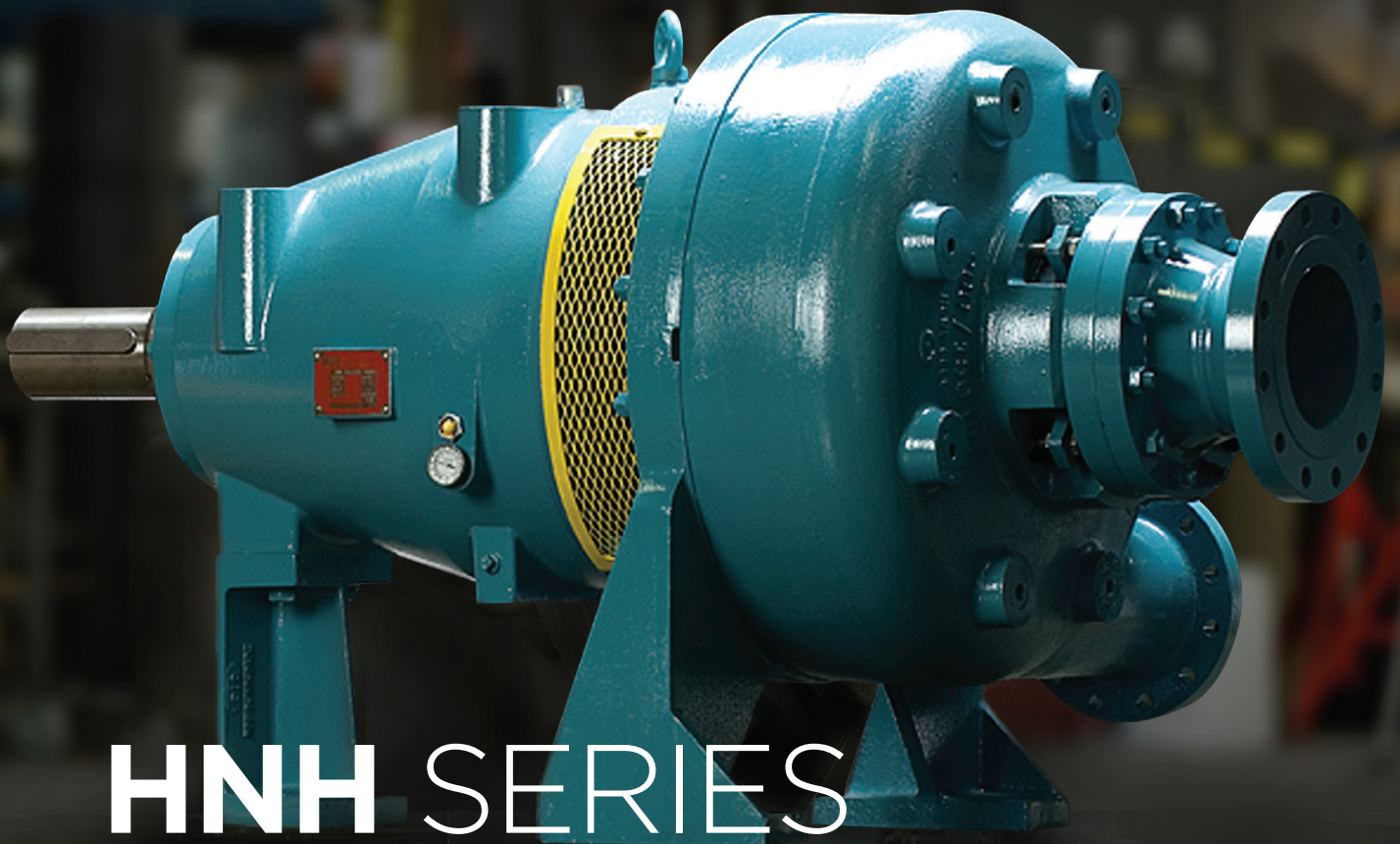


HEAVY
PUMPS

TOYO
PUMPS



HNH SERIES

**EXTREME & SEVERE DUTY MODULAR
HORIZONTAL SLURRY PUMP**
VERSATILE SEALING | HEAVY DUTY CONSTRUCTION

HEVVY PUMPS HISTORY



Where heritage meets imagination - the evolution of TOYO PUMPS.

In HEVVY PUMPS, we have created a product line that embodies both imagination and technological advancement. Over the course of our 40 year history as TOYO PUMPS, the company has progressively evolved. Our valued customers have helped to shape us, and from years of listening to their particular needs, dreams and continuous positive feedback - we created the HEVVY PUMPS product line to service these requirements. We don't believe in relying on past merits alone.

HEVVY pushes the limits of technology and design, to propel the future and challenge the industry to be more reliable, efficient and accountable to its customers and the environment. It is an exciting new future when "heritage" and "imagination" meet to benefit both worlds. With HEVVY and its new product lines, **we are ready to make a real impact globally.**

Make no mistake - the TOYO name has served us well. TOYO is a proven technology, despite being developed years ago. HEVVY is about embracing our proven technology and incorporating it into our new designs to both improve and create better products.

HEVVY PUMPS ADVANTAGE



HEVVY PUMPS are designed in-house by our engineers and crafted in North America using our own local workforce and know-how. HEVVY is our name and it signifies we are no lightweight.

