

# TECH NOTES

Send For **Information**

## Compact Digitally Controlled Robotic Orbital Automatic Welding System Offered

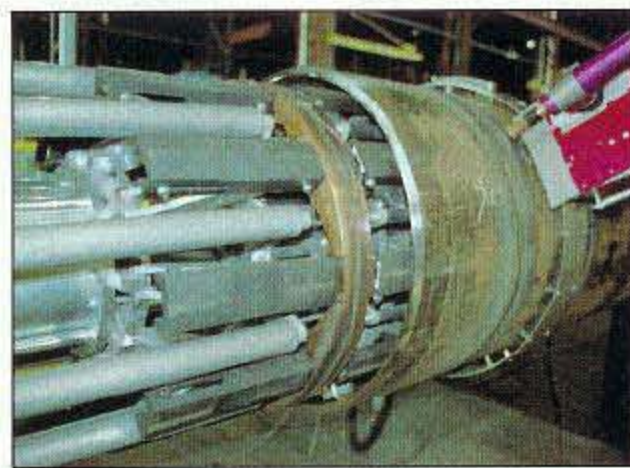
**D**yna-Torque Technologies has exploited a combined 60-plus years of pipeline welding experience in its workforce to now offer a compact, digitally controlled automatic welding system for offshore and onshore deployment.

The LoneStar Automatic Welding System integrates the latest in software and microprocessor technologies into an innovative design to offer a compact, adaptable digital system. The system drastically reduces chances for welding errors while providing capabilities for real-time parameter adjustments and documentation. The welding system provides pipeline constructors and contractors with the following advantages over traditional automatic welding processes:

- Consistent weld quality through verifiable repeatability;
- Microprocessor control of all welding parameters, reducing weld repairs, labor costs and virtually eliminating the risk of human error in equipment operation;
- Automation in the welding system;
- Reduced dependency on experienced operators; and
- Real-time logging of welding parameters, with live output.

### Real-Time Information

The in-depth, specific, and highly detailed production data produced and archived by the system helps contractors meet pipeline operator demands for higher quality at a lower cost. The system provides real-time information, enabling efficient management of the robotic welding line. Personnel can analyze raw produc-



tion data in an unbiased environment, unfiltered by welders on the line. The user-defined access to production information allows managers to conduct comparative analyses of quality and throughput benchmarks, as well as maintain a tighter hold on costs via inventory and machine utilization assessments.

### Welding Process

The LoneStar system is designed for both onshore and offshore pipeline construction. It is based on the orbital welding process. The complete system has three main components:

- Dyna Torque's line of pipe-facing machines, which produce the required compound narrow bevel. The facing machines cover

a wide range of pipe diameters from 6 to 44 inches, providing precise and consistent bevels, essential to the automatic welding process. The pipe-facing machines are self-contained, mobile, and easy to set up.

- Dyna Torque's wide-range hydraulic internal line-up clamps allow proper alignment of the two joints in preparation for the automatic welding process using either copper or ceramic backing shoes.
- The third component is the Automatic Welding System, which has the ability to weld pipe diameters ranging from 4 to more than 60 inches in diameter.