

Sanwa Stainless Steel Magnetic Drive Pumps

MAGPAC[®] series

Seal-less Magnet Drive Pumps.
Stainless steel made.
Closed coupled type.



MANUFACTURER **SANWA HYDROTECH CORPORATION**

www.sanwapump.com

www.sanwapump.co.jp

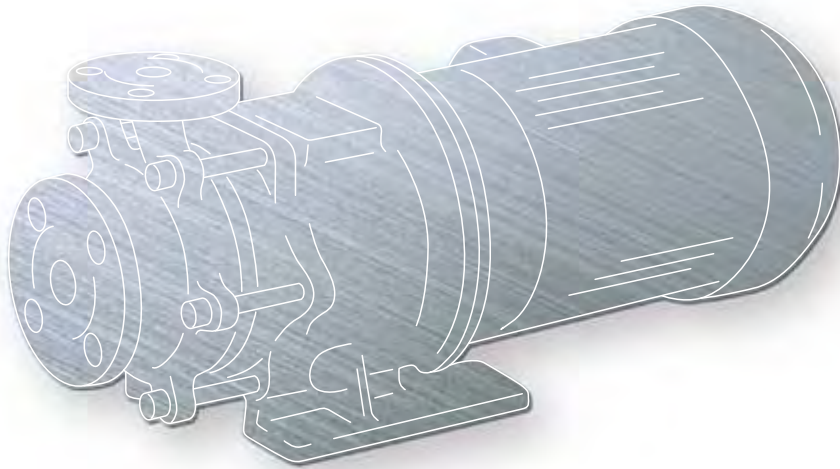


Yes, we make sealless pumps
that eliminate leakage!

**Sanwa's sealless magnetic drive pumps take
a bold step while entering into a new age.**

As we enter the 21st Century, environmental concerns, new technology, and renovated manufacturing techniques makes changes in pumping equipment mandatory....yet, very feasible.

Stainless steel, sealless magnet drive pumps with leak free construction, safety, reliability and long life can now fullfil today's pumping requirements and demands.



MAGPAC® series

Contents

MA/MB P.3~4	MPO(MMPO) P.13~15	MPCP P.21~22
MMP(MMH,MML) P.5~7	MSW(MHW) P.17~18	MPJ(MHJ) P.23~24
MP(MH,ML) P.9~12	MCK P.19~20	Introduction_1 P.8
		Introduction_2 P.16
		Standard specifications P.25~26

TYPE MA/MB

COMPACT STAINLESS STEEL MAGNETIC DRIVE PUMPS

Motor output :
25W to 90W

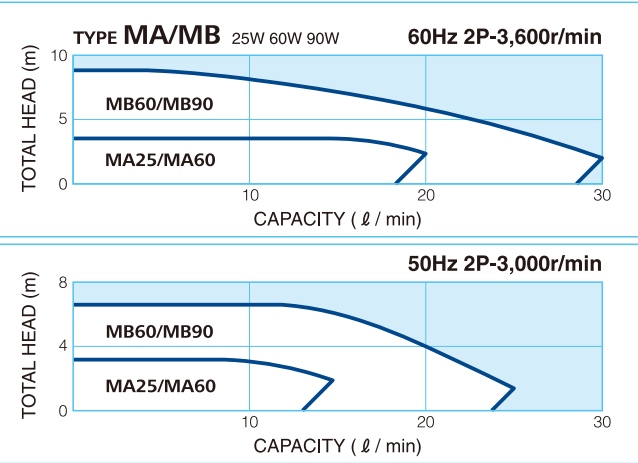
- ▶ Leak free, highly reliable sealless magnetic drive pump.
- ▶ Handle product temperatures up to 130°C (266°F).
- ▶ Very compact and minimum weight.
- ▶ 304SS construction for excellent corrosion resistance.
- ▶ SiC-D low friction bearings withstand accidental dry-run on start up.
- ▶ Practically maintenance free construction, requires minimum parts inventory.



