





HEKTO, esteemed customers all the time in the field of process valves and equipment committed to providing a professional service, which is a dynamic engineering company.

"Customer Oriented" established on the basis of HEKTO's mission; in the world to all the technological developments closely and we have to follow engineering knowledge of the country's industry and you transfer to our customers and to contribute in this way to development, as well as your needs the best way to understand design and turnkey need your wide range of products with our most favorable price / quality by capturing the balance of engineering and from a technical point of non-standard custom designed products, to adopt the maximum service concept in the promised time.

With best regards,
Hekto Engineering & Automation

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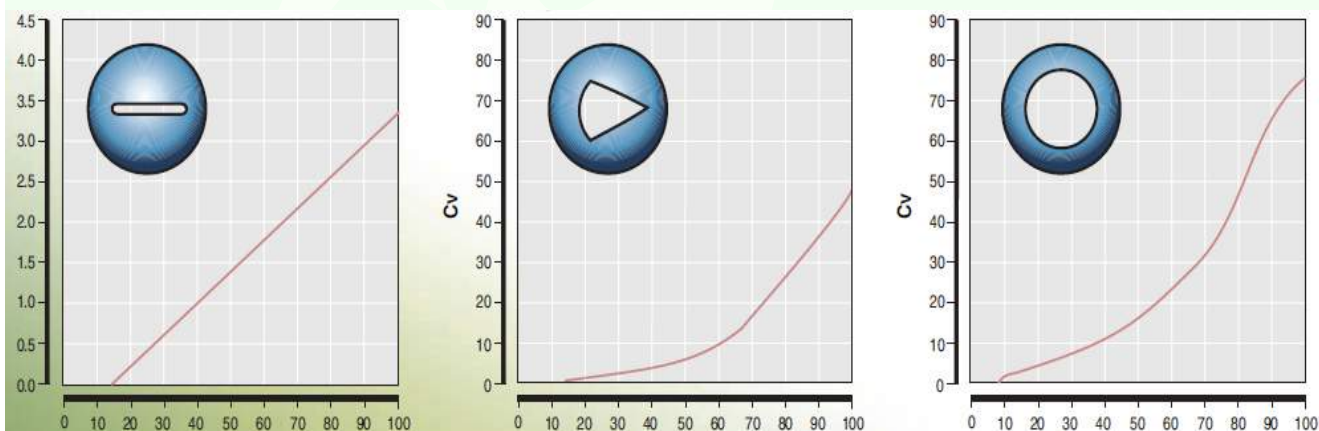
BALL CONTROL VALVES



Control valves are a lot of different and innovative technologies in the global control valves, can be used for two different purposes at the same time as both control and shut-off valve.

Standarts	: DIN and ANSI
Pressure Class	: Class 150 – Class 600 / PN16 – PN100
Command Type	: Hand Lever, Pneumatic Actuator and Electric Actuator
Control Type	: Proportional
Size	: DN15-DN250
Work. Temp. Range	: -196°C to +400°C

Global control valves, fluid seals have been opened on the sphere or with the help of different types of controls and openings in the size and openness to the desired flow characteristics, easily controlled according to the type of special applications even more economical and can be arranged.



Slot Port



V-Port



V-Ball



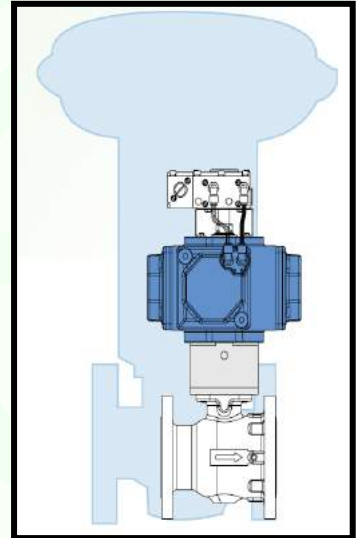
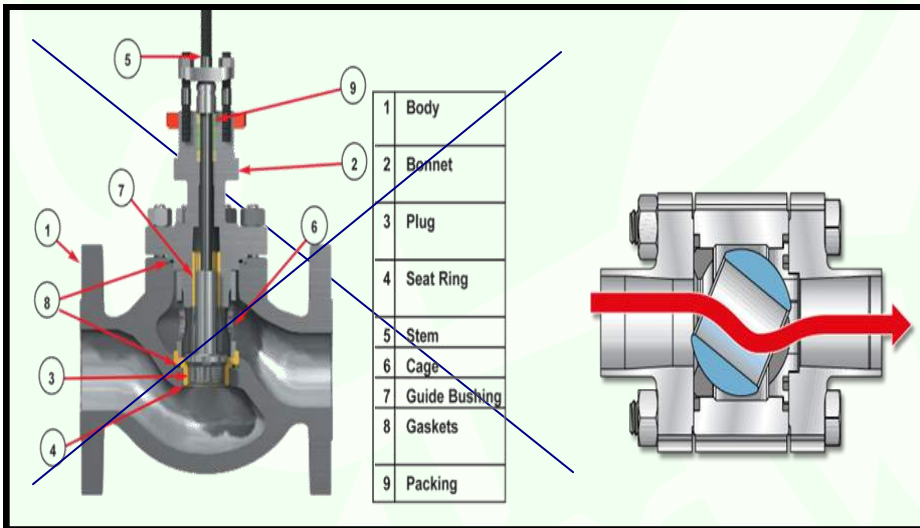
Round Port





BALL CONTROL VALVES

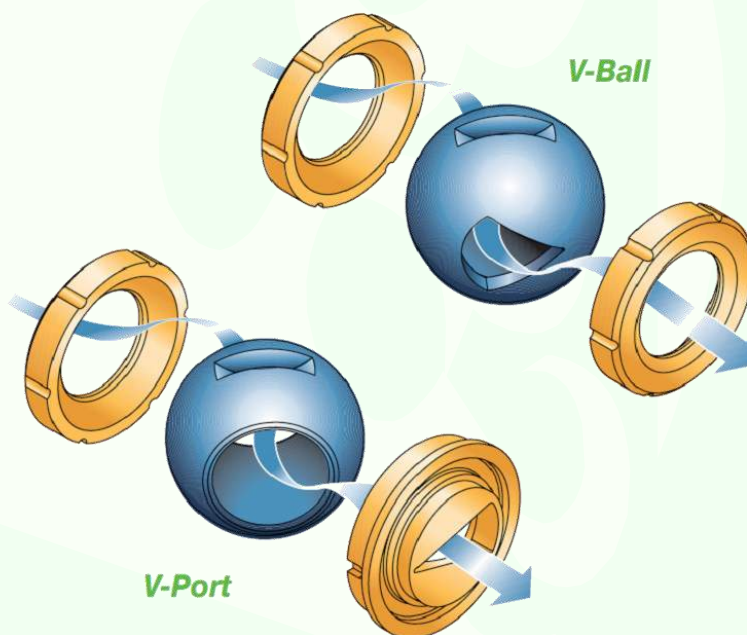
They occupy less volume compared to globe control valve with the simplicity and compactness of the structure and maintenance is both easy and economical.



Revealing the internal structure of the specific design of the most important factors in the control valve, respectively; The maximum pressure drop is fluid type and temperature. These criteria are basically two types of interest to the fore given. These Ones;

1. V-Ball (Globe)
2. V-Seals

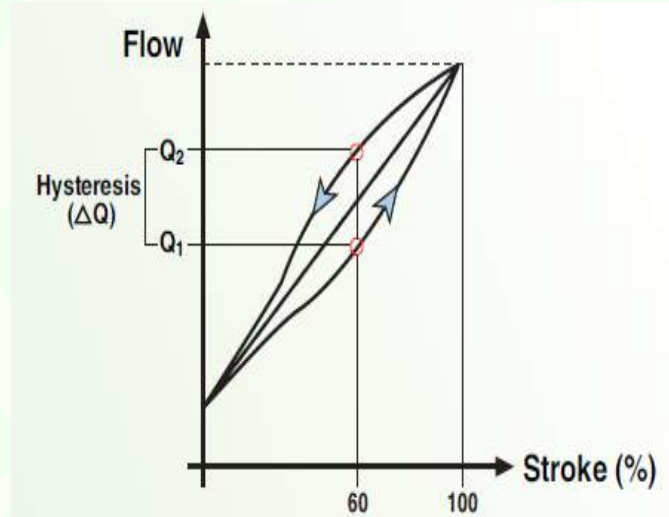
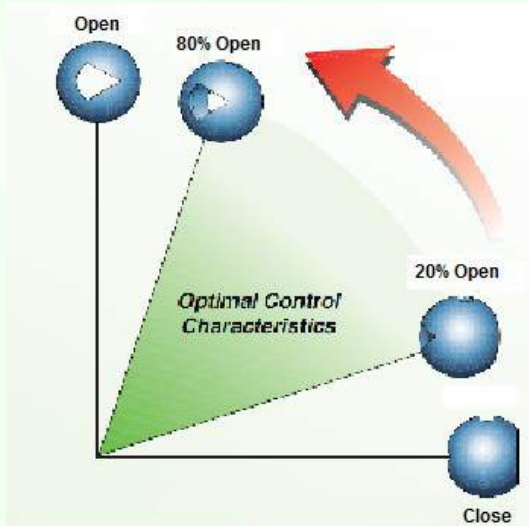
The gasket material is directly related to fluid type and temperature.





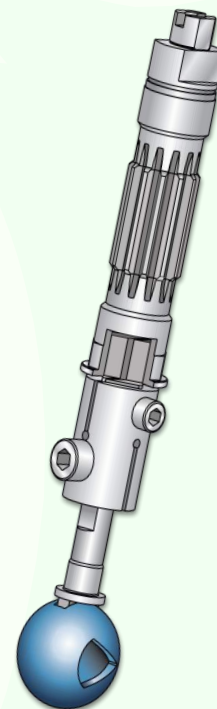
BALL CONTROL VALVES

Another feature of the ball control valve is a minimum hysteresis and therefore have an excellent availability again. The design and manufacture should be made shafts, couplings and connections with 0.02 gears like precision is obtained.



