

OEM Added Value Driving Efficiency and cost gains plus GHVR Variable Speed Booster Showcase

Speakers:



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Xylem's UK OEM Centre of Excellence (CoE)

- One of the European Centres of excellence to drive focused customer service
- Based out of Axminster, UK
- Centre of Xylem's OEM Innovation



What does this mean for the OEM Market?

- Customised “plug and play” solutions
- Full support and assembly: quoting, drawings, specs order entry etc
- Significant efficiency gains and cost savings
- Expedited timescales from 7-14 days to just 1-2 days



 **LOWARA**
a xylem brand

**RELIABLE
ROBUST
REDUCED
SPACE
GHVR**

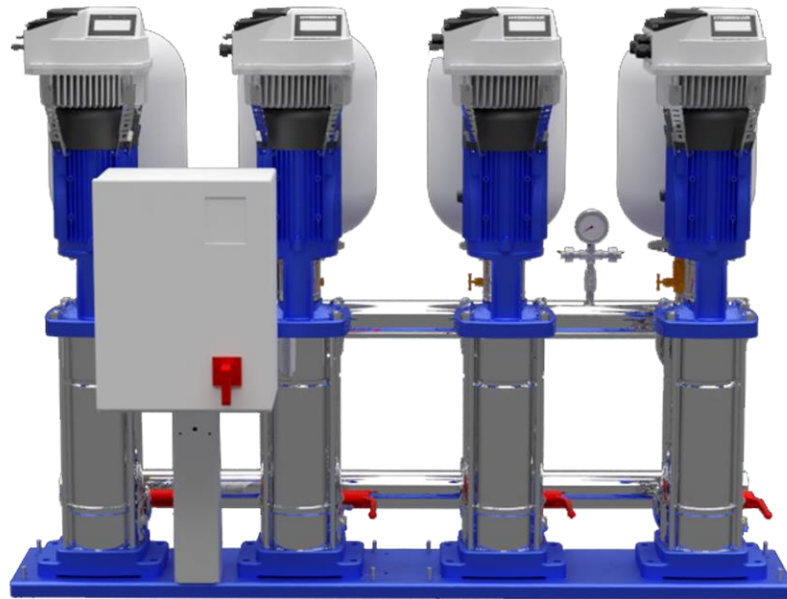
The GHVR is the Xylem flagship
Variable Speed Booster Set range with a unique design

GHVR Spin GIF

Product overview – Configuration and Performance

Pump configuration

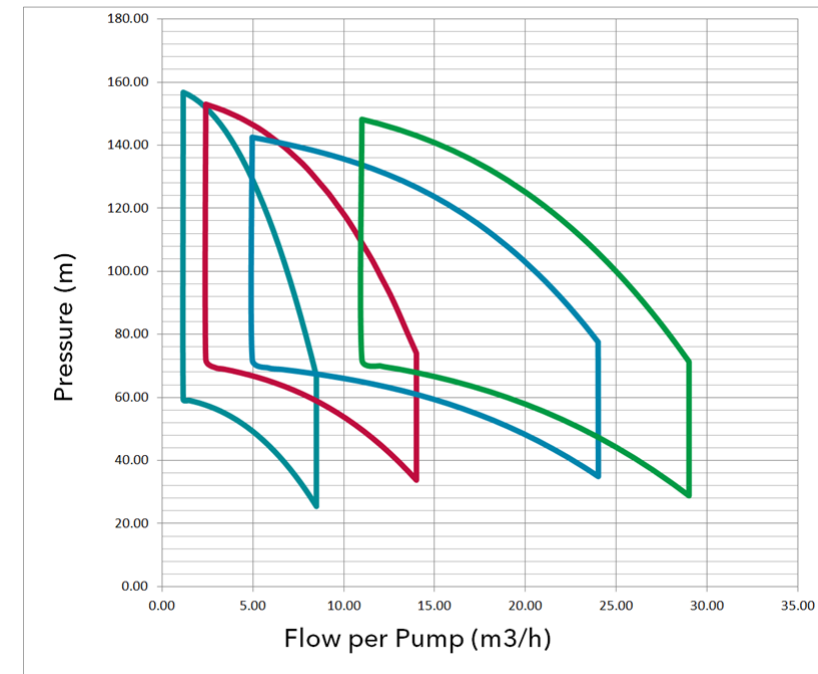
- Available in 2, 3 and 4 pump configurations as standard
- Duty / Assist and Duty / Standby options



Performance

4 Ranges with:

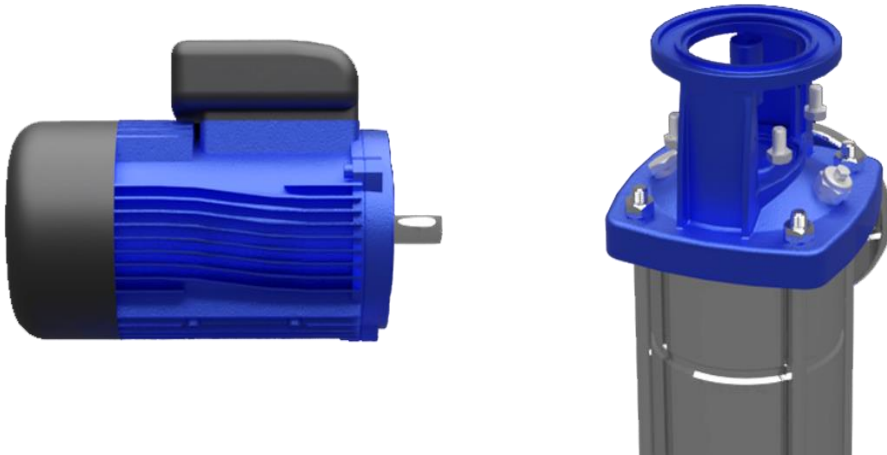
- Flow rates of 5, 10, 15 or 22 m³/h
- Pressure up to 16 bar



