

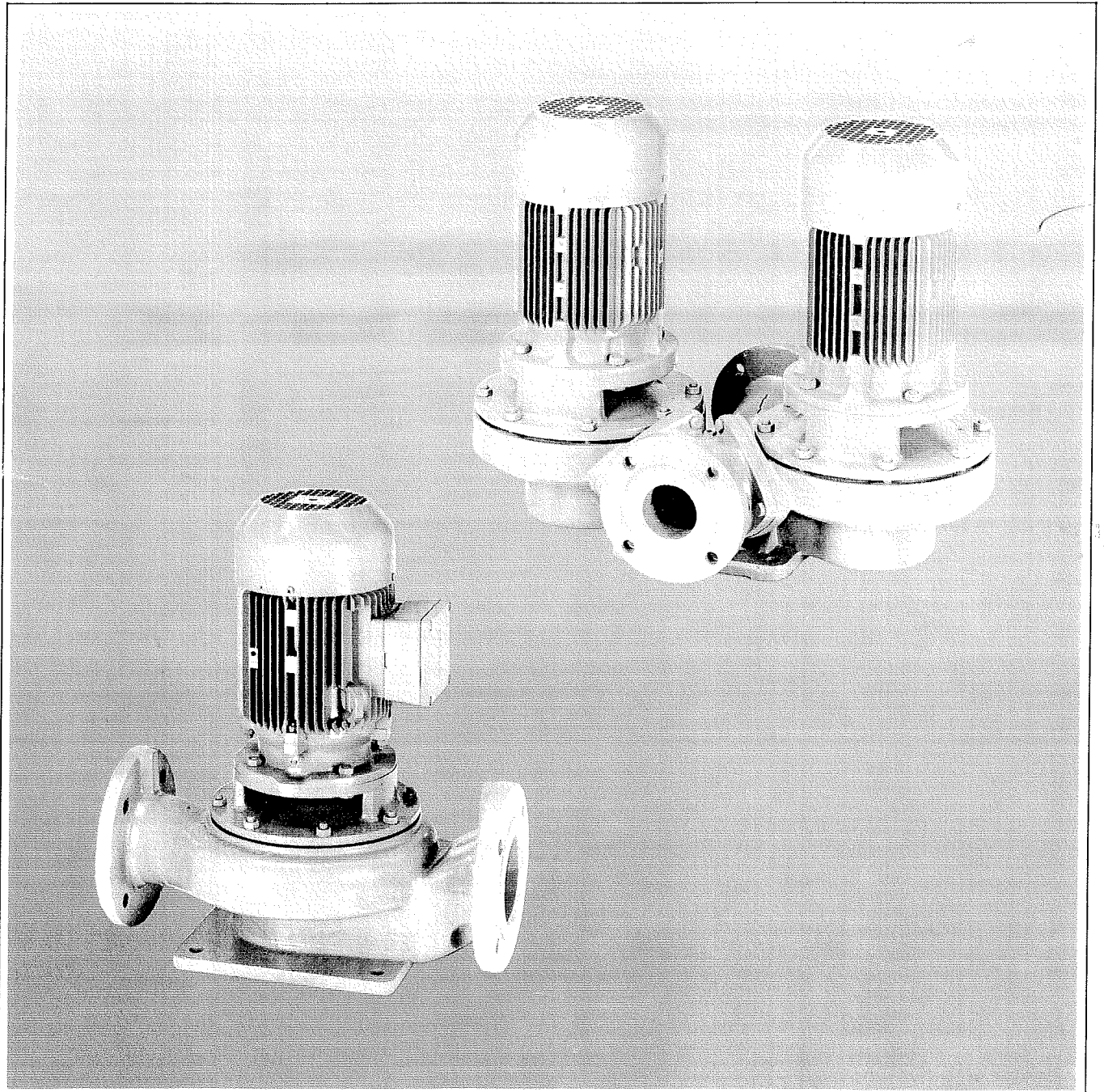
# Pullen

## In-line Pumps Series VM and VMP

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0—300 l/s

For central heating, hot water supply and chilled water.



