BITA SUPPLY
INDUSTRIAL EQUIPMENT

Steel, Oil, Gas & Petrochemical

https://bita-tamin.com

ABOUT

Reliable, Universal Solutions for Your Process Re-quirements

BITA TAMIN is an international procurement company for industrial manufacturing plants. Our main goal is to support companies to keep their production lines moving. We offer a personalized service in order to make our customers accomplish their goals in cost reduction and making them consider us a partner as their main point of support

MORE CHOICE

BITA TAMIN offers multiple Brands to suit what you need at all times. Whether you are looking for a more product choice, we are here to help

FOR SIMPLICITY

BITA TAMIN supports you as a unique partner with the supply of all kinds of process and control automation equipments of the main Bands used in the industrial manufacturing plants in all sectors

MORE SUPPORT

BITA TAMIN Industrial complements a quality service with the commitment to give a quick and effective response whithin 24 hours. We know how important it is to our customers that they can count on us at anytime

Nader Nazari
Chief Executive Officer

Bita Industrial Equipment Supply

No 14, Unit 32, West Taban St.,
Nelson Mandella Blvd., Tehran, Iran
Postal Code: 19689 35338
Web: https://bita-tamin.com

M: +98 912 344 3056
T: +98 21 8878 7875
F: +98 21 88779 7150
Email: nazari@bita-tamin.com

We supply global brands

OUR MISSION AND CORPORATE VALUES

Our mission as a company is to offer the best distribution service of industrial process equipments for the worldwide automation industry, being an international well known provider for industrial manufacturing plants in the world

BITA TAMIN having the same bussiness concept, which guide our professional actions based on:

We are sure that beeing good at what we do is not enough, there is always something elde to do. it is confidence we inspire to our costomers and the relationship we build with them that makes the difference.
We are convinced that our honest in the service we offer, the quality of the products and its guarantee is what makes our costomers rely on us

Our idea of "**Team Work**" goes beyond the internal union of all people who are part of BITA TAMIN.
We want our costomers to also be a member of our team working together to understand which is the best way to adapt our service to their company.

For BITA TAMNIN, "**Proactivty**" is synonymous with being ready and getting ahead of problems, therefore we are constantly looking for improvements in our process in order to be able to offer the highest possible .quality in our service

We love what we do. We belive that the key to professional succes is not just about hard work, but doing it with drive and enthusiasm, keeping always in mind that the best is yet come.

"We are the people who provide innovative solutions to industrial sector businesses, enabling them to achieve greater efficiencies and ultimately increase their profitability.
Our broad skill-base means that the projects we work on span a wide range of industries and applications.We focus on the bellow specific industries. This allows us to better support our customers and provide tailor-made products, solutions and services."

OIL & GAS

PETROCHEMICAL

WATER & WASTE WATER

CEMENT

IRON & STEEL

FOOD & BEVERAGE

ENVIRONEANTAL

CONSTRUCTION

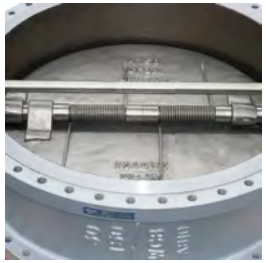
PULP & PAPER

VALVES

Valves are considered to be the heart of most Industrial Processes. We as **ENDUSTRIPARK** team, are aware about this fact. So, are you looking for regulating, directing or controlling the flow inside your production or refinery's lines. We are the right source which is able to provide you with the correct valve device either manual or automatically operated, in the right time with the competitive prices and flexible conditions.
As far as the Valves' field is large and hold wide ranges and devices, **ENDUSTRIPARK** Group has the enough technical back-ground, sufficient expertise and innovative procurement's strategies.., to supply you with a panoply of types with different sizes and international brands:

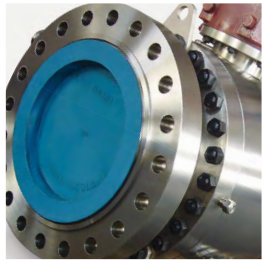
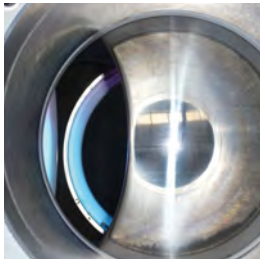











VALVES

CATAGORIES






PROCESS VALVES QUARTER TURN

- Ball Valves floating and trunnion mounted
- Ball Valves double block & bleed
- Butterfly Valves resilient seated and metal seated
- Plug Valves lubricated, sleeved and lined


PROCESS VALVES GATE, GLOBE & CHECK

- Cast and forged Gate, Globe & Check Valves
- Dual and single flap wafer Check Valves

GENERAL INDUSTRIAL AND STEAM VALVES

- Parallel slide Gate Valves
- Geothermal slab and wedge Gate Valves
- Screw down non return and right angle Globe Valves
- Piston Check & Piston type Globe Valves
- Cast iron Butterfly, Gate, Globe, Check and Ball Valves
- Multi-way Ball Valves, Deadman Ball Valves


MINING, ABRASIVE AND SOLIDS VALVES

- Diaphragm Valves
- Slurry Valves
- Knife Gate Valves
- Metal seated Ball and Plug Valves


INSTRUMENT VALVES

- Needle Valves
- Block & Bleed Valves

SPECIAL SERVICE VALVES

- High temperature metal seated Ball Valves
- Lined, sleeved and overlaid Valves
- Cryogenic/LNG Valves
- Control and Relief Valves

VALVE ACTUATION

- Pneumatic Actuators compact rack & pinion
- Pneumatic Actuators heavy duty scotch yoke
- Gearboxes 1/4 turn and multi-turn

PIPELINE PRODUCTS

- Strainers
- Sight Glasses

OILFIELD PRODUCTS

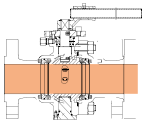
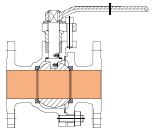
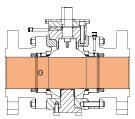
- Expanding Gate Valves
- Mud Gate Valves
- Wellheads
- Chokes

VALVES

TYPES

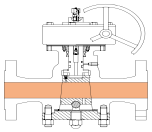
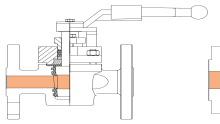
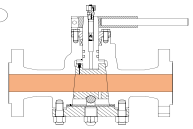
BALL VALVES

- Floating
- Trunnion mounted
- Metal seated
- Multi-way
- Double block and bleed

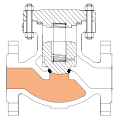
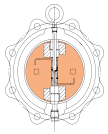
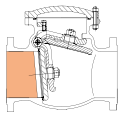

PLUG VALVES

- Sleeved and lined
- Lubricated
- Full circular port

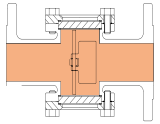
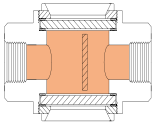
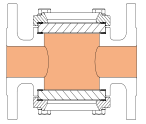
CHECK VALVES

- Swing
- Piston
- Wafer
- Y type
- Tilt

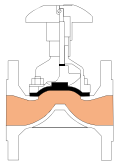
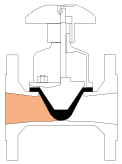
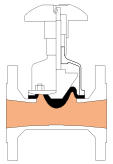

SIGHT GLASSES

- Double sided
- Single sided

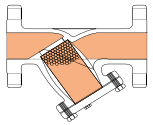
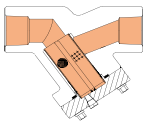
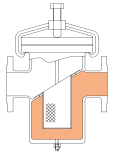
DIAPHRAGM VALVES

- Straight through (KB)
- Weir (A)

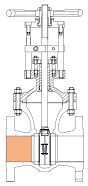
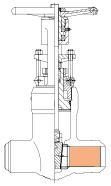
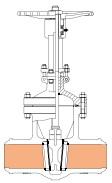

STRAINERS

- Y type
- T type
- Basket type
- Duplex type

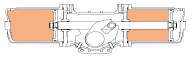
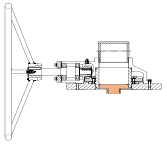
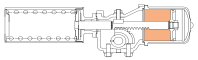
GATE VALVES

