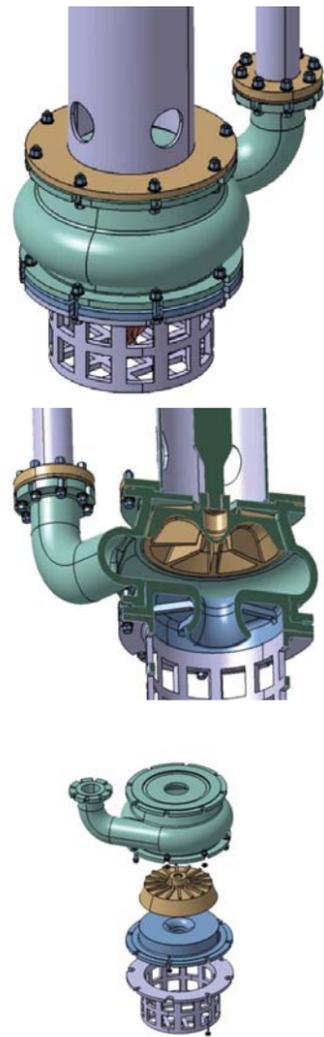


vMAX™ for Sump and Process Duties

www.flsmidthkrebs.com

Revision 09/2010 sjp-us



Extreme Duty Vertical Cantilever Pump for Sump and Process Duties

The new "vMAX™" line of vertical cantilever hard metal pumps has been developed for conventional clean up sump duties and process duties that require reduced degradation of pumped solids. The fully recessed torqueflow cup style impeller design permits passing of pipe size solids and operation without the need for sump level control.

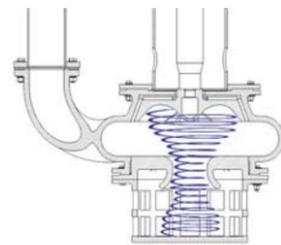
The casing is configured for bottom suction only to prevent build up of solids in the bottom of the sump. Leakage from the back of the casing, through the life of the pump, is prevented by high performance expelling vanes on the back shroud of the impeller.

The suction entry is flared to promote prerotation of the slurry prior to entry into the pump and scours the floor of the sump to keep it clean.

An oversized surface area suction strainer prevents premature blinding to increase operational life.

The recessed impeller allows slurry to run back down the discharge pipe with minimal impact on the impeller when the slurry level drops below the suction. The pump can operate without level control if necessary.

Pumps sizes are available from 2" (50mm) to 6" (150mm), in submerged lengths of 5' (1.5m), 6' (1.8m) and 7' (2.1m) with heads up to 120' (36.5m).



KREBS vMAX™ Vertical Cantilever Pump



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KREBS® vMAX™ Pumps

Applications

- Mining and mineral processing
- SAG mill discharge recirculation
- Copper
- Iron-ore
- Gold
- Oil Sands
- Cyclone feed
- Tailings
- Mill discharge
- Sand and gravel
- Industrial processing
- Heavy-duty abrasive slurries
- Power Plants

vMAX™ Vertical Sump Pumps

vMAX™ vertical cantilever sump pumps are designed for continuous abrasive slurry service in sumps without the need for sump level control or submerged bearings.

