

Project Title : Designing of Steam line connected to 2.5MW Turbine

Client : Banganga Ssk

Resulted in : Cost Effectiveness

Engineering Designed By -

Steam-Therm Consultancy,
Dombivli (East), Dist : Thane
Country : India

Scope of Work.

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1. Stress Analysis in CAESAR II for Steam inlet line to turbine length approx. length 50 m. Piping support details, Spring support datasheets, load Input to civil for foundation design
2. Stress Analysis IN CAESAR II for Steam Outlet line from turbine to plant length approx. length 450 m. Piping support details, Spring support datasheets, load Input to civil for foundation design
3. IBR Isometric Drawing in AutoCAD for 150NB Steam turbine Inlet line.
4. IBR Isometric Drawing in AutoCAD for 450NB Steam turbine exhaust line.
5. Pipe thickness Calculation of 150NB and 450NB steam line as per IBR.
6. Pressure drops calculation and Pipeline sizing of turbine Inlet steam line and exhaust steam

Issue

- The plot plan of the turbine building was very congested hence, the providing the flexibility near the turbine nozzle and provision for startup venting arrangement was really a challenge from space point of view.

Solution Provided by STC

- We have used special supports like strut and springs to qualify the inlet line in stress and optimizing the expansion loop requirement near turbine nozzle.
- Our value engineering team has suggested the compact steam piping solution so which save the number of supports and foundation and piping material cost.

Isometric Drawing in Auto Cad. Design of 150 NB high Pressure steam pipe line of 32 barg @ 390 deg C from steam Header to Turbine inlet



