

The Metso series of

Mill discharge pumps

POMP  IRECT

Innovative
sustainable
technology



The Metso series of

Mill discharge hard metal and rubber lined slurry pumps

Since 1930, Metso and its predecessors have been working with grinding mill circuits in a wide variety of mining applications throughout the world. The new Metso MD series of mill discharge slurry pumps encompass all of this experience coupled with an understanding of today's market needs and demands for improved sustained performance.



For
improved
sustained
performance



Excellent hydraulic efficiency

Specifically designed from its inception for mill circuit applications, the Metso MD series of mill discharge MDM hard metal and MDR rubber lined slurry pumps offer sustained performance with maximum time between mill shutdowns.

Hydraulic design is consistent across the entire range and by limiting the inlet velocity at design BEP impact damage from coarse heavy solids is kept to an absolute minimum.

Large diameter high aspect ratio impellers provide for excellent hydraulic efficiency with minimum turbulence at minimum rotational speed, thereby reducing the rate of wear.

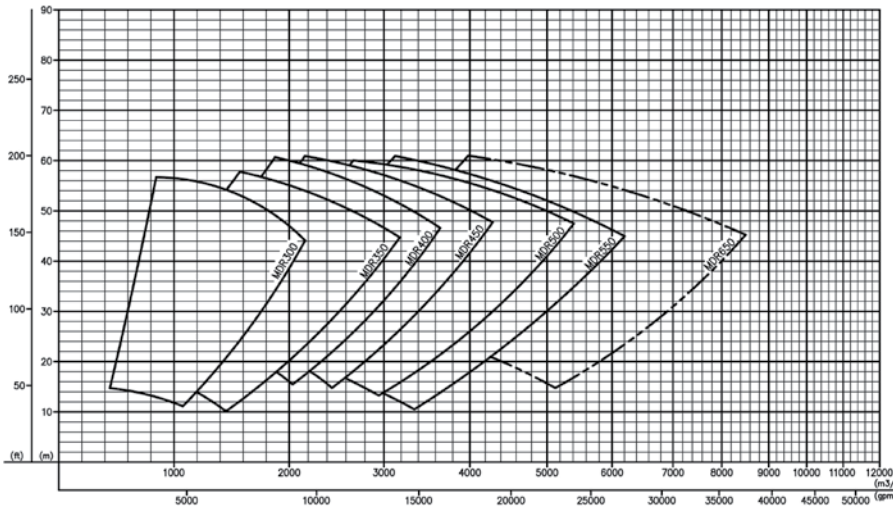
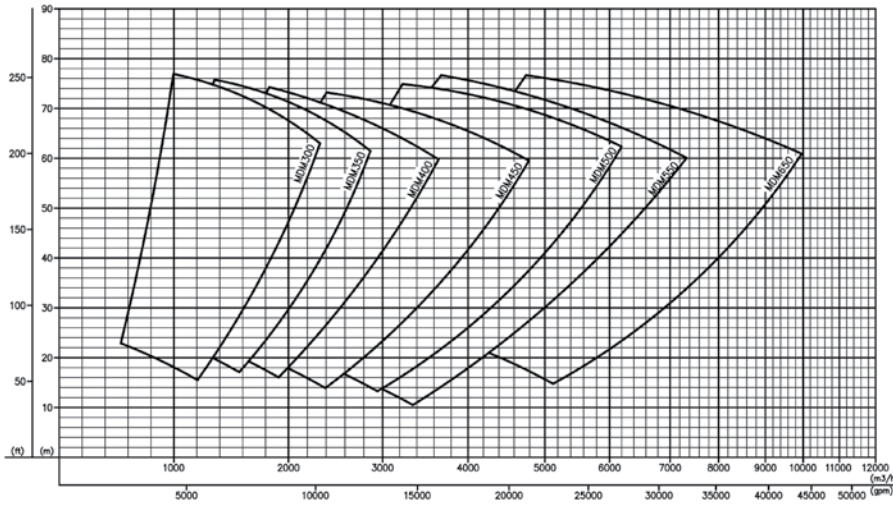
Reduced impeller overhang restricts shaft deflection across a wide range of flows, and in so doing maximizes shaft seal and radial bearing life.

Suction side recirculation is restricted by an adjustable inlet liner / wear plate. When used in conjunction with the axially adjustable bearing cartridge, the design provides for 'double adjustment' ensuring that both suction side and gland side impeller clearances can be set and reset at a minimum.

