

**Polypropylene
Magnetic Drive Process Pumps**



Reliable Process Magnet Pumps that Combine Corrosion Resistance and Strength Against Abnormal Operation

The AMP series is a polypropylene process magnet pump. By adopting our unique Non contact system (a mechanism designed for abnormal operation), the pump is engineered to withstand abnormal operation such as air entrainment. In addition to handling various chemical liquids such as acids and alkalis, the pump is designed for heavy-duty use and can be widely used as an industrial process pump.



Highly Durable Structure

A ductile cast iron shell adds strength and durability to the polypropylene wet ends. The rear casing, which is subject to the highest stress, is reinforced with an FRP cover to increase strength. The maximum allowable casing pressure of 1.0MPa is a highlight feature amongst polypropylene pumps.



Back Pullout System

The Back pullout system features a safety-first design that keeps the chemical sealed within the pump unit, even when the bracket is pulled back for maintenance. This system allows easy maintenance and inspection without removing piping. (Pump on baseplate only)



Unique Design Prevents Abnormal Operation

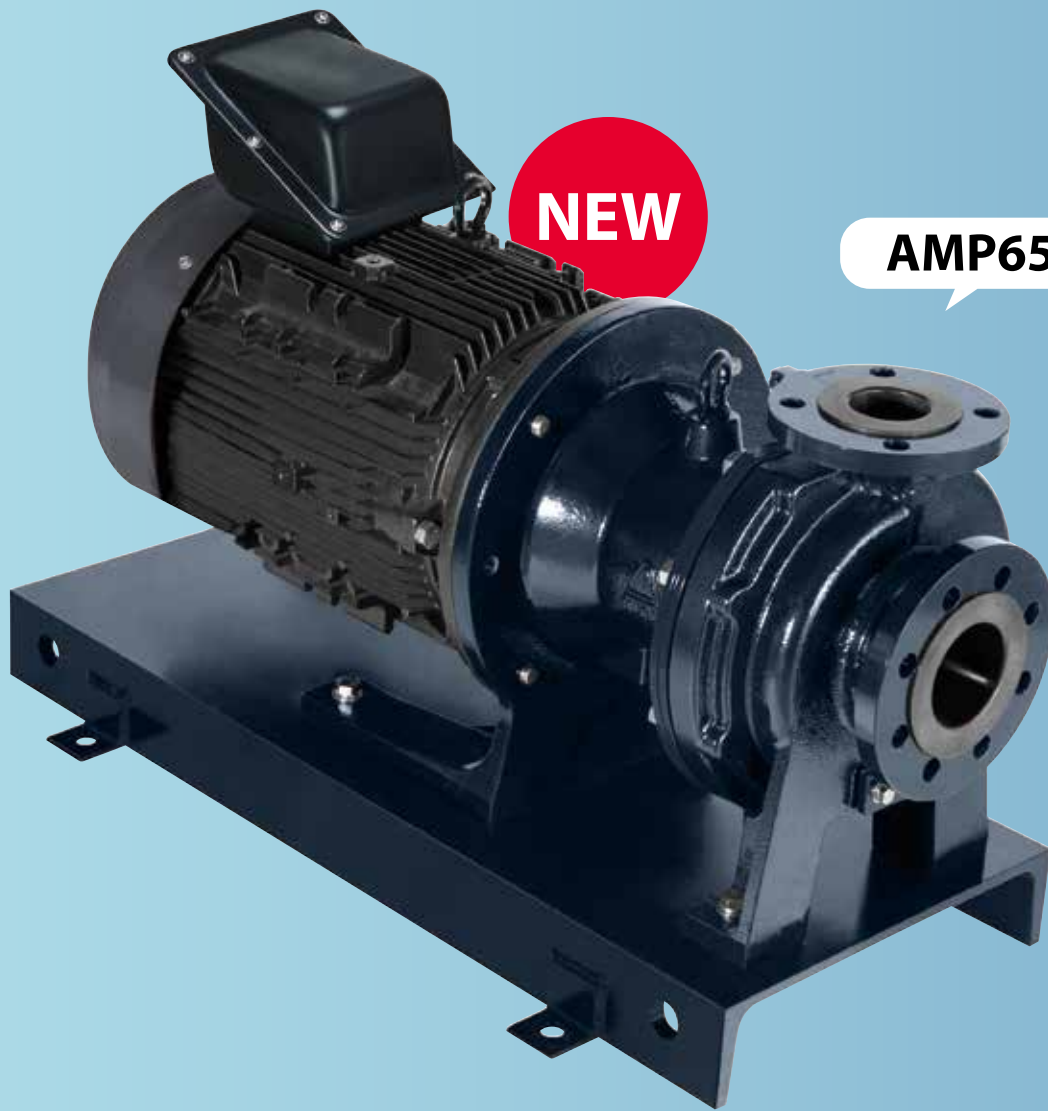
The AMP series features the Non contact system. The pump exhibits outstanding durability in air ingress to the suction.