Applications

- Iron & Steel
- Chemical
- HVAC
- Food & Beverage
- Shipping
- Offshore
- Other
- Petrochemicals
- Energy
- Petroleum & Gas
- Gas
- General Process
- Medicine



APPLICATION SPECIFIC BALL VALVES



Specific conditions with standard practice in many different branches of the process is concerned. These conditions required by the specific valve being open to solutions with engineering point of view is very important in terms of continuity and efficiency of the plant. HEKTO Engineering ball valves only produces a special type of application specific solutions offers our valued clients.



Application Specific Ball Valves:

- API6D and FireSafe Valves
- Metal Seated Valves
- Ammonia Valve
- Cryogenic valve
- High Pressure Valve
- High Temperature Valve
- Chlorine Valve
- Sea Water Valve
- Oxygen Valve
- Double Block & Bleed Valves
- Multi-Way Valves
- Carbondioxide Valve
- Tank Bottom Valve
- Thermal Fluid Valves
- Pharmaceutical and Biological Applications Valves
- Bronze Ball Valve
- LPG and LNG Valves



APPLICATION SPECIFIC BALL VALVES



AMMONIA VALVE

Ammonia is used on the line due to the hazardous nature of the on / off and control valves must be designed taking into account this situation. The reliability of the material selection as well as interior design and packing unit is quite important.



METAL SEATED BALL VALVE

The most exclusive and advanced technology of metal sealing ball valves. Ball valve technology, especially high temperature, high pressure and corrosive fluids easily used in practice.

CRYOGENIC VALVE

Absolute zero can be even used in general is operated valves of the cryogenic fluid in the tank top or process control. Antistatic and FireSafe design, optimum bolt length and minimal expansion creates security holes are the sine qua non of a cryogenic ball valves.



HIGH PRESSURE VALVE

Particularly energy, offshore, petrochemical and chemical applications are preferred to density.

DOUBLE BLOCK & BLEED

Valves are the valves to be used in cases where an absolute isolation between the output and input. In particular, oil, gas and fuel lines, gas cooker, chemical explosion risk, the reactor inlet ... etc



FIRESAFE & ANTISTATIC BALL VALVE

Valve to discharge any static electricity on the valve types and fulfill the tasks which are designed considering the valve in case of fire.

APPLICATION SPECIFIC BALL VALVES



MULTI-WAY BALL VALVE

Ammonia, cryogenic, high pressure, metal gasket ... etc all specific applications or processes should be of the standard 3, 4 or 5-way applications are designed to respond to global demand valve.



BRONZE BALL VALVE

Water, gases and fumes are general hospital usage. In addition, the most important feature of these valves in the maritime sector is also preferred to have several connection types.

SPRING RETURN BALL VALVE

"Dead-Man-Lever", also known as the valves are especially petrochemical, chemical and gas applications are valves that have to be used in valve position to be left to the discretion of the user desirable.



TANK BOTTOM BALL VALVE

Reactor bottom or tank bottom called of these valves is also available in a number of different options in chemical plants .

- CIP / SIP
- Jacketed
- T Globe

STEAM AND THERMAL FLUID VALVE

Saturated or superheated steam with low pressure is unrivaled in the high-temperature thermal fluid applications. Besides they offer longevity of use and ease of maintenance makes it important that they have this type of valve industry.



SEA WATER BALL VALVE

Seawater desalination and offers an excellent result with a special body and trim materials in the oil distillation process.



BALL VALVES (PETROLEUM & GAS)

Crude oil, petroleum fractions, valves are used in line transmission of fluids such as natural gas and oil derivatives.

- API	6A - 6D - 6DSS - 17D - Q1 - 607 - 598 - 6FA
- ASME	B16.10 - B16.20 - B16.25 - B16.34 - B16.47 - B16.5 - B31.3 - B31.6B - BOILER PRESSURE AND VESSEL CODE (SECTION V - SECTION VIII DIV.1 - SECTION VIII DIV.2 - SECTION IX)
- ASTM	E94 - E142 - E165 - E186 - E280 - E446 - E709
- MSS	SP25 - SP44 - SP53 - SP55 - SP61 - SP72 - SP82 - SP94
- BS	1503 - 1504 - 5351 - 6364 - 6755
- EN	473 - 8010 - 10204 - 10222 - 12266 - 14141
- ISO	10423 - 14313 - 14723 - 13628 - 17292 - 5208 - 5210 - 5211 - 10497 - 15848 - 15156 - 9001 - 29001
- NACE	MR 01.175
- NACE:	MR 01.175



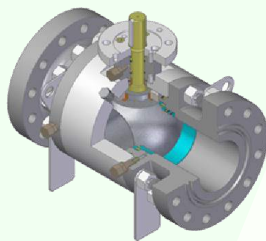
BALL VALVES (PETROLEUM & GAS)



Oil and specific types of ball valves are used because there are risks inherent in the gas line is in different constructions. HEKTO Engineering works with the world's best brands and private housing to meet the reliability expectations of its customers and offers solutions.



Side Entry



Double Ball in One Body



Top Entry



أرامكو السعودية
Saudi Aramco



PETRONAS
GAS



ExxonMobil

National Iranian
Oil Company
NIOC



TEFLON LINED VALVES

HEKTO offers improved teflon lined valve for corrosive and toxic fluids. Through excellence in design is to provide a precise positioning and comfort are passed in front of hysteresis.

Min.3 mm in different coating materials and applications covered by the fluid valves are used safely for almost all corrosive applications and temperatures. Thanks to the design performed very little space within the valve prevents any dirt that may accumulate within the valve. We also provide full bore design with minimum pressure drop. The most important feature of our Teflon-coated valves, metal-to-metal contact is prevented thanks to the expansion occurred due to the temperature difference of the coating material.

Teflon Lined Valve Types



Diaphragm Type



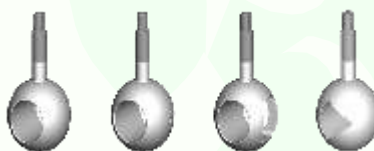
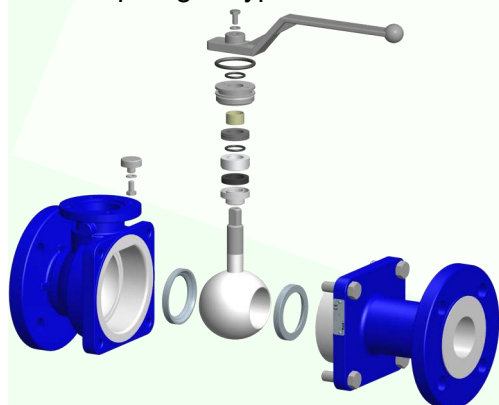
Butterfly Type



Plug Type



Globe Type



Ball Versions



Ball Type

TEFLON LINED VALVES



Sightglass



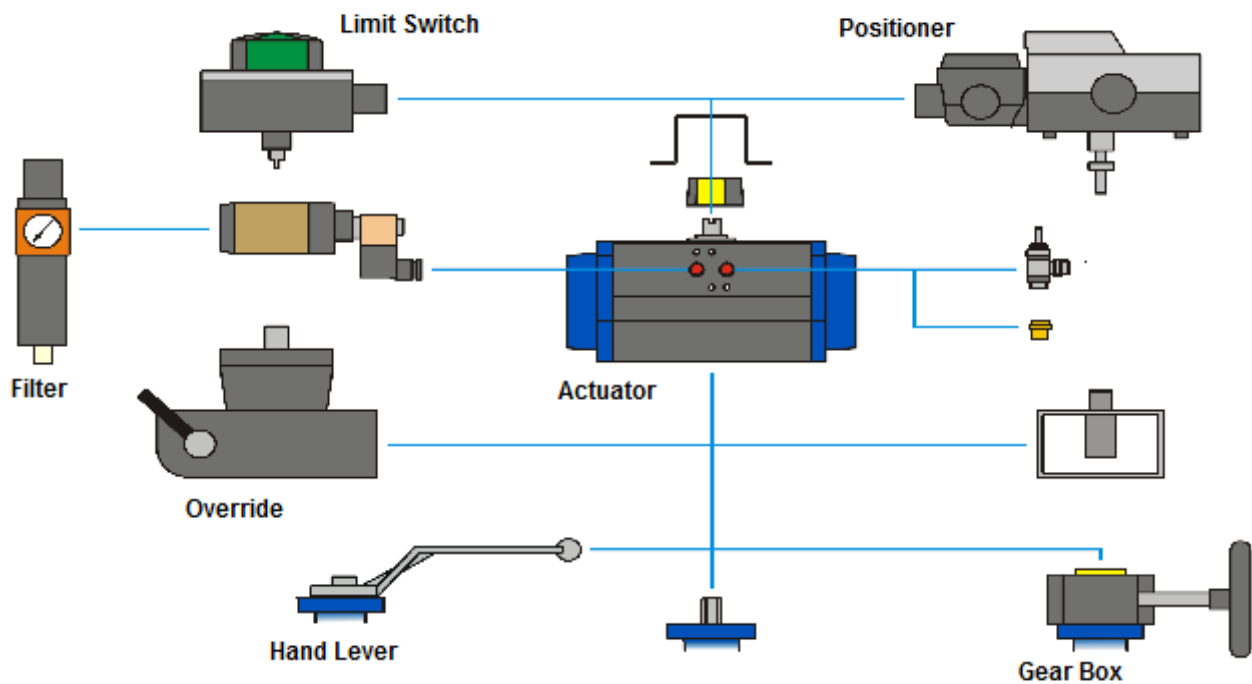
Ball Check Valve



Swing Check Valve

Lined Materials
Standards
Command Types
Control Types

- : PFA, PFA-AS (anti-static), PVDF, ETFE, UHMWPE, PP
- : DIN and ANSI
- : Hand Lever and Pneumatic Actuator
- : ON-OFF and Proportional



Applications

- Chemical
- Fertilizer
- Paper
- Mining
- Petrochemical
- Medicine
- Food and Beverage
- Paint



TEFLON LINED FITTINGS

Highly improved Teflon-coated line elements for corrosive and toxic fluids offer a more economical solution instead of using special stainless steel materials. All components used are produced on the line teflon lined or Teflon.

