

Severe Duty Slurry Pumps

K-HS™ Horizontal Slurry

Reliability, Efficiency and Versatility





“Committed to delivering industry leading products and services which meet the technical and commercial challenges of our customers”

We're specialists in the design, manufacture and supply of slurry pumps, parts and associated products. As well as offering complete slurry pump packages to the global mining market, we can also support the existing market with spares for many other pump brands. Our customer focussed aftermarket team offer a comprehensive range of services tailored to your needs; from pump selection and training through to commissioning, technical support and servicing.

Image left: Final inspection of KETO K-HS™ Slurry Horizontal 4x3D pump by customer before despatch to mine site

Expansion

KETO Pumps arose in 2012 from the merger of KETO Pumps Australia, First Africa Pumps and Tri-Invest. Following this consolidation, KETO Pumps continue to grow across Australia, Africa and the Americas providing customers with unparalleled breadth and depth of solutions and services.

Excellence

You can rely on us. We're backed by our parent company Clyde Blowers Capital, a private equity company specializing in engineering. Our sister companies include David Brown Gear, Hydreco, Parsons Peebles, Moventas and Santasalo. We pride ourselves in operational excellence. It's achieved through collaboration with our customers on product and service development.

Leaders

We are ahead when it comes to longevity and bringing customers operational savings. We believe that these achievements and our focus on the quality of our equipment and services make us product and engineering leaders. Working ever closer and longer with our customers will produce further success, which will give our customers even more in terms of better operations, reduced cost and greater profitability.

KETO severe duty slurry pumps designed for the most abrasive and corrosive pumping applications

Providing complete pumping solutions

The mining industry demands reliable and efficient equipment to operate in typically harsh and remote environments. Mining pumps are no exception. KETO Pumps and parts are specifically designed to endure in the toughest services, offering the most reliable and efficient choice. From long life impellers, to unique sealing solutions we can offer an upgraded part or a complete pumping solution.

- Extended wear life for greater value
- Quality manufactured materials
- Increased efficiency
- Reduced operating costs
- Interchangeable with legacy suppliers
- Short lead times
- Reduced downtime and more reliable service intervals
- Outstanding pre-sale and post sale support
- Prompt and reliable delivery of replacements

Innovative design, reduced costs and greater efficiency

Working closely with system designers and end users, our team of pump industry experts combine the latest design and testing technologies with their vast amount of operational experience to develop high performing pumpsets and parts.

KETO Pumps have developed a range of slurry pump products which feature patented innovative designs that can significantly reduce the operational costs of slurry pumping. By addressing key performance areas, KETO Pumps provide reliability, longer service life and greater efficiency. Whatever the requirement KETO works closely with each customer to determine the best pumping solution.

KETO Pumps global network of manufacturing and service centre facilities are at hand to deliver unbeatable product availability and full technical support. We are committed to providing every customer with outstanding customer service and superior products of the highest quality. For more information on our products and services please visit www.ketopumps.com.

K-HS™ Horizontal Slurry pump range

KETO Pumps versatile solutions

The KETO K-HS™ Slurry Horizontal pump range is engineered with the latest hydraulic and wear technologies to cope with the most severe corrosive and abrasive slurry applications. With a range of genuine KETO parts and different material combinations K-HS™ slurry pumps have the versatility to ensure the most appropriate pumping solution can be provided for any given application.

- Range from: 25 mm (1") to 500 mm (18")
- Flow rates to: 7,300 m³/hr (32,144 USgpm)
- Total head to: 110 m (361 ft)
- Pressures to: 2,100 kPa (305 psi)
- Material options: chrome iron, rubber, urethane
- Specialist materials available on request for highly acidic or caustic duties

Improve performance

KETO Pumps and replacement parts proven designs can achieve efficiency gains of up to 10% and component wear life of up to 700% longer than that achieved by other brands, resulting in significantly reduced operating costs and greater plant production.