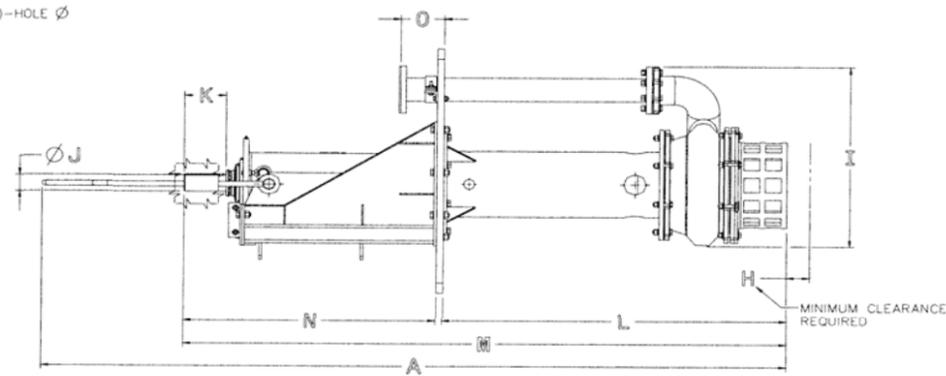
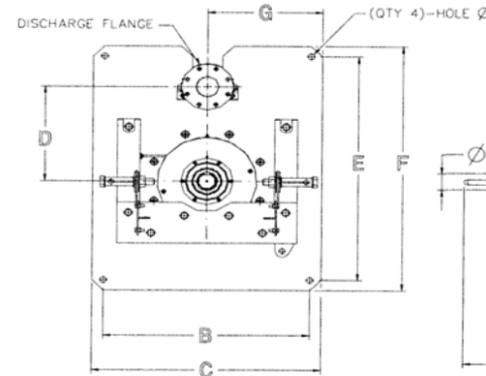
* cantilever design has no stuffing box seal, no submerged bearings.

* available in 2", 3", 4" and 6" sizes for setting depths of 1.4m, 1.8m, 2.1m without submerged bearings.

* rigid 1040 steel shaft with large bearing span to reduce shaft deflection and bearing loads.

* 27% chrome iron wear parts with 680 BHN minimum hardness.

* casing has integral discharge elbow to reduce localized wear.



* induced flow 8-vane impeller is recessed out of casing flow path to pass extra large solids, rags and fibrous materials.

* separate suction wear plate with flared suction entry for reduced hydraulic entry loss.

* oversized suction strainer to permit large solids passing and to prevent blinding by plastic or rags.

* will operate without automatic level controls, due to recessed impeller that will not be impacted by return rush of slurry.

* no impeller adjustment required. Oversize diameter expelling vanes on back shroud of the impeller prevent leakage to atmosphere.

* drive end bearing is fixed clearance twin Timken taper roller for axial thrust and impeller end bearing is parallel roller for radial thrust.

* grease lubricated bearings.

* integral mounting plate for supporting pump above sump.

* steel discharge pipe extends above liquid level and is fixed to the mounting plate for access to customer piping.

* adjustable motor mount integral to power frame assembly with vee belt drive tensioning capability.

* lifting yoke provided for crane hook suspension over sump.

Resulting Performance Advantages

* reliable continuous operation when slurry is available.

* no shaft deflection during loss of prime due to run back of slurry down discharge pipe.

* no impeller adjustments required.

* no water flush.

* no shutdown due to clogging.

* no sump level controls.

* less downtime.

* simple maintenance.