# VM — Energy and Space Saving In-line Pumps

## Application

The VM(P) range is ideal for central heating, hot water supply and chilled water applications. The twin VMP pumps give higher system reliability by having one duty pump and one standby.

The pumps are suitable for handling water at temperatures up to 110 or 140°C, depending on pump size, and for system pressures up to 10 bar as standard.

## Compact Design

The compact in-line design eliminates alignment problems. The hydraulic design and wide selection of pumps in the range guarantees excellent efficiency for any specified duty. An adjustable by-pass is fitted to the VM-20 giving flexibility to the pump output.

The space saving twin VMP version has an automatic valve preventing backflow through the standby pump. In the event of one pump requiring maintenance, the system need only be shut down for a short period whilst the motor and rotating element are removed and a spare blanking plate installed.

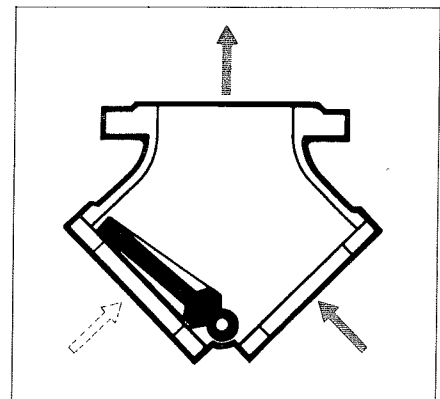
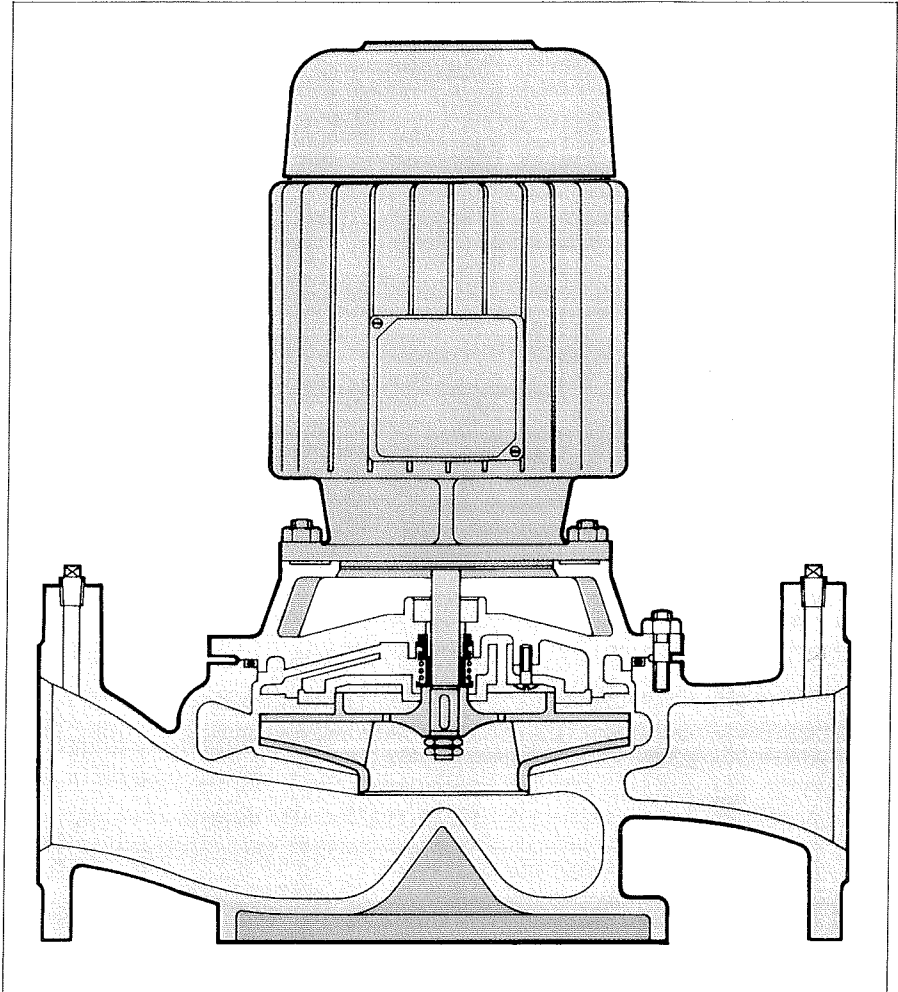
The pumps are supplied as standard with cast iron casing and impeller, stainless steel shaft, and long-life mechanical seal consistent with the requirements of M & E 3 and M & E 100.

