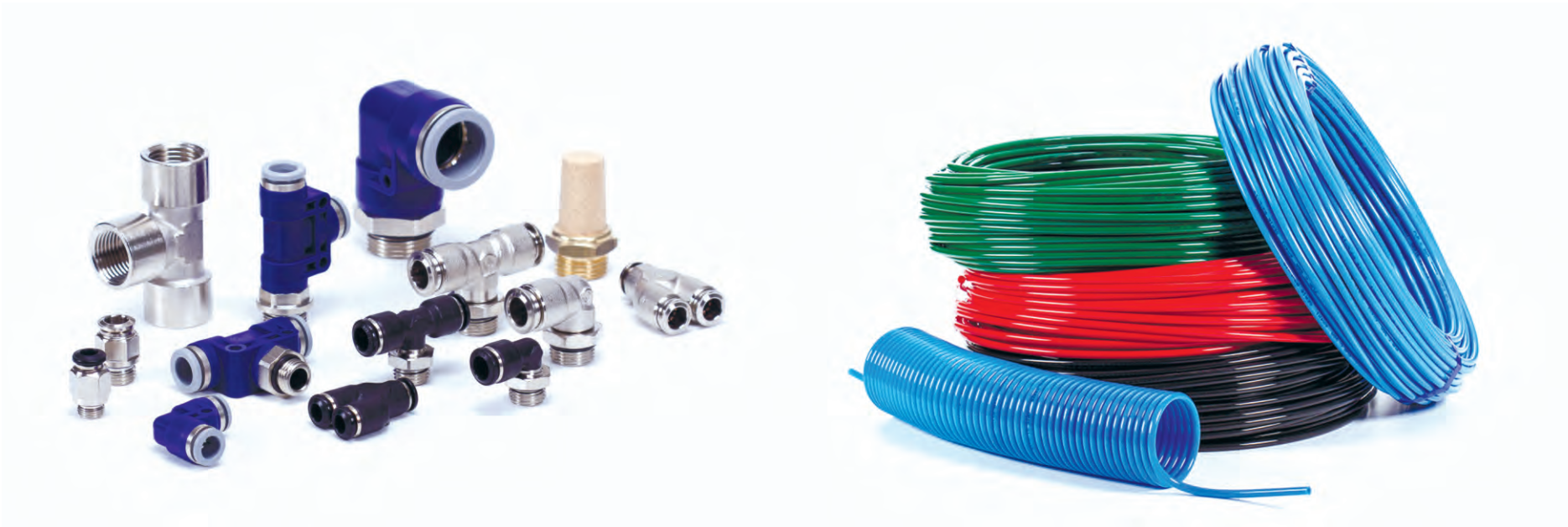
#### COMPRESSED AIR PREPARATION UNITS

##### CLASSIC LINE

- BASIC AND LOW-COST FRL-UNITS RANGE
- RELIABLE DESIGN
- INTERCHANGEABLE CONNECTION KIT

##### FUTURA LINE

- MODERN FRL-BLOCKS RANGE
- MODULAR DESIGN
- WIDE RANGE OF ACCESSORIES, SUCH AS FINE FILTERS, PRESSURE PRECISION REGULATORS, UNIQUE LUBRICANT MATERIALS SUPPLY SYSTEM, METAL GLASSES, ETC.



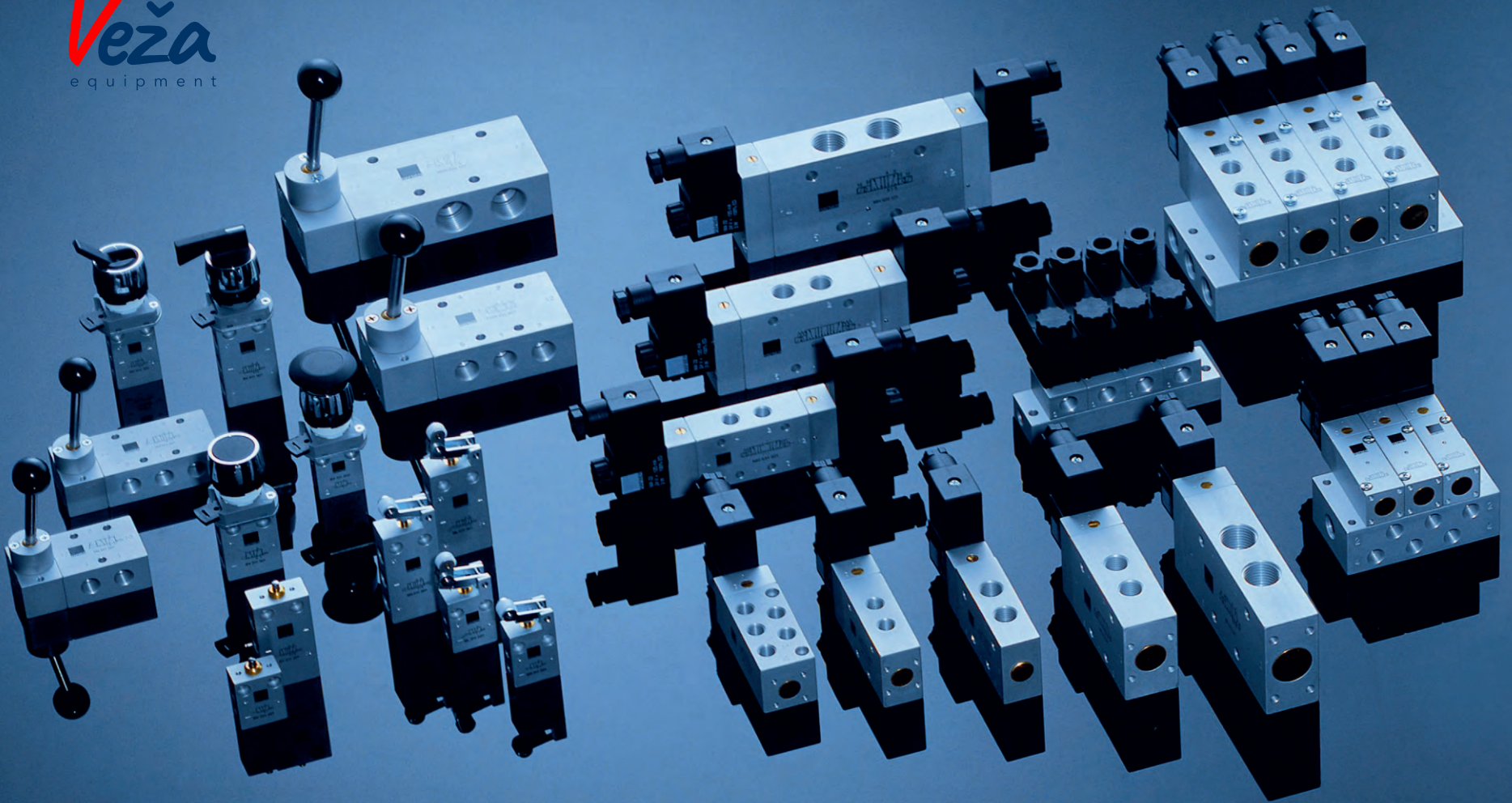
#### FITTINGS:

- QUICK-COUPLER CONNECTIONS
- FUNCTIONAL FITTINGS (LOGIC VALVES)
- SILENCERS
- STAINLESS STEEL FITTINGS
- FITTINGS WITH SOCKET NUT
- COLLET FITTINGS

