











# COMPANY PROFILE

PNEUCON AUTOMATION is an associate company of Pneucon Valves Pvt Ltd who are pioneer in Design, Development and Manufacture of complete range of Control Valves. Pneucon Automation is promoted to manufacture complete range of AUTOMATED VALVES to meet the diverse automation demands of the modern process industries.

#### DESIGN AND ENGINEERING

Pneucon Engineering department's mission is design innovation. Our ability, experience and expertise through the use of sophisticated technology and CAD/CAE equipment results in the production of high quality automated valves for wide range of applications.

### MANUFACTURING

Pneucon manufacturing unit is equipped with latest machineries, equipments 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. The valves and components are manufactured to the highest degree of accuracy to ensure a trouble free long life and guaranteed interchangeability of spares.

# QUALITY

Pneucon valves 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**

Pneucon has fully integrated customer service division, which is fully geared to react speedily to all customers enquiries and whatever technical support needed.





# 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

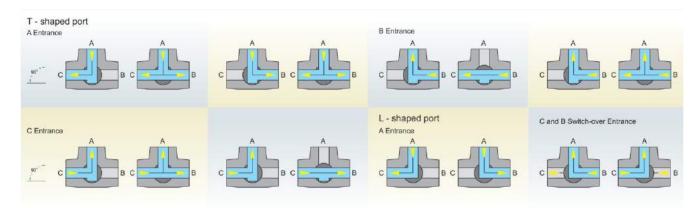
Body MOC: CS, CF8, CF8M Trim MOC: CF8, CF8M

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

				SIZE										
TYPE	END CONNECTION	PORT	ASME CLASS	1/2"	3/4"	1"	11/2"	1½"	2"	2½"	3"	4"	6"	8"
SINGLE PIECE	FLANGED	FULL / REDUCED	150		~	¥		~	¥		v	~		
TWO PIECE	FLANGED	FULL / REDUCED	150 / 300	~	~	~	~	~	~	~	~	~	~	•
		FULL / REDUCED	600			V		V	~		~	~		
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			~		~	V		~	~		
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

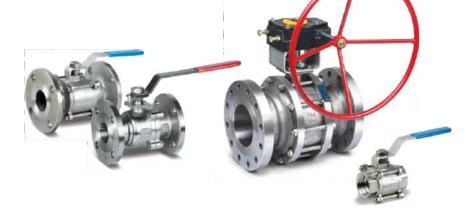
Face to Face : ASME B 16.10
Flange Dimension : ASME B 16.5
Butt Welded : ASME B 16.25 /
Valve Ends : B31.3 / B31.4 /
API 6D

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, Tá & Intrinsic Safe IIC, Tá

# 100% Travel Stopper



The stoppers are located in the end caps and allow the valve position to set anywhere between full clased 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  $\pm$  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  $\sim$  +150 °C) and Silicone (-35 °C  $\sim$  +80 °C) seals are available optionally

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





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