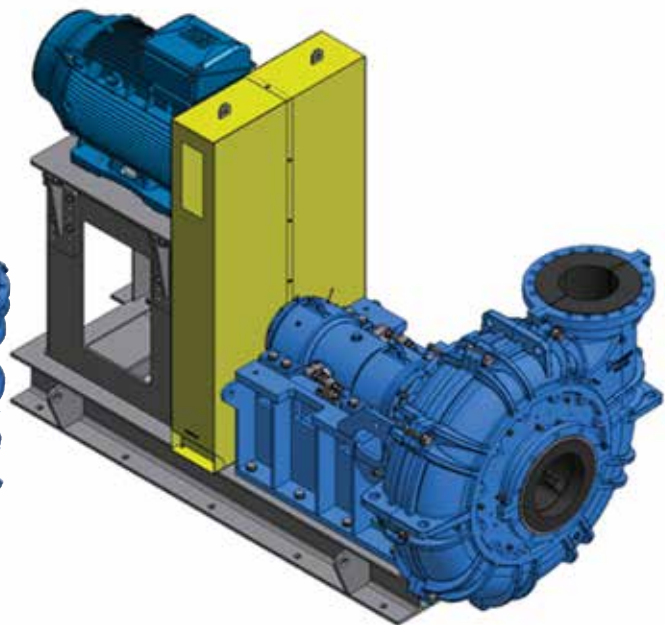
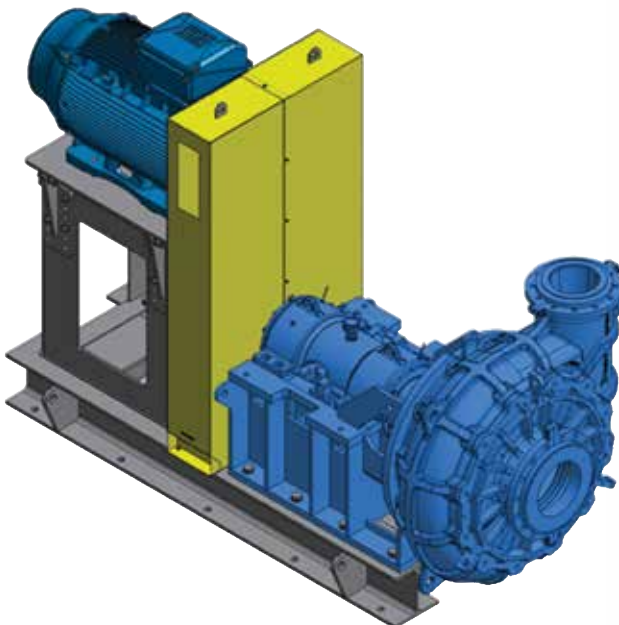
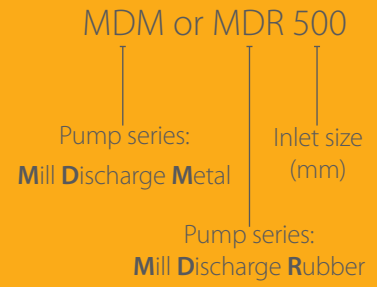
Summary of design features

- High sustained efficiency
- Even hydraulic wear
- Longer operating life
- Oversized robust steel shaft
- Extra thick casings and liners at known points of wear
- Back pull-out option for ease of maintenance
- Self contained oil or grease lubricated bearing cartridge assembly with non contact labyrinth seals for maintenance free operation
- Bearing housing arranged to accept temperature and vibration sensors
- Split stuffing box gland and gland guard
- Various shaft seal options including Metso EnviroSet™
- Modular design with good interchangeability of parts
- Loose steel flange connections

Selection of pump size for MD series mill discharge pumps



Pump designation





Model	Inlet		Outlet		H		L		W1		W2		C1		C2		C3		C4		Weight *	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	kg	lb
MDM300	300	12	250	10	1400	55,1	2246	88,4	900	35,4	1485	58,5	610	24,0	790	31,1	505	19,9	400	15,7	4845	10660
MDM350	350	14	300	12	1750	68,9	2473	97,3	1000	39,4	1678	66,1	850	33,5	900	35,4	572	22,5	503	19,8	7655	16840
MDM400	400	16	350	14	1940	76,4	2876	113,2	1300	51,2	1915	75,4	900	35,4	1040	40,9	652	25,7	572	22,5	12065	26545
MDM450	450	18	400	16	2020	79,5	2940	115,7	1300	51,2	2104	82,8	900	35,4	1120	44,1	725	28,5	618	24,3	14245	31335
MDM500	500	20	450	18	2145	84,4	3042	119,7	1300	51,2	2380	93,7	900	35,4	1245	49,0	825	32,5	638	25,1	18105	39830
MDM550	550	22	450	18	2145	84,4	3059	120,4	1300	51,2	2380	93,7	900	35,4	1245	49,0	825	32,5	653	25,7	18130	39885

MDR300	300	12	250	10	1300	51,2	1830	72,0	940	37,0	1519	59,8	610	24,0	690	27,2	503	19,8	448	17,6	3045	6700
MDR350	350	14	300	12	1346	53	2215	87,2	900	35,4	1772	69,8	610	24,0	736	29,0	588	23,1	378	14,9	4680	10300
MDR400	400	16	350	14	1940	76,4	2876	113,2	1300	51,2	1915	75,4	900	35,4	1040	40,9	652	25,7	572	22,5	10610	23395
MDR450	450	18	400	16	2020	79,5	2940	115,7	1300	51,2	2227	87,7	900	35,4	1120	44,1	725	28,5	618	24,3	12525	27560
MDR500	500	20	450	18	2145	84,4	3042	119,8	1300	51,2	2519	99,2	900	35,4	1243	49,0	825	32,5	638	25,1	17460	38415
MDR550	550	22	450	18	2145	84,4	3059	120,4	1300	51,2	2519	99,2	900	35,4	1243	49,0	825	32,5	653	25,7	17470	38435

* Bare shaft pump weight