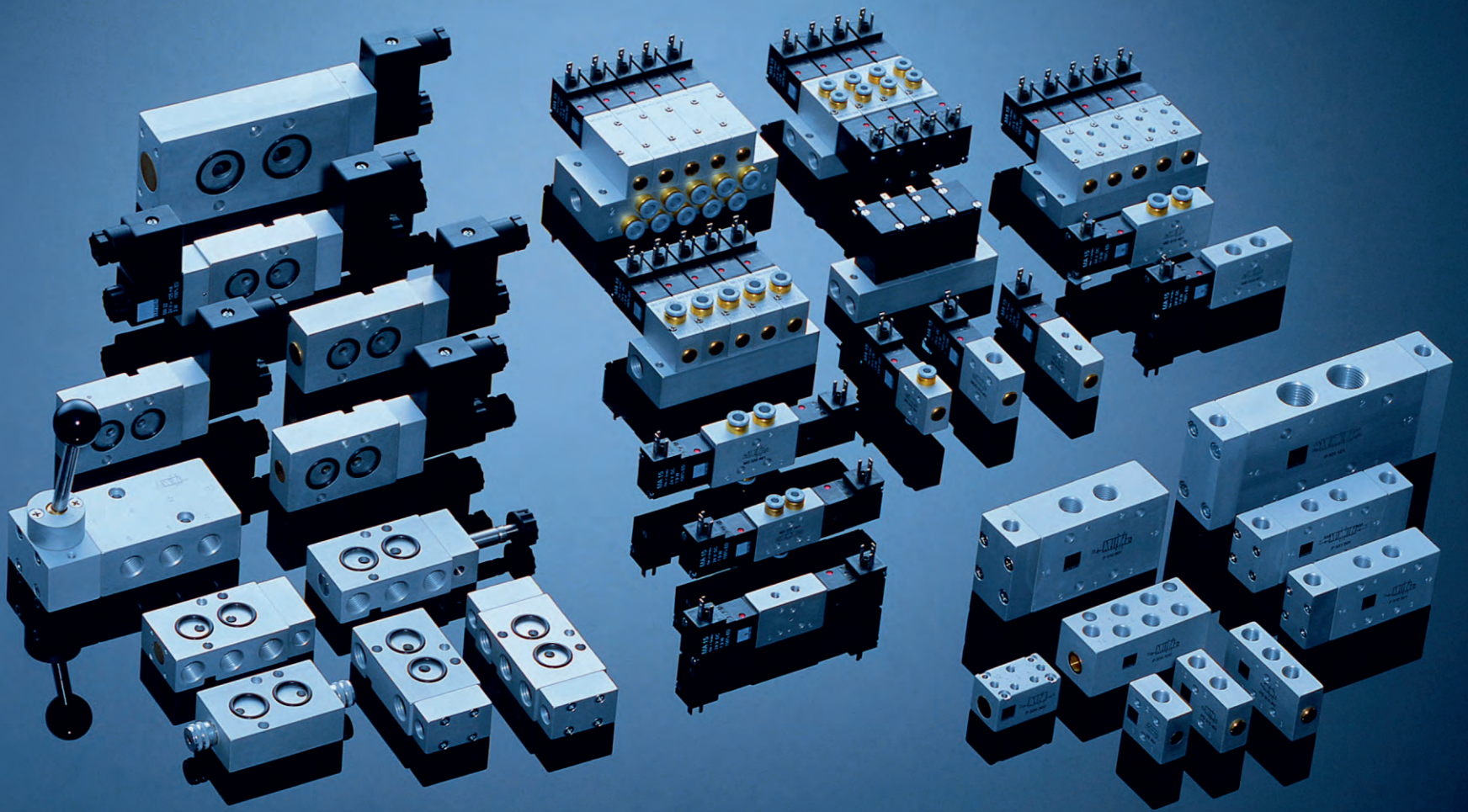
#### FLEXIBLE TUBES

- POLYURETHANE (PUR)
- POLYAMIDE (PA)
- POLYETHYLENE (PE)
- TEFLON (PTFE)
- SPIRAL AND MULTI-CHANNEL TUBES

**HAFNER**



- MECHANICALLY OPERATED VALVES
- PANEL MOUNTED VALVES
- LEVER-OPERATED VALVES
- PNEUMATIC OPERATED VALVES
- ELECTRIC OPERATED VALVES



- AIR ISLANDS
- MOUNTING PLATES
- NAMUR VALVES
- LOW TEMPERATURE VALVES (UP TO -50°C)
- STAINLESS STEEL VALVES

HAFNER

**Veža**  
equipment





SHAFT  
SEALS  
FOR PUMPS

**OMSG**



# STEAM TRAPS

ENERGY EFFICIENT, QUICK START AND LONG SERVICE LIFE.  
ALL THAT YOU MAY EXPECT FROM A STEAM TRAP.

**STEAM TRAPS TLV** reliably remove condensate, air and inert gases in steam installations, providing excellent tightness. Our wide range of models allows you to choose a steam trap with the best characteristics of energy efficiency, reliability and ease of installation for many applications. To protect the valves from mechanical contamination, all the steam traps in the range are equipped by filters, including those with the possibility of access from the outside through specially provided by design openings in the housing. Steam traps with reusable PTFE body seals operate with operating temperatures up to 220°C.

01



Pressure up to 260 bar  
Temperature up to 550°C  
Flow rate up to 180T/h

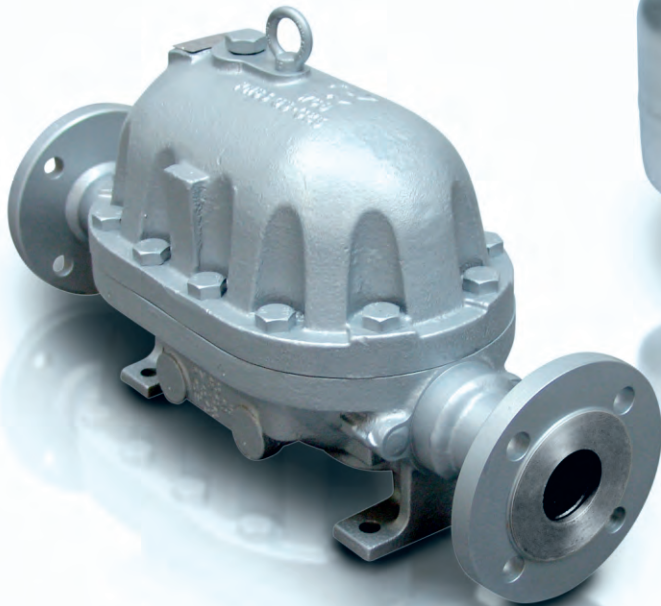
APPLICATION  
Industrial technology  
Drainage Steam Pipelines  
Steam tracers

01 **FREE-FLOAT STEAM TRAPS SJ and J SERIES**

For industrial processes, also for high pressures, with ductile iron, carbon steel and stainless steel housing. Have a wide range of flow rates, options for horizontal or vertical installation.

- No flooding
- Quick start
- Thermostatic air vent
- Long service life
- Built-in filter
- Easy to maintain
- Up to 120 bar/550°C

02



03



02 **FREE-FLOAT STEAM TRAPS JL SERIES**

For industrial processes with high condensate consumption, with loads up to 60 t/h. The housings are made of malleable cast iron or steel.

- No flooding
- Thermostatic air vent
- Stainless steel execution
- Long service life

03 **FREE-FLOAT STEAM TRAPS SS SERIES**

- For steam line and steam tracers draining, with stainless steel housing, for horizontal or vertical installation.
- Can operate on superheated steam
- Long service life.
- Completely made of stainless steel.
- Stainless steel execution
- Thermostatic air vent

# STEAM FLOW CONTROL

PRECISE PRESSURE / TEMPERATURE CONTROL AND EFFICIENT  
STEAM CLEANING / SEPARATION FOR INCREASED EFFICIENCY  
AND RELIABILITY

# TLV

TLV control systems are designed specifically for steam heat transfer systems. Valves of the COS series take into account that the steam supplied for heating is not always 100% dry and arrives at the consumer with some humidity. Our direct-acting valves and control valves are compact and robust in design, and also very easy to maintain. In combination with special multifunctional controllers and drives, the valves allow you to control the most precision-oriented processes.