- Wedge
- Parallel slide
- Pipeline slab
- Cryogenic
- Knife

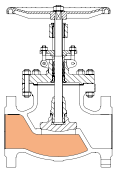
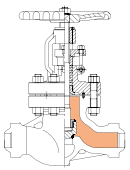
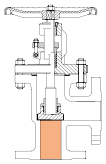
VALVE OPERATORS

- Actuators
- Gear Boxes

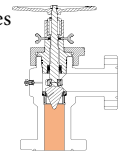
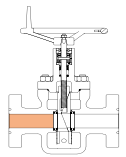
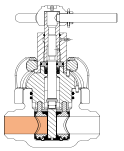
GLOBE VALVES

- Screwdown non return
- Bellows seal
- Right angle Cryogenic
- Y type
-

OILFIELD PRODUCTS

- Expanding & slab gate valves
- Mud gate valves
- Chokes
- Wellheads
- Oilfield plug valves

CONTENTS

03 VALVE'S

MAIN TYPES

38 PAGES

VALVES

GATE VALVES

Gate valve functions by the reciprocating action of disc in its body. It can have a single disc or double disc. It is used for shut off operation. In double disc valve shut off is good. Gate valve can have rising or non-rising stem. Gate valves are available in various sizes ranging from12 mm to 300 mm and even more. Gate valve is light in weight, economic and offers low pressure drop. Conduit type gate valve is common in chemical process industries because it gives accurate flow control. Gate valve can be used upto 20 kg/cm2 and upto 675°C. Material of construction for gate valve is cast iron, carbon steel, stainless steel, ductile iron, bronze, nickel alloys etc. Rotating disc type gate valve with quick action lever actuator.

MNF	ORIJIN
ATHENA	ITALY
BÜHLER	GERMANY
CAMERON	USA
COPERION	GERMANY
EBRO ARMATUREN	GERMANY
ERHARD	GERMANY
FLOWSERVE	GERMANY
GEA	GERMANY
KLINGER	GERMANY
KSB	GERMANY
KUBOTA	JAPAN
NELES	FINLAND
NORGREN	UK
RTK	GERMANY
SCHUBERT&SALZER	USA
SMC	JAPAN
TYCO	UK
WEIR	ITALY

Wedge Gate Valves

Knife Gate Valves

Parallel Slide Gate Valves

Pipeline Slab Gate Valves

VALVES

GLOBE VALVES

ANGLE VALVES

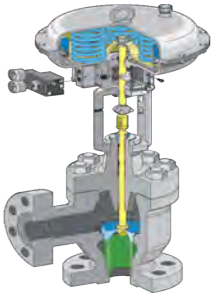
Y-TYPE VALVES FLUSH

BOTTOM VALVES

MNF	ORIJIN
AVK	DENMARK
BLUZAC SRL	ITALY
DRESSER	UK
EMERSON	UK
KLINGER	GERMANY
KTM	JAPAN
MENSONILAN	ITALY
METSO	GERMANY
RED POINT	NETHERLAND
SAMSON	GERMANY
SPIRAX SARCO	UK
TYCO	JAPAN I
VALVOSIDER	TALY
WEIR VALVE	UK
W. FLOWTEC	SOUTH KOREA

Globe valve operates by reciprocating action of disc or plug. The disc or plug moves to or away from the seat thereby stopping the fluid flow or allowing the fluid to flow. The disc or plug seats over the valve seat. The valve seat can be removable. Pressure drop in the globe valve is high. The valve can be manually operated or power actuated or automatic actuated. Globe valves are available from 12 mm to 300 mm size and their temperature and pressure limits are 550 C and 150 kg/cm2 respectively. Material of construction for globe valve is carbon steel, stainless steel, ductile iron, brass, and other corrosion resistant alloys.

Tee Pattern Globe valves



Angle Pattern Globe valves

Wye Pattern Globe valves

VALVES

BALL VALVES

MNF	ORIJIN
ACT	FRANCE
AMPO S.COOP	SPAIN
A.S.T	ITALY
AVK	DENMARK
BAC VALVE SA	SPAIN
CCI IMI	UK
DAEJU CONTROL	SOUTH KOREA
DE - YONG KOHEN	FRANCE
DRESSER	FRANCE
EMERSON	GERMANY
EUROMATIC	W.EUROPE
FISHER	GERMANY
FLOW CONTROL FCT	FRANCE
FLOWSERVE	GERMANY
FRIEDRICH	AUSTRIA
HOPKINSON	ITALY
ITT GRINELL	UK GERMANY
KROMBACH GOSCO	JAPAN SOUTH
KITZ	KOREA SOUTH
KOMOTO	KOREA
KOPECS CO. LTD	GERMANY
MOTOYAMA	JAPAN
KSB	GERMANY
KTM	ITALY
MASONEILAN	FINLAND
METSO	FINLAND
NELES	SPAIN JAPAN
NIHON KOSO	JAPAN
NIPPON	GERMANY
NIHONDIA REINEKE	
OMAL S.P.A	ITALY
PEKOS VALVES	SPAIN
RMT Valvomeccanica	ITALY
SALARI	FRANCE
SAMSON	GERMANY
SCHUF ARMATUREN	GERMANY
S&S VALVE SEVERN	SOUTH KOREA
GLOCON	UK
SPIRAX SARCO	UK
TYCO UNIFLO	UK
VALPRES S.R.L	SOUTH KOREA
VALTEK	SPAIN FRANCE
WEIR	UK

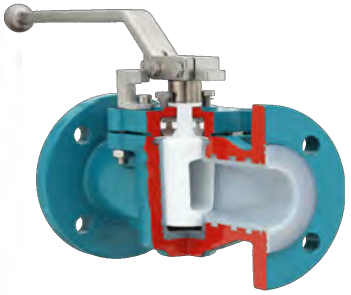
Ball valve has a spherical plug. The spherical plug is a controlling element. They are widely used in chemical process industries. It is used where throttling and shut off combination is required. It offers good flow characteristics. Ball valve consists of a two way globe and the ball rotates between resilient seats. It is compact and requires low maintenance and no lubrication. It is available in venture pattern, reduced and full port patterns. By giving a quarter turn to the ball, the valve can be closed or opened. The valve does not give good throttling. It can be available in size from 6mm to as large as 900mm. It can be used for pressures upto 500 kg/cm and temperature upto 300°C.

Floating Ball Valves

Trunnion Mounted Ball Valves

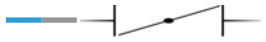
Top Entry Ball Valves

Lined Ball Valves



Rising Stem Ball Valves

VALVES



BUTTERFLY VALVES

MNF	ORIJIN
ARCA REGLER	GERMANY
AVK	DENMARK
EMERSON	UK
ERBO	GERMANY
FISHER	WEST EUROPE
F. KROMBACH CRANE	GERMANY
GOLD	GERMANY
HOPKINSON	UK
KITZ	JAPAN
KOMOTO	JAPAN
MASONEILAN	FRANCE
METSO	FINLAND
MOTOYAMA	JAPAN
NELES	FINLAND
PARCOL KOSO	ITALY
SAMSON	GERMANY
TYCO	JAPAN
VIRGO VALVES	GERMANY
WEIR	UK
XOMOX	GERMANY
YAMATAKE	JAPAN

In butterfly valve the controlling element is a disc called as blade, vane or flapper, which rotates in horizontal or vertical direction and allows the fluid to flow. Butterfly valve is suitable for throttling or on-off operation at low pressure drop.It is economic, easy to install and does not allow the solids to build up. Butterfly valve can be either screw type or of wafer type. Its operation can be manual, power, or automatic Water type butterfly valve is shown. Butterfly value can be used for vacuum operations or pressures upto 80 kg/cm2. It is available in size ranging from 50mm to as large as 900 mm. The blade or flapper of a Butterfly valve can be made from rubber, neoprene, chloro sulphonated polyethylene etc.

