



IWAKI  
MAGNETIC  
DRIVE  
PUMPS

**MDW**



# Max. flow capacity of 300m<sup>3</sup>/hr and max. discharge head of 98m. The world's largest class fluoroplastic magnetic drive pump.

The MDW series are the largest class fluoroplastic magnetic drive pumps in the world, offering high efficiency and durability for chemical process applications. Using larger motors for even higher output, the MDW series opens up performance potential in previously unexplored areas.

## Application example

- Chemical transfer between supply tanks and through chemical process equipment.
- Chemical recirculation for filtration and heat exchange applications.
- Scrubber liquid recirculation.
- Replacements for conventional sealed pumps.



MDW100



**High discharge capacity, High head and high efficiency**

The heavy-duty MDW is capable of a maximum discharge capacity of 300m<sup>3</sup>/hr and max. discharge head of 98m, enabling applications in previously unexplored areas with a wide range of liquid specific gravities.

**Highly chemically resistant**

Fluoroplastic and fine ceramic wetted parts offer high resistance to virtually every industrial chemical, irrespective of concentration.

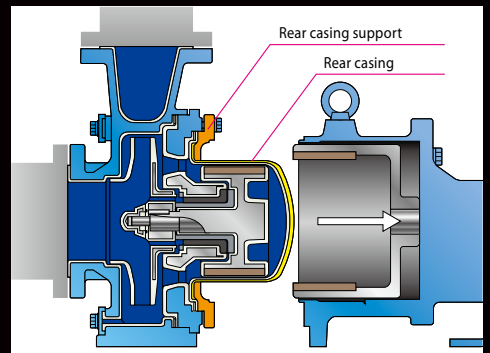
**Robust structure**

Use of the high strength ductile cast iron external armour is mandatory for heavy duty chemical process applications. High casing pressure resistance is achieved with a unique rear casing design preventing stress concentration and incorporating a triple-layer structure (PAT). A special metal shaft is used on the MDW to withstand high radial forces and allow continuous extended operation even under harsh service conditions.



**Back pullout system**

The back pullout system allows easy maintenance and inspection without removing pipework. Integrated components and a sealed rear casing support structure enable motor removal safely without chemical leakage.