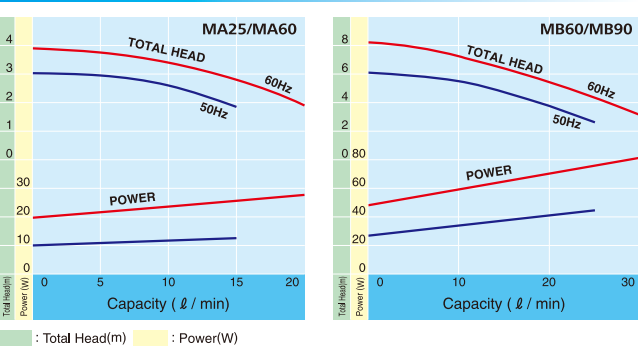
TYPE MA25W/60W

TYPE MB60W/90W

Selection charts



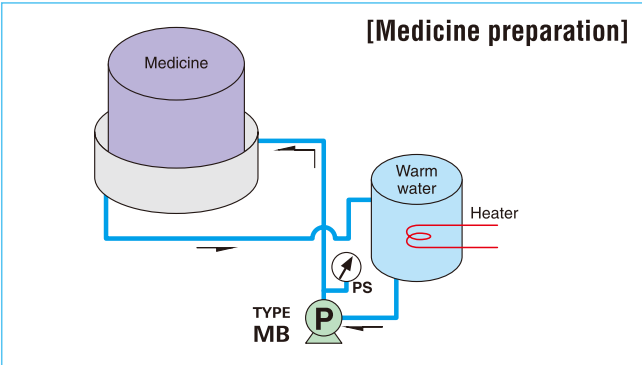
Performance curves



Specifications

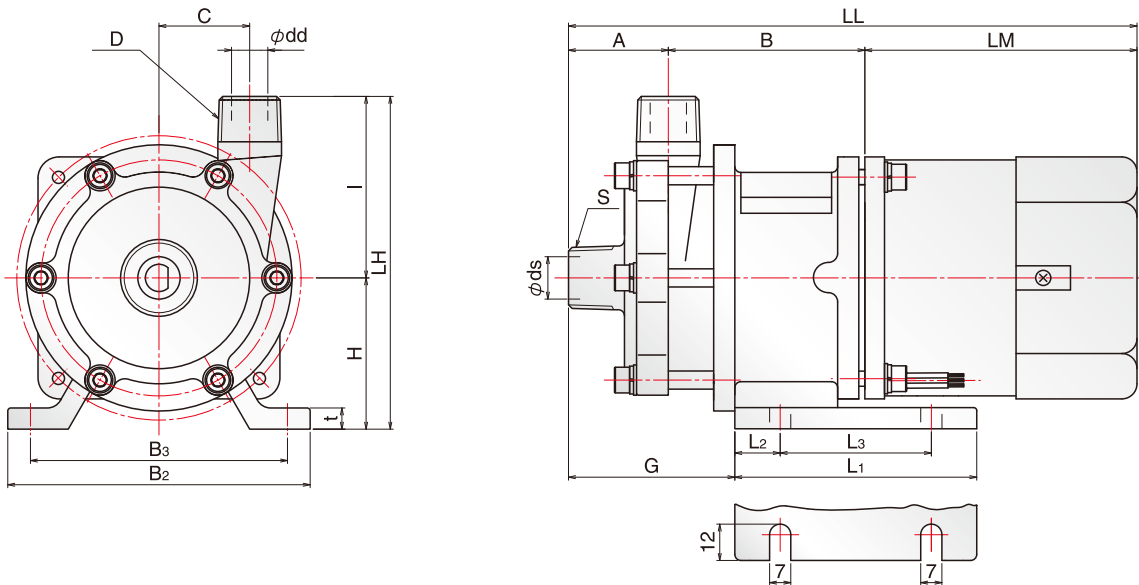
	MA		MB	
Frequency	50Hz	60Hz	50Hz	60Hz
Max. total head	3m	3.5m	6m	8m
Max. capacity	15 ℓ /min	20 ℓ /min	20 ℓ /min	20 ℓ /min
Max. temperature applicable	130°C			
Min. temperature applicable	-20°C			
Max. liquid specific gravity	1.1(MA25) , 2(MA60)		1.1	
Max. liquid viscosity	50mPa·s(cP)			
Design pressure	0.6MPaG			
Bore (suction x discharge)	14x12mm		14x13mm	
Flange standard	R thread			
Type of impeller	Open		Closed	
Motor output rating	25W/60W		60W/90W	
Pump material	SCS13(SUS304)			
Liquid-immersed bearings	SiC-D			

Application example



MAGPAC®series
MA / MB

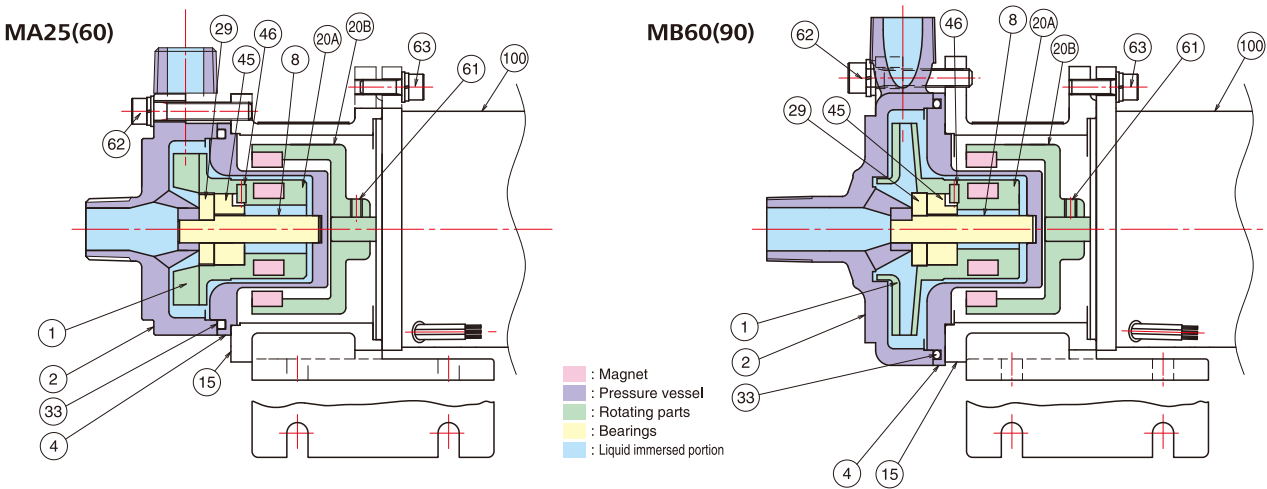
Outline dimension



PUMP SIZE	MOTOR		BORE				PUMP & MOTOR								BASE PLATE								WEIGHT APPROX.(kg)		
	FRAME SIZE	OUTPUT (W)	SUCT		DISCH		A	B	C	H	I	LH	LM	LL	G	L ₁	L ₂	L ₃	B ₂	B ₃	t	PUMP	MOTOR	TOTAL	
			ds	S	dd	D																			
MA25	—	25	14	R1/2	12	R1/2	33	65	30	50	60	110	90	188	55	80	15	50	100	85	7	2.2	1.3	3.5	
MA60	—	60											120	218								2.2	2.0	4.2	
MB60	—	60	14	R1/2	13	R1/2	45	64	0	50	70	120	120	229	66	80	15	50	100	85	7	2.4	2.0	4.4	
MB90	—	90										125	120	229		85	21					2.6	2.6	5.2	

LM,LL dimensions and motor weight may vary depending on motor used.

Construction and materials



20B	MAGNET	RARE EARTH	1 ^S	100	MOTOR	—	1
20B	MAGNET COUPLING(M)	SS400	1	63	HEXAGON SOCKET HEAD CAP SCREW WITH WASHER	SUS304	4 ^S
20A	MAGNET	RARE EARTH	1 ^S	62	HEXAGON SOCKET HEAD CAP SCREW WITH WASHER	SUS304	4 ^S or6 ^S
15	MAGNET COUPLING(P)	SUS	1	61	SET SCREW	SCM435	1
8	FRAME ADAPTER	FC200	1	46	PIN	SUS	1
4	SHAFT	SiC	1	45	BUSHING	SiC-D	1
2	REAR CASING	SUS	1	33	O RING	PTFE	1
1	CASING	SCS	1	29	THRUST RING	SiC	1
1	IMPELLER	SCS	1				
MARK	NAME OF PART	MAT'L	No.REQ'D	MARK	NAME OF PART	MAT'L	No.REQ'D

Examples of usage

- Semiconductor and liquid crystal processing
- Freezer and cooling device
- Various physicochemical equipment
- Laboratory and testing equipment
- Pharmaceutical and food processing

#In the case of low temperature liquid (0C°or less), problems may occur depending on the installation environment.
Please contact us before purchasing (before using).

TYPE MMP

SMALL STAINLESS STEEL MAGNETIC DRIVE PUMPS FOR EQUIPMENT USE

Motor output :
200W to 550W

The type MMP is a **small** MAGPAC Series stainless steel pump which is suitable for handling both **high and low temperature** products. Leak proof design, coupled with **SiC-D low friction bearings with minimum wear and yet withstandable at dry run on start-up**. Since motor is a separate entity, explosion proof requirements are not a problem. **Excellent pump for OEM service**. If temperatures exceed these specifications, see types below.

[Highly reliable block-building structure]

Small size magnetic drive pump

TYPE MMP -30°C~+150°C 200W/400W/550W

#Gasket (or O-ring) material depends on the liquid temperature.

