
Condenser Seal Replacements

Between every GE or Westinghouse steam turbine cross-over piping and the condenser is a metal bellows seal. This bellows assembly isolates thermal movements between these pieces of equipment.

These seals should last for 25 years without leaking and the OEM's recommend replacement at that point.



A GE style condenser seal metal bellows assembly

The bellows seal will eventually leak. Although the thin stainless steel bellows are heat-treated to reduce chloride stress corrosion cracking, over time the deflection stresses will build up and form cracks.

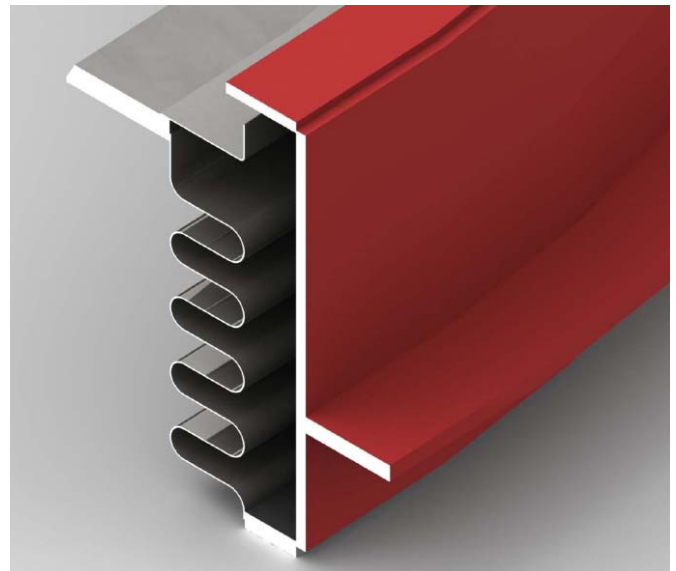
The condenser seal bellows assemblies are not easy to view and are often over-looked during planned inspections. In addition, the seal operates under vacuum due to high flow, so leaks will not be evident during operation.

Leaking seals means turbine efficiency losses, so a proactive scheduled replacement is dollars well spent in advance of a major maintenance outage.

Oakridge Bellows has the tooling to duplicate the most common OEM condenser seals, such as GE and Westinghouse.*

The manufacturing lead-times for these parts are 8 to 10 weeks, so plan to order these parts prior to the outage.

Replacement parts include a 'kick-plate' upgrade from older models. This part was added as a protective shield to prevent any tools, nuts, etc. from falling into the gap during installation. Any such parts could damage the bellows during operation.



Upgraded assembly with protective kick-plate

To avoid steam turbine efficiency losses, add the condenser bellows seal to routine inspection, and change this part out after the OEM recommendations.

**Oakridge Bellows is not associated with GE or Westinghouse*