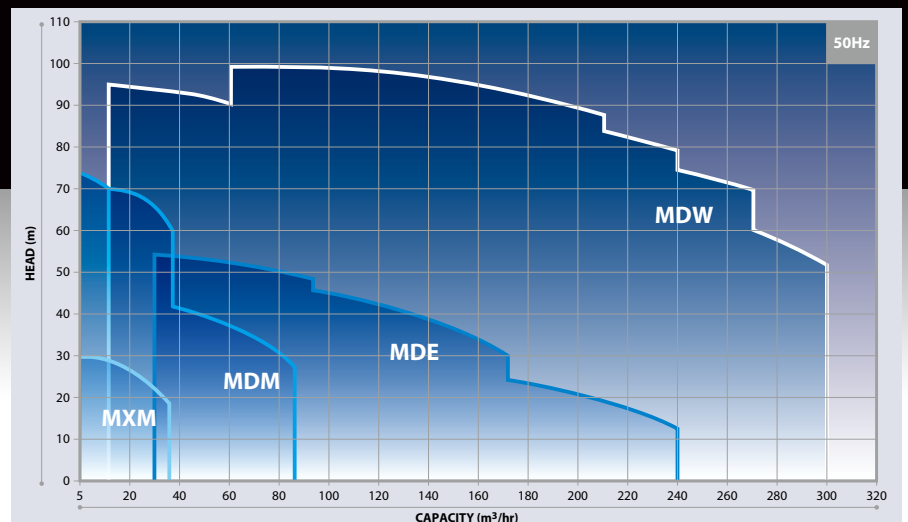


**ISO compliant**

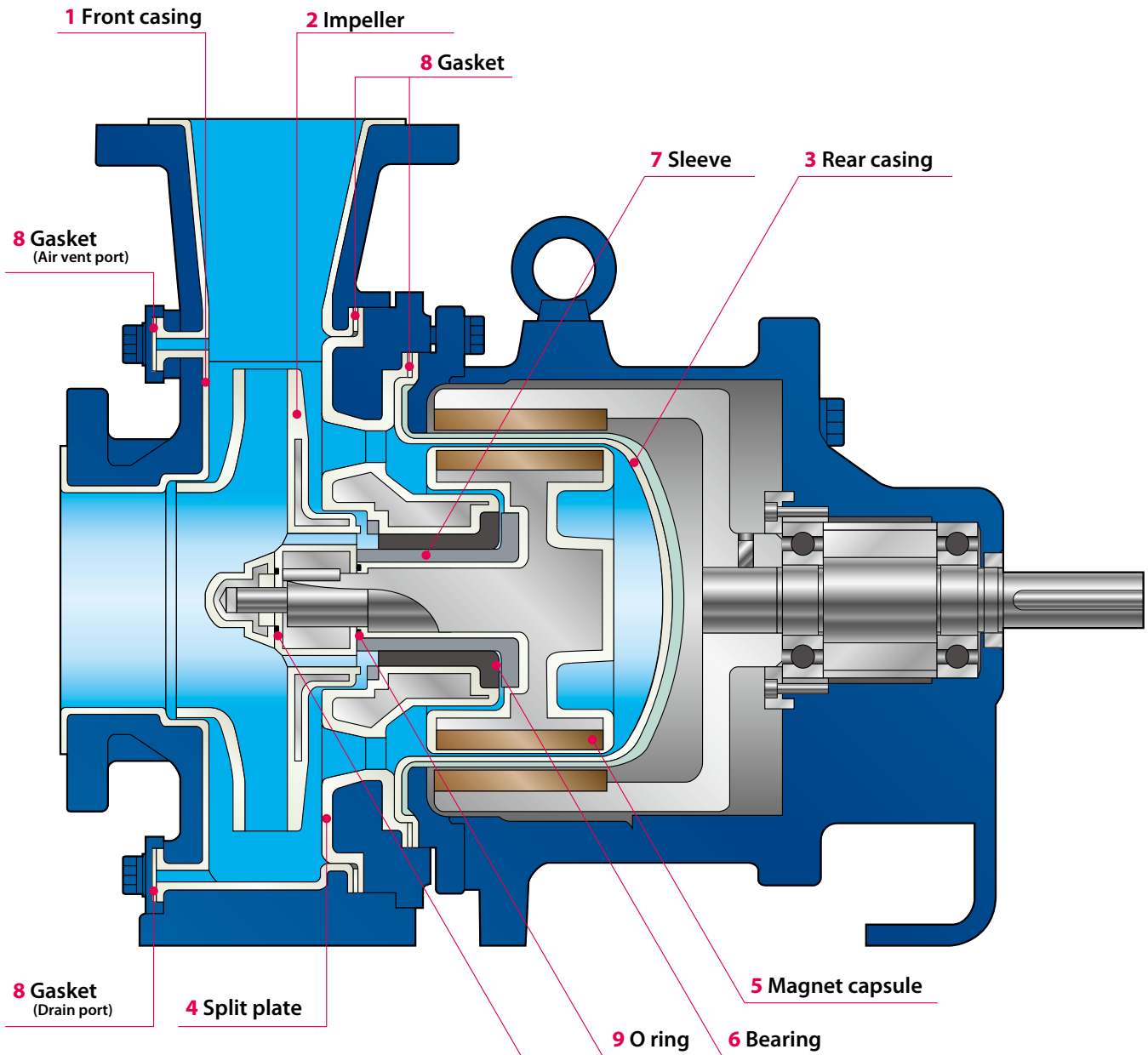
The MDW is dimensionally compliant with the international standard (ISO2858, 3661) and is interchangeable with conventional sealed centrifugal pumps.