For liquid of low temperature

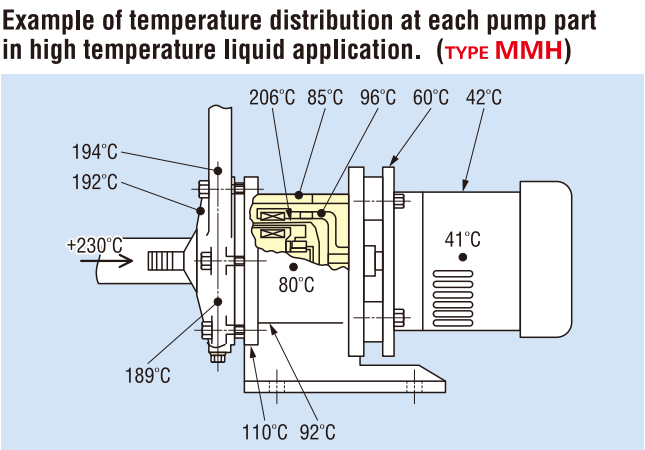
TYPE MML -80°C~+150°C 200W/400W/550W

- ▶ Sealed spacer protects motor from excess cold temperatures.
- ▶ Nd magnets and low temperature gasket material is used in these pumps.
- ▶ Nitrogen purge port is provided to prevent moisture from freezing in the frame adapter.

For liquid of high temperature

TYPE MMH RT~+280°C 200W/400W/550W

- ▶ Open spacer between pump and motor eliminates excess heat transfer to motor.
- ▶ For high temperatures, SmCo magnets and high temperature gasket material are used.
- ▶ High pressure containment is standard on these models.
- ▶ >230°C, Flange Fitting and No Casing Drain.

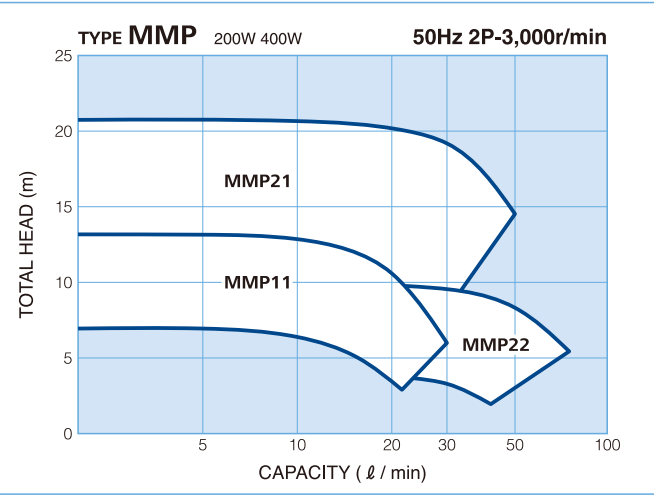
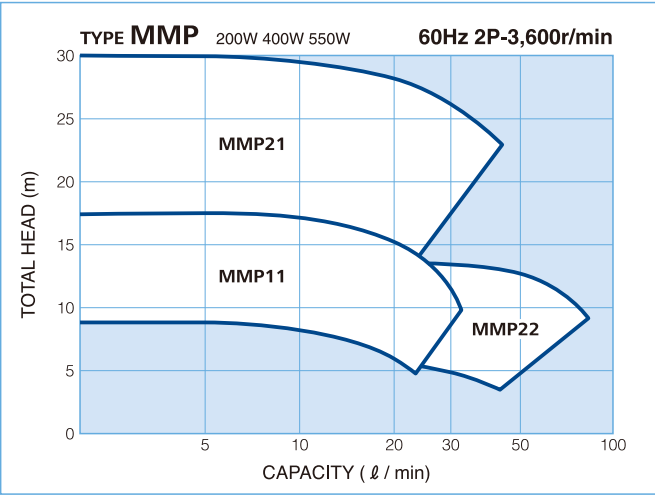


#In the case of low temperature liquid (0C°or less), problems may occur depending on the installation environment. Please contact us before purchasing (before using).

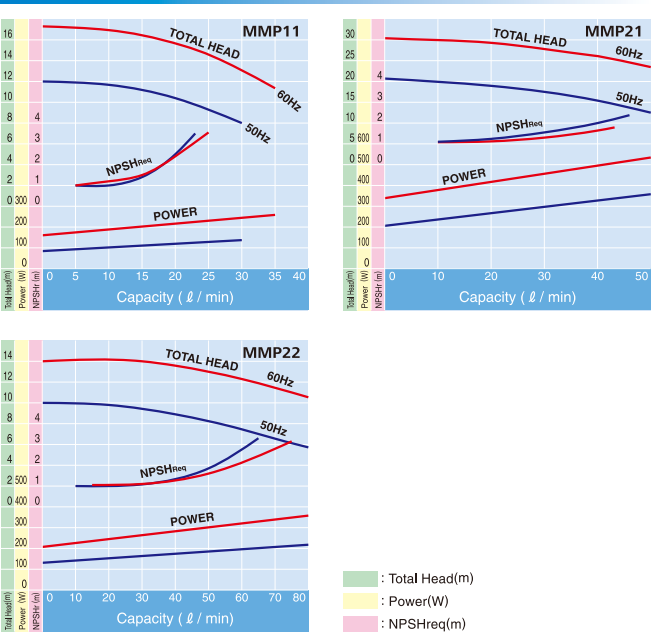


MAGPAC®series
MMP(MMH,MML)

Selection charts



Performance curves



Specifications

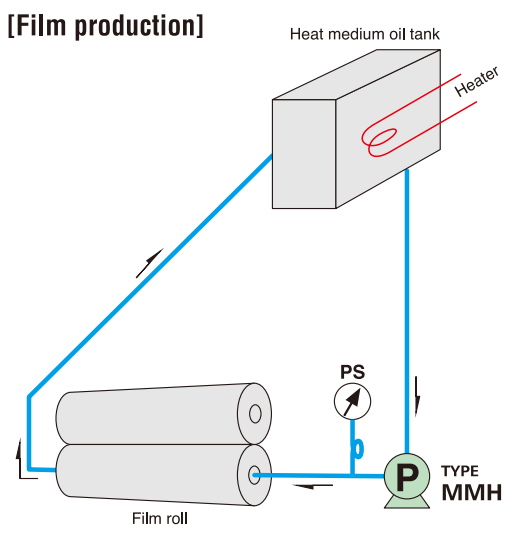
	MMP	MMH	MML
Frequency	50Hz		60Hz
Max. total head	20m		28m
Max. capacity	80 ℓ /min		80 ℓ /min
Max. temperature applicable	150°C	280°C	150°C
Min. temperature applicable	-30°C	RT	-80°C
Max. liquid specific gravity	2		
Max. liquid viscosity	100mPa·s(cP)		
Design pressure	0.6MPaG (MMP21:1.0MPaG)	1.0MPaG	
Bore (suction x discharge)	15x15mm ~ 25x20mm		
Flange standard	R thread / NPT thread		
Type of impeller	Closed		
Motor output rating	200W ~ 550W(2P)		
Pump material	SCS13(SUS304), SCS14(SUS316)		
Liquid-immersed bearings	SiC-D		

The performance curves for MMH and MML are same as MMP.
MMP21 is only for standard use (1.0MPaG).
0.55kW Motor is only TEFC.

