SUBSEA

Topside Equipment

TIS Subsea HPUs

TIS Manufacturing | Subsea | Subsea HPUs

TIS Subsea HPUs are specifically designed for operation with bespoke manufactured TIS Umbilical Reelers as part of a complete Intervention Workover Control System (IWOCS).

Units are built to be operator friendly, to allow for easy maintenance, and to supply power and control to hydraulic or electrically driven umbilical reeler units.

Typical features can include:

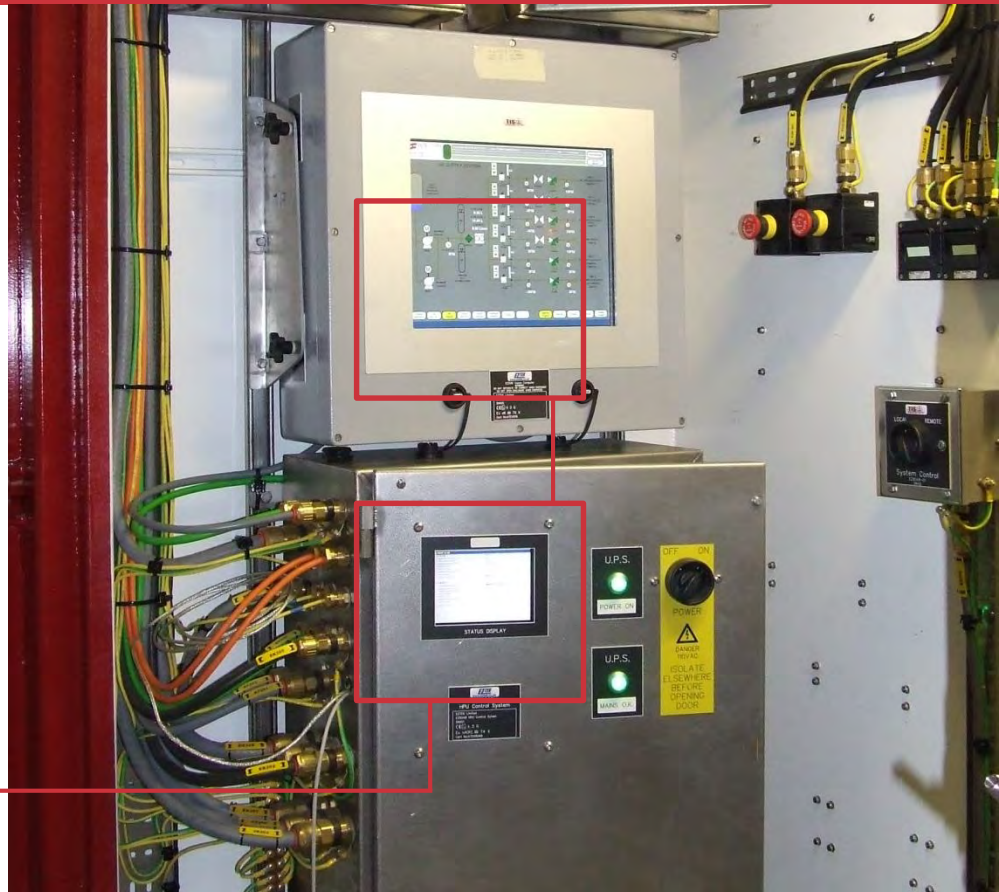
- PLC Systems
- ATEX & IECEx Dual Certification
- DNV complaint
- Fluid Filtration System - AS4059 compliant
- Stab Plate Hook-up
- Remote Control/HMI/ESD functionality
- Enclosed Accumulator Bank
- Carbon or stainless steel construction

Subsea HPUs | PLC Systems

Programmable Logic Controller Systems are designed for integration with all components of the HPU to provide control from a single display monitor during operation.

A PLC configuration will typically govern HPU systems which include pump control, subsea valve operation, ESD and EQD functions.

PLC Systems can be both local and remote to the HPU and can also be supplied with touch screen control.