**Performance curves**

(Flow range of IWAKI Magnetic drive process pumps)



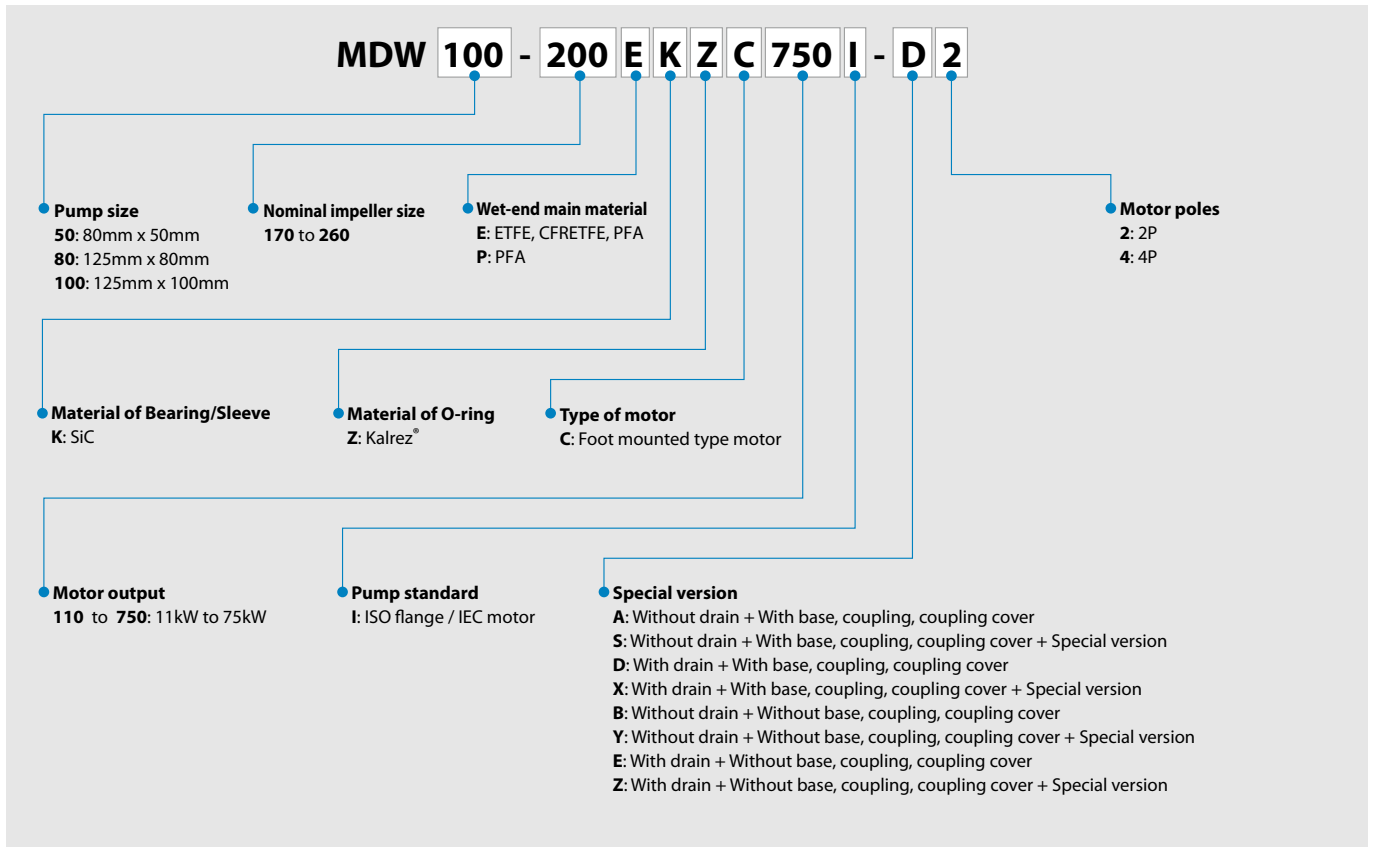
## Construction



### Wet-end materials

Part number	Part name	MDW50	MDW80, 100
1	Front casing	PFA	ETFE
2	Impeller	PFA	CFRETFE
3	Rear casing		PFA
4	Split plate		PFA
5	Magnet capsule		PFA
6	Bearing		SiC
7	Sleeve		SiC
8	Gasket		PTFE
9	O-ring		Kalrez®