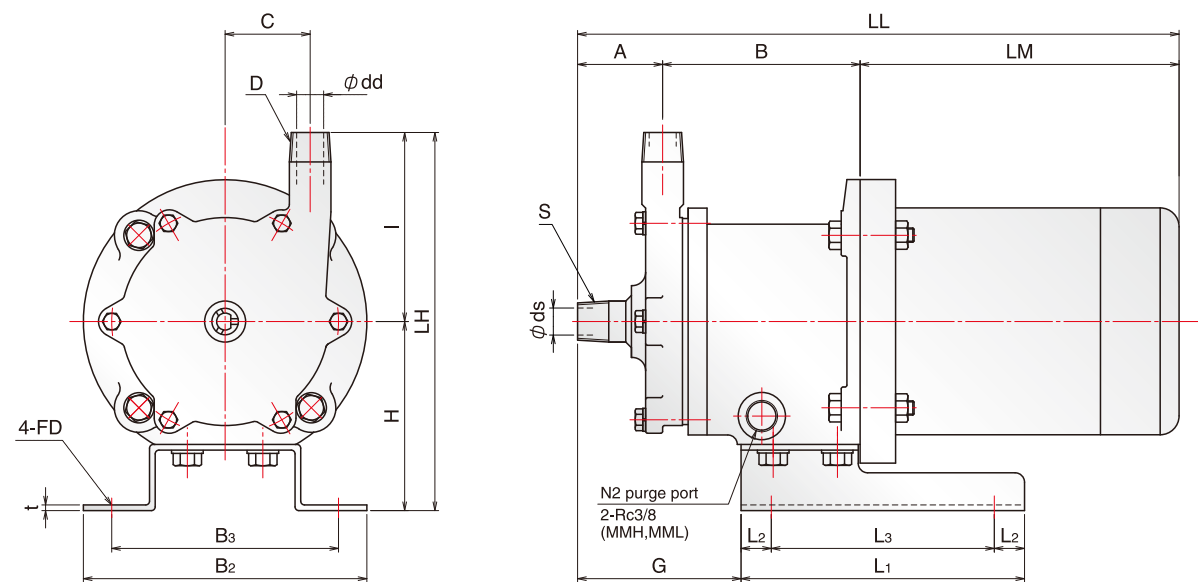
List of applications

Use	Liquid specification	Function/evaluation
Washing device	Exfoliation liquid; 130°C·15m x 20 ℓ /min	Heat, permeation-resistant
	Hydrocarbon system; 110°C·10m x 5 ℓ /min	Vacuum, cavitations free
	Alcoholic system; 120°C·10m x 20 ℓ /min	Heat-resistant, cavitations
	Freon replacing material; 10m x 20 ℓ /min	Durability and reliability
Atomic power/Drainage	30~40°C·15m x 30 ℓ /min	No leak and reliability
Pure water processing	20~30°C·15m x 20 ℓ /min	No leak, little dust making
Sterilizer/Hot water	130°C·16m x 30 ℓ /min	
Absorption type freezer	Lithium bromide; 120°C·10m x 10 ℓ /min	Vacuum, Pressure-proof
Low temperature chiller	Fluorinert, Galden; -50°C·15m x 10 ℓ /min	No leak, low noise, high heat efficiency
	Heat medium; 150°C·25m x 10 ℓ /min	Explosion-proof, Heat- resistant
Filter	Various medicines; 50°C·15m x 10 ℓ /min	Durability, wear-resistant
Solvent collector	Organic solvent; 50°C·15m x 5 ℓ /min	Explosion-proof, no leak
	For heat medium, Pressurized hot water	No leak, high reliability
Fine chemicals	Various chemicals	No leak, high reliability

Application example



Outline dimension

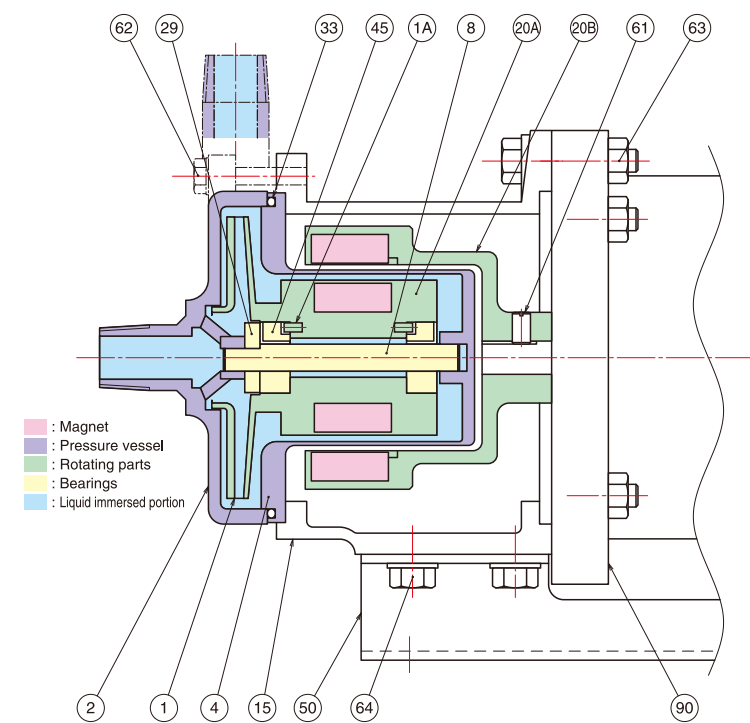


(In the unit of mm)

PUMP SIZE	MOTOR		BORE				PUMP & MOTOR								BASE PLATE										WEIGHT APPROX(KG) PUMP MOTOR TOTAL		
	FRAME SIZE	OUTPUT (W)	SUCT		DISCH		A	B	C	H	I	LH	LM	LL	G	L ₁	L ₂	L ₃	B ₂	B ₃	t	FD					
			ds	S	dd	D																					
MMP11	63M	200	15	R1/2	15	R1/2	45	104	45	100	100	200	209	358	86	150	16	118	150	120	3	φ9.5	8.0	8.0	16.0		
	71M	400						111					231	387	(70)								8.0	11.0	19.0		
MMP21	71M/71S	400/550	20	R3/4	20	R3/4	50	112	50	100	120	220	231	393	77	150	16	118	150	120	3	φ9.5	11.0	11.0	22.0		
MMP22	71M/71S	400/550	25	R1	20	R3/4	60	113	45	100	100	200	231	404	103 (87)	150	16	118	150	120	3	φ9.5	10.0	11.0	21.0		

#LM,LL dimensions and motor weight may vary depending on motor used.
#Figures in brackets are for MMH11,22 and MML11,22.