Lined Butterfly Valves

High Performance Butterfly Valves

Triple Offset Butterfly Valve

VALVES

CHECK VALVES

MNF	ORIJIN
A.S.T	ITALY
AVK	DENMARK
CCI AG	SWITZERLAND
DRESSER	UK
EMERSON	UK
EUROMATIC	ITALY
FISHER	WEST EUROPE
FLOWSERVE	JAPAN
FRIEDRICH	AUSTRIA
KROMBACH GOSCO	GERMANY
VALVE INC.	CANADA
HOPKINSON	UK
KITZ	JAPAN
KOMOTO	SOUTH KOREA
KTM EMERSON	JAPAN
MASONEILAN	FRANCE
METSO	FINLAND
NELES	FINLAND
NIHONDIA REINEKE	JAPAN
S&S VALVE CO.	GERMANY
SAMSON	KOREA
SEVERN	GERMANY
GLOCON	UK
SPIRAX SARCO	UK
VALTEK	FRANCE
WEIR VALVE	UK

Check valve is used to prevent flow reversal. Fluid pressure keeps the valve open. It is closed either by back pressure of fluid or by weight of the check system.

A. Swing check valve: is used for low fluid velocities and where flow reversal is not frequent. Swing check valve can be used on the discharge side of pressure relief valve.

B. In lift check valve: a disc, piston or a ball is used as a checking device. It can be installed in horizontal or vertical position. The fluid pressure raises or closes the disc or ball. Lift check valves are suitable where pressure drops are high. It is suitable for small pipelines.

C Piston check valve: is stem operated. It can be operated manually or by a motor. Check valves are available in sizes ranging from 6mm to 600 mm. They can be used for pressures upto 170 kg/cm2 and temperatures upto 675° C. Material of construction for check valve can be cast iron, steel, ductile iron, and corrosion resistant alloys.

VALVES

PLUG VALVES

MNF	ORIJIN
AZ ARMATUREN	GERMANY
AVK	JDENMARK
AZBIL	JAPAN
CAMERON	UK
DEZURIK	POLAND
DRESSER	UK
CAMERON	UK
EMERSON	UK
FLOWSERVE	ITALY
GALLI & CASSINA	SOUTH KOREA
KOPECS	FINLAND
METSO	SWITZERLAND
OVERSEAS ENG.	ITALY
PARCOL KOSO	GERMANY
SAMSON	GERMANY
SCHUF ARMATUREN	SOUTH KOREA
S&S VALVE	SPAIN
VECTOR & WELLHEADS	UK
WEIR	

Plug valve is used for on-off service. It is the oldest type of valve. The main parts of a valve are body, plug and cover. Plug can be cylindrical or tapered. The plug has a slit cut in it to allow the fluid to flow. It provides a straight line and can be opened or closed just by giving a quarter turn.Plug valve can be made to have one or more openings to change the direction of flow. It can be lubricated or non-lubricated type.

Lubricating Plug Valve

Non Lubricating Plug Valve

Multi Port Plug Valve

Eccentric Plug Valve

Expanding Plug Valve

VALVES

SLIDE VALVES

D Slide Valve

Balanced Slide Valve

Slide valve is used for controlling low pressure flow of gases, liquids, suspensions and fluidized solids. It has two parallel body seats between which the disc slides. The disc acts as a gate, Pressure chop offered by slide valve is very low. It is available in size ranging from 50 mm to as large as 1500 mm. It can be used for pressures Uplo 25 kg/cm2 and temperature upto 650°C.

MNF	ORIJIN
ATHENA	ITALY
BÜHLER	GERMANY
CAMERON	USA
COPERION	GERMANY
EBRO ARMATUREN	GERMANY
ERHARD	GERMANY
FLOWSERVE	GERMANY
GEA	GERMANY
KLINGER	GERMANY
KSB	GERMANY
KUBOTA	JAPAN
NELES	FINLAND
NORGREN	UK
RTK	GERMANY
SCHUBERT&SALZER	USA
SMC	JAPAN
TYCO	UK
WEIR	ITALY

VALVES

DIAPHRAGM VALVES

MNF	ORIJIN
ASAHI	JAPAN
EMERSON KITAMURA	JAPAN
KOSO NIHON	JAPAN
KOSO PARCOL	JAPAN
KSB	GERMANY
NIPPON DAIYA	JAPAN
SAUNDRES	USA
VECTOR&WELLHEADS	SPAIN

Main parts of a diaphragm valve are, body, bonnet and a flexible diaphragm. Diaphragm is lifted up when the valve is opened and the diaphragm is tightly pressed against the bottom of valve, when it is closed. Diaphragm valves are classified as: 1. weir type and 2. Straight through type.

In weir type diaphragm valve relatively low thrust and shut off stroke is required. This gives longer life for diaphragm. Weir type diaphragm valve is commonly used.

Straight through type diaphragm valve is suitable for handling slurries, viscous liquids, fibrous suspensions. In some diaphragm valves, the diaphragm is not fully lifted up of the weir, so accurate control of small flow becomes possible. Diaphragm is made either from rubber, neoprine or buna. It is avalable in size 3 mm to as large as 600 mm. It can be used upto 20 kg/cm2 pressure and 2200 C temperature. Material of construction for diaphragm valve can be cast iron, stainless steel, and corrosion resistant alloys.

A Type flanged

A Type screwed

AFP valve

WFB

KB Type screwed

KB Straight through valve

VALVES

ROTARY VALVES

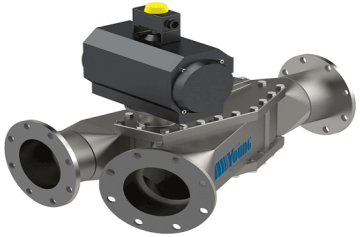
DIVERTER VALVES

MNF	ORIJIN
ASKALON	SWEDEN
GERICKE	SWITZERLAND
NEDERMAN	SWEDEN
ROTOLOK	UK
TBMA	NETHERLAND
WAREX	GERMANY
ACS	CANADA
COPERION	GERMANY
GEA	GERMANY
MAAG	GERMANY
SCUTTI	ITALY
VORTEX	USA

Rotary valves(also known as rotary airlocks, rotary feeders, etc.) are pneumatic valves that handle and meter the flow of granular bulk or powders. Material is fed into the valve via a hopper or other inlets, handled through the valve rotor, and then deposited onto a conveyor system in discrete packets, all with minimal pressure loss. They are most often used in air conveyor systems to minimize the loss of pressure across the valve, but rotary valves are also used to meter materials at a controlled feed rate.

Diverter valves are used to divert product flow from one inlet to multiple outlets. They are used on simple gravity (no pressure) applications and high pressure applications. To prevent clogging, leakage and premature wear, it is always critical to divert when no product is flowing through the valve. Changeover valves are ideal for handling dry bulk material in gravity flow, dilute phase or dense phase pneumatic conveying applications.

Pneumatic Conveying Diverter



Plug Diverter Valve

Gravity Plug Diverter Valve

Scale Diverter Valve

VALVES

MOTOR OPERATED VALVES (MOV)

MNF	ORIJIN
AMPO S.COOP.	SPAIN
ARI-ARMATUREN	GERMANY
BRAY CONTROLS	UK
L.BERNARD	FRANCE
LIMITORQUE	UK
MALBRANQUE	FRANCE
METSO	FINLAND
NIHON KOSO	JAPAN
OVERSEAS ENG.	SWITZERLAND
PEKOS VALVES	SPAIN
RMT V.MECCANICA	ITALY
ROTORK	UK
SCHUF ARMATUREN	GERMANY
SHIMADZU SEIASKUSHO	JAPAN
S&S VALVE	SOUTH KOREA

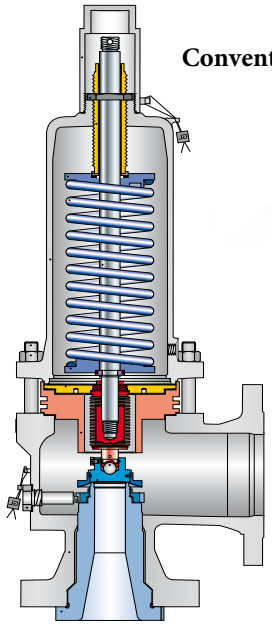
Motor Operated Valves are often called as On-Off valves as the motors serve the purpose of fully opening or fully closing valves in pipelines. For example, cooling water lines, process pipelines where regulation of fluid is not required, motor operated valves can be used to fully allow or fully stop the fluid flow. These valves are not used for throttling or precise control / regulation purposes as they serve mainly On-Off service application.