## Pump identification



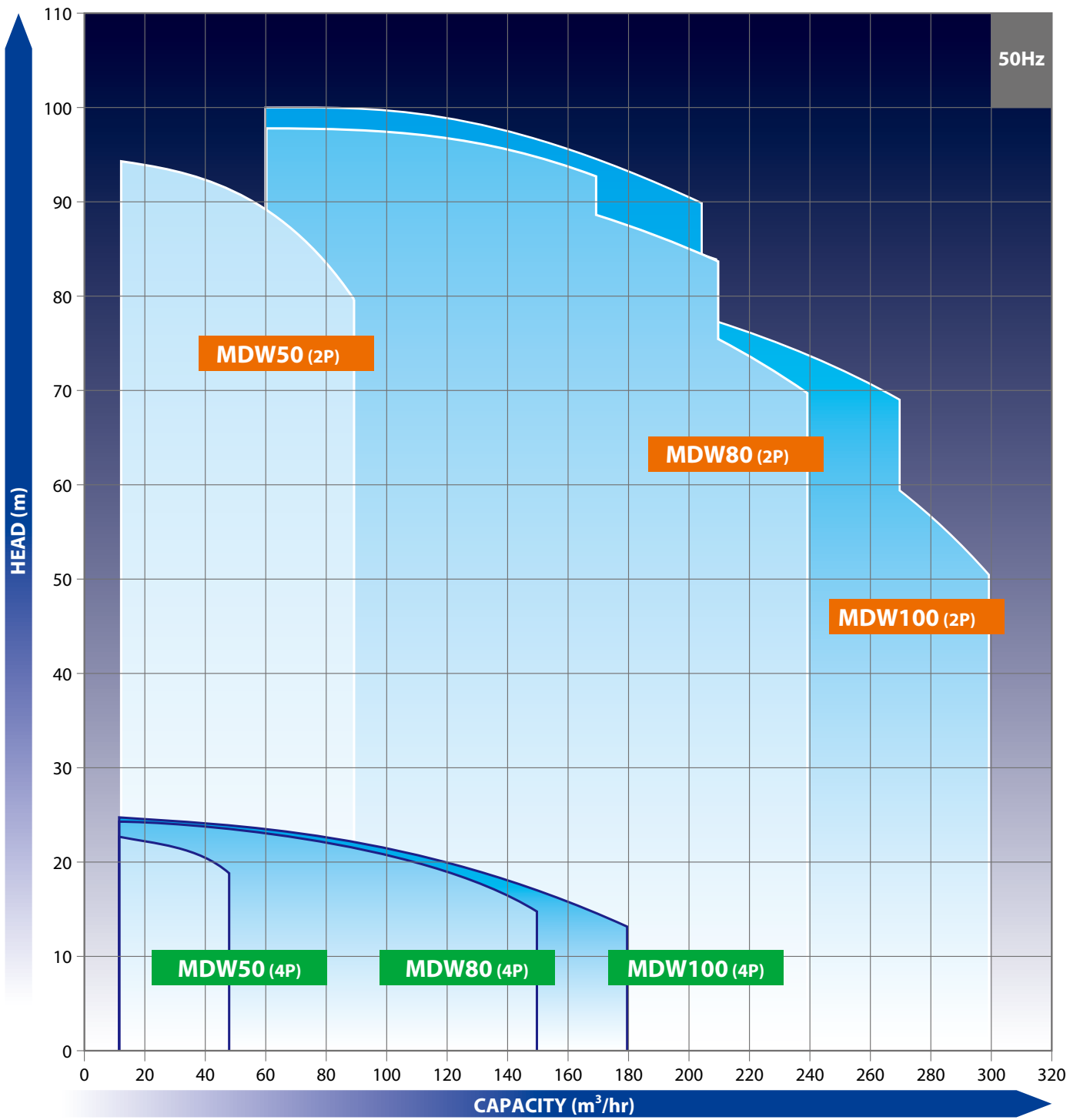
## Specification

Model	Pump size Suction X Discharge	Nominal Impeller size	Capacity m <sup>3</sup> /hr (L/min)	Head m	Motor kW	
<b>MDW50</b>	80mm X 50mm	250	50 (833)	80	2P	22, 30, 37, 45, 55, 75
		260	25 (417)	21	4P	11, 15, 18.5, 22, 30, 37
<b>MDW80</b>	125mm X 80mm	250	160 (2667)	80	2P	37, 45, 55, 75