Construction and materials



(90)	SPACER #1	SS400(SUS304)	1
64	BOLT WITH WASHER	SUS304	4 ^S
63	BOLT WITH WASHER	SUS304	4 ^S
62	BOLT WITH WASHER	SUS304	6 ^S
61	SET SCREW	SCM435	1
50	BASE	SUS304	1
45	BUSHING	SiC-D	2
33	O RING #3	PTFE	1
29	THRUST RING	SiC	1
	MAGNET	RARE EARTH	1 ^S
20B	MAGNET COUPLING(M)	FCD	1
	MAGNET	RARE EARTH	1 ^S
20A	MAGNET COUPLING(P)	SUS	1
15	FRAME ADAPTER #2	FC200	1
8	SHAFT	SiC	1
4	REAR CASING	SUS	1
2	CASING	SCS	1
1A	PIN	SUS	2
1	IMPELLER	SCS	1
MARK	NAME OF PART	MAT'L	No.REQ'D

#1. Spacer(90) is attached to MMH and MML.
#2. Frame adapter(15) for MMH and MML comes in stainless steel.
#3. ORING(33) for MMH and MML comes in GASKET.

Magnetic drive pumps play active roles
in various industries.

- Electronics
- Environmental
- Energy
- Fuel cell
- Chemical industry
- Food industry
- Pharmaceutical
- Bio technology

At "Sanwa Hydrotech," we have been working hard to develop new, acid-proof alloys and pump styles, unlimited by conventional concepts of how pumps ought to work. We also promote developments in pump solutions by introducing state-of-the-art technologies. Thanks to these efforts, we have been able to establish a wide line of "Sanwa Brand" pumps, each of which has earned a good reputation. Among these are our stainless steel magnetic drive pump "MAGPAC series," which have captured the top share in the domestic market. Currently, the pumps in this series are being used in various fields, from the oil and chemical industries to IT industries such as semiconductor and LCD manufacturers.



TYPE MP

MID-SIZE STAINLESS STEEL MAGNETIC DRIVE PUMPS

SEALLESS

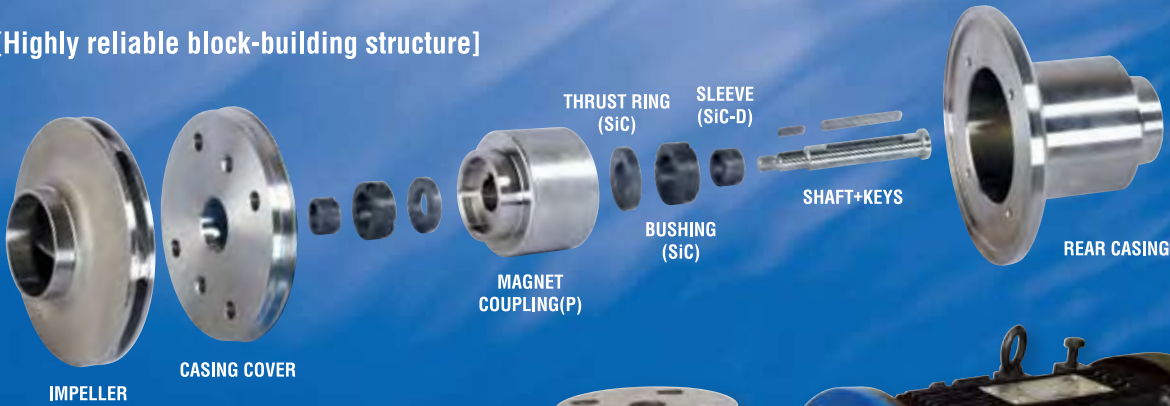
Motor output :
0.75kW to 15kW

Extention
11kW,15kW

The MP pumps are considered the core of the MAGPAC series pumps. Their three outstanding features, **sealless design**, **reliability** and **practically maintenance free** service makes them the most versatile of all the MAGPAC series pumps.

With efficiencies equaling mechanical seal pumps and **SiC-D dry-run-withstandable bearings**, these pumps are the logical choice for nearly all pump applications. For temperatures exceeding these specification select additional models below.

[Highly reliable block-building structure]



Seal less magnetic drive pump

TYPE MP
-30°C~+150°C
0.75kW~15kW

#Gasket material depends on the liquid temperature.

For liquid
of low temperature

TYPE ML

-80°C~+150°C
0.75kW~15kW

- ▶ Nitrogen purge port is provided to prevent moisture from freezing in the frame adapter.
- ▶ Rare earth Nd magnets are used.
- ▶ Low temperature gasket material is used.

For liquid
of high temperature

TYPE MH

RT~+280°C
0.75kW~15kW

- ▶ Fin type frame adapter dissipates heat away from pump.
- ▶ Rare earth SmCo magnets are used.
- ▶ High temperature gasket material is used.

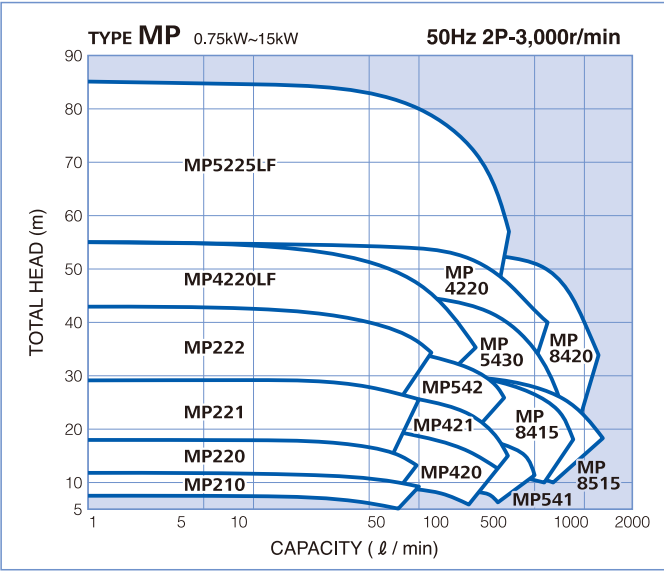
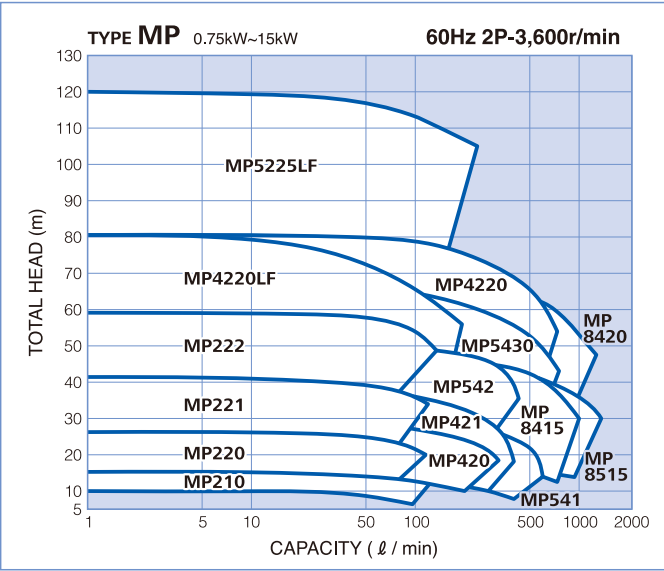
Specifications