- **Differences between Control Valves and MOV:**
- Control valves have a faster response as compared to MOV
- Control valves used to have an analog control element, while the motorized operated valves have a digital control element. This has evolved over the recent years
- Control valves can be used for any type of control: pressure control, flow control, temperature control etc while motorized valves are used for flow control only
- Control valves usually are used in closed loop control, while MOV are predominantly open loop (with the exception of precision flow control valves)
- Control valves are used for precision control. MOV are not intended used for precision control

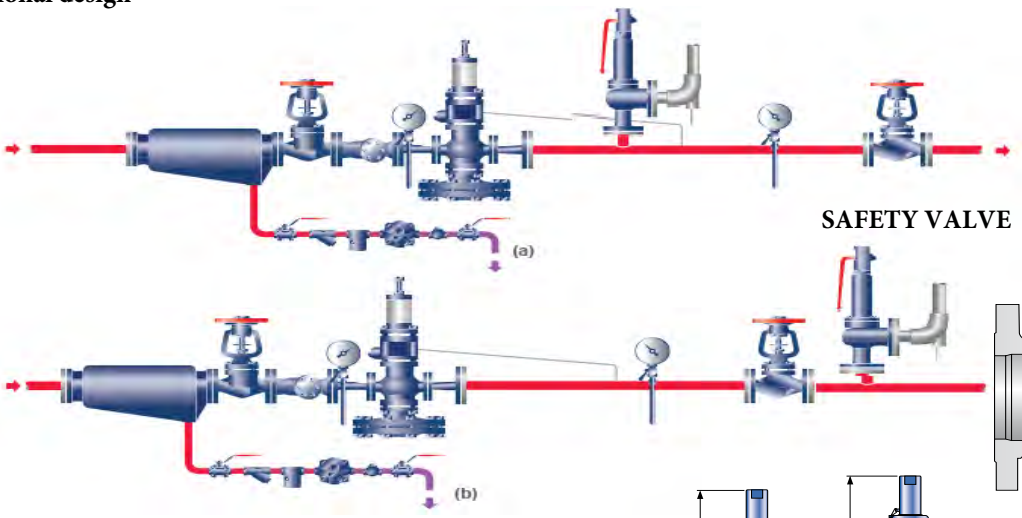
VALVES

SAFETY VALVES

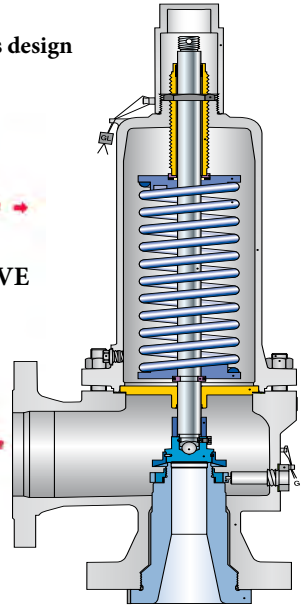
MNF	ORIJIN
ARI-ARMATUREN	GERMANY
AST	ITALY
BOPP & REUTHER	GERMANY
CROSBY	UK
DRESSER	GERMANY
FARRIS	UK
FUKUI	JAPAN
LESER	GERMANY
NACIONAL	SPAIN
SAPAG	FRANCE
SEREG	FRANCE
S&S VALVE	SOUTH KOREA
TAI MILANO	ITALY
TECHNICAL SRL	ITALY



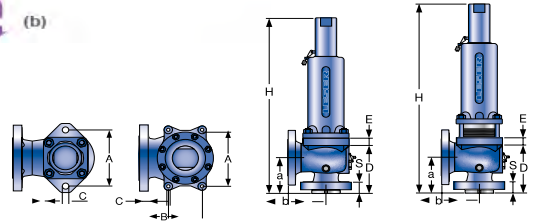
Conventional design



Balanced bellows design



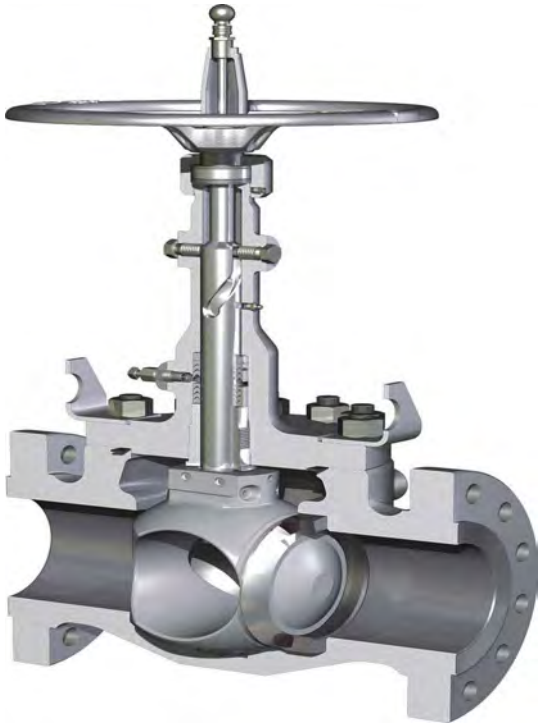
SAFETY VALVE



VALVES

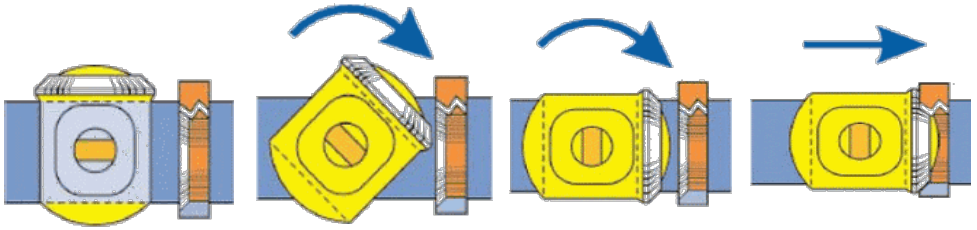
ORBIT VALVES

MNF	ORIJIN
ARFLU	SPAIN
BSM VALVES	NETHERLAND
CAMERON	USA
CONTROL SEAL	NETHERLAND
FLOWSERVE	GERMANY
MAVERIC VALVES	NETHERLAND
ORION VALVES	ITALY
RAYS FLOW CONT.	USA



Every ORBIT valve incorporates a proven tilt and turn operation that eliminates seal rubbing, which is the primary cause of valve failure. When an ORBIT valve is closed, the core is mechanically wedged tightly against the seat, assuring positive shut-off. When an ORBIT valve begins to open, the core tilts away from the seat and line flow passes uniformly around the core face. This eliminates the localized high velocity flow that typically creates uneven seat wear in ordinary ball, gate and plug valves. The core then rotates to the full open position.

The absence of seal rubbing during both opening and closing means easy, low torque valve operation and long term reliable performance. When valve leakage cannot be tolerated, the ORBIT operating principle can be relied upon to deliver a positive shut-off.



To close an ORBIT valve, as the handwheel is turned, the stem begins to lower.

Precision spiral grooves in the stem act against fixed guide pins, causing the stem and core to rotate.

Continued turning of the handwheel rotates the core and stem a full 90° without the core touching the seat.