Lined Materials : PTFE (or Conductive), PP
Standards : DIN and ANSI
Pressure : PN10...PN40,ANSI 150 & ANSI 300

Applications

- Chemical
- Fertilizer
- Paper
- Mining
- Petrochemical
- Medicine
- Food&Beverage
- Paint



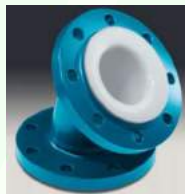
Teflon Lined Pipe



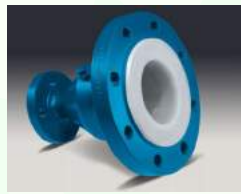
Teflon Lined Hose



Teflon Lined Expansion Joint



Teflon Lined Elbow



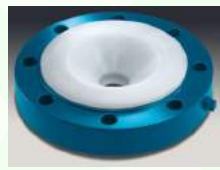
Teflon Lined Reduction



Teflon Lined Deep Pipe



Teflon Lined Pipe Cross



Teflon Lined Flange Type Reduction



Teflon Lined Blinding Flange



Teflon Lined Tee



Teflon Lined Boşluk Alıcı



Teflon Lined Side Tee

PLASTIC BALL VALVE AND STEAM TRAP

PLASTIC BALL VALVE

Plastic Ball Valves, corrosive fluids, hydrocarbons, alkalis, acids, and facilities to be used in specific temperature fluids such as water, they provide the correct valve needs at low cost.

Body	: UPVC, CPVC, PP, PPH, PVDF
Connection	: Threaded, Socket, Flanged
Max. Temp.	: UPVC: 60 °C, CPVC: 90 °C, PP: 80 °C, PPH: 95 °C, PVDF: 135 °C



Standards	: ANSI
Size	: 1/2" ~ 6"
Pressure Class	: Class150
Body	: PP, ISO.PP, PPH, PVDF, ETFE
Connection	: Threaded, Socket(1/2"~2"), Flanged(1/2"~6")
Max. Temp.	: PP: 85 °C, ISO.PP: 120 °C, PPH: 95 °C, PVDF: 140 °C, ETFE 160 °C

THERMOPLASTIC BALL VALVE

Standards	: ANSI
Size	: 1/2" ~ 6"
Pressure Class	: Class150
Body	: PP, ISO.PP, PPH, PVDF, ETFE
Connection	: Threaded, Socket(1/2"~2"), Flanged(1/2"~6")
Max. Temp.	: PP: 85 °C, ISO.PP: 120 °C, PPH: 95 °C, PVDF: 140 °C, ETFE 160 °C

INVERTED BUCKET STEAM TRAP

Inverted bucket steam traps, condensate and basically a steam valve closes to drop, but for air. The steam entering the valve sleeve is caused to float and rise into the valve is closed, but in the meantime the condenser valve and begin to fill the bucket. Condenser filled bucket, sink and condensate drain valve opens.



Standards	: ANSI
Size	: 1/2" ~ 1"
Pressure Class	: Class150
Body	: Carbon Steel
Types	: Side Inlet - Side Outlet Bottom Inlet - Top Outlet



FLOATING AND FREE FLOAT STEAM TRAP

On-off operation of the float steam trap, with the aid of a sphere on the end welded to the float lever. However, in the free float steam trap, on-off duty orifice do not have any connection coasts to a sphere. In order to fulfill the task of opening and closing is necessary to literally made of this sphere is very accurate and high quality material.

Standards	: DIN
Size	: DN25 ~ DN100
Pressure Class	: PN16
Body	: Carbon Steel



DOUBLE ECCENTRIC HIGH PERFORMANCE BUTTERFLY VALVES



Corrosive fluids, FireSafe to high pressure, high temperature, high performance valves are designed for demanding applications such as low-temperature ANSI serves the industry with wafer and lug type body designs up to 600. Ensure a perfect seal in the double-sided high-pressure and vacuum environments, less seal wear due to eccentricity arises in two axis and consequently a longer life. Also the valve is opened and closed with a low moment due to less friction.

Standards	: DIN and ANSI
Pressure Class	: Class 150 – Class 600 / PN16 – PN40
Command Types	: Hand Lever, Pneumatic Actuator and Electric Actuator
Control Types	: ON-OFF and Proportional
Atex Options	: ATEX 94/9/EC, Zone 1 and 21 – Gr II, Cat. 2 G
Leakage	: PTFE Seat and Firesafe: EN 12266-1/P12 leakagerate A Metal/Metal Seat: EN 12266-1/P12 leakagerate C
Seat Types	: PTFE - Glass Filled PTFE Metal/Metal Fire Safe (PTFE + Metal)
Standards	: ISO 5752/20, EN558-1/5, BS 5155/4
Top Flange	: EN ISO 5211



Wafer

Applications

- Energy
- Geothermal
- HVAC
- Mining
- Shipping
- Food&Beverage
- Petrochemical
- Iron & Steel
- Chemical
- Aviation
- General Process
- Medicine



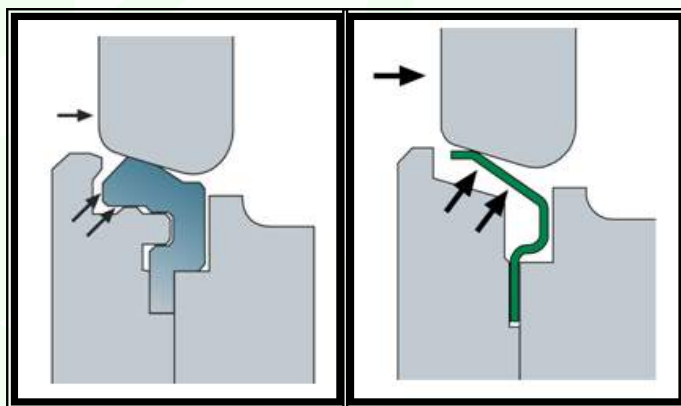
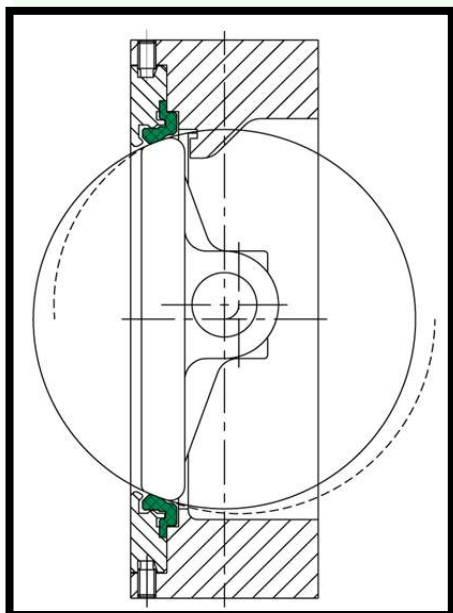
Lug





Operating Principle

The valve disk is connected with the pivot axis x-axis and the conical gasket is seated eccentrically in the y-axis friction disc is exposed only along a few degrees during the opening of the valve. Naturally, the seal becomes durable to exposure virtually zero friction. Thus arises the biggest feature high performance with low on-off moment of butterfly valves.



R-PTFE Seat

METAL Seat

Suitable for direct mounting on DIN 3337 standard connection. The mounting plate can be changed for different actuator types is also possible to squeeze the stuffing from disassemble the actuator.





TRIPLE ECCENTRIC HIGH PERFORMANCE BUTTERFLY VALVES



Metal-Metal working "Triple Offset" prominent feature of the butterfly valve disc axis with the valve axis has three different eccentricity. Gas, steam, they provide a perfect seal in chemical or cryogenic applications and can work even at 700 ° C and 100 bar pressure. Optimum performance and Triple Offset Butterfly Valves designed to fulfill the most demanding process conditions;

- Compression and friction between the seal and the risk of disc provides a long life by eliminating.
- Since there is no friction between the gasket and the disc compared to other types of valves are needed much less rotating torque.
- They are much lighter compared to other types of valves is to make a positive impact on product cost.
- Have a high permeability values and can work through specially designed disc and the disc between -196 ° C to 700 ° C.

According to BS 6755 part 2-87 have Fire Safe design.

Standards	: DIN and ANSI
Pressure Class	: Class 150 – Class 600 / PN16 – PN40
Command Types	: Hand Lever, Pneumatic Actuator and Electric Actuator
Atex Options	: ATEX 94/9/CE
Top Flange	: EN ISO 5211



Lug Connection



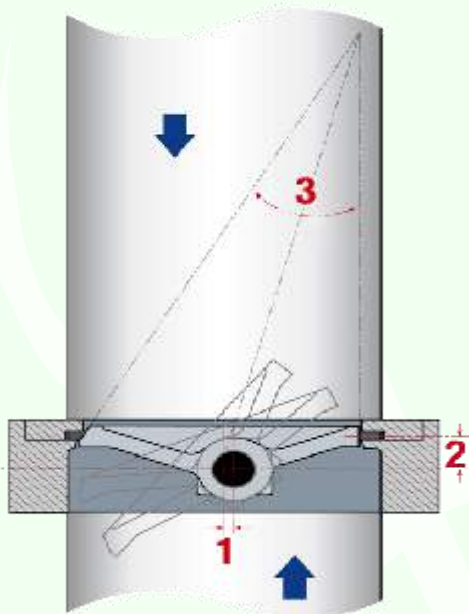
Wafer Connection



Flanged Connection



TRIPLE ECCENTRIC HIGH PERFORMANCE BUTTERFLY VALVES



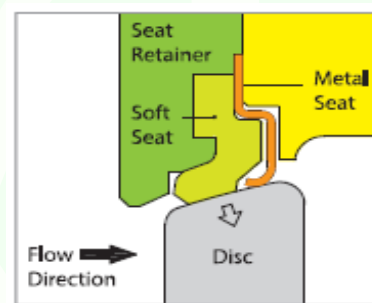
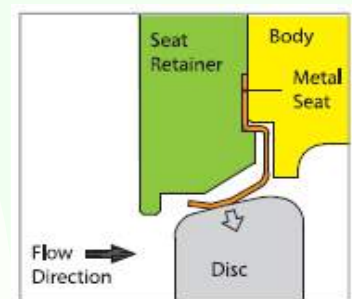
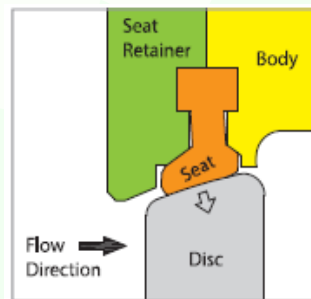
Three eccentric high performance butterfly valve movement in three offset, performs as divided. The most important advantage of a few:

