

THE SHAWCOR DIFFERENCE

Technological Leadership

ShawCor's ability to deliver high-value products and services to our customers is based upon a strong foundation of technological leadership and innovation. Today we hold more than 210 enforceable patents and utilize over 85 proprietary formulations and 50 leading technologies in the fields of adhesive technology, anticorrosion science, flow assurance/thermal design, polymer compounding, radiation curing and specialized concrete systems.

In 2010, we continued to extend our technological lead on several fronts. One of the year's most important achievements was the design and construction of a state-of-the-art Simulated Service Vessel (SSV), a key part of our efforts to expand ShawCor's presence in the fast-growing offshore pipeline services market. This remarkable 82-tonne facility simulates the extreme conditions of deep sea environments with unprecedented accuracy, allowing ShawCor and its customers to determine the precise thermal, compression resistance and flow assurance capabilities of advanced coatings and joint protection systems before these vital deepwater pipelines are installed. The first commercial tests in the SSV are being conducted on complex insulation coatings for Petrobras and Chevron and the facility is being booked for tests by several other large customers.

The past year also witnessed the commercialization of Thermotite® ULTRA™. A next-generation insulation system with unlimited depth capacity, this integrated coating and injection molded joint protection system will enable energy companies to explore further afield and produce stranded reserves that have not been accessible with existing technology. Thermotite® ULTRA™ was successfully installed on the Apache Corporation's Balboa Project at a depth of 3,350 feet in the Gulf of Mexico in November 2010 where it met all customer requirements.

Technological innovation also continues to play an important role in the development of our production facilities. The new Brigden™ mobile plant, which can be quickly deployed to provide the most advanced anticorrosion and flow assurance coatings anywhere in the world, will be introduced on this year's Jack/St. Malo project in the Gulf of Mexico. Brigden's remarkable 'plug and play' technology means all power, heating, process control and other systems can be assembled and activated without traditional, time-consuming construction requirements. Even shipping is easy since all modules are designed to fit within standardized shipping containers. In fact, many Brigden modules double as their own containers. The mobility of the Brigden technology provides access to project opportunities estimated at \$250 million annually that the Company cannot supply from existing fixed plants. It also gives us the flexibility to quickly augment productive capacity at existing facilities and enhances our ability to apply coatings at the most advantageous point in the supply chain.

We also continue to develop advanced products required to enhance production in mature basins as the industry moves to horizontal, steam-injected recovery.

Introduced last year, Flexcord Line Pipe is a spoolable line pipe with high cyclic load capabilities aimed at expanding Flexpipe Systems' product range to meet growing demand in the \$1.0 billion North and South American small diameter composite pipe market.

2010 TECHNOLOGY ACHIEVEMENTS

- SSV Subsea Test Facility
- Thermotite® ULTRA™ patented flow assurance coating
- Design and production of Brigden portable coating plant
- Mobile Rock Jacket® plant deployment
- Introduction of high-pressure Flexcord Line Pipe (patent pending)
- Infra-Red Shrink Appliance for superior pipeline sleeve application (patent pending)
- Real Time Radiography for girth weld inspection (patent pending)
- Robotic Internal Girth Weld Coating (patent pending)
- Low Application Temperature field joint (patent pending)



★ SUBSEA TEST FACILITY



The ShawCor Difference

When energy companies want to keep high-temperature hydrocarbons moving through icy, deep ocean waters, the thermal insulation and flow assurance characteristics of pipeline coatings are of critical importance. ShawCor extended its leadership in this area with the installation of the industry's most advanced Simulated Service Vessel (SSV) in our new Subsea Test Facility earlier this year. Designed to test coatings at an equivalent water depth of up to 9,800 feet at an internal pipe temperature of up to 180° Celsius, the SSV is enabling ShawCor and its customers to validate the performance and integrity of pipeline coating and joint protection systems prior to installation while generating vital scientific data for continued innovation.



★ THE SHAWCOR MANUFACTURING SYSTEM (SMS)



The ShawCor Difference

Leadership throughout ShawCor's seven operating divisions is the key to achieving organizational change. The SMS Champion Certification Program was developed to provide site managers with the knowledge to independently lead SMS at their sites. This year, 31 managers in six divisions will receive over 100 hours of training and hands on application exercises and will build a plan on how to improve their operation using SMS.