Note: Dry running is not permitted.



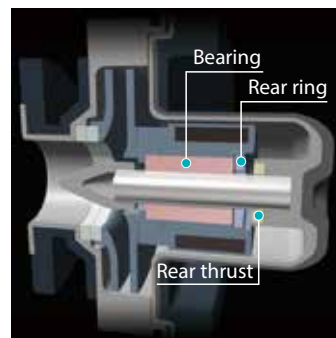
Modular Design and Low Maintenance Cost

The pump is a modular design for ease of maintenance. Specific adjustments such as centering or checking clearances are not required. Wear parts can be replaced individually, providing a cost-effective design.



Non Contact System

The AMP series features a mechanism to withstand abnormal operation. High magnet power of the rare earth magnets prevents the magnet capsule coming into contact with the rear thrust, thus preventing melting of components due to heat generation. This greatly improves resistance against abnormal operation in comparison with conventional magnetic drive pumps.

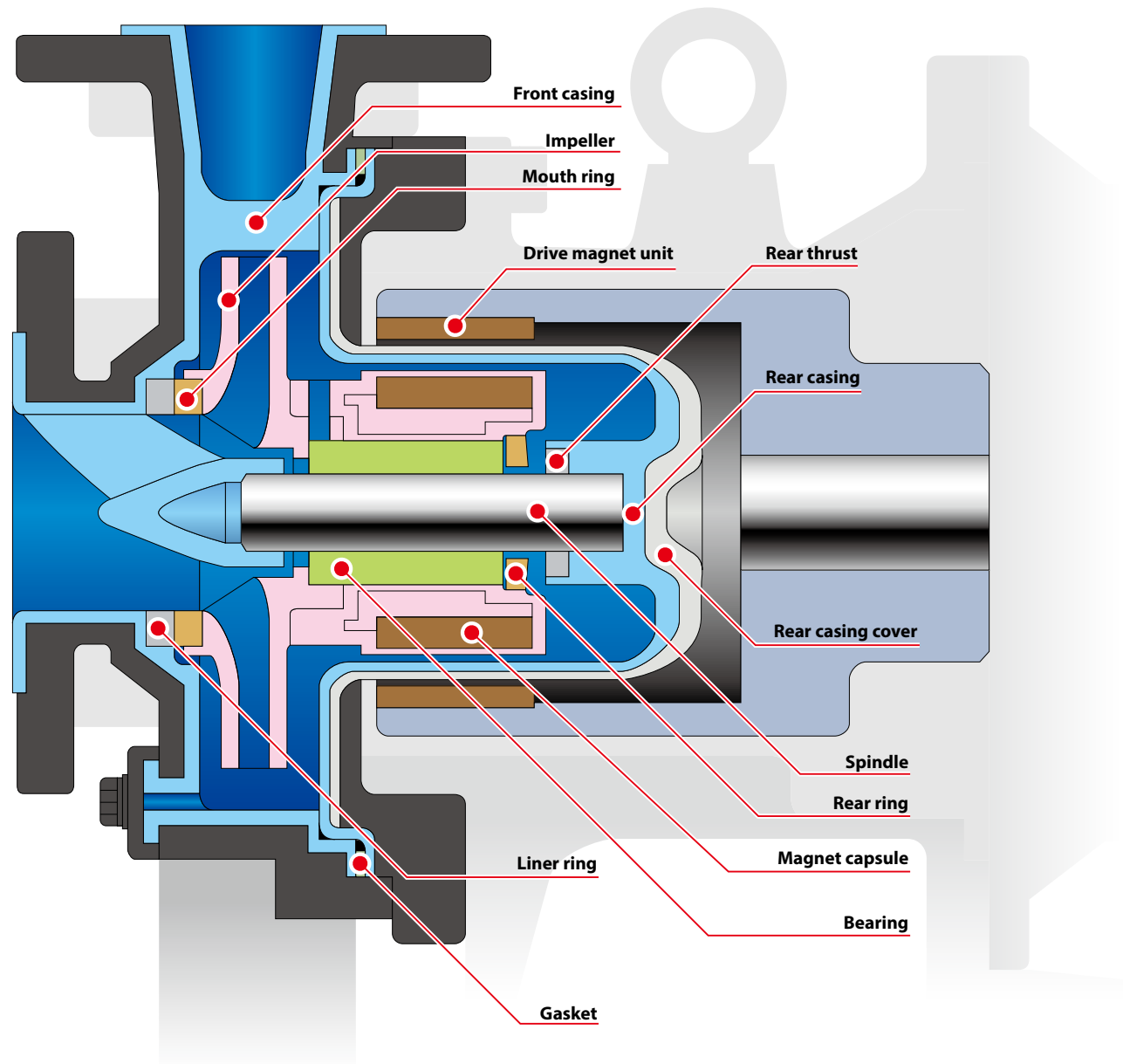


AMP40



AMP50

Construction and Materials



Materials	CF	KK
Front casing	CFRPP	
Rear casing		
Impeller		
Magnet capsule	CFRETFE	
Bearing	High density carbon	
Spindle	High purity alumina ceramic	
Liner ring		
Mouth ring		
Rear ring		
Rear thrust	PTFE (with filler)	
Gasket	High purity alumina ceramic	
	PTFE	

Pump Identification

AMP

40

-

110

1

CF

F

055

J

-

D

2

1

2

3

4

5

6

7

8

9

1

Pump size (Suction×Discharge)

40 : 50A×40A

50 : 65A×50A

65 : 80A×65A

2

Impeller size

110 - 165 (mm)

3

Impeller range

1

4

Material of Bearing/Spindle

CF : High density carbon/High purity alumina ceramic

KK : SiC/SiC

5

Type of motor

F : Flange motor

6

Motor output

037 : 3.7kW

055 : 5.5kW

075 : 7.5kW

110 : 11kW

150 : 15kW

185 : 18.5kW Note

7

Standard for pipe connection and motor

J : JIS flange +JIS motor

I : ISO flange +IEC motor

A : ANSI flange +JIS motor

8

Special version

Mark	Drain	Base	Special version
A	Without drain	With base	Standard
S	Without drain	With base	Special
D	With drain	With base	Standard
X	With drain	With base	Special
B	Without drain	Without base	Standard
Y	Without drain	Without base	Special
E	With drain	Without base	Standard
Z	With drain	Without base	Special