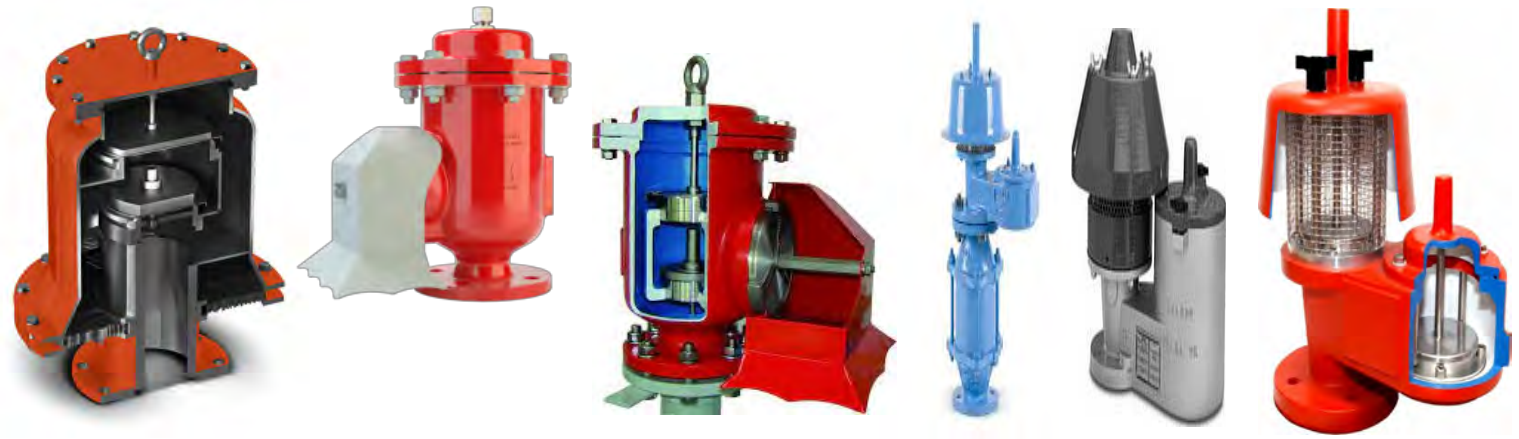
Final turns of the handwheel mechanically wedge the stem down, pressing the core firmly against the seat.

VALVES

BREATHER VALVES

MNF	ORIJIN
CHYODA	JAPAN
GROTH	USA
KOPECS CO. LTD	KOREA
MARVAI	W.EUROPE
PROTEGO	GERMANY
STORAGETECH	GERMANY
UNIT INTERNATIONAL	UK
WEHSSOE VAREC	UK

Breather Valves, also known as direct acting Pressure/Vacuum Relief Valves, are special types of Relief Valves which are specifically designed for tank protection. The range includes pressure only, vacuum only and combined Pressure/Vacuum Valves, all available with flanged outlets or vented to atmosphere.



VALVES

INSTRUMENT VALVES
NEEDLE VALVES
MANIFOLDS

- Bellows Stem Seal
- Bleed Valves
- Block and Bleed Valves
- Gauge/Block Valves
- High Temperature Orifice Block Valves
- Monoball Valves
- Monoflange Valves
- Monoweld Valves

- 2 Valve Manifolds
- 3 Valve Manifolds
- 5 Valve Manifolds
- Rigid Mount Manifolds
- Specialty Manifolds

VALVES

RAPTURE DISCS
ORIFIX PLATES
SPARE PARTS

MNF	ORIJIN
BS & B	UK
ELFAB HUGHES	UK
FDC LIMITED	SOUTH KOREA
FIKE	NETHERLANDS
LAMOT	W.EUROPE
REMBE	GERMANY
STRIKO VERFAHRENST	GERMANY

VALVES

SOLENOID VALVES

Solenoid valve is a control valve. Solenoid is applied to sliding stem, on-off globe valves.It is used for emergency shut off service requirements. It is available in size ranging from 1 mm to 100 mm. It can be used for absolute vacuum to very high pressures in the range of 650 kg/cm2 and temperatures as low as-250°Cto 800°C. Material of construction for solenoid valve can be cast, iron, stainless steel, aluminum, plastic brass etc. Solenoid valves find wide applications in cryogenic operations.

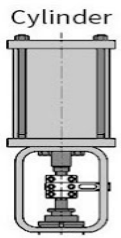
MNF	ORIJIN
ACL	ITALY
ASCO	GERMANY
BURKERT	GERMANY
DANFOSS	GERMANY
FESTO	GERMANY
HERION	GERMANY
HYDAC	GERMANY
METSO	FINLAND
NORGREN	UK
PARKER	UK / JAPAN
REX - ROTH	GERMANY
SWAGELOK	UK

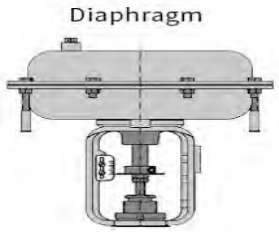
VALVES

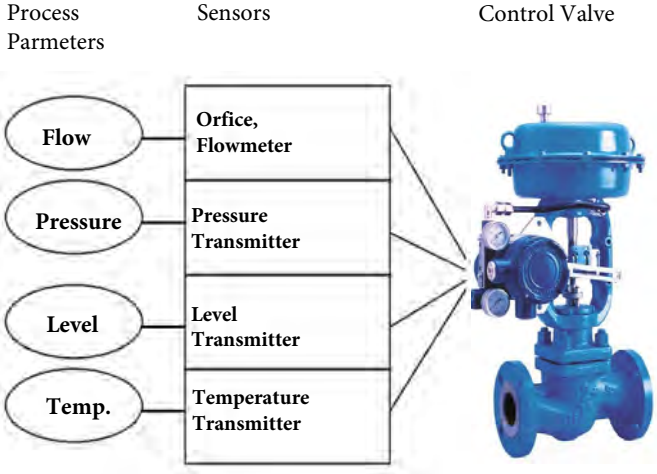
ACTUATORS

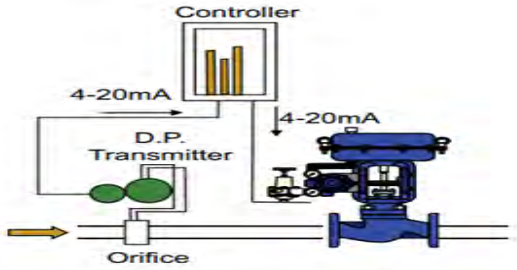
MNF	ORIJIN
ARI-ARMATUREN	GERMANY
AUMA	GERMANY
AZBIL	JAPAN
BRAY CONTROLS	USA
DRESSER	UK
ENERTORK LTD	KOREA
EMERSON	UK
FLOWSERVE	UK
FOXBORO	GERMANY
HKC CO. LTD	KOREA
L.BERNARD	FRANCE
METSO	FINLAND
NIHON KOSO CO.	JAPAN
OMAL S.P.A	ITALY
PALADON SYSTEMS	UK
PRO CONTROL S.R.L	ITALY
ROTORK	UK
TYCO	JAPAN
WALDEMAR	GERMANY

- **Manual:** A manual actuator employs levers, gears, or wheels to move the valve stem. Manual actuators are powered by hand.
- **Pneumatic:** Air (or other gas) pressure is the power source for pneumatic valve actuators. Air pressure acts on a piston or bellows diaphragm creating linear force on a valve stem.
- **Hydraulic:** Hydraulic actuators convert fluid pressure into motion. Fluid pressure acting on a piston provides linear thrust for gate or globe valves.
- **Electric:** The electric actuator uses an electric motor to provide torque to operate a valve.









MANUAL OPERATED | PNEUMATIC ACTUATOR (diaphragm type) | PNEUMATIC ACTUATOR (Rotary Piston Type) | ELECTRIC ACTUATOR | YDRAULIC ACTUATOR

VALVES

POSITIONERS

Limit Switches

Valve Communications

MNF	ORIJIN
ARCA REGLER	GERMANY
AZBIL	JAPAN
BURKERT	GERMANY
CCI	SWITZERLAND
EMERSON	W.EUROPE
HONEYWELL	GERMANY
METSO	FINLAND
NIHON KOSO CO.	JAPAN
SAMSON	GERMANY
SMAR	BRAZIL
SPRIANO GROUP)	ITALY
YOKOGAWA	JAPAN
ASCO	GERMANY
AUTONIC	KOREA
EMKOMETER	CZECH
FESTO	GERMANY
HONEYWELL	BELGIUM
IFM ELECTRONICS	GERMANY
OMRON	JAPAN
PEPPERL & FUCHS	GERMANY

Positioners & Limit Switches Modular positioning systems for actuators and cylinders utilizing pneumatic or electric input signals. Rotary and Linear position indication devices with a variety of mounting options and internal switch configurations. Available with visual position indicators.