HEVVY is a niche player in the solids handling market and knows the applications better than anyone else. This knowledge brings with it the following advantages:

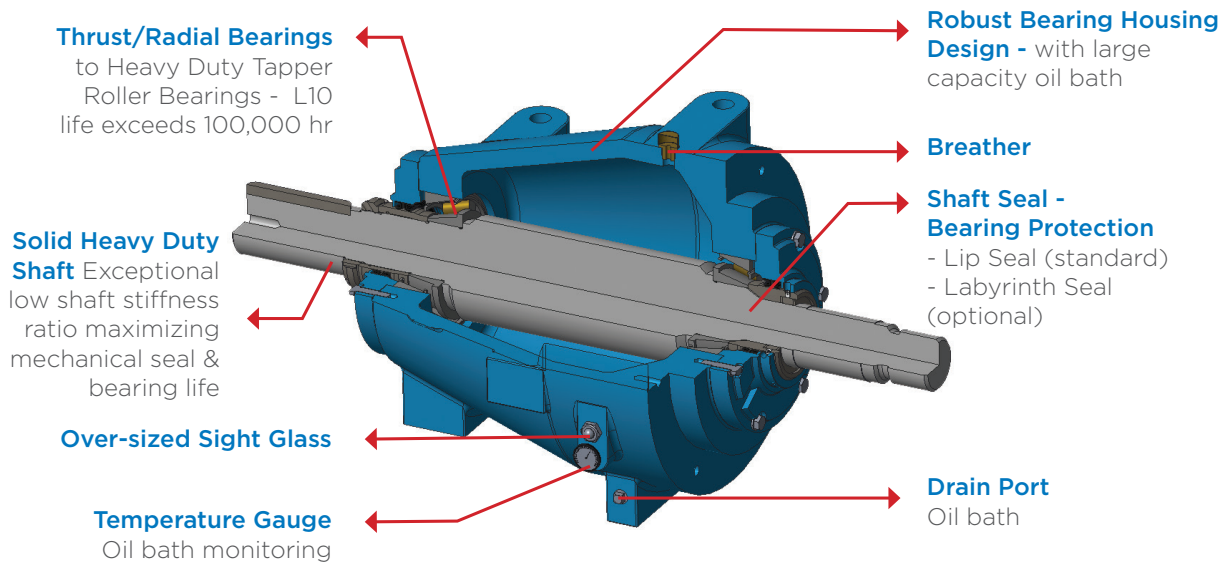
- ▶ We can truly partner with our customers and consider ourselves an extension of our customer's operation.
- ▶ We are not trying to be everything to everybody and therefore do not have the unfocused range of product lines that most of our conglomerate competitors have. As a result we are able to move faster and adapt with technology.
- ▶ We realize that by gaining just five efficiency points, we can effectively save our customers thousands of dollars a year in electricity costs.
- ▶ We also realize that by not basing our business model on surviving off spare parts revenues, we can invest in designing pumps that actually last the test of time - thereby offering our customers a lower total cost of ownership.

We have named ourselves HEVVY - **perfectly summing up who we are & the industries we serve.**

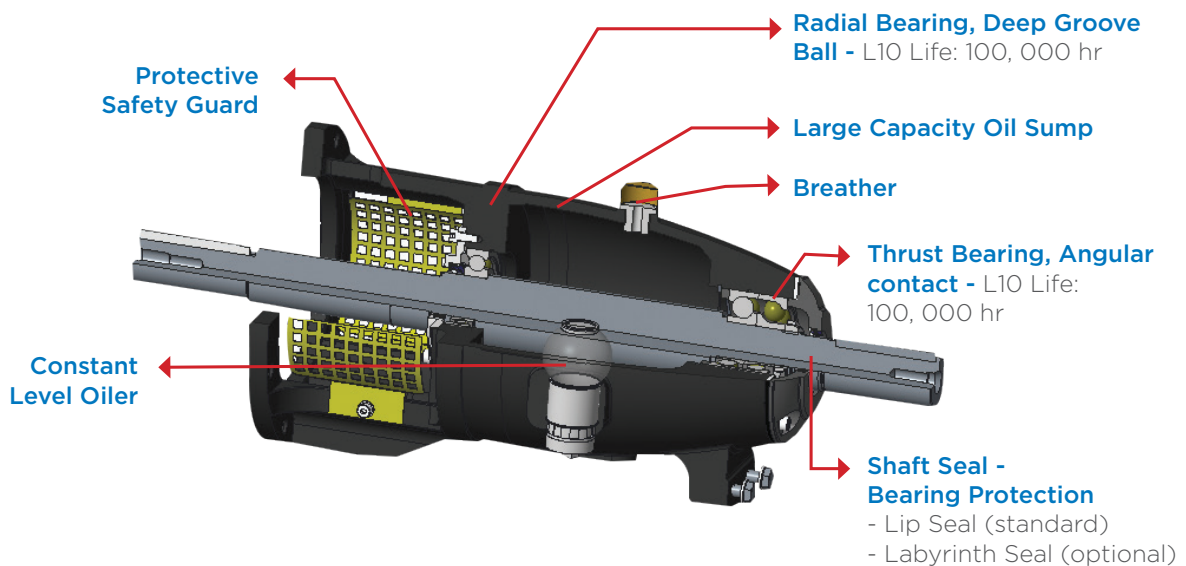
HNH SERIES

AVAILABLE IN **EXTREME DUTY (XD)** & **SEVERE DUTY (SD)** POWER FRAMES TO BEST FIT THE HYDRAULIC REQUIREMENTS OF THE APPLICATION.

