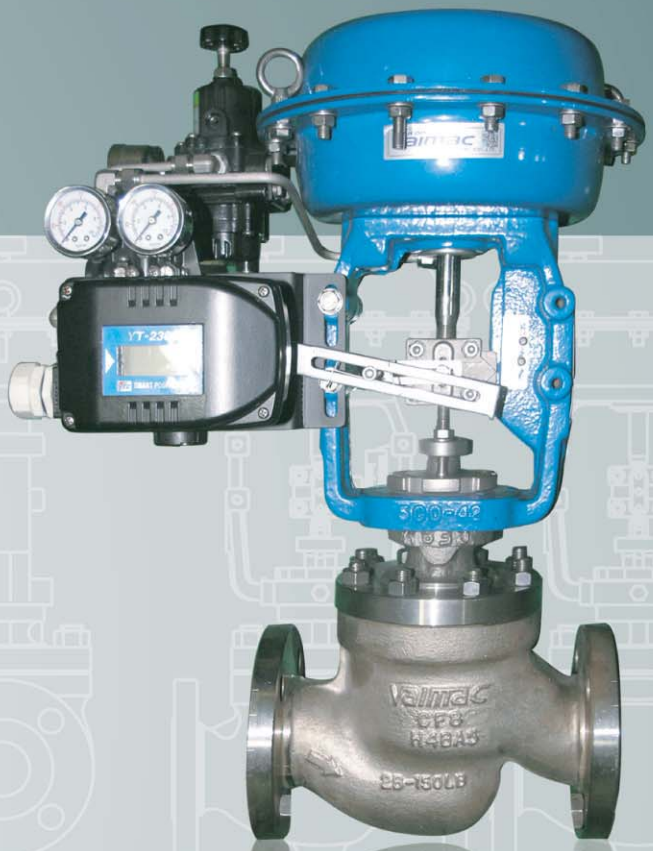
SEOJEON
Valmac
www.valmac.co.kr

Registered ISO 19001,14001

K347/M10

Globe Teflon Lined Valve

Engineering Service
Research & Development





Global Leader of Control & Shut-off Valve

SeoJeon Valmac. Co., Ltd

Introduction

SEOJEON VALMAC CO., LTD (seojeon valmac) is established in 1981 and engaged in supplying its quality products of Control & Special Valves for the Oil, Gas, Refinery, Petro-chemical, Steel, Pulp & Paper, Nuclear & Thermal Power plants ,. etc

seojeon valmac is leading company for its business products in Korea with its qualified equipment, manpower and technical capability to design, manufacture and test.

These products are manufactured in our modern facilities where the quality is rigidly controlled in conformance to all applicable codes, standards and design criteria demanded by our licensors and clients.

seojeon valmac quality systems are integral to all designs, procurement, manufacturing administration, and clients service functions are conducted within a comprehensive ISO 9001 and API Q1 quality assurance system.

We, seojeon valmac will keep trying in order to maintain the best quality of products, satisfaction of costs and the worldwide leader in the Flow Control Valve and System





Table of Contents

1. Design Features

2. Reasons behind Developing Lined Globe Valves

3. Special Features

4. Internal Structure

5. Comparison with Other Products

6. Valve Spec. Comparison

7. LINNING Materials Comparison

8. LINNING TYPE Comparison



API 6D & API 602,608 Monogram



CE Mark & SIL



ISO 9001&14001, OHSAS 18001



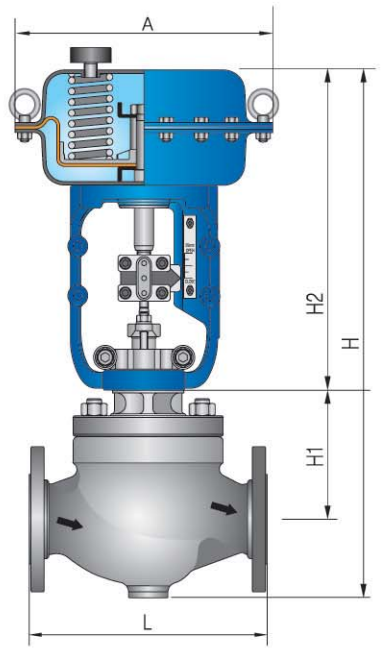
Fire Safety & Power Plant

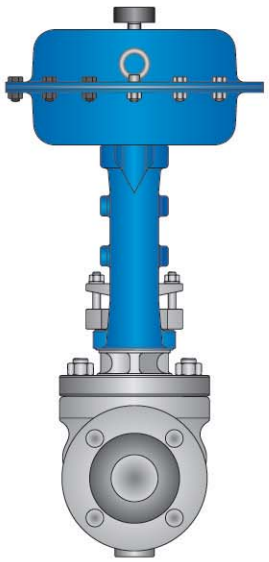
Product Item

Globe Teflon Lined Valve

1. Design Features

- **Body** Stainlless Steel.Cast Steel (SCS13/WCB)
- **Stem** Stainlless Steel (SUS304)
- **Port** Single-seat (P/Quick).
- **Seat** ETFE or PFA
- **Rating** JIS20K/ANSI (150#~300#)
- **Diaphragm** Multi-Spring
- **Characteristic** Type Linear, EQ%
- **Size** ½" ~ 4"