## Silent Motors

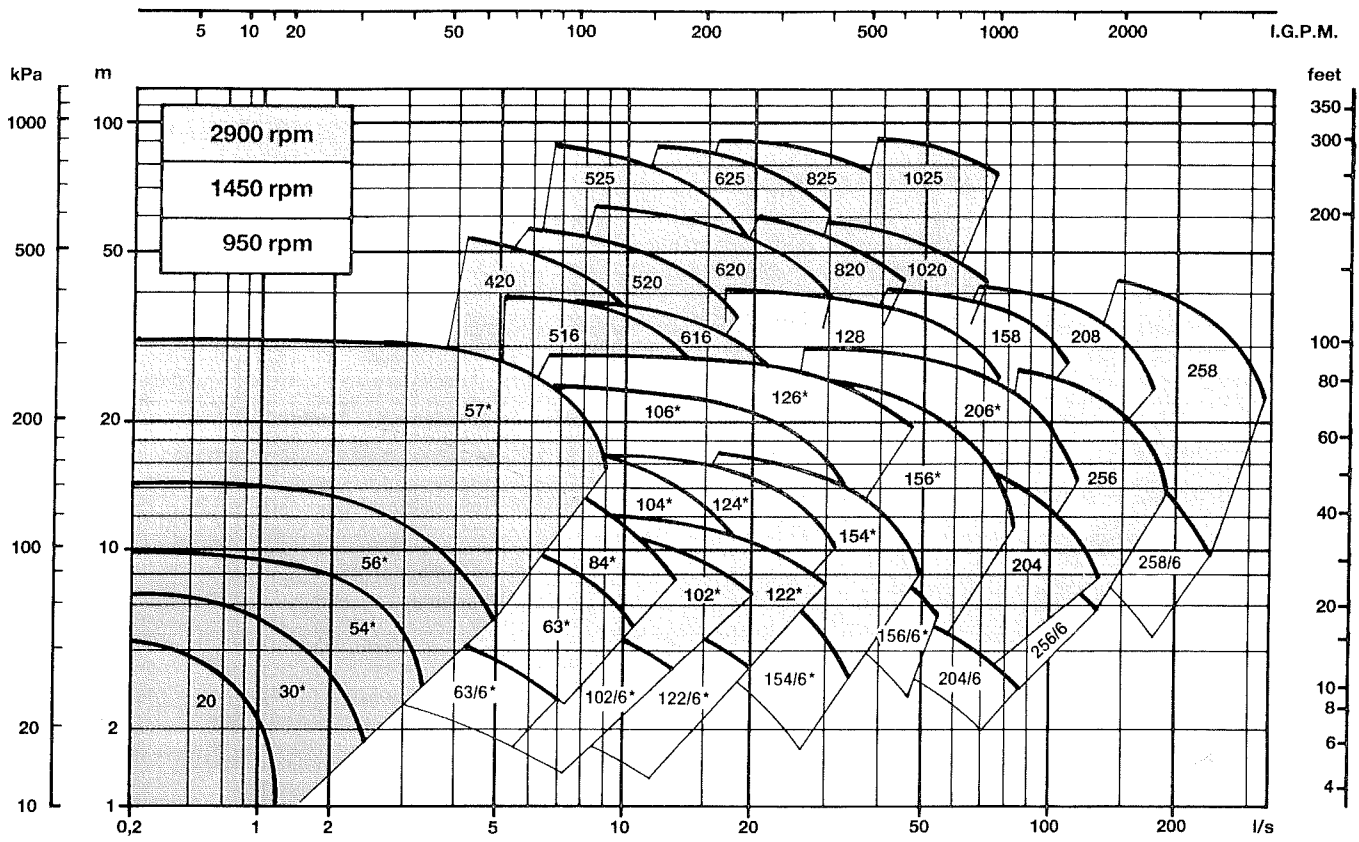
The pump motors have been specifically designed for quiet running by fitting special silent running bearings on all motors and reduced noise level fans on the small 2 pole motors. Standard motors are totally enclosed fan cooled, with the options of drip proof motors for the larger sizes and two speed motors if required.

