

# PLUG VALVE



## VALVE SOLUTIONS for Corrosive Applications



**UNP Polyvalves**

Manufacturer of PFA/FEP/PTFE Lined & Plastic Valves,  
Pipes & Pipe Fittings



# VALVE SOLUTIONS for Corrosive Applications



## About Us

UNP Polyvalves is manufacturing Corrosive application valves since 1988.

UNP started with all plastic valves with limited size options, today has a complete range of corrosive application valves in both options of Solid Plastic valves and Lined valves. UNP now has in it's range Ball, Plug, Butterfly, Diaphragm valves, Non-return valves, Strainers, Sampling valves, Pipes and Pipe Fittings. This completes range of complete piping solution in corrosive applications.

UNP has most modern facility situated at Por with latest moulding technology and highest moulding capacity to manufacture lined valves as large as 24" with Injection moulding machines of largest capacity in the country.

Envisioned for quality and reliability, UNP Polyvalves aims for highest level of Customer satisfaction through its solutions with the commitment for excellence in all spheres of business.

UNP Polyvalves possesses live skill sets headed by highly knowledgeable, technically

experienced entrepreneurs. These experts lead and guide their team with a great vision to achieve high quality standards to make products for its high performance and unmatched quality.

UNP Polyvalves, over all these years has been dealing with almost all chemical process industries in Chlor Alkali, Chemical, Pharmaceutical, Mining, Refineries etc., in India and exporting to 35+ countries in the world including market such as USA, Europe, Latin America, Africa, Russia, South East Asia, Australia etc. . .

## Achievements

UNP Polyvalves through its technical expertise and involvement in knowing Physical process parameters could help resolving corrosion problems related to valves and piping system in Industries such as Chlor Alkali, CRM in Steel Industries, Chemical injection skids for Oil and Gas and many more chemical plant across the world. UNP today has approvals from leading consultants such as UHDE, Jacobs Engineering, Mott McDonald, Toyo Engineering, Fluor Daniel, TUV, EIL etc., and have worked for their prestigious projects.

## PRODUCT FEATURES AND OPTIONS AVAILABLE

- UNP has a unique design Plug valves specifically to provide very low torque against PFA Lined Plugs available as standard worldwide.
- UNP offers following lining options instead of standard PFA or FEP Lined Plugs to achieve very low torques. Which is shown in table Below.

[a] TEFCOR  
[b] TFM  
[c] GTEFCOR  
[d] CERCOR

| SIZE | TORQUE FOR PFA<br>PLUGS OF UNP |              | TORQUE FOR TEFCOR /GTEFCOR<br>/TFM & CERCOR PLUGS OF UNP |              |
|------|--------------------------------|--------------|----------------------------------------------------------|--------------|
|      | N-M                            | INCH - POUND | N-M                                                      | INCH - POUND |
| 0.5" | 30                             | 260          | -                                                        | -            |
| 1"   | 35                             | 310          | -                                                        | -            |
| 1.5" | 50                             | 443          | 30                                                       | 266          |
| 2"   | 75                             | 664          | 40                                                       | 354          |
| 3"   | 140                            | 1239         | 50                                                       | 443          |
| 4"   | 235                            | 2080         | 100                                                      | 885          |
| 6"   | 525                            | 4646         | 238                                                      | 2100         |

UNP has GTEFCOR and CERCOR Plug Options for abrasive applications and these options will help against Conventional Plug Lining options of PFA or FEP which may wear out in abrasive applications.

| BODY LINING<br>OPTIONS | BODY AND PLUG<br>CASTING OPTIONS |
|------------------------|----------------------------------|
| PFA                    | ASTM A 216 GR. WCB               |
| FEP                    | ASTM A 351 GR. CF8               |
| PVDF                   | ASTM A 351 GR. CF8M              |
| ETFE                   | ASTM A 890 GR. 4A (CD3MN)        |
| ECTFE                  | HASTELLOY C 276 / C 22           |
| PPH                    | MONEL                            |

