

KREBS®

PUMPS, CYCLONES AND VALVES

slurryMAX™

Tough and versatile
slurry pumps



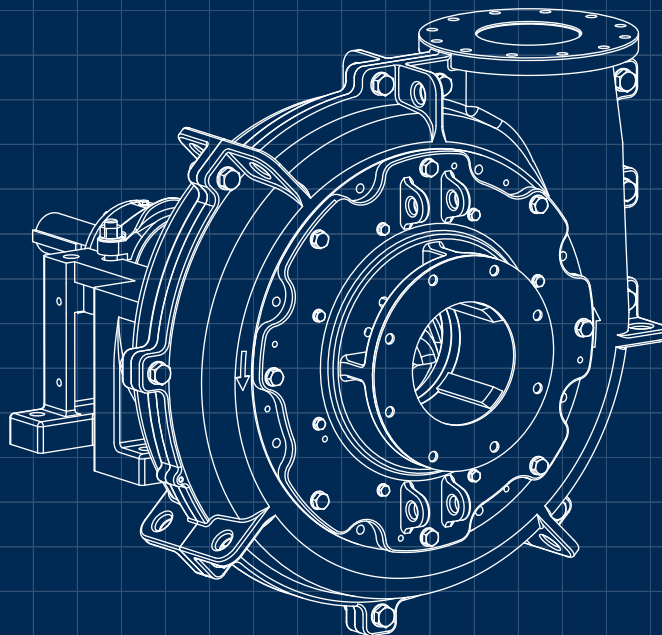
FLSMIDTH

WE DISCOVER POTENTIAL

Split-case design

multiple material options

You asked for a split-case pump with longer wear life and better efficiency, which can easily and safely be installed throughout your plants. That's why we designed our newest Krebs offering – the slurryMAX™, with multiple liner and impeller material options.



Key benefits

- | | | | | | | |
|---|---------------------------------|-------------------------------------|--|--|---|---|
| ■
Even and predictable wear life for wet end parts | ■
Significant energy savings | ■
Constant hydraulic performance | ■
Highly effective centrifugal seal | ■
Long-lasting bearings that cannot be over-greased | ■
Multiple liner and casing materials for a wide range of applications | ■
Eliminate gland water requirements |
|---|---------------------------------|-------------------------------------|--|--|---|---|

Suction-side hydraulic recirculation

Following the dramatic success of the millMAX™ metal slurry pump, we have incorporated its patented features into our slurryMAX split-case-design pump product range.

slurryMAX pumps include the same proven wear ring feature of our millMAX, with its externally adjustable wear ring that closes the clearance between the wear ring and the impeller eye.

The ability to control the suction-side clearance reduces the hydraulic recirculation, and helps maintain the design performance over the life of the pump without increasing the pump speed. Over time, a conventional pump will have to increase the operating speed to maintain performance causing it to wear out even faster.

The wear ring advantage also allows for a wide clearance between the impeller and suction liner. This eliminates the mechanical grinding of solids between the two components. Conventional pumps without the wear ring advantage experience this grinding of solids which consumes power and causes significant wear in the suction liner and impeller.

The unique advantage to our design is that we solve both the grinding and the recirculation problems within the pump while the competition can only solve one or the other.