## Chilled Water Systems

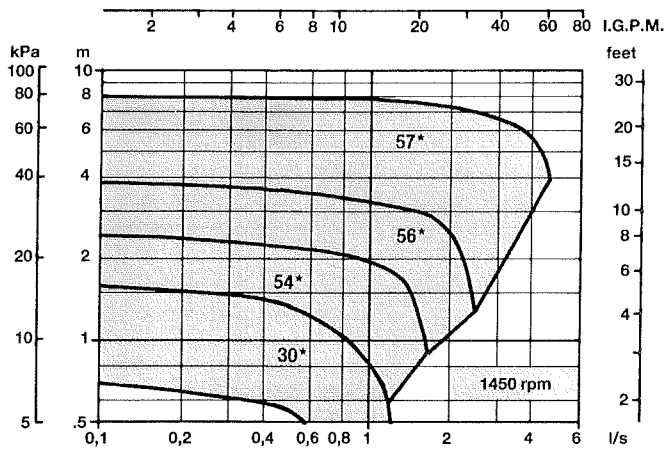
The VM range is suitable for circulating glycol mixtures in chilled water systems. To achieve the maximum seal life, we recommend the use of propylene glycol and the limited use of numbers of inhibitors.



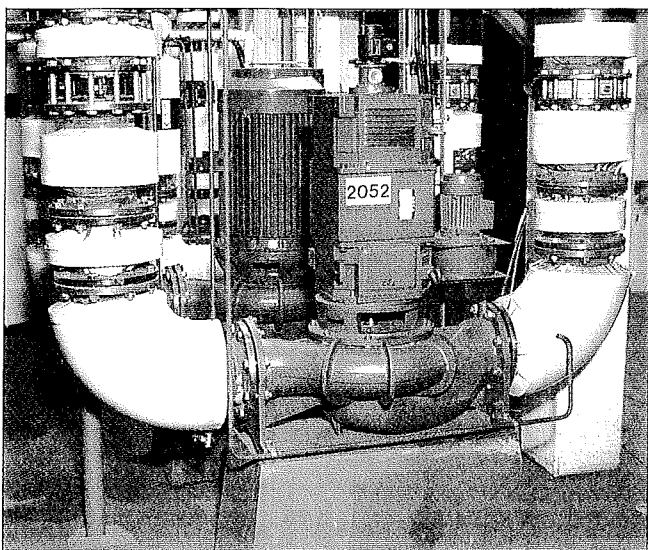
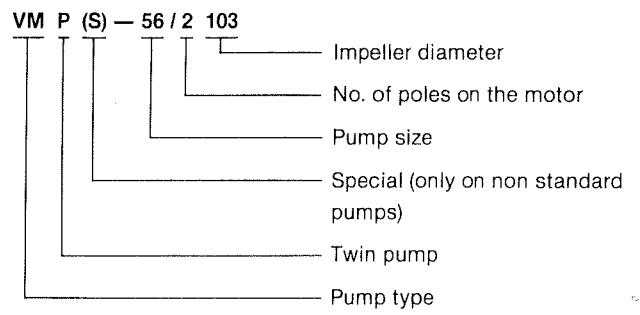
*Automatic valve in compact twin VMP version prevents backflow through the standby pump.*



\*) This size is available in twin version.

