

## Hard Wearing Pump Solutions for Increased Productivity







## GIW® Dredge Pumps Engineered for Efficiency and Reliability

For every type of dredging need, KSB provides high-performance GIW® pumps. Its cutting-edge technology is perfect for projects involving capital dredging, routine maintenance, and environmental dredging.

For a wide range of offshore dredging applications, including channel deepening, capital dredging, and ocean dredging, KSB is a complete dredge pump solution provider.

CSDs, TSHDs, booster stations, barges, and other dredging vessels all make use of GIW® underwater dredge pumps and inboard pumps.

These pumps are made to be highly effective at a variety of flow rates, making the best use of the power available, resulting in higher energy efficiency and lower fuel use. The pump solutions from KSB are extremely competitive per cubic meter of soil transported.

Additionally, they have tough mechanical designs, robust hydraulic performance, and industry-leading materials on key wear components like pump casings, impellers, and liners. KSB durable dredging pump solutions will save maintenance costs, boost productivity, and reduce downtime.

A strategic global network of partners enables KSB to offer trustworthy sources of high-quality dredge pumps, components, and solutions. Its experts can offer design and consulting services to develop pump projects anywhere in the world.

With the aid of cutting-edge engineering methods backed by decades of experience and a thorough R&D strategy, KSB is able to provide a new generation of dredge pumps for a variety of applications. Through constant advancements in hydraulic design, cutting-edge wear technology, and exclusive materials, it is able to create products of the highest calibre that are customized to meet unique requirements.



# Hard Wearing Pumps – Large Free Passage and Higher Efficiencies

Wear life is one of the most important features in the design of GIW® dredge pumps. Our proprietary materials are extremely abrasion resistant resulting in longer wear life.

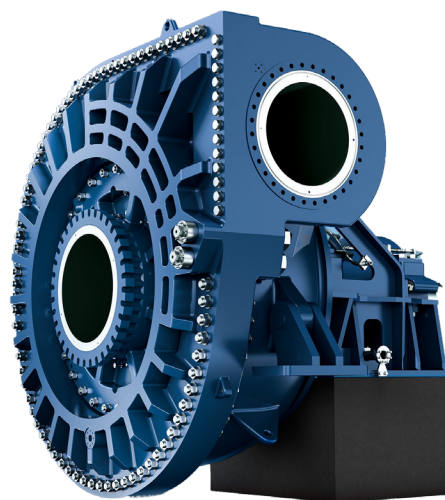
GIW® pumps offer large sphere passages and higher efficiencies. This translates into lower power consumption, increased production capacities and ease of handling large rocks.

## Proprietary Material Options for Longest Wear Life:

1. Gasite® WD28G is a specially refined, high-chromium, white iron alloy and is one of the best materials in wear resistance among the GIW® white iron alloys for pump casings and liners. Gasite® WD29G is a unique, white iron alloy most often used for making pump impellers. Its highly refined, globular, primary carbides inhibit crack propagation.
2. Numerous secondary carbides add to the alloy's resistance to wear. With its high chromium content, WD29G's tempered martensite and austenite matrix provides superior strength and toughness along with corrosion and abrasion resistance.
3. Gasite® A24G is a high-chromium, white iron alloy. It is well-suited for the manufacture of pump parts or other components such as stuffing boxes that require extensive and/or complex machining.

## GIW® DWD (Double Wall Dredge) Pump Design Features

- Hydraulic types and sizes for a wide range of duty requirements.
- Straightforward construction for ease of maintenance.
- Proven standard shaft and bearing assemblies or special shortened designs for extended mechanical reliability.
- High efficiency over wide range of flow ensures best use of available power for production.
- Hydraulic performance is verified through full-scale lab test under controlled conditions.
- Optimized shell hydraulics for high efficiency and uniform wear over a wide range of operating conditions.





# GIW<sup>®</sup> Pumps Used in Dredge Applications Worldwide

## LCC Pumps

- Small dredges working in ponds, rivers and lakes
- Reclamation
- Sand & gravel applications
- Jet water pumps in large Trailing Suction Hopper Dredges

## LSA Pumps

- Heavy duty inboard pumps
- Underwater pumps

## LHD Pumps

- High specific speed
- Lightweight
- Submersible/ladder pump
- Inboard pumps

## MHD Pumps

- High pressure
- Medium Flow
- Single Wall

## WBC Pumps

- Small dredges working in ponds, rivers and lakes
- Reclamation
- Sand & gravel applications
- Jet water pumps in large Trailing Suction Hopper Dredges

## TBC Pumps

- High pressure
- Heavy duty
- High flow
- Single wall
- Booster stations

## DWD Pumps

- Heavy duty
- High flow
- High head
- Double wall
- Ocean going Trailing Suction Hopper Dredges
- Ocean going Cutter Suction Dredges



## GIW® LCC-M



Q [m <sup>3</sup> /h]	max. 3,865
H [m]	max. 90
p [bar]	max. 16
T [°C]	max. + 120

The hydraulic wet-end consists of three components: a shell or casing, an impeller and a suction plate/liner to permit easy removal for maintenance and inspections. Reliable pumps for high discharge head, mildly corrosive slurries and a wide range of particle sizes. Ideal for jet water applications and as dredge and ladder pumps on small dredges. It can also be used on boosters.