Valve Communications

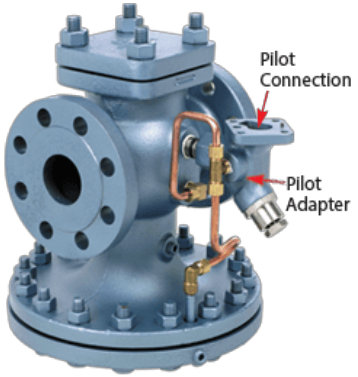
Tri-State provides a a full range of monitoring, communication and control products ideally suited for quarter-turn and linear valve applications. Products include integrating position sensing, switching, diagnostics, and/or communication and control. Protocols include AS-i, Fieldbus, DeviceNet, and Profibus DP.

VALVES

Transducers
Regulators

MNF	ORIJIN
ABB	GERMANY
EMERSON	UK
FOXBORO	USA
HONEYWELL	GERMANY
KROHNE	GERMANY
SMAR	BRAZIL
SPRIANO TECHN.	ITALY
AZBIL	JAPAN
DRESSER	UK
DRUVA	GERMANY
EMERSON	UK
NIHON KOSO	JAPAN
PARKER	UK
PETROVALVE	ITALY
SAMSON	GERMANY
SHOKETSU	JAPAN
TYCO	JAPAN

Volume Boosters featuring high capacity, fast response & stability, wide ranges of signal to output ratios, pipe sizes & flow capacities.
Transducers with extensive combinations of inputs & outputs, such as: analog current or voltage, 8-Bit parallel digital, standard output 3-15 psig.
Pneumatic Relays for positive biasing, positive/negative biasing, reversing, averaging, and computing.
Full line of pneumatic Filters and Lubricators to keep your air supply running clean.



HD Main Valve

Most Common HD Pilots

PP & PP5
PRESSURE
Spring-Loaded

PT
TEMPERATURE
Liquid-Filled

PA
PRESSURE
Air-Loaded

PS
On/Off
(Solenoid)

Regulators are simple, cost-effective valves used for:

- Reducing Pressure (PRV)
- Controlling Temperature
- Controlling Back Pressure

Unlike control valves, regulators are self-powered, which means they do not require any outside source of power such as air pressure or electric actuators to operate.

VALVES

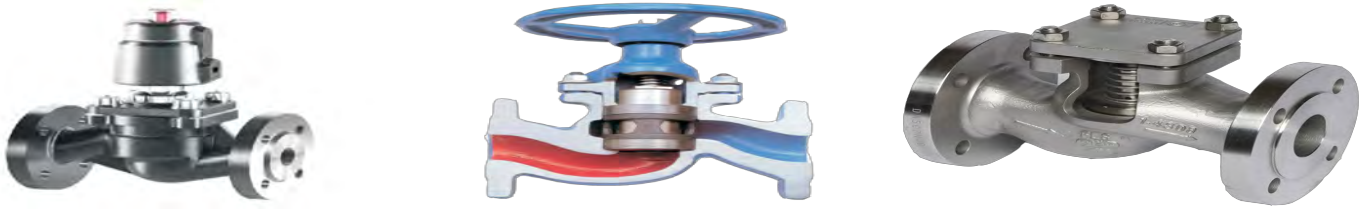
FLOW RAGULATING VALVES

PISTON VALVES

MNF	ORIJIN
AMPO S.COOP.	SPAIN
ARI-ARMATUREN	GERMANY
BRAY CONTROLS	UK
L.BERNARD	FRANCE
LIMITORQUE	UK
MALBRANQUE	FRANCE
METSO	FINLAND
NIHON KOSO	JAPAN
OVERSEAS ENG.	SWITZERLAND
PEKOS VALVES	SPAIN
RMT V.MECCANICA	ITALY
ROTORK	UK
SCHUF ARMATUREN	GERMANY
SHIMADZU SEIASKUSHO	JAPAN
S&S VALVE	SOUTH KOREA

Flow regulating valve: In a flow regulating valve a constant flow rate is maintained irrespective of any changes in the line pressure. As the pressure changes on either side of the stream, the diaphragm actuates a spring loaded valve. The spring loaded valve opens or closes maintains the flow at constant rate.

A piston valve is a flow regulating device which is used to control the flow of fluid inside the pipeline. It is generally applied in the case when either fully open or fully close operation of a fluid is required, such as water pipeline. The partial opening can also be done but this will create a huge amount of turbulence which may ends up damaging the valve sealings.



VALVES

PRESSURE REGULATING

BACK PRESSURE REGULATING

MNF	ORIJIN
ARI-ARMATUREN	GERMANY
DUNFOSS	DENMARK
EMERSON	FRANCE
KOPECS CO. LTD	SOUTH KOREA
MANKENBERG	GERMANY
NIHON KOSO	JAPAN
OVERSEAS ENGI.	SWITZERLAND
PRESSURE TECH	UK
SAMSON	GERMANY
UNICON CO. LTD	SOUTH KOREA

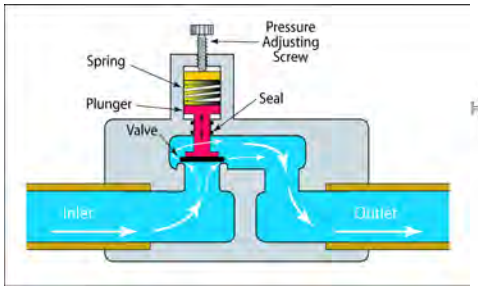
The Role of Refrigerant Regulators

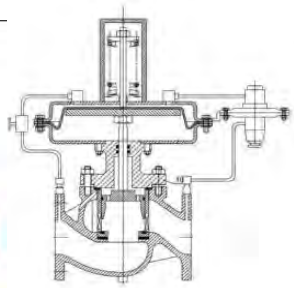
Regulating valves are used in refrigeration systems to maintain pressures or flows appropriate to either the system's operational needs or the end user's specific targets. Operational needs vary according to system complexity and duty cycle. They may include conditions such as:

- Minimum liquid line pressure required for liquid flow at the evaporator.
- Minimum oil reservoir pressure required to return or inject oil to the compressors.
- Maximum crankcase pressure required to ensure that compressor overheating or motor overload does not occur.

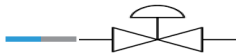
Operational needs are related to system design more than performance targets. Valve arrangement selection and required regulator capacity will be specified to:

- The combination of components incorporated.
- The system's volume and extent.
- The refrigerant and lubricants selected.
- The diversity of roles to be served by the system.
- Other elements of the overall control scheme.





