

**We are industry leaders in the design and manufacture of special purpose pressure vessels, pressure testing equipment and associated pressure control systems.**

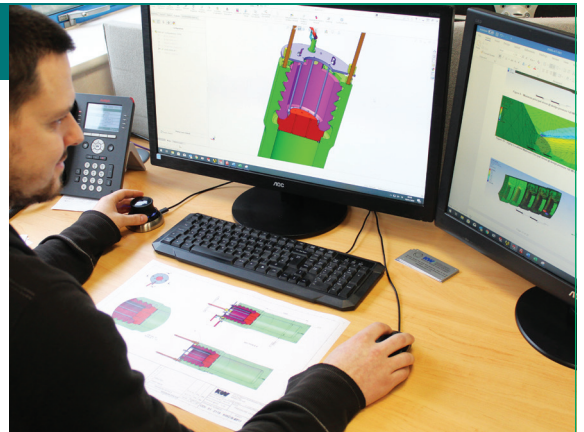
Established in 2004, KW Designed Solutions continues to support industry and research facilities in the Oil and Gas, Subsea Engineering, Materials Research, Universities, Nuclear, Pharmaceutical and Scientific sectors.

We combine our cutting-edge design and superior manufacturing capabilities, with a commitment to the continuous improvement of our products and services. This ensures we consistently produce the most innovative, high-quality, safe, reliable and cost-effective solutions.

## Design

All our pressure vessels are designed in-house at our UK headquarters, by highly-skilled and qualified engineers, using the most up-to-date design and analysis tools.

We provide solutions to our customers' unique specifications; ensuring compliance to all relevant pressure vessel design codes, international standards and directives.



## Manufacture, Assembly and Testing

Our team of fully-certified electro-mechanical engineers manufacture, assemble and test our pressure vessels, in our purpose-built facility in the UK.

They possess a wide range of specialist skills, have access to the most up-to-date tooling available and use advanced production and project management systems.



## Installation and Commissioning

We manage all steps and safety requirements required for the installation of our equipment; using specialist sub-contractors for the positioning and siting of heavier equipment.

Our engineers will complete the installation, conducting a final site acceptance test (SAT), before the project is signed off by the customer.



# PRESSURE VESSELS

Specialised pressure vessels are required for many varied and diverse testing applications.

- **Simulating deep ocean pressures**
- **Creating extreme subsea operating conditions**
- **Containing chemical or physical reactions**
- **HPHT chemical and materials analysis**
- **Fuel spray analysis**

We design and manufacture hyperbaric chambers, reactor vessels and autoclaves to individual requirements.

Available with closure style, design pressure, temperature and working volume, suitable to the intended application.



## PRESSURE VESSEL CLOSURES



We offer threaded, bolted and an advanced range of unique quick-acting closures.

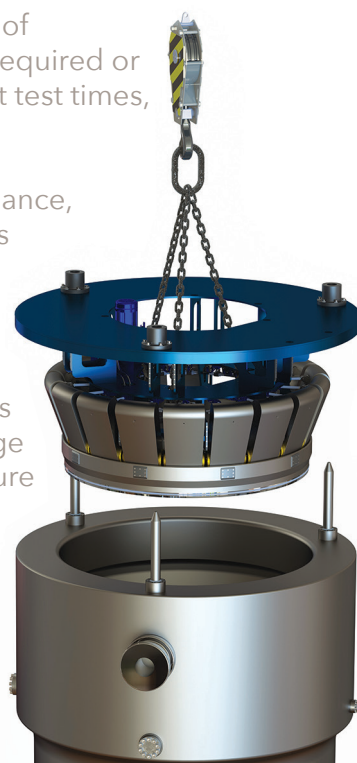
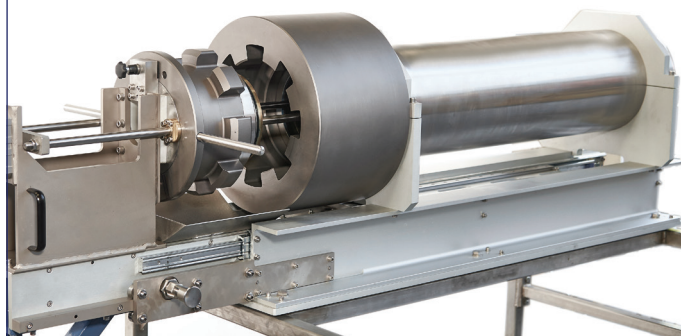
These innovatively engineered closures, simplify the opening and closing of pressure vessels and enable quick and easy access.

Useful when a specific set of operating conditions are required or production FATs with short test times, need to be conducted.

They provide closure guidance, safety locking mechanisms and attachments for safe handling.

All our pressure vessel closures come with various sealing options and a range of pressure and temperature ratings.

Whether you're looking for a completely new design or one of our existing products, our expert team will provide the perfect solution.





# SPECIALIST APPLICATION TOOLING

Our unique ability to incorporate specialist application tooling into pressure vessels, is what sets us apart from all other pressure vessel manufacturers.

By incorporating specific features into a simple pressure vessel, it transforms it into a noteworthy test platform.