XD - EXTREME DUTY

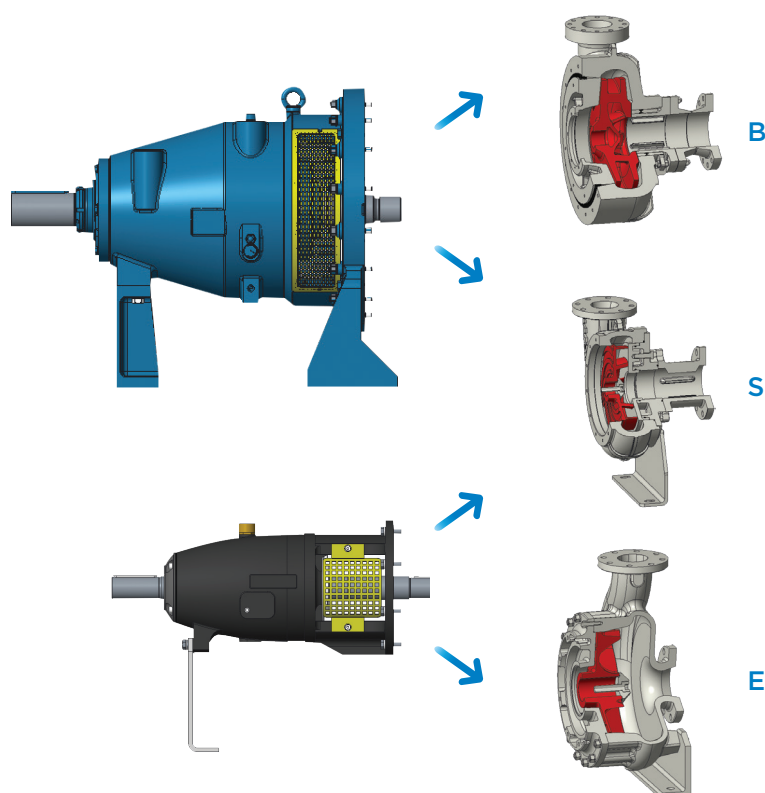


SD - SEVERE DUTY



HNH SERIES

THE MODULAR ADVANTAGES



The HEVVY modular program allows you the flexibility of coupling the pumping ends below with either the same or different HEVVY drive configurations - be it **submersible, cantilevers, or horizontal**.

▶ **Maximum Flexibility**

If your pump performance requirements change, **simply change the pumping end** to ensure you are always achieving maximum productivity and efficiency.

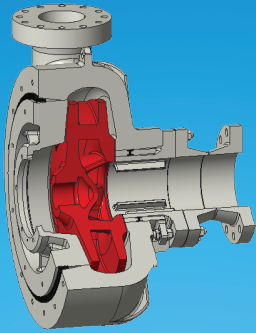
▶ **Cost Savings**

No need to buy a brand new piece of equipment when system requirements change. Just change the pump end. If you can standardize on the same pumping ends throughout your plant then you can greatly reduce the need for excessive spare parts inventory.

▶ **Increased Productivity**

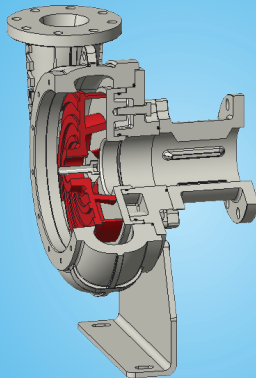
Production is profit. When systems change the lead times of some custom drive units can not only be long but also expensive. If you can recycle your drive unit and simply change your pumping end you can get back into production quicker, cheaper, with less downtime required.

WET END DESIGNS



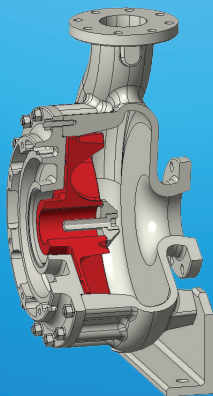
B

The **B Wet End** is a hard wearing, heavy duty, closed impeller, slurry pump that comes standard in high chrome or CD4MCu. The B is equipped with flow stabilizing vanes to increase efficiency and reduce turbulence and resulting impeller wear. Capable of handling Class 3 & 4 slurries and a 5" solids size. The B is able to reach high heads and a low NPSH R option is available.



S

The **S Wet End** is a fantastic semi-open, high efficiency, solids handling pump. This wet end is capable of handling Class 1, 2, & some Class 3 slurries. It boasts a special elliptical cut-water design which maximizes efficiencies and reduces wear. Available in ductile iron, High Chrome, CD4, Alloy 20, & more.