Versatile options to fit your application

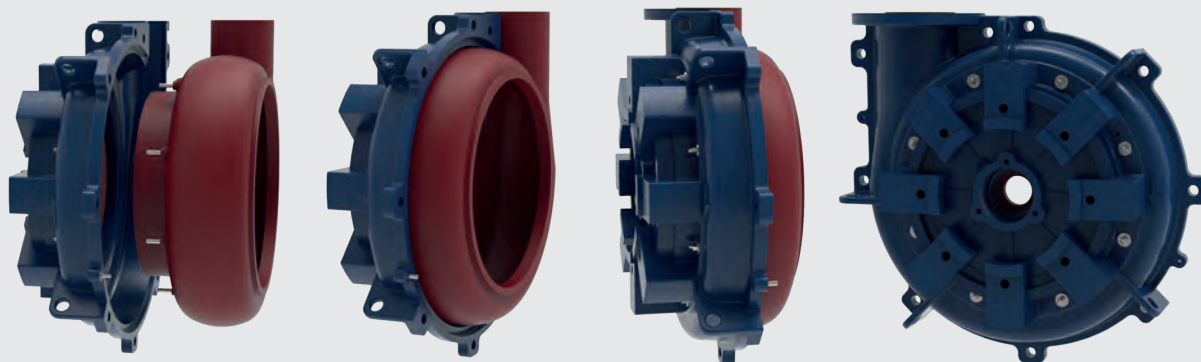
All wear components include multiple metal and elastomer material options. We also offer the slurryMAX XD with high-pressure casings for applications requiring multiple pumps in series.

Safety benefits

8x6 and larger slurryMAX pumps feature a simple removable suction liner assembly for inspection of internals and replacement of impeller without removing the discharge pipe. Easy-to-use lifting jigs allows for safe and rapid rebuilds.

We think the safety of your fingers are ten great reasons to try a slurryMAX!

We designed a volute liner with an integrated back liner that bolts securely to the outer drive side casing for ease of assembly and hands-free safety. No pinching fingers during installation of suction liner.



slurryMAX™

Product range

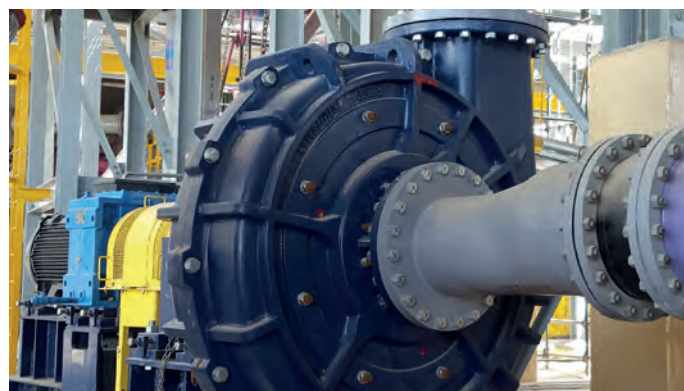
slurryMAX™

Our heavy-duty, split-case-design pump incorporates hydraulic efficiency and our proven millMAX wear ring technology to create the most efficient and longest-lasting slurry pump of its kind. With multiple liner and impeller material options, we've designed the slurryMAX to handle the majority of applications for any plant across multiple industries.



slurryMAX™ XD

The slurryMAX XD has found success all over the world, in the most aggressive applications, for more than a decade. Extremely thick elastomer liners and a heavy-duty impeller provide this pump with extended wear life, in addition to all of the advantages gained from the millMAX suction-side-sealing system.



KREBS® slurryMAX™ pump product range

slurryMAX™	slurryMAX™ XD	slurryMAX™ HP
3x2	2x2	---
4x3	3x3	---
6x4	4x4	4x4
8x6	6x6	6x6
10x8	8x6	8x6
12x10	10x8	10x8
---	12x10	12x10
---	14x12	14x12
---	16x14	16x14*
---	20x18	---

