

Rebuilding a Westinghouse cross-over expansion joint on a tight schedule

October 2006 – When power utilities such as Luminant Power need help with their expansion joint outage planning they trust Oakridge Bellows.

The Luminant plants have a large number of aging Westinghouse Steam turbines in their fleet. Oakridge Bellows identified for Luminant the longest lead-time items on the cross-over piping to order in advance - saving expedite costs and avoiding any outage delays.



A stripped down cross-over with bellows removed

The alloy 625, 2-ply bellows are the longest lead-time item. Ordering a bellows cartridge in advance of an outage ensures that those parts are sitting on the ground and ready for the cross-over expansion joint rebuild.

When the Westinghouse cross-over's arrive at the Oakridge Bellows facility, the units are dimensioned, and match-marked. The flanged ends of the unit are then set in a fixture to ensure the bolting orientation is maintained.

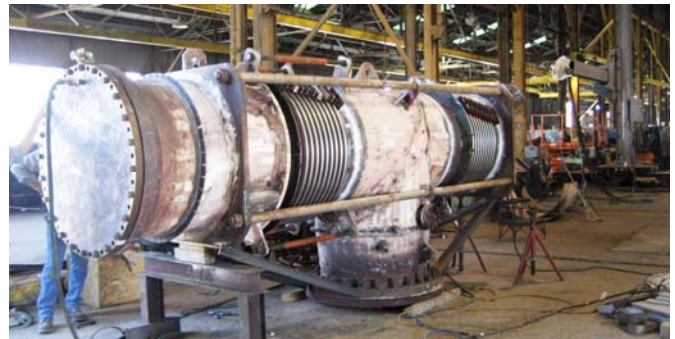
The old bellows assemblies are cut out and the piping ends re-prepped for the new cartridges.



The new alloy 625, 2-ply testable bellows cartridge assembly

Other items that are removed and inspected include the tie-rods and internal flow liners; these items are almost always in good enough condition to reuse.

The refurbished cross-over piping expansion joint is then hydro-tested and certified to go back into operation.



A rebuilt assembly being hydrotested

Luminant Power along with many other power utilities have trusted Oakridge Bellows to deliver cross-over rebuilds within their outage schedules.