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Motor pole

2 : 2 pole

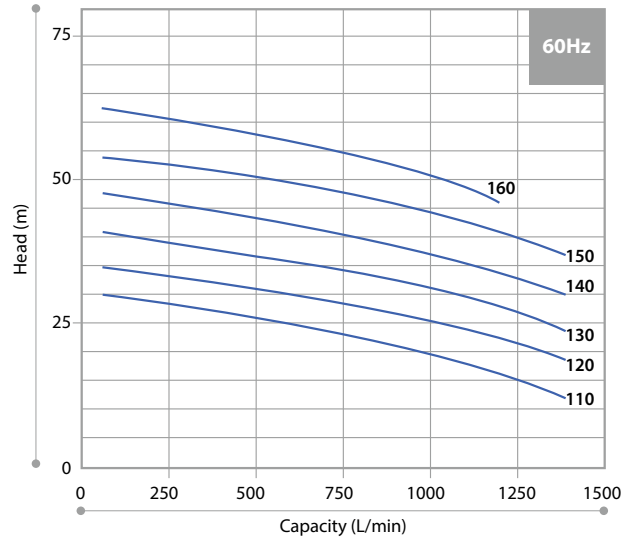
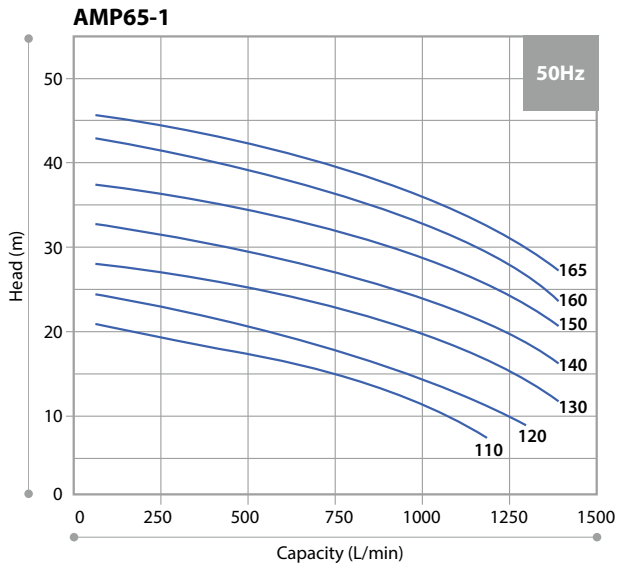
