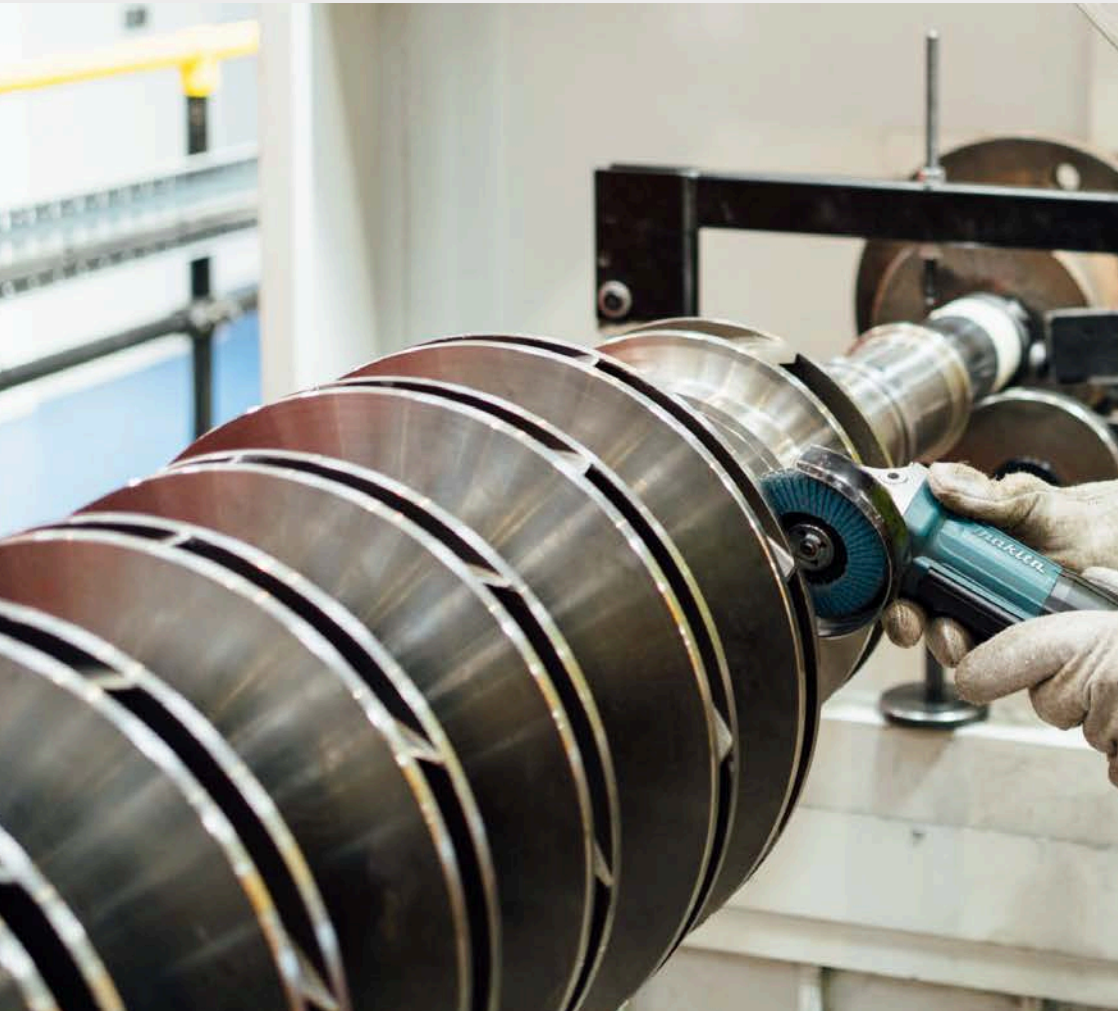


Mechanical Services & REDU





Re-Engineered Design Upgrade



Torishima Service Solutions

Innovative systems solutions coupled with expertise in pumping technology.

As a leading supplier of engineering equipment, our main objective is to provide comprehensive solutions that benefit our customers in multiple aspects:

-  **Optimising Efficiency**
We work to improve our customers' operational efficiency, ensuring optimal performance of their assets.
-  **Reducing Energy Consumption**
We develop solutions that minimise energy consumption, contributing to a more sustainable and economical operation.
-  **CO2 Reduction**
We are committed to reducing our carbon footprint through advanced technologies and responsible practices.
-  **Mean Time Between Failure**
We develop equipment that meets specific process requirements, improving reliability and extending system life.

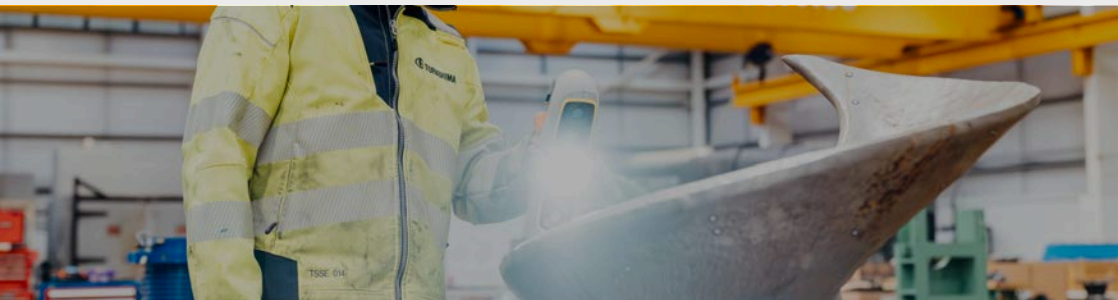




Mechanical services

From our dedicated facility in Glasgow, Torishima Service Solutions mechanical services are available to carry out any in situ repairs, as well as inspections, overhauls and installations on a host of equipment, both rotating and static, across various industries.