## 01 COSPECT® STEAM PRESSURE REDUCING VALVE

The main advantages of the COSPECT® STEAM PRESSURE REDUCING VALVE are ease of maintenance, internal execution of impulse lines, wide range of settings and compact design.

Special components:

- Spherical self-positioning piston provides a set pressure and fast response to input pressure and steam flow fluctuations
- Highly efficient cyclone separator for dry steam separation up to 98%
- Built-in condensate free-floating drain, continuous discharge of condensate

Pressure up to 30 bar  
Temperature up to 260°C  
Flow rate up to 40 t/h

APPLICATION:  
Pressure control  
Temperature control  
Flow regulation systems

## 02 COMPACT DR20 REDUCING VALVE

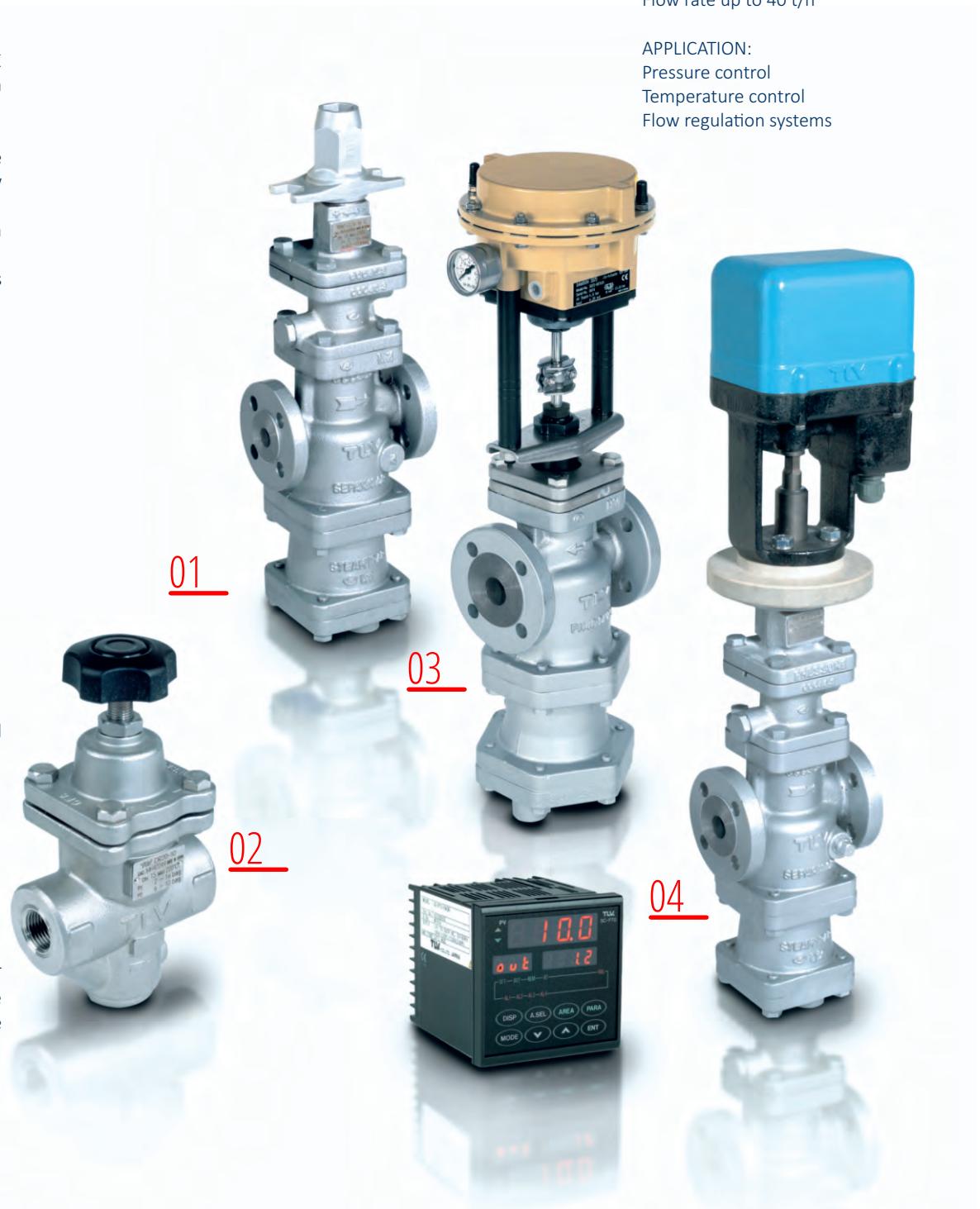
- For small production processes
- High accuracy
- Reduction 30:1
- Completely made of stainless steel
- Compact and lightweight
- Easy to maintain

## 03 STEAM CONTROL VALVE CV-COS

- Pneumatically operated control valve specially designed for use in industrial processes
- For temperature / pressure / flow control
- Integrated electro-pneumatic positioner.
- Integrated separator and steam trap

## 04 TEMPERATURE / PRESSURE controller MC-COS

- This is a special control system based on the COSPECT valve concept with electric actuator, programmable multifunctional controller and temperature / pressure sensors.
- Precision control
- No oscillations Integrated separator and steam trap



## SEPARATORS AND FILTERS

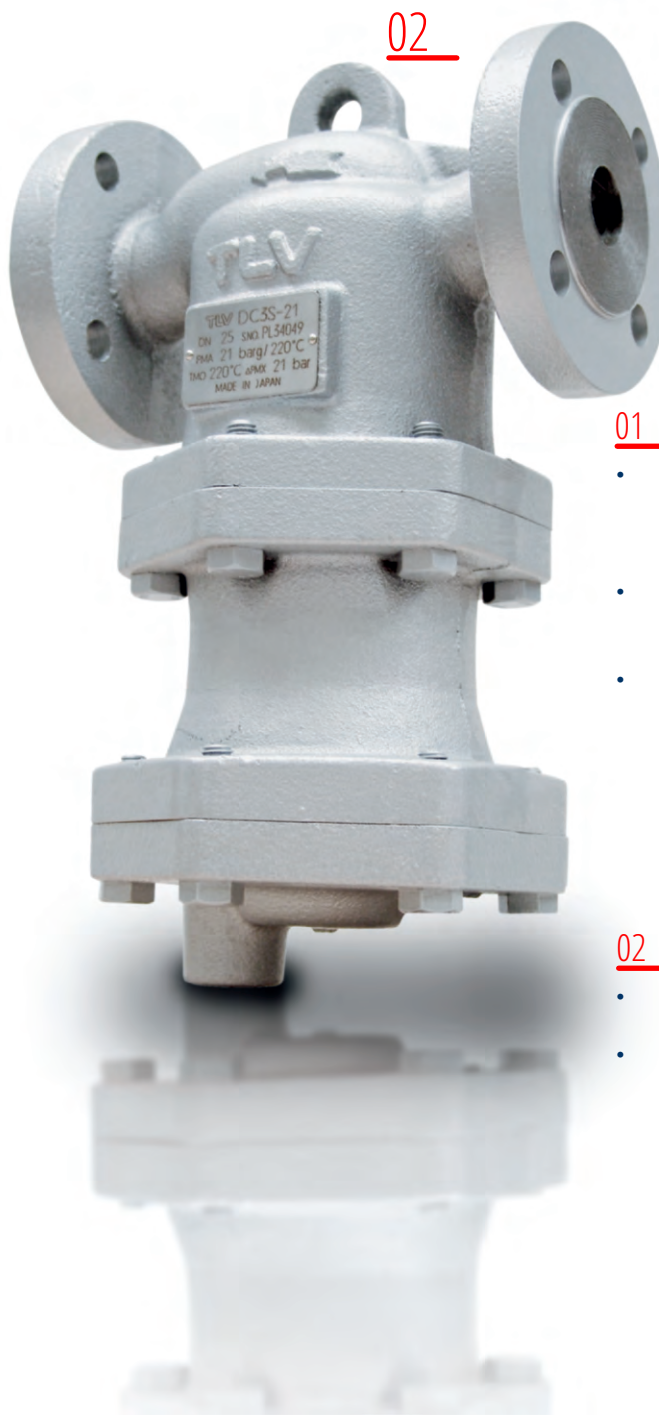
FOR STEAM AND GASES. HIGHEST EFFICIENCY OF DRYING AND CONDENSATE DRAINAGE.