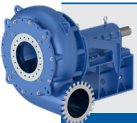
## GIW® LSA-S



Q [m <sup>3</sup> /h]	max. 14,000
H [m]	max. 90
p [bar]	max. 16
T [°C]	max. + 120

Premium design white cast iron pump for long service life handling severe slurries. The maintenance-friendly single-wall construction and heavy section white cast iron wet end combined with the cartridge bearing assembly provide maximum reliability, a long service life and ease of maintenance.

## GIW® LHD



Q [m <sup>3</sup> /h]	max. 21,600
H [m]	max. 65
p [bar]	max. 17
T [°C]	max. + 120

High flow/low head design with balanced NPSHR and sphere passage for high volume transportation over short distances. Ideal for sand & gravel, severe mining, dredge ladder and booster pumps.

## GIW® MHD



Q [m <sup>3</sup> /h]	max. 32,000
H [m]	max. 80
p [bar]	max. 28
T [°C]	max. + 120

Designed to provide high flow/medium head with high efficiency for high volume transportation in long pipelines. Ideal for booster stations, main pumps on hopper dredges and cutter dredges. Can also be used as underwater pumps in hopper dredges.

## GIW® WBC



Q [m <sup>3</sup> /h]	max. 16,200
H [m]	max. 150
p [bar]	max. 32
T [°C]	max. + 120

Patented design with state-of-the-art hydraulic system and highly wear-resistant materials for high-pressure applications. The pump casing is designed to withstand maximum stresses, e.g. during pressure surges.

## GIW® TBC



Q [m <sup>3</sup> /h]	max. 18,200
H [m]	max. 90
p [bar]	max. 37
T [°C]	max. + 120

A high-pressure design, these pumps are constructed as horizontal, end suction centrifugal pumps to give maximum resistance to wear while simplifying maintenance. The conventional single-wall design transfers stress loads to non-wearing side plates in high pressure applications. Ideal for booster stations, main dredge pumps on hopper and cutter dredges.

