

One Source

KREBS® UMD™ Ultimate Mill Discharge pump



**Heavy duty slurry pump designed for the
most abrasive and aggressive applications**

FLSMIDTH
KREBS

millMAX® Technology Taken to The Next Level

The Krebs® UMD™ pump is a newly designed HEAVY DUTY slurry pump focused on maximizing wear life while still maintaining the highest efficiency.



UMD pump installation

Ideal for applications in:

- Mill Discharge
- Oil Sands
- High Flow Applications
- Other Highly Abrasive Applications

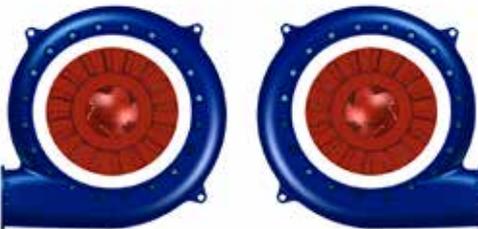
Overview

Pumping the discharge from hard rock grinding mills is one of the most high wear applications due to high concentrations of abrasive solids. The Ultimate Mill Discharge (UMD) pump was designed specifically for such demanding applications. By integrating a superior hydraulic design and the patented millMAX Suction Side Sealing System, the UMD maximizes wear life and is the most efficient slurry pump of its class.

Unique Design

The UMD's large clearance between the casing and impeller creates a buffer zone of slurry rotating around the casing, shielding it from direct impact of the coarse solids.

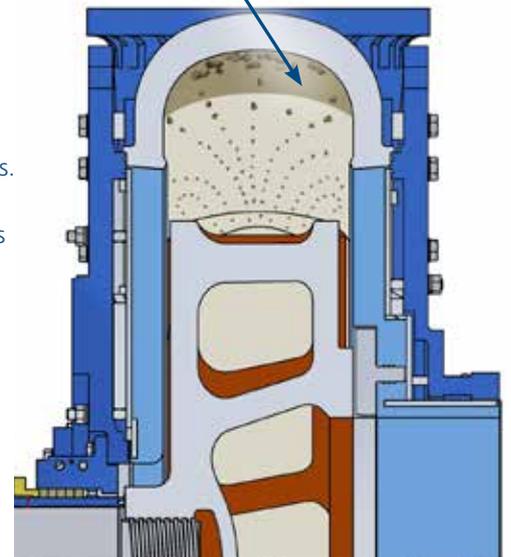
The design also accommodates fine solids with durable, replaceable, and less expensive liners. The backliner and suction liner diameters have been extended and can be made of high chrome or elastomers, ensuring we have the correct wear materials in the correct place.



The UMD casing design allows for left or right hand orientation

Casing Symmetry

Many customer sites have pumps rotating in both left and right hand orientations. This means stocking different casings, liners, and impellers. The UMD has a symmetric casing, meaning for either orientation it uses the same casing, suction liner, wear ring, and back liner. This reduces customer inventory and overall net working capital.