Product overview – Motor Configuration and Materials

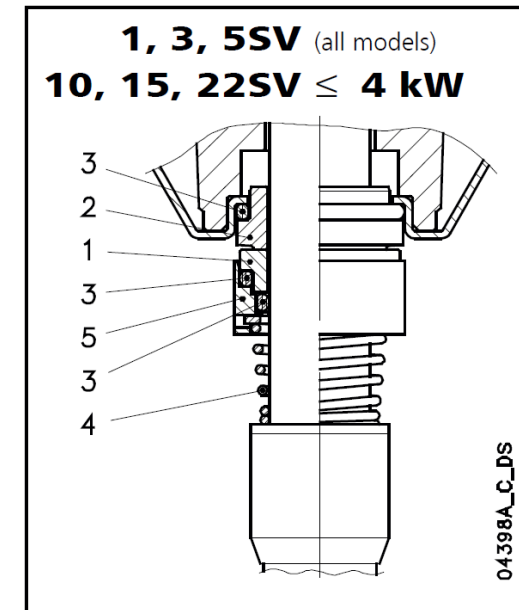
Motor configuration

- Available in Single or Three phase supply
- Sizes between 0.55kW and 22kW
- IP55 rated
- Modifications are available such as anti-condensation heaters, improved IP rating



Materials

- Stainless steel construction
- Suitable for Potable Water
- Wide range of Mechanical Seal face materials and Elastomers. EPDM as standard



The GHVR range of booster sets is a combination of:

- The Unique space saving design,
- Premium Hydrovar Variable speed drive
- Robust e-SV vertical multistage pump
- Highest possible class of Efficiency

