



# Packaged Booster Sets

FOR WATER INDUSTRY APPLICATIONS

# Xylem Water Solutions has a passion for innovation and the determination to offer effective solutions in the transport and treatment of water and wastewater.

Xylem has over 100 years' experience in the water and wastewater environment, having developed the first electric submersible pump and now offering a broad portfolio of products and services for our customers' many applications.

Our product offering extends into the clean water market, with our products delivering the quality and reliability that the Flygt and Lowara brands are renowned for.

The clean water product range includes end suction, vertical multistage, self priming and borehole pumps, and a choice of variable speed pump controllers.

We pride ourselves on our ability able to develop water company specific offerings, ranging from variants of our competitively priced mass produced sets, through to bespoke engineered solutions manufactured to our clients' exact specifications.

From design and engineering, to production and end user support, aftersales maintenance and rental services, the people of Xylem display a synergy and professionalism that is second to none.



## Booster set configurations



### Standard building services product

Where the installing contractor may be operating an asset across its life span, and compliance with water industry specifications may not be necessary, a standard mass produced building services booster set can provide a cost effective basic solution for delivering flow and pressure to services on site.

### Water Industry developed product

Where the installing contractor will be handing a completed asset over to a water company and a package following WIMES 1.12 is required, Xylem can provide a predesigned solution, developed for the water industry.

Upgraded materials of construction, design improvements and the increased specifications of components installed, produce a system that many water companies can accept at adoption.

These can be provided with an end user focussed proprietary control panel, designed to satisfy WIMES 3.04, supplied separately for wall mounting or mounted on a common skid.

Xylem has a track record of providing market developed containerised solutions with a kiosk and integral break tank, to achieve a turnkey, off-site built and tested assembly, ready for immediate installation and commissioning on-site.

Water industry developed packages can be supported with 3D Objects and BIM data at tender stage, allowing consultants and contractors to support their clients with reduced design and construction costs.



### Bespoke contract specific product

Where there is a contract specific need for bespoke product, Xylem can collaborate with the client to identify the drivers, assist in the design, then propose an effective solution.

This can be the need to locate equipment within a defined footprint, restricted access, the need to integrate non repeatable features, or process influenced requirements.

After careful review of the application, Xylem will construct a written proposal. At point of order, 2D or 3D CAD drawings can be produced, to allow the purchaser to approve the system for manufacture prior to construction.





# Principles of application, operation and control

Xylem's water industry developed booster sets are designed to transfer and increase the pressure of water in potable drinking water networks and wash water applications. Packages can be supplied with up to 3 pumps, each pump equipped with a Hydrovar variable speed pump controller.

The Hydrovar can be a motor mounted device, with integral control buttons and LCD readout. No additional control devices are required. It is specifically designed to optimise electric motors on pumps in hydraulic applications. Suitable for new build capital projects, it can also be retrofitted onto existing fixed speed assets.

Also available for packaging upon Municipal Booster sets is Xylem's innovative Hydrovar X. Designed and built entirely inhouse, our assisted reluctance motor with embedded variable speed drive is assembled upon the proven Lowara e-SV vertical multistage pump, to achieve market leading efficiencies.

Utilising the chosen Hydrovar technology, Xylem's water industry developed booster sets provide a constant pressure to satisfy varying demands from the system within which it is installed.

A dedicated pressure transducer for each Hydrovar, continuously monitors the system pressure.



When system pressure begins to decrease, the Hydrovar will start the lead pump, adjusting its motor speed so that the Hydrovars "required value" setting is maintained. When the demand for water increases, the motor runs faster to fulfil demand and continue maintaining the required value.

Where a system has been chosen with an assist function, should demand exceed the hydraulic capabilities of the lead pump, the lead pump will continue to run at full speed, whilst the assist pump will operate by varying motor speed to continue maintaining the required value.

When the demand for water reduces, and the system pressure begins to increase, the Hydrovar will slow the pump motor down to an eventual stop when there is zero demand.

A suite of proprietary control panels have been designed to WIMES 3.04, to bolster our Hydrovars operation, functionality and signalling capabilities. Available in Form 2 or Form 4 construction, manufactured from powder coated sheet steel with IP54 protection, relay logic circuits distribute power and marshal incoming system signals to simplify operation for the end user.

Local control panels can be designed to reflect the control voltages, wire colour and lamp colour requirements of any water company.



Form 2 LCP



Form 4 LCP



# Options available



## Skid mounted/separate panel

Water industry developed booster sets can be equipped with an end user focussed local control panel (LCP), either on a stainless steel mounting frame, or supplied as a standalone item for wall mounting by the customer.

If supplied on a standalone basis, the LCP will be commissioned and functionality tested with the contract pumpset on our factory test rig prior to despatch, to ensure that commissioning at re-assembly on-site is minimised.



## One piece GRP tanks

Where supplying a containerised solution, Xylem can provide an insulated one piece GRP cold water storage tank.

WRAS Approved and fitted with overflows and meshed weir slots to achieve an AB air gap.



## Hosereels

Packaged booster sets are not only used for potable distribution, but also commonly on wash water applications to serve screens and hose down points.