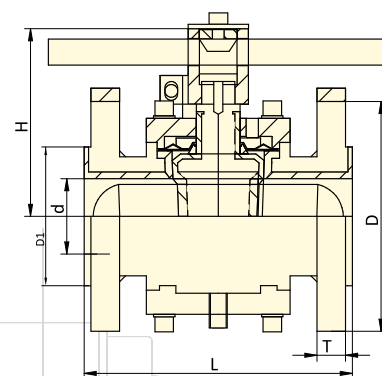
# PFA LINED PLUG VALVES

## LEVER OPERATED

### PART LIST

| PART NO. | DESCRIPTION              | MATERIAL OF CONSTRUCTION                          | QTY. |
|----------|--------------------------|---------------------------------------------------|------|
| 1        | Body                     | ASTM A 216 GR. WCB + PFA LINED                    | 1    |
| 2        | Plug                     | ASTM A 890 GR. 4A(CD3MN)<br>+ PFA or TEFCOR LINED | 1    |
| 3        | Cover Plates             | ASTM A 216 GR. WCB                                | 2    |
| 4        | Shim Bottom              | SS 304                                            | 1    |
| 5        | Diaphragm Bottom         | PTFE                                              | 1    |
| 6        | Wedge Ring               | PTFE                                              | 1    |
| 7        | Diaphragm Top            | PTFE                                              | 1    |
| 8        | Shim Top                 | SS 304                                            | 1    |
| 9        | Thrust Collar            | SS 304                                            | 1    |
| 10       | Grub Screw Bottom        | SS 304                                            | 1    |
| 11       | Allen Bolt Washer Bottom | SS 304                                            | 4    |
| 12       | Allen Bolt Bottom        | ASTM A 193 GR. B7                                 | 4    |
| 13       | Grub Screw Top           | SS 304                                            | 3    |
| 14       | Allen Bolt Washer Top    | SS 304                                            | 4    |
| 15       | Allen Bolt Top           | ASTM A 193 GR. B7                                 | 4    |
| 16       | LEVER                    | MS                                                | 1    |
| 17       | Wrench Holding Block     | ASTM A 216 GR. WCB                                | 1    |
| 18       | Wrench Bolt Washer       | STEEL                                             | 1    |
| 19       | Wrench Holding Bolt      | SS 304                                            | 1    |

### SECTIONAL VIEW



### DIMENSIONS

| Size | L ±0.11 |     | D ±0.04 |     | D1 ±0.04 |     | d ±0.04 |    | T ±0.11/0.00 |      | H ±0.19 |     | PCD ±0.062 |     | n  | HOLE DIA. |    |
|------|---------|-----|---------|-----|----------|-----|---------|----|--------------|------|---------|-----|------------|-----|----|-----------|----|
|      | INCH    | MM  | INCH    | MM  | INCH     | MM  | INCH    | MM | INCH         | MM   | INCH    | MM  | INCH       | MM  |    | INCH      | MM |
| 0.5" | 4.25    | 108 | 3.50    | 89  | 1.38     | 35  | 0.59    | 15 | 0.51         | 13   | 3.46    | 88  | 2.36       | 60  | 04 | 5/8       | 16 |
| 1"   | 5.00    | 127 | 4.25    | 108 | 2.00     | 51  | 0.98    | 25 | 0.63         | 16   | 4.17    | 106 | 3.11       | 79  | 04 | 5/8       | 16 |
| 1.5" | 6.50    | 165 | 5.00    | 127 | 2.87     | 73  | 1.5     | 39 | 0.74         | 19   | 4.29    | 109 | 3.86       | 98  | 04 | 5/8       | 16 |
| 2"   | 7.01    | 178 | 5.98    | 152 | 3.62     | 92  | 1.97    | 50 | 0.80         | 20.5 | 5.47    | 139 | 4.76       | 121 | 04 | 3/4       | 19 |
| 3"   | 7.99    | 203 | 7.48    | 190 | 5.00     | 127 | 2.95    | 75 | 0.98         | 25   | 5.78    | 147 | 5.98       | 152 | 04 | 3/4       | 19 |
| 4"   | 9.01    | 229 | 9.01    | 229 | 6.18     | 157 | 3.7     | 94 | 0.98         | 25   | 6.92    | 176 | 7.52       | 191 | 08 | 3/4       | 19 |

All Dimensions are in Inches & mm unless otherwise specified. PCD of the Valve can be provided in ANSI / DIN / JIS.  
Tolerances are given in Inches.



