ANNEXURE-I : TECHNICAL DATA SHEET

A – SITE CONDITION

Barometric Pressure …… 736 mmHg.

Design Ambient temperature : 45°C

Design temperature for electrical equipment : 50°C

B – TECHNICAL DATASHEET FOR NON-METALLIC EXPANSION JOINTS –

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Tag Nos | Qty | Location | Orientation | Shape | Size , mm x mm | Fluid | Flow m3/hr | Oper. Temp deg C | Design temp deg C | Oper Pr mmwc | Design Pr. mmwc | Axial,mm | Lateral, mm | Lateral,mm |
| 1) | EJ-1 | 01 No | Flue tapping from exist duct(away from BFan) | EJ Horizontal in vert duct | Rectangular | 1800 x 3600 | Flue Gas | 2,93,335 | 148 | 200 | (-)30 | + / - 600 | 50 | 30 | 30 |
| 2) | EJ-2 | 01 No | Flue tapping from exist duct(nearer to BFan) | EJ Horizontal in vert duct | Rectangular | 1800 x 3600 | Flue Gas | 2,93,335 | 148 | 200 | (-)30 | + / - 600 | 50 | 30 | 30 |
| 3) | EJ-3 | 01 No | St run of duct in Sl No 1 | EJ Vertical in Horizontal duct | Rectangular | 1800 x 3600 | Flue Gas | 2,93,335 | 148 | 200 | (-)40 | + / - 600 | 75 | 15 | 15 |
| 4) | EJ-4 | 01 No | St run of common duct | EJ Vertical in Horizontal duct | Square | 3600 x 3600 | Flue Gas | 5,86,669 | 148 | 200 | (-)60 | + / - 600 | 50 | 15 | 15 |
| 5) | EJ-5 | 01 No | Vertical duct going up from B.Fan | EJ Horizontal in vert duct | Circular | 3600 mm dia | Flue Gas | 5,66,800 | 148 | 200 | (+)200 | + / - 600 | 70 | 30 | 30 |
| 6) | EJ-6 | 01 No | At MCU inlet | EJ Horizontal in vert duct | Rectangular | 8000 x 4000 | Flue Gas | 5,66,800 | 148 | 200 | (+)195 | + / - 600 | 70 | 30 | 30 |
| 7) | EJ-7A | 01 No | At FGTR inlet ducts f rom MCU | EJ Vertical in Horizontal duct | Rectangular | 3265 x 2500, HOLD | Flue Gas saturated with 10% H2SO4 soln | 2,39,935 | 53 | 150 | (+)190 | + / - 600 | 50 | 60 | 15 |
| 8) | EJ-7B | 01 No | At FGTR inlet ducts from MCU | EJ Vertical in Horizontal duct | Rectangular | 3265 x 2500, HOLD | Flue Gas saturated with 10% H2SO4 soln | 2,39,935 | 53 | 150 | (+)190 | + / - 600 | 50 | 60 | 15 |
| 9) | EJ-8 | 01 No | At Stack inlet from FGTR | EJ Horizontal in vert duct | Circular | 4800 mm dia | Flue Gas saturated with 10% H2SO4 soln | 4,79,870 | 53 | 150 | (+)25 | + / - 600 | 70 | 15 | 15 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10) | Flue gas |  | For Sl no 1 to 6 - Flue Gas – Analysis ( % by Volume, wet) : CO2 – 10.8 ; O2 – 6.62 ; N2-72.73 ; Moisture – 9.84 .  Flue Gas with dust concentration of 120 mg/Nm3 and SOx level- 1590 mg/Nm3 | | | | | | | | | | | | |
| 11) | Flue Gas saturated with 10% H2SO4 soln |  | For Sl no 7 to 9 - Flue Gas – Analysis ( % by Volume, wet) : CO2 – 9.9 ; O2 – 6.08 ; N2-66.69 ; Moisture – 17.33 (Saturated).;; Flue Gas with dust concentration of 60 mg/Nm3 and SOx level- 500 mg/Nm3.  Flue gas shall be saturated with 10% H2SO4. | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

C - MATERIAL OF CONSTRUCTION:

|  |  |
| --- | --- |
| **Description** | **Material** |
| **For EJ against Sl No 1 to 6 – Fluid – Flue gas** |  |
| Expansion joint frames | IS 2062 GR B |
| Expansion joint fabric. | Bidder to indicate |
| Internal Insulation Bolster. | Bidder to indicate |
| Counter Flange | IS 2062 GR B |
| Protection liner | Bidder to indicate |
| Protection covers as required. | Bidder to indicate |
| Fastener | Carbon Steel |
| All gasket materials & slims where required. | Bidder to indicate |
|  |  |
| **For EJ against Sl No 7 to 9 – Fluid – Flue gas saturated with 10% H2SO4 solution** |  |
| Expansion joint frames | SS 317 LMN |
| Expansion joint fabric. | Bidder to indicate |
| Internal Insulation Bolster. | Bidder to indicate |
| Counter Flange | SS 317 LMN |
| Protection liner | Bidder to indicate |
| Protection covers as required. | Bidder to indicate |
| Fastener | SS 316 |
| All gasket materials & slims where required. | Bidder to indicate |

D – VENDOR DATASHEET –

Supplier is to fill entire format as per Design Data & Extent of supply & submit along with their offer.

|  |  |  |
| --- | --- | --- |
| Description | Unit | Expansion Joint Reference No. |
| Qty |  |  |
| Duct inside Dimension | mm |  |
| Overall length | mm |  |
| Fluid Medium |  |  |
| Max permissible dust load | gm/ Nm3 |  |
| Fluid flow | Nm3/hr |  |
| Operating Pressure | mm wc |  |
| Design maximum pressure | mm wc |  |
| Design minimum pressure | mm wc |  |
| Pressure drop | mm wc |  |
| Normal Temperature | deg.C |  |
| Maximum permissible temperature | deg,C |  |
| Max allowed axial movement | mm |  |
| Max allowed lateral movement | mm |  |
| Thickness of frames | mm |  |
| Breach opening | mm |  |
| Flange width (min 75 mm) | mm |  |
| Flange outside dimensions | mm |  |
| Material of Construction of each part |  |  |
| Material of gasket |  |  |
| Method of attachment to counter flanges | Bolting/ welding |  |
| Details of cloth layers (indicate from outside) |  |  |
| Maximum permissible working temperature of each layer | 0C |  |
| Details of bolster | Thickness & material |  |
| Details of protective wire mesh. |  |  |
| Anticipated life of frames | Years |  |
| Anticipated life of fabric material | Years |  |
| Confirm that no asbestos or similar carcinogenic materials have been used |  |  |
| Health and safety information supplied in case of using asbestos or other toxic material. | Yes/No |  |
| Method employed to arrest erosion |  |  |
| Method employed to cater for joint flutter |  |  |
| Added features if any to cater replacement requirements. For example supports, guides etc. |  |  |
| Painting specification employed along with grade & trade name. |  |  |
| Number of pieces for transportation & erection |  |  |
| Typical drawing furnished? | Yes / No Drg No |  |