



# e-HMSeries

**EFFICIENT STAINLESS STEEL HORIZONTAL MULTISTAGE PUMPS** 



**BROeHM R5** 

Let's solve your water needs.



# e-HM is customizable to your applications

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e-HM bare pump

e-HM residential boosters

e-HME smart pump

Variable speed systems



### **Huge Range**

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The best solution for most buildings; from family houses up to 10 floor apartment buildings.

### **Reduce your energy bills.** State-of-the-art hydraulics with best-in-

class efficiency mean the lowest possible operating costs.



**Built to last.** Thick metal casing, high-quality bearings and stainless steel guarantees a long service life.

# Almost silent, even when it's working at its peak.

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High-efficiency hydraulics, motor and thick metal pump body keep the noise level to a minimum.



### e-HM

Our horizontal multistage high pressure centrifugal pump offers outstanding efficiencies. The high-efficiency motor coupled with an innovative hydraulic design, NPT threaded inlet and outlet connections, and broad coverage provides flexible options for a wide range of applications. Whether you're in the market for building services, industry specific, or residential applications, the e-HM is designed to meet your water needs.





### applications

Pressure boosting and water supply systems

Industrial washing and cleaning

Circulation of hot and cold liquids for heating, cooling and conditioning systems

Water treatment

Reverse Osmosis Systems

Food and Beverage

HVAC

Car Wash

### specifications

### Pump

Flow rate: up to 127 GPM Heads: up to 525 feet

#### Compact Designs:

- one piece pump body
- 1HM and 3HM, sizes up to 6 stages
- 5HM, sizes up to 5 stages

#### Sleeve Designs:

- Sleeve and separate suction housing
- 1HM and 3HM, 7 stages and above
- 5 HM, 6 stages and above
- All 10HM, 15HM, and 22HM sizes

Connections: NPT threaded suction and discharge

Temperature of the pumped liquid: -20°F to 248°F ( -30°C to 120°C )

### Ambient Temperature:

Standard Offering:-15°C to 40°CAvailable Options:Single Phase: -15°C to 45°CThree Phase: -15°C to 50°C

### Maximum operating pressure:

- Compact pump: designs to 145 PSI
- Sleeve pump: designs to 230 PSI

### Motor

Premium Efficiency

cURus

TEFC (IP 55) design

3500 RPM

Class F insulation

#### Standard voltage:

- Single Phase: 115 or 230V, 60 Hz built in auto reset overload protection
- Three Phase: 208-230/460V, 50 or 60 Hz; or 575V, 60 Hz



### everything to boost your bottom line

The Goulds Water Technology e-HM series is a versatile line of horizontal multistage pumps designed for best-in-class efficiency and superior durability to slash the total cost of ownership. Customizable options means you get exactly the right pump for your application, exactly when you need it.



## e-HM Series



### **excellent efficiency**

The e-HM is the lowest energyconsuming fixed speed pump on the market and will provide users an average of 30% in energy savings, when compared to similar pumps in the market.

### expanded applications

Two designs are available in six models and can be custom-configured for a wide range of applications, including chillers, heating, air conditioning and vehicle washing. Broader hydraulic coverage meets your flow and head needs.

### economical operation

The e-HM uses the market-proven hydraulics of our popular e-SV. The high-efficiency motor means you can use less pump for more performance. The balanced impeller reduces axial thrust by 40%, extending motor bearing life. And a 20% increase in pump body thickness enhances durability, further reducing lifecycle costs.

# Smart Pump Range e-HME

### even more efficiency

It's time to think beyond single components. For top efficiency in residential, light commercial, industrial, agricultural and OEM water supply and HVAC applications, you need the right combination of 1) motors; 2) variable speed drives; and, 3) hydraulic pumps – ensuring reliable performance, maximum savings and a rapid return on investment. The pre-programmed e-HME Smart Pumps combine those three essential components in an easy to install package – so you benefit from the power, intelligence and performance of the smart pump right out of the box!

So when it's time to think about even more efficiency ... start with the new e-HME Smart Pump from Goulds Water Technology - a complete system, delivering market-leading efficiency and performance.

### typical example of increased performance



### a complete variable speed system delivering market-leading efficiency

The e-HME smart pump It is a preprogrammed, prepackaged variable speed system combining the e-HM multistage pump with an "ultra-premium" IE5 Xylem Smart Motor, with built-in pump protection controls and monitoring. The combination allows for easy, cost effective installation, and has a pre-configured system's intelligence and performance right out of the box.

### e-HME Smart Pump



### "ultra-premium" efficiency: best-in-class IE5 motor

The "ultra-premium" IE5 efficiency rating is the top efficiency level for motors designed to operate directly on-line. Each e-HME smart pump is equipped with a permanent magnet Xylem Smart Motor that meets this IE5 specifications, providing efficiency well above an IE3 NEMA premium asynchronous motor.

### intelligence: single or multipump systems

The easy-to-set-up Smart Motor can operate single or multipump systems of up to three e-HM pumps, with no need for an external control panel or PLC. The drive matches performance to demand, reducing energy use. And, it allows smart pumps to communicate with building systems in real time (single pump only).

# performance: robust pump range

The e-HME smart pump range provide enhanced hydraulic performance for a wide range of applications. The e-HME smart pump can easily handle extreme environments, from -4°F/ 122°F (-20°C / +50°C) without derating performance.