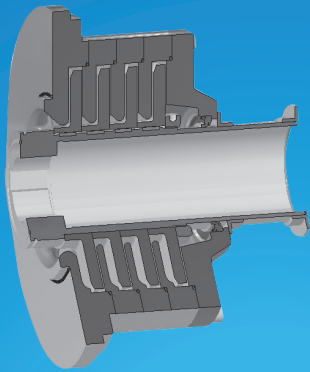


E

The **E Wet End** has a fully recessed vortex impeller that permits an unobstructed passage of large solids. Fibrous material can also be handled without difficulty due to the natural flow of the fluid through the pump casing and the fact that the flow is virtually isolated from the impeller (only 15% of pumped liquid is in contact with the impeller). This pump is ideally suited for low shear applications. Available in ductile iron, High Chrome, CD4, Alloy 20, & more.

HNH SEALING

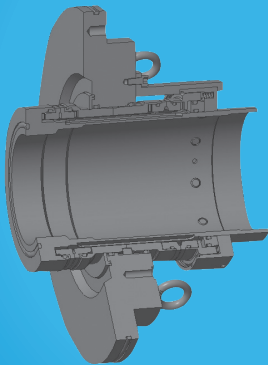
The **HNH** comes standard with packed box or choose a standard component mechanical seal or from a variety of our specially engineered slurry cartridge seal options below:



HYDRODYNAMIC SEAL

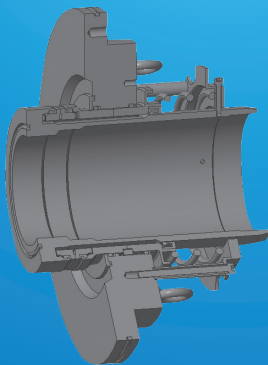
4 expellers/repellers that are capable of higher sealing pressure than typical single expeller/repeller design.

- Packing-less design.
- Integrated flush port.



DOUBLE MECHANICAL SEAL

Extreme slurry cartridge seal design available with positive pressure quench plans.

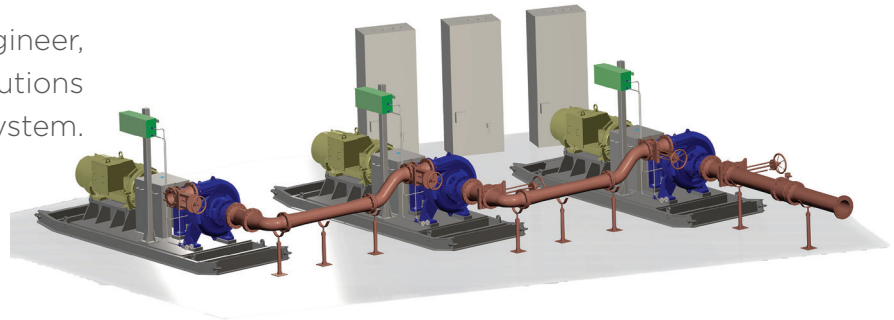


SINGLE MECHANICAL SEAL

Severe slurry cartridge design with robust stationary single spring with higher tolerance for misalignment and shaft deflection.