	MP	MH	ML
Frequency	50Hz		60Hz
Max. total head	80m		120m
Max. capacity	1100 ℓ /min		1300 ℓ /min
Max. temperature applicable	150°C	280°C	150°C
Min. temperature applicable	-30°C	RT	-80°C
Max. liquid specific gravity		2	
Max. liquid viscosity		300mPa·s(cP)	
Design pressure	1.0MPaG(210, 220, 221, 222, 420, 421, 541, 542) 1.2MPaG(4220, 4220LF, 5430, 8415, 8420, 8515) 1.6MPaG(5225LF)		
Bore(suction x discharge)		25x20mm~80x50mm	
Flange standard		JIS 10K RF / ASME 150LB RF	
Type of impeller		Closed	
Motor output rating		0.75kW~15kW(2P)	
Pump material	SCS13(SUS304), SCS14(SUS316), ALLOY20, Hastelloy C equivalent		
Liquid-immersed bearings		SiC-D	



MAGPAC®series
MP(MH,ML)

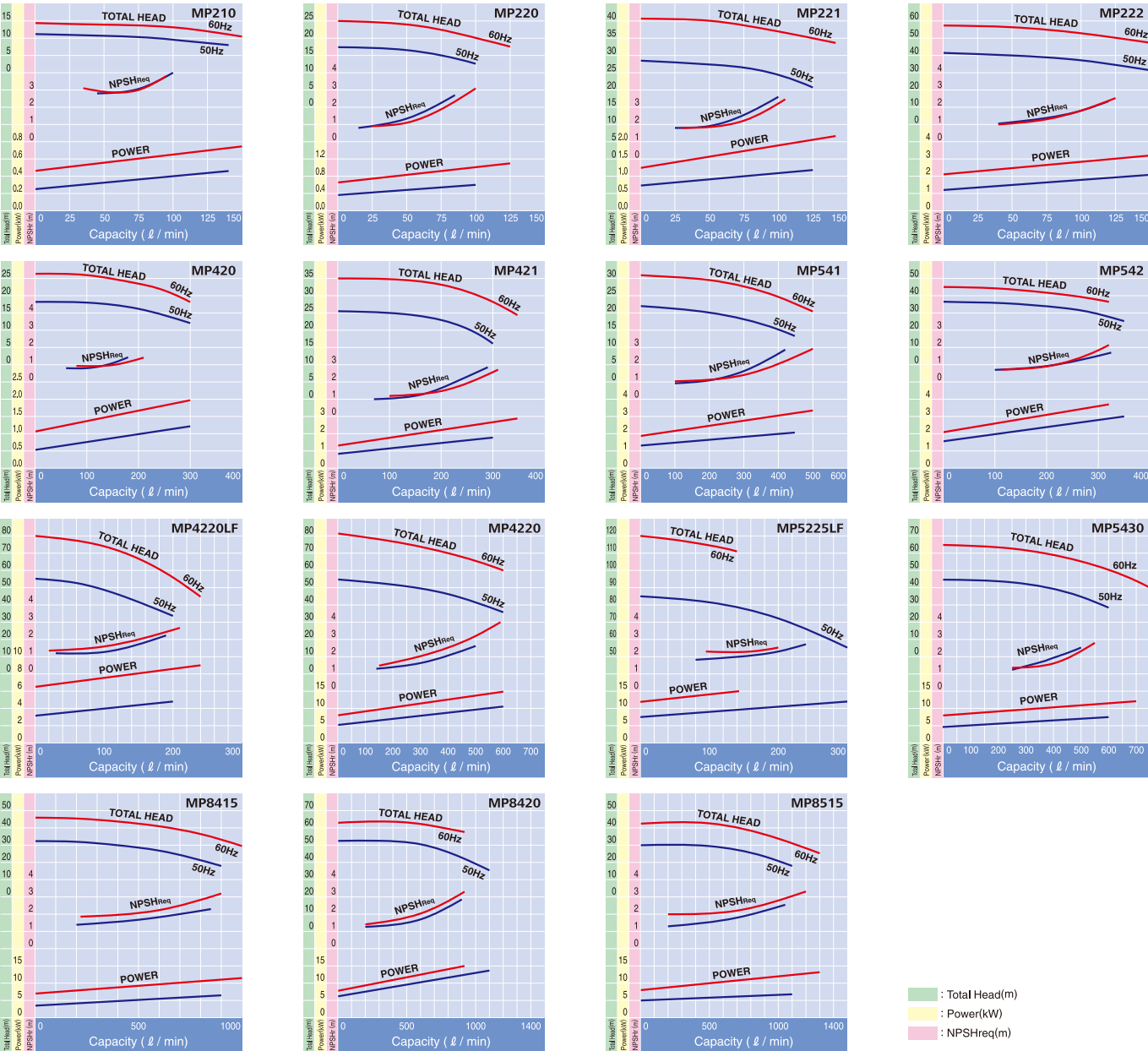
Selection charts



Performance curves for MH and ML are same as MP.

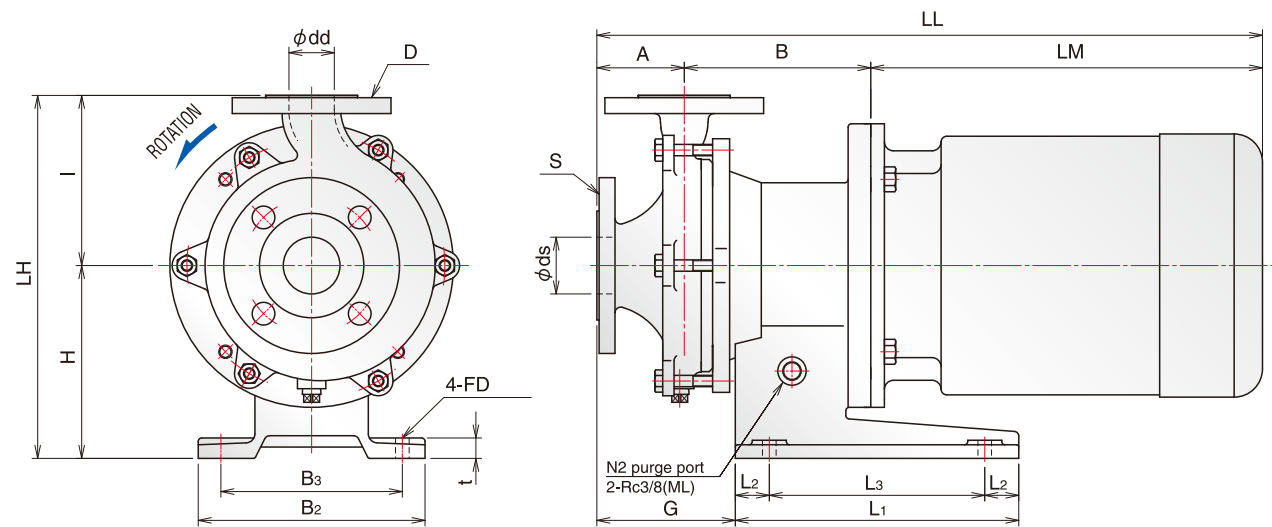
Performance curves

(60Hz 2P-3,600r/min,50Hz 2P-3,000r/min)



#In the case of low temperature liquid (0C°or less), problems may occur depending on the installation environment. Please contact us before purchasing (before using).