FILTER FOR STERILE AND CULINARY STEAM SYSTEMS.

**SEPARATORS AND FILTERS TLV** provide high quality steam. Condensate, dirt and mechanical inclusions present in the steam or compressed air flow are automatically removed in a continuous mode (without delay). High quality steam, dry steam increases the efficiency of heat transfer and the quality of the product (with direct heating), reduces the rate of erosion of control valves, as well as corrosion and damage to components in compressed air systems. The porous filter is easy to clean or replace.

Pressure up to 25 bar  
Temperature up to 300°C

APPLICATION  
Steam heating processes  
Pharmaceuticals  
Food production  
Sterilization  
Compressed air systems



### 01 Filter-Separator Sf1

- Built-in cyclone separator removes droplet moisture and impurities before the medium flow enters the filter element, reducing the filter contamination.
- 5-layer stainless steel mesh filter element traps fine dirt and scale particles (filtration level up to 0.5 µm)
- Reduced operating costs due to significantly increased service intervals and high durability.

### 02 HIGH-EFFICIENCY SEPARATOR Dc3

- Condensate separation efficiency up to 98%.
- Built-in free float steam trap continuously drains condensate immediately after its separation and prevents steam leakages.

# CONDENSATE DRAINAGE AND RETURN

A CONDENSATE DRAINAGE AND RETURN SYSTEM THAT ELIMINATES FLOODING UNDER ANY OPERATING CONDITIONS. PERFECT FOR CONDENSATE HANDLING.

# TLV

CONDENSATE PUMPS AND PUMPING STEAM TRAPS TLV for condensate drainage and pumping protect heat exchangers from flooding, temperature fluctuations, water hammer and corrosion. Pumping Steam Traps and condensate pumps, operating due to steam pressure, are perfect for work in explosion-hazardous areas (only mechanical work, no need to use electricity). They guarantee safe and economical operation of steam power plants.

Pressure: up to 21 6ap  
Temperature: up to 260°C  
Flow: 209 t/h

APPLICATION:  
Drainage and return of condensate from any type of steam-consuming equipment

## 01 GP SERIES PowerTrap CONDENSATE PUMPS

- High flow rate
- Low filling level (back pressure)
- No cavitation
- No power supply required
- Starts and stops automatically
- Space saving
- Easy to maintain: all internal parts of the mechanism are attached to the pump cover and can be removed together with the cover as one piece

## 02 GT SERIES Pumping Steam TrapsT

- Low filling level (back pressure)
- No cavitation
- No power supply required
- Starts and stops automatically
- Space saving
- Easy to maintain
- Capacity from small (GT5C) to large (6110)



01  
GP 10 F



02  
GT 10 L



02  
GT 5 C



02  
GT 10

MIYAWAKI - is the world leader in temperature-controlled thermostatic steam trap technology.



TB51 type TB series



ER105 type E series



GC20 type G series



GH20 type G series

#### STEAM TRAPS

Steam traps production is the main activity of MIYAWAKI Inc. MIYAWAKI produces all types of steam traps: from classic thermodynamic, thermostatic and float (ball and with an inverted float), to unique, both in technological and economic terms, temperature-controlled thermostatic steam traps of the **TB series**. A wide production program always allows us to offer the customer the best option available. All standards, types and connection dimensions are available according to JIS, ANSI/ASME and DIN.

**Thermostatic Temperature Control Steam Traps of the TB series, DN8-25 PN40.** Steam traps of the **TB series** ensure the removal of condensate at a constant temperature regardless of the pressure changes due to the reaction of the bimetal to changes in the temperature of the steam-condensate mixture. It is possible to change the temperature setting of the removed condensate (aftercooling) by adjusting the stroke of the bimetallic plates.

**Balanced Pressure Thermostatic Steam Traps traps D series, DN8-25 PN40. D series** steam traps ensure the removal of condensate with a temperature of 5-150C below the saturated steam temperature at a set pressure by changing the state of aggregation of a special liquid inside the capsule. Their advantages are a compact design and a high performance.

**Steam traps with a thermoelement VV series, DN15-20 Pn16** Steam traps of the **W series** ensure the removal of condensate at a constant temperature regardless of the change in pressure due to the reaction of a special thermoelement. The opening temperature of the steam trap valve is initially set.



RE1, RE2, REC1 type RE series

**Ball float steam traps of the G series, DN15-100 PN16-40.** Provide immediate condensate drainage. Built-in air valve for starting modes and preventing air locks.

**Steam traps with an inverted float of the E series, DN15-65 PN16-63.** Immediate condensate drainage. High back pressure is allowed (up to 90%). Resistant to water hammer.

**Thermodynamic disc steam traps of the S series, DN8-50 PN16-100.** Provide immediate condensate drainage. Bimetallic ring for rapid air and cold condensate drainage. Simple, easy-to-maintain design.

**Special steam traps of the A series, DN15-50 PN16-40,** steam traps for condensate drainage from air and gas lines.

# TB SERIES TEMPERATURE CONTROLLED THERMOSTATIC STEAM TRAPS



## PROFITABILITY

### Reduction in steam consumption

- when removing condensate from main steam pipelines 10-20%
- when installed after steam tracers and using parts of condensate enthalpy – up to 50%
- No steam loss – 0%



10-20%

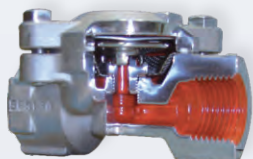
Up to 50%

0%

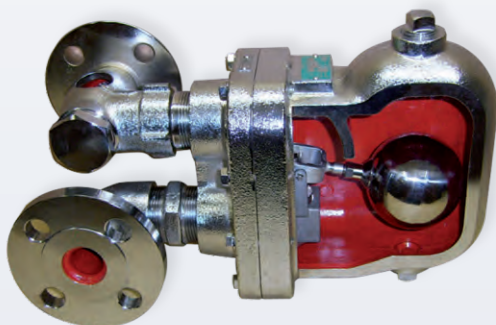
## COSTS REDUCTION

- Due to a significant reduction in steam loss, the erosion and corrosion in pipelines is reduced
- Simplicity and availability of repair- low cost of spare parts
- All the steam traps are equipped with built-in mesh filters.

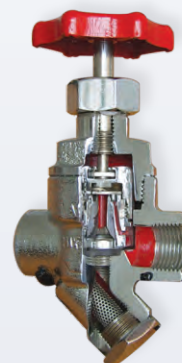
Save energy  
and  
resources!



DC1 type D series



GH2 type G series



SC31 and SU2N type S series



RE3 and RE10N type R series



RE20 and REA20L type RE series



## REDUCING VALVES

**Direct acting steam reducing valves RE series (RE1, RE2 and REC1)**, DN10-25 PN16. Maximum steam capacity: 450 kg/h. Compact, simple and precise adjustment. Body material: brass or stainless steel.

**Reducing valves for steam with pilot control RE series (RE3 and RE10N)**, DN15-50 PN16. Maximum steam capacity: 3200 kg/h. Compact, simple and precise adjustment. Body material: brass or ductile cast iron.

