



IMPROVE POWER GENERATION EFFICIENCY BY 2.5%

HeatX+ improves power generation cycle efficiency by lowering backpressure within the condenser, leading to more electricity being generated. HeatX+ promotes efficient, dropwise condensation which enables more steam condensation at greater speeds along treated surfaces. Increased condensation rates result in significantly lowered backpressure and more electricity created from the same amount of fuel.

HeatX+ Benefits:

- Dropwise condensation from HeatX+ enables up to 20x faster heat transfer vs. bare substrate filmwise condensation.
- Applied at <2mil thickness, coating has no insulating impact on the treated heat transfer substrate.
- Applicable on all types of surface condensers.
- Lowered backpressure within the condenser provides a greater pressure differential in the cycle, leading to more electricity generated.
- Halving backpressure results in 2.5% increase in power generation cycle efficiency.

HeatX+ Applications:

HeatX+ can produce up to 20x faster heat transfer over bare substrate filmwise condensation. Water condensing on untreated surfaces typically forms films or sheets of water which adhere to the pipe surface and act as an insulating layer, preventing steam from directly contacting the surface and inhibiting further condensation.

HeatX+, applied in an extremely thin layer which will not have any insulating effect, preserves the heat-transfer properties of the surface. Droplets of water condensing on the hydrophobic surface are instead easily released, leaving space for new condensate formation. This increased condensation speed means lower chamber pressure and better generation cycle efficiency.



HeatX+ is being deployed at Oahu's main power plant, Kahe