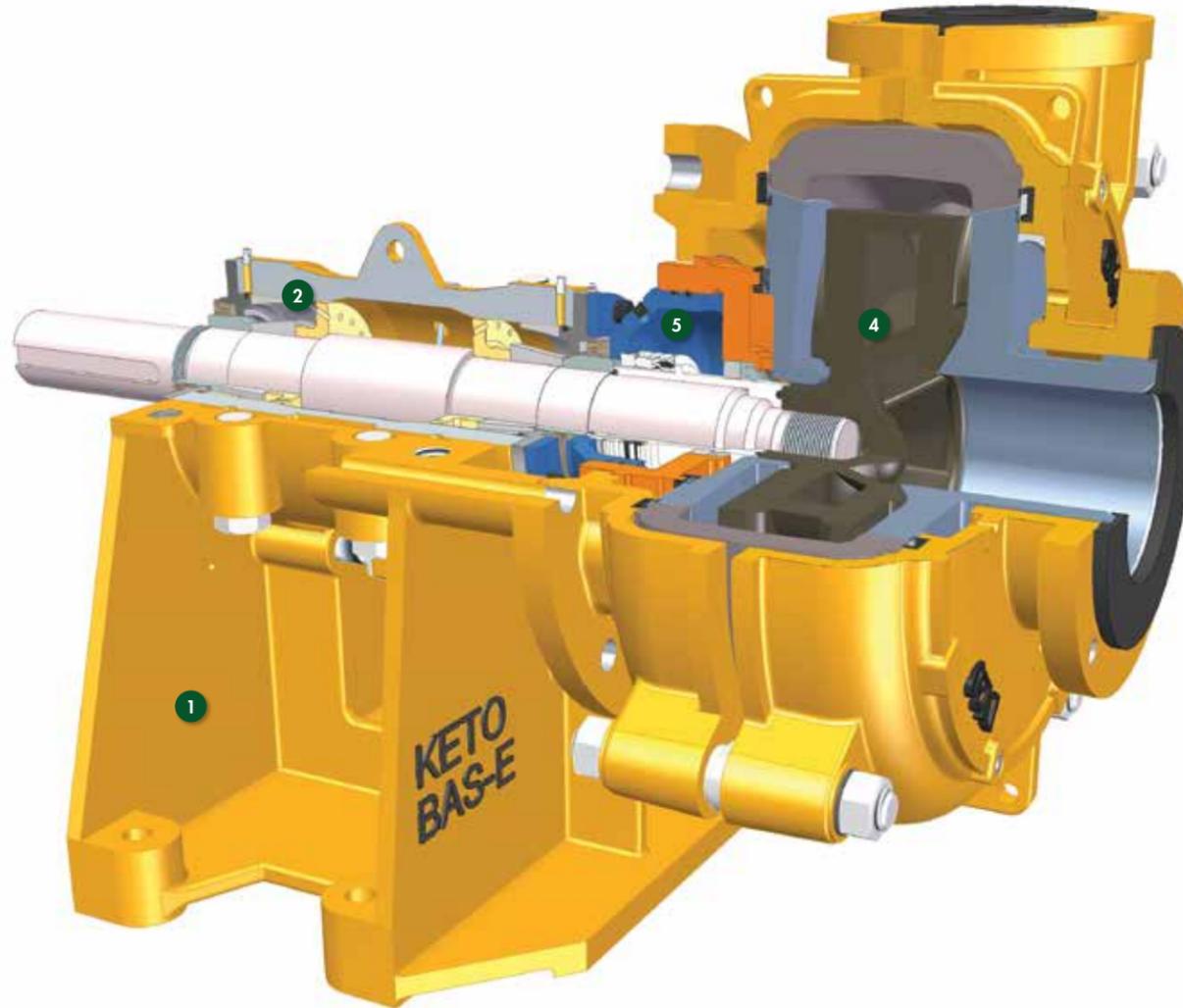
Typical applications

- Mineral processing
- Chemical processing
- Coal preparation
- Effluent handling
- Gravel & sand



KETO K-HS™ Slurry Horizontal pump - features and benefits

- 1 Heavy duty base**
 - Heavy duty one piece frame with lifting points for easy maintenance
- 2 K-IBA™ heavy duty bearing assembly**
 - Easy to maintain cartridge style bearing assembly
 - HTS (High Tensile Steel) shaft with small overhang reduces deflection and prolongs bearing life
 - Modern bearing seals for increased reliability
 - Patented grease and oil flinger allows a simple choice of oil or grease lubrication
 - Bearing assembly can be replaced in-situ
- 3 Single piece sleeves**
 - Single piece allows for easy maintenance and removal
 - Sleeves are available in cermet or metal
 - O-ring seals protect from abrasive/corrosive contaminants
- 4 K-HEE™ severe duty high efficiency impeller**
 - KETO K-HEE™ reduces throat bush wear
 - Improved hydraulics for higher efficiency
 - Lower NPSHR and increased wear life
 - Multi-purpose design allowing reduced inventory requirements



- 5 K-ISS™ mechanical seal (external flush)**
 - K-ISS™ seal automatically adjusts water flush pressure which means high suction pressures can be accommodated for whilst remaining leak free
 - Ribbed mechanical seal adaptors are available with flush point D size and up
- 6 Liners**
 - Liners are bolted to allow for easy maintenance
 - Elastomer seal rings back all liner joints
 - Thick section volute liners and frame plate liner inserts for high efficiency
 - DI (Ductile Iron) cover plate with ribs enables higher working pressures and cast lifting points
- 7 Polycarbonate coupling guard**
 - Long wear life - does not rust like typical steel fabricated guard
 - Transparent case allows for easy maintenance



Wet End Materials	Impeller	Bearings	Seal Arrangement
<i>Choice of:</i> <ul style="list-style-type: none"> - Natural Rubber - WI05 27% Chrome - PU01 Urethane - Specialist linings on request 	<i>Choice of:</i> <ul style="list-style-type: none"> - K-HEE™ severe duty high efficiency - High efficiency - Heavy duty 	<i>Choice of:</i> <ul style="list-style-type: none"> - K-IBA™ heavy duty - Light duty 	<i>Choice of:</i> <ul style="list-style-type: none"> - K-ISS™ mechanical seal - Packed gland - Expeller seal

*Standard range shown above, specialist engineered units are available on request.