* 16x14 slurryMAX™ XHP available

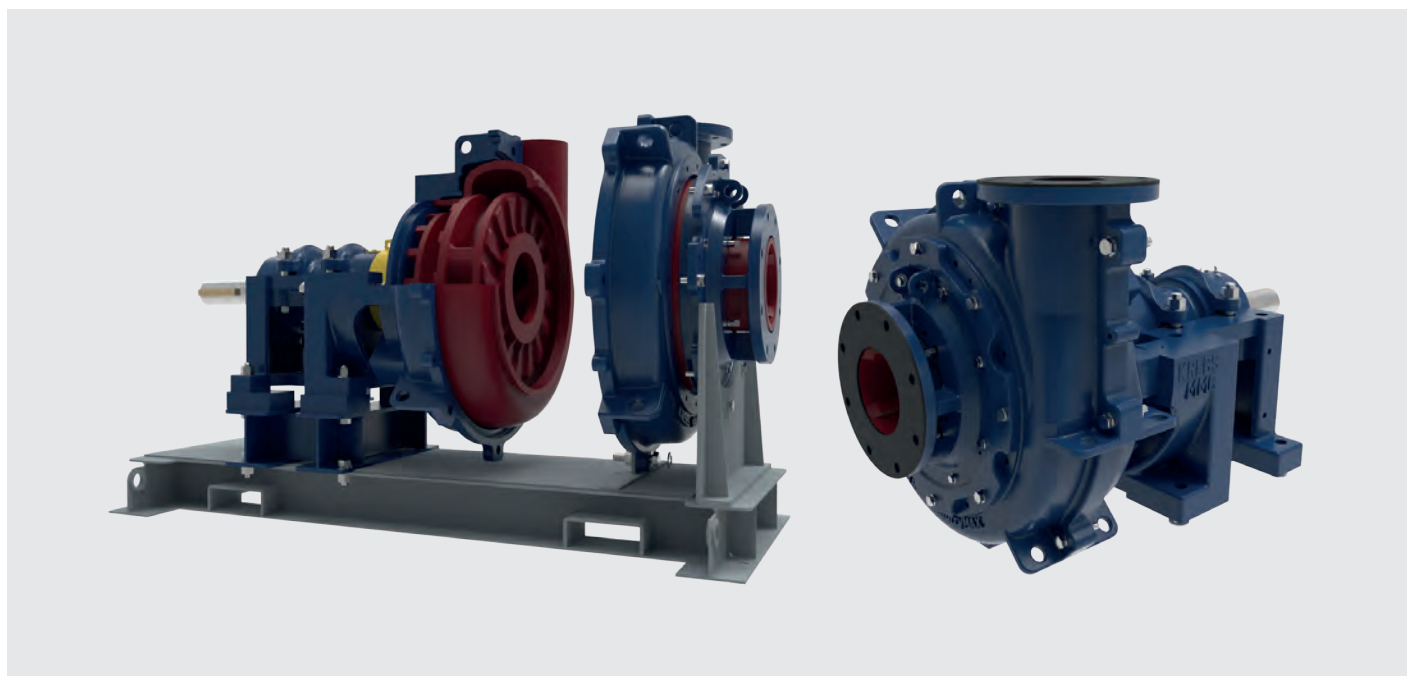
slurryMAX™ HP

This high-pressure version of the slurryMAX XD is ideal for multi-stage high-pressure pumping systems. Within the high-pressure outer casing, and added rib reinforcement, the slurryMAX HP uses all of the same extreme wear parts as the XD, delivering long life and consistent performance.



slurryMAX™ XHP

We added the slurryMAX XHP to our slurryMAX range to provide our customers with pumping system options for multiple stages and a higher final discharge pressure. As with the HP, the XHP uses the same wear parts as the XD, but with an even more robust outer casing.



slurryMAX™

Design and material options

We designed the slurryMAX pump to replace less efficient pumps easily and safely, providing you with a path to plant process modernisation, significant water savings, less downtime and better energy efficiency.

Multiple material options

Multiple elastomer, alloy and polyurethane material combinations available. Thick elastomer liners, with reinforcing to prevent deflection. All liner materials are interchangeable with common housings.

High-efficiency impeller

High-efficiency impeller design, available with or without expelling vanes on the shroud. Elastomer or metal options available.

Wear ring

Proprietary suction side sealing system. This allows the impeller to be adjusted to the back to boost centrifugal seal performance while limiting suction side recirculation.

