



Water and wastewater pump energy specialists

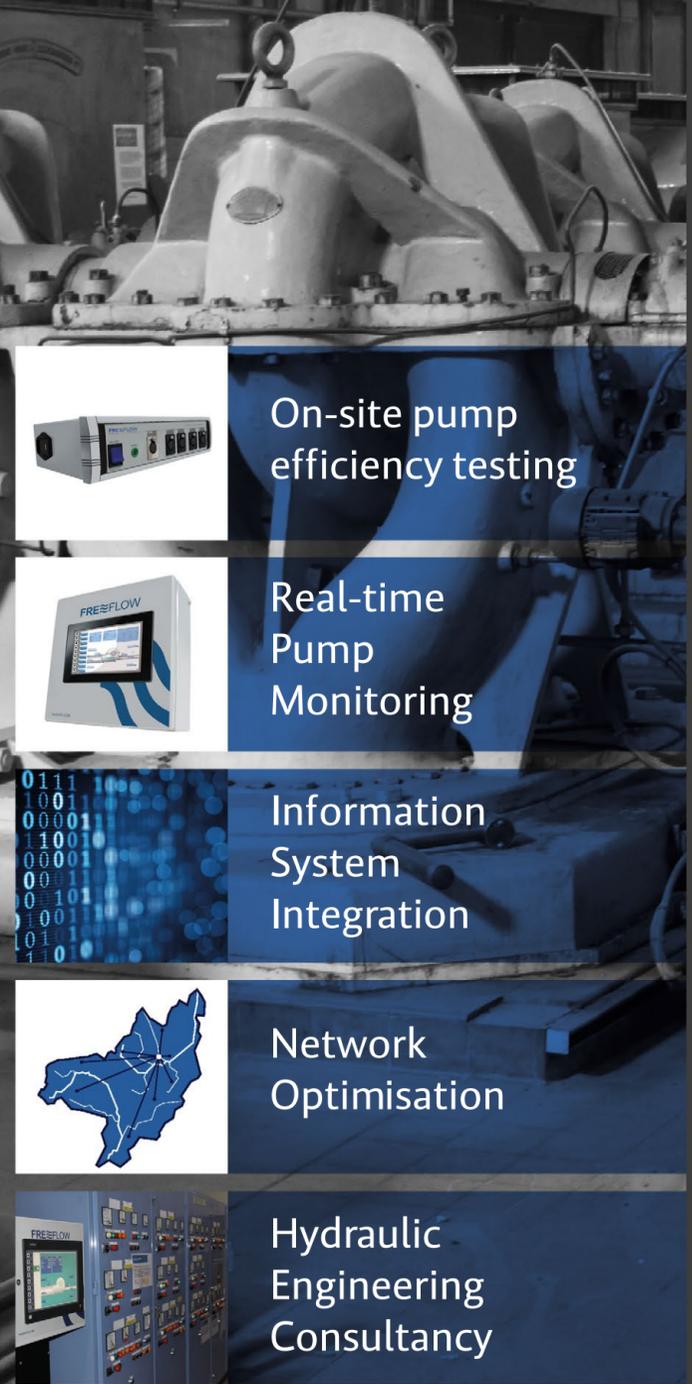
About Riventa

We are in the business of reducing energy, cost and emissions

We offer class-leading pump efficiency measurement and pump optimisation expertise to industry. We also have a proven track record in the reduction of cost, energy and emissions, with services ranging from in-situ pump performance testing and real-time pump monitoring, through to network optimisation and turnkey engineering projects.

Our offices in the UK and Asia are well placed to support the modern water industry – primarily through our portable and installed pump performance monitoring products, which are manufactured in the UK and exported globally.

To deliver excellence in our optimisation projects, we aim to work with local partners who know clients' sites and have established relationships. This leads to greater efficiency, less cost and excellent ongoing support.