VALVES

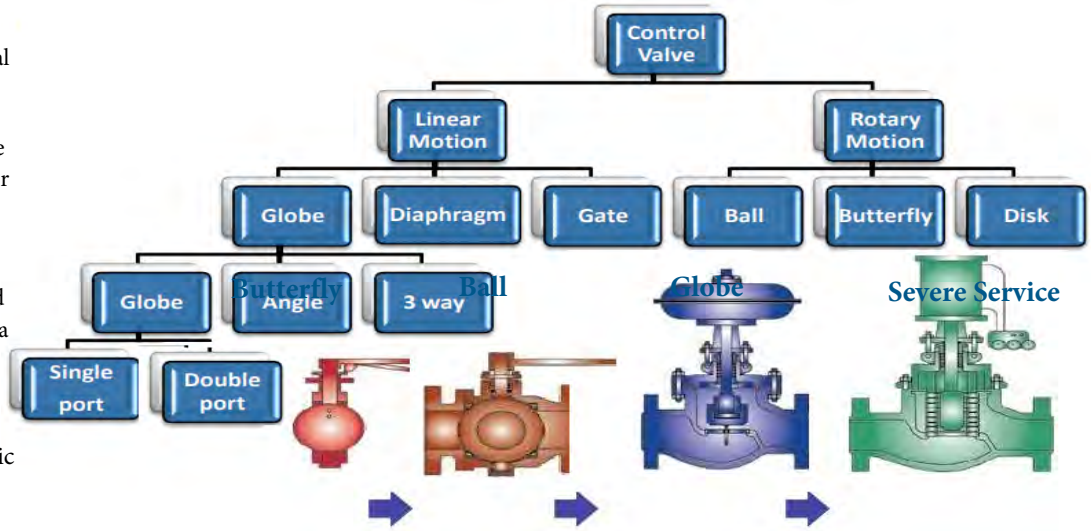


CONTROL VALVES

Control Valve is necessary for automatic process control system. It can be used either for controlling level, flow rate, temperature, pressure etc. The selection of control valve involves its operation mechanism, process conditions as well as requirements. It can be manual or power operated.
The main parts of a control valve are actuator and body. The signals from the process are received by the actuator and accordingly it closes or opens the valve.
Control valves can be single plug balanced globe type or double plug balanced globe type or having diaphragm or butterfly design. Single plug type valve gives better sealing. Pneumatic diaphragm and spring actuator is most commonly used.
Control valve can have size ranging from 3mm to 500 mm and can be used for pressures upto 4000 kg/cm2 and temperatures-250°C to 800°C. Material of construction for control valve can be cast iron, carbon steel, stainless steel, monel, nickel alloys, hastelloy and even plastic also.

MNF	ORIJIN
AVK	DENMARK
AZBIL	JAPAN
BRAY	BRAY
CAMERON	UK
CIRCOR	UK
CRANE	UK
DRESSER	UK
EMERSON	GERMANY
FLOWSERVE	GERMANY
IMI	UK
KITZ	JAPAN
KOSO	JAPAN
KSB	GERMANY
MASONEILAN	ITALY
METSO	FINLAND
PENTAIR	UK
SAMSON	GERMANY
WEIR	UK

- **Manual:** A manual actuator employs levers, gears, or wheels to move the valve stem. Manual actuators are powered by hand.
- **Pneumatic:** Air (or other gas) pressure is the power source for pneumatic valve actuators. Air pressure acts on a piston or bellows diaphragm creating linear force on a valve stem.
- **Hydraulic:** Hydraulic actuators convert fluid pressure into motion. Fluid pressure acting on a piston provides linear thrust for gate or globe valves.
- **Electric:** The electric actuator uses an electric motor to provide torque to operate a valve.



VALVES

CONTROL VALVES

MNF	ORIJIN
ADAMS ARMATUREN	GERMANY
ARCA REGLER GMBH	GERMANY
ARI-ARMATUREN	GERMANY
ASAHI	JAPAN
BFS INCORPORATION	KOREA
BURKERT	GERMANY
DAEJU CONTROL	KOREA
EUROMATIC	ITALY
FLOW STREAM INT.	UK
GOLD	GERMANY
GREEN CONTROL	ITALY
KOPECS	KOREA
MOTOYAMA	KOREA
MANKENBER	GERMANY
MASCOT VALVES	AUSTRALIA
NIHONDIA	JAPAN
NIPPON DAIYA	JAPAN
OHL GUTERMUTH	GERMANY
OVERSEAS ENGINEERING	SWITZERLAND
RMT VALVOMECCANICA	ITALY
S&S VALVE	KOREA
SAUNDRES	UK
SCHUF	GERMANY
SEOJEON VALMAC	KOREA
SEVERN GLOCON	UK
STRAHMAN VALVES	FRANCE
SUNGDO CO. LTD	KORA
TYCO	JAPAN
UNICON CO. LTD	KOREA
UNIFLO Co. Ltd.	KOREA
VALTEK	UK
VECTOR & WELLHEADS	SPAIN
WALDEMAR	GERMANY
XOMOX	GERMANY

MANUAL

PNEUMATIC

HYDRAULIC

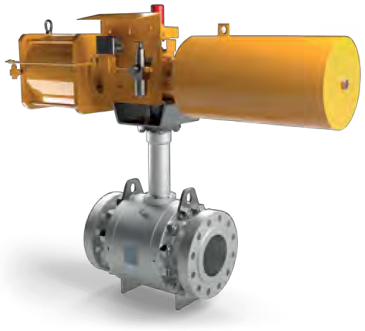
ELECTRIC

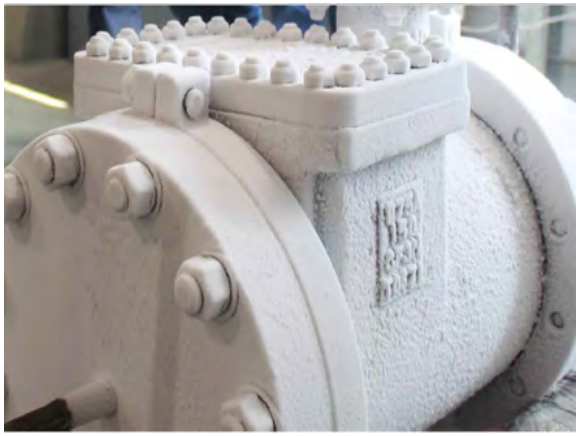
VALVES

Cryogenic valves are constructed to store such gases safely and also work great during transportation due to their ability to function efficiently in pressure settings as high as 52 bar (750 psi) and temperature as low as -196°C (-320°F).

CRYOGENIC VALVES

MNF	ORIJIN
BLACKHALL	UK
BREMER	ITALY
BURACCO	FRANCE
HEROSE	GERMANY
KITZ	JAPAN
PARKER	GERMANY
S6S VALVES	KOREA
SAMSON	GERMANY
STÖHR	GERMANY
SMSTORK	GERMANY





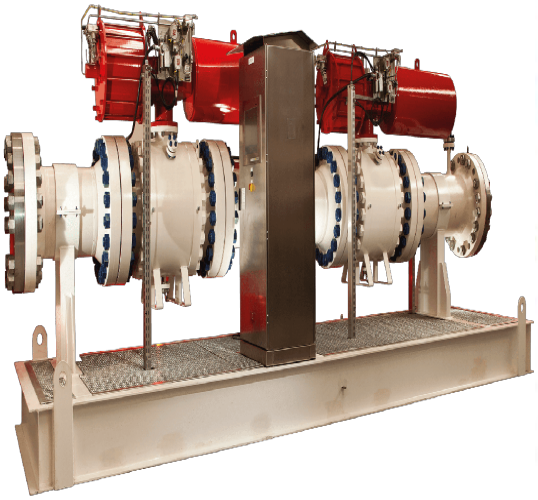
VALVES

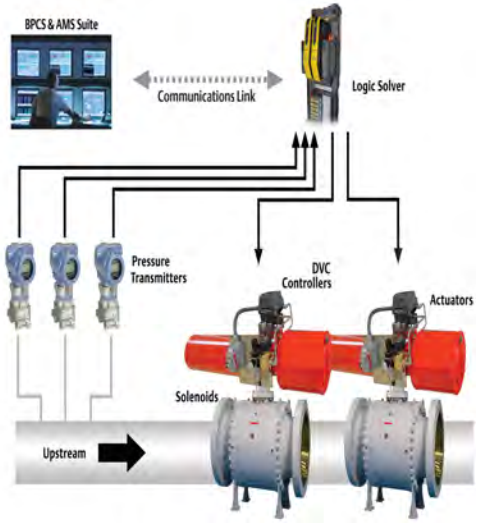
HIPPS VALVES

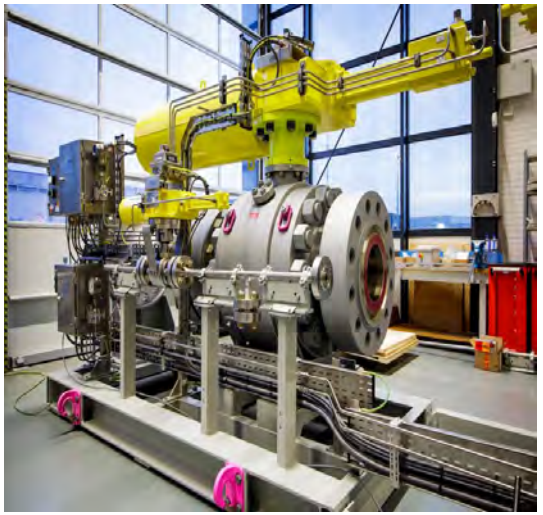
MNF	ORIJIN
ARFLU	SPAIN
BSM VALVES	NETHERLAND
CAMERON	USA
CONTROL SEAL	NETHERLAND
FLOWSERVE	GERMANY
MAVERIC VALVES	NETHERLAND
ORION VALVES	ITALY
RAYS FLOW CONT.	USA

HIPPS – High Integrity Pressure Protection System

HIPPS (also referred to as HIPS) systems are a series of components, specificially engineered isolate the source of dangerous high pressure instead of relieving the excess flow, in the case of an overpressure event. HIPPS is an independent and reliable Safety Instrumented System that is designed with high integrity as per established ANSI/ISA and IEC standards, in order to equal or exceed the safety performance of conventional safety valves.