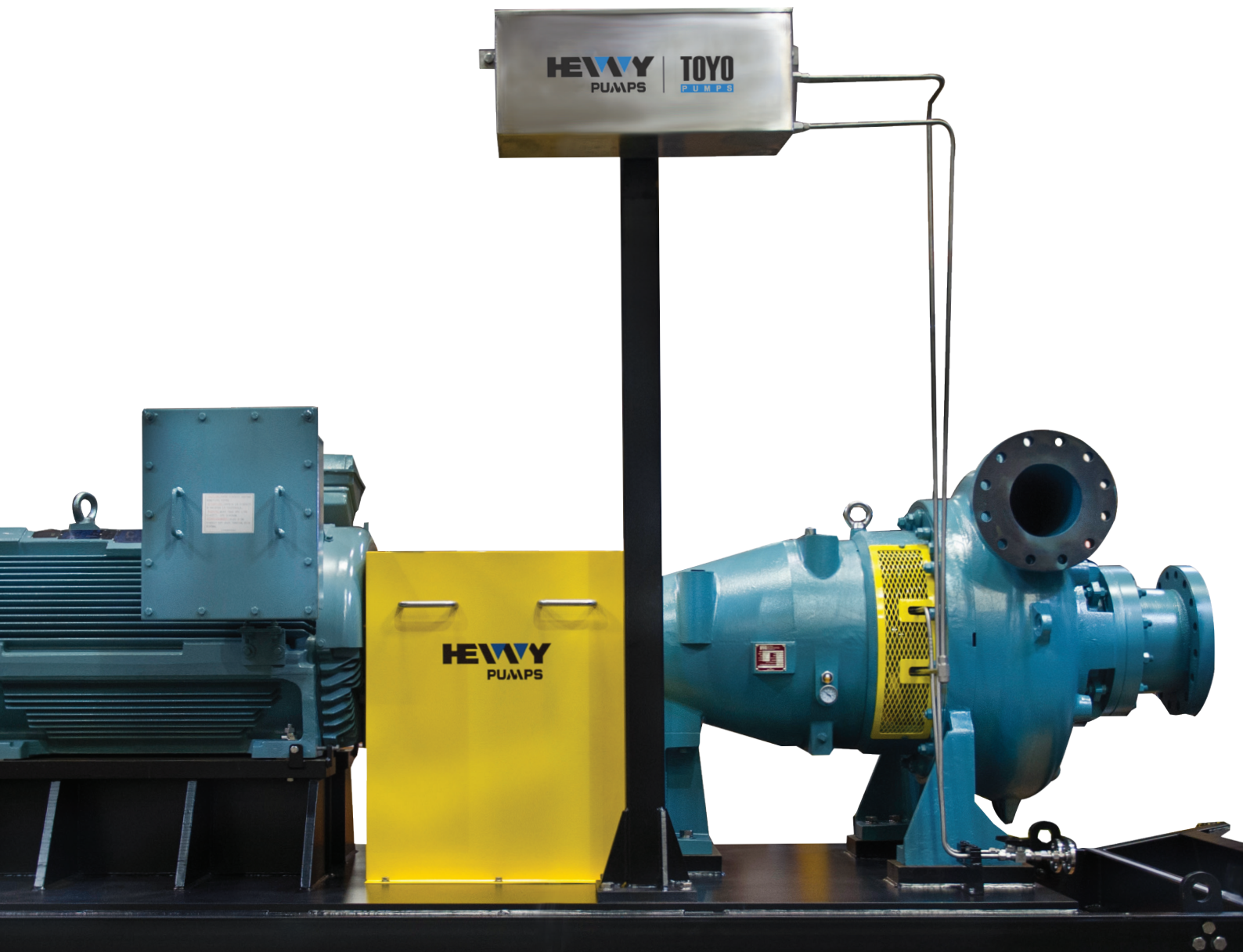
HNH SOLUTIONS

HEVY **Toyo** has the ability to engineer, procure, and construct turnkey solutions that can be integrated within your system.



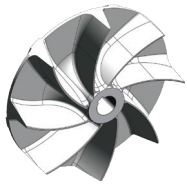
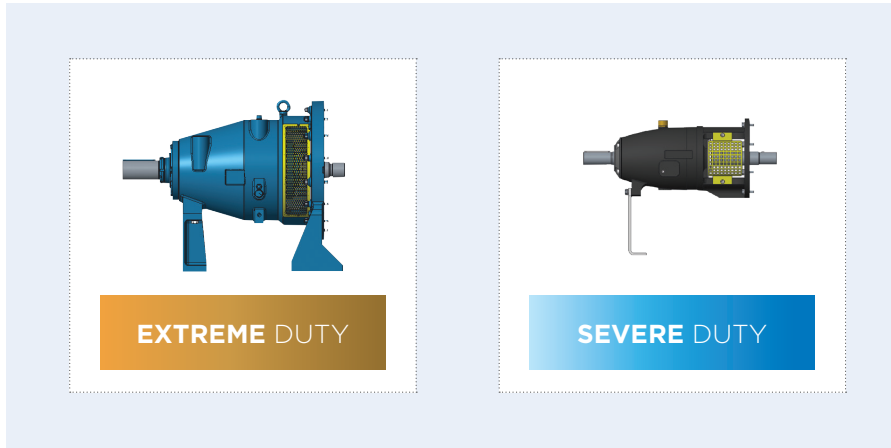
SOLUTIONS MIGHT INCLUDE:

- ▶ Selection of appropriate motor starters and drives for optimal compatibility (Soft Starters, VFDs, and PLC control)
- ▶ Flow control and monitoring specifically for slurry pumps (control valves, flow meters)
- ▶ Piping, and complete seal plans (API Seal Plans)

