



# Severe Duty Abrasion Resistant Hard Metal Pumps

## Introduction

Thompsons, Kelly & Lewis Type HM Hard Metal Pumps are designed to handle abrasive process slurries, raw ores and dredging, with advanced engineering practice and first quality materials combining to ensure long, trouble free life.

## Economic Benefits

One piece shell with replaceable suction liner simplifies maintenance and offers longer life compared with split case metal lined pumps.

Parts designed for excellent reliability, minimum maintenance down time, and maximum interchangeability between models ensures long term operational cost savings.

## Materials

The wet end parts of the HM pumps are produced in either Ni-Hard 4 or 28% High Chrome, a superior group of white cast irons specially formulated and proven to be the most abrasion resistant for slurry pump applications.

## Specification

This Australian-made pump offers hydraulic performance based on advanced impeller design technology optimising life of wearing parts.

Flow Rate	- to 2000 L/s
Total Head	- to 100 m
Solids Handling	- to 190 mm
Working Pressure	- to 2400 kPa
Temperature	- to 120°C
Power Range	- to 1000 kW
Sizes	- 50 to 500 mm

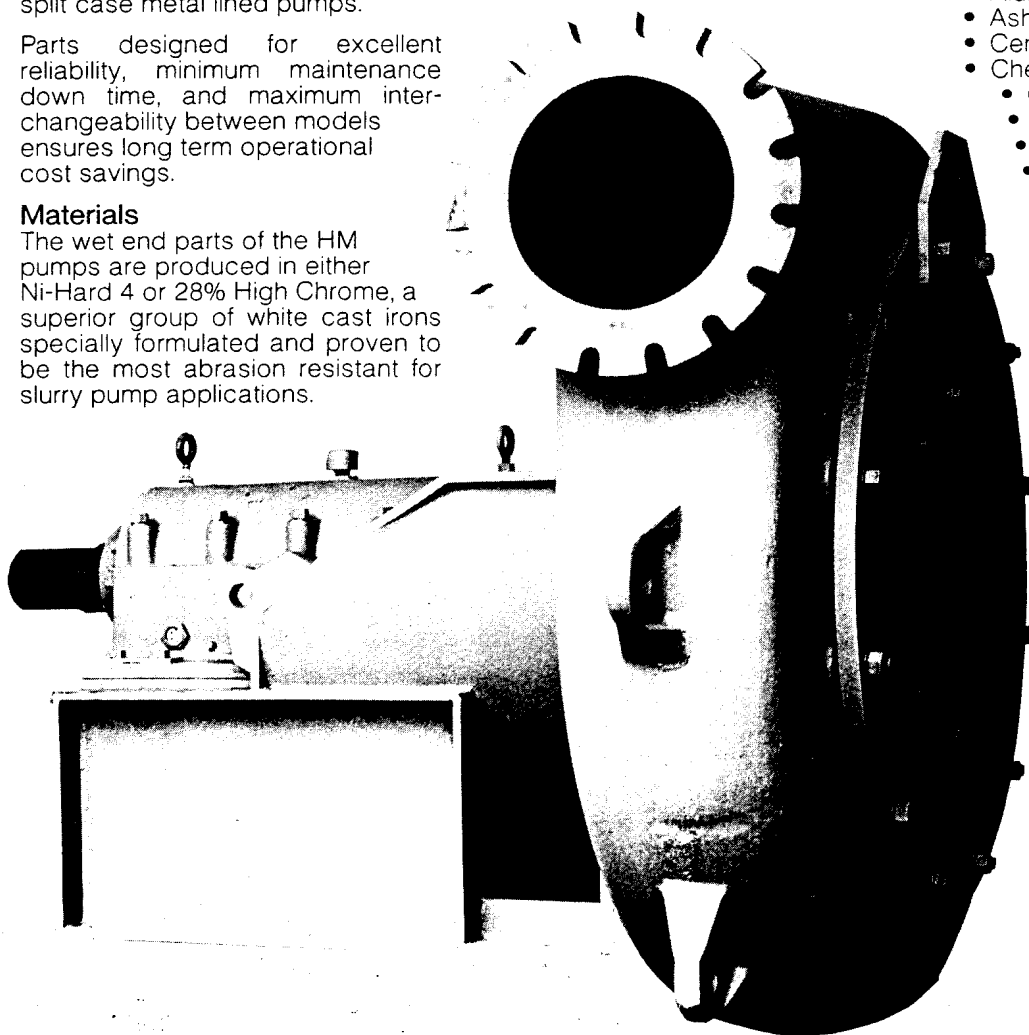
## Delivery

Quick delivery is available on all major wear items, due to standardisation of design.

## Applications

HM pumps are used throughout Australasia and South East Asia. Some of the typical abrasive and corrosive industries the pumps are suitable for, are:

- Acid and alkalis slurries
- Alumina processing
- Ash disposal
- Cement industry
- Chemical and process industries
  - Coal production
  - Copper recovery
  - Dredging and Sand-mining
  - Effluent
  - Gold mining
  - Gravel and sand quarries
  - Iron ore processing
  - Land reclamation
  - Lime mud slurry
  - Metal working industry
  - Minerals treatment
  - Nickel ore processing
  - Phosphate processing
  - Pulp and paper mill liquors
  - Red mud disposal
  - Salt refining
  - Slimes
  - Slurry pipelines
  - Solvent extraction
  - Steel mills and foundries
  - Sugar cane mud slurry
  - Tailings disposal
  - Tin treatment
  - Wood chip transportation

