



MARINE TECHNOLOGY

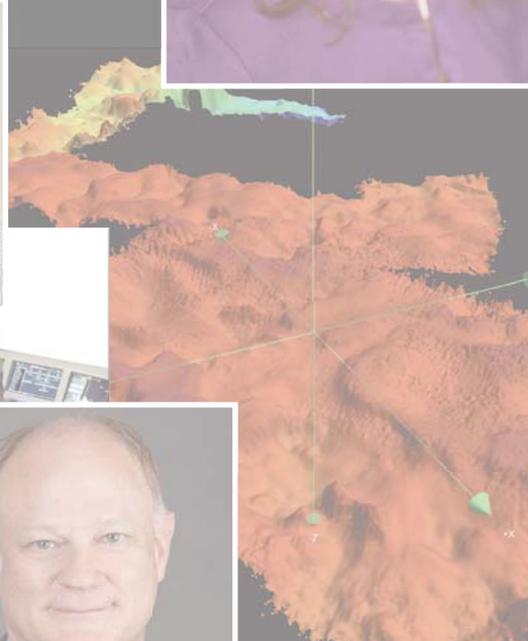
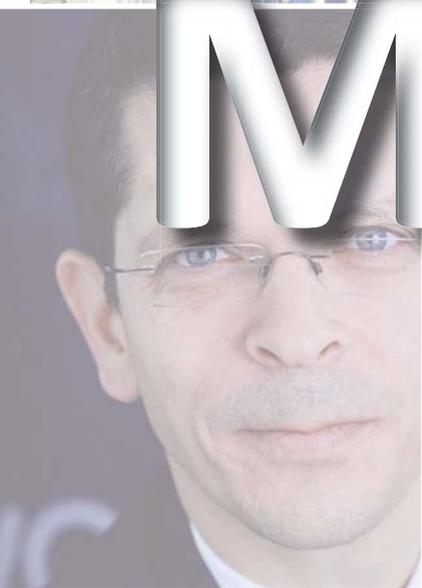
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REPORTER



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SOUTHWEST ELECTRONIC ENERGY

823 Buffalo Run,
 Missouri City, TX, USA 77489
 T: + 1 281 240 4000
 E: info@swe.com
<http://www.swe.com>
 CEO/President: Len Beckenstein
 Engineering Director: David White
 No. Of Employees: 85

The Case: Southwest Electronic Energy is celebrating 50 years of providing innovative custom energy management solutions, particularly lithium and lithium-ion battery technology for oil and gas and subsea applications. SWE is at the forefront of providing advanced technology battery solutions, helping make offshore oil and gas more accessible and affordable.

The Company

Today, SWE serves more than 300 customers, many of which have been with SWE through much of the company's 50 years of innovation in energy management solutions. Located in the greater Houston metropolitan area, SWE's battery solutions serve a broad industrial customer base operating in diverse fields, including oilfield services, seismic, pipeline inspection, medical, military, remote monitoring and process control, marine, solar renewable energy, telecommunications and homeland security. SWE's core competency drives its business philosophy: to design and build custom advanced battery solutions with higher quality and faster turnarounds supported by top level service and support.

The Tech

SWE tackled the challenges of how to provide advanced battery management in pressure-tolerant tested subsea battery solutions. The result of SWE's extensive research and testing is a way to safely provide higher and longer lasting power than the old technology of sealed lead acid (SLA) batteries. SWE pioneered, researched and developed SWE SeaSafe, a battery solution that delivers breakthrough safety, reliability and configure-to-order flexibility. SeaSafe smart battery solutions are poised to change the game in subsea applications, enabling electric powered monitoring, sensing, propulsion and feedback control, for more efficient, precise, and reliable operations. SeaSafe is available in smart modules that are easy-to-use battery building blocks for customers to integrate in their own enclosures.

SWE has introduced other subsea ready battery components: SeaSafe pressure equalization case, SeaSafe Observer software, and optional SeaSafe Parallel Integrator Isolators. SWE's patented Battery Management System (BMS) highlight SWE's Lithium-Ion battery products. The BMS has the brainpower to assure safe operation, protect the module's cells from damage, allow reliable distributed battery system architecture, and prolong battery life.

To meet its subsea vehicle pressure tolerant battery needs, Woods Hole Oceanographic Institute provided requirements' guidance and feedback on the SeaSafe modules.