**Steam reducing valves RE20 and RE20L**: PN16-PN40.

Body material: Malleable iron, cast steel and stainless steel.

**Pressure reducing valves for air, gases, liquids REA20 and REA20L** DN15-200. Body material: Ductile iron, cast steel, stainless steel.

## ADDITIONAL EQUIPMENT

Moisture separators, sight glasses, dirt traps, check valves, blow-off valves, anti-freeze valves, air valves and water pistols.

# DR. TRAP JR. STEAM TRAP DIAGNOSTICS SYSTEM

The perfect assistant for steam trap diagnostics!



Diagnostic  
device PM11



Software  
SurveyPro Light PM150

Temperature sensor

## PM11 DIAGNOSTIC DEVICE

- Vibration and temperature measurement for any type of steam traps.
- One multifunctional operating key
- Easy-to-read display- even in bright light
- Equipped with a stopwatch for measuring the operating cycles of the traps
- Evaluation and display of the saturated steam pressure corresponding to the measured temperature
- Up to 40 hours of continuous operation from one set of batteries
- Automatic power off after 5 minutes of inactivity
- Compact, lightweight and convenient

## SurveyPro Light Pm150

- Analysis of the vibration level of the inspected steam traps
- Determining the extent of the steam leakage, calculation of the amount of steam losses and economical losses
- Assessment of the proportion of faulty steam traps by type and manufacturer
- The program includes steam traps of all major steam trap manufacturers in the world. The list of manufacturers and types can be easily expanded.
- Comparison with previous surveys allows to draw conclusions about the quality and service life of different steam traps types.

# SCCV-System: MIYAWAKI technology



Self-Closing and Centering Valve-System is patented worldwide

## SELF-CLOSING AND SELF-CENTERING VALVE

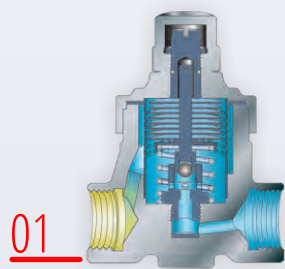
**Self-Closing and Centering Valve-System (SCCV-System)** is a unique technology developed by MIYAWAKI specialists. The SCCV-System - Self-Closing and Centering Valve-System used in most MIYAWAKI products is patented worldwide. Its efficiency and reliability have been proven by decades of flawless operation. Continuous improvement and implementation of the SCCV-System in new developments allows MIYAWAKI to maintain a technological lead over its competitors, and the consumer can be confident in the technical excellence of the product and the correctness of the choice made.

## UNIQUENESS

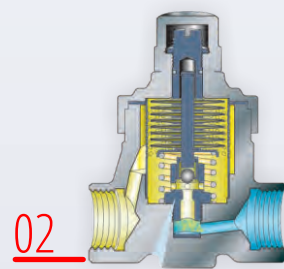
The uniqueness of the SCCV-System is that the valve inside the holder is in "free floating", which guarantees its precise closing in the center of the seat.

- All the steam traps of the TB Series are equipped with SCCV-technology of "Self-closing and self-centering valve"
- SCCV technology is protected by international patents

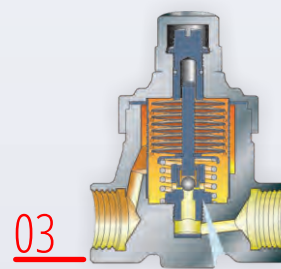
## OPERATING PRINCIPLE:



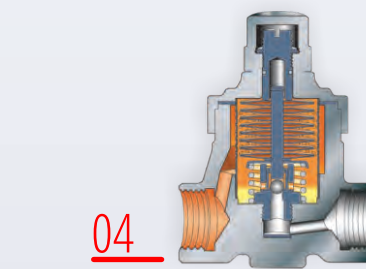
01 On start-up, the bimetal discs are all flat and the valve shaft is up with the valve fully open. Virtually all cold condensate and air are discharged.



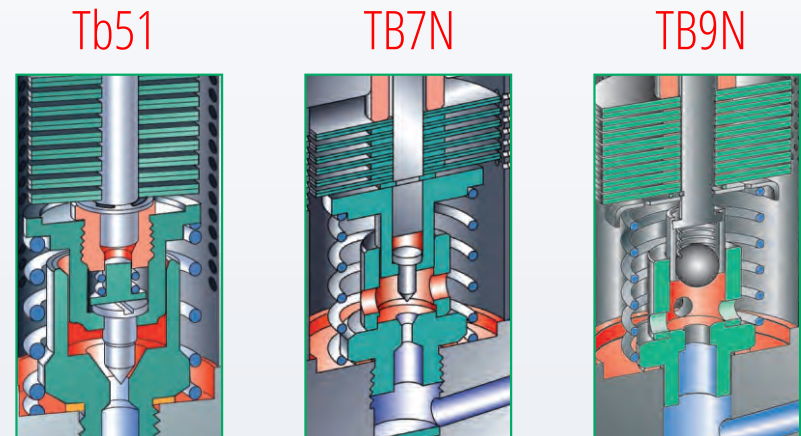
02 As the temperature of the condensate increases, the bimetal discs begin to curve gradually and force the valve shaft and the valve holder to move down. Most of the condensate is still discharged quickly, since the valve and the holes in the fixed guide on the valve seat are still fully open.



03 1. When condensate with higher temperature (near to set temperature) flows in, the bimetal disc is curved even more and at the same time the valve shaft moves down and the valve holder closes the hole in the guide partially. The amount of condensate being discharged is reduced quickly. This prolongs the time that the hot condensate stays near the bimetal disc and the heat of the condensate is transferred to the bimetal discs much more effectively.



04 In case of very low condensate flow, the holes in the guide are closed completely by the valve holder and the valve will close precisely in the center of the seat. Normally, the trap is filled with hot condensate and the operation will rest in the state shown in figure 3. Condensate will be discharged continuously at a stable temperature (very close to the set temperature).



## TB SERIES TEMPERATURE CONTROLLED THERMOSTATIC STEAM TRAPS



TB1N

Dn8, Dn10  
up to 16 bar/350°C



TBC2

DN8, Dn10  
up to 10 bar/220°C



TB7N

DN15- Dn25  
up to 21 bar/350°C



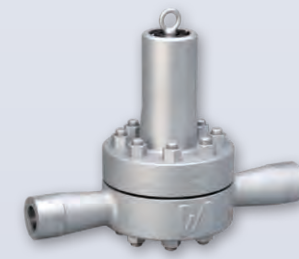
TB9N

DN15- Dn25  
up to 16 bar/350°C



Tb52

DN15- Dn25  
up to 65 bar/475°C



TBH71/72, TBH81/82

DN15- Dn25  
up to 200 bar/ 550°C

## JAD 6-50



**JAD SHELL AND TUBE HEAT EXCHANGERS** are made of stainless steel. They are easy to install and extremely reliable. They are used in many areas thanks to the stainless-steel design and are available in different versions. Their compact size relative to the heat exchange surface and, accordingly, high performance compared to standard solutions have been appreciated by many customers.

In the **JAD X HEAT EXCHANGER**, the tubes are arranged in the shape of the **letter X**, resulting in a heat exchanger with a low pressure loss at high flow rates. They are also more resistant to erosion caused by contamination and have increased resistance to differences in the parameters of the media. It can be completely cleaned using the force of gravity. There are a number of versions adapted to high pressures and temperatures. In the **K-type** heat exchangers, the coil is made of corrugated pipes, which enhance heat transfer by increasing the turbulence of the flow. Due to their characteristics, **JAD heat exchangers** are most often used in standard systems and heating units, and **JAD X** in systems with increased requirements.