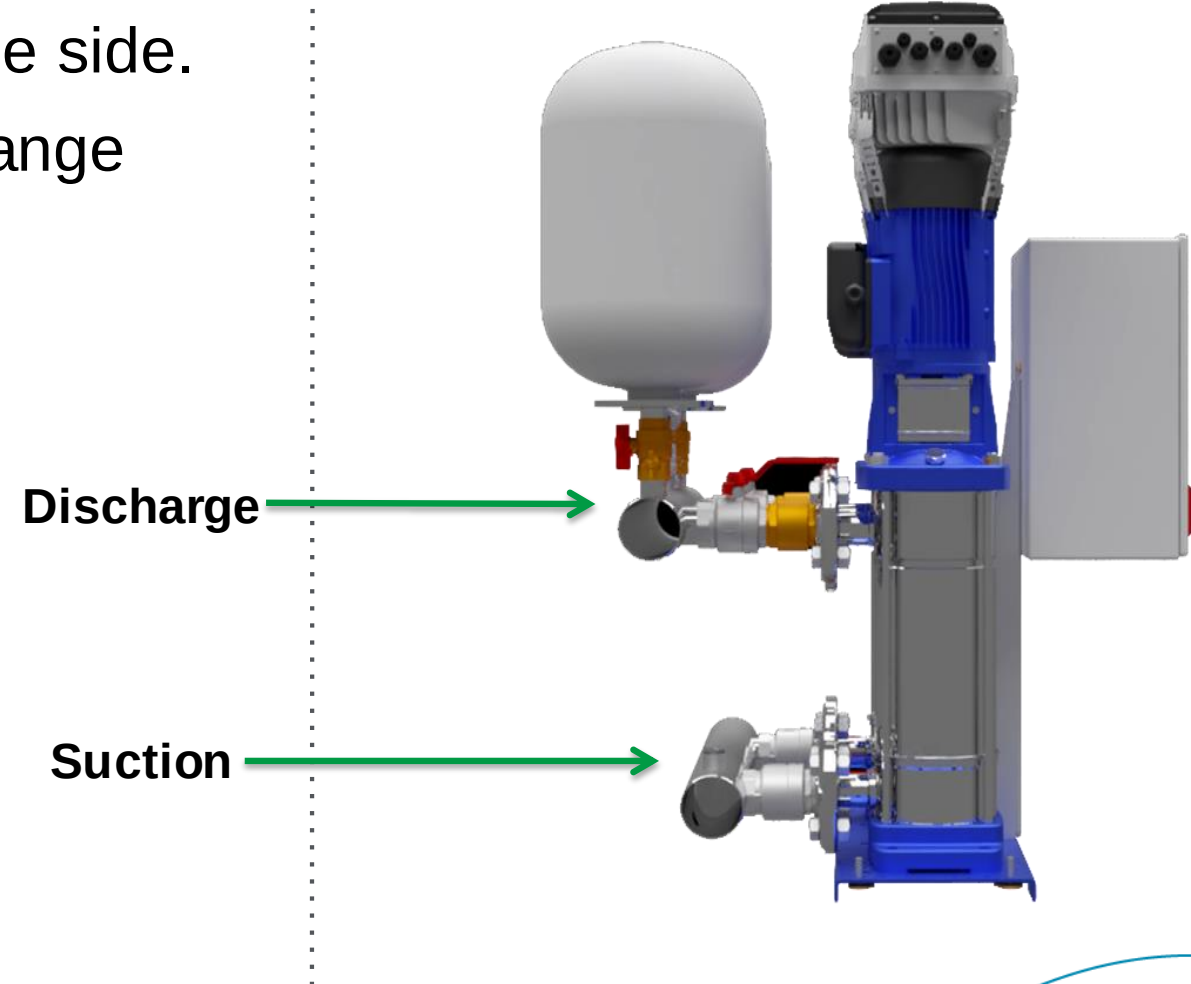
Unique Space Saving Design

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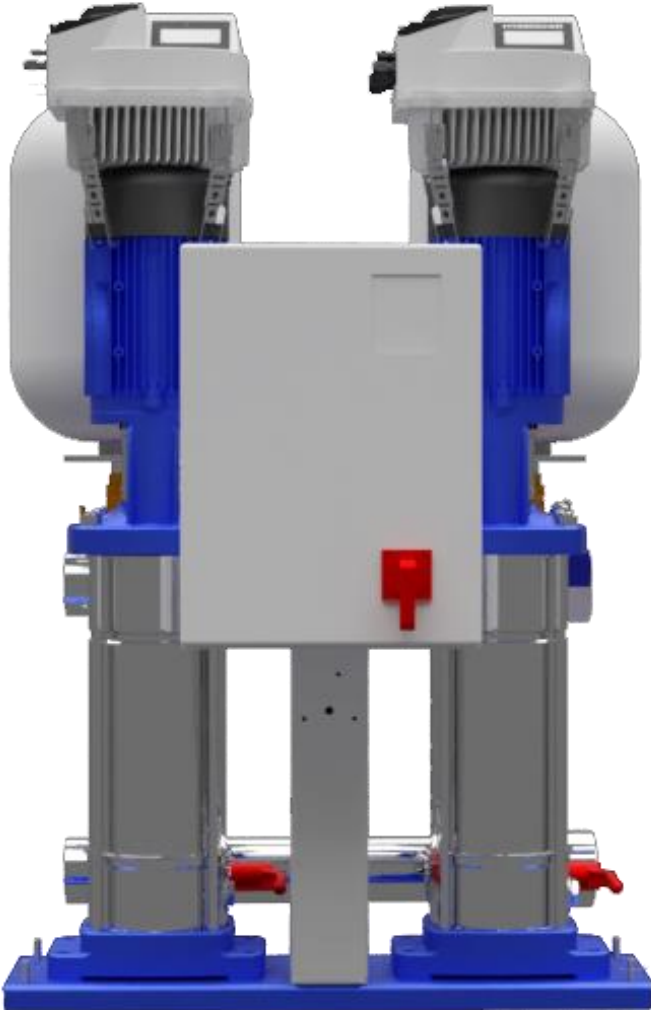
Unlike any other booster set, the GHVR uses a unique space saving design with the suction and discharge manifolds on the same side