On-site pump efficiency testing



Real-time Pump Monitoring



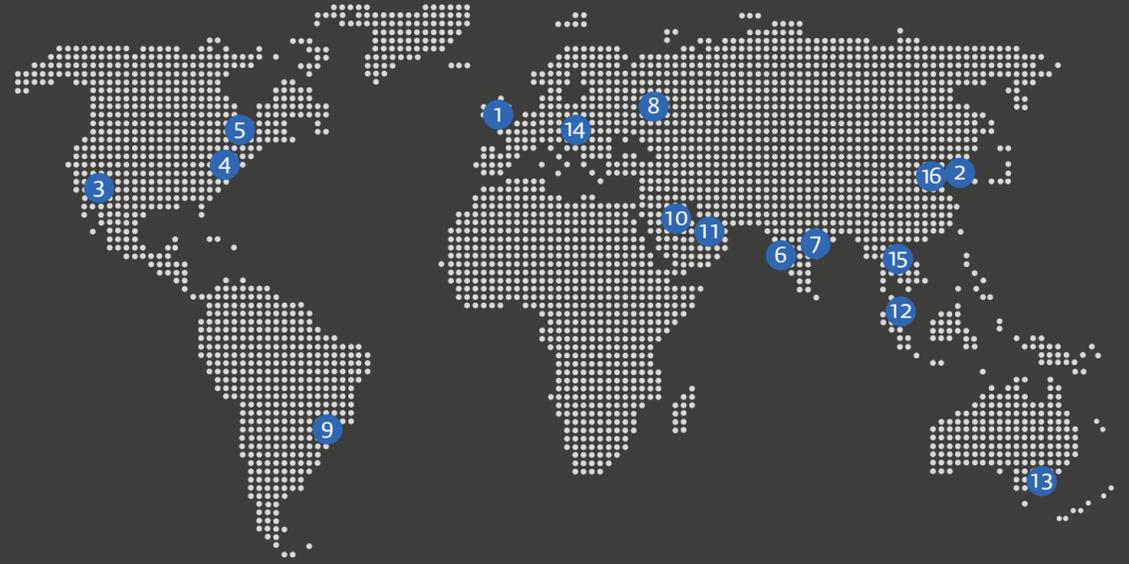
Information System Integration



Network Optimisation



Hydraulic Engineering Consultancy



Riventa offices:

- 1. UK - Headquarters
- 2. Incheon, South Korea
- 3. Las Vegas, Nevada
- 4. Baltimore, Maryland
- 5. Toronto, Canada

Partner offices:

- 6. Mumbai, India
- 7. Calcutta, India
- 8. Moscow, Russia
- 9. Sao Paulo, Brazil
- 10. Riyadh, Saudi Arabia
- 11. Dubai, UAE
- 12. Kuala Lumpur, Malaysia
- 13. Victoria, Australia
- 14. Budapest, Hungary
- 15. Hong Kong
- 16. Beijing, China

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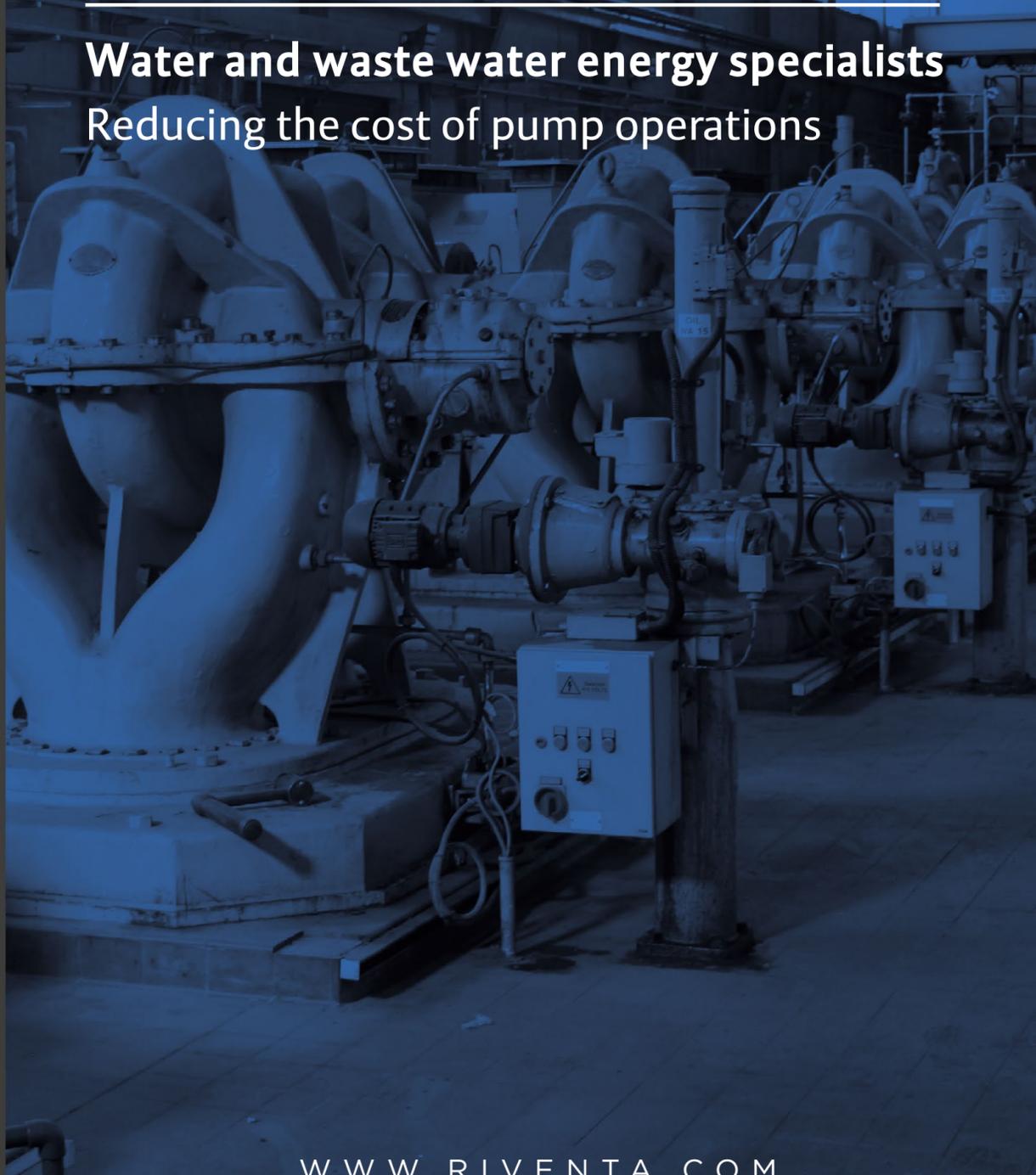
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To find out more, visit www.riventa.com



