


GUJARAT GAS

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<b>DATASHEET OF PRESSURE SAFETY VALVE (PSV)</b>
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**Document No.: GGL/TS/DS/PRV/2017/001- R1**

01	Removal of LTCS material from 300#	
00	Issue for approval	17.05.2017
REV. NO	REVISION DESCRIPTION	DATE OF ISSUE

<b>DATASHEET OF PRESSURE SAFETY VALVE (PSV)</b>		 <b>GUJARAT GAS</b>
<b>Sr. No.</b>	<b>Technical Description</b>	<b>Specifications</b>
<b>General</b>		
1	Tag No.	Vendor to Furnish
2	Valve Inlet Size	Vendor to Furnish
3	Valve Outlet Size	Vendor to Furnish
4	Service	Dry Natural Gas
5	Governing Standard	API 520
6	Testing Standard	API 526/527
7	Operation	Relief Overpressure
8	Mounting	On Filter
<b>Service</b>		
8	Design Pressure & Class	150#: 19 Barg, 300#: 49 Barg, 600#: 98 Barg
9	Design Temperature	150#/ 300#: 0 - 65 °C 600#: -10 – 65 °C
10	Operating Pressure	150# : 3 to 15 Barg 300# : 10 to 40 Barg 600# : 10 to 78 Barg ( or as per user requirement/process parameter)
11	Operating Temperature	150#/ 300#: 0 to 50 °C 600#: -10 - 50 °C
12	Flow Capacity	500/1000/2000/5000 SCMH OR AS PER USER REQUIREMENT
<b>Construction of Valve</b>		
13	Type	Standard
14	Nozzle Type	Full nozzle full lift
15	Bonnet Type	Closed
16	Inlet & Outlet End Connection	Flanged connection
17	Inlet & Outlet Connection: Facing	RF Serrated, 125-250 AARH
18	Inlet Pressure Rating	300# Class
19	Outlet Pressure Rating	150# Class
20	Test Gag	Yes
21	Cap Over Adjustable Nut	Yes
22	Screwed / Bolted	Bolted
<b>Material of Construction</b>		
23	Body Material	150#/ 300#: ASTM A 216 Gr. WCB 600#: ASTM A 352 Gr. LCB/LCC, ASTM A 350 Gr. LF2
24	Bonnet Material	150#/ 300#: ASTM A 216 Gr. WCB 600#: ASTM A 352 Gr. LCB/LCC, ASTM A 350 Gr. LF2
25	Cap Material	150#/ 300#: ASTM A 216 Gr. WCB 600#: ASTM A 352 Gr. LCB/LCC, ASTM A 350 Gr. LF2
26	Nozzle/Disc/Guide/Piston/Spindle	ASTM A 479 Gr. SS 316
27	Diaphragm	Fabric NBR+PVC/Nitrile Rubber
28	Spring	Chrome Alloy/SS 316
29	Stud bolts / Nuts	150#/ 300#: STUD: ASTM A-193 Gr. B7, NUT: ASTM A



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		194 Gr.2 H , Hot Dipped Galvanized as per ASTM A 153 600#: STUD: ASTM A320 Gr. L7, NUT: ASTM A 194 Gr.7, Hot Dipped Galvanized as per ASTM A 153
30	Gasket	Spiral Wound CNAF Filler + Inner and outer ring SS316
<b>Requirements</b>		
31	Radiography	100%
32	Charpy V-Notch Test	Required (at 0 deg C)
33	Leakage Class	VI
34	Spring Set Range	150#: 16.5 Barg 300#: 44 Barg 600#: 88 Barg
35	Spring Range Capacity	150#: 15 to 18 Barg 300#: 40 to 48 Barg 600#: 78 to 97 Barg
36	Body Hydro Test	1.5 * Design Pressure
37	Seat Hydro Test	1.2 * Design Pressure
38	Pneumatic Test	1.1 * Design Pressure
<b>Valve Calculation</b>		
39	Corrosion Allowance	-/ 1.5 mm
40	Required Flow Capacity	Vendor to Furnish
41	Mol. Wt. / S.G.	17.7 / 0.6
42	Over Pressure (%)	21%
43	Blow Down (%)	10%
44	Cp/Cv	Vendor to Furnish
45	Compressibility	0.98 to 0.997
46	Viscosity at Relative Temperature	0.022 cp
47	Vessel Surface Area-m2/Wall Temp	Vendor to Furnish
48	Calculated Area m2	Vendor to Furnish
49	Selected Area - cm2	Vendor to Furnish
50	Orifice Design	Vendor to Furnish
51	No. of Valve Required for Capacity	Vendor to Furnish
52	Total Area - cm2	Vendor to Furnish
53	Actual Flow Capacity	Vendor to Furnish
<b>Note:</b>		
1. Vendor shall provide Calculation of selection of Orifice.		
2. 100 % Radiography applicable on Casting.		