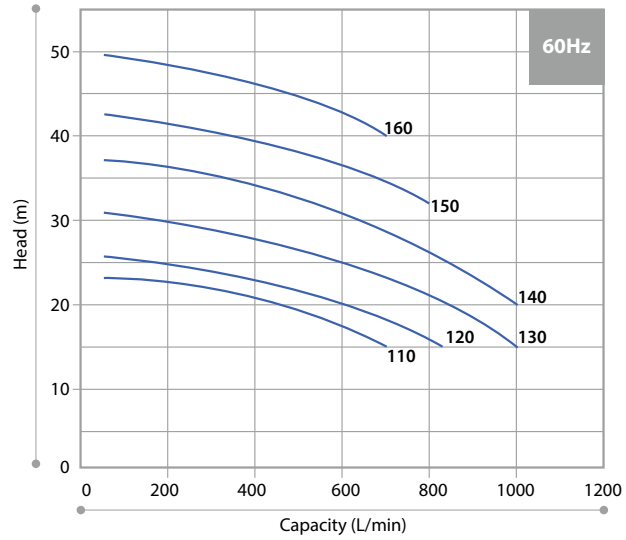
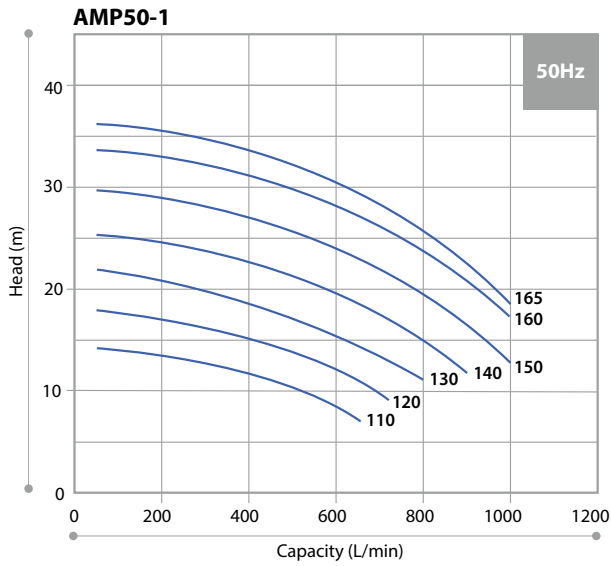
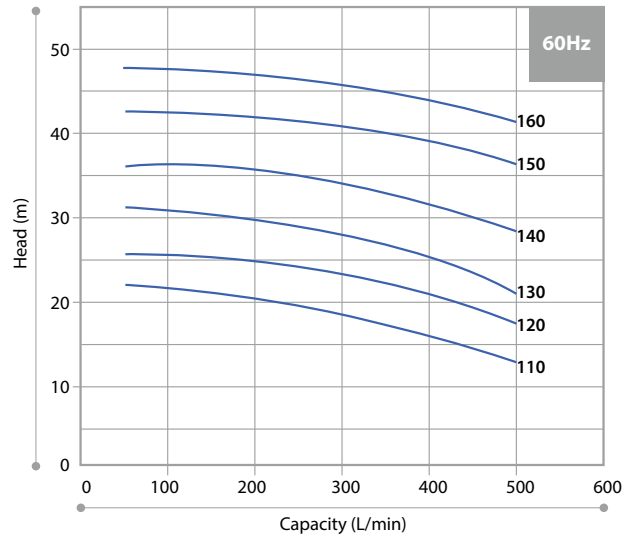
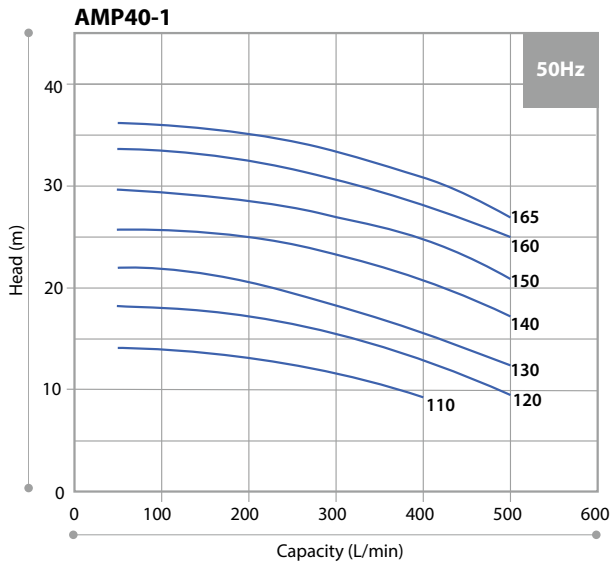
Note : 60Hz only