- Jam without friction or open / close provision
- Avoid deformation of the gasket
- High temperature and pressure may be sealed even Class 6
- Double-sided seal
- High permeability value
- Many years of trouble-free operation in even the harshest conditions
- Fire Safe design environment for use with the Ex

Measurement: ISO PN 10/16/25/40 - EN 558-1
ASA 150/300/600 - EN 558-2

Body
Disc

: Cast Iron, Stainless Steel
: Stellite Lined Stainless Steel



Applications

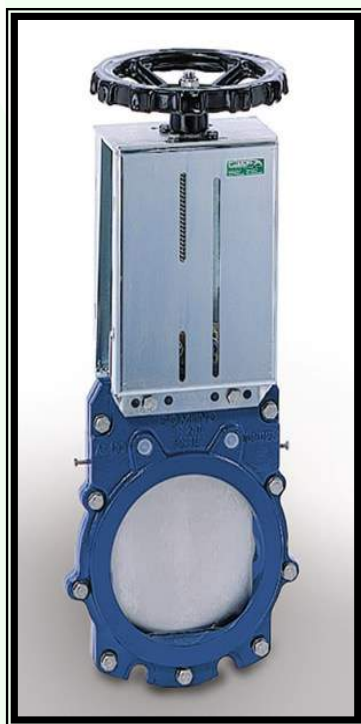
- Aviation
- Chemical
- Energy
- Petrochemical
- Petroleum & Gas
- Iron & Steel





KNIFE GATE VALVES

A very prominent valve type knife ineffective in special applications where there are many different types of gate valves. Paper industry, waste water applications are the most dense or fibrous fluid application areas. Allowing the flow of bilateral knife gate valves should be selected based on the construction of the absolute process.



Wafer – DIN 2501
DN50 - DN150



Lug – DIN 2501
DN50 - DN1200



Proportional Control
DN50 – DN600

Standards : DIN and ANSI

Command Types : Hand Lever, Pneumatic Actuator Electric Actuator

Control Types : ON-OFF and Proportional

Applications

- Chemical
- Energy
- Fertilizer
- Cement
- Waste Water
- Iron & Steel
- Food
- Mining
- Paint
- Paper



KNIFE GATE VALVES



Technical Advantages



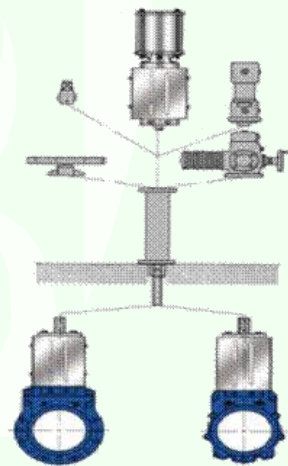
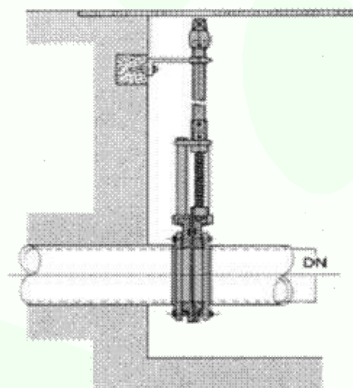
- Due to the design does not require sealing valve sealing level of care can be improved even remove the seal.



- Self-cleaning feature structures with fiber or solid particles in the blade, the cutting surface of the seal would be separated from the meeting.



- The body is provided through two-way sealing gasket that surrounds throughout the entire cross-section.



Accessory: Limit Switch, Solenoid Valve, Pozitioner, Extension Stem, Wheel Operated...etc

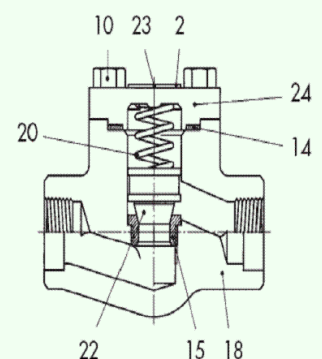
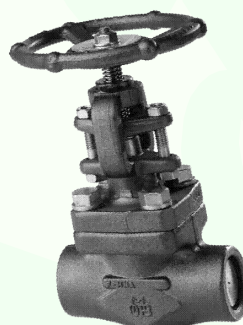
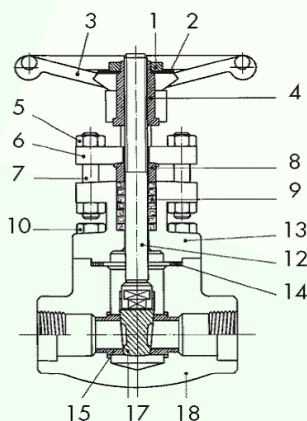
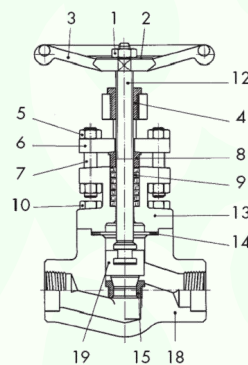


GATE-GLOBE-CHECK VALVES

In particular, petrochemical, energy, iron & steel and chemical sectors in special applications with high temperature and pressure (chemical, sour gas, ammonia, chlorine, vacuum ... etc) found in their areas. As castings and forgings are produced by two different methods.



Working pressure and diameter of the main factors affecting the temperature valve body and trim materials. HEKTO Engineering, gate, finding solutions in class 800-1500-2500 pressure level in the globe and check valves with having higher values in special cases with special offers production services to customers. Chemical, Petro-Chemical and take our portfolio of supply valves for gas applications with a design that is required API602, our forged steel valves also has API6D-API6A-API600 certificate.





GATE-GLOBE-CHECK VALVES

HEKTO Engineering, especially the high pressure commonly used in the energy industry (400 bar) and high temperature (600 ° C) of aggressive fluids in the chemical industry with valves also in high pressure and temperature applications, including the process offers European origin gate-globe-check valves.

Standards	: DIN and ANSI
Command Types	: Hand Lever, Pneumatic Actuator and Electric Actuator
Control Types	: ON-OFF and Proportional
Pressure Class	: 800lbs, 1500lbs, 2500lbs, PN40, PN63, PN100, PN160, PN250, PN320, PN400

Applications

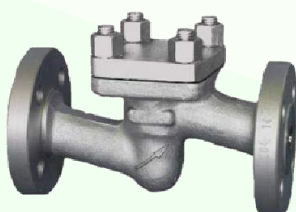
- Energy
- Petrochemical
- Iron & Steel
- Chemical



PN400 Electric Actuator Gate Valve



PN400 Pneumatic Actuator Globe Valve



CHECK AND GATE VALVES



SWING CHECK VALVE

Closure element remaining on the axis in a hinge system makes swing motion of the seat. Weight in order to prevent abrupt closure, spring, lever-type dampers are available that can be plugged.

Advantages: The flap of the resistance factors in the open position when the full transition is low.



Standards	: DIN and ANSI
Size	: DN40 ~ DN1000 / 1 1/2" ~ 40"
Pressure Class	: PN10 ~ PN420 / Class125 ~ Class2500
Body	: Cast Steel, Ductile Iron, Stainless Steel



DOUBLE PLATE / DISCO CHECK VALVE

Even when the flow dependent pressure occurs, the disk will open and allow the passage of fluid. Because the flow is stopped or reduced when the spring pressure relief valve connected to the drive and reverse direction with the fluid pressure in the trap prevents the return of the fluid.



Standards	: DIN and ANSI
Size	: DN50 ~ DN800 / 2" ~ 32"
Pressure Class	: PN10 ~ PN420 / Class125 ~ Class2500
Body	: Cast Steel, Ductile Iron, Stainless Steel

GATE VALVE

Gates; fluid transition between the two sealing rings, switch the direction perpendicular to the sliding disc (with slide) turning off and fulfill their mission. Fully open and fully closed is suitable for use.

Standards	: DIN and ANSI
Size	: DN15 ~ DN500 / 1/2" ~ 20"
Pressure Class	: PN25 ~ PN420 / Class150 ~ Class2500
Body	: Carbon Steel, Alloy Steel, Stainless Steel
Connection	: Socket and Butt Weld, Flanged
Command Types	: Hand Lever, Pneumatic Actuator, Electric Actuator
Control Types	: ON-OFF



CRYOGENIC VALVES



Many different industrial or non-industrial cryogenic valves with the use of plants, cryogenic tank or valve unit used in order to provide service in these special circumstances. HEKTO Engineering this special issue many different types of cryogenic valves, offers end users or firms to turnkey projects.

Cryogenic Globe Valves

Size	: 1/4"-2"
Pressure Class	: PN40
Command Types	: Hand Lever
Control Types	: ON-OFF and Proportional
Atex Certificate	: ATEX 94/9/EC
PED Certificate	: ATEX 94/23/EC

Note: Cryogenic Ball Valves, "Application Specific Ball Valves" section is located on.



