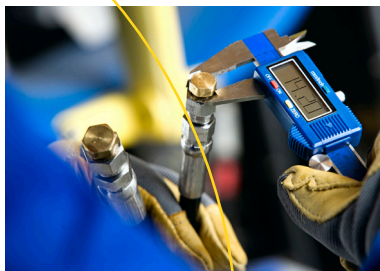


# INTEGRITY ASSURANCE & RELIABILITY





Hydrasun is a recognised market leader in the provision of integrated fluid transfer, power and control solutions to the oil and gas, renewable energy, OEM, marine and defence industries worldwide.

#### Overview

As industry focus continues to increase on the environmental impact of Hydrocarbon leaks and loss of containment, companies need to assure the technical integrity and reliability of their assets.

Flexible Hose Assembly (FHA) and Small Bore Tubing (SBT) failure are considered by industry bodies as one of the largest contributors to unplanned hydrocarbon release in the oil and gas industry. Hydrasun can supply the solution in an auditable, user-friendly, easily accessible and financially beneficial manner.

#### Integrity Management

Over the last 20 years, Hydrasun has built up considerable experience, expertise and competence successfully delivering integrity management programmes for operators and major contractors in the oil and gas, marine, defence and energy sectors.

Working closely with customers and leading industry bodies, Hydrasun is now at the forefront in the delivery of best practice for FHA and SBT.

The success of our processes in the management of flexible hoses and small bore tubing offshore was reflected in our active participation with the Energy Institute when they developed and published the formal Guidelines for the Management of Flexible Hoses Offshore in 2011 and Small Bore Tubing in 2013.

Hydrasun's integrity management provision covers both FHA and SBT systems and through the development and implementation of a

risk-based inspection strategy, identifies the potential impact on key business drivers from loss of containment.

Our risk-based inspection management model considers each stage of the FHA and SBT system process from design and specification through to supply and installation.

#### Policy & Strategy

A fundamental building block to creating a suitable and transparent integrity management system is a policy and strategy, built on industry recognised guidelines and best practice. Hydrasun works closely with customers to develop processes and procedures required to effectively implement maintenance strategies for FHA and SBT.

#### Data Management

The Hydrasun Integrity Management System (HIMS) Database is accessible through the Hydrasun web based customer interface Hydralink. A powerful reporting tool, HIMS can be configured to interface with customer's internal business systems. It is an effective solution for the management of FHA and SBT data gathered during inspection surveys which facilitates the:

- Control and management of survey data
- Analysis of individual or multiple site inspection surveys
- Status reports and cross installation comparisons
- Failure trends and historical analysis
- Strategic decision making for implementation of future inspections and maintenance strategies
- Efficient forward planning

#### Benefits

Our industry leading integrity management strategies provide customers with confidence in the technical integrity of their FHA and SBT systems allowing them to:

- Deliver sustainable improvements in safety and environmental performance
- Demonstrate formal processes and controls are in place to maintain the integrity of FHAs and SBT on their equipment packages and assets.
- Reduce loss of containment and improve asset performance
- Reduce equipment down time
- Establish risk mitigation strategies to avoid unplanned hydrocarbon releases
- Ensure compliance with industry and legislative guidelines
- Access auditable and transparent FHA and SBT Integrity Management Systems
- Access onsite inspection surveys by Hydrasun's surveyors
- Secure online access to industry recognised data management & reporting tools
- Reduce overall operational & maintenance costs
- Access dedicated technical & engineering support team
- Supply of personnel & equipment to complete remedial actions







Integrity Assurance & Reliability programmes help prevent hydrocarbon release and loss of primary containment - increasing the safety, environmental performance & reducing overall lifecycle costs of your assets.

## The Hydrasun Integrity Management Model



### Installation & Assurance

Hydrasun ensures our customers' equipment packages utilise the most cost effective, compliant and highest quality assemblies fitted by fully trained, competent, experienced and certified onsite technicians.

### Competent Personnel

The Hydrasun Integrity, Assurance & Reliability Division has over 70 personnel who provide inspection, project management, technical support and contract management. All of our surveyor competence is assured and verified through Hydrasun's OPITO Accredited Learning and Competency Management System.

### Containerised workshops

Hydrasun's Containerised Workshops are specifically designed to provide dedicated on-site technical and operational support worldwide:

- Can be deployed to any location in the world
- Rapid response service during customer critical activities
- On call service 365 days a year
- Minimises operational downtime
- Carries a wide range of stock products
- Fully fitted with hose assembly equipment and materials
- Experienced technicians

### Reliability

Hydrasun offers fluid Condition Monitoring solutions that are in line with industry's requirement to reduce Planned Maintenance Routines (PMR) and deliver cost reductions while ensuring equipment operational up-time.

Hydrasun's capabilities include:

- Application & system analysis
- Development of risk based strategies
- Product specification
- Onsite sampling capability
- Technical support - onsite & offsite
- Data interpretation and analysis
- Equipment recalibration management
- Access to product specialists
- Extensive experience of oil and gas industry systems

Our experience supports our customers to

implement an intelligent fluid condition monitoring and on-line condition monitoring reporting system that reports equipment operating efficiency and therefore avoids the requirement to undertake equipment maintenance and down time. Fluid condition monitoring delivers reduced maintenance costs, improved equipment utilisation and up-time.

### Engineering, Technical Support & Training

Our team provides hydraulic engineering and technical support to ensure we meet customer's integrity, assurance & reliability requirements:

- Onsite inspection surveys
- Material selection
- Design and installation
- Product assembly
- Engineering support
- Product training

Hydrasun is accredited to deliver a series of new industry-recognised SBT courses developed and approved by the Engineering Construction Industry Training Board (ECITB). This ensures individuals have the necessary skills, ability and knowledge to carry out Small Bore Tubing assembly activities safely.

As an accredited provider we offer the following courses from our modern training facilities:

SBT01 - Assemble and Install Small Bore Tubing with Twin Ferrule Mechanical Grip Fittings (2 days)

SBT02 - Assemble and Install Small Bore Tubing with Cone & Threaded Medium and High Pressure Module (1 day)

SBT03 - Assemble and Install Small Bore Tubing with Cone & Threaded Medium and High Pressure (2 days)

We also provide tailored programmes of FHA training courses to meet customer's specific needs. These courses include:

- Hose Storage and Handling Awareness
- Hose Installation, Routing and Protection
- Hydraulic Hose Assembly

Contact [training@hydrasun.com](mailto:training@hydrasun.com) to learn more.



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