Specifications

Model	Pump size SuctionDischarge	Impeller size	50Hz		60Hz	
			Capacity (L/min)	Head (m)	Capacity (L/min)	Head (m)
AMP40-1	50 × 40	165	208	35.0	-	
		160		32.5	250	46.5
		150		28.5		41.0
		140		25.0		34.5
		130		20.5		29.0
		120		17.0		24.0
		110		13.0		19.5
AMP50-1	65 × 50	165	417	33.0	-	
		160		31.0	500	44.5
		150		27.0		38.0
		140		22.5		33.0
		130		18.0		27.0
		120		15.0		21.5
		110		12.0		18.5
AMP65-1	80 × 65	165	833	38.5	-	
		160		35.5	1000	51.0
		150		31.0		44.5
		140		26.5		37.0
		130		22.0		31.5
		120		17.5		26.0
		110		13.5		20.0

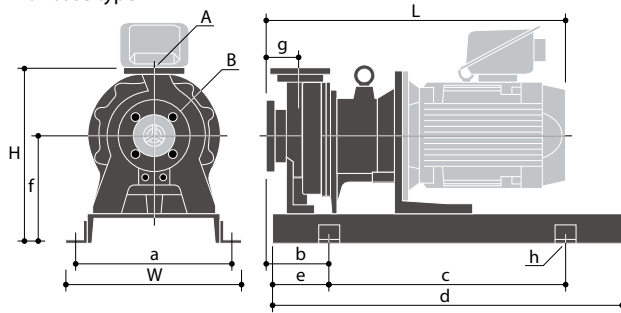
- Liquid temperature range: 0 to 80°C (varies depending on fluid quality)
- Pump pressure limit: 1.0 MPa
- Standard motor: 3-phase, TEFC, outdoor, flange mount type
- Standard paint color: Blue-black C75-20B
- Please inquire separately regarding corrosion resistance.

Performance Curves

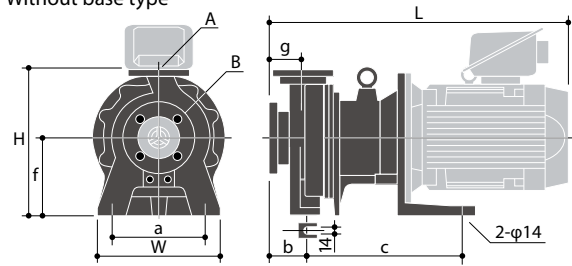


Dimensions in mm

With base type



Without base type



With base type

Model	Motor	W	H	L	a	b	c	d	e	f	g	h	A	B	Mass kg
AMP40-1	3.7kW	400	410	(625)	350	150	540	(800)	(130)	250	80	4-ø19	40A	50A	125
	5.5kW			(689)											145
	7.5kW														150
AMP50-1	3.7kW	400	410	(625)	350	150	540	(800)	(130)	250	80	4-ø19	50A	65A	125
	5.5kW			(689)											145
	7.5kW														150
AMP65-1	5.5kW	400	430	(709)	350	170	540	(800)	(130)	250	100	4-ø19	65A	80A	155
	7.5kW			160											
	11kW	480	500	(872)	430	190	600	(900)	(150)	320					235
	15kW														250
	18.5kW ^{Note}														270

Note : 60Hz only

• The dimensions may differ with the type of motor installed.