### ADVANTAGES::

- Compact dimensions of the heat exchanger with a large heat exchange surface
- Saving space in the room, due to the operation of the heat exchanger in a multi-layered configuration
- Higher heat transfer coefficient in comparison with standard shell-and-tube heat exchangers
- Wide range of operating pressures, flows, temperatures and agents adapted to work with the heat exchanger

## JAD X 9-88



## JAD 26



### DESIGN:

JAD heat exchangers are flow-through, counter-current equipment. The heat exchange surface is a helical coaxial coil made of oppositely twisted layers of pipes with a diameter of 0.8 mm or 1.0 mm.

The coil set ends with two walls with grates placed in the nozzles of the cover. The remaining two nozzles are used to connect the agent system to the cavity of the casing. Heat exchangers have non-demountable welded structure.

As an option, the coil can be made of corrugated pipes (K), in which the flow turbulence is increased, which allows to enhance the heat exchange process.

### MATERIALS:

- stainless steel
- stainless steel flanges (SS) or carbon steel (CS)

### WORKING MEDIA:

- water
- water steam
- glycol

### TYPE OF EXECUTION:

- STA-housing
- 304L /1.4307
- pipes 321/1.4541
- PRO 316L/1.4404

## GASKETED PLATE HEAT EXCHANGERS

the optimal solution in heat exchange



**GASKETED PLATE HEAT EXCHANGERS** by HEXONIC is highly reliable equipment, presenting the optimal solution in the heat exchange process, as well as in the maintenance of technological processes. They are distinguished by the highest heat transfer efficiency among the solutions available on the market. They can be used even in the case of very small temperature differences between the agents. Very high flexibility of the design of the plate heat exchanger is suitable for its perfect adaptation to the required operating conditions. It is provided by a variety of plate sizes, plate materials, seal materials, as well as the various range of different flow channel geometries.

The dismountable design of the heat exchanger allows to increase its heat exchange surface, as well as dismantling for periodic maintenance operations, including mechanical cleaning.

### APPLICATION:

- central heating and hot water supply systems, as well as water heating in swimming pools
- systems of different purpose: cooling, ventilation, air conditioning
- industrial systems and power engineering
- renewable energy sources, heat pumps, geothermal energy
- processing systems

### DESIGN:

Gasketed plate heat exchangers have a dismountable design, which consists of a set of appropriately arranged thermal plates with seals mounted on a frame. The plates hang on a support beam and are held in line by a lower beam, which is located at the bottom of the item. The length of the support beam, lower beam and tie bolts differ from one another in different models. Also, the number of tie bolts and their diameters also depend on the heat exchanger model.

### MATERIALS:

- **Plate material:** AISI304L, AISI316L, titanium (depending on model)
- **Seal material:** NBR, EPDM, Viton
- **Seal type:** glueless clip-on type

### CONNECTIONS:

- flange holes, painted carbon steel, NBR, EPDM gaskets, stainless steel, titanium
- threaded connections, stainless steel, titanium

### Frames in production:

- carbon steel (industrial standard)
- stainless steel (hygienic standard)

# R-LINE PLATE BRAZE HEAT EXCHANGERS

**R-LINE** brazed plate heat exchangers are copper-brazed plate heat exchangers intended for cooling or heating systems as evaporators or cooling medium condensers. Optimal formation of the channels guarantees efficient evaporation or condensation of the agent. This is a proven solution for heat pumps and refrigeration units. The RH version allows processing agents under pressure up to 45 bar. The distribution tubes guarantee rapid evaporation of the agent, preventing its overheating in the remote plates from the pipes, which significantly improves heat exchange process.



#### APPLICATION:

- chillers
- ice water generators
- heat pumps
- special design cooling systems
- in different systems: ventilation, technological, air conditioning, cooling, industrial

#### DESIGN:

R-line brazed plate heat exchangers are flow-through, counter-current devices. The heat exchange surface is created by corrugated stainless steel plates, united into a set using copper soldering. Such type of the internal space organization of the heat exchanger directs the flow of heat exchange agents into the channels created by every second heating plate. On the protective plates there are pipes that supply and discharge working agents. The heat exchangers are made of stainless steel and are presented as a non-demountable design.

#### ADVANTAGES:

- Cooling capacity range 1-500 kW
- Reduced system response time due to small volumes of the evaporator and condenser
- High efficiency with small dimensions of the device
- DMF agent distribution system, limiting pressure drops and ensuring an increase in the cooling performance coefficient COP
- RH type optimized for R410A agent type

#### EVAPORATORS:

The cooling agent in a two-phase state enters the lower branch pipe of the cooling side of the heat exchanger. Passing through the channels, it evaporates completely, reaching the same required degree of superheating. Water or glycol flows counter-currently.

#### CONDENSERS:

Hot vapors of the cooling agent enter the upper branch pipe of the cooling side of the heat exchanger. Passing through the channels, they condense, also reaching a certain degree of supercooling. Water or glycol flows in the counter-current.



# LUNA BRAZED PLATE STAINLESS STEEL HEAT EXCHANGERS

**LUNA HEAT EXCHANGERS** are brazed plate heat exchangers made entirely of the stainless steel. As a result of the use of stainless solder, the heat exchanger has got a materially homogeneous design with a higher level of hygiene, as well as resistance to corrosion, pressure drops and temperature changes.

Thanks to their unique design, LUNA heat exchangers have a wide range of applications, as well as a longer service life. For each size of the heat exchanger, you can choose different connection sizes, or a two-pass version of the heat exchanger, which is characterized by high heat exchange efficiency for more demanding parameters. .

#### APPLICATION:

WHEN HYGIENE STANDARD COMPLIANCE IS REQUIRED

- in cooling units with increased hygienic requirements,
- in hot water supply and drinking water systems

#### WHEN RELIABLE SOLUTIONS ARE NEEDED

- in central heating units,
- in processing the aggressive medias
- in the units with galvanized pipes,
- in the industrial cooling systems,
- in the hydraulic oil coolers

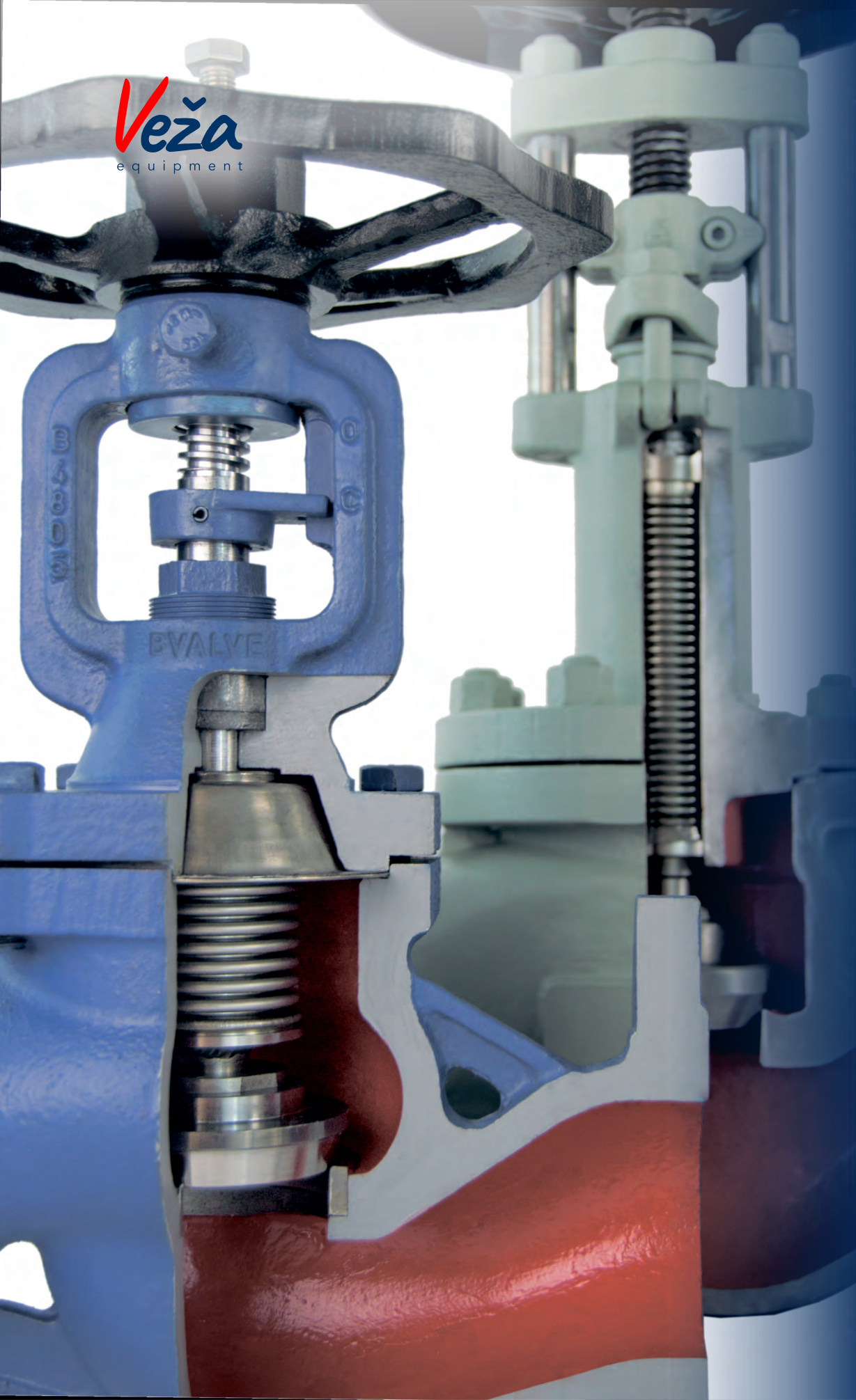
#### DESIGN:

