The SMART*Chief*® II
Integrated Automation System

Technical summary

- *Main Computer Unit*
- *I/O Modules and distribution*
- *Communication Protocols*
- *Easy to install*
- *Easy to understand*
- *Easy to operate*
- *Easy to maintain*

The SMARTChief ® II is a fully scaleable screen based alarm and control system with a range of design and operational benefits. It displays an extensive overview of the vessels functions including AMS, Pump Control, Valve Control, Tank Sounding, PMS control, CCTV, Fire alarm and other seamless integrations subject to the vessels configuration.

The SMART*Chief* ® II is approved by all major classification societies.

The SMART*Chief* ® II

is based on the proven STI-technology with the latest in marine computers and software application technology. The STI-technology consists of standardized building blocks (STI modules) with a range of key advantages:

- Decentralized or centralised system
- Fieldbus-solutions
- Ethernet solutions
- Fibre optic solutions

The main core

of the system is a Spider™ distributed real time database, collecting, computing and maintaining all values in the system. Every computer in the network contains a Spider(tm) that constantly synchronize with all other Spider(tm)s via a redundant Ethernet (IEEE 802).

The operator station is suplied with a Citect graphical user interface. Each Citect coexists with the local Spider™ in a seamless integration utilising a combination of ActiveX and OPC for exchange of information and operator commands.

- Redundant bus solution to module level
- Full quarto redundancy
- All logging, trending and alarm management are distributed
- Seamless integration
- Wide range of communication protocols
- Multiple I/0 moduls
- Hotswap option I/0 moduls

The STI-modules

are constructed from advanced electronics with intelligent I/O units specifically designed for marine and offshore demands. The STI I/O-modules has an inbuilt Auto-identification function so that service personnel are able to add new I/O modules (On/Off, 4-20mA, +/-10V, RTD, ThermoCouple-modules) into any free I/O slots in the cabinets connected.

The system can then be configured and the I/O-alarm tags for the new modules activated. All these operations can be perfromed realtime without switching off any power supplies or restarting any part of the system

- The modules are identified with unique use of node and module address
- All channels have galvanic isolation
- Indication of signal, voltage and communication status
- Electronic fusing of 24V and 5V supply to every single module
- The internal power supply is galvanic isolated from 24V
- Redundant power supply

The controller unit

is a computer specifically engineered for the marine market with an improved, robust design. The hard disk has been replaced with a Solid State Disk (SSD) to even further improve the reliability of the SMART*Chief* ® II controller.

The SMART*Chief* ® II EAS

(Extended Alarm Panel)
Communication on the STI-bus provides opportunity for local operation, indication and acknowledgement of alarms. The ESD will display text and group alarms.

The SMART*Chief* ® II's effective and safe operation is aided by user friendly graphics designed for each individual purpose.

Visual symbols in a familiar layout provides the operator an immediate understanding of the vessels operational status and values.