Removable suction plate

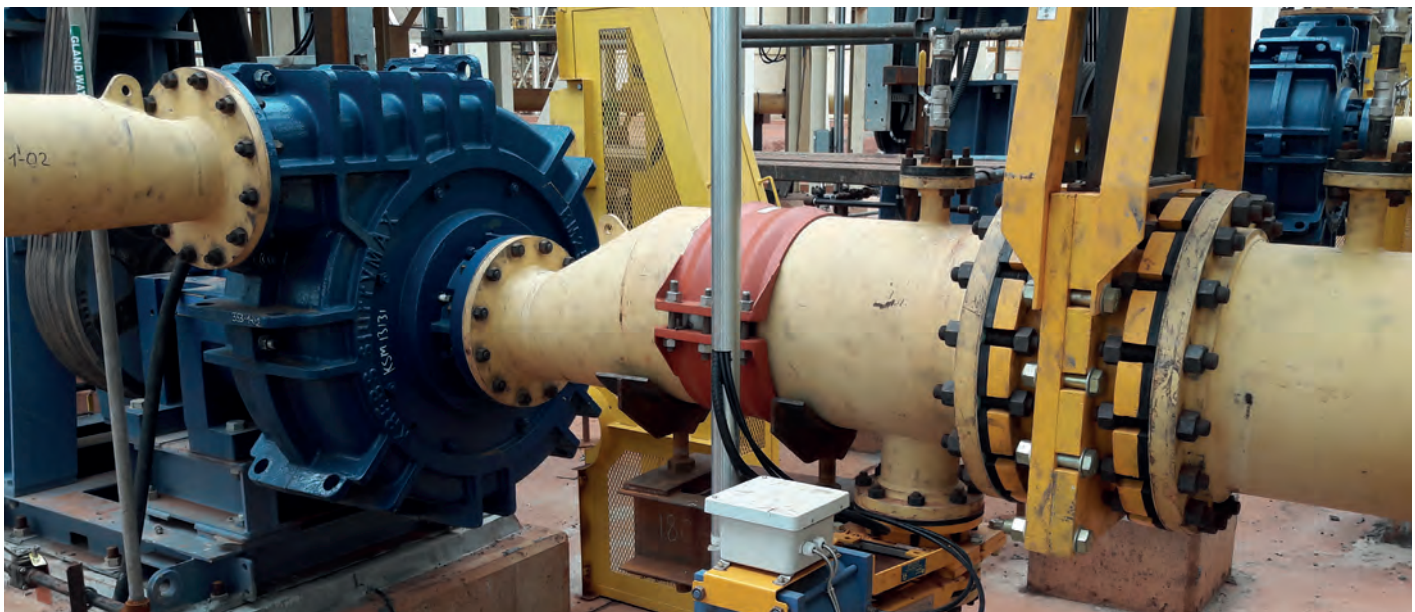
Impeller and suction-side liner assembly replacement without disturbing the casing and discharge piping. Available in sizes 8x6 and larger.