Economizers and Regulators

Size	: 6,5/ 15/ 25
Pressure Class	: PN40
Adjustment Press.	: 1-25 Bar (6,5), 1-35 Bar (15), 1-20 Bar (25)
Atex Certificate	: ATEX 94/9/EC
PED Certificate	: ATEX 94/23/EC





PRESSURE SAFETY VALVES

The safety valve automatically makes the gas release when other systems in the designated limit temperature or pressure is reached. It is important to ensure the safety of the use of safety valves in the tank and boiler.



FIXED FLANGE SAFETY VALVES

Standarts	: ANSI and DIN
Size	: 3/4" ~ 6" / DN20 ~ DN150
Set Pressure	: 0,25-40 bar
Body	: Stainless Steel, Carbon Steel, Cast Iron
Nozzle	: Semi-Nozzle, Full Nozzle

SAFETY VALVES (According to API520, 526, 527)

Standarts	: ANSI and DIN
Size	: 1" ~ 6" / DN25 ~ DN150
Pressure Class	: Class150 ~ Class600
Body	: Carbon Steel, Stainless Steel
Command Type	: With or without lever



PRESSURE RELIEF VALVES

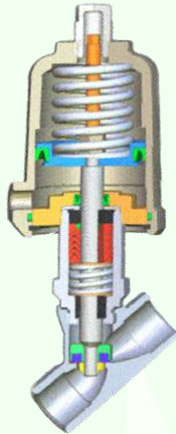
Standarts	: ANSI
Size	: 1/4" ~ 4"
Pressure Class	: PN10 ~ PN40
Body	: WCB, SS304, SS316
Settings	: +2,5 mbar ~ 500 mbar
Type	: Atmospheric Outlet Type, Pipe Away Type



Counterweight
Safety Valve



ANGLE SEAT VALVES



Water, steam, air, aggressive fluids, paint, chemicals, gases, ... etc. are the most important element in many fluid economical and convenient process control. Furthermore, high temperature and oxygen also applies to sanitary applications.

Standards	: DIN and ISO
Pressure Class	: PN16 – PN40
Command Type	: Pneumatic Actuator and Electric Actuator
Control Type	: ON-OFF and Proportional
Connection Type	: Threaded, Welding, Flanged, Clamp

Applications

Food & Beverage Process

- Malt, water, steam, glycol solutions, ventilation pro- tone, adding carbon and Thermal Processes
- Bottling and bottle cleaning machines
- "Clean-in-Place" systems
- Dairy products, processes

Chemical Processes

Water Applications

Sterilization Systems

Textile Industry

- Bleaching, dyeing and drying machines
- Steam, water and additives

Stainless steel can be used Aggressive Fluids

Oxygen Applications

Pharmaceutical and Cosmetic Industry

Cooling & Heating (Heat Exchanger)



Pneumatic On-Off



Motorized On-Off



On-Off Flanged



Pneumatic Proportional



Pneumatic 90° On-Off



Pneumatic 3-Way On-Off



Pneumatic On-Off High Temperature



Pneumatic 3-Way Proportional



OTHER SPECIAL VALVES

Tank Bottom Valve	Tank Bottom Valve (Plug Type)	Change Over Valve

SPACTACLE BLIND

Swing Type	Sliding Type

NOZUL TYPE CHECK VALVES

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4 PISTON PNEUMATIC ACTUATOR



“Four Four Movement” Are You Ready ???

The patented Compact II - 4 piston actuator offers exceptional performance to end users. Conventional two-piston actuator is far beyond the current performance of the Compact II floor of the main differences of the two piston produces more torque than the volume because it has a much higher value in offering a user. In other words, producing the same torque of the volume compared to a two-stroke actuator - so the air consumption - that is about 50% and also providing a balanced load distribution centered thanks Cramer system.

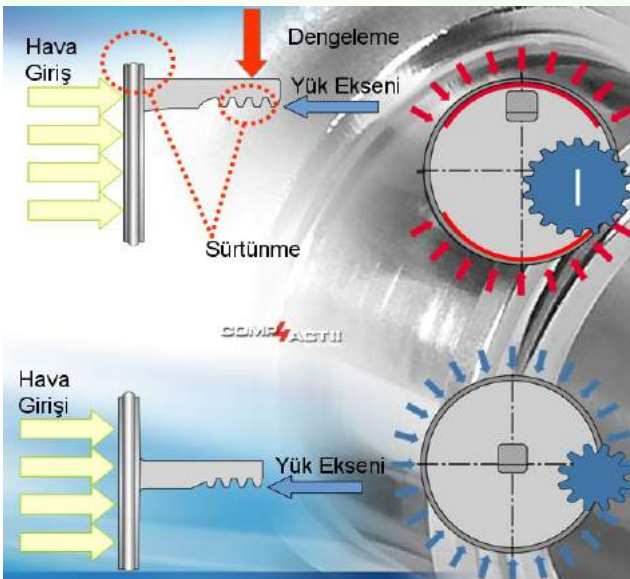
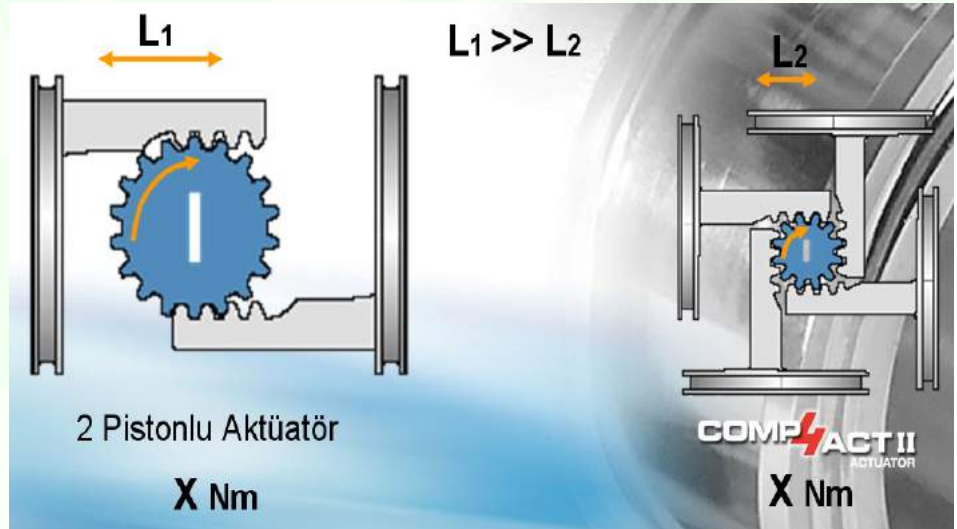
7 years or 3 Million On-Off GUARANTEED

With its proven reliability and technological differences with the COMPACT II offers 7 years or 3 million cycles guaranteed.



- **Speed**

Much less than the opening movement through the distance / off pretty fast. Especially petrochemicals, ESD as emergency stop actuator in oil and gas pipelines (Emergency Shut-Down) are used in circuit or fire.



- **Long Life**

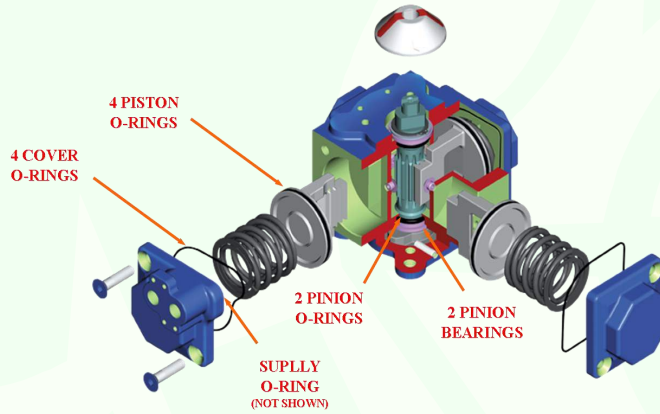
Rack load axis of the cubic shape of the piston axis is coincident Compact II. Therefore, the absence of axial load demented moments during reciprocation of the piston and a balanced movement occurs. Naturally, being a minimum of wear on the o-ring and hence longevity arises spontaneously.



4 PISTON PNEUMATIC ACTUATOR

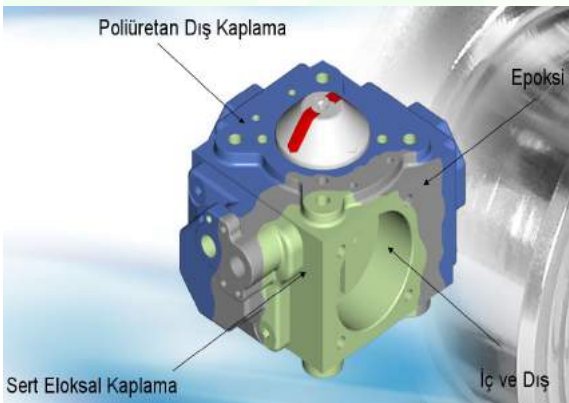
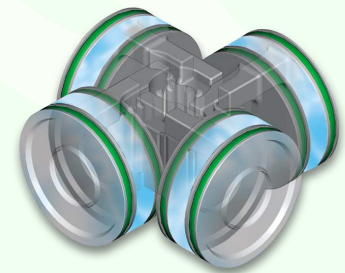
- **Compact Design**

Compact II, is a cubic structure with four small piston. Produces the same torque compared to the two piston actuator itself covers a lot less volume.



- **Less Air Consumption**

Compared with two-piston actuator that produces the same torque 4-piston pneumatic actuator consumes about 50% less air. This situation arises spontaneously because of the low sweep of the distance that the piston diameter. This feature is very important especially when considering energy efficiency.