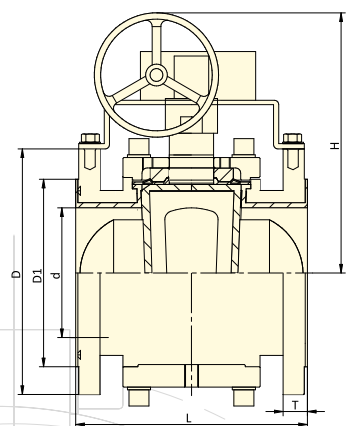
# PFA LINED PLUG VALVES

## GEAR OPERATED

### PART LIST

| PART NO. | DESCRIPTION               | MATERIAL OF CONSTRUCTION                       | QTY. |
|----------|---------------------------|------------------------------------------------|------|
| 1        | Body                      | ASTM A 216 GR. WCB + PFA LINED                 | 1    |
| 2        | Plug                      | ASTM A 890 GR. 4A(CD3MN) + PFA or TEFCOR LINED | 1    |
| 3        | Cover Plates              | ASTM A 216 GR. WCB                             | 2    |
| 4        | Shim Bottom               | SS 304                                         | 1    |
| 5        | Diaphragm Bottom          | PTFE                                           | 1    |
| 6        | Wedge Ring                | PTFE                                           | 1    |
| 7        | Diaphragm Top             | PTFE                                           | 1    |
| 8        | Shim Top                  | SS 304                                         | 1    |
| 9        | Thrust Collar             | SS 304                                         | 1    |
| 10       | Grub Screw Bottom         | SS 304                                         | 1    |
| 11       | Allen Bolt Washer Bottom  | SS 304                                         | 4    |
| 12       | Allen Bolt Bottom         | ASTM A 193 GR. B7                              | 4    |
| 13       | Grub Screw Top            | SS 304                                         | 3    |
| 14       | Gear Box Mounting Bracket | SS 304                                         | 1    |
| 15       | Allen Bolt Washer Top     | SS 304                                         | 4    |
| 16       | Allen Bolt Top            | ASTMA A 193 GR. B7                             | 4    |
| 17       | Coupler                   | SS 304                                         | 1    |
| 18       | Gear Box Mounting Bolts   | HT 12.9                                        | 4    |
| 19       | Bracket Mounting Bolts    | HT 12.9                                        | 4    |
| 20       | Gear Box                  | CAST IRON                                      | 1    |

