



# SPIRAL TUBE WELD OVERLAY FOR PRESSURE PARTS

## OVERVIEW

Boiler Tube Company of America, a Babcock Power Inc.® company, has been designing, fabricating and installing replacement pressure parts and components for boilers of all sizes and types since 1918. In 1997, Boiler Tube Company of America commenced providing spiral tube weld overlay for boilers that were experiencing erosion and corrosion problems with various pressure parts. Today, Boiler Tube Company of America is a leading supplier in the spiral tube weld overlay field and utilizes a state-of-the-art patented fully automatic weld overlay process that has eliminated many of the problems that plagued earlier manufacturers of this product.



Overlaid Superheater Pendants



Overlay Facility

## FEATURES / BENEFITS

Maintains its own 30,000 sq. ft. facility with 12 welding lines dedicated solely to the spiral tube weld overlay market

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Tubing and cladding material selection, overlay application, and any bending are all handled by one company in one facility to produce a quality product every time  
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Utilizes the latest technology – Boiler Tube Company of America patented Hot Wire Gas Tungsten Arc welding process with Wave Pulse Technology

- High reliability and repeatability
- Virtual elimination of stress risers on the surface
- Low dilution ratio
- Inexpensive single process

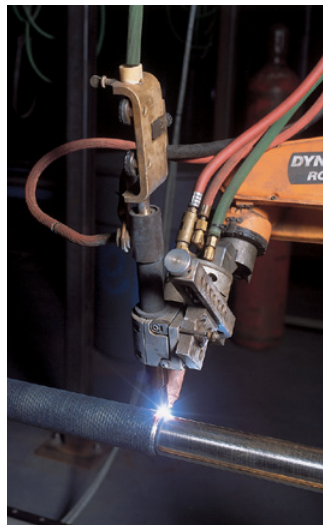




Weld Overlay Applied with Robotics



Weld Overlay Applied with Robotics



Applying Weld Overlay

## FEATURES / BENEFITS (CONT.)

- Full fusion at weld interface and bead-to-bead
- Uniform fusion with controlled penetration.
- Can be applied in thicknesses as low as .030
- Utilizes bending processes developed internally, hot or cold, specifically designed for 360° spiral overlay applications with radius capabilities less than 1D
- Eliminates potential cracking and premature failure

### Applicable to almost any area that experiences accelerated erosion or corrosion

- Headers in gas streams, waterwalls, superheaters, reheaters, loose tubes, generating tubes
- Eliminates unscheduled outages
- Extends time between replacements
- Eliminates cost and maintenance associated with tube shields

### Can be applied to waterwall panels (360°)

- No hidden stress related cracks
- Uniform expansion in service
- Cold side protection
- Uniform heat input with no panel distortion
- Uniform penetration into base material with virtually total fusion to base material as well as bead-to-bead
- Panels can be bent after application of weld overlay

#### SAFETY<sup>3</sup> PEOPLE. POWER. PROJECTS.

We're giving safety the third degree.

Babcock Power Inc. and its subsidiaries place the safety, health and security of our people at the core of our company values. Our team is our most valuable resource, generating solutions everyday to deliver safe, clean, reliable energy globally. With a keen focus on safety, Babcock Power Inc. conducts business in a manner that protects our people, our customers and the environment. From innovation to generation, we are proud of our award-winning safety record and are committed to operating with integrity and excellence.

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