Optional arrangements and features

Drive Arrangements

CR/CL Driven

- For applications where height or overhead spaced is limited



CV Driven

- For applications where floor space or area is limited



ZV Driven

- Used in installations where the selected motor is too large to be CV (Overhead) mounted



8 rotations of 45 degrees available on discharge flange for all K-HS™ drive arrangements

Impeller Options

KETO K-HEE™ severe duty high efficiency impeller

Severe duty high efficiency impeller, innovative design which incorporates high efficiency with low wear

- Increase wear life - reduces throat bush wear, increasing wear life by up to 160%
- Reduce site inventory - can be used for both fine and coarse slurry applications
- Reduce operating costs - higher pump efficiency sustained over a longer pumping operation time
- Reduce carbon emissions - lower pump power consumption
- Wide range of materials including chrome iron, rubber, urethane, Keramithane™ (ceramic beads in urethane matrix) or specialist materials



High efficiency impeller

- Better suited for light duty and fine solids
- Reduced power and maximum efficiency

Standard high efficiency impeller



Standard heavy duty impeller



Heavy duty impeller

- Better suited to large solids

KETO Pumps offer a wide range of configurations allowing the pump to be tailored to a specific application

Bearing Assembly Options

KETO K-IBA™ heavy duty bearing assembly

The K-IBA™ bearing assembly, an innovative design protecting against contaminants, reduces grease consumption, improves maintenance intervals and reduces inventory costs

- Superior shaft material
- Bearing assembly can be replaced in-situ
- Advanced two part dynamic K-IK™ bearing isolators with non-contacting compound labyrinth seal and no wearing parts, providing a unique barrier to prevent ingress of contaminants



Light duty bearing assembly

- Better suited for lighter duties

Seal Arrangement Options

KETO K-ISS™ mechanical seal (external flush)

Combines the best features of sealing solutions into one cost effective choice

- Can operate with low NPSHA
- Can withstand high suction pressures
- Water utilisation of the K-ISS™ seal is up to 90% less than alternative solutions
- Automatically compensates against changes in suction pressure and wet end wear
- Water flow under the flush loss seal keeps it clean during shutdown periods
- Incorporates slurry free zone to improve sealing, the only part in contact with slurry is the seal adaptor



Gland packed (external flushed)

- Options of ultra-low, low or full flow flush seal water arrangements
- Ease of maintenance

Gland packed (external flushed)