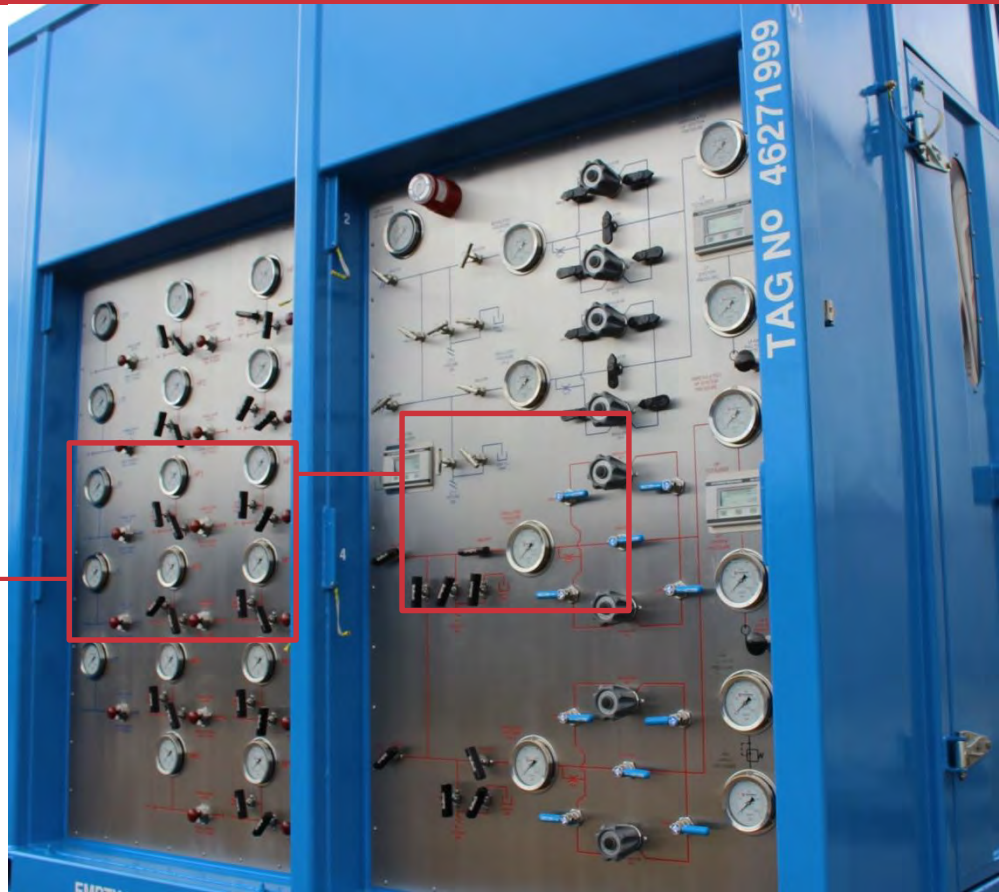
LOCAL PLC SYSTEM

Subsea HPUs | Control Panels

Subsea HPU **Control Panels** can be installed on the interior or exterior of the unit, with remote control panels also available as per client requirements.

Engraved stainless steel panels are colour coded for easy identification of switches, valves and gauges, and their relevant systems.