(mm)

Model	Size	150Lb (JIS 10K)				300Lb (JIS 10K)				End conn.
		L	H1	H2	ØA	L	H1	H2	ØA	
VM5100-15	1/2"	184	122	264	220	184	122	264	220	RF (ANSI) (DIN)
VM5100-20	3/4"	184	122	264	220	184	122	264	220	
VM5100-25	1"	184	122	264	220	184	122	264	220	
VM5100-32	1-1/4"	222	149.5	319	270	235	149.5	319	270	
VM5100-40	1-1/2"	222	149.5	319	270	235	149.5	319	270	
VM5100-50	2"	254	155	319	270	267	151.5	334	310	
VM5100-65	2-1/2"	276	195.5	370	310	292	195.5	453	365	
VM5100-80	3"	298	206.5	453	365	318	206.5	453	365	
VM5100-100	4"	352	224.5	453	365	368	224.5	453	365	

Globe Teflon Lined Valve

Reasons behind Developing Lined Globe Valves

- Targeted Market for toxic and corrosive fluid
- Ball, Plug or Diaphragm valves that are currently in use are convenient to get LINED, but are not fit for fluid control
- Targets niche market by developing special products
- Will provide better service in the future by obtaining KGS Toxic Gas Approval

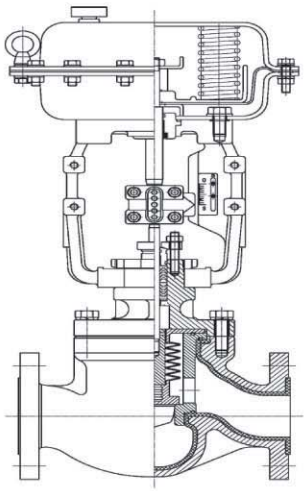
Special Features

- Applies the S-Structure of existing Globe Valves
- Small and minute fluid control is possible since applied on Globe Valves
- Cheaper price compared to overseas products





4. Internal Structure



1) FLANGE Side : Chipped out BODY surface to prevent changes from shrinking due to temperature changes.

2) Inside the BODY : LINES the internal structure of existing GLOBE C/V and prevents the LINING from being damaged.

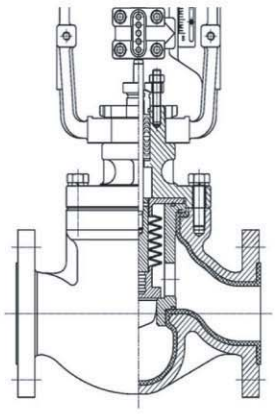
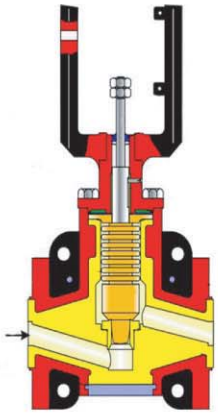
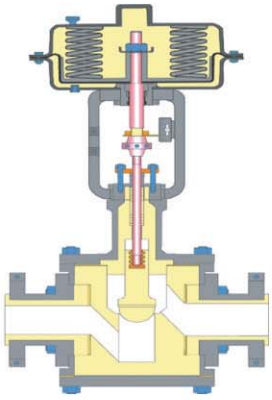
3) BELLOWS Structure : Selected TEFLON BELLOWS TYPE so that PLUG can be easily operated and also prevent fluid leakage.

4) Double SEALING : PLUG SET PART and GUIDE are made of TEFLON to prevent BONNET leakage. Also, TEFLON PACKING prevents leakage from upper parts.