Outline dimension

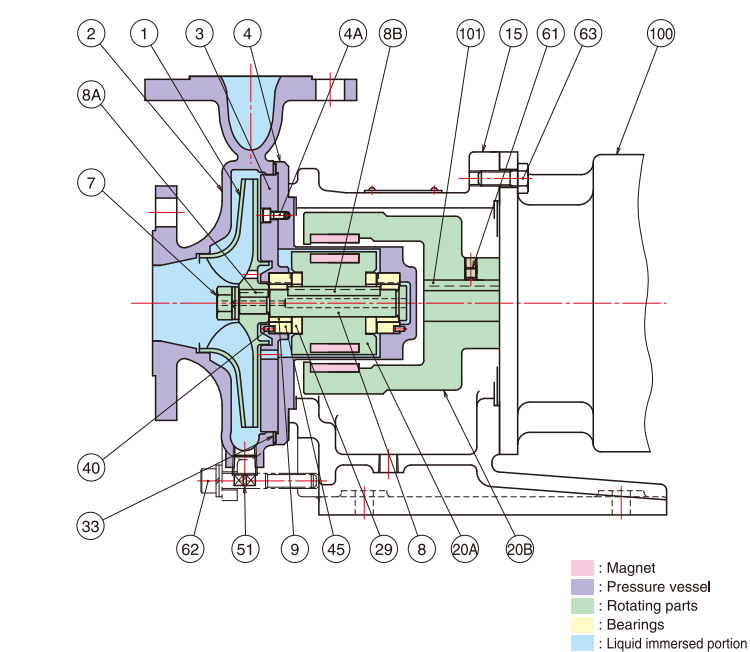


(In the unit of mm)																									
PUMP SIZE	MOTOR		BORE				PUMP & MOTOR						BASE PLATE								WEIGHT APPROX(Kg)				
	FRAME SIZE	OUTPUT (kW)	SUCTION		DISCH		A	B	H	I	LH	LM	LL	G	L1	L2	L3	B2	B3	t	FD	PUMP	MOTOR	TOTAL	
			DS	S	DD	D																			
MP210	80M	0.75	25		20		75	170	110	105	215	235.5	480.5	125	180	30	120	160	130	12	Ø12	22	13.5	35.5	
	90L	1.5										273	518										19.5	41.5	
MP220	80M	0.75	25		20		60	170	110	120	230	235.5	465.5	110	180	30	120	160	130	12	Ø12	23	13.5	36.5	
	90L	1.5										273	503										19.5	42.5	
MP221	90L	1.5,2.2	25		20		65	165	170	130	300	302	532	110	250	30	190	200	160	18	Ø12	27	24	51	
	(100L)112M	(2.2),3.7						326				566	30										36	66	
MP222	90L	1.5,2.2	25		20		65	165	170	140	310	302	532	110	250	30	190	200	160	18	Ø12	29	24	53	
	(100L)112M	(2.2),3.7						326				566	33										36	69	
MP420	80M	0.75	40		25		75	170	170	135	305	235.5	480.5	125	250	30	190	200	160	18	Ø12	29	13.5	42.5	
	90L	1.5,2.2										302	547										24	53	
MP421	90L	1.5,2.2	40		25		75	170	170	135	305	302	547	125	250	30	190	200	160	18	Ø12	30	24	54	
	(100L)112M	(2.2),3.7						326				581	34										36	70	
MP541	90L	2.2	50		40		80	170	170	140	310	302	552	130	250	30	190	200	160	18	Ø12	31	24	55	
	(100L)112M	(2.2),3.7						326				586	35										36	71	
MP542	90L	2.2	50		40		65	165	170	150	320	302	532	110	250	30	190	200	160	18	Ø12	34	24	58	
	(100L)112M	(2.2),3.7						326				566	38										36	74	
MP4220LF	112M	3.7	40		25		102	258	212	165	377	326	686	175	350	50	250	250	200	20	Ø15	68	36	104	
	132S,M	5.5,7.5										369.5	729.5										70	63	133
	160M,L	11,15										288	250										415	503	893
MP4220	112M	3.7	40		25		102	258	212	165	377	326	686	175	350	50	250	250	200	20	Ø15	68	36	104	
	132S,M	5.5,7.5										369.5	729.5										70	63	133
	160M,L	11,15										288	250										415	503	893
MP5430	112M	3.7	50		40		102	258	212	165	377	326	686	175	350	50	250	250	200	20	Ø15	72	36	108	
	132S,M	5.5,7.5										369.5	729.5										74	63	137
	160M,L	11,15										288	250										415	503	893
MP8415	112M	3.7	80		40		102	258	212	165	377	326	686	175	350	50	250	250	200	20	Ø15	72	36	108	
	132S,M	5.5,7.5										369.5	729.5										74	63	137
	160M,L	11,15										288	250										415	503	893
MP8420	112M	3.7	80		40		102	263	212	215	427	326	691	180	350	50	250	250	200	20	Ø15	74	36	110	
	132S,M	5.5,7.5										369.5	734.5										76	63	139
	160M,L	11,15										293	250										465	503	898
MP8515	112M	3.7	80		50		102	263	212	210	422	326	691	180	350	50	250	250	200	20	Ø15	74	36	110	
	132S,M	5.5,7.5										369.5	734.5										76	63	139
	160M,L	11,15										293	250										460	503	898
MP5225LF	112M	3.7	50		25		102	263	212	215	427	326	691	180	350	50	250	250	200	20	Ø15	84	36	120	
	132S,M	5.5,7.5										369.5	734.5										86	63	149
	160M,L	11,15										293	250										465	503	898

LM,LL dimensions and motor weight may vary depending on motor used. # Figures in brackets are for MH220 and ML220.