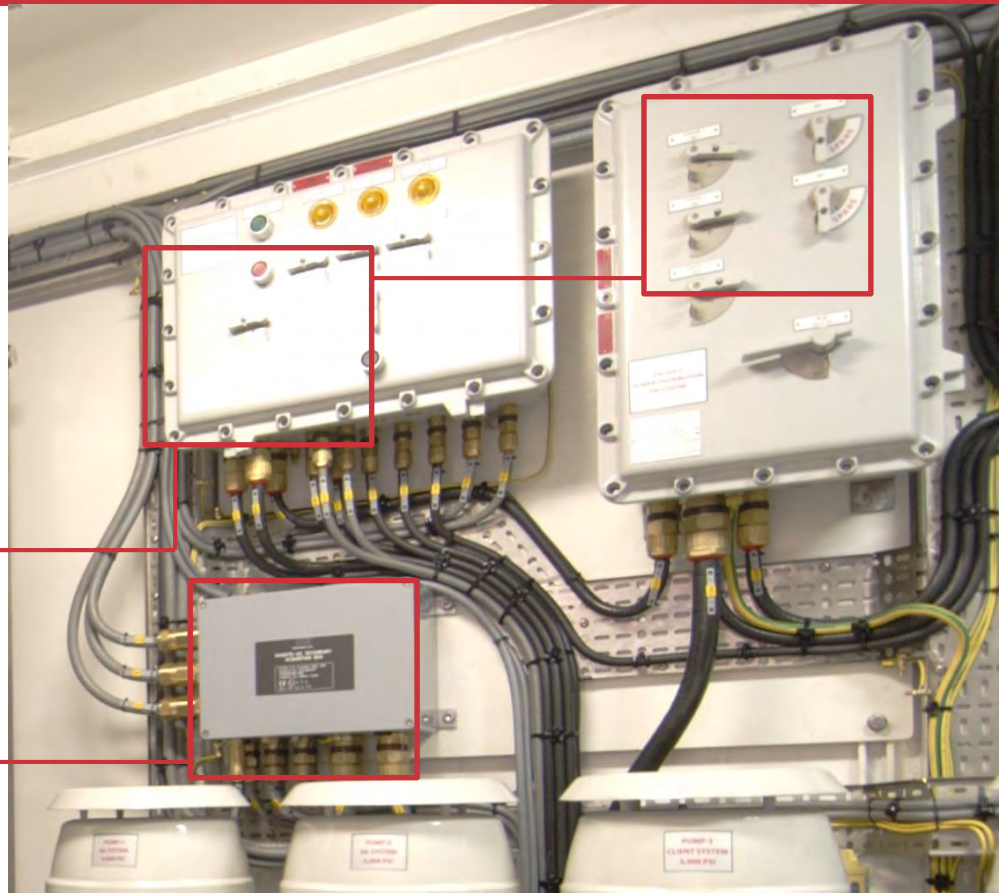
EXTERNAL CONTROL PANEL



Subsea HPUs | EXD & EXE Enclosures

EXD & EXE Certified Enclosures are used to house junction boxes and control systems, ensuring the build meets ATEX regulations.

Both enclosure types are built as a safety measure with **EXD Enclosures** typically housing motor controls and power distribution, while **EXE Enclosures** house junction boxes.