		255	80 (1333)	23	4P	11, 15, 18.5, 22, 30, 37
<b>MDW100</b>	125mm X 100mm	200	200 (3333)	50	2P	37, 45, 55, 75
		235	100 (1667)	21	4P	11, 15, 18.5, 22, 30, 37

## Common specification

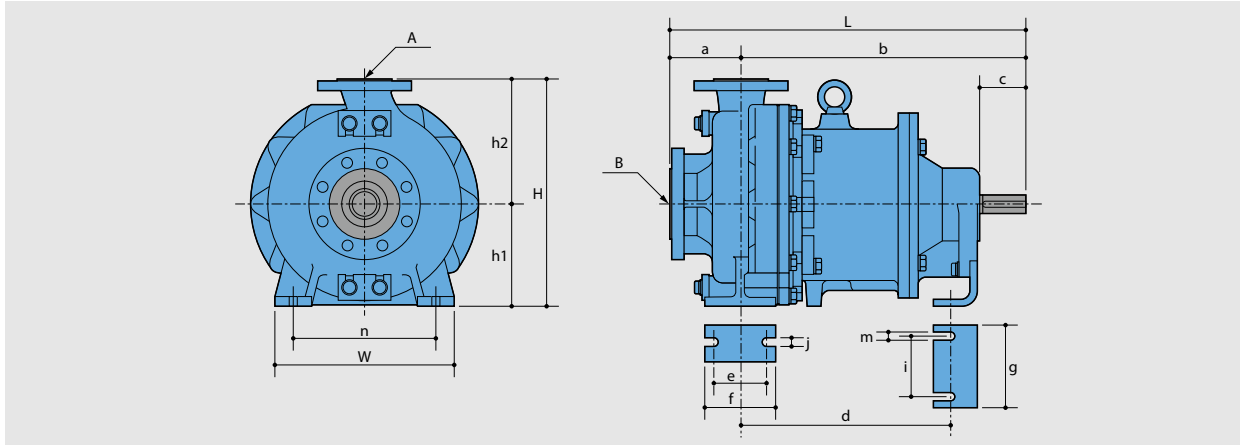
Temperature range of liquid handled	MDW80/100: -10 to 105°C, MDW50: -10 to 120°C
Maximum operating pressure	1.6MPa
Motor	Foot mounted type motor

