For a critical shutdown at Texaco’s Pembroke refinery, Unit Superheater Engineering Ltd., of Swansea, UK, performed above expectations with the help of orbital tube-to-tubesheet welding equipment from Arc Machines, Inc., Pacoima, California.

Under time pressure to re-tube six exchangers, Unit Superheater Engineering used Arc Machines’ orbital tube-to-tubesheet welding systems to make 8,016 tubesheet welds in just 10 days.

The 0.75” diameter, 12BWG tubes of ASTM A249 material were welded into the 1225 mm diameter, 208 mm thick ASTM 182 tubesheet using a 2-pass procedure, with filler wire. Two shifts of orbital machine operators welded for 12 hours a day to finish the work in the 10 days allotted. The welding was completed in advance of Texaco’s deadline and met or exceeded their strict quality requirements.

This partnership of a reliable, technologically forward-thinking company like Unit Superheater Engineering and state of the art orbital welding equipment from Arc Machines, Inc. makes difficult jobs with strict performance requirements possible.

To read the full story, visit www.arcmachines.com

For further information, call AMI at 1-818-896-9556 or e-mail sales@arcmachines.com
**M6 Tubesheet Weld Head**

**QUICK SPECS**

- **AVC Stroke**: Automatic
- **Wire Feed Speed**: 5 - 100 IPM (13 - 254 cm/min.)
- **Rotation Speed**: 0.1 - 10.0 RPM
- **Weld Current**: 200 A (maximum)
- **Torch**: Water-cooled, 200 A
- **100% Duty Cycle**
- **Wire Manipulator**: Vertical, Horizontal and Angular
- **Tungsten Size**: 1/16” or 3/32” (1.6 mm or 2.4 mm Ø)
- **Weight**: 16 lbs. (7.3 kg) less cables

- Gas chamber for welding titanium available
- Compatible with **AMI Model 227 and 415 Power Supplies**