

CASE STUDY 1

PROJECT DETAILS

Project Location:
Haldia, West Bengal

Rating:
500 kW SMART TST 1005S



INDUSTRY TYPE

Chemical Plant

STEAM PARAMETERS

Inlet 4.5 Bar / Saturated

CHALLENGES

- PRDS Station was used to Reduce Very Low Pressure Steam from 4.5 Bar to 1.5 Bar
- Steam of 23 TPH was used from 4.5 Bara to 1.5 Bara. This is very high Volumetric flow for such small-capacity turbines
- Customer had budget approval with ROI guarantee of less than 12 months (1 Year)
- Delivery demanded less than 6 months

TRIVENI'S SMART SOLUTION

- Triveni Team visited the site and assessed the space identified for the turbine installation
- Triveni's SMART Offering of 500 kW Steam Turbine benefitted customer with over 40 Lakh units of Green Power
- As the steam inlet is very low pressure and saturated, a steam separator is installed at the inlet line to prevent carryover of wet steam into the turbine, thereby increasing the lifecycle of turbine
- Offered turbine was with remote start and stop facility
- SMART Unit was delivered and commissioned within 6 months
- ROI was less than 8 months
- The design was optimized to meet both customer budget and space availability

CASE STUDY 2

PROJECT DETAILS

Project Location:
Tirupur, Tamil Nadu

Rating:
900 kW SMART TST 1012S



INDUSTRY TYPE

Paper Plant

STEAM PARAMETERS

Inlet 21 Bar / Saturated

CHALLENGES

- PROCESS BOILER OPERATING WITH SATURATED STEAM - 21 Bar / Saturated
- Steam of 20 TPH Is required to process
- Delivery demanded less than 8 months
- Customer wanted to Synchronize this TG Set with his existing DG & Grid,
- Daily Start & Stop of Turbine
- Exhaust pressure - 3.5 kg/Cm²

TRIVENI SOLUTION

- Triveni's SMART Offering of 900 kW Steam Turbine benefitted customer with over 70 Lakh units of Power Per Year
- Since Space was a challenge, the total foot print used for installation of the turbine is only 5Mtr x 4 Mtr
- To Synchronize this TG Set with his existing DG & Grid, for which we have installed a Synchronous Generator (Cummins - Stamford Make) with Electronic Governor (Heinzmann Make)
- ROI was less than 5 months
- The design was optimized to meet both customer budget and space availability

CASE STUDY 3

PROJECT DETAILS

Project Location:
Ludhiana, Punjab

Rating:
160 kW SMART TST 1002S



INDUSTRY TYPE

Oil Mill

STEAM PARAMETERS

Inlet 14 Bar / Saturated

CHALLENGES

- PROCESS BOILER OPERATING WITH SATURATED STEAM – 14 Bar / Saturated
- Steam of 10 TPH Is required to process
- Exhaust Pressure of 6 Bar
- Delivery demanded less than 3 months
- Daily Start & Stop of Turbine
- Load variation from 3 to 10 TPH

TRIVENI SOLUTION

- Triveni Team visited the site and assessed the space identified for the Turbine Installation
- Triveni's SMART Offering of 160 kW Steam Turbine benefitted customer with over 10 Lakh units of Green Power annually
- As the steam inlet is very low pressure and saturated, a steam separator is installed at the inlet line to prevent carryover of wet steam into the turbine, thereby increasing the lifecycle of turbine
- SMART Unit was delivered and commissioned within 3.5 months
- ROI was less than 15 months
- The design was optimized to meet both customer budget and space availability

CASE STUDY 4

PROJECT DETAILS

Project Location:
Kangayam, Tamil Nadu

Rating:
500 kW SMART TST 1005S



INDUSTRY TYPE

Rice Mill

STEAM PARAMETERS

21 Bar / Saturated

CHALLENGES

- PROCESS BOILER OPERATING WITH SATURATED STEAM – 21 Bar / Saturated
- Steam of 12 TPH Is required to process
- Delivery demanded less than 8 months
- Fluctuating Load every one hour based on process demand
- Load Variation from 4 to 12 TPH depending on availability of Raw Material
- Daily Start & Stop of Turbine
- Exhaust pressure – 5 kg/Cm²

TRIVENI SOLUTION

- Triveni Team visited the site and assessed the space identified for the Turbine Installation
- Triveni's SMART Offering of 500 kW Steam Turbine benefitted customer with over 40 Lakh units of Green Power
- As the steam inlet is very low pressure and saturated, a steam separator is installed at the inlet line to prevent carryover of wet steam into the turbine, thereby increasing the lifecycle of turbine
- Offered turbine was with remote start and stop facility
- SMART Unit was delivered and commissioned within 6 months
- ROI was less than 8 months
- The design was optimized to meet both customer budget and space availability