Without base type

Model	Motor	W	H	L	a	b	c	f	g	A	B	Mass kg
AMP40-1	3.7kW	280	340	(625)	220	90	285	180	80	40A	50A	95
	5.5kW			(689)			365					120
	7.5kW											125
AMP50-1	3.7kW	280	340	(625)	220	90	285	180	80	50A	65A	100
	5.5kW			(689)			365					120
	7.5kW											125
AMP65-1	5.5kW	280	360	(709)	220	110	365	180	100	65A	80A	130
	7.5kW											135
	11kW	410	(872)	220	110	450	230	190				
	15kW							205				
	18.5kW ^{Note}							225				

Note : 60Hz only

• The dimensions may differ with the type of motor installed.

Optional Accessories

Pump Protector DRN Series

Detects Unusual Pump Operating Conditions Including Dry-Running and Overload

The DRN model protects equipment (including pumps) from damage!

Minimizes production downtime.

Identifies possible causes of alarms so they can be investigated and addressed.



• For details, please refer to the separate catalog.

IWAKI CO., LTD. 6-6 Kanda-Sudacho 2-chome Chiyoda-ku Tokyo 101-8558 Japan TEL : (81)3 3254 2935 FAX : 3 3252 8892				IWAKI has global net work. Please find your distributor location at www.iwakupumps.jp			
European Headquarter	IWAKI Europe GmbH	TEL: (49)2154 9254 0	FAX: (49)2154 9254 48	U.S.A.	IWAKI America Inc.	TEL: (1)508 429 1440	FAX: (1)508 429 1386
Germany	IWAKI Europe GmbH	TEL: (49)2154 9254 50	FAX: (49)2154 9254 55	Brazil	IWAKI Do Brasil Comercio De Bombas Hidraulicas LTDA.	TEL: (55)19 3244 5900	FAX: (55)19 3244 5900
The Netherlands (Netherlands Branch)	IWAKI Europe GmbH	TEL: (31)74 2420011	FAX: (49)2154 9254 48	China (Shanghai)	IWAKI Pumps (Shanghai) Co., Ltd.	TEL: (86)21 6272 7502	FAX: (86)21 6272 6929
Italy (Italy Branch)	IWAKI Europe GmbH	TEL: (39)0445 561219	FAX: (39)0445 569088	China (Hong Kong)	IWAKI Pumps Co., Ltd.	TEL: (852)2607 1168	FAX: (852)2607 1000
Spain (Spain Branch)	IWAKI Europe GmbH	TEL: (34)934 741 638	FAX: (34)934 741 638	China (Guangzhou)	GFTZ IWAKI Engineering & Trading Co., Ltd.	TEL: (86)20 84350603	FAX: (86)20 84359181
Poland (East Europe Branch)	IWAKI Europe GmbH	TEL: (48)12 347 0755	FAX: (48)12 347 0900	China (Shenzhen)	IWAKI Pumps (Shenzhen) Co., Ltd.	TEL: (86)0755 8656 3696	
Denmark	IWAKI Nordic A/S	TEL: (45)48 242345		Singapore	IWAKI Singapore Pte Ltd.	TEL: (65)6316 2028	FAX: (65)6316 3221
Finland	IWAKI Suomi Oy	TEL: (358)10 201 0490		Indonesia (Indonesia Office)	IWAKI Singapore Pte Ltd.	TEL: (62)21 6906606	FAX: (62) 21 6906612
Norway	IWAKI Norge AS	TEL: (47)23 38 49 00		Malaysia	IWAKI SDN. BHD.	TEL: (60)3 7803 8807	FAX: (60)3 7803 4800
Sweden	IWAKI Sverige AB	TEL: (46)8 511 72900		Korea	IWAKI Korea Co.,Ltd.	TEL: (82)2 6238 4800	FAX: (82)2 6238 4801
Belgium	IWAKI Belgium N.V.	TEL: (32)13 670200	FAX: (32)13 672030	Taiwan	IWAKI Pumps Taiwan Co., Ltd.	TEL: (886)2 8227 6900	FAX: (886)2 8227 6818
France	IWAKI France S.A.	TEL: (33)1 69 63 33 70	FAX: (33)1 64 49 92 73	Thailand	IWAKI (Thailand) Co.,Ltd.	TEL: (66)2 322 2471	FAX: (66)2 322 2477
				Australia	IWAKI Pumps Australia Pty Ltd.	TEL: (61)2 9899 2411	FAX: (61)2 9899 2421

 **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.

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