PNEUCON
AUTOMATION








TUV NORD ISO 9001 CE Ex SIL IEC 61508 / IEC 61511 IMFR IBR Approved IP68

BUILT IN RELIABILITY

Company Profile

Pneucon Automation Pvt. Ltd. is a renowned & popular force in the arena of 'Design', 'Development', and 'Manufacturing' of a innovative range of Automated Valves. Our commitment extends beyond standardized solutions, catering to the diverse and customized automation demands of modern Process Industries. Pneucon boasts a fully integrated division conceptually reacting swiftly to all customer demands and technical supports. Apart from benefiting from the inherent synergies arising from its business verticals, the company's diversified products contribute to Pneucon becoming as a One Stop Solution to all the customers under a single roof.

Design and Engineering

The Engineering department's mission revolves around design innovation, utilizing advanced technology & continuous use of new design techniques. The Design Team experts have acquired competence over years to produce high-quality automated innovative products suitable for the world of process industries. We are able to provide a complete design activity according to the customer requests, producing concept solutions.

Manufacturing

Pneucon manufacturing unit is equipped with the latest machines, and test facilities. Our production team of skilled workers ensure to employ latest state –of-the-art modern techniques in the entire cycle of production under stringent quality control procedures & norms. Pneucon make Valves, Pneumatic Rotary Actuators, Scotch Yoke Actuators, Limit switches & all other accessories are manufactured to the highest degree of accuracy to ensure performance & reliability.

Quality

Pneucon products are produced in strict compliance with the Quality Management System requirements and in conformance with the engineering codes in practice and relevant standards.

Customer Service

The interchangeability of the spares has proven to be the best service support on site to the end users. The interchangeability of the spares has proven to be the best service support on site to the end users.

BALL VALVE WITH ROTARY ACTUATOR

Designed and Manufactured as per
ANSI B 16.34, BS 5351
Pressure Testing: API 598, API 6D
End Connection: ASME B 16.1

FEATURES

- Compact and simple construction provides ease in maintenance without disturbing insulations and piping connections
- Easy Operation even under high pressures
- Full circular passages
- Easily replaceable PTFE seats & Packing
- Prolonged successful operation even under High Pressures

MOUNTING

Interface	:	ISO 5211
Body MOC	:	WCB, CF8, CF3, CF8M, CF3M (Special on Request)
Trim MOC	:	CF8, CF3, CF8M, CF3M (Special on Request)
Seat MOC	:	PTFE, GFT, PEK (Special on Request)
Size	:	½" (15mm) to 8" (200mm)

TYPES OF END CONNECTION

FLANGED

SCREWED

SOCKET WELD

BUTT WELD

TRI CLOVER

PFA / FEP LINED BALL VALVE WITH ROTARY ACTUATOR

Designed and Manufactured as per
ANSI B 16.34, BS 5351
Pressure Testing: API 598, API 6D
End Connection: ASME B 16.1

FEATURES

- 2 Piece Designed Ball Valve. Body & Single piece Ball with Stem with minimum 3.5 mm thermostatic lining of PFA or FEP, universally used for highly corrosive and chemical applications.
- Floating Ball Seat for Bubble Tight Shut Off
- Long Life Seats to minimize downtime and maintenance
- Easily replaceable PTFE seats & Packing
- Minimum 20 Kv Spark Test

MOUNTING

Interface	:	ISO 5211
Body MOC	:	Ductile Iron, CF8, CF8M (LINED)
Trim MOC	:	CF8, CF8M (LINED)
Seat MOC	:	PTFE
Size	:	½" (15mm) to 8" (200mm)

FLUSH BOTTOM BALL VALVE WITH ROTARY ACTUATOR

Designed and Manufactured as per BS 5351
End Connection : ASME B 16.5

FEATURES

- The Valves are designed to open directly in the tank, reactor for 100% Flushing or discharging the material
- Easy Operation even under high pressures
- Full circular passages
- Easily replaceable PTFE seats & Packing
- The design is featured with inclined bonnet which allows the automation OR manual operation to be free from fouling with the reactor disc end

MOUNTING

Interface	:	ISO 5211
Body MOC	:	WCB, CF8, CF8M, CF3, CF3M (Special on Request)
Trim MOC	:	CF8, CF8M, CF3, CF3M (Special on Request)
Seat MOC	:	PTFE, GFT, PEK (Special on Request)
Size	:	½" (15mm) to 8" (200mm)

3-WAY BALL VALVE WITH ROTARY ACTUATOR

Three Way Ball Valve is available in either "L" Port or "T" Port.

"L" Port Three Way Ball Valve is used for pipelines to switch the flow direction of two flow lines perpendicular with each other.

"T" Port Three Way Ball Valve is used for diverting, mixing or switching the flow direction. Ball passage is able to switch on three flow lines or switch on two of the three flow lines.

