







**Supreme Integrated Technology –**

North American Partner for Emerson Marine

The Leader in Electro-Hydraulic Hull System Solutions

## INTEGRATED HULL PACKAGE INCLUSIVE OF:

Hull System Automation & Integration with Topside  
Ballast System Control & Monitoring  
Tank Level Gauging  
Flow and Pressure Control  
Valves and Valve Control Technologies  
Cargo Management  
Component sizing and Certifications  
Bunkering  
Custody Transfer  
Asset Management  
Fuel Management  
System Drawing Submittals  
Factory Equipment Approval and Testing  
System Commissioning  
Life Cycle Support

## PROJECT EXPERIENCE

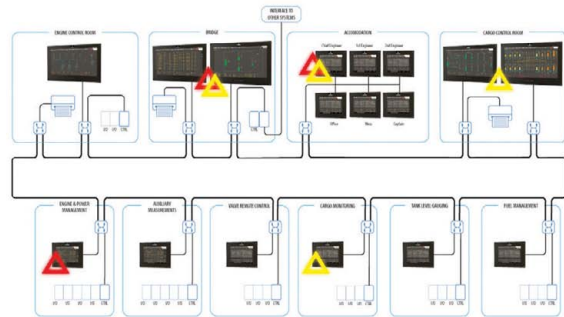
Construction Vessels  
Container Ships  
Cruise Ships  
Floating Production and Offloading Vessels  
Jack-up Rigs  
Offshore Supply Vessels  
Semi Submersibles Rig  
Spars  
Tankers  
Tension Leg Platforms

## HULL SYSTEM AUTOMATION, CONTROL & MONITORING

Working with the Emerson Aperio system, we deliver integrated control and monitoring functions on any type of ship and application, e.g. engines, generators, switchboards and other service systems ...

- ~ **Operational Continuity** - Get a single-point overview – from the specific component to total system
- ~ **Better Decision-Critical Data Control** - Remote and automated control of valves, pumps, motors and other critical hull systems
- ~ **Deep Insight Monitoring** - Dynamic coloring of pipelines, valves, pumps and tanks to track cargo flow; self-diagnostic tools; trend and performance monitoring
- ~ **Enhanced Alarm Safety** - Create safeguards and conditional warnings to avoid dangerous operations; independent high-level and overfill alarm; Advanced alarm filtering and distribution, enabling alarm indications at the right locations and in relevant situations

Control & Monitoring System





## ROSEMOUNT<sup>™</sup> Tank Gauging



### CARGO MONITORING AND TANK LEVEL GAUGING

**Rosemount Tank Gauging** System measures and calculates tank data for custody transfer, inventory management, oil/product movement, mass balance and loss control, operational and blending control as well as leak detection and overfill prevention. The system can be configured to meet client specifications.

### CUSTODY TRANSFER

Flow measurement accuracy is the heart of custody transfer of materials from seller to buyer. To ensure safe and reliable measurement of product flow, SIT provides expertise and state-of-the-art technologies through Emerson to provide seamless and reliable integration of all system components for precise measurement despite varying operating conditions and harsh environments.



### FUEL MANAGEMENT

Emerson's Integrated Control and Monitoring System helps you comply with environmental regulations, get accurate real-time data and obtain an overview of fuel, engine and vessel performance. Integrate measurements and control over the entire fuel management system from bunkering to consumption.



- ~ Fuel Bunkering
- ~ Fuel Viscosity
- ~ Fuel Consumption

### VALVE REMOTE CONTROL

SIT provides a broad offering of actuation technologies for the valve manufacturer of choice and provide a full range (pneumatic, hydraulic, electric, electro-hydraulic) of custom integrated control solutions.

## BETTIS<sup>™</sup>

### SUBSEA APPLICATIONS

**Bettis GS** – The symmetrical scotch yoke mechanism provides quarter-turn rotation. GS-Series actuators are available with diver or ROV intervention systems. The actuators are well suited for riser and other fail-safe applications.

## Dantorque

**Dantorque** – Very compact and fully concentric, thanks to the helical spline drive mechanism and disk springs – the proven design provides space savings and reliability.



**Shafer** – Shafer rotary vane actuators produce balanced quarter-turn torque without the need for any internal gearing or power conversion mechanism. The rotary vane actuators are excellent for manifold and other tight space applications.

