

**TECNIK**

**LINED GLOBE VALVE  
UNICON 1000L**

**TECNIK VALVES PVT LTD**



TECNİK lined globe valve is specially used for controlling the strong aggressive media. Its body inner surface is lined with special lined materials which can be selected to suit with different working temperature and fluid properties. This design features a high strength and a prominent performance for corrosive.

❖ **APPLICATION :**

- Vapors & gases in the chemical applications.
- Pharmaceutical industry, paint manufacture & processing.
- Hazardous.

❖ **KEY FEATURES :**

- High quality liner materials cover a wide range of corrosive applications.
- As metal parts are protected from process fluid use of expensive alloys is not needed.
- For biotechnology & high purity media where good cleaning & anti-adhesive surfaces.
- Proper Linear thickness ensured a high degree of protection.
- T-Grooves provide a positive mechanical connection between the linear material & valve body.
- Unique bellow design, allows working pressure up to 16 Kg/Cm<sup>2</sup>.
- High flow capacity to line size ratio.
- Long service life & operational reliability.
- Backup packing provides additional safety.
- Modular design permits easy maintenance.

❖ **PRODUCT SPECIFICATIONS :**

- **Valve Size** : NPS 1" to 8".
- **Body Rating** : ANSI 150# CLASS.
- **Leakage Rate** : Class VI (Soft Seated)
- **Flow Characteristics** : Equal%
- **Temperature Range** : -60 to 200 °C.
- **Body Material** : CS, SS, etc.
- **End Connection** : Flanged type.

❖ **DESIGN STANDARD :**

- Design Standard : EN 13397 : 2002 / BS 5156
- Seat Leakage Test : FCI 70-2
- Face to Face : ISO 5752-R.1/EN-558-1 Series  
(See Table No. 3)
- Flange Fitting : ASME B16.5, 150# Class

**Globe Lined Valve  
with  
Electro-Pneumatic Positioner**



**TECNİK LINED GLOBE VALVE WITH  
MUTI-SPRING DIAPHRAGM ACTUATOR**

❖ **LINING SPECIFICATION :**

- Lining Thickness : 3.0 to 4.0mm
- Spark Test : 15 KVDC
- Lining Material : PFA
- Service Temperature: Max. 200 °C
- Vacuum proof
- Virgin material

❖ **VALVE BODY :**

- One piece design to avoid leakage through joint.
- All pressure bearing components made of stainless steel.
- Absorbs system pressure & pipe forces.

**VALVE BODY**



- Top entry simple maintenance of bellows, plug & seat.

❖ **PTFE BELLOW :**

- Bellows seals the chamber from the atmosphere & protects the valve stem against corrosion.
- During bellows are design to withstand to 16 bar (232 psi) pressure.
- Free from cavities.
- Anti-adhesive PFA

body lining without fillers with seamlessly integrated seat.

- One piece PTFE bellows plug to withstand system pressure.

❖ **VALVE PLUG :**

- Change in Cv value simply by replacing seat & plug.
- V-notch plug made of PTFE to acquire micro flow.
- This special U-plug is recommended, when cavitation might occur with DN 80+100 valve size.
- It reliably overcomes the higher loads by dividing the medium flow & through the permanent guide in the valve seat.

❖ **VALVE SEAT :**

- Made of modified pure pressure resistant PTFE, no fillers.

❖ **VALVE STEM :**

- Made of Stainless steel sliding stem not coming in contact with media.

❖ **EASY TOP ENTRY MAINTENANCE :**



**PTFE BELLOW PLUG**

- Maintenance of the wetted internals removable valve bonnet.
  - High quality external corrosion protection.
  - Epoxy coating of the valves.
  - Body studs & nuts made of B7, B8, 2H, 8, etc
- ❖ **ACTUATOR TYPE :**
- Pneumatic Diaphragm Actuator.
  - Electrical Actuator.
- ❖ **ACCESSORIES :**
- Pneumatic Valve Positioner.
  - Electro Pneumatic Valve Positioner.
  - Air Filter Regulator.
  - Limit Switches.
  - Proximity Switches.
  - Solenoid Valve.
  - Volume Booster.
  - Other accessories available on request.