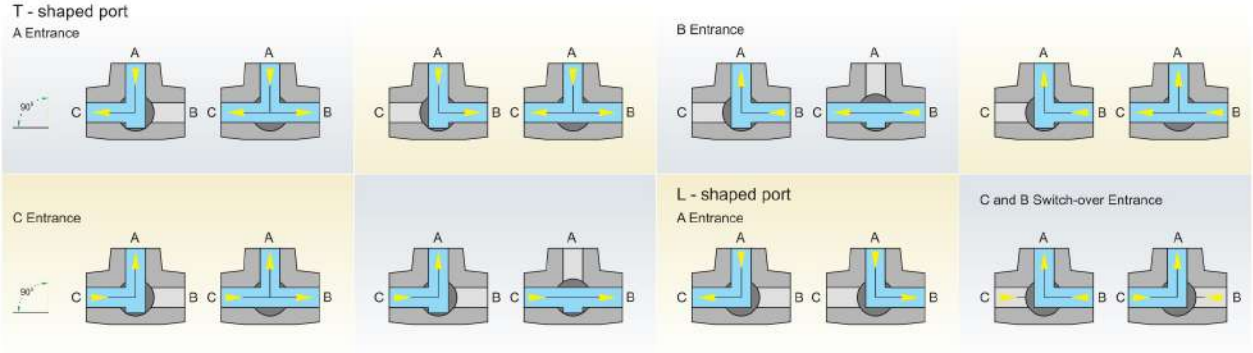
FEATURES

- Four Seats for equal seat loading
- Multiple Gland Packing, Seals & Spring Washers for zero leakage from gland.

MOUNTING

Interface	:	ISO 5211
Body MOC	:	CS, CF8, CF8M
Trim MOC	:	CF8, CF8M
Seat MOC	:	PTFE, GFT, PEK (Special on Request)
Size	:	1" (25mm) to 8" (200mm)

Types of 3 – Way Ball Valves Flow Directions



BUTTERFLY VALVE

Designed and manufactured as per BS 5155, API 609, MSS SP 67 & ISO 5752

FEATURES

- Bi Directional zero leakage Butterfly Valve
- An Extremely negligible backlash between Stem & disc due to square drive
- Butterfly Valves (Lined) are designed to fit without gaskets between flanges drilled to ANSI 125 #, ANSI 150#, DIN., ND 10, 16, BS 10 Table D, E and F
- 100% Factory tested under Water / Air / Vaccum before the valve is packed and shipped
- 360° Disc Rotation

Valve Size	:	1 ½" (40 mm) to 36" (900 mm)
Rating	:	ANSI / BS 125# / 150#
Design	:	Centric Disc, Single to Triple Offset Disc Fully Lined & Unlined Body
End Connection	:	Wafer, Lugged & Double Flanged
Operation	:	Pneumatic
Port Opening	:	Full
Seat	:	Nitrile EPDM / Neoprene / Silicon / Viton etc.
Disc	:	Solid Dual Shaft / Single Shaft
Design Code	:	API - 609 / BS - 5155
Testing	:	API 598

RUBBER LINED BUTTERFLY VALVE

DOUBLE OFFSET BUTTERFLY VALVE

PFA LINED BUTTERFLY VALVE

"Y" TYPE 2 WAY ANGLE VALVE

Valve Size	:	½" (15 mm) to 2" (50 mm)
Rating	:	ANSI 150
Temperature	:	-10°C to 180°C
Max. Pressure	:	16 BAR
End Connection	:	Screwed, Flanged, Triclover (Special on Request)
Body / Bonnet	:	Investment Casting ASTM A 351 Gr. CF8 / CF8M
Gland Packing	:	Self adjusting, spring loaded Teflon packing
Trim Materials	:	SS 316
Seat-Seal	:	PTFE / Metal Seated VITON / EPDM, Buna Nitrile.
Characteristics	:	On / Off
Seat Leakage	:	As per FCI-70-2 Class IV, V and VI Metal to Soft Seating-Bubble tight (Zero Leakage)
Actuator Type	:	Piston
Actuator Action	:	Direct / Reverse / Double Acting Direct acting air failure "Opens" Reverse acting air failure "Closes" Double Acting air failure "Stayput"

MANUAL BUTTERFLY VALVE

Valve Size	:	1 ½" (40 mm) to 36" (900 mm)
Rating	:	ANSI / BS 125# / 150#
Design	:	Centric Disc, Single to Triple Offset Disc Fully Lined & Unlined Body
End Connection	:	Wafer, Lugged & Double Flanged
Operation	:	Wrench / Manual Gear
Port Opening	:	Full
Seat	:	Nitrile /EPDM / Neoprene / Silicon / Viton etc.
Disc	:	Solid Dual Shaft / Single Shaft
Design Code	:	API - 609 / BS - 5155
Testing	:	API 598

Pneucon Butterfly Valve, with integrally moulded elastomers body sleeve are designed for longer life and trouble free performance. Integrally moulded sleeve ensures perfect resistance against friction between the disc and the sleeve.