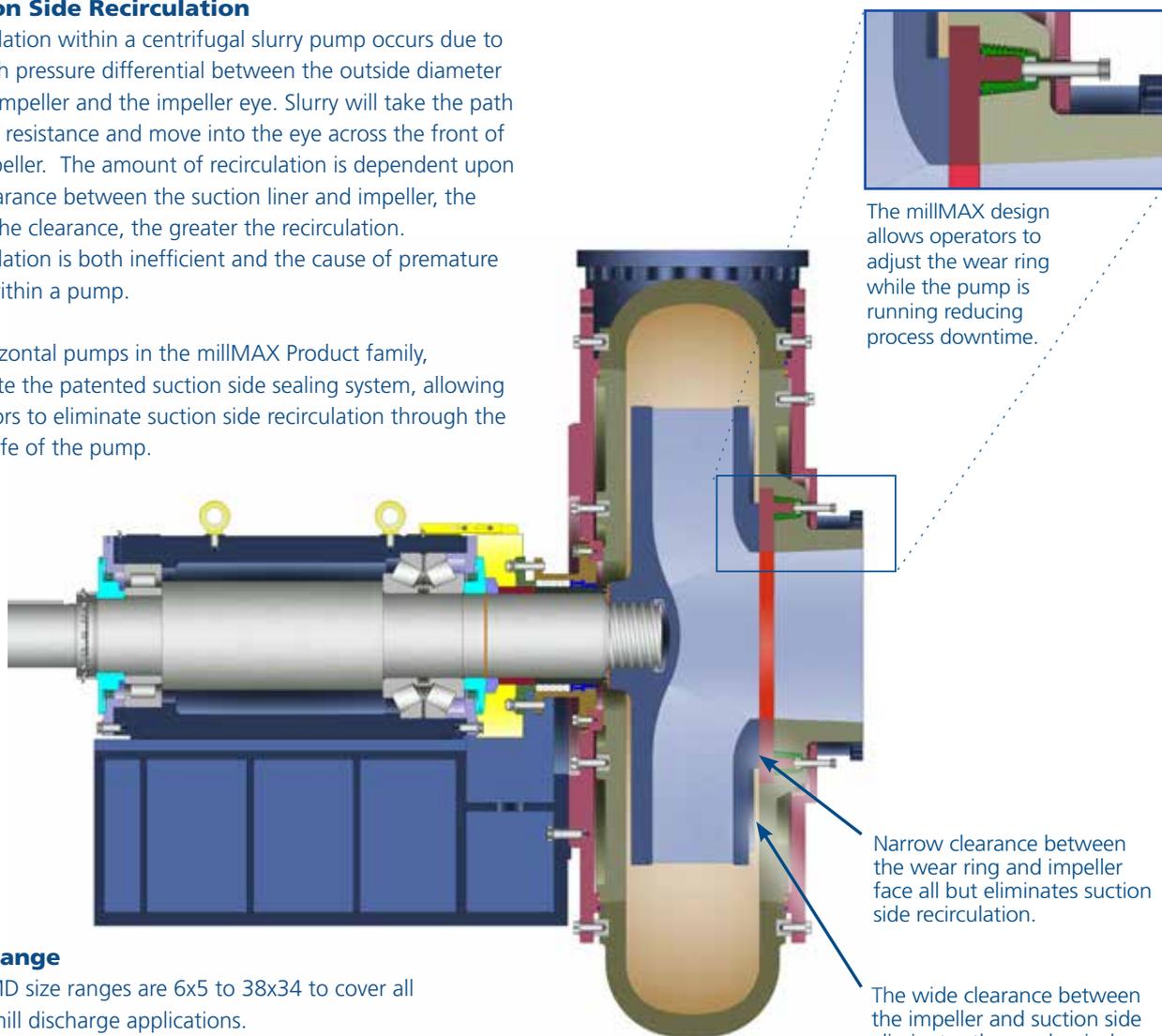
millMAX[®] Suction Side Sealing System

Suction Side Recirculation

Recirculation within a centrifugal slurry pump occurs due to the high pressure differential between the outside diameter of the impeller and the impeller eye. Slurry will take the path of least resistance and move into the eye across the front of the impeller. The amount of recirculation is dependent upon the clearance between the suction liner and impeller, the larger the clearance, the greater the recirculation.

Recirculation is both inefficient and the cause of premature wear within a pump.

All horizontal pumps in the millMAX Product family, integrate the patented suction side sealing system, allowing operators to eliminate suction side recirculation through the entire life of the pump.



The millMAX design allows operators to adjust the wear ring while the pump is running reducing process downtime.

Narrow clearance between the wear ring and impeller face all but eliminates suction side recirculation.

The wide clearance between the impeller and suction side eliminates the mechanical grinding of solids and associated power losses.

Size Range

The UMD size ranges are 6x5 to 38x34 to cover all know mill discharge applications.

Size Range	Metric (mm)
6 x 5	150
8 x 6	200
10 x 8	250
12 x 10	300
14 x 12	350
16 x 14	400
18 x 16	450
20 x 18	500
22 x 20	550
26 x 22	650
28 x 26	700
32 x 28	800
34 x 32	850
38 x 34	950