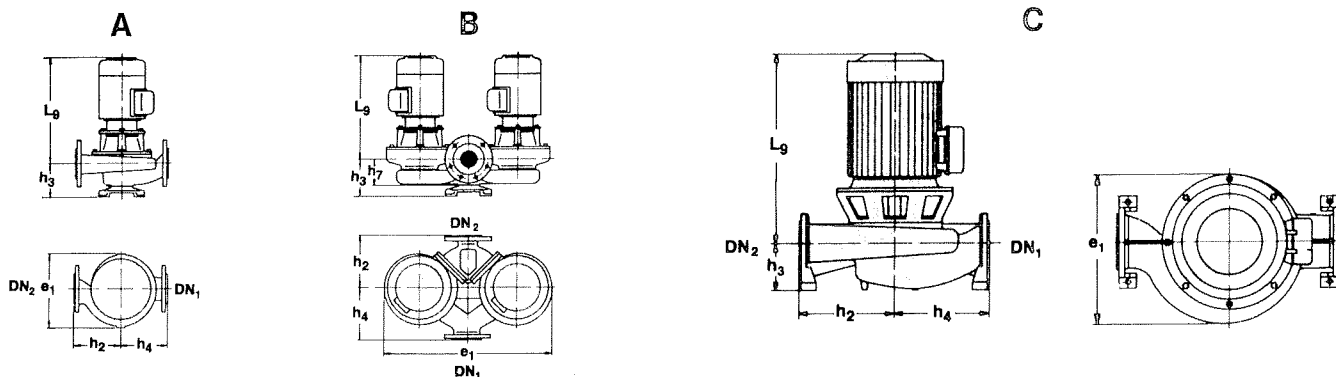


### Designations



Type VM 208 circulators — one with variable speed motor — installed in an energy efficient heat recovery system.