### SECTIONAL VIEW

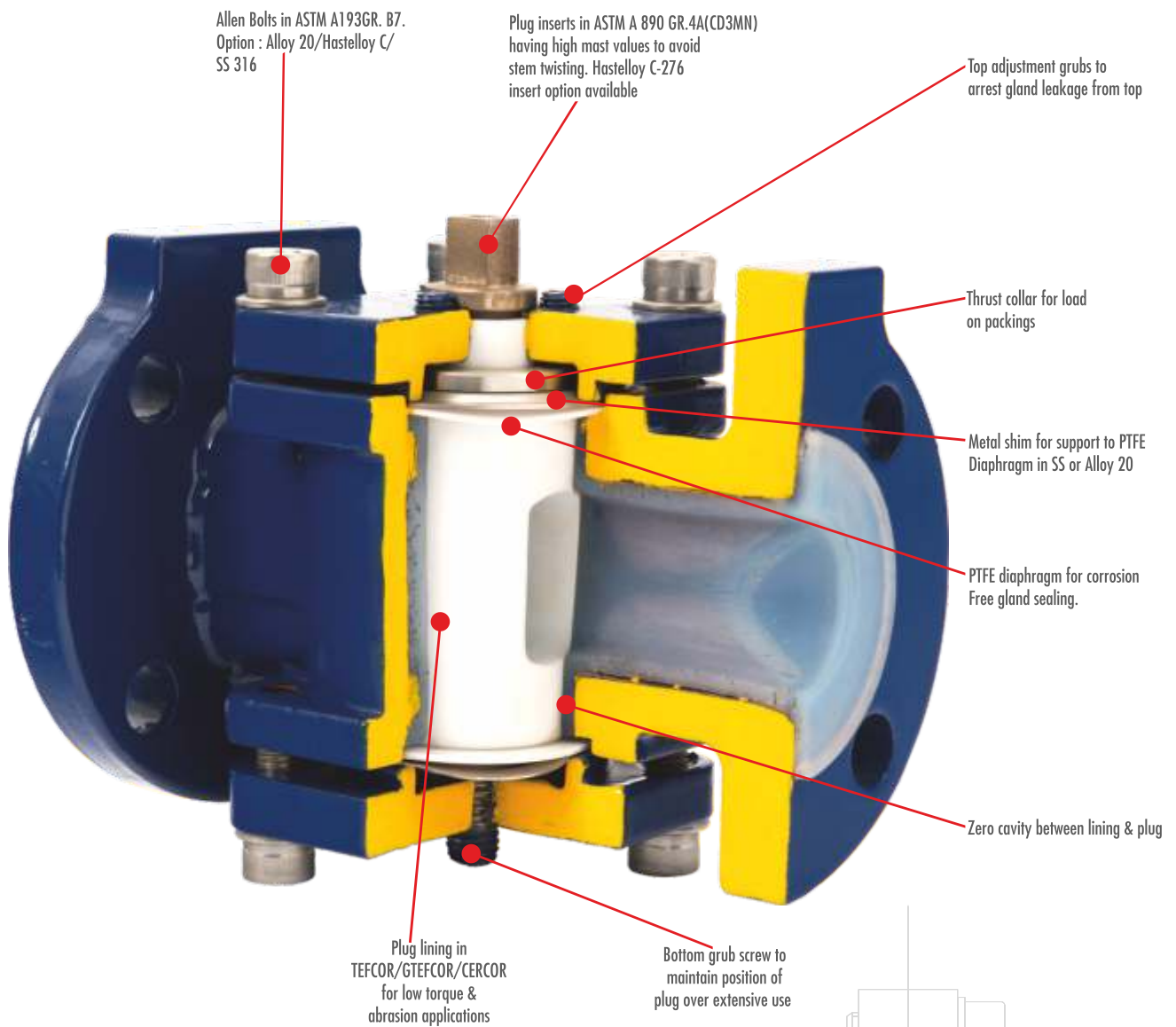


### DIMENSIONS

| Size | L ±0.11 |     | D ±0.04 |     | D1 ±0.04 |     | d ±0.04 |     | T ±0.11/0.00 |    | H ±0.19 |     | PCD ±0.062 |     | n  | HOLE DIA. |    |
|------|---------|-----|---------|-----|----------|-----|---------|-----|--------------|----|---------|-----|------------|-----|----|-----------|----|
|      | INCH    | MM  | INCH    | MM  | INCH     | MM  | INCH    | MM  | INCH         | MM | INCH    | MM  | INCH       | MM  |    | INCH      | MM |
| 6"   | 10.51   | 267 | 11.00   | 280 | 8.50     | 216 | 5.90    | 150 | 1.10         | 28 | 16.14   | 410 | 9.48       | 241 | 08 | 7/8       | 22 |
| 8"   | 11.69   | 297 | 13.50   | 343 | 10.55    | 268 | 7.60    | 194 | 1.18         | 30 | 18.30   | 465 | 11.73      | 298 | 08 | 7/8       | 22 |

All Dimensions are in Inches & mm unless otherwise specified. PCD of the Valve can be provided in ANSI / DIN / JIS.  
Tolerances are given in Inches.

## PLUG VALVE FEATURES





## TORQUE &amp; Cv VALUES

| SIZE | TORQUE IN NM |             | TORQUE IN INCH-LBS |             | Cv   |
|------|--------------|-------------|--------------------|-------------|------|
|      | PFA PLUG     | TEFCOR PLUG | PFA PLUG           | TEFCOR PLUG |      |
| 0.5" | 25           | -           | 221                | -           | 15   |
| 1"   | 35           | -           | 310                | -           | 41   |
| 1.5" | 50           | 30          | 443                | 266         | 91   |
| 2"   | 75           | 40          | 664                | 354         | 169  |
| 3"   | 140          | 50          | 1239               | 443         | 297  |
| 4"   | 235          | 100         | 2080               | 885         | 539  |
| 6"   | 525          | 238         | 4646               | 2100        | 1123 |
| 8"   | 1300         | -           | 11505              |             | 1591 |

## VALVE NET WEIGHTS

| SIZE | WEIGHT |       |
|------|--------|-------|
|      | KGS    | LBS   |
| 0.5" | 4.10   | 9.0   |
| 1"   | 5.20   | 11.4  |
| 1.5" | 8.00   | 17.6  |
| 2"   | 12.30  | 27.0  |
| 3"   | 19.50  | 42.9  |
| 4"   | 31.00  | 68.2  |
| 6"   | 58.00  | 127.6 |
| 8"   | 80.00  | 176.0 |

