

SPECIFICATION SHEET

<u>S/ No.</u>	<u>Description</u>	<u>Qty (Nos)</u>
1.	<u>Manually Operated Lined Plug Valves, Size: 1"</u> Detail at page-03	04
2.	<u>Manually Operated Lined Plug Valves, Size: 1-1/2"</u> Detail at page-03	07
3.	<u>Remotely Operated Lined Plug Valves with option for manual control, Size: 1"</u> Detail at page-04	04
4.	<u>Remotely Operated Lined Plug Valves with option for manual control, Size: 1-1/2"</u> Detail at page-04	07
Terms & Conditions: 1. Valves origin must be Europe/ United States of America. 2. Only three Chinese companies "GMK Valve Co Ltd.", "Zhejiang Youfumi Valve Co Ltd.", "Zhejiang Yongsheng Technology Co Ltd." are acceptable. 3. Pre-shipment inspection is required.		

Detail for Item#01 and item#02

Valve: Manual control Lined Plug Valve

Type: Manually operated (with gear and hand wheel mechanism)

Operation: *Bi-directional (2-way)*

End connection: *Flanged End, Raised face.*

Valve Design and manufacturing: ASME B16.34.

Valve Position: Horizontal

Working fluid: Concentrated Nitric Acid (99%), N-Butyl Acetate (99%).

Dimensions

1. Face to Face according to ASME/ANSI B16.10, Class 150
2. Flange PCD (pitch circle diameter) according to ASME/ANSI B16.5, Class 150
3. Bore according to ASME/ANSI B16.5, Class 150

Material of Construction

Sr#	Part Name	Material
1	Body	SS-316 ASTM A-351Gr.CF8M
2	Plug	SS-316 ASTM A-351Gr.CF8M
3	Body lining	PTFE/PFA
5	Other valve parts	Compatible with corrosive atmosphere

Actuator Type

Enclosed gear actuator

Constraints

1. No metal to metal contact in wetted region.
2. Valves with only Body lining (plug lining not included) will be preferred.
3. Valves should be easy to operate.

Detail for Item#03 and item#04

Name: Pneumatic control lined Plug Valve

Valve Type: Lined Plug valve (Air operated, Air fail to close) with limit switch and solenoid valve

End connection: Flanged End, Raised face.

Operation: Bi-directional (2-way)

Valve Design and manufacturing: ASME B16.34.

Valve Position: Horizontal

Working fluid: Concentrated Nitric Acid (99%), N-Butyl Acetate (99%).

Dimensions

1. Face to Face according to ASME/ANSI B16.10, Class 150
2. Flange PCD (pitch circle diameter) according to ASME/ANSI B16.5, Class 150
3. Bore according to ASME/ANSI B16.5, Class 150

Material of Construction

Sr#	Part Name	Material
1	Body	SS-316 ASTM A-351Gr.CF8M
2	Plug	SS-316 ASTM A-351Gr.CF8M
3	Body lining	PTFE/PFA
5	Other valve parts	Compatible with corrosive atmosphere

Actuator:

Connection	¼ inch NPT thread (F)
Close at	0 bar (G)
Open at	2 bar (G)
Fault Position	Close
Maximum Pressure	4 bar

Limit Switch:

Type	MFR standard (adjustable)
Body	Aluminum
Current rating	< 0.5A at 24VDC
Voltage Insulation	600VDC
Enclosure Class	EEX (d) IIcT4 with IP67
Exposed Material	SS304 with Teflon gaskets

Limit Switch fixed on valve stem indicating both open and close positions (single/double)

Solenoid Valve:

Type	three-way solenoid valve
Body	Aluminum / SS
Supply	24 DC
Insulation	600 VDC
Air supply	4 bar (g)
Air supply connection	1/8" NPT
Enclosure Class	EEx (d) IIcT4 with IP67
Exposed material	SS 304, Aluminium

Constraints

1. No metal to metal contact in wetted region.
2. Valve with only Body lining (plug lining not included) will be preferred.
3. Valve should be easy to operate.
4. Manual control in case of emergency (e.g. hand wheel)