We use the Green Pump Index (GPX) – a benchmarking tool allowing comparison of pump, motor and system performance regardless of size or location.



Water and waste water energy specialists Reducing the cost of pump operations

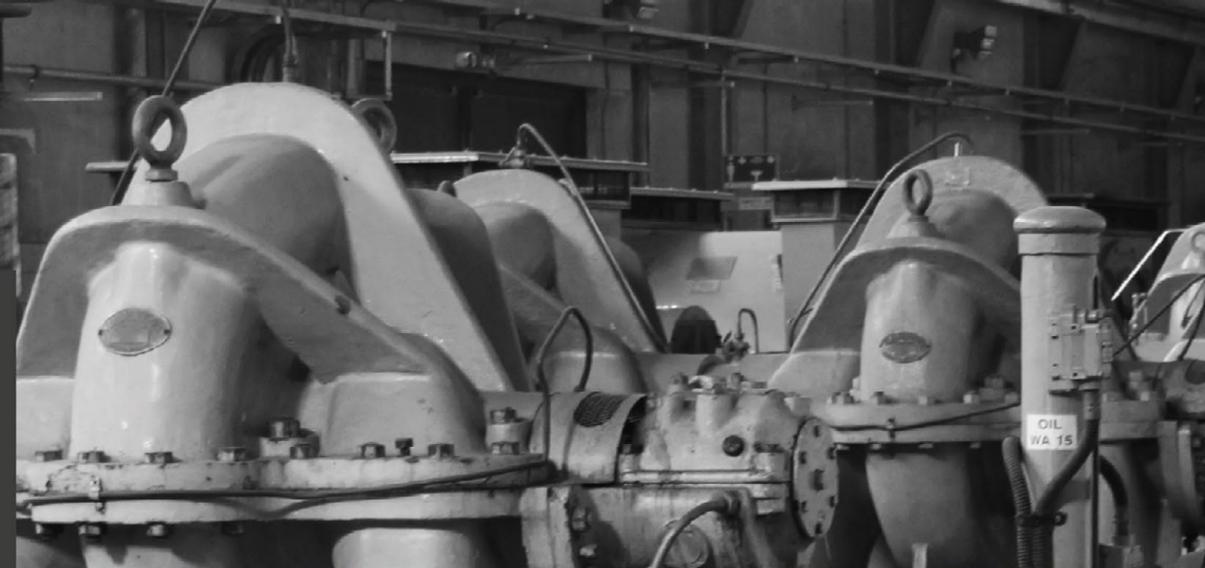


Our Services

An information-driven approach to investment decisions

To complete the cycle, we can identify the most suitable upgrades and improvements and, after remediation, can carry out pump performance testing to verify the benefits. Through our existing partners or your local M&E contractors we can provide:

- Pump refurbishment and modification
- New pumps, motors and drives
- Site services and installation



Our Technology

Our technology unlocks the full potential for our clients to meet station and network demand at least cost.