LUNA stainless steel brazed plate heat exchangers are flow-through, counter-current devices. The heat exchange surface is created by corrugated stainless steel plates united in a set using stainless solder. They form a non-demountable design.

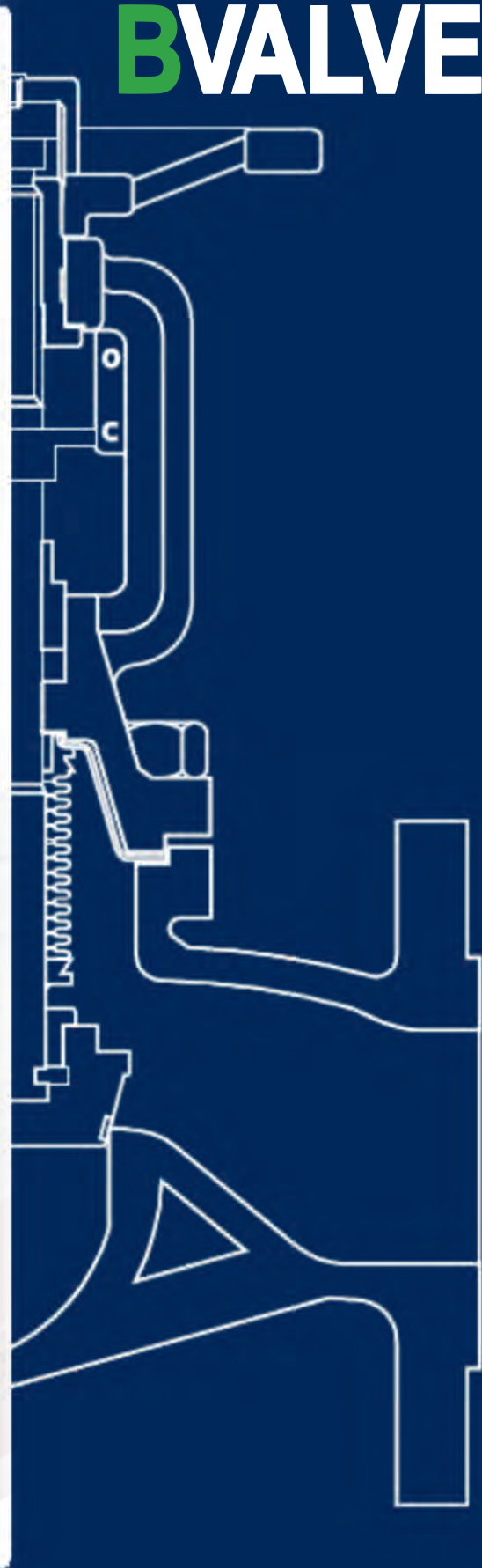
The corresponding formation of the internal space of the heat exchanger directs the flow of heat-exchanging liquids into the channels created by every second heating plate. The front and rear plates contain pipes for supplying and draining working liquids.



**Veža**  
equipment



**B**VALVE





## SHUT-OFF VALVES WITH BELLOWS SEAL

# BVALVE

BV25061	PN16 grey cast iron
BV25064	PN16 malleable cast iron
Bv25063	PN25 malleable cast iron
Bv25065	PN40 carbon steel
BV25066	PN40 stainless steel:
Bv25065	HP PN40 carbon steel (for different types of actuators)
BV25066	HP PN40 stainless steel (for different types of actuators)

**ANGLE-TYPE  
VALVES**

MATERIALS



TEMPERATURE  
from -270°C to +400°C



PRESSURE RATINGS  
from 0.2 bar to 70 bar

CONNECTION



THREADED CONNECTION  
From 1/4" to 2"



FLANGE CONNECTION  
from DN 20 to DN 100



## SAFETY PRESSURE RELIEF VALVES

### MATERIALS



TEMPERATURE  
from -60°C to + 225°C



PRESSURE RATINGS  
from 0.2 bar to 630 bar

### CONNECTION



THREADED CONNECTION  
from 1/4" to 2"





## SAFETY VALVES

### MATERIALS



TEMPERATURE  
from -40°C to +200°C



PRESSURE RATINGS  
from 0.4 bar to 16 bar

### CONNECTION



Clamp connection  
from DN 20 to DN 100

## PRESSURE REDUCING VALVES

### MATERIALS



TEMPERATURE  
from -40°C to +120°C



PRESSURE RATINGS  
Inlet up to 60 bar,  
adjustable output value

### CONNECTION



THREAD  
CONNECTION  
from G $\frac{1}{4}$ " to G2"



FLANGE  
CONNECTION  
From DN 15 to Dn100



- Threaded connections: G1/4-G3
- Flanged connections: DN15-DN250
- Additional versions: NPT thread, welded ends, ANSI and JIS flanges.
- Pressure range: 0-40 bar.
- Temperature range from -40 to +200°C
- Body material: brass, cast iron, cast steel, spheroidal casting, red brass, stainless steel
- Seal: NBR, FKM, EPDM, PTFE
- Available with the mechanical certificate ATEX

**GSR PRODUCES 2/2 and 3/2 VALVES  
WITH PNEUMATIC ACTUATOR FOR LIQUIDS AND GASES**

Valves are available in sizes up to DN20 and work pressure up to 40 bar. Thanks to its design, some medium contamination is acceptable, as well as a medium viscosity of up to 600 cSt, depending on the valve type. GSR valve are well-known in the market for their technical reliability and durability.



63 straight seat type



63 type



63 FL type



22 type



26 type



78 type



79 type



3/151 type

# HIGH TEMPERATURE GSR VALVES



**GSR FOR HIGH TEMPERATURES UP TO +450°C PRODUCES SOLENOID VALVES,  
AS WELL AS VALVES WITH PNEUMATIC ACTUATOR IN 2/2 DESIGN.**

They are equipped with an elastic seal or a metal seal depending on the maximum temperature.