### specifications

Delivery: Up to 130 GPM (30 m<sup>3</sup>/h)

Head: Up to 540 feet (235 m)

Liquid temperature: Up to 250°F (120°C)

#### Maximum operating pressure:

- Compact pump: designs to 145 PSI
- Sleeve pump: designs to 230 PSI

Power range: 0.5-3 HP (0.37 - 2.2 kW)

### e-HME smart pump features

- Features the Xylem Smart Motor an "ultra-premium" IE5 permanent, magnet motor, providing efficiency well above a standard IE3 NEMA premium efficient asynchronous motor.
  - includes a wide range of monitoring, control and safety features right out of the box with no need to configure.
  - can operate single or multipump systems of up to three pumps, with no need for an external control panel or PLC.
  - exceeds hydraulic performance of fixed speed versions in a more compact design.
- Thick stainless steel casing, high-quality bearings, and stainless steel inner components minimize noise and guarantee long service life
- Certified for drinking water use (certified to the NSF/ANSI 61 Drinking Water System Components Standard)
- Options include AISI 304 or 316 pump body and inner components, electropolished and passivated, and mechanical seal or O-rings



### e-HME smart pump performance curves



The Xylem Smart Motor\* adds a wide range of benefits to the e-HME Smart Pump

### e-HME Smart Pump



# pump protection: safety and monitoring

The e-HME features the Xylem Smart Motor which includes a wide range of monitoring, control and safety features right out of the box with no need to configure.

# controls, safety features and monitoring tools

Available control modes include:

- Control for constant pressure
- Control to match a system curve
- Control according to an external signal

In addition to these regulation functions, the Smart Motor also:

- Stops the pump at zero demand
- Stops the pump in case of water failure
- Allows protection against dry running
- Has failure and over-temperature sensors for both the inverter and motor, which protects the pump and motor from under or over-voltage

The Smart Motor offers a complete set of supervision and metering tools such as automatic test starts, auto smart cyclic change of lead and lag pump units, a memory for any inverter fault signals, and an operating-hours run counter. There's no need to configure the product; all the listed features are already included in the standard package.

\* Xylem Smart Motors are not sold individually.

## Additional e-HME features and benefits:

### harmonic filters

Harmonics are produced by any device that uses a rectifierbased power supply, which draws current in non-sinusoidal curves: radio, TV, computer, washing machine, microwave oven, etc. Harmonics can reduce pump reliability, affect performance quality and increase operating costs. Each Smart Pump comes with a built-in total harmonic distortion current-active filter (THDi). This cuts interference to the minimum, less than 5%.

### electromagnetic filters

The embedded electro-magnetic compatibility filter (EMC) in each Smart Motor minimizes the transfer of electromagnetic noise between the drive and power supply mains.

### plug and pump booster set

The Smart Motor is easy to commission and operate, thanks to friendly HMI with the e-HME preset package. It's also suitable for harsh environments with an NEMA 3R (IP55) enclosure. Analog input 0-10V is available for external control. The system is designed to work in extreme conditions up to 105°F (50°C) without derating.

### reliability

Get multipump control without an external control panel. Smart Motors are equipped with one pressure transducer per pump through 4-20 mA signal. Operation is still possible, even when one or more pumps or sensors are unavailable.

### individual pump control

Each individual pump has the capability to take control. That means that the system will continue to operate as a booster system even if one or more of the pumps or sensors is unavailable.

### one sensor – one pump

The series includes one sensor per pump as standard, providing full redundancy and avoiding a unique failure point.

### safe operation

Each frequency drive comes with contacts for fault diagnostics and dry-run protection connections as standard. Each Smart Motor frequency converter features an automatic switch for thermal magnetic protection. The system incorporates cyclical exchange of pumps, temperature sensors in motors and drives, and error logs.



Control for constant pressure



Control to match a system curve in multistage pumps such as the e-SVE or e-HME





## Why the "e" in e-HM?

Our e-HM Series stainless steel horizontal multistage pumps bring you the ultimate in energy efficiency–up to 30% in energy savings versus the competition. The e-HM expands your application options with broader hydraulic coverage, modular design and customizable features. And with greater durability, the e-HM increases reliability and extends uptime. It all adds up to economical operation, for a lower total cost of ownership.

### FAQs

### How is the e-HM an improvement over previous versions?

We've significantly increased energy efficiency–up to 30% greater than the nearest competitor. And a broader hydraulic range ensures you can select a pump that meets your process needs.

#### What's behind the increase in energy efficiency?

The e-HM series combines the proven hydraulics of our e-SV vertical multistage pump with a high-efficiency motor to deliver best-in-class efficiency.

#### Is the e-HM environmentally friendly?

Higher efficiency means lower  $CO_2$  emissions and reduced energy use. That makes the e-HM good for the planet-and its lower total cost of ownership is good for your bottom line.

#### How does the e-HM increase uptime?

We've reduced the impeller's axial thrust 40%, for longer motor bearing life. The pump body is 20% thicker, for greater durability.

### Is the e-HM right for my application?

With two designs, six models and countless configurations, the e-HM series offers solutions for a wide variety of commercial, industrial and residential applications. It can also be easily tailored for custom applications. Ask for details.

#### What is the e-HME smart pump range?

The e-HME smart pump range bundles the e-HM performance with the state of the art hydraulics and "ultrapremium" efficiency of the IE5 rated Xylem Smart Motor in a pre-assembled package. Five ranges offer flexibility for a wide list of applications, including residential and commercial pressure boosting, industrial and HVAC, and irrigation.



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