Unique design – Manifolds arrangement

- Suction and Discharge on the same side.
- Unique to the GHVR booster set range

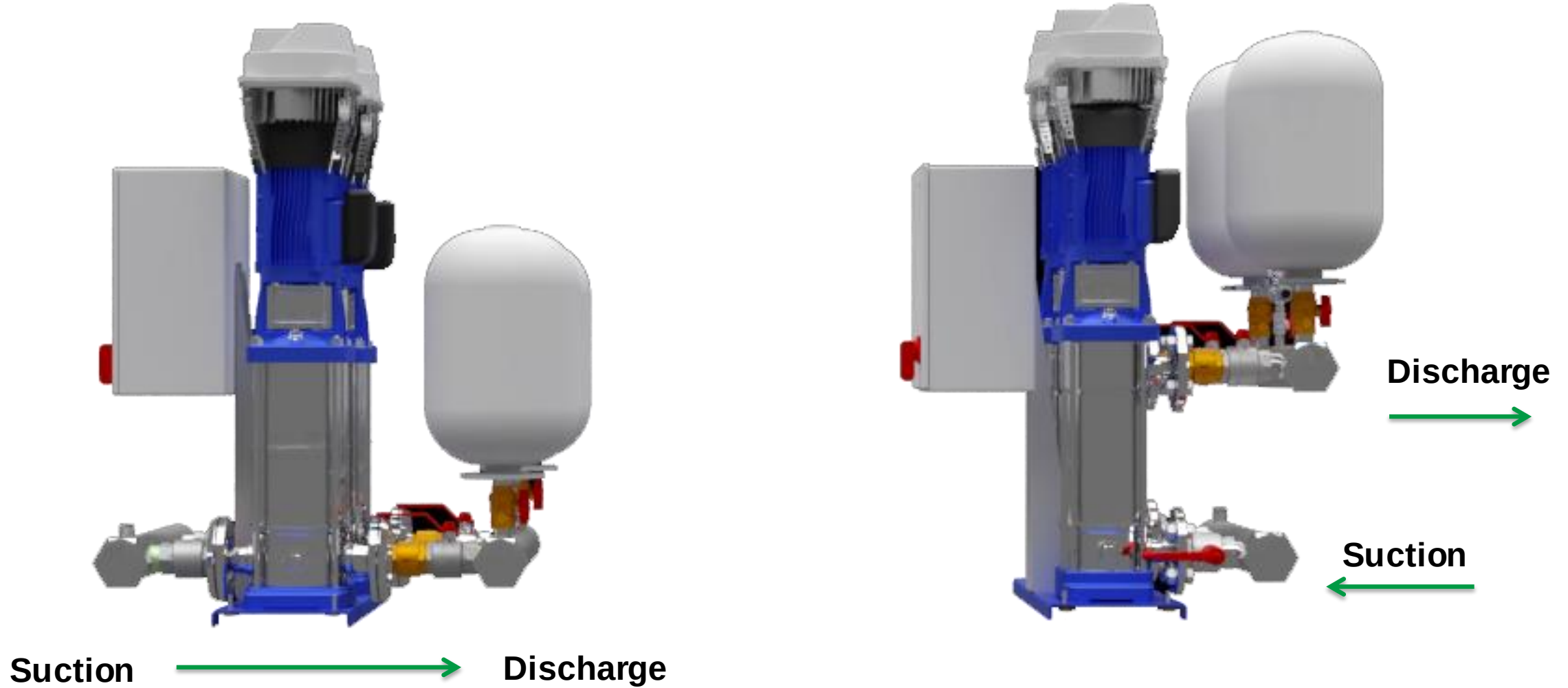


Unique design – Change in design

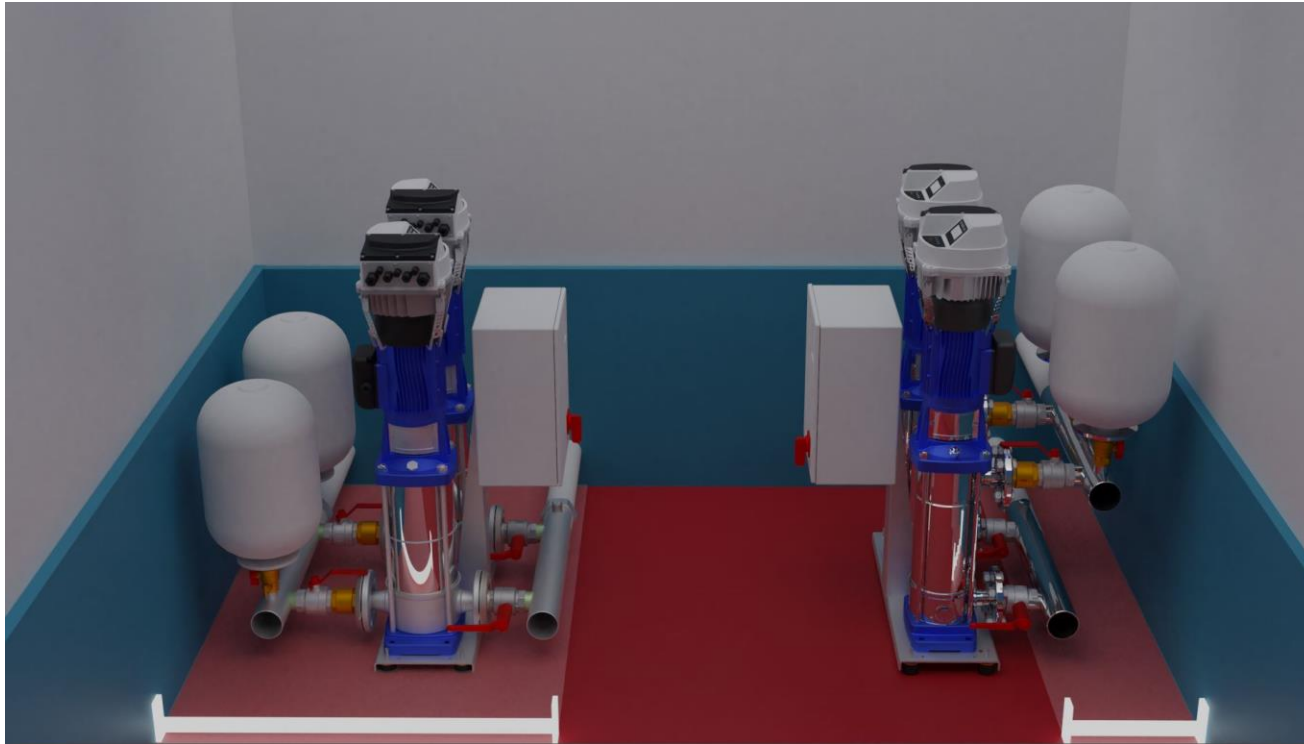


- New design moves the control panel from the side to the front of the booster set
- Allows the user access all of the controls from the front

Unique design – Traditional inline set

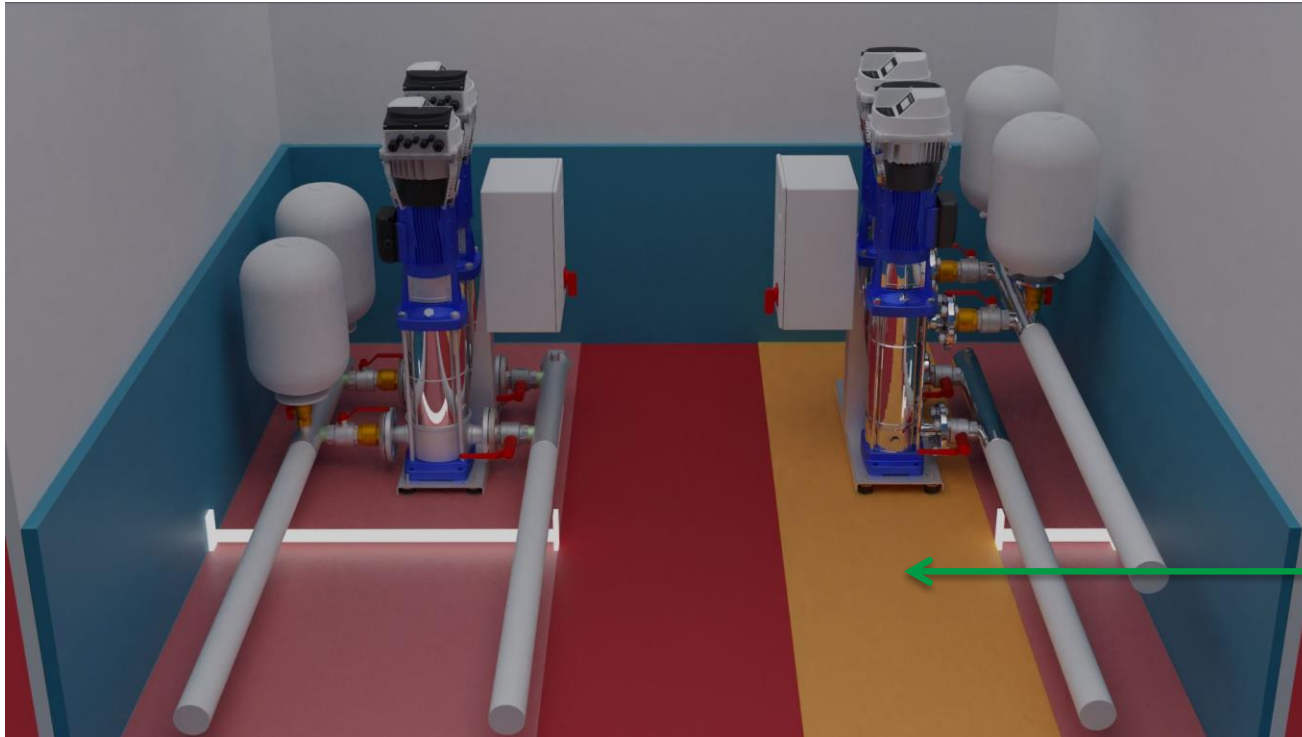


Unique design – Comparison between inline and GHVR



Significant difference in pipework footprint.