Construction and materials



101	COUPLING KEY(M)	S45C	1
100	MOTOR	-	1
63	HEXAGON HEAD BOLT	SUS304	4 ^S
62	HEXAGON SOCKET HEAD CAP SCREW WITH WASHER	SUS304	6 ^S
61	SET SCREW	SCM435	1
51	PLUG	SUS	1
45	BUSHING	SiC	2
40	PIN	SUS	2
33	SHEET GASKET	PTFE	1
29	THRUST RING	SiC	2
20B	MAGNET	RARE EARTH	1 ^S
	MAGNET COUPLING(M)	FCD	1
20A	MAGNET	RARE EARTH	1 ^S
	MAGNET COUPLING(P)	SUS	1
15	FRAME ADAPTER	FC200	1
9	SLEEVE	SiC-D	2
8B	COUPLING KEY(P)	SUS	1
8A	IMPELLER KEY	SUS	1
8	SHAFT	SUS	1
7	IMPELLER NUT WITH WASHER	SUS	1 ^S
4A	HEXAGON SOCKET HEAD CAP SCREW	SUS	4
4	REAR CASING	SUS	1
3	CASING COVER	SUS	1
2	CASING	SCS	1
1	IMPELLER	SCS	1
MARK	NAME OF PART	MAT'L	No. REQ'D

A Table of Standard Manufacturing Specification for the SANWA MAGPAC SERIES PUMPS

Pump Type	Standard Centrifugal								Open Impeller			
	MA		MB		MMP [MMH MML]		MP [MH ML]		MMPO		MPO	
Frequency (Hz)	50	60	50	60	50	60	50	60	50	60	50	60
Max. total head (m)	3	3.5	6	8	20	28	80	120	12	18	54	73
Max. capacity (ℓ /min)	15	20	20	20	80	80	1100	1300	40	45	800	1100
Max. temperature applicable (°C) #1	130				150 [280]		150 [280]		150		150	
Min. temperature applicable (°C) #1	-20				-30 [-80]		-30 [-80]		-30		-30	
Max. liquid specific gravity	1.1(MA25) 2(MA60)		1.1		2		2		2		2	
Max. liquid viscosity (mPa·s,cP)	50				100		300		100		300	
Design pressure (mPaG)	0.6				0.6 [1.0 1.0](MMP21:1.0)		1.0 , 1.2 , 1.6 ^{#4}		0.6		1.0 , 1.2 ^{#5}	
Bore <suction x discharge> (mm)	14x12		14x13		15x15~25x20		25x20~80x50		15x15		25x20~80x40	
Piping connection (Flange standard)	R thread				R thread		JIS 10K RF		R thread		JIS 10K RF	
					NPT thread		ASME 150LB RF		NPT thread		ASME 150LB RF	
					#2							
Type of impeller	Open type		Closed type		Closed type		Closed type		Open type		Open type	
Motor output rating (or Rated motor output)	25/60W		60/90W		200~550W		0.75~15kW		200 , 400W		0.75~15kW	
(Synchronized) number of revolution (rpm)	3000/3600				3000/3600		3000/3600		3000/3600		3000/3600	
Material for pump body	SCS13(SUS304)		O		O		O		O		O	
	SCS14(SUS316)		-		O		O		O		O	
	ALLOY20		-		-		O		-		O	
	Hastelloy C equivalent		-		-		O		-		O	
Number of pump type	2		2		3 [3 3]		15 [15 15]		1		8	
Remarks					#3				Low NPSH model		Low NPSH model	
Typical type (or model)												

When your requirements exceed the above specifications, please consult factory.
#1. When temperatures fluctuate between extreme high and low please consult factory.
#2. >230°C, Flange Fitting(JIS 10K RF/ASME 150LB RF).

Heavy Duty Series, Family of Stainless Steel Magnetic Drive Pump

META SERIES

Motor output :
Max.110kW



TYPE MET

Motor output :
Max.22kW



TYPE MTFO

Vertical In-Line						Jacketed Casing		Regenerative turbine vane		Self Priming Regenerative turbine vane				Pump Type	
MPCP						MPJ [MHJ]		MSW [MHW]		MCK					
25		250~502		8515,8520						201		251			
50	60	50	60	50	60	50	60	50	60	50	60	50	60	Frequency (Hz)	
9	13	36	55	14	20	40	58	65	90	20	20	30	30	Max. total head (m)	
90	100	350	350	700	900	300	300	45	50	6	14	6	14	Max. capacity (ℓ /min)	
150						150 [280]		150 [230]		80				Max. temperature applicable (°C) ^{#1}	
-30						-30		-30		0				Min. temperature applicable (°C) ^{#1}	
2						2		2		1.1				Max. liquid specific gravity	
100		300		300		300		50		30				Max. liquid viscosity (mPas,cP)	
0.6		1.0		1.2		PUMP:1.0 JACKET:1.2		1.6		0.6				Design pressure (mPaG)	
25x25		25x25~50x50		80x50		25x20~50x40		15x15~25x25		20x20		25x25		Bore <suction x discharge> (mm)	
JIS 10K RF						JIS 10K RF		Rc thread		Rp thread				Piping connection	
ASME 150LB RF						ASME 150LB RF		JIS 10K RF						(Flange standard)	
								ASME 150LB RF							
Closed type						Closed type		Cascade type		Cascade type				Type of impeller	
400W		0.75~3.7kW		2.2~5.5kW		0.75~3.7kW		0.75~3.7kW		400W		750W		Motor output rating	
														(or Rated motor output)	
3000/3600				1500/1800		3000/3600		3000/3600		3000/3600				(Synchronized) number of revolution (rpm)	
O						O		-		O				SCS13(SUS304)	Material for pump body
O						O		O		-				SCS14(SUS316)	
-						O		-		-				ALLOY20	
-						O		-		-				Hastelloy C equivalent	
1	4	2		4 [4]		4 [4]		4 [4]		1	1	Number of pump type			
						Jacketed pump				Self priming				Remarks	
														Typical type (or model)	

#3. >230°C, No Casing Drain.
#4. Design pressure : 1.0MPaG(210, 220, 221, 222, 420, 541, 542) / 1.2MPaG(4220, 4220LF, 5430, 8415, 8420, 8515) / 1.6MPaG(5225LF)
#5. Design pressure : 1.0MPaG(220, 221, 222, 420, 542) / 1.2MPaG(4220LF, 5430, 8415)

TYPE MPM₂ 522

Multi-stage magnetic drive volute pump



That ensures marvelous performance.
Large flow 250 ℓ /min, High head 100m(60Hz)

The use of monitor is recommended.

The monitor protects the pump from cavitation and dry run.

Operation

Monitor measures irregular pumping conditions such as dry run, shut off, cavitation or de-couple operation. A built in relay shuts down the motor/pump when power is below the established setting. (Other optional devices are available)



Pump Protector DRN



MANUFACTURER **SANWA HYDROTECH CORPORATION**

HEAD OFFICE. OVERSEAS BUSINESS DEPARTMENT

No. 11-33, Minamikaneden 2-chome, Suita, Osaka, 564-0044 Japan

Tel. +81-6-6330-5984 Fax. +81-6-6330-5975

E-mail : sxobd@sanwapump.co.jp

[English] <http://www.sanwapump.com>

[Japanese] <http://www.sanwapump.co.jp>

- The contents of this catalogue are subject to partial changes without notice, for the reason of product modification.
- The information and data given in this catalogue should not be taken as to guarantee the detail, specification or performance of our products.