

TECHNOLOGY APPLICATIONS

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Reservoir-Modeling System—Emerson Process Management has released its Roxar RMS 2010 reservoir-modeling system (Fig. 1). Within the modeling suite, users can build models for any reservoir. They can estimate reserves, plan wells, and simulate past and future production. The well-correlation system makes well picking and tracking of the geology simpler, faster, and more adaptable. The structural-modeling tool improves the workflow for well correlation, isochore-volume generation, and horizon modeling. The 3D Gridder produces results closer to geological reality than previous techniques. The property-modeling tools have been extended to include multipoint statistics and improved methods for combining seismic interpretations with advanced modeling algorithms to achieve unique data-matched models. The reservoir-modeling solution comprises 13 fully integrated software modules, including mapping, reservoir modeling, well planning, reservoir simulation, and uncertainty-modeling tools.

For additional information, visit www.roxar.com/RMS2010.

Power-Section Elastomer—Roper Pump Company has developed its DuraTorque even-layer power section (Fig. 2) that uses the company's ER220 elastomer to deliver increased rate of penetration and optimum performance. The power section's true hypocycloidal design, interior profile, and proprietary elastomer were engineered to minimize risk factors that contribute to catastrophic failure, and it provides 2.5 times the power of conventional stators. The stepped-interior profile provides a superior metal-to-elastomer bond retention, and the modular construction allows the system to flex, without buckling, while navigating tight doglegs. The shorter power section maximizes the length/torque ratio, translating into increased weight on bit in doglegs. The elastomer is formulated for strength, resistance to chunking and tearing, and increased fluid compatibility. It withstands high operating temperatures and is minimally affected by dimensional changes that

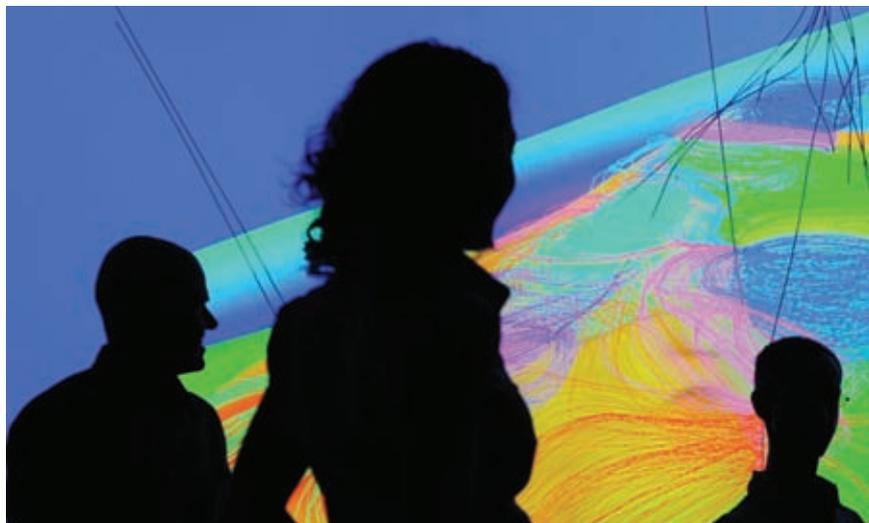


Fig. 1—Emerson Process Management's Roxar RMS 2010 enables users to maximize reservoir performance, regardless of geology, location, or complexity.

are characteristic of standard elastomers. The engineered compound is less susceptible to hysteresis-induced failure and explosive decompression often associated with nitrogen drilling.

For additional information, visit www.roperpumps.com.

Clad Line Pipe—Corus Tubes, a subsidiary of Tata Steel, has been awarded an American Petroleum Institute 5LD accreditation for the manufacture of its corrosion-resistant clad line pipe (Fig. 3) at its Hartlepool 42-in. mill.

The product enables recovery of previously unviable reserves in mature and sour-service fields that contain high levels of H₂S and CO₂. Clad pipe is made from carbon-steel plate with a stainless-steel corrosion-resistant-alloy layer, finished with a submerged arc weld. The company developed a process that uses metallurgically bonded clad plate formed into line pipe in which the plate is formed into a "U" shape, then into an "O" shape, before being expanded to the final dimensions. This method enables faster production

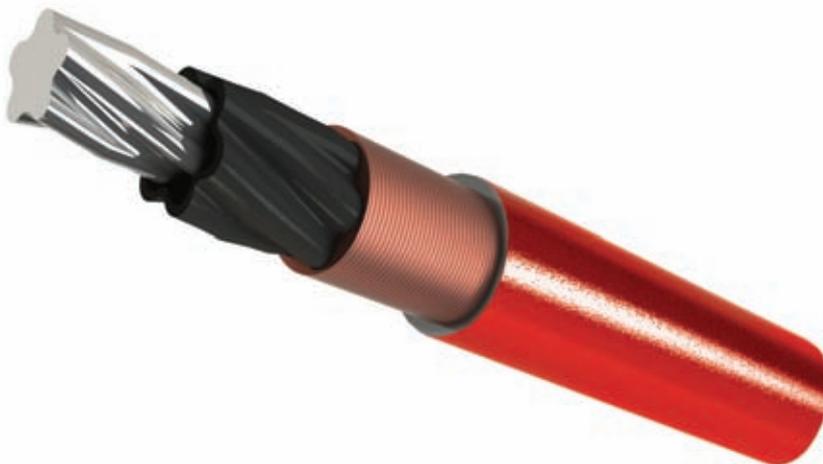


Fig. 2—Roper Pump Company's DuraTorque even-layer power section.