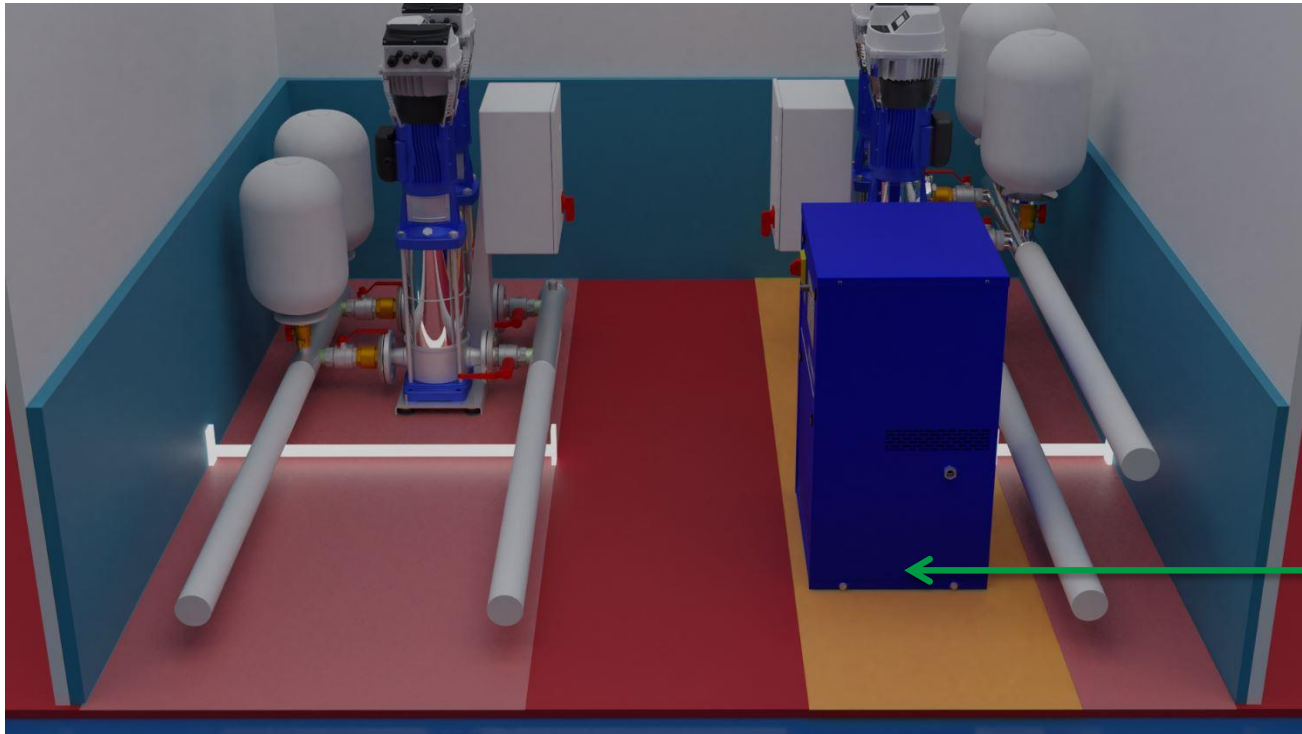
Unique design – Comparison between inline and GHVR



Additional space in boiler / plant room

Additional Space

Unique design – Comparison between inline and GHVR



Install other items of plant

**Example:
Prefix Beta**

Unique design – Other benefits

- Neater install – Less pipework across the floor of the plant room
- Safer for service engineers. Less hazards from working around pipework



Premium Hydrovar Variable Speed Drive

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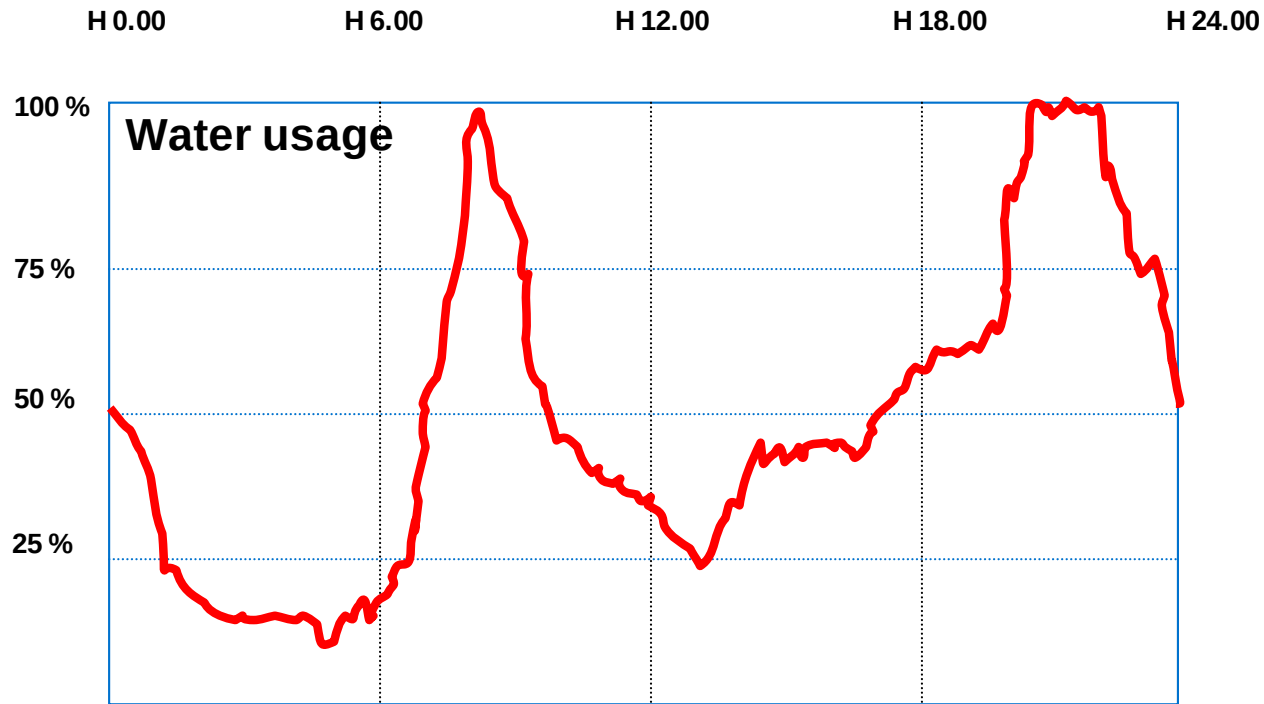
All GHVR units use the latest generation
of Hydrovar premium Variable speed drive

Premium Hydrovar Variable Speed drive – What is it?