Expeller seal

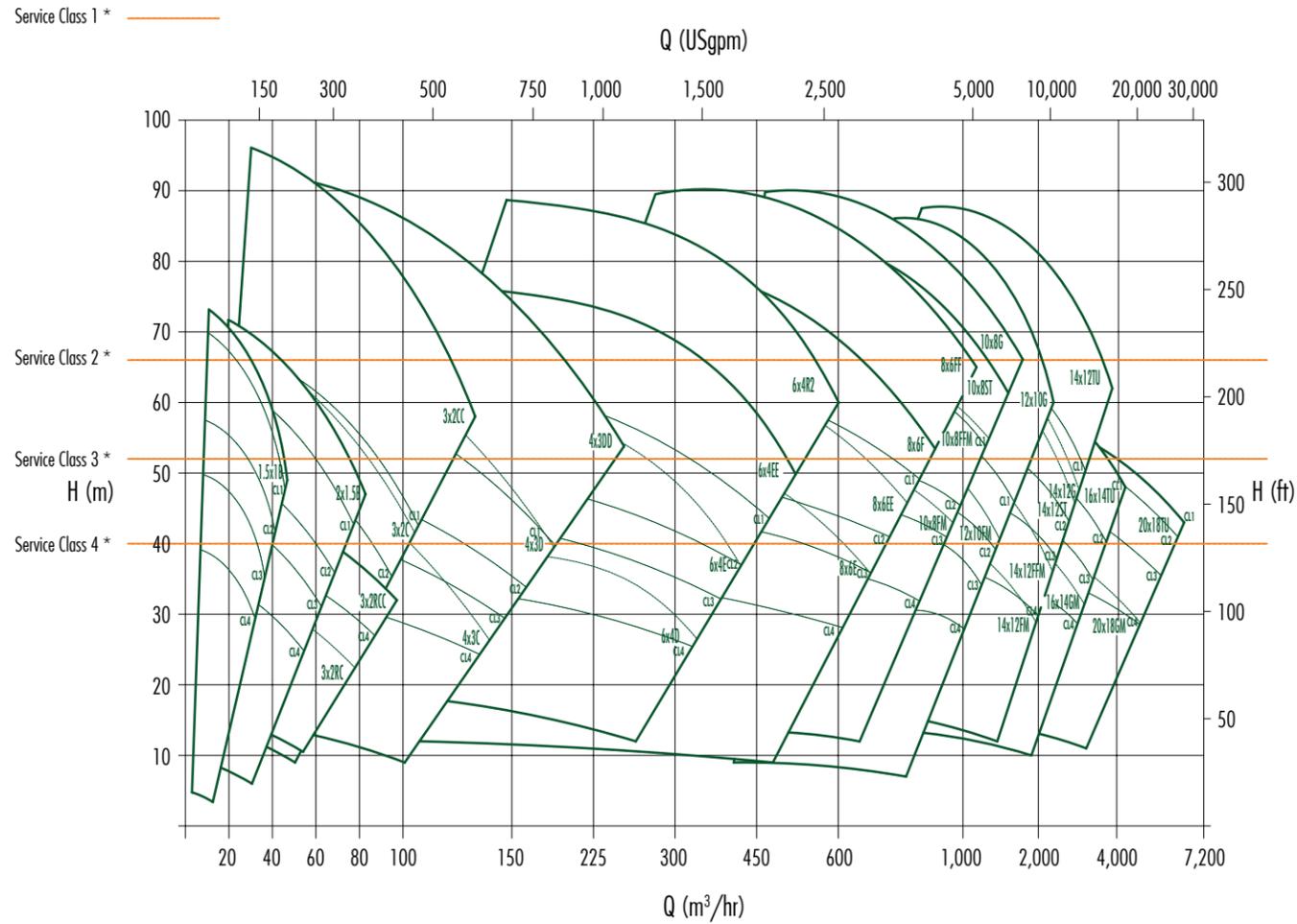


Expeller seal

- Ideal for low suction pressure
- Suitable for applications where no gland water service is required

Standard hydraulic range - coverage chart

K-HS™ Slurry Pumps Range Coverage Chart



* Service Class X - maximum head per stage per Hydraulics Institute recommendations for acceptable wear.
 * CLX - based on maximum operating speed for rubber lined pumps per Hydraulics Institute recommendations for acceptable wear.
 Class 1 - 31m/s maximum peripheral speed
 Class 2 - 28m/s maximum peripheral speed
 Class 3 - 26m/s maximum peripheral speed
 Class 4 - 23m/s maximum peripheral speed

Global aftermarket solutions

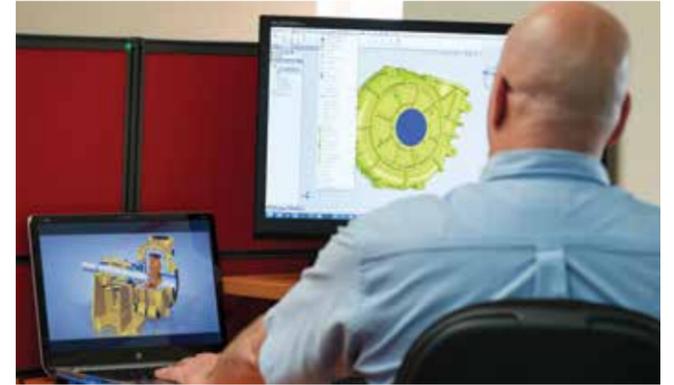
Service Solutions

KETO Pumps understand the process and demands of the mining industry and can offer comprehensive services tailored to your needs. Our global network of service facilities are fully equipped with the latest technology and equipment to ensure your pump, whatever the make or model, is up and running, optimizing performance and minimizing downtime.

KETO Pumps offering includes service exchange programmes for slurry pumps and slurry pump bearing assemblies. The KETO Pumps service exchange programme has been established to allow fast delivery of critical components for the overhaul and other necessary pump repairs. All remanufactured products are rebuilt to as new condition therefore all service exchange products are supplied with new product warranty.

The combination of our in-depth technical expertise and first-class facilities ensures reliable quality, delivery and service every time. Our service offerings include:

- Installation and commissioning
- Inspection and maintenance
- Repair and overhaul
- Service exchange programme
- Technical services
- Pump assessment
- Upgrades and re-rates
- On-site / off-site support
- Training
- Spare parts



Global Contacts

For complete list of products and services, visit us at www.ketopumps.com, email us at info@ketopumps.com or contact us at one of the following locations

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