**Damcos®**



**OFFSHORE APPLICATIONS – Emerson Damcos Actuators**

**Central or Local Power Unit (LPU) Options** – built on a standard modular platform, possible to configure and scale the unit as requirements demand. The LPU option reduces the chance for contamination in the system, smaller footprint, less weight, environmentally friendly and offers a capital expenditure savings resulting from a significantly lower installed cost.

**Actuators – compact and torque dense**, the Damcos helical gear design sets the benchmark for marine industry valve operation and control.

**Control Cabinets** – standardized solenoid valve cabinet, able to support up to 120 valve controls. Each valve can be isolated and independently controlled, thereby reducing downtime and making repairs easier.

**Custom Hydraulic Systems** – with over 40 years of experience designing and building hydraulic systems, you can have confidence in SIT's ability to develop, build and test custom hydraulic power units and systems for any challenging applications including:

- ~ Subsea HPU
- ~ Central HPU
- ~ Steering Systems
- ~ Ballast Control Systems
- ~ Dump Scow Systems
- ~ Solenoid Valve Manifolds
- ~ Fuel Management Systems
- ~ Jacking Systems

#### **SERVICE AND SUPPORT**

50,000 sq feet manufacturing space between fabrication facility in New Orleans, LA and assembly shop in Houston, TX. All facilities ISO 9001:2015 Certified with ability for remote testing capabilities. Extensive Emerson inventory for fast quick turnaround on custom subassemblies, repairs and testing.

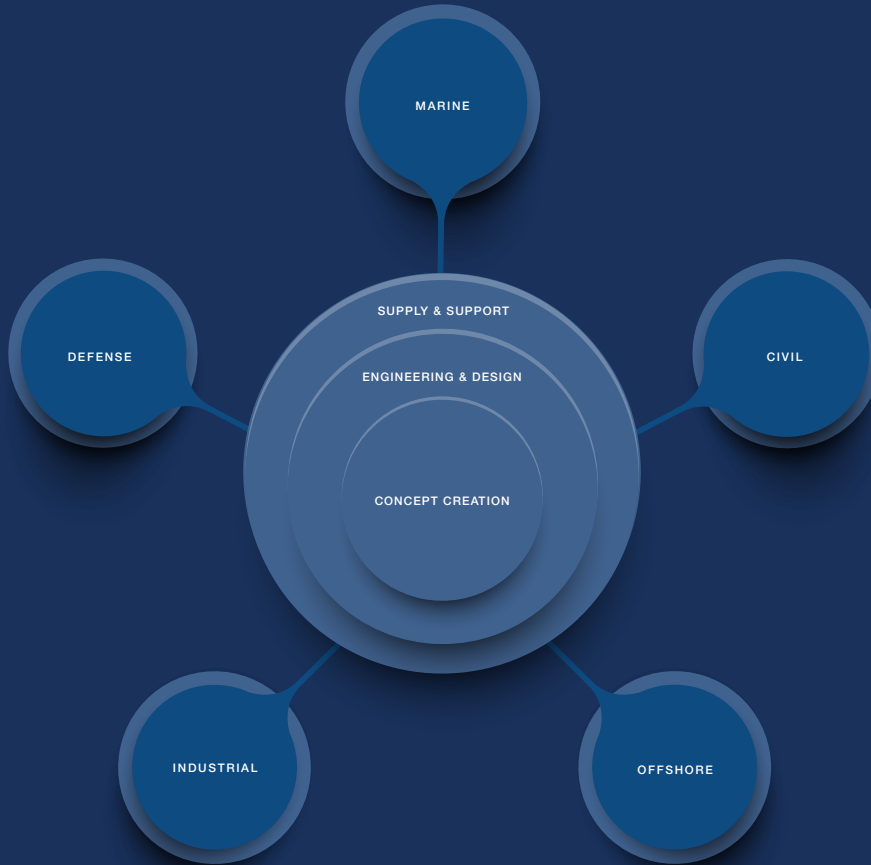


Assembly - Houston, TX



Fabrication - New Orleans, LA

WITH OUR CORE OF EXPERTISE, SIT HAS ACCOMPLISHED  
PROJECTS FOR A LARGE VARIETY OF INDUSTRIES.



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