

## DATA SHEET FOR FLANGES AND BLIND FOR SRM, IMS, DRS, CNG-PRS & IPRS

**Document No : GGL/TS/DS/FLNG/008/01**

|                |   |                      |
|----------------|---|----------------------|
| 01             | Removal of LTCS material from 300#      |                      |
| 00             | Issued for Technical Committee Approval | 16.02.2017           |
| <b>REV. NO</b> | <b>REVISION DESCRIPTION</b>             | <b>DATE OF ISSUE</b> |

|                     |                  |             |             |
|---------------------|------------------|-------------|-------------|
| NAME OF COMPANY     | GUJARAT GAS LTD. |             |             |
|                     | NAME             | DESIGNATION | SIGN & DATE |
| Technical Committee |                  |             |             |
| (Steel)             |                  |             |             |
| Approved By         |                  |             |             |

| <b>DATA SHEET FOR FLANGES AND BLIND FOR SRM, IMS, DRS, CNG-PRS &amp; IPRS</b> |                                  |   |
|---|----------------------------------|---|
| <b>Sr. No.</b>  | <b>Description</b>               | <b>Specification</b>  |
| <b>GENERAL</b>  |                                  |   |
| 1   | Size                             | 0.5'' to 24'' NPS   |
| 2   | Pressure Rating                  | 150#,300#,600#  |
| 3   | Design Standard                  | ASME B 16.5/ASME B 16.47/ASME B 16.48   |
| 4   | Corrosion allowance              | 1.5MM   |
| 5   | Design Factor                    | 0.4   |
| <b>SERVICE CONDITIONS</b>   |                                  |   |
| 6   | Service Fluid                    | Natural Gas   |
| 7   | Design Pressure                  | 150#- 19 Barg, 300# - 49 Barg, 600# - 98 Barg   |
| 8   | Design Temperature               | 1. 150#/300# = 0 to 65 °C<br>2. 600# = -10 to 65 °C   |
| 9   | Operating Pressure (Maximum)     | 19 barg / 42 barg / 90 barg   |
| 10  | Operating temp.                  | 1. 150#/300# = 0 to 50 °C<br>2. 600# = -10 to 50 °C   |
| <b>CONSTRUCTION DESIGN</b>  |                                  |   |
| 11  | Allowable Stress                 | ASME B 31.8   |
| 12  | Flange Type                      | WNRF/BLRF/ SORF / BLIND   |
| 13  | Flange Facing                    | Raised face (125 AARH)  |
| 14  | Bevel End & Bevel Angle for WNRF | ASME B 31.8   |
| <b>MATERIAL SPECIFICATION</b>   |                                  |   |
|   | <b>Part</b>                      | <b>Specified Material</b>   |
| 15  | Material of Construction         | 1. 150#/300# = ASTM A 105<br>2. 600# = ASTM A 350 Gr. LF2, MSS SP 44 Gr.F52, MSS SP 44 Gr.F65<br>The carbon content is greater than 0.12% in product analysis, the CE (IIW) shall not exceed 0.40% and if The carbon content is less than 0.12% in product analysis, the CE (Pcm) shall not exceed 0.20%. |

| <b>TESTING &amp; INSPECTION</b>   |                    |  |
|---|--------------------|--|
| 16  | Charpy Impact Test | As per Material of construction standard<br>In case Charpy test value not specified in relevant codes and standards than Charpy shall be carried out at 0 °C and absorbed energy value shall be average 35 j and minimum 28 j respectively.      |
| 17  | Hardness test      | <ul style="list-style-type: none"> <li>• ASTM A 105 – 137 to 187 HB.</li> <li>• ASTM A 350 Gr. LF2- 197HBW max</li> <li>• MSS SP 44- 235 BHN max</li> </ul> In case hardness value not given in MOC then hardness value shall not exceed 235 HBN |
| 18  | Tensile test       | As per relevant code and standard  |
| 19  | Yield Strength     | As per relevant code and standard  |
| 20  | Elongation         | As per relevant code and standard  |
| 21  | UT                 | 100% Surface   |
| 22  | MPT                | 100% at Bevel Ends   |
| 23  | DPT                | 100% bevel end for 50 mm width   |
| 24  | Marking            | MSS SP 25 and GGL Specification  |
| <b>NOTE:-</b>   |                    |  |
| 1. Bidder shall clearly mention deviation, if any.  |                    |  |
| 2. Inspection and Testing shall be as per this Data Sheet, GGL Specification. Inspection shall be carried out by TPI at Manufacture's work as per QAP approved by GGL |                    |  |
| 3. Vendor to submit QAP for approval prior to commencement of manufacturing   |                    |  |