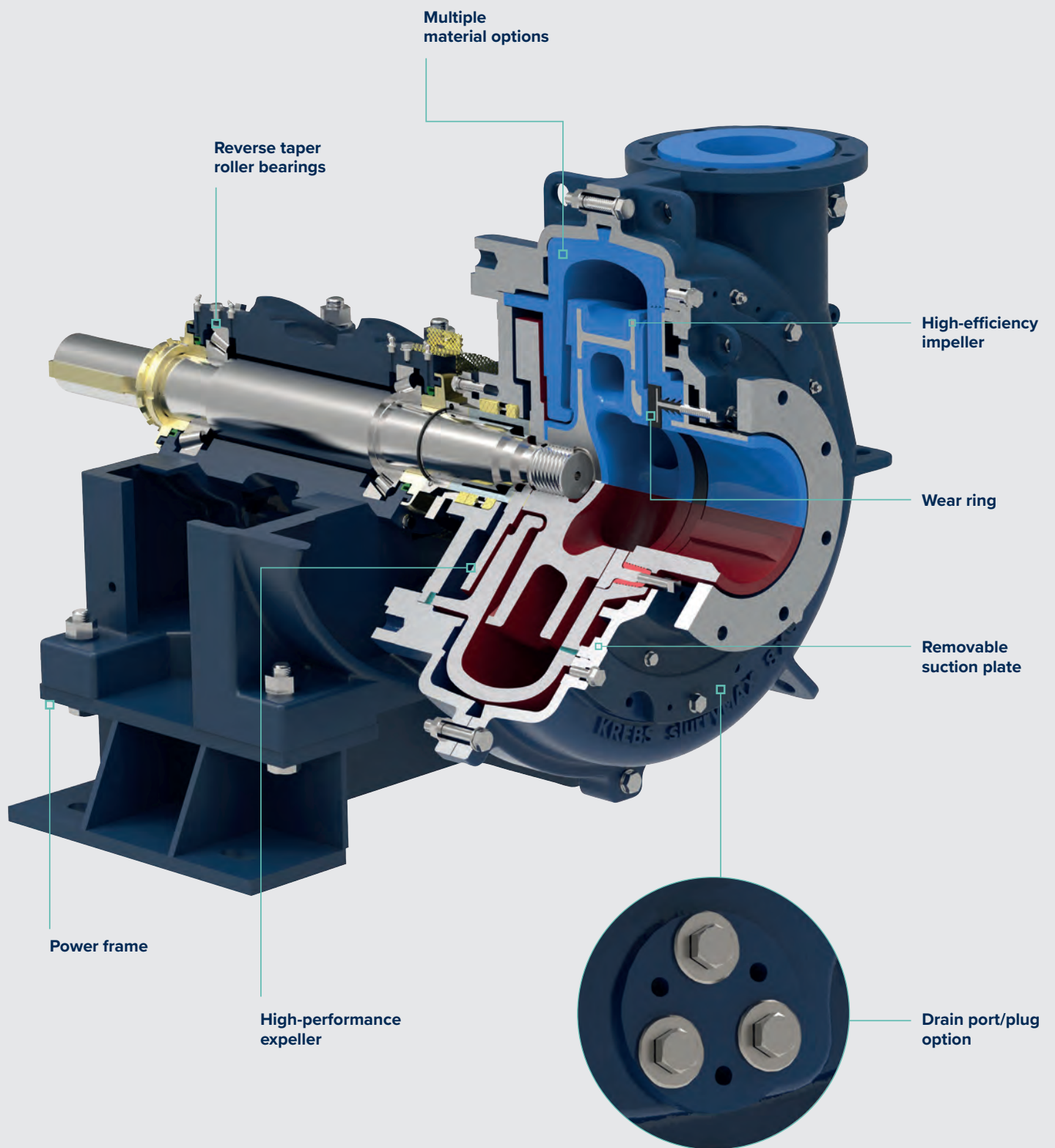
Drain port/plug

Optional casing feature may be added to allow water drainage.

High-performance expeller

Cutting edge centrifugal dry gland seal design allows for use in a new broad range of applications, including thickener underflow.





slurryMAX™ XD, HP & XHP

Design and material options

The heavy duty designs of the slurryMAX XD, HP and XHP are suitable for high wear applications such as primary cyclone feed and tailings. With tough spheroidal graphite iron casings, thick rubber liners and added external ribbing, we can handle the high pressures of multistage applications.

Reverse taper roller bearings

- Increases effective load span to improve life
- Pumping action of taper rollers discharges grease to the outside, preventing influx of slurry and eliminating possibility of failure from over-greasing
- Heavy-duty shaft and taper roller bearings rated at 100,000 hours minimum of B10 life

Power frame

- Heavy-duty cast iron pedestal with external bearing assembly adjustment mechanism
- Drilled for overhead motor mounting assembly

Impeller

- Designed for high slurry efficiency and hydraulic performance
- High-expelling vanes and machined surface at the eye for wear ring adjustment
- Multiple options available, including high-efficiency and elastomer options

Elastomer liners

- Thick rubber liners increase wear part operating life
- Right-angle shape prevents liners from collapsing into the impeller
- Designed to withstand slurry turbulence and allow for a wide operating flow range
- Natural rubber is standard, due to its ability to withstand abrasion
- Multiple elastomer material options available

Reinforced plates

- Steel reinforcing plates provide stability to rubber liners and prevent deflection under vacuum conditions

