HYDRAULIC SYSTEMS

OUR HYDRAULIC EXPERTISE POWERING YOUR PRODUCTS
Aquaterra Energy has extensive experience and technical expertise in the design, build, procurement and service of complete custom-made hydraulic systems. We pride ourselves on achieving excellence in innovation with hydraulic units built to DNV standards, ATEX certified and CE marked.

Our dedicated in-house team’s technical proficiency and in-depth knowledge of the hydraulics market enables us to deliver innovative, cost effective and reliable solutions.

We utilise our design capabilities to minimise the cost and complexity of our hydraulic systems, without compromising on quality or reliability, ensuring that we provide our customers with superior products every time. We also provide the application and implementation of the latest hydraulic data logging systems, which enable:

- Comprehensive data logging of performance during acceptance testing of new systems
- Comparisons and benchmarking for future maintenance schedules
- Quick and easy trouble shooting using the unique Image Based Information System (IBIS)

"Technical proficiency and in-depth knowledge drive the team’s innovation in quality, reliable hydraulic systems"
We have comprehensive experience in the design, manufacture, repair and refurbishment of a range of hydraulic power units and can provide hydraulic solutions and services as required. This positions us as a market leader of both topside and subsea HPUs within the oil and gas industry.

Our HPUs are designed to provide hydraulic power and control for a variety of equipment and we can build to suit a client’s specification. Electro hydraulic, pneumatic and hydraulic intensifier pumps can be incorporated within the units, which can be built to DNV standards and are ATEX approved, CE marked and suitable for use in either Zone I or Zone II Hazardous areas. Operation of our mimic panels is intuitive and they are easily read to allow the correct function to be carried out in a logical and safe sequence, thus aiding operability.

Our skilled and experienced hydraulic engineers and project management team will ensure that a client’s requirements are met and that equipment is installed, tested and commissioned to the highest operational standards. All installations will be supported by our extensive hydraulic components and repair services.

BENEFITS

- Scheduled and preventative maintenance
- Unscheduled and reactive repair
- Inspection of hydraulic systems, flexible hose assemblies
- Components supply and spares holding
- Upgrades, refurbishments and retrofits
- 24/7 engineering support
- Fault diagnostics
- Focused reliability control, repair and replacement of systems
- Provision of highly skilled and qualified technicians
- Projects taken from initial design concepts through to manufacturing, installation, commissioning and training of operational personnel which is conducive to the continuity of the project

“Our HPUs are designed to provide hydraulic power and control for a variety of equipment..."
Features

- Digital images are taken of key elements of the equipment
- Information required on each element is collated, including specifications, operating instructions, component information, adjustment / maintenance procedures, all manufacturing details, drawings, etc
- The images and information are then brought together in a user friendly, interactive PDF manual
- This allows easy identification of equipment elements and ready access to the associated information
- The manual is published to the web and is then accessible to anyone with a valid password at any location worldwide ensuring sensitive data is securely controlled
- Information is always up-to-date, with delays due to communication or locating information being eliminated
- Updated information / changes are immediately available to all password holders worldwide
- Part numbers and supplier’s contact details are instantly available
- Certification documents are immediately provided and notification to a nominated email address of renewal dates can be automatic

Image Based Information System (IBIS)

Our Image Based Information System (IBIS) is used to operate, maintain and service hydraulic systems and equipment. The digital system is accessible via the internet from anywhere in the world and contains up-to-date information required for quick identification and resolution of technical questions and issues.

“...the digital system is accessible via the internet from anywhere in the world...”
Our data acquisition system is an effective diagnostic tool, used to detect and identify faults in complex circuits, enabling fast and effective repairs and maintenance. The system has the ability to acquire data simultaneously from up to sixteen different points in a circuit and all of our hydraulic systems are designed and fitted with multiple test points to facilitate testing.

The team is also able to perform data acquisition at commissioning of new systems in order to provide performance parameters for acceptance and future system checking.

Our patch test equipment enables us to analyse all types of hydraulic fluids for levels of contamination, identify wear elements within a system and aid ‘in-house quality control’. Its portable flushing and filtration units are used to ensure that the required cleanliness level is achieved.

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**HYDRAULIC PROCESS FLOWCHART**

Hydraulic systems - the complete solution

Aquatra Energy’s hydraulic systems team provides the complete turnkey solution. Being able to draw not only on hydraulics expertise but from our in-house operational, analytical, design engineering, QHSE and project management teams, we are uniquely placed to understand our clients’ requirements and provide the total solution.