# CALDER

## **Fabric Maintenance**

Pump, Vacuum, and Compressor Packages and Systems



STANDARD UNITS | BESPOKE DESIGN | HAZARDOUS AREAS / HIGH PRESSURES | HIGH FLOWS | SPECIFICATION COMPLIANT

## **Fabric Maintenance**

We design and manufacture vacuums, compressors and pumps. These units are for operation in offshore hazardous areas for superstructure and fabric maintenance applications. Whilst our range includes standard units, we have significant experience in the design of bespoke packages.



### **Vacuums**

Our offshore vacuum units utilise positive displacement or liquid ring technologies to provide a range of pressures and flows. The MultiVac can be diesel engine or electric motor driven, and there is a range of control options.

MultiVac units are used by customers for a variety of vacuum applications including: waste transfer, chemical/liquid recovery, bulk powder removal, ventilation, pigging, descaling, and de-sanding operations.

## **DESIGN | BUILD | TEST | COMMISSION**

## Compressors

We design and build offshore compressor units for hazardous area operation with a range of performance options.

The design allows for safe transportation, maintenance, and optional stacking of the units in offshore environments.





Our HotJet pump units are ideal for high temperature washdown in hazardous areas on offshore drill rigs, platforms and other facilities where high pressure hot water is required.

We offer two standard units - one with an inline heater and one with an immersion heater. Selection is made to suit the location's water supply characteristics.

We also offer bespoke hot water jetting packages to suit our customers' specific requirements. Bespoke packages have included multi-location washdown on three decks of a platform from a single unit, a two-storey unit to meet platform space constraints, and the inclusion of large, insulated tanks.

# Mult /et Multivac Multi/et

**MultiQi** 





## **Water Jetting - diesel**

These MultiJet high pressure offshore pumps undertake superstructure and fabric maintenance projects including helidecks, accommodation areas, walkways, and pipes and supports.

Our offshore water blasting equipment is often used in conjunction with accessories for surface preparation and cleaning, and abrasive cold cutting of tanks, pipes and decks and other composite materials.



## **Water Jetting - electric**

To support offshore platform electrification we have further developed our high pressure, electrically driven waterjet unit for ATEX Zoned operation. We have combined proven reliability with state-of-the-art motor drive technology to provide the latest in electric waterjetting pumps for offshore hazardous

The MultEjet is developed as an alternative to diesel driven units. It utilises an integrated VSD to control the pump speed and yet retains the same footprint as diesel units.

> **ATEX NORSOK IECEX** CSA

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We offer a substantial range of standard units - jetter, compressor, and vacuum. There is also the option of fully bespoke machines and, the more common option, standard units modified or tweaked to suit your particular application.

## **Hazardous Area Compliance**

A substantial portion of the units we produce for offshore fabric maintenance are for operation in hazardous areas.

In addition to the recognized standards of ATEX. NORSOK. CSA and IECEx, we also offer units for non-hazardopus areas such as Safe Area and Rig Safe.

**Why High Pressure Water** 

High pressure waterjetting is a dust-free technique which allows other adjacent activities such as painting and lagging to continue. It minimises the waste stream created, reduces clean-up time, and is

not weather dependent.



**Accessories** 

Our range of accessories covers

cleaning, cold cutting, descaling, surface

preparation, safety clothing and PPE.

We ensure that accessories connect

easily to your pump system, and we

support you with technical information,

certification, training, spares and service.

## **Optional Equipment**

- Fire Suppression Systems.

- Bypass Regulator Control Valve Minimise water use.
- Local or remote hydraulically operated pressure control.
- Maintenance Lifting Points Located above pump head and flame trap.
- Noise Attenuation Various options to reduce noise levels to below 85 dBA.
- High Ambient Temperature Operation Extended radiator for environments up to 50°C.

## **Containers and Crash Frames**

The units are generally mounted in crash frames or containers certified to ISO 10855-1. We supply both crash frames and containers with fork lift entry points and a certified, 5-leg sling set. Design features for container units typically include lockable double access doors and external recessed bulkheads for access to controls and services connections.

### **Support**

We are here to support you for the lifetime of the equipment. We stock a vast range of pump spares ready for immediate despatch. Training is provided for both water jetting safety and for equipment familiarisation. Our team of experienced and highly qualified service engineers are available for telephone support and site visits.

### **Testing**

Two large, state-of-the-art, acoustically attenuated test facilities give us the ability to conduct comprehensive pump testing prior to product despatch. We supply pump packages complete with a full control system or for integration into an existing drive/control system. In either case, the package will undergo extensive performance, noise and vibration testing.

Our customers are always welcome to witness the F.A.T. testing of their pump units. However, given the cost and time implications of getting here, we have a remote F.A.T. viewing capability



### Hose Storage.

- Lance Storage.
- Gas & Fire Detection.
- Maintenance Bench and Vice.
- Internal Hazardous Area Lighting.
- Dual Control (for HP and UHP convertible units).



## Lightweight and Compact



Our OffshoreLITE range of lightweight and compact offshore pumps, vacuums, and compressors is an innovative solution for facilities which have reduced crane lift capacity or limited deck space. These units are designed for fabric maintenance applications in hazardous areas such as ATEX, NORSOK and IECEx.

In addition to our OffshoreLITE range, weight reductions can be made across our entire portfolio through innovative engineering. All units can be of a modular design to achieve particularly low gross weights and to aid installation in difficult-to-access areas.







## **Standard Units**

With over forty years' experience in the design and manufacture of high pressure and hazardous area systems, we have developed a range of standard units. On occasion, we modify standard units to suit our applications or operating location, thus reducing the need for a fully bespok solution.



## **Bespoke Design**

Where a standard unit design is not suitable, our engineering team works closely with clients to create custom units that integate seamlessly into their operations. Utilizing advanced technology and extensive industry expertise, we ensure that each system is optimized for performance, efficienc, and reliability, even in the most challenging environments.



## **Hazardous Areas**

Our expertise extends to designing equipment for hazardous areas, ensuring safety and compliance without compromising on performance. We understand the critical demands of operating in such environments and provide robust, certified solutions that meet stringent regulatory standards, safeguarding both personnel and operations. Our designs incorporate advanced safety features and materials, ensuring reliable operation even under the most dangerous conditions.



## **High Pressures**

We deliver high pressure solutions capable of producing pressures up to 4,000 bar. Our systems are designed to handle the most demanding applications, ensuring consistent, reliable performance. We offer a wide range of pump selections, meticulously chosen to match your specific requirements.



## **High Flows**

Our experience in high flow applications anges from power-from-shore cooling medium pump systems to emergency cooling pumps for nuclear installations. We have the capability to offer pump systems with flow ates of up to 5,734 litres per minute.



## **Specification Compliant**

Many projects demand our packaged systems comply with detailed engineering standards, legislative requirements, and metallurgy, piping, and electrical specifications. e deliver compliant and certified solutions with minimal deviations in a cost-effective way.





## We are Calder

A team of skilled, dedicated people striving to build the best at our base in Worcester, UK. From design to build, from installation to commissioning, we are there with you from start to finish



## We Design

In addition to our standard units, we have in-house design teams producing bespoke fluid-handling products from sc atch.



## We Build

Our pump units are built by our own engineers at our factory in Worcester, UK - and they have been for over 40 years.



## We **Test**

We have two substantial, fully equipped test bays which allows us to ensure all units receive comprehensive testing before despatch. Customer witness testing of unit performance, vibration and noise is available due to our state-of-the-art facilities.