Adjustable wear ring

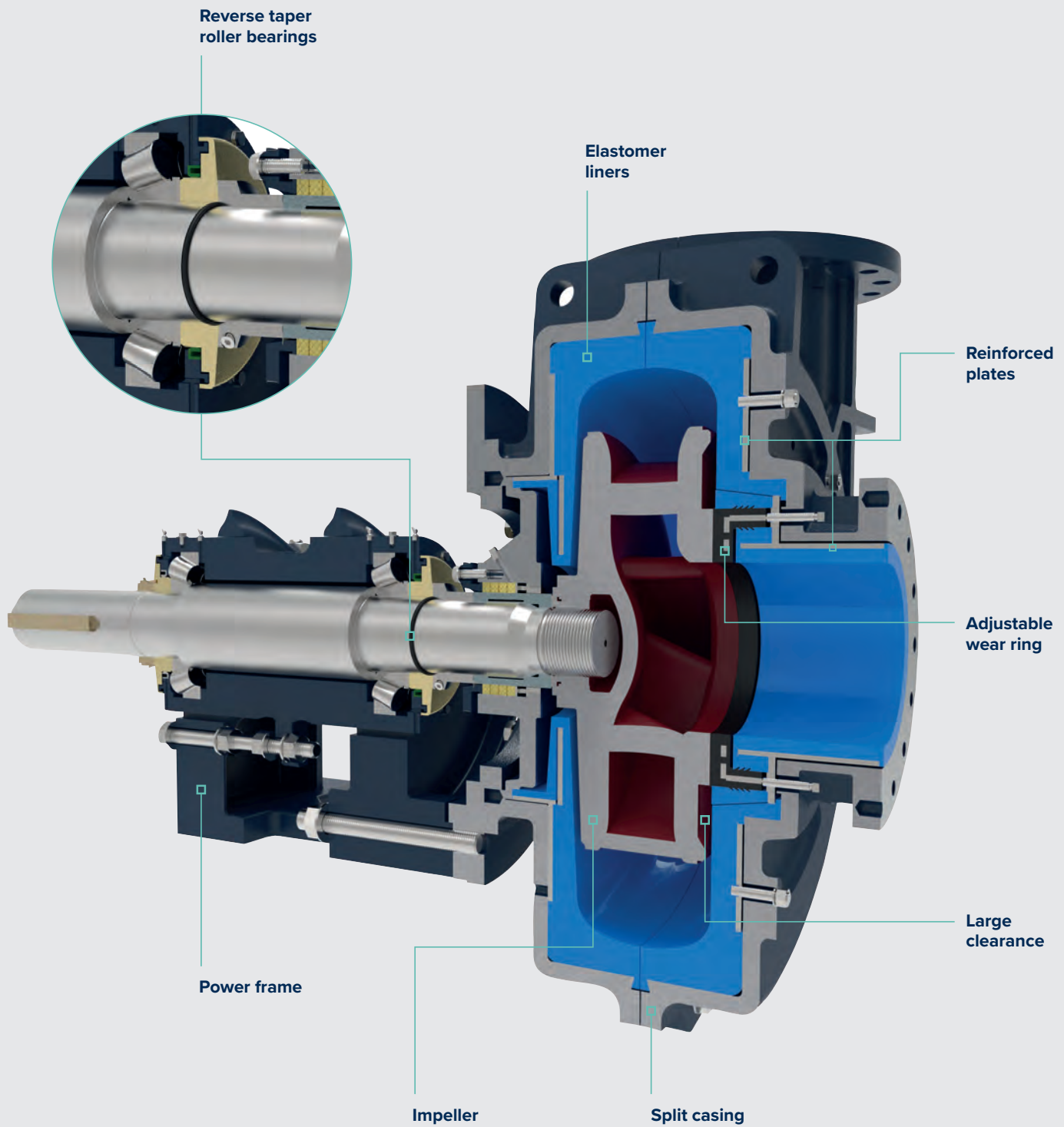
- Reduces suction-side recirculation
- Adjustable under operation
- Closes clearance at the impeller
- Maintains hydraulic performance
- Bearing assembly movement not required to adjust impeller clearances within the pump