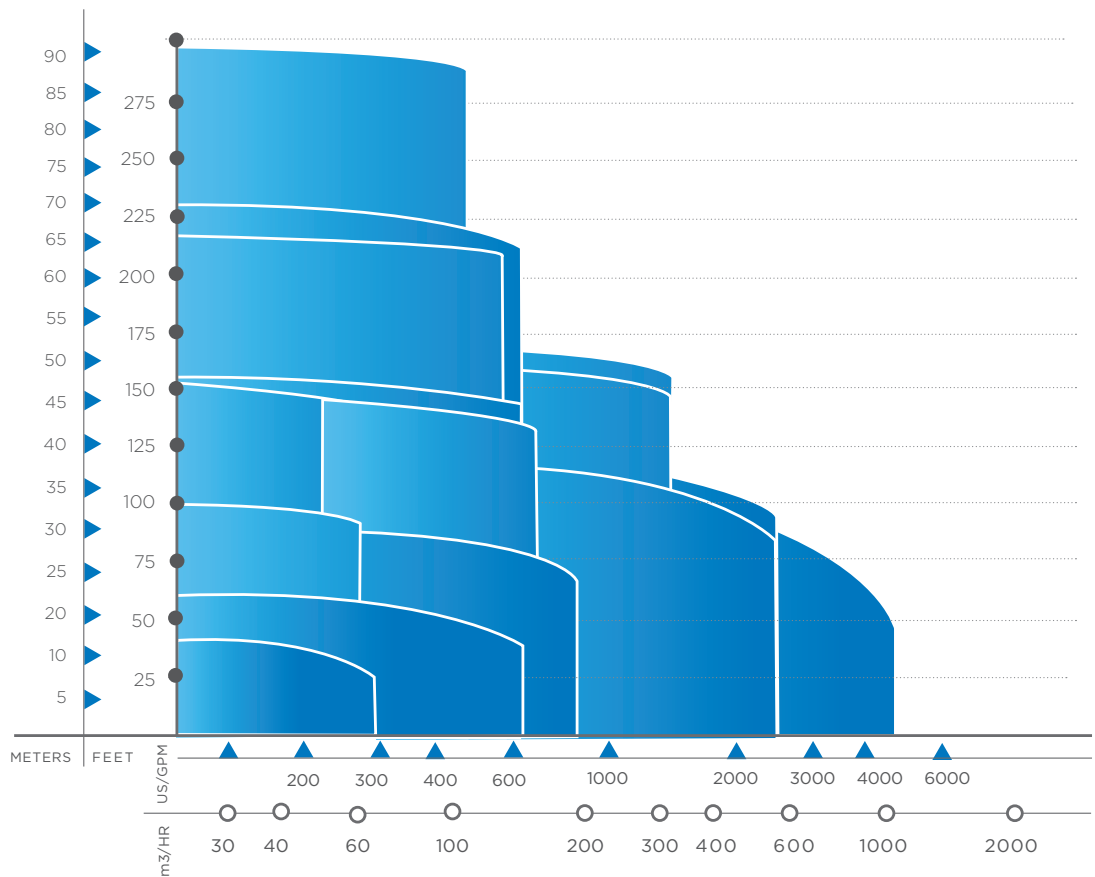


HNH SERIES

PERFORMANCE TO SUIT YOUR PROCESS



E VORTEX IMPELLER

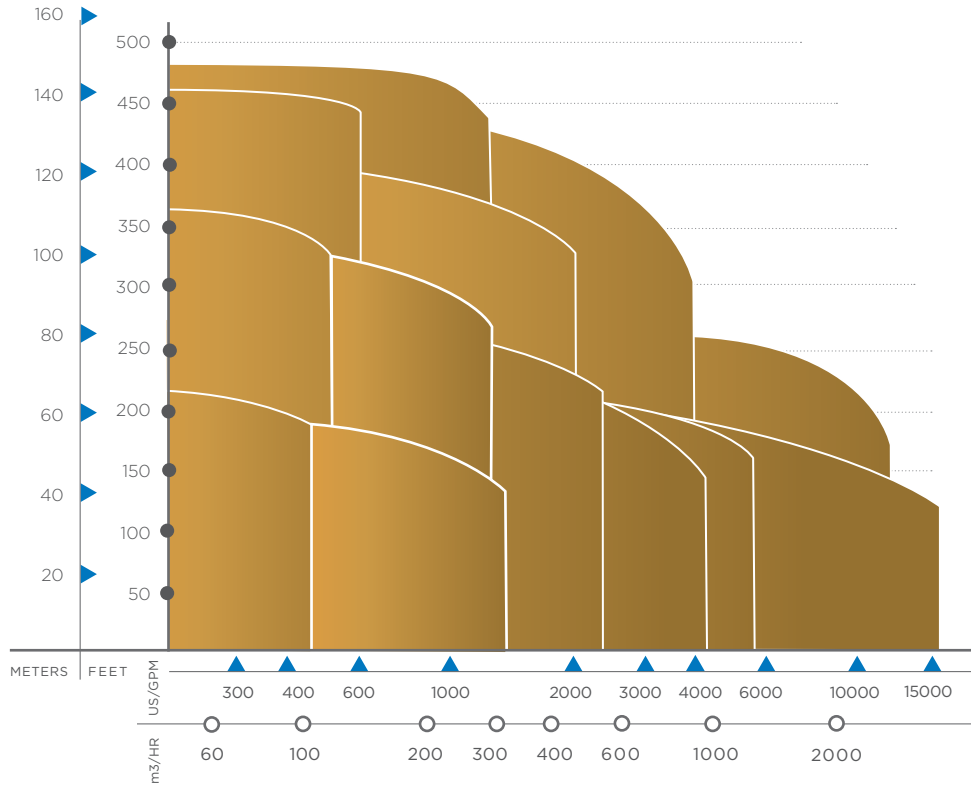


HNH SERIES

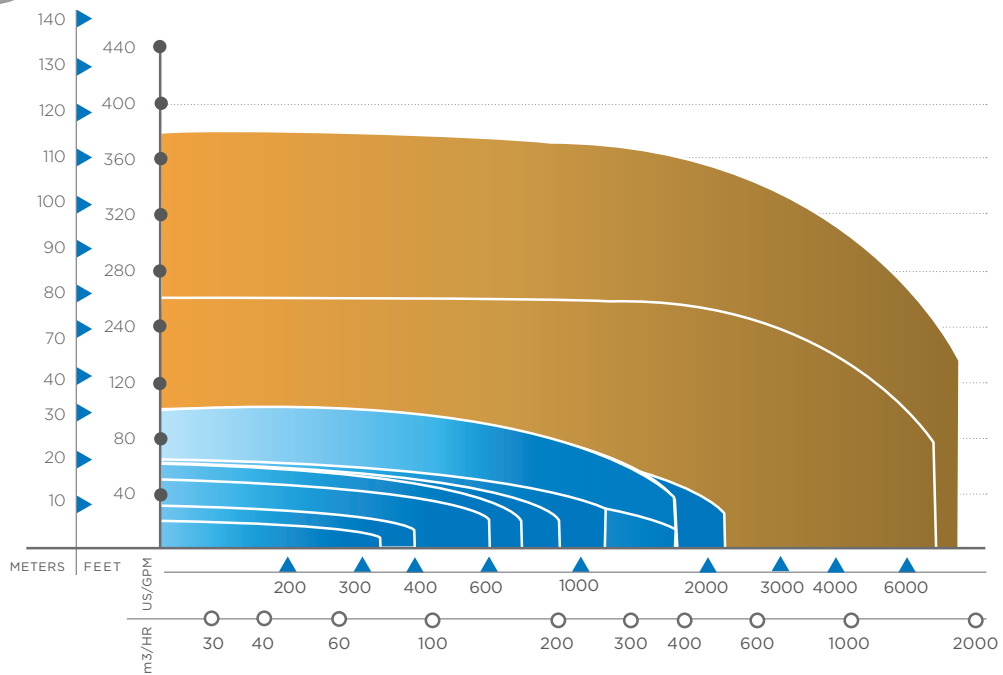
PERFORMANCE TO SUIT YOUR PROCESS



B CLOSED IMPELLER



S SEMI-OPEN IMPELLER



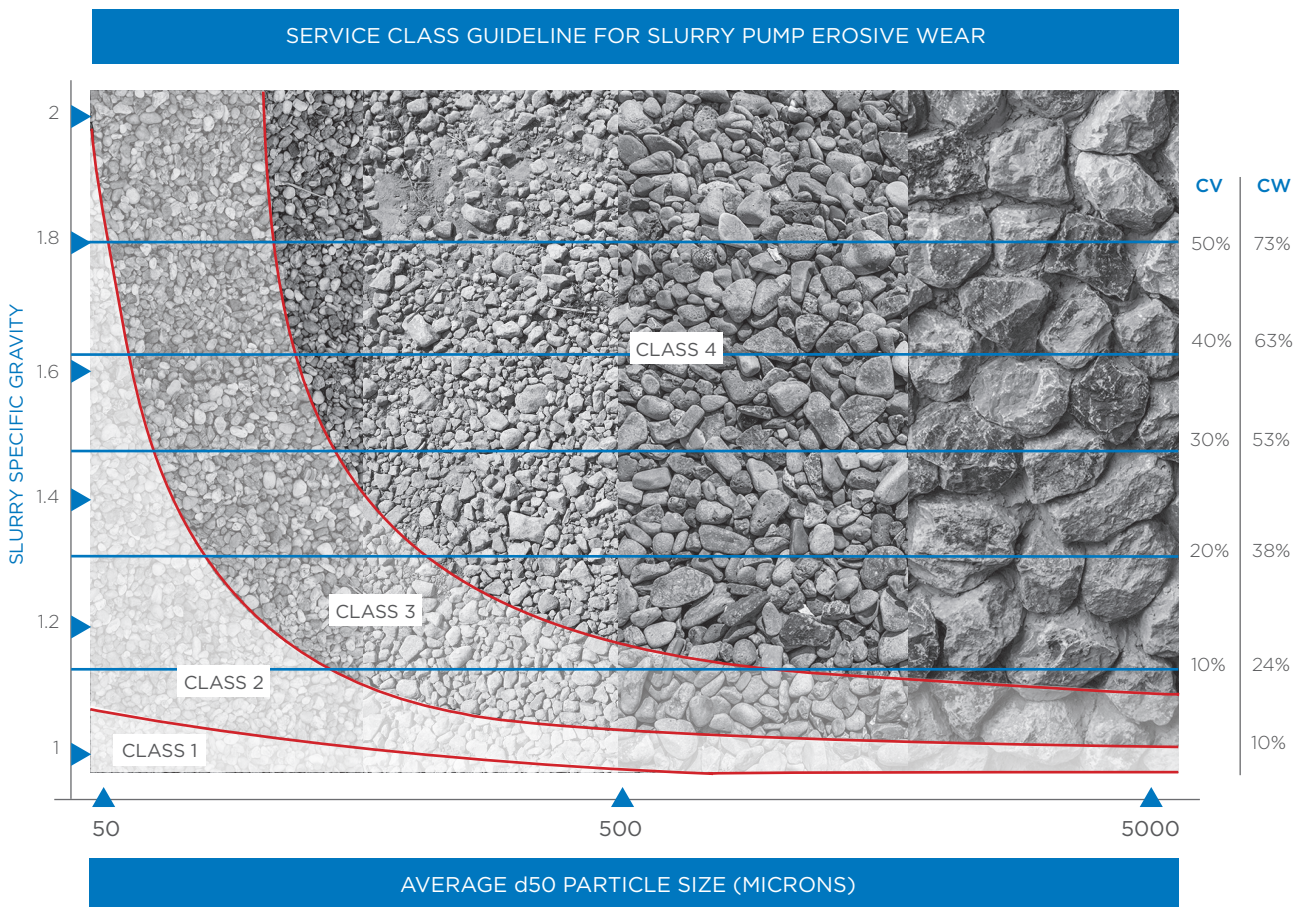
HEVVY SLURRY

CLASSIFICATIONS

At HEVVY PUMPS we were born out of our passion for pumping solids. The majority of pumping companies began life as a water pumping company. Therefore, if they now offer a “slurry” pump, they’ve simply adapted one of their water pumps to do a slurry pumps’ job. This is not always the ideal solution (similar to asking a pick-up truck to do a dump truck’s job).