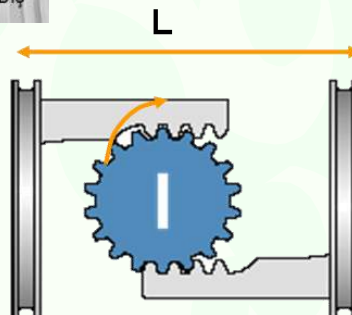


- **Corrosion Resistance**

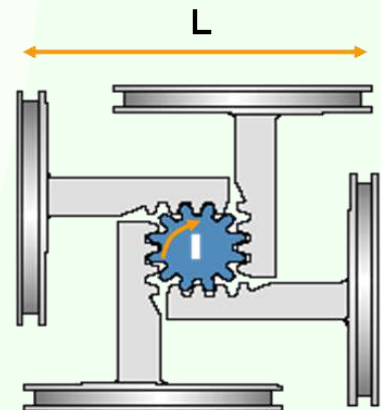
Both inside and outside of the body is covered with a hard anodized for corrosion resistance even in addition to maximize epoxy coating and polyurethane outer cover is made easily in corrosive atmospheres are used.

- **Strong**

4 Piston perhaps the most striking feature of the pneumatic actuator with the same piston diameter is producing torque at a much higher value than the two-piston actuator.



X Nm



2X Nm



4 PISTON PNEUMATIC ACTUATOR

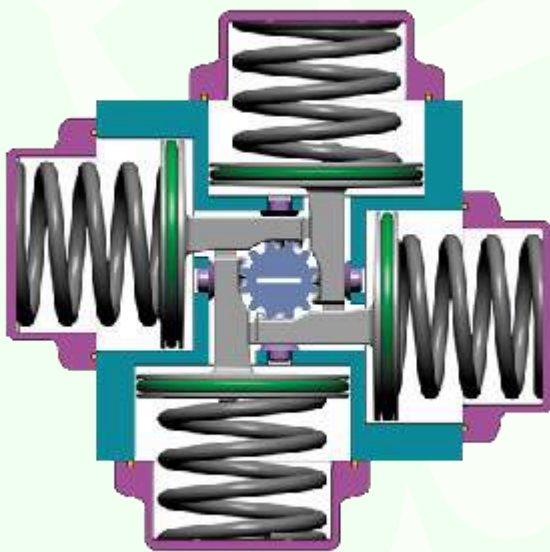


- **Quality**

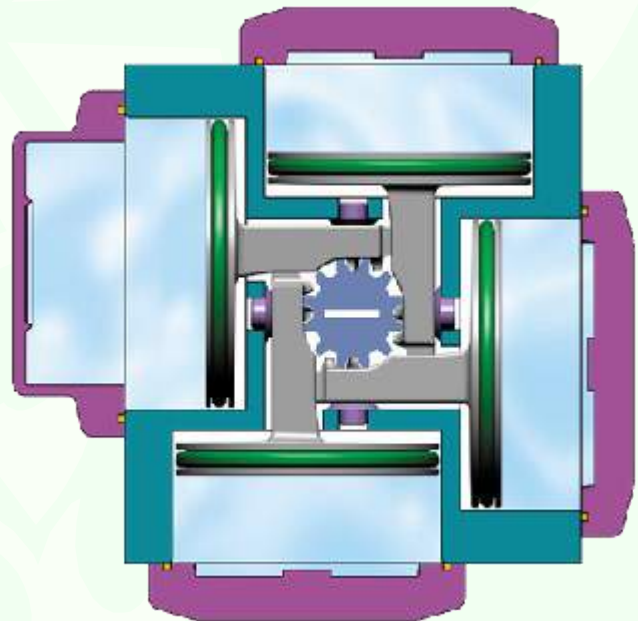
Compact II, the ATEX certification required in environments where the risk of explosion (94-9-EC Cat. II) also has. Thus, Petro-Chemical, Chemical or Gas can easily be used in the process.

- **Variation**

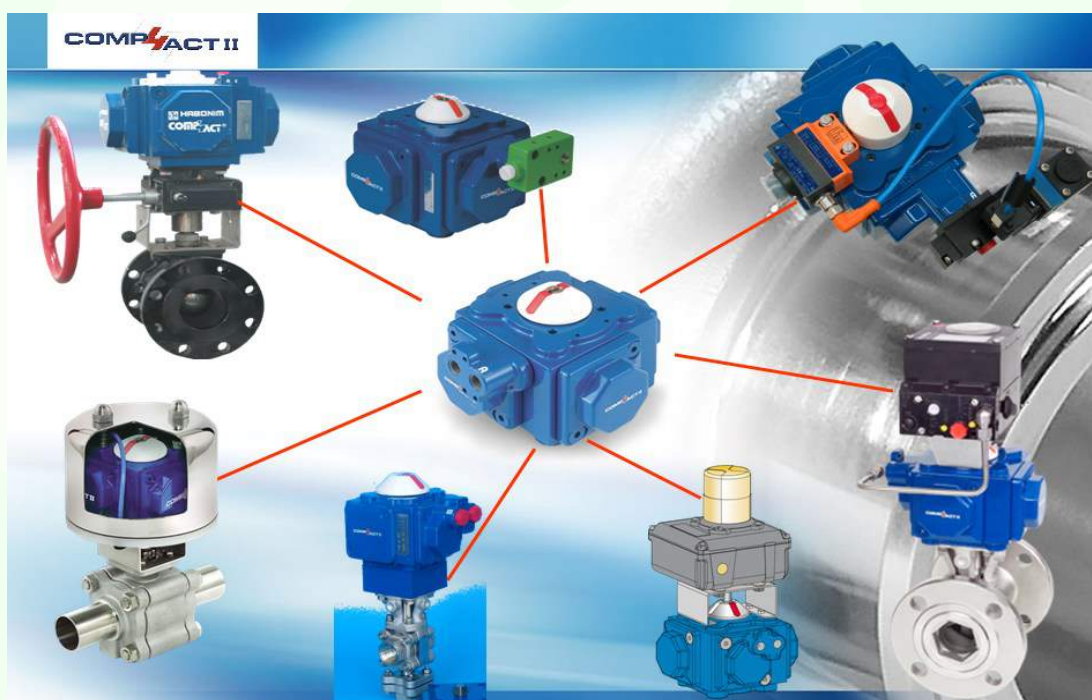
On several accessories easily Compact II Processes needed should be mounted.



Single Effect



Double Effect





SAMPLING VALVES



Even aggressive and toxic fluids or valves are used to retrieve the samples from the reactor without affecting the safe and environmentally. Process that makes it possible to easily stop the sample under different models of this type of valve and the pressure is particularly chemistry, among petrochemical and pharmaceutical industries indispensable valve.

Standarts

Size

Body

O'ring

Connection

: DIN ve ANSI

: 1" ~ 8" / DN25 ~ DN80

: Stainless Steel 316L, Alloy C276, vb.

: Viton, Chemraz, Kalrez, vb.

: Flanged

Applications

- Chemical
- Petro-Chemical
- Medicine

Line Type Sampling Valve

Mounted on top of the current line and the atmosphere without any fluid leaks - which in this case is of considerable importance to both the new regulations - are valves that allow the sampling.



Horizontal

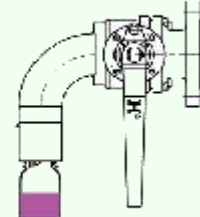
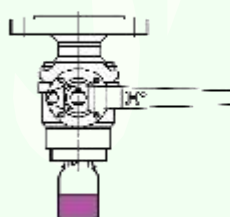
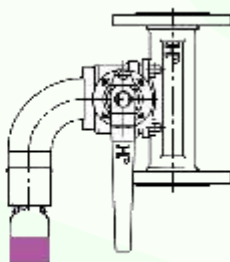
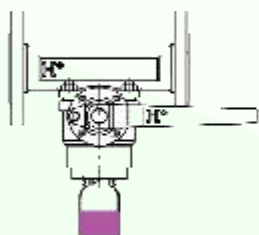


Vertical



Tank Bottom

Tank Wall



HYGENIC AND ASEPTIC VALVES



Especially in the food and pharmaceutical industries to provide clean solutions is very important. Therefore, the valve should be in the standard will meet these demands. For Example; valve bodies to be settled in the types of bacteria can not grow, however, should not be any reduction in the performance of the valve.

Standards	: DIN and ISO
Command Types	: Pneumatic Actuator and Electric Actuator
Control Types	: ON-OFF and Proportional

Properties:

- 316L (1.4404) Stainless Steel Body
- Interior surface roughness Ra <0.8 µm
- Body and Shaft Seals: EPDM (FDA) or silicone (FDA)
- Welded Connection: DIN, ISO and Inches, Option: Tri-clamp

Applications

- Medicine • Food
- Chemical

Other Models;

Diaphragm Type

Especially on / off application is in the forefront with excellent hygienic design. FDA approved sanitary diaphragm valves with gas in sterile conditions, can easily be used to isolate the liquid and chemical vapors.



3-Ways Valve - Star



T Valve



Clamped Connection



TUBORE / BIO-TECH BALL VALVE

Material	: 316L (Cast, Forged, Bar)
Seat/Seal	: PTFE, TFM, Virgin PEEK
Connection	: ETO, Tri-Clamp
Control	: Manual, Actuator, Proportional
Certificates	: FDA, USP, EU1935
Applications	: Bio-Pharma/Bio-Processing, Drugs, Food, Food & Beverage, Compressed Air, Clean Steam/Air, Cosmetic, Nutrient Supplementation etc.



HYGENIC BUTTERFLY VALVES



Pharmaceuticals, food and installation of sanitary butterfly valves suitable for use in the cosmetics industry, operation and ease of maintenance are also preferred because of the valve with a longer running time, with less cost.