Large clearance

- Increases suction liner wear life
- Reduces power consumption
- Allows pump to operate at higher speeds and generate higher heads without liner devulcanisation

Split Casing

- Rib-reinforced iron can contain wide range of operating pressures
- High-pressure casings available for HP and XHP models



Innovating across industries

Providing world class service

We are continually innovating and improving our technology to provide the best pumping solutions across multiple industries. We use our pump test facilities to deliver KREBS® pumps with increased efficiency, reduced water consumption and overall cost savings to our customers.

Designed for multiple applications in the following industries:

- Coal
- Copper
- Iron-ore
- Gold
- Oil Sands
- Aggregates
- Diamonds
- Numerous other mineral processing industries

World-class service and pump test facilities

Our performance test lab is further proof of our commitment to advancement of the industry – through systems and service development, new product offerings, technical services and collaboration with outside entities. The ability to perform comprehensive testing on our products is not only necessary to meet your needs and deliver a quality product and service solution to you, it is essential for us in meeting the increasing technical demands of the industry as a whole.

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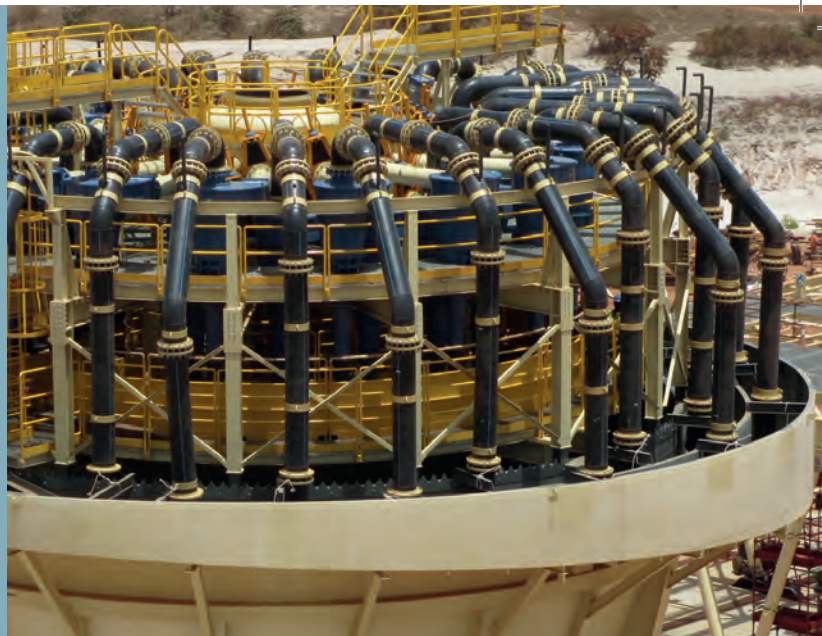
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We deliver reliability and slurry to your process

Our knife gate slurry valves are designed for the most demanding high pressure applications.

✉ krebs@flsmidth.com



With KREBS separation systems it is easy to see what you have been missing

Finer, sharper particle separations at high capacities.

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Bringing better solutions to light

in the cement and mining industries

The future is full of possibilities and you are leading the way. But it's never a straight journey and it's easy to lose sight of true potential. With an ally by your side, who shares your ambitions and who sees your world from different angles, we will find the right way together.

For more than 135 years, we have challenged conventions and explored opportunities. Across more than 50 countries, we are 13,000 employees who combine our unique process-knowledge on projects, products and services to drive success. We develop the most advanced technology in our industries and offer market-leading product and service ranges.

Rooted in Danish values, we activate our knowledge and experience to navigate your complexity and bring better solutions to light. So no matter where in the world you are, we are here to help you discover new ground and achieve sustainable productivity enhancement.

We are the market-leading supplier of engineering, equipment and service solutions to customers in the global mining and cement industries.

We discover potential.



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