FREEFLOW, ECOFLOW, and PROFLOW are site-installed products that deliver real performance gains in a wide range of pumping applications.



On-site pump efficiency testing

A low-cost starting point for asset management, pump testing provides a cost-effective means of identifying pumps and systems that have the highest return on maintenance or upgrade investment. Our engineers would visit your site to carry out an in-situ pump test, characterising the current condition of the pumping assets without disruption to operations.

- Thermodynamic or conventional testing
- System curve measurement
- Flow meter calibration
- Wire to water redesign
- Consultancy and optimisation



Pump station monitoring

Like you, we know that pumping system characteristics typically change with demand and station operation. By using pump monitoring these changes can be observed and controlled. Often hidden characteristics are discovered that can lead to major improvements in overall operating efficiency and pump lifecycle costs. Our technology can provide the following:

- Real-time pump performance
- Real-time operator guidance
- Energy/cost minimisation
- SCADA and PLC integration
- Tariff management



Network optimisation

How we optimise networks is built on the foundation of real-time hydraulic measurement – not assumptions. From optimisation of a single service reservoir over a 24-hour period to sub-networks consisting of multiple pumping stations, storage and demand. Network Optimisation can ensure least cost operation whilst reducing risk to supply.

- Hydraulic model construction
- Demand Prediction Models
- Multi Objective Optimisation Algorithm
- Operational Optimisation
- Capital Decision Support / Future Planning
- Off-line or Real-time Systems
- SCADA Integration
- Security of Supply Assessment



Consultancy services

We offer a consultancy service that we tailor to meet client objectives and budget. It can include:

- Pump refurbishment
- Efficiency enhancing coating
- Pump replacement / renewal
- Diameter change
- Variable speed drive
- Pump scheduling
- Control logic enhancement
- Electrical drive efficiency
- Tariff optimisation

Our reports typically include engineering calculations, to support recommendations and outline the business case for future investment.

ECOFLOW™

LOW-COST PUMP PERFORMANCE MANAGEMENT

ECOFLOW is the solution for medium-sized pumping stations with typical energy consumption of between 100kW and 400kW. A pump performance monitoring system that measures head, power, pump efficiency and flow rate (from a site installed flow-meter) in real-time.

- Suitable for both low and high head applications
- Secure pump / system information online
- Automatic reporting tools providing essential KPI's
- Integration with PLC and SCADA systems
- Archived data with trending
- SMART phone compatible
- Provides a virtual flow meter on each pump

FREEFLOW™

PRECISION PUMP PERFORMANCE MANAGEMENT

FREEFLOW is the solution where precision is essential, such as medium to large pumping stations with high energy consumption (400kW and above) and where demand is variable. A thermodynamic measurement system where head, power, pump efficiency and flow rate are monitored in real-time.

- Suitable for higher head applications
- Real-time operator software showing least cost
- Secure pump / system information online
- Automatic reporting tools providing essential KPI's
- Integration with PLC and SCADA systems
- Archived data with trending
- SMART phone compatible

PROFLOW™

WASTE WATER PUMP MANAGEMENT AND PROTECTION

PROFLOW is the solution for detecting the onset of pump, motor and system failure, in real time. A cost effective solution designed to track pump performance, failure and faults in the most demanding of applications. A pump performance monitoring and protection system that measures head, power, pump efficiency and flow rate (from a site-installed flow meter) in real-time.

- The same benefits as ECOFLOW above, plus:
- Detect and alarm
- Main burst / leak
- Pump ragging
- Air entrapment in the pump
- Blockage / constriction in the main

Accuracy is at the heart of how we work

Our precise technology is able to measure the efficiency and head of the pump to an impressive accuracy of up to 0.5%. By simply measuring the power consumed by the motor we can also calculate flow rate. The extremely precise measurements will enable you to measure current pump performance characteristics, identify areas for refurbishment and energy saving opportunities, as well as risks and reliability issues, such as suction problems.

- Conventional Measurement ISO 9906
- Thermodynamic Measurement ISO 5198
- Calibration Process ISO 17025
- Pumping System Energy Assessment ISO 14414