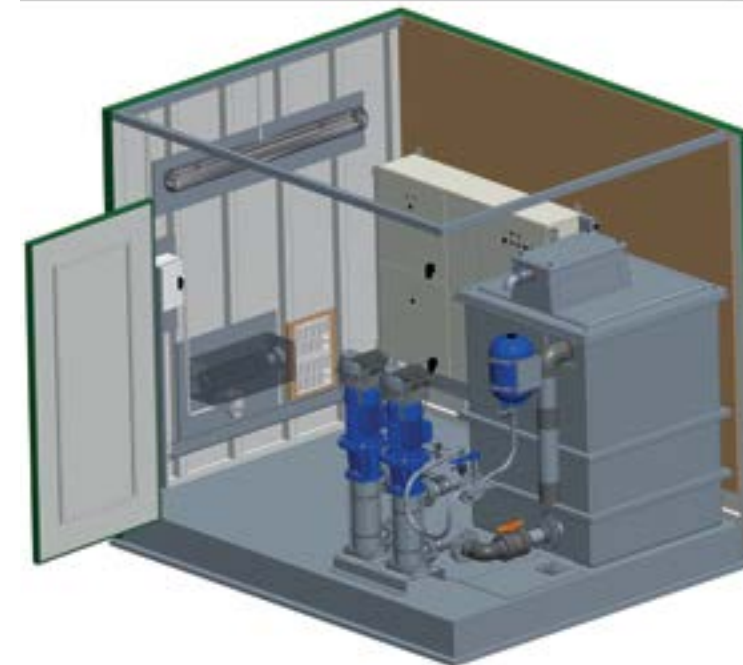
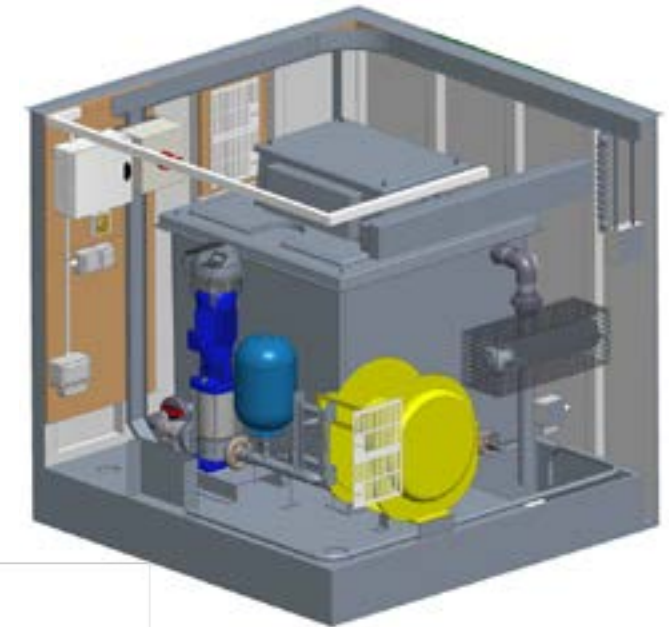
Xylem have solutions, that can accommodate and protect hosereels within our off site built containerised packages.

# Off-site build options

Xylem can provide the booster set within a turnkey off site built GRP kiosk, which can be commissioned and tested before despatch, reducing site construction time, process risk and overall costs.

## Single pump package

- 1PH operation, up to 2.2kw
- Compact footprint
- Full kiosk services
- 700 litre Byelaw compliant tank
- Operational hosereel

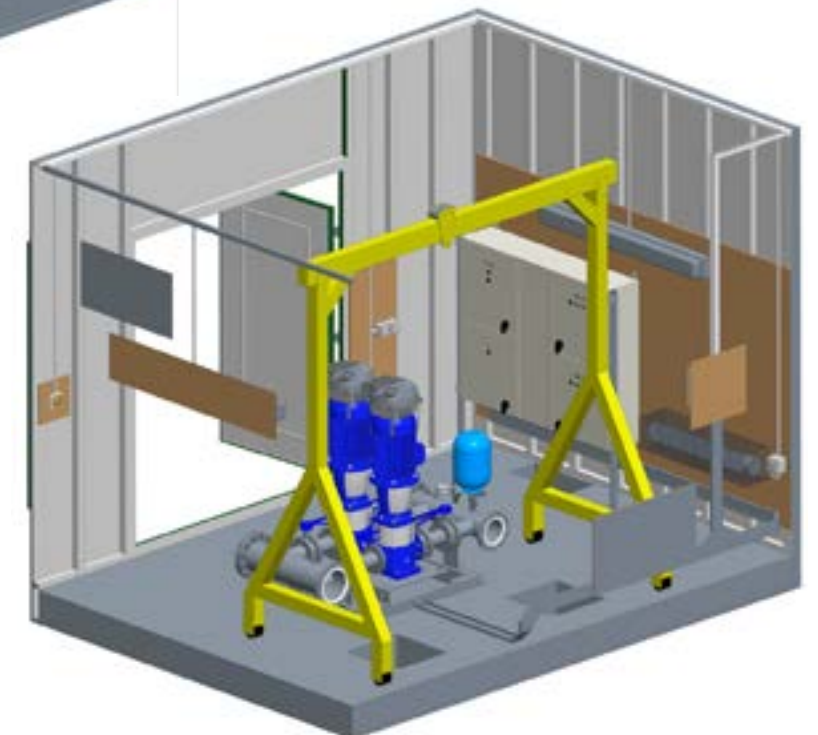


## Twin pump package

- 1PH to 4kw, 3PH coverage to 7.5kw
- Form 2 or Form 4 LCP options available
- Walk in kiosk
- Full kiosk services
- 1100 litre Byelaw compliant tank
- Pumps positioned to permit operational lifting from outside