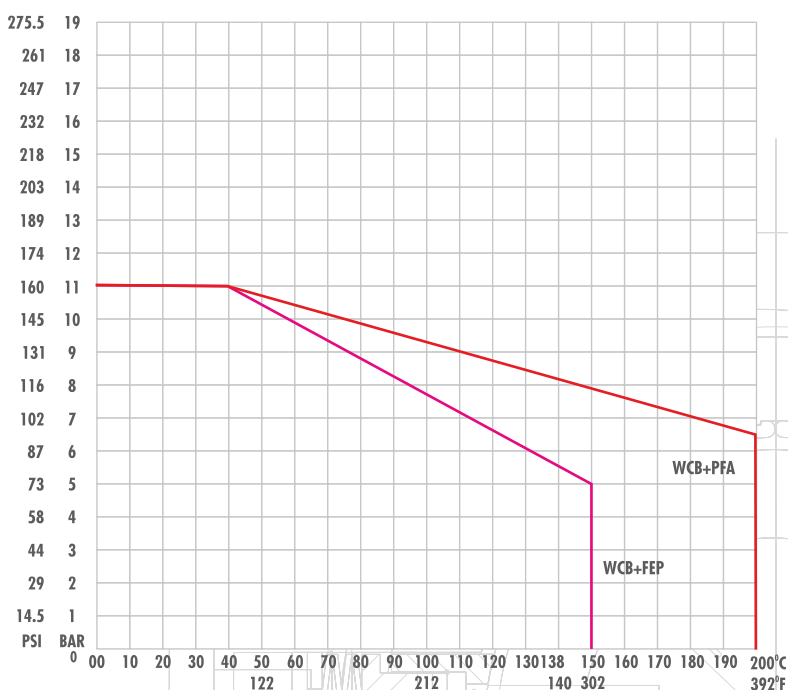
## PRODUCT DESIGN AND TESTS PERFORMED

| DESIGN PARAMETERS        | STANDARD                            |
|--------------------------|-------------------------------------|
| VALVE DESIGN             | API 599                             |
| SHELL DESIGN             | ANSI B 16.34                        |
| FACE TO FACE             | ANSI B 16.10                        |
| FLANGE CONNECTION RATING | ANSI B 16.5, 150# / DIN PN 10 / JIS |
| TESTING STANDARD         | BS EN 12266-1                       |
| CONNECTION               | FLANGED, RF                         |

| TESTS PERFORMED             | BS EN 12266-1 |             | BS EN 12266-1 |             |
|-----------------------------|---------------|-------------|---------------|-------------|
| SIZES                       | 0.5" TO 4"    |             | 6" TO 8"      |             |
| HIGH PR. SHELL TEST HYDRO   | 225 PSI       | 15 KG/SQ.CM | 225 PSI       | 15 KG/SQ.CM |
| HIGH PR. SEAT TEST HYDRO    | 165 PSI       | 11 KG/SQ.CM | 165 PSI       | 11 KG/SQ.CM |
| LOW PR. SEAT TEST PNEUMATIC | 85 PSI        | 6 KG/SQ.CM  | 85 PSI        | 6 KG/SQ.CM  |

| SPARK TEST | KVDC    |
|------------|---------|
| SPARK TEST | 20 KVDC |

## PRESSURE - TEMPERATURE GRAPH



## CODE USED

| TYPE OF VALVE | CODE |
|---------------|------|
| PLUG VALVE    | PLGV |

| TYPE OF VALVE               | CODE |
|-----------------------------|------|
| ASTM A 216 GR. WCB          | C1   |
| ASTM A 351 GR. CF 8         | C2   |
| ASTM A 351 GR. CF8M         | C3   |
| ALLOY 20                    | C4   |
| ASTM A 890 GR. 4A ( CD3MN ) | C5   |
| HASTELLOY C 276/22          | C6   |

| TRIM INSTERTS               | CODE |
|-----------------------------|------|
| ALLOY 20                    | T4   |
| ASTM A 890 GR. 4A ( CD3MN ) | T5   |
| SUPER DUPLEX                | T6   |
| HASTELLOY C 276/22          | TH   |

| FASTENERS         | CODE |
|-------------------|------|
| SS 304            | F2   |
| SS 316            | F3   |
| HIGH TENSILE      | F4   |
| ASTM A 193 GR. B7 | F5   |

| OPERATION | CODE |
|-----------|------|
| LEVER     | L    |
| GEAR      | G    |
| BARE-STEM | B    |

| LOCKING      | CODE |
|--------------|------|
| PROVIDED     | Y    |
| NOT PROVIDED | N    |

| LINING MATERIAL | CODE |
|-----------------|------|
| PFA             | L1   |
| FEP             | L2   |
| ANTISTATIC PFA  | L7   |

## CODE USED

| PLUG LINING MAT. | CODE |
|------------------|------|
| PFA              | P1   |
| FEP              | P2   |
| TEFCOR           | P3   |
| GTEFCOR          | P4   |
| TFM COR          | P5   |
| CERCOR           | P6   |
| ANTISTATIC PFA   | P7   |

| SEAT           | CODE |
|----------------|------|
| NOT APPLICABLE | XX   |

| SIZE |    |      |    |    |    |    |    |
|------|----|------|----|----|----|----|----|
| 0.5" | 1" | 1.5" | 2" | 3" | 4" | 6" | 8" |
| CODE |    |      |    |    |    |    |    |
| 0H   | 01 | 1H   | 02 | 03 | 04 | 06 | 08 |

## HOW TO READ CODE

| CODE         | PLGV C1 T5 L1 P3 XX F5 L Y 02 |      |
|--------------|-------------------------------|------|
| VALVE TYPE   | PLUG VALVE                    | PLGV |
| BODY CASTING | ASTM A 216 GR. WCB            | C1   |
| TRIM INSERT  | DUPLEX                        | T5   |
| BODY LINING  | PFA                           | L1   |
| PLUG LINING  | TEFCOR                        | P3   |
| SEAT         | NO                            | XX   |
| FASTNERS     | ASTM A 193 GR.B7              | F5   |
| OPERATION    | LEVER                         | L    |
| LOCKING      | PROVIDED                      | Y    |
| SIZE         | 2"                            | 02   |