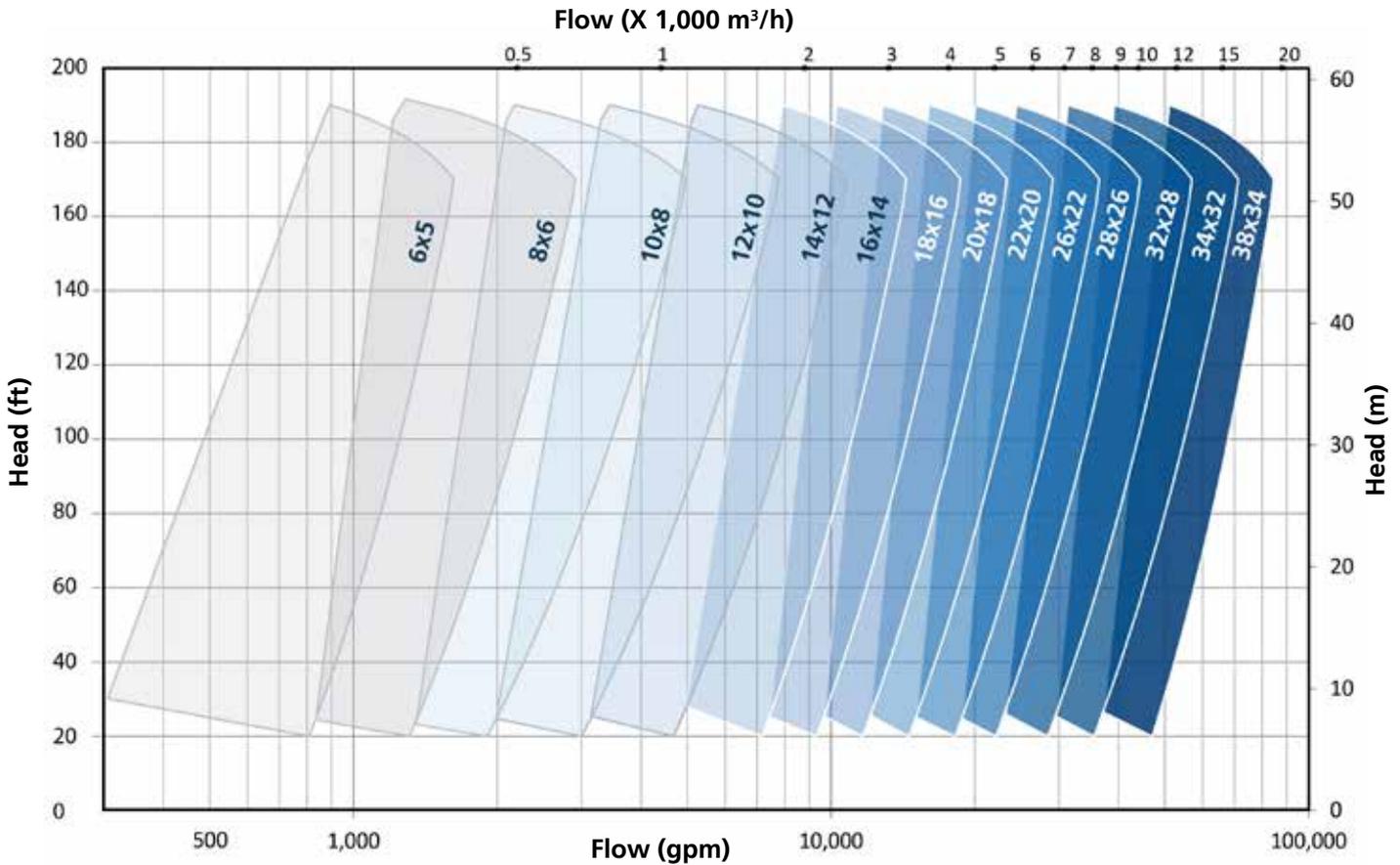
Maximum expected flow rate into a water flush seal at 10 psig (68.9 kPa) above pump discharge pressure

Power Frame	Full Flow (gpm)	Full Flow (m ³ /h)	Low Flow (gpm)	Low Flow (m ³ /h)
MMAA	8.0	1.8	1.0	0.2
MMA	15.0	3.4	2.0	0.5
MMB	20.0	4.5	3.0	0.7
MMC	25.0	5.7	4.0	0.9
MMD	30.0	6.8	5.0	1.1
MME	55.0	12.5	N/A	N/A
MMF	85.0	19.3	N/A	N/A
MMG	150.	34.1	N/A	N/A

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Quick Selection Guide



World-class Service

The Krebs' customer service philosophy is to consistently exceed the expectations of our customers when it comes to providing technical support, processing orders and maintaining parts availability. Starting with the sales process, and extending throughout the life of the supplied process solution, we strive to provide an unmatched, world-class customer experience.

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