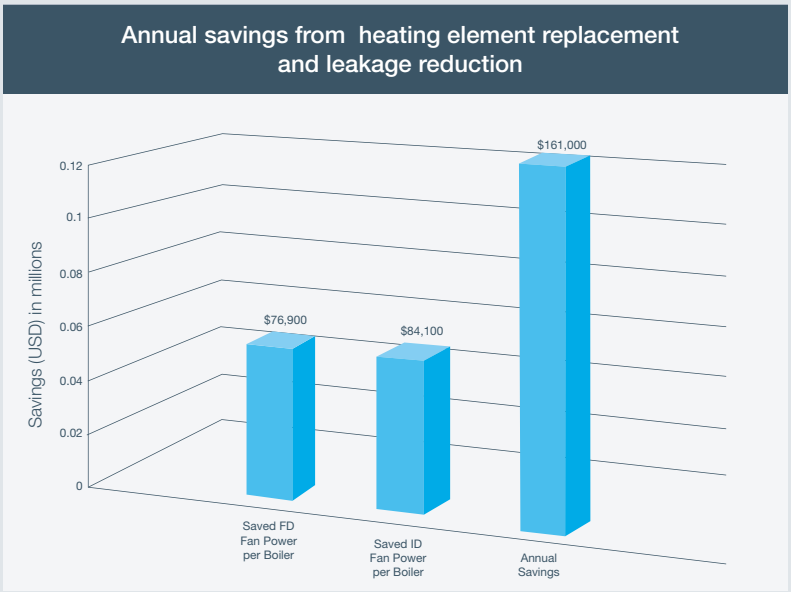
Turnkey case study

Challenge us to reduce heater leakage and running costs

Howden



When Tucson Electric Power (TEP) Springerville Station was experiencing major air leakage issues, they called on Howden to rectify the situation.

An inspection revealed major air leakage in the air preheaters, up to 40%. Howden recommended a double sealing modification and a new profile basket to improve the thermal performance and reduce air leakage. TEP took Howden's advice and engaged Howden Construction Services to perform a full Turnkey project on their Unit 2 secondary Air Preheaters. This became the first double sealing modification completed in North America.

Howden conducted multiple visits to collect the necessary data and do a complete inventory in order to properly plan for what was needed. The project was performed during the Spring Outage in 2014, thereafter a performance test was conducted, verifying all performances were met (i.e. to improve the thermal exchange, reduce the secondary air leakage from 40% significantly down to 10% or below).

The challenge

TEP Springerville was facing similar issues with their Unit 1 the following year. Remembering Howden's previous year's success,they reached out to Howden Construction Services again to perform a full Turnkey project.

The secondary air preheater project was the critical path in TEP's 2014 Spring outage. The main challenge for this project was that Howden was alloted just four weeks to complete the project, which normally requires a full 6+ week time frame.

The Air Preheater was in a congested area of the plant that caused frequent interruptions and delays. The unit was warped and corroded, adding more work and parts required to properly carry out the Turnkey project.

Solution

From the start of the planning phase, throughout the outage, and after startup, Howden took full project responsibility. Through coordination with Howden and the plant management, the crew worked around the clock, seven days a week until completion. Howden served as the single point of contact for the plant and led the project to completion.

Outcome

Once the unit was online and in steady load, a performance test was conducted and it was found that Howden was successful in reducing the leakage to levels below 10%. After all the data was analyzed it was found that TEP Springerville saved $161,000 annually with their leakage reduction.

What you get

- An experienced team, led by a highly skilled construction/project manager, focused on key project milestones.
- Dedicated labor resourcing plans; optimizing utilization in line with project deliverables.
- Timely delivery of goods in line with agreed schedules.
- A fixed price contract enabling you to plan with confidence.
- Quality installation/replacement of equipment for assured and reliable performance: "We do not leave until the job is done right"