## PLUG OPTIONS AVAILABLE

**TEFCOR PLUG****TFM PLUG****GTEFCOR PLUG****CERCOR PLUG**

| RESIN STANDARD | TECHNICAL PROPERTIES | SPECIFIC GRAVITY | WATER ABSORPTION (%) | HARDNESS ROCKWELL (R) | TENSILE STRENGTH YIELD PSI | IMPACT STRENGTH NOTCHED FT . LB/IN | ELONGATION AT BREAK (%) | HDT °C | INJECTION MOULDING TEMP. °C | MAX WORKING TEMP. °C |
|----------------|----------------------|------------------|----------------------|-----------------------|----------------------------|------------------------------------|-------------------------|--------|-----------------------------|----------------------|
| ASTM D 3222    | PVDF                 | 1.77-1.78        | 0.03                 | 76-80                 | 7000                       | 2.0-4.0                            | 50-250                  | 168    | 200-300                     | -40 to +140          |
| ASTM D 3159    | ETFE                 | 1.70             | 0.007                | 75                    | 6700                       | 2.0                                | 300                     | 176    | 310-330                     | -100 to +160         |
| ASTM D 2116    | FEP                  | 2.15             | 0.004                | 60                    | 3400                       | 2.9                                | 325                     | 260    | 350-370                     | 205                  |
| ASTM D 3307    | PFA                  | 2.15             | <0.03                | 72                    | 3600                       | 1.2                                | 300                     | 305    | 350-370                     | 260                  |

### TEFLON FEP “PER FLUORO (ETHYLENE PROPYLENE) COPOLYMER”

- FEP is a fluorocarbon resin having very strong interatomic bonds between Carbon & Fluorine atoms.
- It has very high molecular weight or long molecular chain length compared to other polymers.
- FEP can be used for continuous service temperature upto an elevated temperatures as high as 205 °C (400 °F).
- This fluorocarbon is resistant to all chemicals aggressive and hazardous in nature.
- Absorption rate of this fluorocarbon is as lower as 0.004%, hence swelling is avoided, and permeation is negligible.

### PFA (PER FLURO ALKOXY)

- PFA is also Fluorocarbon resin with all other properties same as FEP but can be used for Continuous service temperature up to an elevated temperature as high as 260 °C (500 °F)

## ETHYLENE TETRA FLUORO ETHYLENE (ETFE)

- It has very high temperature resistance from -100 °C to +160 °C.
- It is resistant to a wide variety of corrosive chemicals and organic solvents, including strong, acids and strong bases. No known solvent dissolves or stress cracks the polymer at temperature up to 121 °C.
- It possesses excellent mechanical properties over a wide temperature from cryogenic temperature to 204 °C. It has nylon like durability and provides excellent impact resistance at ambient and subambient temperatures.
- It is fluoropolymer which is mouldable and weldable with an ordinary thermoplastic welding equipment.

## POLYVINYLIDENE FLUORIDE (PVDF)

PVDF is an engineering fluoropolymer, the grade containing no additives has remarkable properties. The most important of which are :

- Exceptional outdoor weather resistance, due to its transparency and total inertness to ultra-violet light.
- Excellent resistance to most of the chemicals.
- Remarkable thermal stability under operating and processing application temperatures. It does not darken when subjected to heat.
- Good abrasion resistance, enabling it to be used with slurries.
- Very low creep.
- High mechanical strength.
- The crystalline content of PVDF was chosen in order to obtain excellent properties, such as low permeability to gases & fluids as well as low swelling in certain solvents, while retaining a high impact resistance, good stress cracking resistance and a very high dimensional stability.
- PVDF may be used over wide temperatures from -40 °C to +140 °C. It is non-flammable and may be used for contact with foodstuffs.