Pump Model	Size	A	B	C	D	E	F	FLANGE 150# ANSI	G	H	I	J	K	Key	L	M	N	O	Hole Dia.	Weight	Pump Model
VM050-A 1.5	2x2-11	2934 [115.5]	700 [27.6]	800 [31.5]	316 [12.4]	800 [31.5]	900 [35.4]	50 [2]	400 [15.7]	100 [3.9]	617 [24.3]	60 [2.4]	156 [6.1]	18x11x100	1345 [53]	2276 [89.6]	906 [35.7]	155 [6.1]	30 [1.2]	708 [1561]	VM050-A 1.5
VM050-A 1.8	2x2-11	3234 [127.3]	700 [27.6]	800 [31.5]	316 [12.4]	800 [31.5]	900 [35.4]	50 [2]	400 [15.7]	100 [3.9]	617 [24.3]	60 [2.4]	156 [6.1]	18x11x100	1645 [64.8]	2576 [101.4]	906 [35.7]	155 [6.1]	30 [1.2]	851 [1876]	VM050-A 1.8
VM050-A 2.1	2x2-11	3534 [139.1]	700 [27.6]	800 [31.5]	316 [12.4]	800 [31.5]	900 [35.4]	50 [2]	400 [15.7]	100 [3.9]	617 [24.3]	60 [2.4]	156 [6.1]	18x11x100	1945 [76.6]	2876 [113.2]	906 [35.7]	155 [6.1]	30 [1.2]	890 [1962]	VM050-A 2.1
VM080-A 1.5	3x3-13	3089 [121.6]	700 [27.6]	800 [31.5]	400 [15.7]	800 [31.5]	900 [35.4]	75 [3]	400 [15.7]	100 [3.9]	784 [30.9]	60 [2.4]	156 [6.1]	18x11x100	1500 [59.1]	2431 [95.7]	906 [35.7]	178 [7]	30 [1.2]	829 [1828]	VM080-A 1.5
VM080-A 1.8	3x3-13	3389 [133.4]	700 [27.6]	800 [31.5]	400 [15.7]	800 [31.5]	900 [35.4]	75 [3]	400 [15.7]	100 [3.9]	784 [30.9]	60 [2.4]	156 [6.1]	18x11x100	1800 [70.9]	2731 [107.5]	906 [35.7]	178 [7]	30 [1.2]	870 [1918]	VM080-A 1.8
VM080-A 2.1	3x3-13	3689 [145.2]	700 [27.6]	800 [31.5]	400 [15.7]	800 [31.5]	900 [35.4]	75 [3]	400 [15.7]	100 [3.9]	784 [30.9]	60 [2.4]	156 [6.1]	18x11x100	2100 [82.7]	3031 [119.3]	906 [35.7]	178 [7]	30 [1.2]	910 [2007]	VM080-A 2.1
VM100-B 1.5	4x4-15	3252 [128]	900 [35.4]	1000 [39.4]	465 [18.3]	1100 [43.3]	1200 [47.2]	100 [4]	500 [19.7]	100 [3.9]	883 [34.8]	80 [3.1]	182 [7.2]	22x14x150	1500 [59.1]	2631 [103.6]	1101 [43.3]	189 [7.4]	30 [1.2]	1218 [2686]	VM100-B 1.5
VM100-B 1.8	4x4-15	3552 [139.8]	900 [35.4]	1000 [39.4]	465 [18.3]	1100 [43.3]	1200 [47.2]	100 [4]	500 [19.7]	100 [3.9]	883 [34.8]	80 [3.1]	182 [7.2]	22x14x150	1800 [70.9]	2931 [115.4]	1101 [43.3]	189 [7.4]	30 [1.2]	1270 [2800]	VM100-B 1.8
VM100-B 2.1	4x4-15	3852 [151.7]	900 [35.4]	1000 [39.4]	465 [18.3]	1100 [43.3]	1200 [47.2]	100 [4]	500 [19.7]	100 [3.9]	883 [34.8]	80 [3.1]	182 [7.2]	22x14x150	2100 [82.7]	3231 [127.2]	1101 [43.3]	189 [7.4]	30 [1.2]	1322 [2915]	VM100-B 2.1
VM150-B 1.5	6x6-19	3375 [132.9]	900 [35.4]	1000 [39.4]	620 [24.4]	1200 [47.2]	1300 [51.2]	150 [6]	500 [19.7]	100 [3.9]	1169 [46]	80 [3.1]	182 [7.2]	22x14x150	1623 [63.9]	2754 [108.4]	1101 [43.3]	134 [5.3]	30 [1.2]	1544 [3405]	VM150-B 1.5
VM150-B 1.8	6x6-19	3675 [144.7]	900 [35.4]	1000 [39.4]	620 [24.4]	1200 [47.2]	1300 [51.2]	150 [6]	500 [19.7]	100 [3.9]	1169 [46]	80 [3.1]	182 [7.2]	22x14x150	1923 [75.7]	3054 [120.2]	1101 [43.3]	134 [5.3]	30 [1.2]	1601 [3530]	VM150-B 1.8
VM150-B 2.1	6x6-19	3975 [156.5]	900 [35.4]	1000 [39.4]	620 [24.4]	1200 [47.2]	1300 [51.2]	150 [6]	500 [19.7]	100 [3.9]	1169 [46]	80 [3.1]	182 [7.2]	22x14x150	2223 [87.5]	3354 [132]	1101 [43.3]	134 [5.3]	30 [1.2]	1657 [3654]	VM150-B 2.1