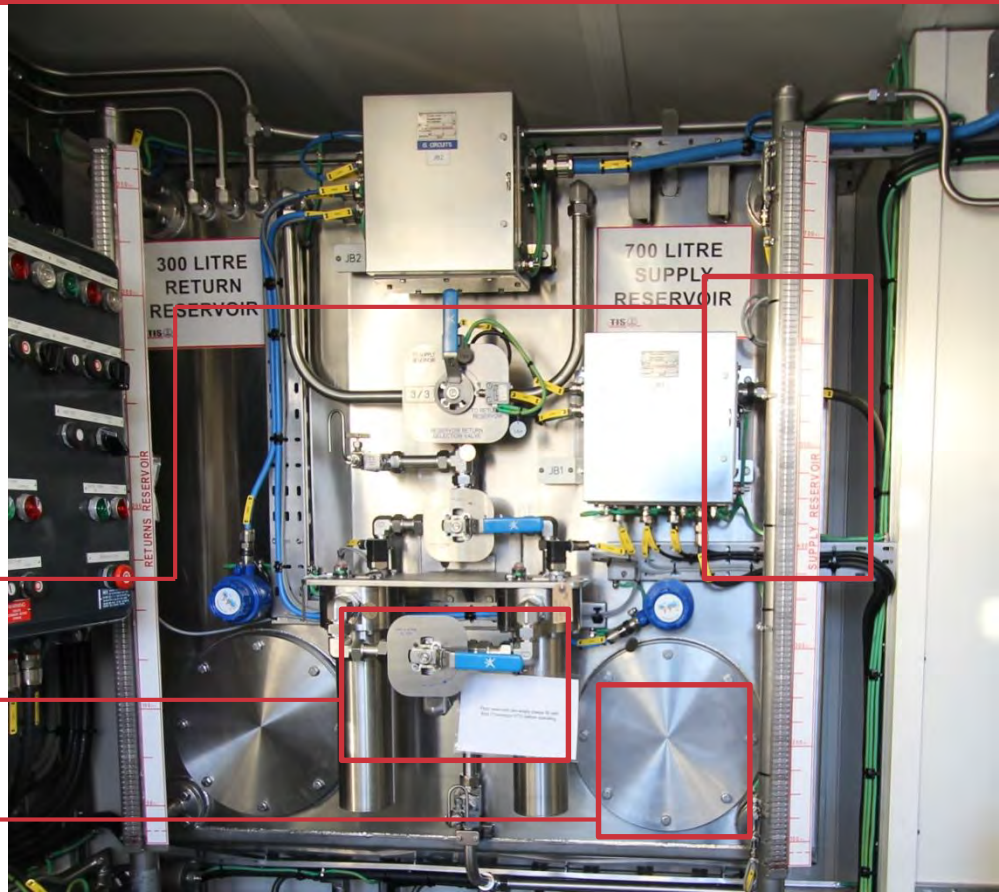


Subsea HPUs | Fluid Reservoirs

A **Dual Return Filtration System** allows for a standby unit to act as a contingency and maintain the fluid cleaning process at all times.

Fluid Level Indicators provide a visual reference of reservoir levels while transmitters deliver digital readouts and allow for an automatic switch-off feature.

Reservoir Access Hatches allow for visual inspection and manual cleaning of tanks.



FLUID LEVEL INDICATOR

DUAL RETURN FILTRATION SYSTEM

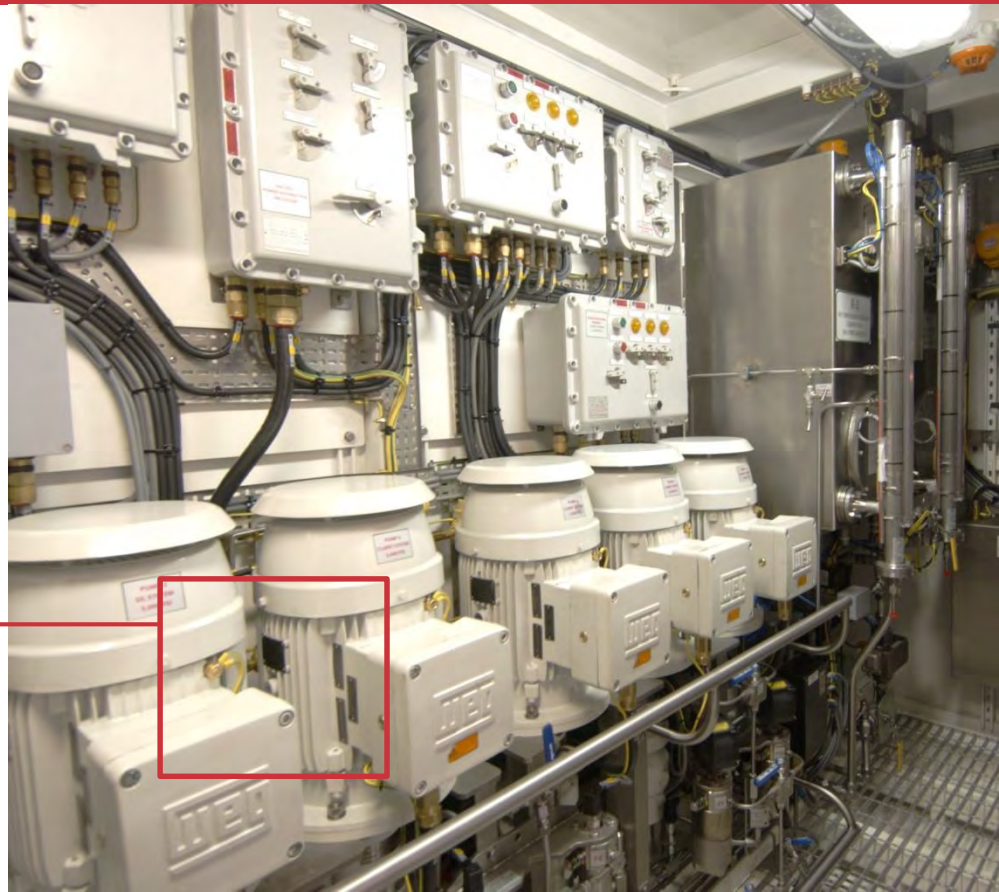
RESERVOIR ACCESS HATCH

Subsea HPUs | Pumps

Electrically Driven Pumps are used to supply pressure to the hydraulic system, and are typically controlled from a PLC unit, as well as having local manual controls.