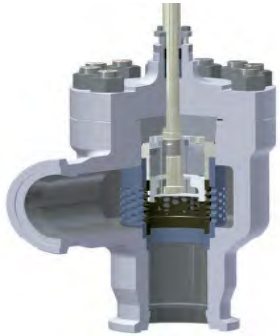


VALVES

CHOCK VALVES

Choke valves are used to control flow rate and reduce pressure for processing of produced fluids farther downstream. Effective chokes reduce the likelihood of damage to downstream equipment, support longer lasting production timespans, and alleviate stress from field operators by keeping them away from the wellhead.

MNF	ORIJIN
BREDA ENERGIA	ITALY
COOPER CAMERON	UK
FMC TECHNOLOGIES	SINGAPOUR
IMI	UK
KENT INTROL	UK
LVF SPA	ITALY
MASTER FLOW	CANADA
MOKVELD VALVES	NETHERLANDS
PETROLVALVES	ITALY
RINGO VALVULAS	SPAIN
SEVERN	UK
TRILLUM	USA



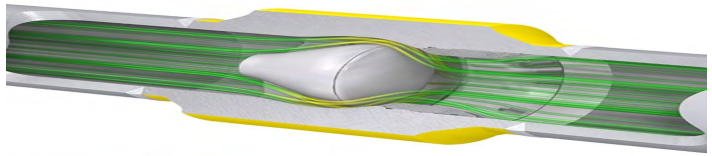
VALVES

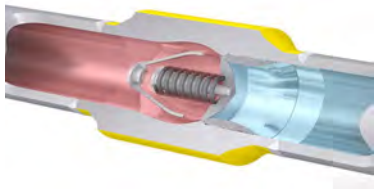
AXIAL VALVES

axial on-off valve
axial check valve
axial control valve
axial choke valve

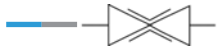
MNF	ORIJIN
BREDA ENERGIA	ITALY
COOPER CAMERON	UK
FMC TECHNOLOGIES	SINGAPOUR
IMI	UK
KENT INTROL	UK
LVF SPA	ITALY
MASTER FLOW	CANADA
MOKVELD VALVES	NETHERLANDS
PETROLVALVES	ITALY
RINGO VALVULAS	SPAIN
SEVERN	UK
TRILLUM	USA

The Axial Flow Control Valve is designed for special applications that require high flow capacity, precise control from the linear motion shut-off element, and reduced turbulence and vibration effects.The most Reliable Valve System for flow control and different safety operations.





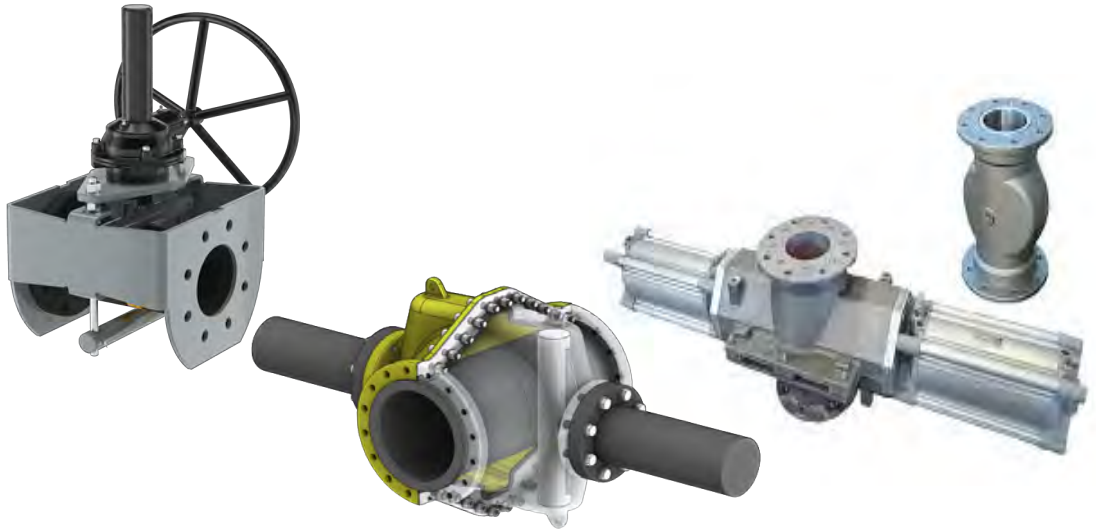
VALVES



Pinch valve can be used for on-off and throttling operations. The valve has a sleeve which is replaceable. It has low maintenance cost, low pressure drop and low initial cost. It can be used for handing slurries. Its operation mechanism is completely isolated from fluid. This eliminates problems of corrosion and contamination. Sleeves can be made of rubber or plastic. Pinch valve can be designed for pressures upto 20 kg/cm2, and temperature upto 250°C. Pinch valve is not suitable for vacuum operation.

PINCH VALVES

MNF	ORIJIN
AKO	UK
KVT	GERMANY
NELES	UK
ORBINOX	UK
RF VALVES	USA
SCHUBERT & SALZER	GERMANY



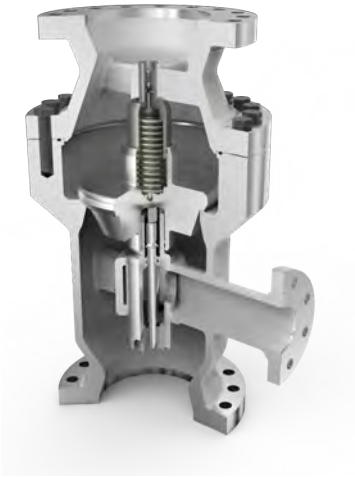
VALVES

ARV VALVES

ARV valve stands for Automatic Recirculation Valve.
An automatic recirculation valve is a multifunctional valve whose primary purpose is to ensure that a pre-determined minimum flow is assured through a centrifugal pump at all times. This is important as centrifugal pumps suffer from over heating and cavitation and can be permanently damaged if they run dry.

MNF	ORIJIN
BLACKHALL	UK
HORA	GERMANY
KSB	JAPAN
SCHRODER	GERMANY
SCHROEDAHL	GERMANY
SCHUF	GERMANY
YARWAY EMERSON	GERMANY






VALVES

- DESUPERHEATER
- DEAERATOR
- STEAM TRAP
- STRAINER

ARI ARMATUREN GERMANY

ARMSTRONG INT. UK

BABCOCK / HITACHI JAPAN

BEKO TECHNOLOGIES GERMANY

DOUGLAS CHERO ITALY

EBU TECH NETHERLANDS

ECONOSTO NETHERLANDS

GESTRA GERMANY / FRANCE

KUBOTA JAPAN

MANOIR INDUSTRIES FRANCE

MATEC GROUP ITALY

NEXON GROUP SAS FRANCE

PARALLOY BIDING UK

PLENTY UK

S&T EXCHANGER ITALY

SPIRAX SARCO FRANCE

STORK THERMEQ NETHERLANDS

T.L.V (Trouble Less Valve) JAPAN

WOOSUNG FLOWTEC SOUTH KOREA

YAMANTO KOGYO JAPAN