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| <p><b>DATASHEET OF<br/>SLAM SHUT OFF VALVE (SSV)</b></p> |
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**Document No.: GGL/TS/DS/SSV-PRS/2019/001**

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|----------------|------------------------------------|----------------------|
| 01             | Removal of LTCS material from 300# |                      |
| 00             | Issued for Approval                | 28.12.2017           |
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|                                  |                  |             |             |
|----------------------------------|------------------|-------------|-------------|
| NAME OF COMPANY                  | GUJARAT GAS LTD. |             |             |
|                                  | NAME             | DESIGNATION | SIGN & DATE |
| Technical Committee<br><br>(PRI) |                  |             |             |
|                                  |                  |             |             |
|                                  |                  |             |             |
|                                  |                  |             |             |
| Approved By                      |                  |             |             |

| <b>DATASHEET OF SLAM SHUT OFF VALVE (SSV)</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                       | Shut off at Over Pressure- Metering Skid Safety  |
| 5   | Governing Standard            | EN 14382   |
| 6   | Type of SSV                   | Globe Type, Pilot Operated   |
| 7   | Operation                     | Shut off at Over pressure  |
| <b>Service (To be selected from below as per the process parameters mentioned by the user)</b>                  |                               |  |
| 8   | Fluid                         | Natural Gas  |
| 9   | Flow Capacity                 | As per user requirement  |
| 10  | Design Pressure & Class       | 150#- 19 Barg, 300# - 49 Barg, 600# - 98 Barg  |
| 11  | Design Temperature            | 150# /300# : 0 to 65 °C<br>600# : -10 to 65 °C   |
| 12  | Inlet Operating Pressure      | 10 to 40 Barg ( or as per user requirement)  |
| 13  | Outlet Operating Pressure     | 1.5 to 6 Barg ( or as per user requirement)  |
| 14  | Operating Temperature         | 150# & 300#: 0 to 50 °C<br>600# : -10 to 50 °C   |
| 15  | Accuracy (%)                  | 2.5 %  |
| <b>Material of Construction (To be selected from below as per the process parameters mentioned by the user)</b> |                               |  |
| 16  | Body Material                 | 1. For 150# /300#- ASTM A 216 Gr. WCB ( Charpy test at 0 deg.C , Investment Casting)<br>2. For 600# - ASTM A 352 Gr. LCB / LCC, ASTM A 350 Gr. LF2 |
| 17  | Valve Seat Material           | ASTM A 479 Gr. SS 316  |
| 18  | Diaphragm Material            | Fabric NBR+PVC/Nitrile Rubber  |
| 19  | Trim, Plug Material           | ASTM A 479 Gr. SS 316  |
| 20  | Other Wetted Parts            | ASTM A 479 Gr. SS 316  |
| 21  | Impulse Connection & Material | 1/2 " - SS 316   |
| 22  | End Connection                | Flange type, 125 AARH, 300#  |
| <b>Requirements</b>   |                               |  |
| 23  | Failure Position              | Fail to Close  |
| 24  | Failure position Indicator    | Required   |
| 25  | Limit Switch                  | Required Potential Free Switch (Intrinsically Safe & Weather proof) with provision of digital output for connectivity of Data logger/SCADA/RTU.    |
| 26  | Pressure Indicator            | Required   |
| 27  | Spring Range                  | 1.5 to 8 Barg (or as per user requirement)   |
| 28  | Impulse Tubing/Fittings       | Required   |
| 29  | Radiography                   | Required   |
| 30  | Charpy V-Notch Test           | Required   |
| 31  | Face to Face Dimensions       | Vendor to Furnish  |
| 32  | Leakage Class                 | VI   |



|   |                   |  |
|---|-------------------|--|
| 33  | Hydrostatic Test  | 1.5 * Design Pressure  |
| 34  | Pneumatic Test    | 1.1 * Design Pressure  |
| <b>Valve Calculation</b>  |                   |  |
| 36  | Sound Level       | Sound pressure levels shall be limited to the values prescribed by Environmental Authorities but in no case it shall exceed 110 dbA as per PNGRB T4S standard for CGD and shall comply the requirement as per EN334. |
| 37  | Limiting Velocity | Max. 30 m/s or OEM recommendations   |
| <b>Note:</b>  |                   |  |
| 1. Set point of the SSV shall be adjustable. Vendor shall furnish the adjustable range of the pilot.                                      |                   |  |
| 2. Accuracy of the SSV shall be better than or equal to 2.5% of the set pressure for the entire inlet pressure and flow range             |                   |  |
| 3. SSV shall be of fail to close type.  |                   |  |
| 4. Valve shall be sized to deliver the maximum flow at minimum pressure condition and the minimum flow at the maximum pressure reduction. |                   |  |
| 5. The inlet pressure variation is possible for the entire flow rate and the PCV to be sized accordingly.                                 |                   |  |
| 6. Vendor shall provide and include the noise treatment with silencer / expander.   |                   |  |
| 7. 100% radiography applicable on casting and Ultrasonic examination of forged materials for pressure containing parts.                   |                   |  |
| 8. Hazardous certification with Model No. shall be furnished by vendor for limit switch.  |                   |  |