Standards	: DIN
Size	: DN100 ~ DN400
Body	: SS316L, Stainless Steel
Trim	: Disc: SS316L, Seat: EPDM, Silicon Supported, PTFE+Internal Silicon
Connection	: Clamped (Wafer Type)
Control Types	: Hand Lever, Pneumatic Actuator
Media	: Liquid, Dust and Cement PED 97/23/EC – ATEX with Compatible



	Standards	: ANSI
	Size	: 3/4" ~ 2 1/2"
	Body	: SS304, Stainless Steel
	Trim	: Disc: SS304, Seat: PTFE
	Connection	: Clamped
	Control Types	: Hand Lever, Pneumatic Actuator

Standards	: DIN
Size	: DN25 ~ DN80
Body	: SS316L, Stainless Steel
Trim	: Disc: S316L, Seat: Red Silicon (Food Class), PTFE
Connection	: Welding, Flanged
Control Types	: Hand Lever, Actuator
Media	: Liquid, Dust and Cement PED 97/23/EC – ATEX with Compatible



	Standards	: ANSI
	Size	: 1/2" ~ 12"
	Body	: SS316L, Stainless Steel
	Trim	: Disc: SS316L, Seat: EPDM, Silicon, Viton
	Connection	: Tri-Clamped, Socket Weld
	Control Types	: Hand Lever, Pneumatic, Electric and Canister Actuator

Standards	: DIN
Size	: DN100 ~ DN500
Body	: SS316L, Stainless Steel
Seat	: EPDM, Transparent Silicon, PTFE and EPDM +Internal Silicon
Connection	: Wafer
Control Types	: Hand Lever PED 97/23/EC – ATEX with Compatible



CERAMIC LINED AND HOSE PINCH VALVES



CERAMIC LINED VALVES

Ceramic coated spherical and butterfly valves, high abrasion resistance ability, corrosion resistance, thermal insulation and thanks to relatively low thermal expansion are quite special products for any type of valve to be successful in situations where abrasive or highly corrosive applications.

All sub parts in contact with the fluid chemical properties and high hardness HRC90 (near Diamond) are made of ceramic. Of titanium alloys have been produced from or Monel valves have two to four times more life. Self-processing precision of the sphere having the lubricating properties of the produced thanks to a very high completeness, accuracy and roundness of the surface occurs. In addition to high abrasion resistance are needed less torque than the metal application.

HOSE PINCH VALVES

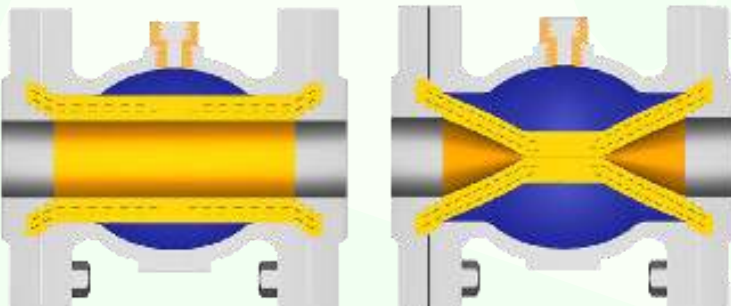
Such valves, flow control applications on a tight opening and closing or opening and closing made it to air with abrasive, corrosive, are used in fiber such as fluid or slurry application.

Properties:

- Containing solids such as mud because there is no pressing surface allows the free flow of fluid from any hindrance.
- Obstruction does not occur.
- Air consumption is low.
- light Type
- Easy Installation-To
- Pressure Loss less

Applications:

- Chemical Industry (granules gübresel nitrogen, titanium oxide, granular resin)
- Water Treatment (water, mud, lime milk, dilute acids)
- Sugar Refineries (lime milk, syrup)
- Ceramics Industry
- Metallurgy (dry sand, pulverized carbon)



CERAMIC LINED VALVES



CERAMIC LINED BALL VALVE

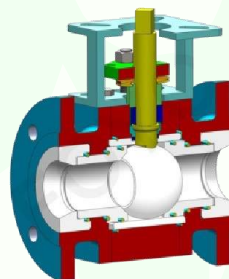
Standards	: DIN and ANSI
Size	: DN15 ~ DN200 / 1/2" ~ 8"
Pressure Class	: PN10 ~ PN63 / Class150 ~ Class600
Body	: Carbon Steel, Forged Carbon Steel, Stainless Steel
Connections	: Butt Weld and Flanged
Command Types	: Hand Lever, Pneumatic and Electric Actuator
Design Standard	: API6D, API608



Standards	: DIN and ANSI
Size	: DN10 ~ DN50 / 3/8" ~ 2"
Pressure Class	: 1000psi
Body	: Stainless Steel, Incoloy 825, Hastelloy C276
Connections	: Threaded
Command Types	: Hand Lever
Design Standard	: API6D, API608

Applications

- Silicon Powder
- Aluminium Oxide Powder
- Dry Coal Powder
- Limestone
- Cement
- Coal Dust Injection
- Metallurgical Powder
- Thermal Power Plant FGD
- Oil Solid Catalyst
- Waste Water
- Oil
- Corrosive Gases
- Ash
- Medium Solid Particulate Fluids
- Acid
- Alkali
- Abrasive Other Fluids



CERAMIC LINED VALVES



CERAMIC LINED BUTTERFLY VALVE

Standards	: DIN and ANSI
Size	: DN80 ~ DN300 / 3" ~ 12"
Pressure Class	: PN10, PN16 / Class150
Body	: Carbon Steel, Stainless Steel
Connection	: Wafer
Command Types	: Hand Wheel
Design Standard	: API609



CERAMIC LINED KNIFE GATE VALVE

Standards	: DIN and ANSI
Size	: DN50 ~ DN600 / 2" ~ 24"
Pressure Class	: PN10, PN16 / Class150
Body	: Carbon Steel, Stainless Steel
Trim	: Knife: Stainless Steel, Seat: Ceramic
Connection	: Flanged
Command Types	: Hand Wheel, Electric-Hydraulic

Applications

- Mud
- Lime Mud
- Slag
- Coal Slug

CERAMIC LINED SWING CHECK VALVE

Standards	: DIN and ANSI
Size	: DN50 ~ DN500 / 2" ~ 20"
Pressure Class	: PN10, PN100 / Class150 ~ Class600
Body	: Carbon Steel, Stainless Steel
Trim	: Disc: Cast Steel, Seat: Ceramic
Connection	: Flanged

Applications

- Mining
- Flue Gas Desulfurization
- Limestone
- Metallurgical Powder
- Ash Transport
- Polysilicon
- Liquid Chlorine
- Mud
- Cement





DOME AND IRIS VALVES

DOME VALVES

The inflatable seal is available in all kinds of polymers to suit a range of materials ranging from abrasive dusts to food products. Capable of maintaining a seal in 100% vacuum or even when there is a vacuum on one side of the valve and positive pressure on the other side.

Size	: DN50 ~ DN800
Body	: Cast Iron, Stainless Steel, Internal Teflon Lined
Seal	: Neoprene, Silicone, Viton, EPDM, FDA Rubber

Connections	: Flanged
Command Types	: Actuator
Applications	: Food, Pharmacy, Biodiesel, Mining, Spice, Petro-Chemicals, Glass Product, Plastic Particles And Resin, Nuclear Waste, Powder Metal, Aluminum Silicat Salt, Magnesium Dioxide, Ash, Salt, Uranium Fuel, Dust/Powder, etc.



****It is used under the tank to eliminate problems with the Ball, Sliding Gate and Butterfly Valves.***



IRIS VALVE

The concept of the Iris Diaphragm Valve is similar to that of the iris of a camera. It is used to control dry (non-liquid) fluids (powder, granule, crystal). As the tank and silo are used underneath the center, flow control is provided and silos or bunkert edges are prevented from accumulating.

Size	: 4" ~ 18"
Body	: Aluminum, SS304, SS316, SS316L
Diaphragm	: PU Coated, Silicon, Viton
Connections	: Wafer
Command Type	: Manual, Pneum. Actuator, Proportional
Applications	: Dry Powder/Dust, Small-Lumpy Grained Applications, Pharmaceutical, Chemical, Health, Food & Beverage Industry



BRASS AND BRONZE VALVES



PRESSURE REDUCER VALVE

Standards	: ANSI
Size	: 1/2" ~ 2"
Working Pressure	: Max. 25bar
Body	: Brass
Trim	: Seat: Stainless Steel, Spring: Cadmium Lined Steel
Connection	: Threaded



STRAINER

Standards	: DIN
Size	: DN8 ~ DN80
Pressure Class	: PN16, PN20
Body	: Brass
Trim	: Strainer: Stainless Steel
Connection	: Threaded

Y TYPE GLOBE VALVE

Standards	: ANSI
Size	: 3/8" ~ 4"
Pressure Class	: PN10, PN16
Body	: Bronze
Trim	: Disc and Stem: Brass, Gasket: PTFE
Connection	: Threaded



T TYPE GLOBE VALVE

Standards	: ANSI
Size	: 1/4" ~ 4"
Pressure Class	: PN16
Body	: Bronze
Trim	: Disc and Stem: Brass, Gasket: PTFE, Seat: Metal
Connection	: Threaded



BRASS AND BRONZE VALVES



BALL VALVE FOR HEATING AND WATER PLANTS

Standards	: ANSI
Size	: 1/4" ~ 4"
Pressure Class	: PN10 ~ PN40
Body	: Brass, Brass + Matt Chrome Lined
Trim	: Ball: Brass(Chrome and Nickel Lined), Stem: Brass
Connection	: Threaded

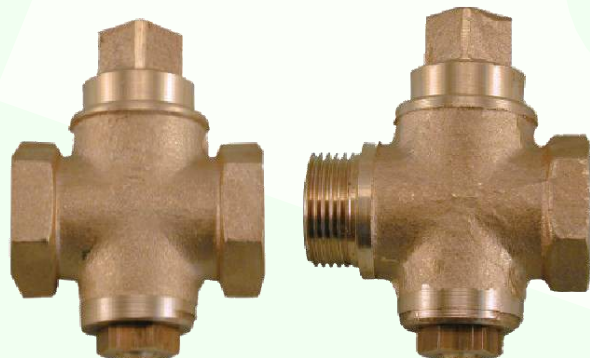


BALL VALVE FOR GAS, CNG and LPG

Standards	: ANSI
Size	: 3/8" ~ 2"
Pressure Class	: PN5
Body	: Brass, Brass + Matt Chrome Lined
Trim	: Ball: Brass(Chrome and Nickel Lined), Stem: Brass
Connection	: Threaded

BALL VALVE FOR GAS, CNG and LPG

Standards	: DIN
Size	: DN20 ~ DN200
Pressure Class	: PN16
Body	: G25 Ductile Iron
Trim	: Ball: Brass(Chrome and Nickel Lined), Stem: Brass, Seat: Graphite, PTFE
Connection	: Threaded
Command Types	: Hand Lever



PLUG COCKS

Standards	: ANSI
Size	: 3/8" ~ 2"
Pressure Class	: PN10
Body	: Brass
Connection	: Threaded

APPLICATION-SPECIFIC VACUUM VALVES



UHV GATE VALVE

UHV vacuum valves are custom manufactured for insulation applications.