Additional **Air Driven Pumps**, also operated under PLC control, are commonly installed to provide a back-up pressure supply in the event of a power failure.

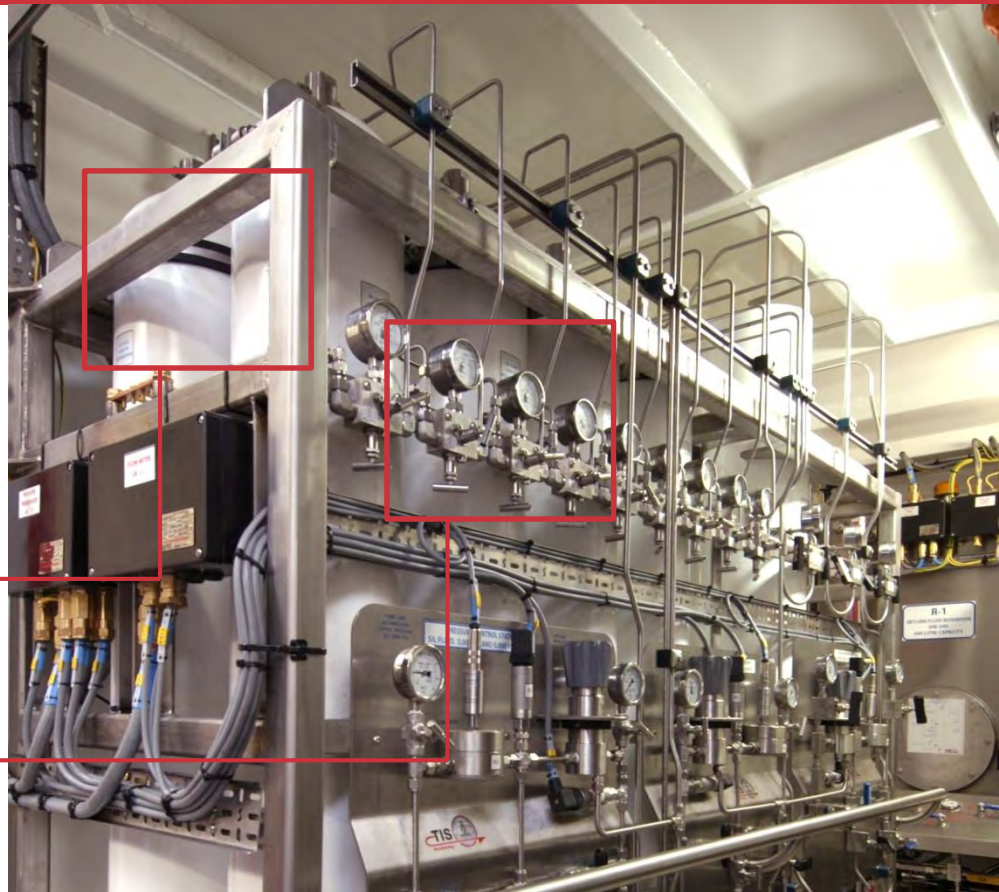
ELECTRICALLY DRIVEN PUMPS



Subsea HPUs | Accumulators

High Pressure Piston Accumulators are pre-charged with nitrogen gas and fitted with rupture discs to prevent over pressurisation, with vents piped externally to the unit.