❖ **DESIGN Cv VALUES :**

**TABLE: 1 (SERIES UNICON 1000L)**

Cv	1.3	2	3	5	8	13	20	32	50	75	100	125	190	240	320	430	615	
	1"																	
	1.1/2"																	
	2"																	
				2.1/2"														
							3"											
									4"									
											6"							
														8"				

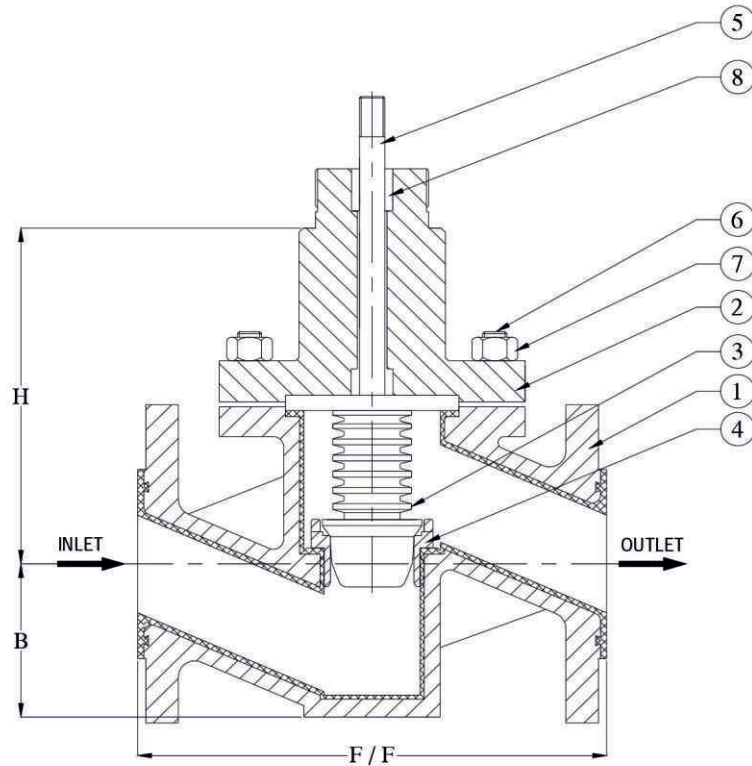
❖ **PRINCIPLE OF OPERATION :**

The process medium flows through the inlet of the lined globe valve in the flow to open direction. The valve plug position determines the cross sectional area of the flow between the seat and the plug. The plug is connected over the stem connector to the actuator stem. The PTFE bellows seals the area between the valve body and the stem connector and also a safety packing is used as a backup stem sealing. A test connection port at the bonnet allows the bellows to be monitored for leakage.



❖ **LINING MATERIALS :**

High quality lining materials such as PFA (perfluoro-alkoxy resin), protects the metal parts of the valve assembly. T- Grooves provide an extremely reliable connection between the liner and the metal valve body, which is especially important in vacuum applications. The liner thickness is at least 3 mm for 1-inch to 4 inch (DN 25–100) valve sizes. A variety of other liner materials including FEP, PP, PVDF, ETFE are available to meet the requirements for most applications.



**TABLE: 2**

VALVE BODY PART LIST		
PART NO.	PART NAME	MOC
1	VALVE BODY	A 216 Gr. WCB + PFA LINED
2	BONNET	A 216 Gr. WCB
3	BELLOWS WITH PLUG	PTFE
4	SEAT RING	PTFE
5	VALVE STEM	SS 316
6	BODY STUD	A193 Gr. B7
7	BODY STUD NUT	A194 Gr. 2H
8	GLAND BUSH	PTFE

**TABLE: 3**

SIZE		DIMENSIONS FOR 150# CLASS		
INCH	DN	F/F ± 2	B ± 2	H ± 10
1	25	160	56	170
1½	40	200	75	250
2	50	230	82	270
3	80	310	111	315
4	100	350	135	340
6	150	400	155	390
8	200	495	185	450



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