- Motor Mounted, modular variable speed drive
- First generation introduced in 1997
- One of the first pump specific variable speed drives on the market
- Lowara Premium drive offering



Premium Hydrovar Variable Speed drive – What is it used for?



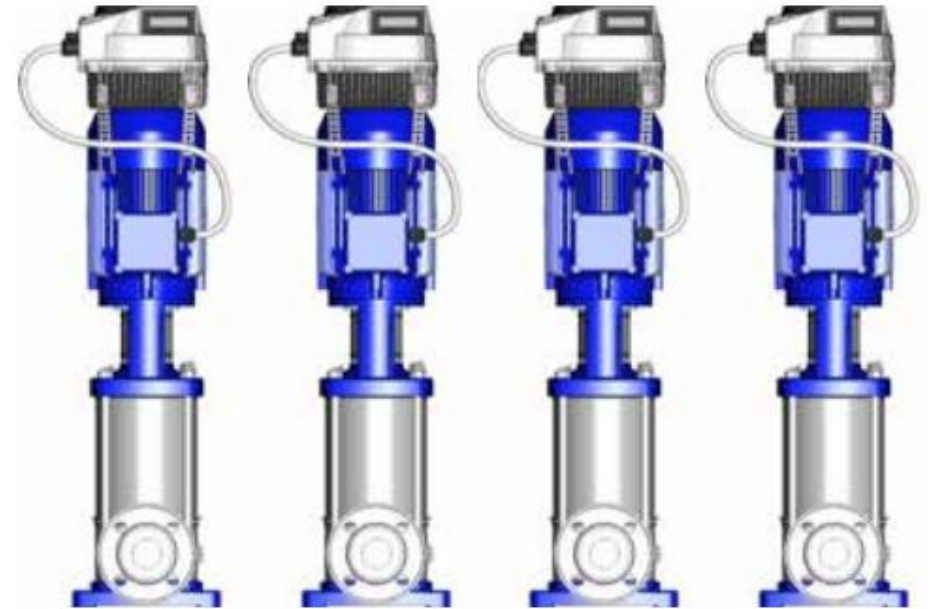
- Changes the speed of motor to adapt to the demand
- Runs slower if low demand
- Faster in peak demand
- Energy Saving up to 70% vs Fixed speed pumps
- Less speed extends motor Lifespan

Premium Hydrovar Variable Speed drive – Features



Premium Hydrovar Variable Speed drive – Multi-Master Control

- Each Hydrovar acts like a master drive. No Follower drives
- Standby drive takes over duty in the event of a failure
- Each Drive has its own Pressure transducer
- Meaning no single point of failure



Premium Hydrovar Variable Speed drive – Communication

- Integrated communication for BMS System
- Communication via Modbus or BACnet as standard
- Via RS485



Premium Hydrovar Variable Speed drive – Built in protection

- Over / Under voltage
- Over Current / Short Protection
- Low Water
- Sensor Failure
- Motor over temperature
- Invertor over temperature
- Minimum Threshold / Conveyer limit



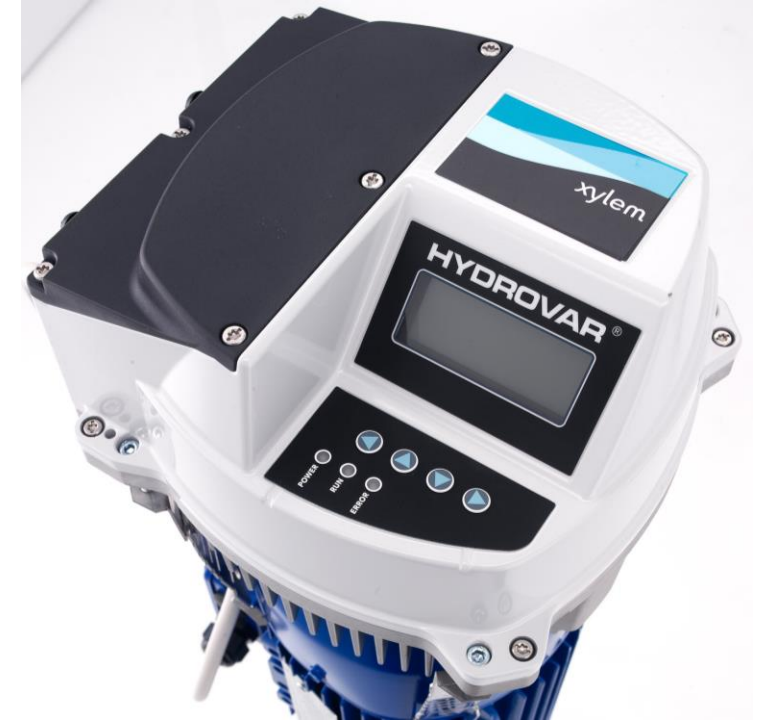
Premium Hydrovar Variable Speed drive – Built in protection, Slow Fill

- Slow fill protects the pipework from Hydraulic shock in the event of a power cut
- During a power cut, water is used from the supply pipework
- When power returns the pump runs slowly fill the pipework back up.
- This prevents all pump running at full speed to top up the system causing stress on the pipework



Premium Hydrovar Variable Speed drive – Easy to use

- Large Backlight LCD screen
- 4 Button navigation
- Quick start guide
- Easy to program and commission
- No Apps or additional devices needed



Pxx	PARAMETER NAME		
⚙️	PARAMETER VALUE		
Actual Value		Output Freq.	
PREV	EDIT/READ	EDIT/READ	NEXT