Our engineering staff are specially trained to handle repairs and overhauls of pumps, motors, compressors, gearboxes, steam/hydro turbines, heat exchangers, fans, mechanical seals and valves.



Engineering Spare Parts

We supply original or fully compatible components manufactured to OEM standards, utilizing 3D reverse engineering and Positive Material Identification (PMI) as needed. All our parts are rigorously inspected and offer short lead times, guaranteeing reliability, full compatibility with your system, and effective support for both planned maintenance and urgent repairs.

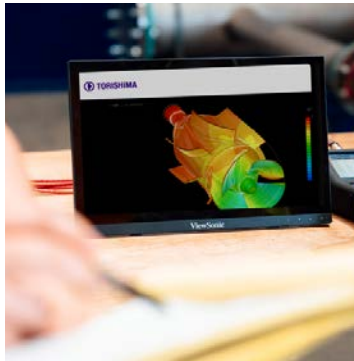
Evolution, not just maintenance

We bring factory expertise to the aftermarket.

The REDU program transforms your current infrastructure through cutting-edge engineering.

- **Global Engineering:** We apply CFD and FEA analysis and a worldwide database of case studies to eliminate the root of your problems.
- **Total Adaptability:** We adjust your equipment to changes in demand and new environmental regulations without the need to buy new machinery.
- **Document Control:** We deliver up-to-date plans, performance data, and manuals for seamless operation.

The REDU approach maximizes reliability and minimizes interventions, reducing risks and ensuring regulatory compliance. Through energy efficiency and the use of advanced materials, we optimize the lifespan of your equipment and reduce your carbon footprint, achieving safe, sustainable, and future-proof operations.



In House Pump Testing

Torishima's in house pump performance testing facility and pump hydraulic expertise is available to all our customers for both Torishima products and third party pumps ensuring optimum performance.

Our state-of-the-art, in-house test facility has been designed specifically to meet the requirements of ISO 9906 & Hydraulic Institute test standards.

- **Flow rates - up to 2000 m³/hr**
- **Maximum power capability: 500 kW**
- **Pump branch sizes up to DN600 / 24"NB**
- **LV Drives - up to 400V**
- **Full string testing capability**
- **Variable speed/off synchronous speed testing**
- **Regenerative drive for testing Pump as Turbine**
- **15 tonne lifting capability**



Monitoring, Diagnostics & Reliability

Torishima Service Solutions offers advanced monitoring, diagnostics, and reliability services to maximize the performance, efficiency, and lifespan of rotating equipment. By continuously assessing machine health, we help prevent failures, optimize maintenance schedules, and ensure your operations run smoothly and safely.

Capabilities

Condition Monitoring

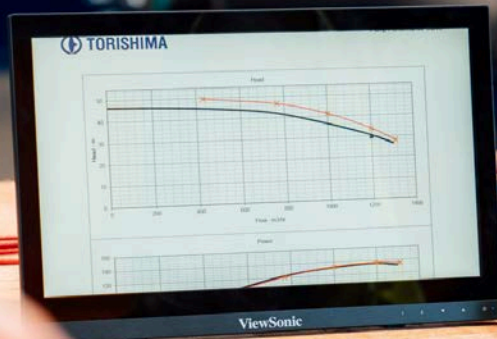
1. Oil Debris Analysis
2. Vibration Testing & Analysis
3. Laser Alignment
4. Thermal Imaging
5. Thermometric Pump Testing

Vibration & Reliability Services

1. Health and Performance Checks
2. Predictive Diagnostics
3. Imbalance & Misalignment Correction
4. Bearing and Component Integrity
5. Flow and Performance Optimization

Advanced Diagnostics:

Detect and resolve mechanical issues early, including shaft and structural problems, cavitation, wear and tear, corrosion prevention, and lubrication management



Service and Support Process

1

Initial Inspection and Metrology

Controlled dismantling, technical cleaning and collection of critical equipment data.

2

Engineering and Root Cause Diagnosis

Expert technical evaluation to identify the source of the failure and define the optimal solution.

3

Specialized Execution and Supply

Repair under manufacturer protocols with original components and design improvements.

4

Quality and Delivery Validation

Final functional tests to ensure maximum reliability and operational efficiency.





Innovative systems solutions coupled
with expertise in pump technology

Contact Us - UK

Glasgow - European Head Offices and Workshop

30 Colliery Road, Clyde Gateway East, Glasgow, G32 8SL
Tel: 01236 442390

Glasgow - Cooling Water Division - Offices and Workshop

11 Russell Colt Street, Coatbridge, ML52BN
Tel: 01236 442390

Royal Leamington Spa - Fluid Power Division - Offices and Workshop

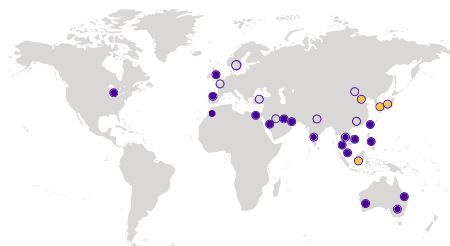
Unit 5 Berrington Road, Sydenham Industrial Estate, Leamington Spa, Warwickshire, CV31 1NB
Tel: 01926 420847

Grangemouth - Cryo Pump Repairs - Offices and Workshop

Units 1&3 Barons Court, Earls Gate Business Park, Roseland Hall, Grangemouth FK3 8BH.
Tel: 01324 485 850



Our Global Network



Scan here to see more of
our REDU capabilities