GUJARAT GAS

DATASHEET
FOR
SOCKET WELDED & THREADED GLOBE VALVE (BELOW 2"-800#)

Document No.: GGL/TS/DS/GV-800/004, REV-00

00	Issued for Technical Committee Approval	16 February 2017
REV. NO	**REVISION DESCRIPTION**	**DATE OF ISSUE**

GUJARAT GAS

Sr. No.	Description	Specification
GENERAL		
1	Valve Size	Below 2"
2	Pressure class Rating	800#
3	Design Standard	BS EN ISO 15761
4	Corrosion allowance	1.5 mm
5	Design Factor	0.4
SERVICE CONDITIONS		
6	Service	Natural Gas
7	Design Pressure	138 Bar-g
8	Design Temperature	1. 0 to 65°C (for Operating pressure 19 bar-g) 2. -10 to 65°C (for Operating pressure 49 bar-g & 98 bar-g)
9	Operating Pressure(Maximum)	Up to 19 Bar-g / 42 Bar-g/ 98 Bar-g
10	Operating temp.	0 to 50°C (for Operating pressure 19 bar-g) -10 to 50°C (for Operating pressure 42 bar-g & 98 bar-g)
VALVE CONSTRUCTION DESIGN		
11	Location	Above Ground
12	End Connections	1. Socket Welded (As per ASME B 16.11) 2. Threaded - ASME B 1.20.1.
13	Body/ Bonnet connection	Bolted
VALVE MATERIAL SPECIFICATION		
	Part	Specified Material
14	Body	1. ASTM A 105 (Charpy test at 0°C) - for Operating pressure 19 bar-g 2. ASTM A 350 Gr. LF2 – for Operating pressure 49 bar-g & 99 bar-g
15	Bonnet	1. ASTM A 105 (Charpy test at 0°C) - for Operating pressure 19 bar-g 2. ASTM A 350 Gr. LF2 – for Operating pressure 49 bar-g & 99 bar-g
16	Stem (ANTI BLOW OUT)	ASTM A 479 Gr. SS 316 (NO CASTING)
17	Disc (Plug Type)	ASTM A 479 Gr. SS 316 stellited
18	Disc Nut	ASTM A 479 Gr. SS 316
19	Body Seat Ring	ASTM A 479 Gr. SS 316 stellited
20	Gland/Gland Flange	ASTM A 479 Gr. SS 316
21	Gland Packing	GRAFOIL
22	Stem seals	As per Manufacturer's recommendation
23	Stud bolts / Nuts	1. ASTM A 193 Gr.B7/ A 194 Gr.2H , Hot Dipped Galvanized as per ASTM A 153 for Operating pressure 19 bar-g 2. ASTM A 320 Gr. L7/ A 194 Gr. 7, Hot Dipped Galvanized as per ASTM A 153 for Operating pressure 49 bar-g & 99 bar-g

Vipul R 28/2/17

GUJARAT GAS

24	Bonnet Gasket Type		SP WND CNAF filler + inner & outer SS316 ring
25	Seat and back seat arrangement		Renewable
26	Screw type		OS &Y
27	Position indicator		Open and close indicator required
28	Hand Wheel		CS/MS coated with PVC grip
VALVE TESTING REQUIREMENT			
29	Closure Test	High pressure	1.1 X Design Pressure (Water)
		Low pressure	7 Bar-g (Air)
30	Backseat test	High pressure	1.1 X Design Pressure (Water)
		Low pressure	7 Bar-g (Air)
31	Shell test		1.5 X Design Pressure
32	Charpy Impact test		As per Material of construction standard and design temperature mentioned above
33	Hardness Test		As per Material of construction standard
34	NDE Test		Refer Note 6
35	Marking & Painting Spec.		SSPC-SP/MSS SP-25 & BS EN ISO 15761

NOTE:-

1. Inspection and Testing shall be as per this Data Sheet, GGL Specification, API 598, BS EN ISO 15761. Inspection shall be carried out by TPI at Manufacture's work as per QAP approved by GGL
2. Vendor to submit GA drawing and QAP for approval prior to commencement of manufacturing
3. Test Certificates shall be reviewed by client/TPIA as per approved QAP, GA drawing, Inspection & Test certificates including NDE.
4. Bidder shall clearly mention deviation, if any.
5. In case valve is supplied in accordance with BS 15761, Min. body valve thickness shall be as per ASME B16.34

Note 6: Non Destructive Examination

- Body castings of all valves shall be 100% radio graphically examined as per ASME B16.34. Procedure and acceptance criteria shall be as per ASME B 16.34. For all sizes, body casting shall be subjected to 100% radiography.
- All forgings shall be ultrasonically examined in accordance with the procedure and acceptance standard of Annexure E of ASME B 16.34.
- Full inspection by radiography shall be carried out on all welds of pressure containing parts. Acceptance criteria shall be as per ASME B31.8 and API 1104 as applicable.
- All finished weld ends subject to welding in field shall be 100% ultrasonically tested for lamination type defects for a distance of 50 mm from the end. Laminations shall not be acceptable.
- Weld ends of all cast valves subject to welding in field shall be 100% radio graphically examined and acceptance criteria shall be as per ASME B16.34.

Vipul R 28/2/17

GUJARAT GAS

- After final machining, all bevel surfaces shall be inspected by dye penetrate or wet - magnetic particle methods. All defects longer than 6.35 mm shall be rejected. Reject able defects must be removed. Weld repair of bevel surface is not permitted.
- **Shell test duration**

Valve Size	Test Duration, sec
NPS ≤2	15
2 1/2 ≤ NPS ≤6	60
8 ≤ NPS ≤ 12	120
14 ≤ NPS	300

- **Closure test Duration**

Valve Size	Test Time, sec
NPS ≤2	15
21/2 ≤ NPS ≤8	30
10 ≤ NPS ≤ 18	60
20 ≤ NPS	120

Vipul R
28/2/17