## Performance curves (50Hz)

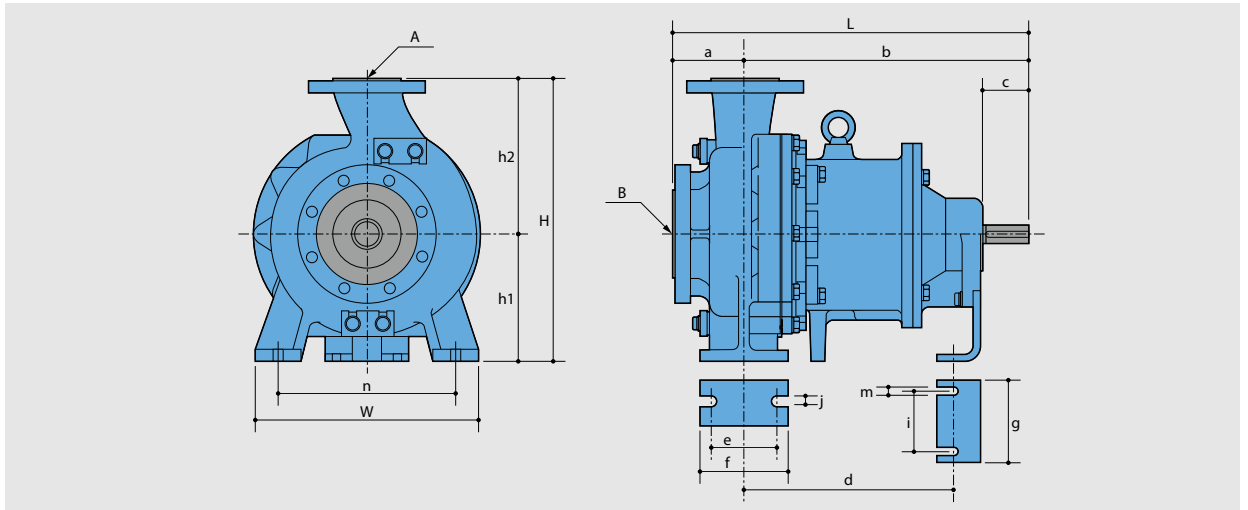


**Dimension (mm)**

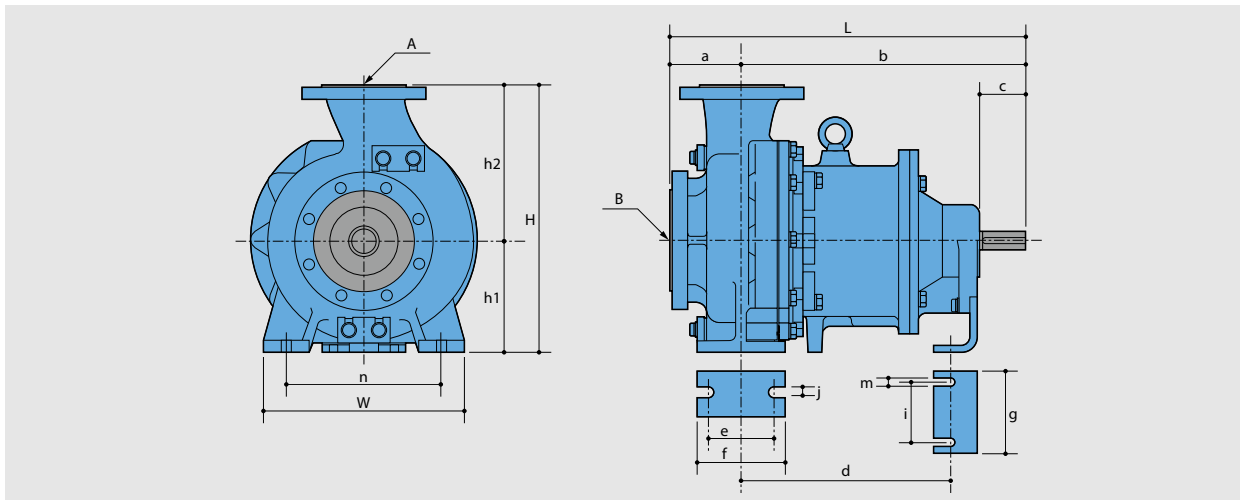
**MDW50**



**MDW80**



**MDW100**



	W	H	L	A	B	a	b	c	d	e	f	g	h1	h2	i	j	n	m
<b>MDW50</b>	320	(405)	(625)	50mm dia.	80mm dia.	125	500	80	370	95	125	150	180	225	110	14	250	14
<b>MDW80</b>	400	(505)	(625)	80mm dia.	125mm dia.	125	500	80	370	120	160	150	225	280	110	18	315	14
<b>MDW100</b>	360	(480)	(625)	100mm dia.	125mm dia.	125	500	80	370	120	160	150	200	280	110	18	280	14

**IWAKI Process magnetic drive pump series**

**MDE SERIES**

The most reliable, large-sized magnetic drive pump designed for process use

**Specifications**

- Max. discharge capacity: 4.0 m<sup>3</sup>/min
- Max. head: 55m
- Main materials: ETFE, PFA, SiC
- Liquid temp. range: 0 to 100°C



**MDM SERIES**

Magnetic drive process pumps with dry running capability

**Specifications**

- Max. discharge capacity: 1.4m<sup>3</sup>/min
- Max. head: 74m
- Main materials: CFRETPE/PFA
- Liquid temp. range: -20 to 105°C(CFRETPE), -20 to 150°C(PFA)



**MXM SERIES**

Magnetic drive pumps with an excellent balance of features and performance

**Specifications**

- Max. discharge capacity: 600L/min
- Max. head: 29m
- Main materials: CFRETPE
- Liquid temp. range: -10 to 105°C



**IWAKI CO., LTD.**

6-6 Kanda-Sudacho 2-chome Chiyoda-ku Tokyo 101-8558 Japan TEL : (81)3 3254 2935 FAX : 3 3252 8892

[www.iwakipumps.jp](http://www.iwakipumps.jp)

The posting and copying from this catalogue without permission is not accepted firmly.