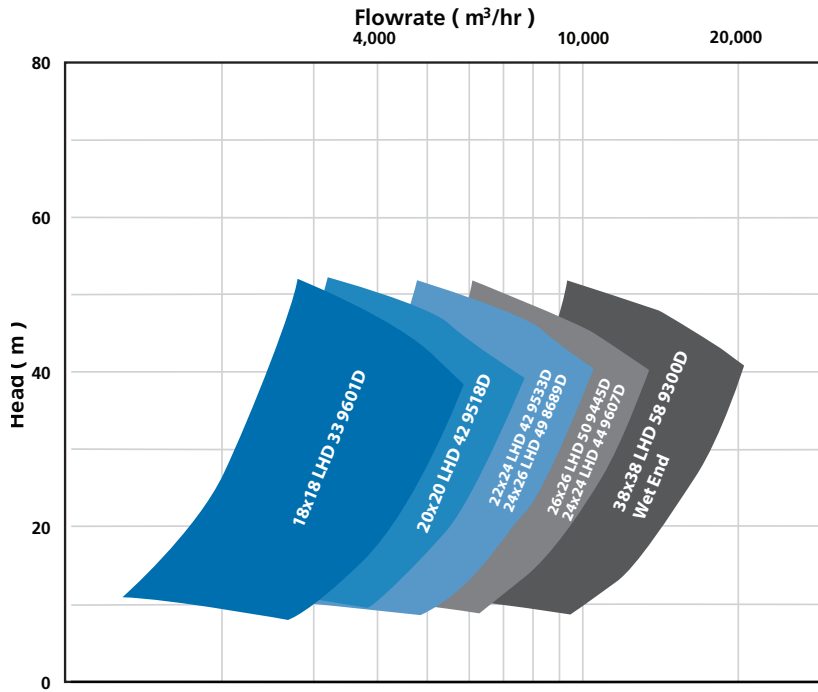
## GIW® DWD



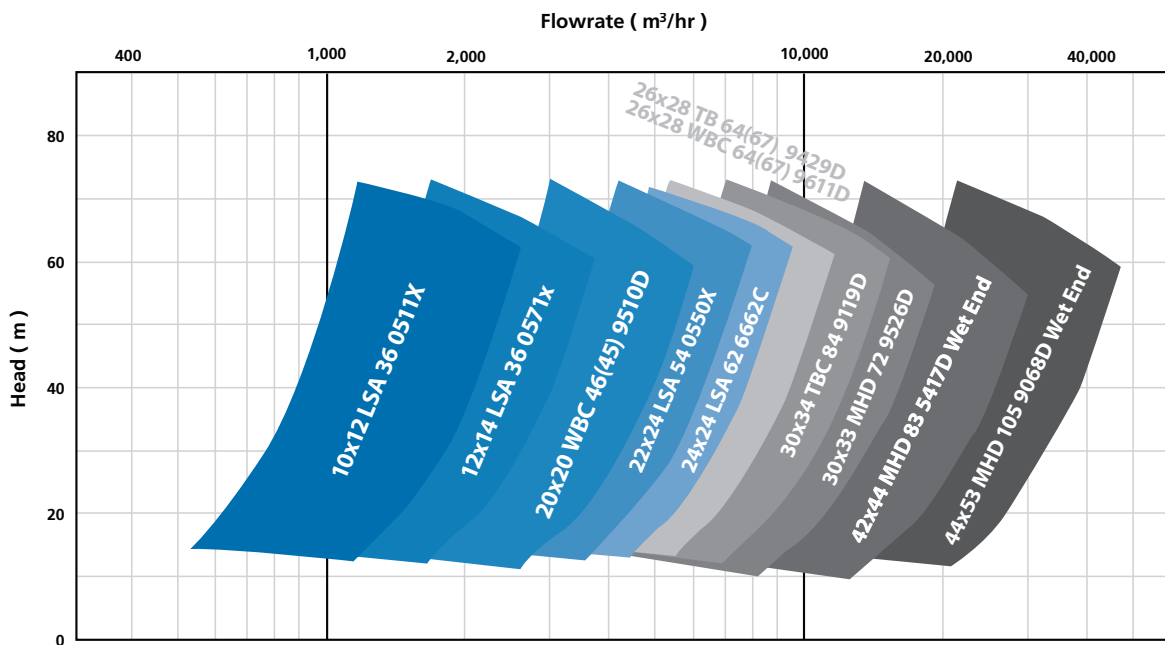
Q [m <sup>3</sup> /h]	max. 13,000
H [m]	max. 65
p [bar]	max. 30
T [°C]	max. + 120

Double wall dredge pumps best suited for inboard pump applications on board cutter dredges and hopper dredges. Steel or ductile iron outer casings provide safety and higher pressure rating.

## High Specific Speed Pumps



## Low and Medium Specific Speed Pumps







## After Market **Service & Support**

### Total Customer Support

We offer one stop, total customer support for all GIW® products. Round the clock service comes standard, no matter what equipment issues you are facing. We pledge to focus on all the equipment details allowing you to focus on running your business.

We offer a wide variety of classes, training, start-up/installation support and field service in accordance with GIW Field Service Terms and Conditions and Field Service Rates. To best serve your needs and accommodate your preferred schedule, we request that training and start-up support be requested 30-60 days in advance.

### We've got you covered:

- Installation Support
- Start-Up Support
- On Site Training
- Warranty Claims
- Restock
- Over/Under Shipment
- Alignments
- Vibration Analysis
- Faro CMM Equipment Analysis
- 24/7 Breakdown Service

#### Support Services:

##### Technical Services

Tel. +1 706-434-0683  
Fax +1 706-210-5967  
GIW-WarrantyClaims@ksb.com

##### Customer Service & Spare Parts Sales

Tel. +1 706-863-1011 Ext. 2407  
Dir. +1 706-434-0707  
Fax +1 706-210-5985  
GIW-Parts@ksb.com

##### After Hours Breakdown Rush - 24/7

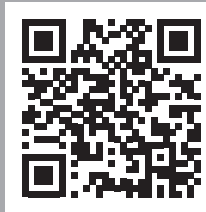
Mobile: +1 706-513-0585  
(For emergencies only)





**KSB delivers **best-in-class** solutions for your simple and complex dredging needs.**

Each pump is as individual as your requirements. We will engineer a customized solution to ensure you can reliably operate your system in a reliable and energy-efficient manner.



Need help finding the right pump for your dredger?

Contact KSB today to find the right pump for your application.



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**GIW® Slurry Pumps**