Premium Hydrovar Variable Speed drive – Design

- Motor mounted, Modular design. Clamps to motor
- Motor or drive can be replaced in the event of a failure
- Easy Access wiring chamber
- Robust Aluminium IP55 casing
- High quality electrical components



Robust e-SV Vertical multistage pump

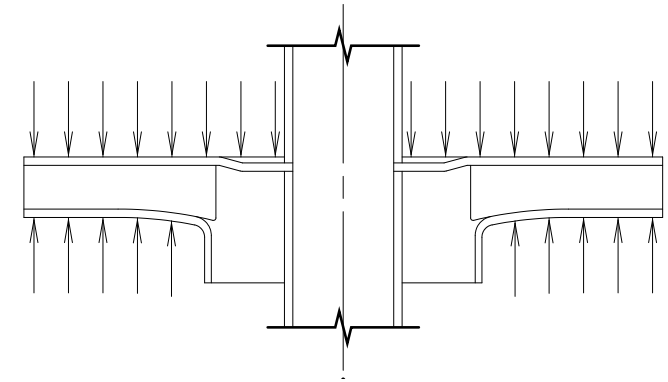
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All GHVR Booster sets use the
Robust e-SV Multistage pump

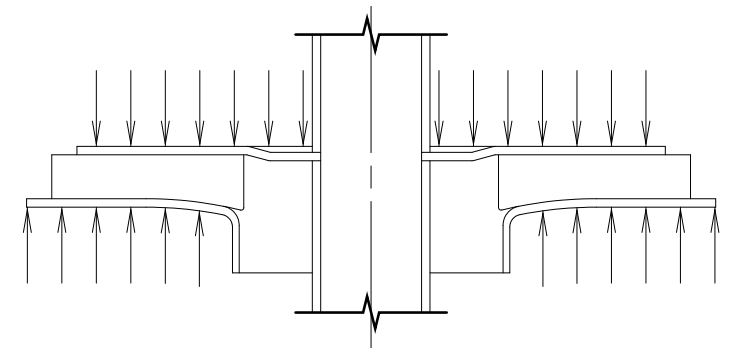
Robust ESV Vertical Multistage pump – Hydraulic end

- Forces acting down on the stack are balanced due the same surface area on the impeller
- Reduced impeller axial thrust for longer standard motor bearing life (17,500h)

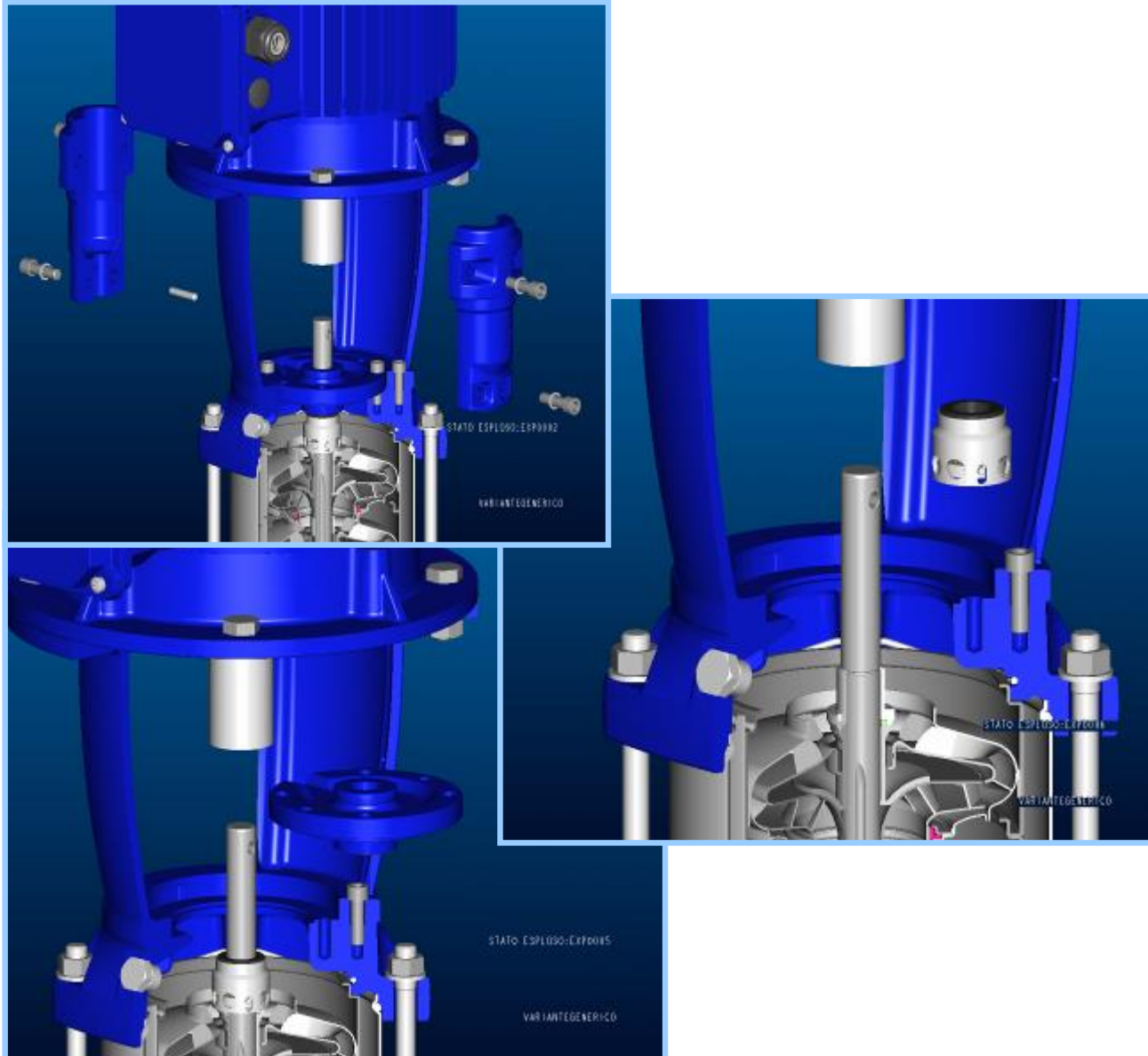
Standard Impeller



Balanced Impeller



Robust ESV Vertical Multistage pump – Mechanical seal



- EN 12756 mechanical seal replaceable with no need of disassembling the motor (for 10-22SV with motor ≥ 5.5 kW or motor weight above 30Kg)
- The new design allow to save up to 50% of the maintenance required time

