



POWER PLANT REDUCES MAINTENANCE AND ENERGY COSTS WITH ROSEMOUNT MAIN STEAM LINE ANNUBAR PRIMARY ELEMENT

Customer

Power plant located in Europe

Application

Return steam line flow

Challenge

The coal-fired power plant faced a routine challenge in the preparation of a boiler blowdown. A successful blowdown removes impurities from the system to maintain high boiler efficiency and heat transfer capability.

Preparation of a boiler blowdown was a difficult task because of their return steam line flow measurement. To prevent damage to the flow nozzle during each boiler blowdown, operations personnel had to remove the flow nozzle and replace it with a temporary pipe section. Following the boiler blowdown, the temporary pipe section was removed from the line and the flow nozzle was reinstalled. A considerable amount of welding and labor was necessary every time a blowdown was performed. Further, the flow nozzle also had a high permanent pressure loss which reduced the energy in the steam flowing through the system.

The need to remove and reinstall the nozzle for blowdown resulted in increased maintenance costs. This difficult task also increased the startup complexity and increased the risk of capital damage. In addition, the high permanent pressure loss from the flow nozzle resulted in reduced heat rate and higher energy costs.

Results

- Decreased maintenance cost
- Reduced energy consumption
- Lowered risk of capital damage



Rosemount Main Steam Line Annubar

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Solution

The power plant solved their blowdown challenge by replacing the flow nozzle with the Rosemount™ Mainstream Line Annubar™ Primary Element. Operations personnel can now easily remove and reinsert the primary element from the steam line with minimal labor and without welding. A simple blind flange closes the process insertion point to prevent leakage while the blowdown is performed. Also, the design of the Annubar reduced the permanent pressure loss within the boiler system.

This customer experienced several positive business results by implementing the Rosemount Main Steam Line Annubar. The startup process was simplified and maintenance costs were reduced from routine labor and welding. The risk of damaging capital equipment was greatly reduced by eliminating the flow nozzle. Lastly, energy consumption was reduced by decreasing the permanent pressure loss within the system.



Operations personnel are able to easily remove and reinsert Rosemount's Main Stream Line Annubar from the steam line with minimal labor and without welding.

For more information, visit

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