MANUAL BALL VALVE

Range at Glance

TYPE	END CONNECTION	PORT	ASME CLASS	SIZE										
				½"	¾"	1"	1½"	1½"	2"	2½"	3"	4"	6"	8"
SINGLE PIECE	FLANGED	FULL / REDUCED	150		✔	✔		✔	✔		✔	✔		
TWO PIECE	FLANGED	FULL / REDUCED	150 / 300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
		FULL / REDUCED	600			✔		✔	✔		✔	✔		
THREE PIECE	FLANGED / SOCKET WELD / SCREWED	FULL / REDUCED	150	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
THREE PIECE FORGED	SOCKET WELD / SCREWED	FULL / REDUCED	800	✔	✔	✔		✔	✔					
SINGLE PIECE/ FULL JACKETED	FLANGED	FULL	150			✔		✔	✔		✔	✔		
3-WAY L PORT	FLANGED	FULL	150 / 300			✔		✔	✔		✔	✔	✔	
3-WAY T PORT	FLANGED	FULL	150 / 300		✔	✔		✔	✔	✔	✔	✔	✔	

- Pneucon valves are designed and manufactured as per ASME B16.34/ API 6D/ BS EN 17292. These Standards Cover Pressure - Temperature ratings, minimum shell thickness, bore diameter for each size/class
- Castings inspection as per MSS-SP 53, 54, 55, 59, 93 & 94
- Actuator mounting pad on the valve is as per ISO 5211
- Other applicable standards

Face to Face : ASME B 16.10
Flange Dimension : ASME B 16.5
Butt Welded Valve Ends : ASME B 16.25 / B31.3 / B31.4 / API 6D
Pressure Tests : API 598 / BS EN 12266 – I / API 6D
Fire Safety : API 607 / API 6FA / BS 6755 PART II

OPTIONAL ACCESSORIES

Limit Switch Enclosures

Pneucon Limit Switch are used for open & close feed back and are certified for Weatherproof IP 67, Explosion Proof IIC, T6 & Intrinsic Safe IIC, T6

100% Travel Stopper

The stoppers are located in the end caps and allow the valve position to set anywhere between full closed to full open position

Quick Exhaust Valve

Quick Exhaust Valve are used for faster fail position

Speed Controller

Speed Controllers are used to control open / close timing of Actuator

Air lock

Air Locks are used to keep Actuator in Stay Put condition in the event of loss of Air to Actuator

Volume Booster

Volume Boosters are used for faster response in opening / closing of Actuators

De Clutchable MOR

De Clutchable MOR are used to operate the valve manually in the event of Air Failure

Valve Positioner

Valve Positoners are used for modulating application. It can be provided with either integrated or a seperate position transmitter

PNEUMATIC ROTARY ACTUATOR

Design

Dual Rack and pinion design with extra wide base manufactured in full compliance with the latest requirement of ISO 5211 with provision for mounting Solenoid Valves, Limit Switches & Accessories comply to NAMUR VDI/ VDE 3845

Actuator Body: Extruded Aluminium Alloy body is hard anodised to protect the internal and external components against corrosion, Special Honed Internal Surface reduces the friction on moving pistons and extends the life cycle of the actuators. Alternative coatings are available such as ENP (Electroless Nickle Plating), Fiber Powder Coated, PFA, ECTFE for more aggressive environments.

End Caps: Diecasted aluminum end caps are primerely Alodine Chromatized coated which provides longer life cycles against corrosion and reduces wearing resistance. Secondary standard coating is powder polyester coating and also ENP, PFA, ECTFE etc coatings are offered alternatively for agressive environments.

Pistons: Diecasted aluminum twin rack pistons are equipped with slide guides and seals in high engineered plastic. Alodine Chromatized coated pistons ensure longer life cycles against corrosion and wearing resistance. Pistons that are identical on both sides allow reverse rotation simply by inverting the pistons.

Travel Adjustment: Bi-directional external travel stop adjustment bolts can adjust the position ± 5° between 85° to 95° at both opening and closing directions for accurate valve allignment. 0-90° full scale limit position adjustment can also be offered optionally.

Pinion (Drive Shaft): Anti Blow Out proof alloy steel pinion is electroless nickel plated in order to reduce the friction, provide maximum wear resistance and protection against corrosion under severe conditions as it fully conforms to the latest standards of ISO5211, DIN3337,NAMUR. Double square, paralel or diagonal square or key way type shaft can be supplied in accordance with customer demands.

Preloaded Springs: Modular Pre Loaded Spring Cartridge design in high grade coated steel springs provide great safety and corrosion resistance in fail safe and emergency shut down operations. Also these springs can be used for both high & Low Temperature applications.

Position Indicator: All actuators are equipped with regular position indicator showing the current state of the actuators and valves. Top of Actuator has a NAMUR slot to engage with all popular sensors and positioners.

Bearings: Low friction Bearing & guides provide high life cycle to ensure trouble free operations and stability during operation of actuators.

Seals: NBR rubber O-rings provide trouble free operation at standard temperature ranges between -20 °C to +80 °C temperature ranges. For high and low temperature applications Viton (-20 °C ~ +150 °C) and Silicone (-35 °C ~ +80 °C) seals are available optionally

Fasteners: Stainless steel fasteners for long life corrosion resistant application.

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