- Threaded connections: G1/4-G2
- Flanged connections: DN15-DN200
- Additional versions: NPT thread, welded ends, ANSI and JIS flanges.
- Pressure range: 0-40 bar.
- Temperature range from -40 to +450°C
- Body material: brass, cast iron, cast steel, spheroidal casting, red brass, stainless steel
- Seal: FKM, EPDM, PTFE, PEEK

GSR ALSO PRODUCES:

- High pressure valves (threaded connections: G1/4-G2; temperature range from -40 °C to +80 °C; pressure range: 0-1200 bar; body material: brass, stainless steel)
- Cryogenic valves (threaded connections: G1/4-G2; flange connections: DN15-DN250; temperature range from -196 °C to +60 °C; pressure range: 0-40 bar; body material: brass, stainless steel),
- Valve blocks at customer's request
- Special designs for the valves.



51TH type



37TH type



35DT type



37DT type



2/164DT type



63DT type



2/640DT type

VALVES  
SENSORS  
FLOWMETERS

**bürkert**  
FLUID CONTROL SYSTEMS

The German company BURKERT produces components and industrial automation systems for monitoring and controlling liquid and gas flows.



- electromagnetic valves
- proportional valves
- pneumatic valves.
- shut-off and control valves
- electrically operated valves
- pneumatic valves
- ball valves
- positioners
- micropumps
- flowmeters
- sensors



# VALVES SENSORS FLOWMETERS

## SENSORS, CONTROLLERS AND TRANSMITTERS

A wide range of products for measuring, including tools for working with liquids, pressure measurements with extended functionality and temperature controllers. Fittings for analytical measurements, level sensors and much more is included in the Burkert lines, offering a full range of equipment for industrial production.

**bürkert**  
FLUID CONTROL SYSTEMS

## HIGH-TECH VALVES

Valve production is one of the Burkert main sphere of activity. Now in the wide company range you can find electromagnetic solutions and microvalves, as well as electric valves and other shut-off equipment. It is well known for its' effectiveness and diversity, high reliability and minimum additional efforts. "Install and forget"- this is the slogan of Burkert, whose valves are trusted all over the world.



## SHUT-OFF AND CONTROL VALVES

The German company END-Armaturen GmbH & Co. KG is known since 1980 as a reliable developer and supplier of industrial valves. The list of manufactured products includes high-quality valves and related accessories, manufactured with high precision on modern high-tech equipment.

### VARIOUS TYPES OF SOLENOID VALVES:

- direct, pilot-acting
- NC, NO
- 2/2, 3/2
- body material: brass, bronze, cast iron, stainless steel
- seals in NBR, FKM, EDM, PTFE
- connection: welded, threaded, flange



# END ARMATUREN



MADE IN GERMANY



# SHUT-OFF AND CONTROL VALVES

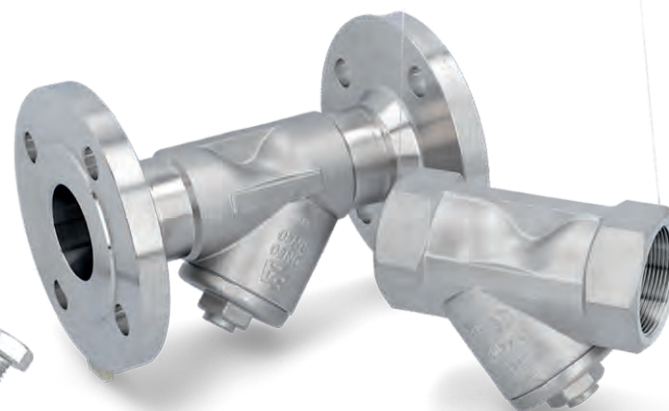


- Single-acting and double-acting pneumatic actuators
- Electric actuators with safety function (NC, NO) and three-position
- Limit switch units
- Knife gate valves
  - \* manually controlled
  - \* with pneumatic control
  - \* with electric control



## SHUT-OFF AND CONTROL VALVES

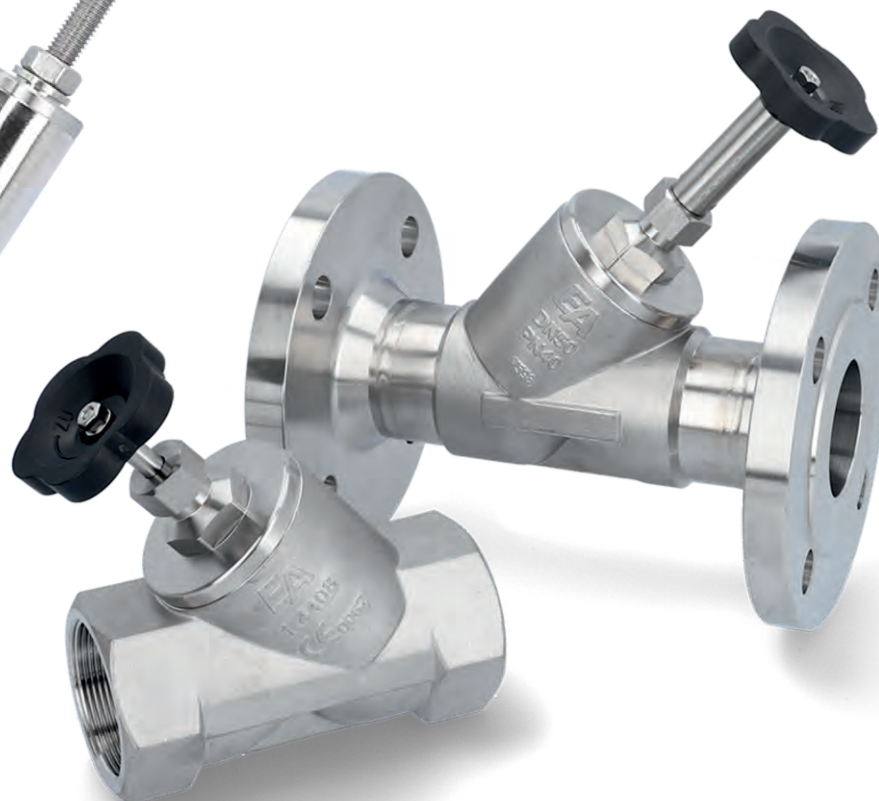
- Valves with pneumatic actuators
- Pressure reducing valves
- Pressure reliefs
- Safety valves



**END ARMATUREN**



MADE IN GERMANY





## SHUT-OFF AND CONTROL VALVES

- Ball valves
  - \* Manually operated
  - \* Pneumatic valve
  - \* Electric valves
- Check valves
- Sight glasses
- Filters



## ABOUT US

### SERVICES



We provide steam trap testing services, which increase the companies' energy efficiency. Faulty steam traps may cause either the loss of flowing steam or the losses caused by condensate blocking. By regular inspections of the steam trap fleet, we help you to reduce energy costs, to increase productivity and product quality, and to ensure equipment' safety and operability. During the steam traps inspecting, we additionally provide recommendations for optimizing the whole steam condensate system.

### TECHNICAL ASSISTANCE



UAB "Veza Equipment" employees are experienced professionals with strong technical background, who regularly improve their education level. Our team will always consult you and help you to choose the best option.

### BEST OFFERS



Our customers can get the most suitable offers on various products from leading European manufacturers.

### WIDE RANGE



We have the largest range of equipment and spare parts, so we can satisfy the request of any customer. We work with more than 47 companies all over the world.

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VALVOLE

**MIYAWAKI**

**TECNICAPOMPE**

**GSR**  
HAFNER

**GOETZE**  
ARMATUREN

**HEXONIC**

**TLV** **OMSG** **BVALVE**

**CSF**

**EA**  
END ARMATUREN

**WATERGATES**

**FLOWTRENDS**  
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**REDA**  
Food Processing Plants

**MB** **MEBRA**  
plastik italia s.p.a.

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