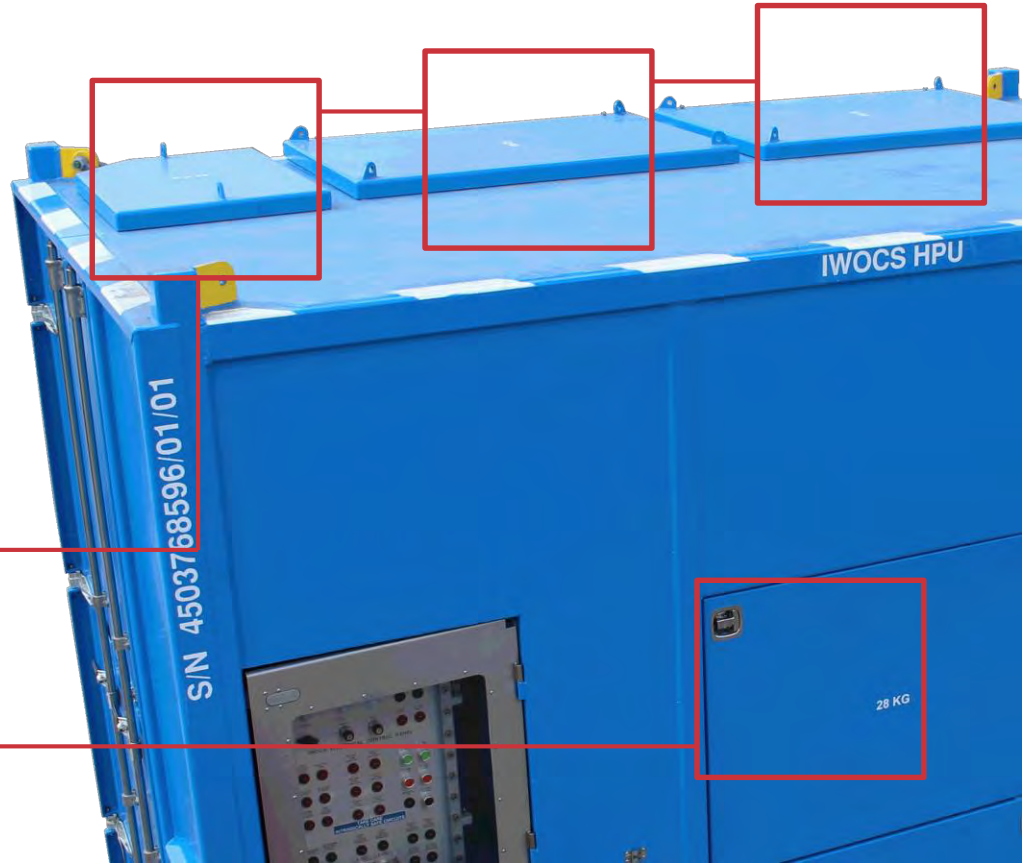
Pressure Gauges show accumulated pressure in the system while **Pressure Relief Valves** are fitted to the fluid end of the accumulator as a back-up safety function.



Subsea HPUs | Maintenance Access

Access Hatches on the roof and walls provide the facility to reach key components for maintenance requirements.

Larger components including the **Fluid Reservoirs**, **Pumps** and **Accumulators** are provided with lifting points and can be removed from the unit through the **Roof Access Hatches**.



Subsea HPUs | Equipment Deliveries

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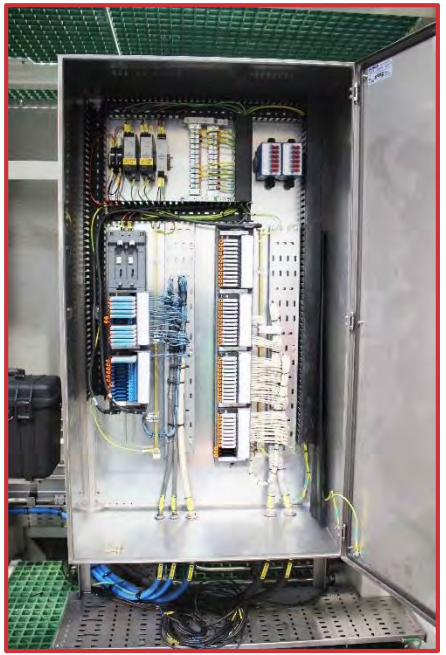

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