## Twin & triple pump packages

- Suitable for inline applications
- Coverage to 22kw Pumps
- Four kiosk footprints available
- Form 2 or Form 4 LCP options available
- Walk in kiosk
- Full kiosk services
- Designed to permit operational lifting
- Optional lifting equipment



# Water industry developed off-site built containerised solutions



Water industry developed product can reduce design cost and process risk by repeating previously constructed designs, to identify all costs and eliminate uncertainties.

- Single sourced solution
- One point of contact for information across the scope
- End to end ownership

- Off-site built packaged system reduces:
- Site establishment costs
  - Site security costs
  - Disruption to local residents
  - Construction time on-site
  - Trade co-ordination/scheduling
  - Commissioning time on-site
  - H&S risk
  - Process outcome risk

- Quality GRP kiosk, fitted with high end electrical services:
- GRP thickness as per end user specifications
  - GRP insulated as per end user specifications
  - Stainless steel door furniture
  - Internal ply back boards as per end user specifications
  - Electrical components as per end user expectations
  - Locking systems and keys as per end user specifications
  - Certified lifting plates



# Supporting services



3D STEP Files and product data sheets are available to download from the Xylem website, for standard building services product.

BIM Packages are available for market developed product. This can include a 3D Object for the system designer to insert within the overall project environment, 2D general arrangement drawings, process and instrumentation diagrams, control panel schematic, wiring schedule, slab layout, installation operating and maintenance manuals, and individual product data sheets. These can be quickly and easily prepared on request.



Parameters for Xylem booster set packages can be fully configured at the factory prior to despatch.

All pumps are subjected to performance testing prior to assembly upon any package, then the package undergoes rigorous functionality testing as an assembled unit.



Xylem's logistics and transport team provides careful control over the precise timing of deliveries, and offers you peace of mind in the knowledge that our own experienced team will handle delivery of the completed package.

ALLMI Certified operator. Lifting plans submitted in advance of any off-site build deliveries.



Once delivered, Xylem's experienced engineers will carry out full installation, ensuring that site activity is focussed on the specifics of connecting to awaiting pipework and incoming power supply. No time is lost to product familiarisation.

Advance site survey visits can be offered to ensure that your civil preparations meet the requirements laid out in the information pack provided at order placement.

If your site meets these requirements, it is possible for Xylem off-site packages to be made operational on-site, on the day of delivery.

# Aftermarket and Service



## Aftermarket and Service

Xylem is able to provide a fully comprehensive aftercare service, including 24/7 emergency breakdown attendance, preventative maintenance contracts and workshop repair.

It is our aim to provide customers with the highest possible level of care, starting with pre-sale and continuing throughout the entire lifetime of the product. Our strategically located service centres are supported by a mobile team, reacting quickly to call-outs.

## Service Centres

Our nationwide network of service centres offer a comprehensive installation and commissioning service, on-site mechanical and engineering maintenance, 24/7 emergency call-out and workshop repair facilities.

## Genuine Xylem spares

We maintain a comprehensive inventory of genuine Xylem spare parts and accessories, with prompt availability and reliable replacements, we ensure that your systems always remain operational and efficient.

By using parts engineered to fit seamlessly into your equipment, you can rest assured of an extended lifetime for your systems and a noticeable reduction in the total cost of ownership.

## Preventative Maintenance Agreements

A Preventative Maintenance Agreement (PMA) is a cost-effective service contract from Xylem tailored to meet your specific requirements and budget. A PMA includes at least one scheduled inspection and/or maintenance visit per year, which will identify potential weaknesses in your system and provide the opportunity to take action before it leads to a breakdown. There are three levels available, talk to your sales representative to find out more.



# Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) A leading global water technology company.

We're a global team unified in a common purpose: creating advanced technological solutions to the world's water challenges. We're dedicated to developing new technologies to improve the way water is used, conserved, and reused in the future. Our products and services move, treat, analyse, monitor, and return water to the environment in public utility, industrial, residential, and commercial building services settings.

Xylem also provides a leading portfolio of smart metering, network technologies, and advanced analytics solutions for water, electric, and gas utilities. We have strong, long-standing relationships with customers in over 150 countries. Xylem is known globally for our powerful combination of leading product brands and applications expertise, with a strong focus on developing comprehensive, sustainable solutions.

**For more information on how Xylem can help you, go to [www.xylem.com](http://www.xylem.com)**