When Harmony Construction replaced the firewater system on the Hondo Platform, off the coast of Southern California operated by Exxon USA, they decided to use copper-nickel pipe which provides superior corrosion resistance in a marine environment. The project required 9,000 ft. of pipe of all sizes up to 10” and needed 3,140 welds. Orbital welding was chosen as the joining method for most of the butt welds.

After the careful evaluation of weld methods and equipment, a Model 215 microprocessor-controlled power supply and a Model 15 weld head from Arc Machines, Inc. was selected. Six days were spent training skilled manual welders on the use of the orbital equipment.

After 30 days the average machine operators reached 40–50 diameter in. per shift while manual operators completed 22 diameter per shift. To maximize efficiency, two welders working together with the orbital welding equipment (one forging and prepping and one welding) showed greater productivity than any of the four manual welders.

The use of orbital welding on copper-nickel pipe dramatically reduced the reject rate compared to manual welding. An on-site inspector reviewed the x-rays of the finished welded assemblies and visually inspected the welds. The reject rate on the orbital welds was about 5%, compared with 15% rejections of the manual welding. This installation demonstrates the successful partnering between the consumer, the contractor, and the equipment supplier.

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
In place of the M215 Power Supply!

**Input Power**
- 100 to 240 VAC, single-phase
- 50/60 Hz

**Weld Current**
- 3 to 100 A DC @ 100/120 VAC input
- 3 to 225 A DC @ 200/240 VAC input, 100% Duty Cycle

**Memory Capacity**
- 100 weld schedules maximum,
- 100 levels per schedule maximum,
- 100 different passes per level

**I/O Device**
- M-227EMM

**Water Cooler**
- Optional

**Dimensions**
- 15” x 23” x 20”
- (381 mm x 584 mm x 508 mm)

**Weight**
- 88 lbs.
- (40 kg)

**M15 Weld Head**

**AVC Stroke**
- 1.75” (44.45 mm)

**Radial Clearance Range**
- 3.69” (93.73 mm) (minimum)
depends on pipe diameter, torch type and configuration

**Torch Oscillation Stroke**
- 2” (50.8 mm)

**Axial Clearance Range**
- 11.5” (292.1 mm) (minimum)
depends on torch type and options

**Wire Feed Speed**
- 5 to 200 IPM

- Single or dual wire feeder options are available
- Several torch types are available