

STEAM AND POWER SOLUTIONS FOR TEA INDUSTRY

CASE STUDY: COMBINED HEAT & POWER FOR TYPICAL TEA FACTORY

Industry: Tea Processing

Application: Biomass CHP Combined Heat and Power

Boiler: COMBLOC/24 Bar/Wood, Single Stage Turbine Steam

In -> 23 Bar, Out-> 8 Bar Steam Flow :- 5000 Kg/hr Power Generation : Upto 95 KW





A. THE CUSTOMER

The customer is Tea processor. The steam is used in the tea processing factory for weathering and drying of the tea leaves, which is done with saturated steam at approximately 7.5 bar(g). The steam is generated in solid fuel Boiler of designed pressure 10.54Kg/cm2.

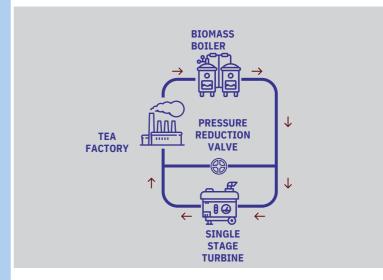
C. THE SOLUTION

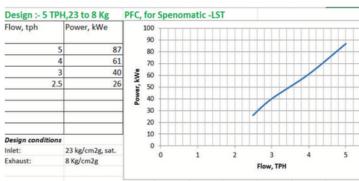
Spenomatic has done various feasibility study to optimize the investment and operational cost for CHP. Superheated steam boiler with steam turbine was not viable solution for CHP in Tea factory due to small capacity. With these feedbacks Spenomatic explored the globe to get the viable solution for CHP and found which is patented technology of generating power by saturated steam. Spenomatic & Expertise from Tea sector has made the deep due diligence of this product and certified it as satisfactory solution for tea processing plant. For this application on feedback from Spenomatic, Thermax Ltd has designed High pressure, Fuel Efficient, Multi fuel, factory assembled biomass/Solid Fuel boiler. This new generation boiler and Single Stage Turbine become a game changer products in process industry for combined heat and power solution.

With this solution for a typical tea factory it can reduce power bill up to 30%.

B. THE PROJECT

Spenomatic is well known supplier of energy equipment such as boiler and steam distribution accessories in tea processing industry. With more than 21 Years plus experience in the field of energy & Environment. Spenomatic has come up with the Innovative solution for combined Heat & Power to reduce cost of production in Tea Industry.





^{*} All the above figures are based on a study of a typical Tea factory. Actual figures may vary depending on the case