To find the right solution for your application it is important to first understand what it is you are trying to pump. Slurries come in many shapes, sizes, weights, levels of abrasion or corrosion and consistency. For your convenience, **the industry defines slurries by classes**. We have included a very simplified chart (see below) to assist you in understanding what slurry class you might be dealing with. As always we are happy to help you choose the right solution for your application. Please give us a call if this is all as clear as well... slurry.

SLURRY TYPES: SILT | SAND | TAILINGS



The above chart is for use as a guide only. It assumes 2.65 Ss silica-based solids. Adjust rating to account for solids of different abrasivity using ASTM G75-95. The chart is based on the Hydraulic Institute’s Slurry Class guideline. For more information about the HI Slurry Classes please visit <http://pumps.org> or call HEVVY PUMPS for assistance.

THE EVOLUTION OF OUR HORIZONTAL PRODUCT'S IDENTITY

Currently we're in the process of giving some of our products a new identity. We're doing this for a few reasons:

- to continue our evolution from TOYO PUMPS to HEVVY PUMPS;
- in hopes of simplifying the product offering from an identity point of view;
- to highlight one of our products' greatest advantages – it's modularity. Meaning that you can couple most of any one of our pump ends on most of our drive ends be it submersible, vertical cantilever, or horizontal.

Rest assured, the products you know and love haven't changed even through you may be calling them a new name in the future. We continue to invest heavily in research and development, as well as follow our passion for technology and engineering design. At the same time, we are carefully building our HEVVY/ TOYO PUMP TEAM which allows us to continue our mission of continuously improving our product's overall life, performance, and ability to withstand the toughest applications on earth.

Many of you will have legacy products and may have concerns about the need to change product names or descriptions in the system. There really is no cause for concern, even if you want to order duplicate pumps or parts, under your traditional way of identifying it, we'll make the transition on our end and deliver you exactly what you've always ordered.

We want this process to be seamless and painless for you; please feel free to tell us how we can help.

For some period of time you will likely receive curves or other technical documentation with some legacy identity. This is also fine. It's all part of the journey.

For reference:

- ▶ **DEH will be known as the HNH-E**
- ▶ **DBH will be known as the HNH-B**
- ▶ **Our newest semi-open impeller pump hydraulic is the HNH-S**

For questions or assistance, please feel free to contact your local Regional Manager or: info@hevy pumps.com

GIVE US YOUR WORST



HEVVY PUMPS is proud to offer a **complimentary pump audit** of your four worst pumping applications, complete with a report.

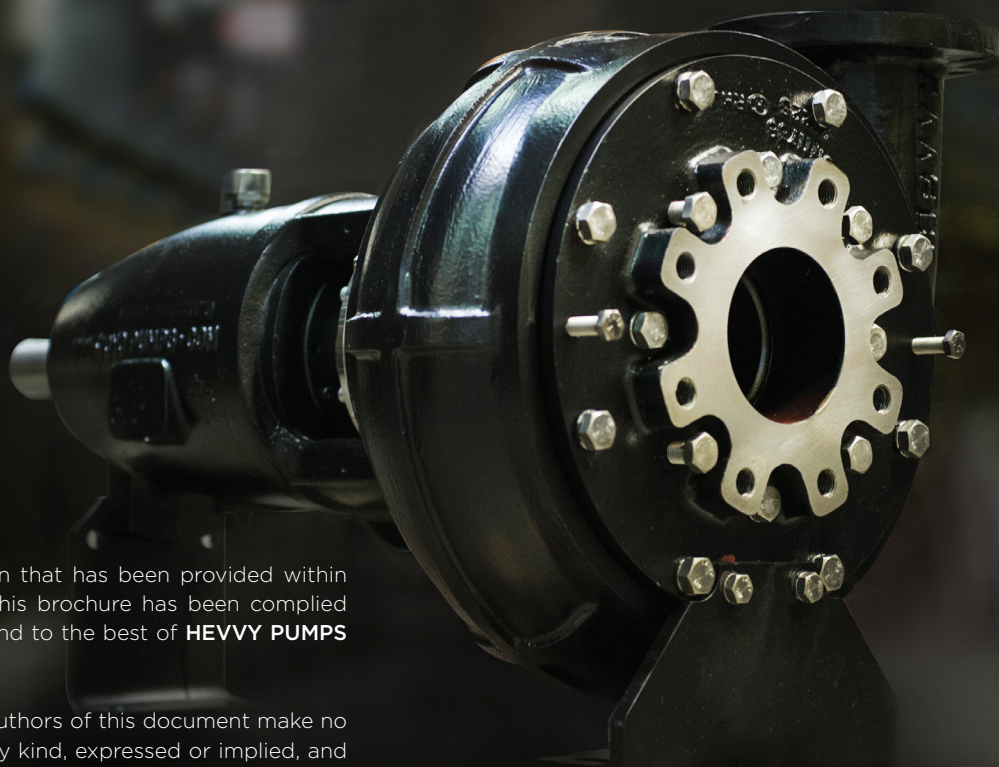
HEVVY'S NO RISK TRIAL PROGRAM

Be confident that your **HEVVY PUMP** will work with our **No Risk Trial Program**. All we need is a little information about your application and a commitment from you - when our pump meets the expectations that we both agree on - that you will keep the pump.

Contact your Regional Manager or applications@hevy pumps.com for more information.



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