Robust ESV Vertical Multistage pump – Motor

- Fitted with IE3 Spec motor
- Standard IEC motor
- Wide range of modifications available to suit your application



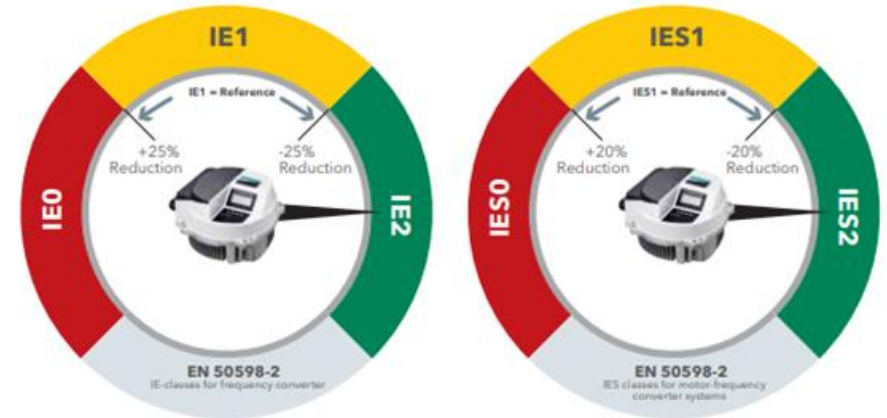
Highest Possible
class of Efficiency

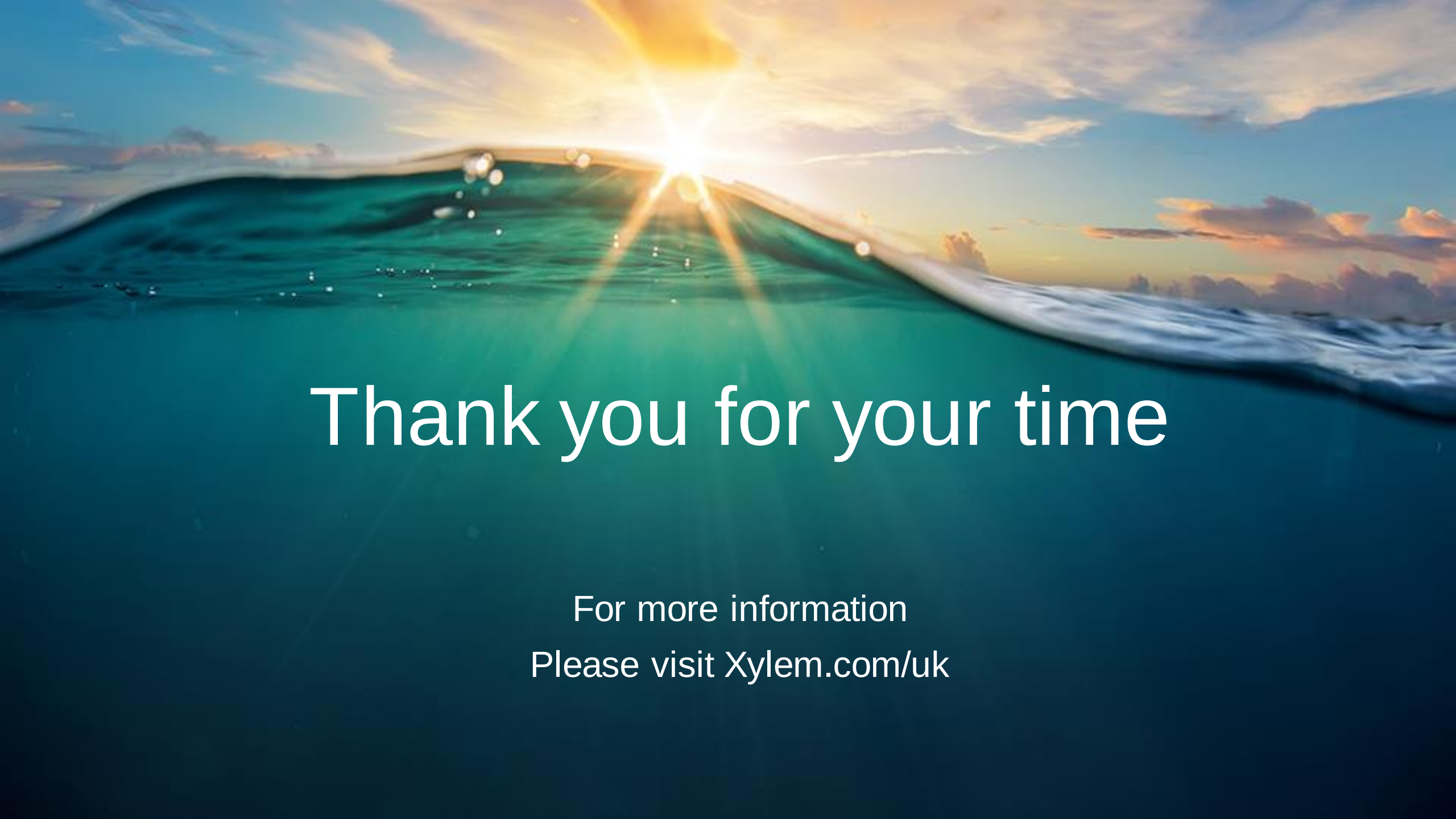
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The GHVR Booster set has the highest possible efficiency rating for drive and motor combinations

Best in Class Efficiency

- According to EU standard:
EN 50598-2
- Best in Class Efficiency
Variable speed drive – IE2
- Best in Class Efficiency
Power drive system – IES2





Thank you for your time

For more information
Please visit [Xylem.com/uk](https://www.xylem.com/uk)