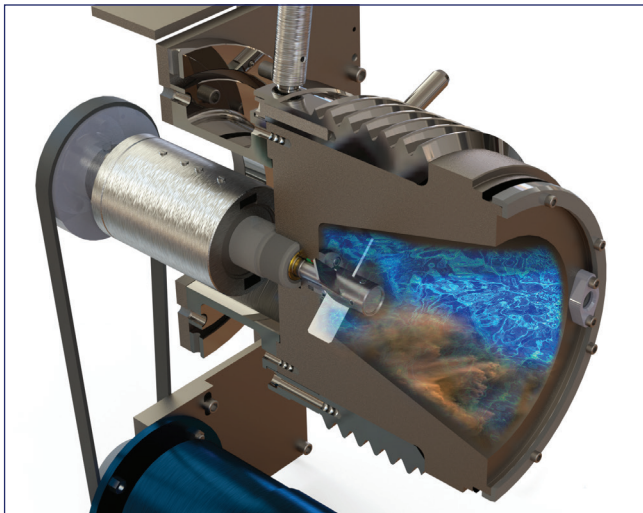
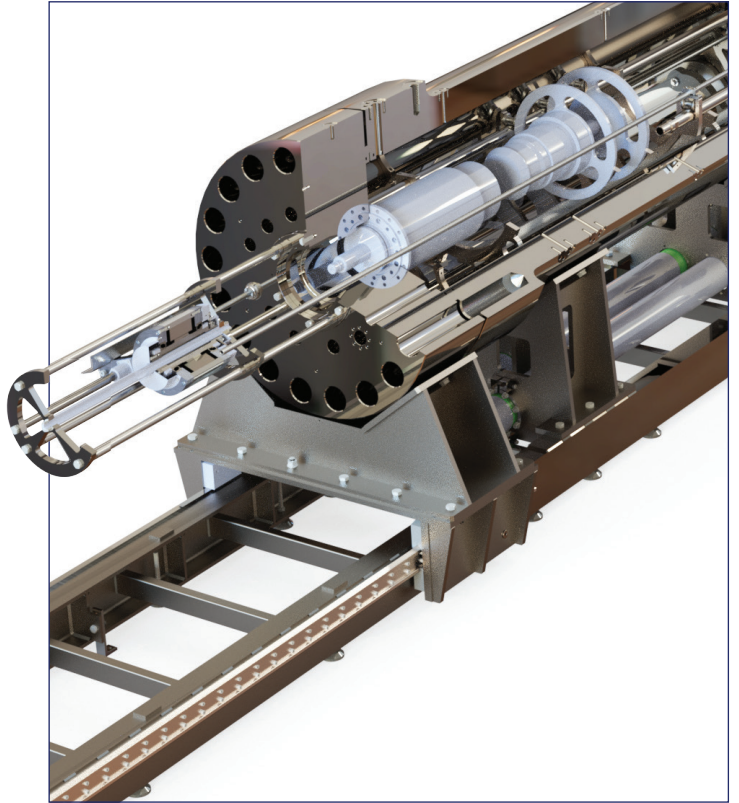
We create more realistic testing platforms and industry standard testing conditions, by simulating extreme environments.

Tools integrated into the design, manipulate components under pressure, to replicate the functionality of the equipment or device under test (EUT or DUT).

We have pioneered many designs to meet the most demanding and stringent test standards.

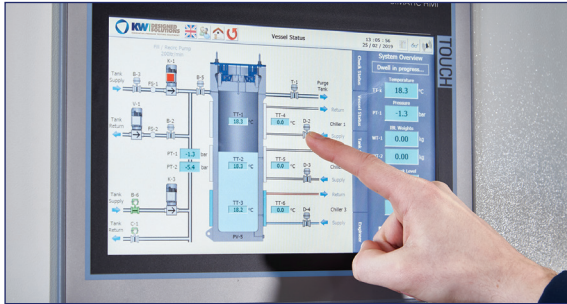
Our specialist application tooling includes:

- **Media agitation with magnetic agitators and stirrers**
- **Mate/de-mate actuation**
- **Temperature control systems**
- **Vessel tilt mechanisms**
- **Instrumented buoyancy loss (IBL) testing**
- **Mechanical testing devices**
- **Electrical penetrators and feedthroughs**



# PRESSURE CONTROL SYSTEMS

Our compact and modular pressure control systems can be integrated with the pressure vessel or equipment under test. Engineered to make hydrostatic and hyperbaric pressure testing simple and efficient, they can speed up and automate repetitive pressure testing processes, including:

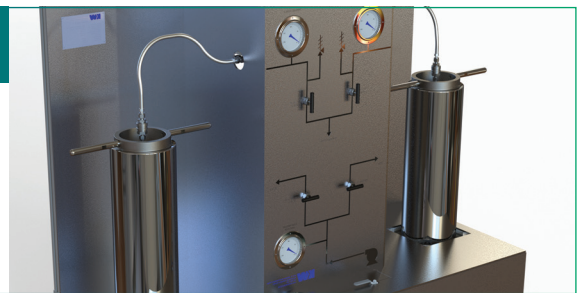


- Filling
- Pressure control at set point
- Purging
- Depressurising (venting)
- Pressurising
- Draining

The pressure control system includes essential safety features (such as pressure indicators and other pressure relief devices) as well as integrated water holding tanks and data logging capabilities.

## Manual Pressure Control Systems

Manual systems are suitable for simple pressure control; allowing the operator to control the pressure testing functions by manually opening and closing valves or using push button switches.



## Automated Pressure Control Systems

Automated systems have pre-defined programmable functions, to self-manage hydrostatic and hyperbaric pressure testing processes. PLC driven (via a remote operator control panel) they incorporate a user-friendly HMI control interface.

# PRESSURE TESTING FACILITIES

KW Designed Solutions are leaders in the turnkey supply, installation and commissioning of complete pressure testing facilities. By integrating other ancillary equipment and tooling into our pressure vessels and control systems, we create advanced, market-leading operational testing facilities.



KW Designed Solutions is ISO 9001:2015 certified