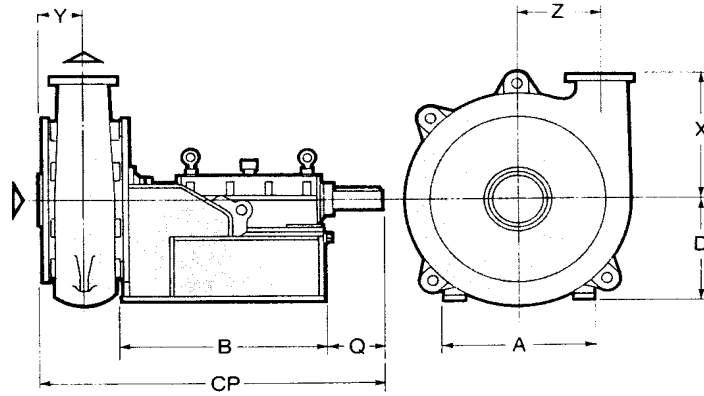








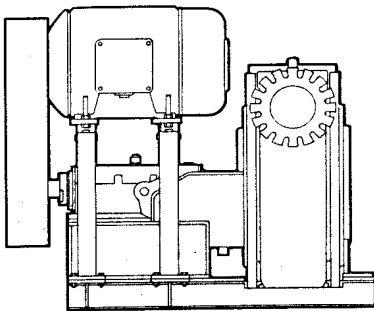
**Pump Dimensions**



Pump Model	Suction Size	Discharge Size	Nominal Imp. Dia.	Shaft Size	Maximum Shaft Power kW/100r/min	Max. Sphere Size	Pump Dimensions							Approx. Transport Mass kg	Approx. Transport Volume cu m	
							A	B	CP	D	Q	X	Y			Z
3 x 2 HM 21/2	80	50	533	75	8	22	483	856	1330	406	238	381	139	292	1110	2.0
4 x 3 HM 21/2	100	80	533	75	8	22	483	856	1330	406	238	381	139	292	1110	2.0
4 x 4 HM 15/2	100	100	381	75	8	51	483	856	1368	406	250	400	150	244	1020	2.0
6 x 4 HM 25/4	150	100	629	100	35	45	762	1013	1584	540	295	492	146	356	2070	2.9
8 x 6 HM 25/4	200	150	629	100	35	83	762	1013	1641	540	295	558	175	356	2250	3.5
10 x 8 HM 25/4	250	200	629	100	35	121	762	1013	1692	540	295	660	200	416	2380	4.4
10 x 8 HM 32/4	250	200	806	100	35	121	762	1013	1732	540	295	718	213	467	2800	4.4
12 x 10 HM 32/4	300	250	806	100	35	160	762	1013	1783	540	295	718	238	467	3120	4.4
10 x 8 HM 32/5	250	200	806	113	65	121	965	1176	1835	724	267	717	213	467	3570	4.4
12 x 10 HM 36/6	300	250	914	113	70	172	965	1175	1889	724	267	781	238	533	4250	7.6
14 x 12 HM 36/6	350	300	914	113	70	191	965	1175	1940	724	267	781	263	533	4530	8.1
16 x 12 HM 36/6	400	350	914	113	70	140	965	1175	1940	724	267	781	263	533	4530	8.1
12 x 10 HM 36/7	300	250	914	138	90	172	965	1175	1983	724	349	781	238	533	4670	7.6
14 x 12 HM 36/7	350	300	914	138	90	191	965	1175	2022	724	349	781	263	533	4960	8.1
16 x 12 HM 36/7	400	350	914	138	90	140	965	1175	2022	724	349	781	263	533	4960	8.1
16 x 16 HM 39/9	400	400	990	138	100	153	965	1175	2027	724	349	1038	268	641	6680	12.6
18 x 16 HM 42/9	450	400	1067	138	100	153	965	1175	2027	724	349	1038	268	641	6860	12.6
18 x 16 HM 42/11	450	400	1067	164	195	153	1054	1480	2380	1016	397	1038	268	641	7500	13.4
20 x 18 HM 48/11	500	450	1219	164	195	165	1054	1480	2586	1016	397	1143	387	787	11800	15.2
24 x 20 HM 48/11	610	500	1219	164	195	165	1054	1480	2586	1016	397	1143	387	787	12300	15.5

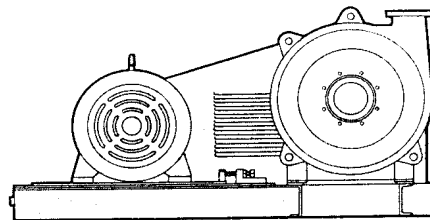
All dimensions are in millimetres except where indicated.  
Pump Rotation is clockwise when viewed from shaft end.

**Drive Arrangements**



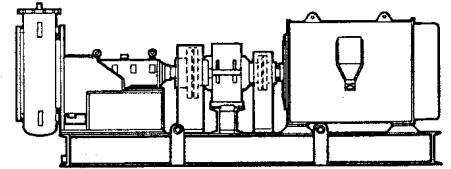
Driver mounted above pump, space-saving speed variation with belt-drive.

Depending on site requirements, HM pumps are available with several different drive configurations to



Driver and pump mounted side by side allows belt driven speed variation, and ease of maintenance where floor space is not confined.

ensure optimum performance on any application. Some typical examples are illustrated below.



Driving through gearbox to pump provides efficient transmission of high power requirements, and possibility of variable speed control.

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