## QUALITY ASSURANCE PLAN

| SR. NO | ITEMS                                                      | PARAMETER                                                 | TYPE OF CHECK                         | QUANTUM OF CHECK | REFERENCE DOC.& ACCEPTANCE CRITERIA       | FORMAT OR RECORD | AGENCY (P)  | AGENCY (W)  | AGENCY (R) |
|--------|------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------|------------------|-------------------------------------------|------------------|-------------|-------------|------------|
| 1      | RAW MATERIAL                                               |                                                           |                                       |                  |                                           |                  |             |             |            |
|        | A) NON METALIC PARTS<br>(Fluoro Polymers & Fluoro Carbons) | Intactness<br>Grade Confirmation<br>Physical Verification | Visual                                | 100%             | P.O. Specification & Product Data Sheets  | TC               | 1<br>1<br>1 | 1<br>1<br>1 |            |
|        | B) Casting ,Other<br>Metalic Parts & Fasteners             | Chemical Properties                                       | Chemical Analysis                     | Sample/Batch     | Lab.Test Certificate / Manufactures TC    | TC               |             |             | 2          |
| 2      | INPROCESS                                                  |                                                           |                                       |                  |                                           |                  |             |             |            |
|        | VALVE BODY, SEAT, BALL,DISC & OTHER PARTS                  | POROCITY CHECK,<br>PHYSICAL VERIFICATION<br>DIMENSIONS    | Spark Test<br>Visual,<br>Mearsurement | 100%             | Standard Moulding Documents/Mfg. Drawings | IR               | 1           | 1           |            |
|        | VALVE ASSEMBLY                                             |                                                           | Mearsurement                          |                  | Mfg. Drawings                             |                  |             |             |            |
| 3      | FINISHED PRODUCTS                                          |                                                           |                                       |                  |                                           |                  |             |             |            |
|        | VALVES                                                     | Leakage Test<br>(Body & Seat)                             | Hydro Test                            | 100%             | Standard Test<br>Procedure/Apprd. Data    | IR               | 1           | 2 (10%)     |            |
|        |                                                            | Lining Intactness                                         | Spark Test                            | 100%             | Sheet/Drg. Apprd. Drg.                    |                  | 1           | 2 (10%)     |            |
|        |                                                            | Dimension,<br>Workmanship                                 | Measurment,<br>Visual                 | 100%             | Apprd. Assembly-<br>Drawing               | IR               | 1           | 2 (10%)     |            |

LEGENDS P : PERFORM | W : WITNESS | R : REVIEW | 1. UNP POLYVALVES | 2. CLIENT / AGENT



Pneumatically Actuated Plug Valve  
Control Application



Characterized Plug

## ACTUATION OPTIONS OFFERED BY UNP

| ACTUATOR TYPE         | SINGLE ACTING /<br>SPRING RETURN | DOUBLE ACTING           |
|-----------------------|----------------------------------|-------------------------|
| FAIL POSITION         | OPEN/CLOSE                       | STAY PUT                |
| AIR SUPPLY PRESSURE   | 4/5 BAR OR 58/72 PSI             | 4/5 BAR OR 58/72 PSI    |
| BODY MATERIAL OFFERED | AL.ANODIZED/CF8 OR CF8M          | AL.ANODIZED/CF8 OR CF8M |
| MAKE OFFERED          | EL-O-MATIC/ROTEX/I-TORK          | EL-O-MATIC/ROTEX/I-TORK |

## SOLENOID VALVES OFFERED

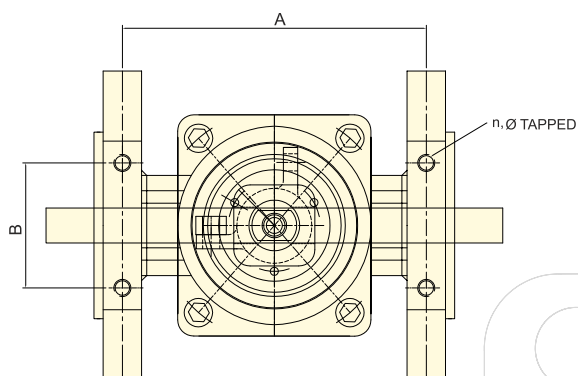
| SOLENOID VALVE                  | SINGLE ACTING/SPRING<br>RETURN ACTUATOR      | DOUBLE ACTING<br>ACTUATOR                    |
|---------------------------------|----------------------------------------------|----------------------------------------------|
| TYPE                            | 3/2 WAY NAMUR/<br>NON- NAMUR                 | 5/2 WAY NAMUR/<br>NON- NAMUR                 |
| COIL RATING                     | 24/110/220 V AC OR<br>24/110 V DC            | 24/110/220 V AC OR<br>24/110 V DC            |
| COIL INSULATION CLASS           | F OR H                                       | F OR H                                       |
| COIL HOUSING                    | WEATHER PROOF/EX-PROOF/<br>FLAME PROOF OR IS | WEATHER PROOF/EX-PROOF/<br>FLAME PROOF OR IS |
| SOLENOID VALVE BODY<br>MATERIAL | ALLUMINIUM/SS 316/<br>SS 316L                | ALLUMINIUM/SS 316/<br>SS 316L                |
| GLAND CONNECTION                | 1/4" / 1/2" or 3/4" NPT                      | 1/4" / 1/2" or 3/4" NPT                      |