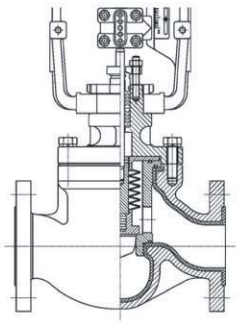
Product Item

Globe Teflon Lined Valve

Comparison with Other Products

Drawing			
Internal Structure	S-Structure lessens the stress due to flow and prolongs the span of usage.	The flow is obstructed due to Z-structure, and the LINING tends to be damaged.	The flow is obstructed due to Z-structure, and the LINING tends to be damaged.
PFA LINED	Overall LINING without joining prevents leakage in the middle.	The production is a hard job, and the delivery time is long due to long hours of work required.	Block type can have leakage in the middle, and the source of leakage is hard to locate.
Price	Economical due to small amount of TEFLON used.	Expensive due to large amount of TEFLON used.	Expensive due to large amount of TEFLON used.

Valve Spec. Comparison

Products				
Fluid Control	Globe Valves are optimal for fluid control, and minute flow can also be controlled by applying internal structure of existing globe valves	Fit for On-off purposes, but cannot control minute fluid. Also, haunting due to friction can happen because the interlocking part between seat and ball is broad.	Same as left	The surface area of PORT is broad, and passes too much fluid. Fit for On-off purposes and fluid with sludge.
Characteristics	Can apply various CHARACTERISTICS according to user's choice.	Only MODIFIED PARABOLIC can be used.	Same as left	

Globe Teflon Lined Valve

7. LINNING Material Comparison

Classification		Weight	Tensile Strength (kg/㎟)	Flexural Strength (kg/㎟)	Flexural Modulus (kg/㎟)	Compressive Strength (kg/㎟)	Impact Strength (Ft./lb/in)	Compressive Strength (kcal/mh℃)	Coefficient of Linear Expansion (10-4/℃)	Heat Resistance (℃)
P.T.F.E (4F)	Polytetrafluoro Ethylene	2.14 – 2.20	1.4 – 3.5	–	56	–	–	3	9.9	260
P.F.A (0-4F)	Perfluoroalkoxy	2.12 – 2.17	2.8 – 3.0	–	84	–	–	No Destruction	12	260
F.E.P. (4F-6F)	Fluorinated Ethylene Propylene	2.12 – 2.17	1.9 – 2.15	–	56 – 66	–	–	No Destruction	8.31 – 10.5	200
ECTFE (4H-3F)	(HALAR) Ethylene-Tetraf luoroethylene	1.68 – 1.7	4.2 – 4.9	–	168	–	–	No Destruction	8	-76~100
ETFE (4H-4F)	(TEFZEL) Ethylene-Tetraf luroethylene	1.70 – 1.76	4.1 – 4.7	3.85	140	3.85	3.85	No Destruction	9 – 9.3	-50~150
PVDF (2F)	Polyvinyliden Fluoride	1.75 – 1.78	3.85 – 5.2	6.05 – 7.7	140	6.05 – 7.7	3.8	0.1	8.5	-40~120

8. LINNING TYPE Comparison

Classification	GROWSE LINNING(PFA,ETFE)		SHEET LINNING(PTFE)		GLASS LINNING	
Chemical Resistance	PFA, ETFE does not react to strong acidic solvent and strong alkali solven	◎	same as left	◎	Reacts to hydrofluoric acid, phosphoric acid, and alkali. Also reacts a little to hydrochloric acid	△
Resistance to Penetration	Linning is formed uniformly in 3mm thickness, and does not allow penetration	◎	No penetration is SHEET itself, but welding part can be compromised	○	Almost no penetration because there are no PIN HOLE	◎
Cleanliness	The linning is without welded part. Also excellent in noncohesiveness, oil and water repellency	◎	Foreign material can adhere to welding parts	△	Does not have welded parts, but low in noncohesiveness, oil and water repellency compared to fluoroplastic	○
Purity	PFA, ETFE does not emit foreign matter when coming in contact with chemicals	◎	same as left	◎	Ionized eluted material can be formed when penetrated by hydrofluoric acid , phosphoric acid and alkali.	○
Heat Resistance	Heat resistance of fluoroplastic is very high	◎	SHEET itself is highly resistant to heat, but the adhesive is not highly resistant to heat.	△	Heat resistance of glass is very high	△
Thermal Shock Resistance	The connection is very solid without welded parts, and is stable unless the linning body is damaged	◎	PIN HOLE can be formed in welded parts, and there is also risk of CRACK being formed in welded parts	△	High risk of crack or flaking	△
Body Adhesiveness	Linning is formed through strong thermosetting, and can be used for minus pressure	◎	Has high risk of coming apart because of air pocket between sheets	△	Can be used for minus pressure	◎
External Shock Resistance	Does not come apart unless the body is damaged	◎	Can come apart because it is bound by rubber or adhesive	△	High risk of being damaged by external shock	△
LINNING	Linning can be done for complex forms	◎	Only simple forms can be made because it is hard to weld	△	Has limited linning thickness , but can be used for complex forms	○



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