# Dimensions and Weights



Pump type	Max. temp. °C	DN <sub>1</sub>	DN <sub>2</sub>	h <sub>2</sub>	h <sub>4</sub>	h <sub>3</sub>	e <sub>1</sub>	Maximum			Fig.	
								Lg**	Power kW	Speed*** rpm		Weight kgs.
VM 20	110	1" BSP*	1" BSP*	113	113	46	115	200	0.05	2900	9	A
VM 30	110	1 1/4" BSP*	1 1/4" BSP*	90	90	75	140	275	0.18	2900	12	A
VMP 30	110	1 1/4" BSP*	1 1/4" BSP*	100	100	75	390	285	0.18	2900	30	B
VM 54	110	50	50	100	100	88	150	275	0.37	2900	20	A
VMP 54				125	125	90	430	290	0.37	2900	42	B
VM 56	120	50	50	125	125	100	160	340	0.75	2900	26	A
VMP 56				125	125	90	460	350	0.75	2900	54	B
VM 57	120	50	50	160	160	90	220	420	3.2	2900	40	A
VMP 57				125	125	90	590	440	3.2	2900	85	B
VM 63	120	65	65	200	200	100	290	395	1.5	1450	50	A
VMP 63				200	200	132	780	430	1.5	1450	105	B
VM 84	120	80	80	225	225	100	320	445	2.2	1450	70	A
VMP 84				225	225	110	720	415	2.2	1450	140	B
VM 102	120	100	100	250	250	110	320	445	2.2	1450	75	A
VMP 102				250	250	135	760	430	2.2	1450	150	B
VM 104	120	100	100	250	250	110	320	450	3	1450	80	A
VMP 104				250	250	135	790	430	3	1450	160	B
VM 106	120	100	100	280	280	150	400	495	7.5	1450	115	A
VMP 106				250	250	135	850	495	7.5	1450	230	B
VM 122	120	125	125	280	280	135	360	450	3	1450	90	A
VMP 122				280	280	160	810	435	3	1450	170	B
VM 124	120	125	125	280	280	132	370	475	5.5	1450	110	A
VMP 124				280	280	160	850	455	5.5	1450	220	B
VM 126	120	125	125	335	335	165	450	685	15	1450	195	A
VMP 126				355	355	220	920	685	15	1450	400	B
VM 128	140	150	125	375	400	225	530	835	30	1450	400	C
VM 154	120	150	150	315	315	150	400	515	7.5	1450	140	A
VMP 154				355	355	220	850	500	7.5	1450	270	B
VM 156	120	150	150	335	335	165	460	795	18.5	1450	250	A
VMP 156				375	375	195	950	790	18.5	1450	500	B
VM 158	140	200	150	380	420	230	580	870	45	1450	500	C
VM 204	140	200	200	380	440	215	600	840	18.5	1450	305	C
VM 206	120	200	200	400	400	235	530	815	30	1450	370	A
VMP 206				425	425	250	1100	805	30	1450	710	B
VM 208	140	200	200	470	480	270	700	1140	75	1450	745	C
VM 256				420	470	255	630	880	45	1450	480	C
VM 258				510	620	330	740	1280	132	1450	1030	C
VM 420	120	50	40	180	180	90	300	650	11	2970	125	C
VM 516	120	65	50	160	200	112	260	565	7.5	2970	90	C
VM 520				180	220	132	300	645	15	2970	140	C
VM 525				225	250	132	350	770	22	2970	190	C
VM 616	120	80	65	180	200	132	270	650	11	2970	125	C
VM 620				200	225	132	310	765	22	2970	180	C
VM 625				225	265	160	350	790	37	2970	275	C
VM 820	120	100	80	225	250	160	330	800	30	2970	250	C
VM 825				250	280	160	370	835	45	2970	315	C
VM 1020	120	125	100	280	315	180	350	835	45	2970	325	C
VM 1025				280	335	180	390	1090	75	2970	535	C

\*) Union

\*\*) This dimension is for the largest motor. Allow clearance to dismantle pump.

\*\*\*) Lower speeds also available.

## Material Specifications

### Casing and Backcover

Manufactured from close-grained cast iron to BS1452 Grade 220.

### Impeller

Manufactured from close-grained cast iron to BS1452 Grade 220, dynamically balanced. (For higher periphery speeds: nodular iron.) VM(P) 20, 30 and 54 manufactured from Noryl. High-grade gunmetal (bronze) impeller

to BS1400 Grade PB3-C is available at extra cost.

### Mechanical Seal

All VM(P) range pumps are fitted with seals of the flexible bellows type, having carbon running against a stationary ceramic seat with EPDM elastomer components.

### Motors

TEFC (IP54) (or drip-proof IP22) squirrel-cage type to metric BS re-

quirements. Winding temperature limited to 80°C rise at max. output.

### Motor Shaft

High-grade stainless steel to BS970 Grade 431S29.

### Tests

All pumps are fully tested before they leave our works, to ensure perfect running. Performance characteristics are guaranteed in accordance with BS5316 Part 1.

## Automatic Changeover Panel

Electrical control equipment for the complete range of pumps can be supplied. An automatic changeover panel is available for applications with a duty and standby pump. It provides overload protection and automatic switching of duty pump status in the event of an overload condition, together with cyclic changeover of duty and standby pump to ensure even wear.



*We reserve the right to alter design and specifications without prior notice.*



# Pullen Pumps Ltd

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