European office : IWAKI Europe GmbH  
 Germany : IWAKI Europe GmbH  
 Holland : IWAKI Europe GmbH (Netherlands Branch)  
 Italy : IWAKI Europe GmbH (Italy Branch)  
 Spain : IWAKI Europe GmbH (Spain Branch)  
 Belgium : IWAKI Belgium N.V.  
 Denmark : IWAKI Nordic A/S  
 Finland : IWAKI Suomi Oy  
 France : IWAKI France S.A.  
 Norway : IWAKI Norge AS  
 Sweden : IWAKI Sverige AB  
 Switzerland : IWAKI (Schweiz) AG  
 U.K. : IWAKI Pumps (UK) Ltd.

TEL: (49)2154 9254 0 FAX: 2154 9254 48  
 TEL: (49)2154 9254 50 FAX: 2154 9254 55  
 TEL: (31)547 293 160 FAX: 547 292 332  
 TEL: (39)0444 371 115 FAX: 0444 335350  
 TEL: (34)93 37 70 198  
 TEL: (32)13 67 02 00 FAX: 13 67 20 30  
 TEL: (45)48 24 2345 FAX: 48 24 2346  
 TEL: (358)9 2745810 FAX: 9 2742715  
 TEL: (33)1 69 63 33 70 FAX: 1 64 49 92 73  
 TEL: (47)23 38 49 00 FAX: 23 38 49 01  
 TEL: (46)8 511 72900 FAX: 8 511 72922  
 TEL: (41)26 674 93 00 FAX: 26 674 93 02  
 TEL: (44)1743 231363 FAX: 1743 366507

U.S.A. : IWAKI America Inc.  
 Argentina : IWAKI America Inc. (Argentina Branch)  
 Singapore : IWAKI Singapore Pte Ltd.  
 Malaysia : IWAKI Sdn. Bhd.  
 Indonesia : IWAKI Singapore (Indonesia Branch)  
 Australia : IWAKI Pumps Australia Pty Ltd.  
 China : IWAKI Pumps Co., Ltd.  
 Korea : IWAKI Korea Co., Ltd.  
 Taiwan : IWAKI Pumps Taiwan Co., Ltd.  
 Thailand : IWAKI (Thailand) Co., Ltd.  
 Vietnam : IWAKI Pumps Vietnam Co., Ltd.

TEL: (1)508 429 1440 FAX: 508 429 1386  
 TEL: (54)11 4745 4116  
 TEL: (65)6316 2028 FAX: 6316 3221  
 TEL: (60)3 7803 8807 FAX: 3 7803 4800  
 TEL: (62)21 6906606 FAX: 21 6906612  
 TEL: (61)2 9899 2411 FAX: 2 9899 2421  
 TEL: (852)2607 1168 FAX: 2607 1000  
 TEL: (82)2 2630 4800 FAX: 2 2630 4801  
 TEL: (886)2 8227 6900 FAX: 2 8227 6818  
 TEL: (66)2 322 2471 FAX: 2 322 2477  
 TEL: (84)613 933456 FAX: 613 933399

( )Country codes

**⚠ Caution for safety use:** Before use of pump, read instruction manual carefully to use the product correctly.  
 Actual pumps may differ from the photos. Specifications and dimensions are subject to change without prior notice. For further details please contact us.

**⚠ Legal attention related to export.**  
 Our products and/or parts of products fall in the category of goods contained in control list of international regime for export control. Please be reminded that export license could be required when products are exported due to export control regulations of countries.

