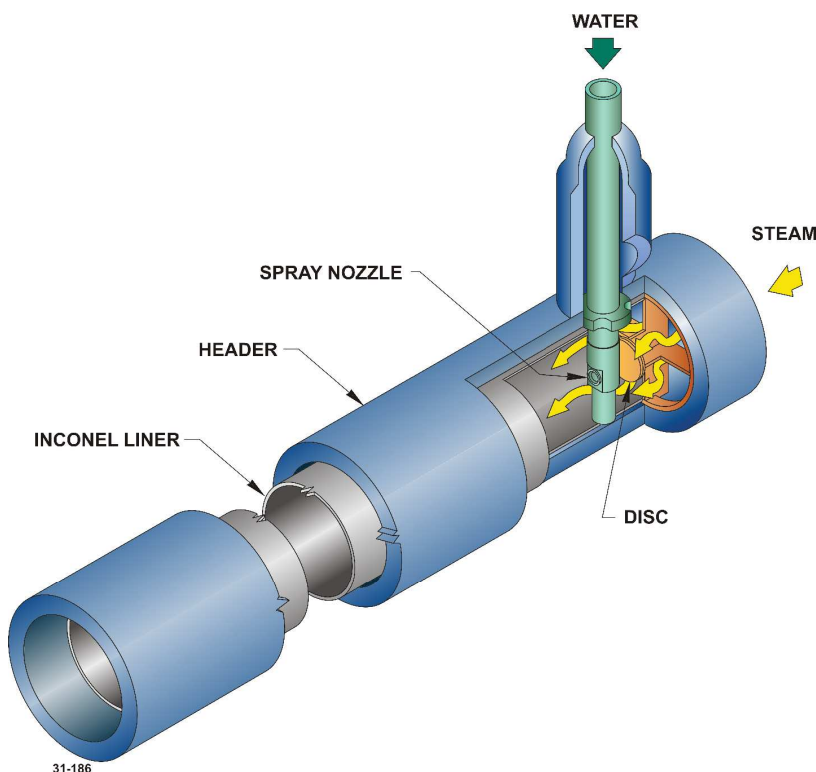


Spray Water Attemperators Maintenance Parts



In 1983, Foster Wheeler introduced a revolutionary new procedure for installing thermal liners in steam generator attemperators. Since then, the Detnaform™ process, invented by Foster Wheeler, has been used in steam generation cycles throughout the world.

The precise control of final steam temperature is critical for the safe and efficient operation of steam generation cycles and is particularly important at steam temperatures of 1000°F (538°C) or higher.

A problem common to most power boilers is failure of the thermal liner that is positioned downstream of most spray nozzle attemperators. This liner protects the high temperature piping from the thermal shock that would result from any impinging water droplets striking the hot inner surface of the piping itself. Although many support designs for maintaining the liner in position in the piping are in use, few of these have been found to be reliable over the long term.

High cycle fatigue resulting from thermal expansion of the component parts of the liner and its support system, and stress corrosion cracking, either singly or in combination, are responsible for most conventional attemperator liner failures.

Foster Wheeler attemperator liners, produced by the Detnaform™ process, are fabricated of INCONEL® 600, and

- has excellent steam oxidation resistance,
- is immune to stress corrosion cracking, and
- has a coefficient of thermal expansion similar to low alloy steam piping materials.

When thermal liners are formed in-place with the Detnaform™ process, they are in relatively close contact with the steam piping. Thermal expansion forces are easily overcome and the liner is free to expand and contract as a function of internal temperature changes. In addition, should thermal shock occur, the liner contracts locally and provides the necessary thermal barrier to prevent transferring the shock to the piping, thus virtually eliminating the possibility of vibration. The capability to retrofit and refurbish conventionally designed liners can also provide cost and schedule savings.

Benefits

- Long Component Life
- Optimum Thermal Barrier
- Oxidation Resistance
- Corrosion Immunity
- Cost Effective
- Vibration Free



We offer a full range of fossil steam generator equipment, aftermarket products and services to the power, industrial, and waste-to-energy sectors. Our global manufacturing and engineering network can deliver cutting-edge products and expertise, quickly and cost competitively with best-in-class quality. Established in 1891, our experience comes from over a century of designing, servicing, and continually improving steam generating equipment.

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