Standards	: ANSI
Size	: 1" ~ 12"
Body	: Stainless Steel
Connection	: Flanged
Control Types	: Actuator and Hand Control
Applications	: Semiconductor materials in industry and R & D work



VACUUM BUTTERFLY VALVE

To be used in vacuum applications is manufactured as an alternative to gate valves for aggressive fluids.

Standards	: ANSI
Size	: 2 1/2" ~ 8"
Body	: Aluminium, Stainless Steel
Connection	: Flanged
Control Types	: Pneumatic Actuator

PRESSURE SAFETY VALVE

Vacuum systems are valve protects against high pressure 1.5 bar.

Standards	: DIN and ANSI
Size	: DN16 / 5/8"
Body	: Stainless Steel



BALL VALVE

Vacuum sealing applications are very special valve to zero.

Standards	: ANSI
Size	: 3/8" ~ 1 1/2"
Body	: Brass Nickel Plated
Control Types	: Manual

DIAPHRAGM VALVE

Corrosive gases in vacuum applications and are specially manufactured valves for liquid fluids.

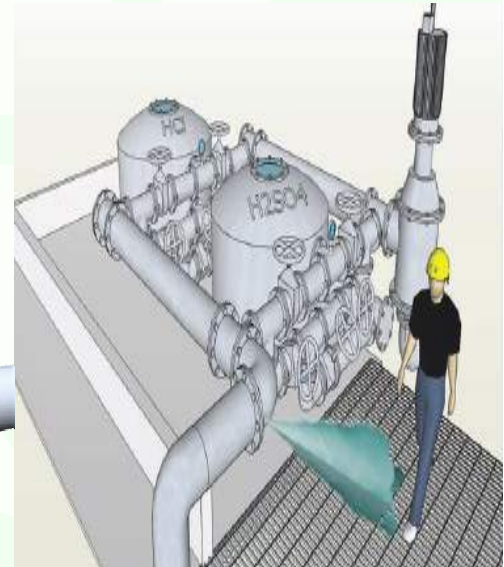
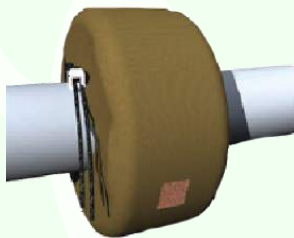
Standards	: ANSI
Size	: 5/8", 1" and 1 1/2"
Body	: Aluminium
Control Types	: Manual





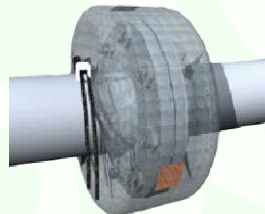
FLANGE AND VALVE SHIELDS

Scope of work safety, protective of human health and plant material that increases every day in work-related accidents that can be avoided now we see every day with the advancement of technology. This job security context of different fluids to customers HEKTO Engineering special offers flange and valve protectors in many different varieties. Thereby helping to ensure a safer working environment by minimizing customers' work-related accidents.



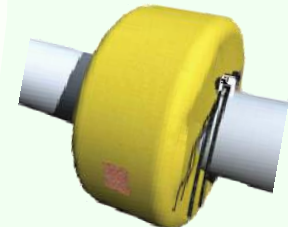
Flange and Valve Shield Types:

- FG-PTFE
- Polypropylene (PP)
- Polyvinyl Chloride (PVC)
- Polyethylene (PE)
- Stainless Steel

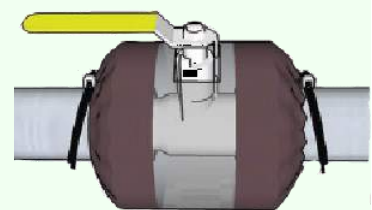
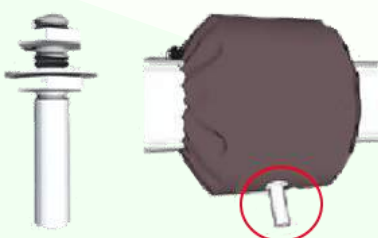


Applications

- | | |
|------------------|---------------------|
| • Air and Space | • Refinery |
| • Mine | • Steel |
| • Automotive | • Food and Beverage |
| • Petrochemical | • Shipping |
| • Medicine | • Electronic |
| • Cosmetics | • Pulp and Paper |
| • Nuclear Energy | • Other |



The Drain Options





ACCESSORIES



LIMIT SWITCH

Open or closed pneumatic actuator signal provided by these instruments. Produced by the solenoid valve can be integrated as the Limit Switch ATEX / SIL certificates are available.

POSITIONER

Pneumatic actuator and positioner control of the valve is the valve that is used to proportionally control accessories are supplied in different types.

- Electropneumatic
- Digital
- Smart

(Ex-proof types are also available)

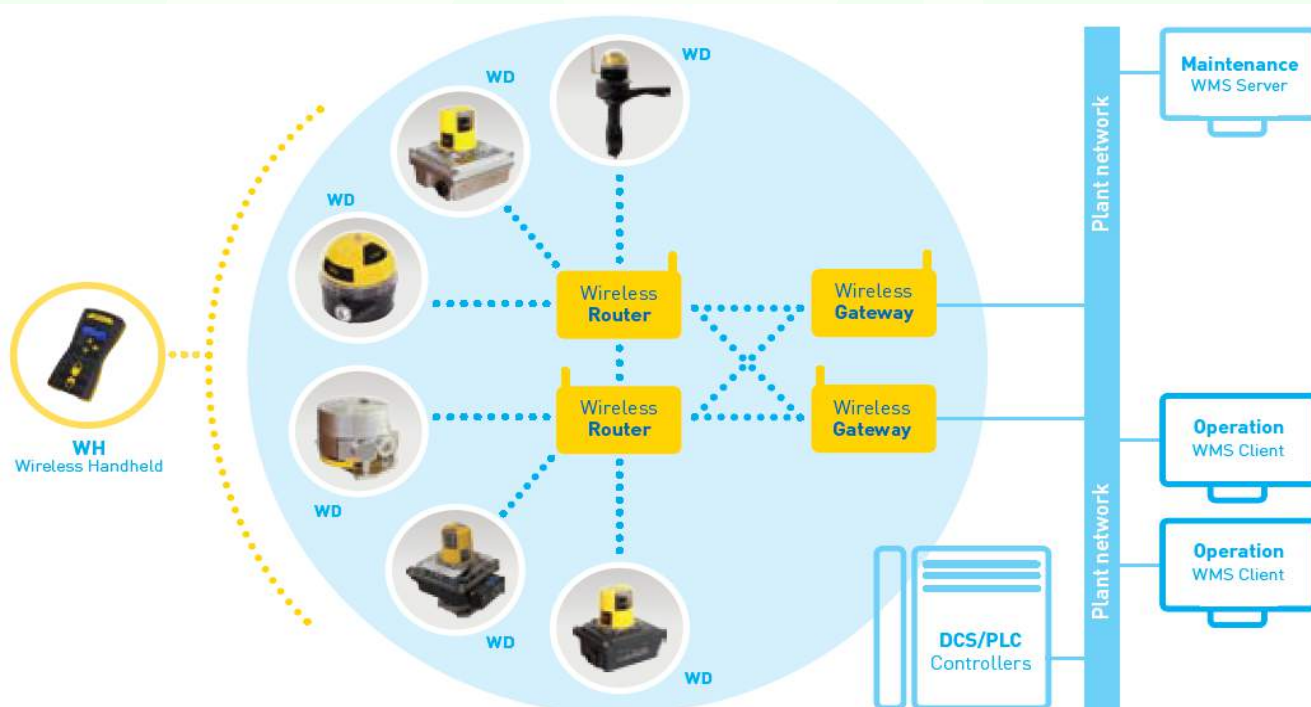


BEACON

Mounted on the limit switches are indicators that enable the operator to see that the valve is open or closed.

- Black / Yellow
- Green / Red
- Blue / White
- Red / White

WIRELESS LIMIT SWITCH



PLASTIC FITTINGS



Plastic Fittings Types: (BUTTWELD)

- Stub Flange
- Tee 45°
- Tee 90°
- Tee 90° Reduced
- Bend 11°
- Bend 22°
- Bend 30°
- Bend 45°
- Bend 60°
- Bend 90°
- Elbow 30°
- Elbow 45°
- Elbow 90°
- Reducer Concentric
- Reducer Eccentric
- End Cap
- Union Complete
- Union Bush
- Union End
- Union Nut
- Adaptor
- Profile Backing Ring
- Backing Ring
- Flange Connection
- Blind Flange
- Flat Gasket
- Profile Gasket
- Pipe Clip
- Distance Plate



Plastic Fittings Types: (COMPRESSION)

- Coupling
- Reducer Coupling
- Male Adaptor
- Female Adaptor
- Adaptor With Nut
- Elbow
- Elbow Male Threaded
- Elbow Female Threaded
- Tee
- Tee Male Threaded
- Tee Female Threaded
- Reduced Tee
- Plug
- Wallbrackets
- Flange Adaptor
- Clinching Ring
- Bushing Ring
- Nut
- O-Ring Gasket
- Tightening Key



OTHER PROCESS ELEMENTS



Vacuum Relief Valve	Pressure Reduce
	
Temperature Regulators	Air Separators
	
Condensate Separators	Steam Traps
	
Strainers	Sight Glasses
	
Expansion Joint	
	

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