## LIMIT SWITCHES OFFERED

| LIMIT SWITCH        | MECHANICAL<br>MICROSWITCH      | PROXIMITY TYPE                 |
|---------------------|--------------------------------|--------------------------------|
| SWITCHES<br>OFFERED | HONEYWELL OR<br>SIMILAR        | P & F OR<br>SIMILAR            |
| NO. OF SWITCHES     | 1 NO + 1 NC OR 2 NO +<br>2NC   | 1 NO + 1 NC OR 2 NO +<br>2 NC  |
| HOUSING TYPE        | WEATHER PROOF /<br>FLAME PROOF | WEATHER PROOF /<br>FLAME PROOF |

UNP PROVIDES ELECTRO PNEUMATIC POSITIONERS OF YTC / SIEMENS OR  
ANY OTHER MAKE OF CUSTOMER PREFERENCE

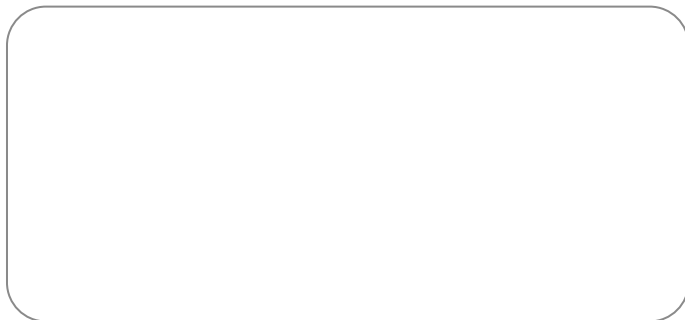
## DETAILS FOR MOUNTING BRACKET



| SIZE | A    |     | B    |     | n  | Ø (TAPPED)    |
|------|------|-----|------|-----|----|---------------|
|      | INCH | MM  | INCH | MM  |    |               |
| 0.5" | 3.62 | 92  | 1.37 | 35  | 04 | M6X15MM DEEP  |
| 1"   | 4.33 | 110 | 1.57 | 40  | 04 | M8X20MM DEEP  |
| 1.5" | 5.59 | 142 | 1.57 | 40  | 04 | M8X20MM DEEP  |
| 2"   | 5.90 | 150 | 1.96 | 50  | 04 | M8X20MM DEEP  |
| 3"   | 6.69 | 170 | 2.75 | 70  | 04 | M10X25MM DEEP |
| 4"   | 7.75 | 197 | 3.14 | 80  | 04 | M10X25MM DEEP |
| 6"   | 9.21 | 234 | 3.93 | 100 | 04 | M12X25MM DEEP |
| 8"   | 10.1 | 257 | 4.43 | 110 | 04 | M12X30MM DEEP |



## Distributor



## VADODARA



**UNP Polyvalves**

### CORPORATE OFFICE

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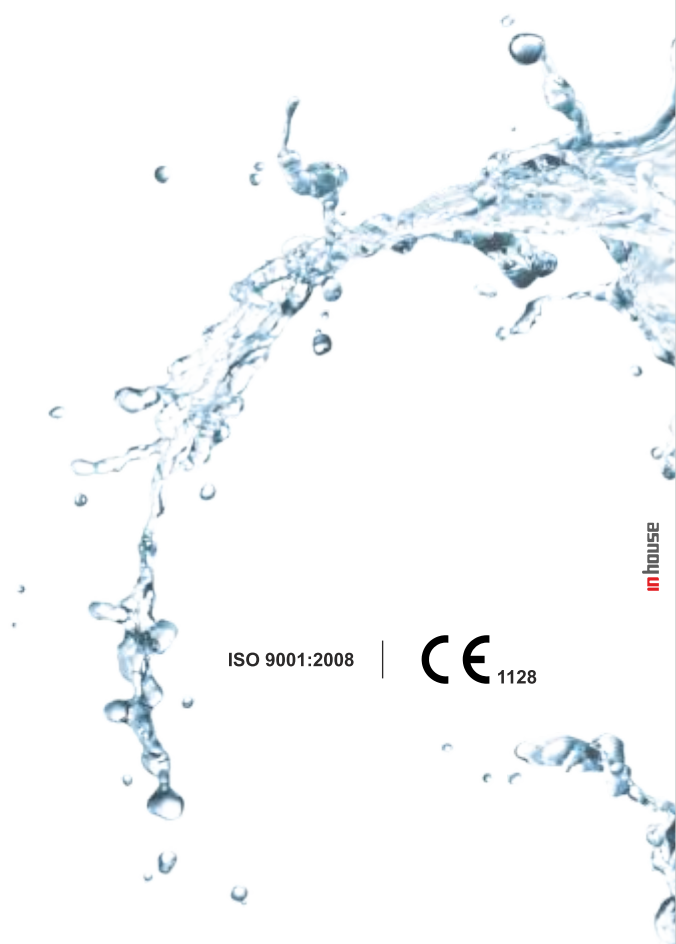
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