

TYPE MSW

STAINLESS STEEL REGENERATIVE TURBINE VANE MAGNETIC DRIVE PUMPS

Motor output :
0.75kW to 3.7kW

SEALLESS

- ▶ The best selection for **low flow / high head applications**.
- ▶ No leakage because of magnetic drive (sealless) construction.
- ▶ **SiC-D bearings withstand accidental dry-run on start up**.
- ▶ **Low heat rise** and **low minimum flow**.
- ▶ Quieter than typical mechanical seal pumps.
- ▶ **Steep performance curve** and dependable capacity regardless of pressure variations.
- ▶ Can be run in reverse without any problem.



TYPE MSW -30°C~+150°C 0.75kW~3.7kW

#O-ring material depends on the liquid temperature.

For liquid of high temperature

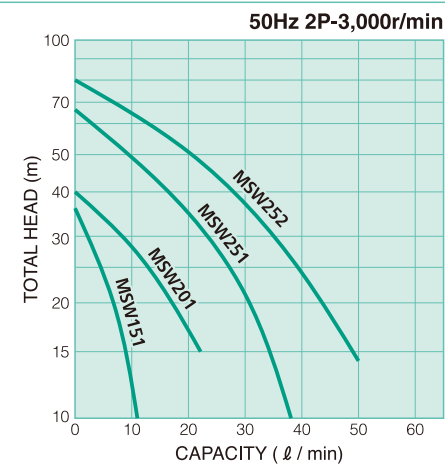
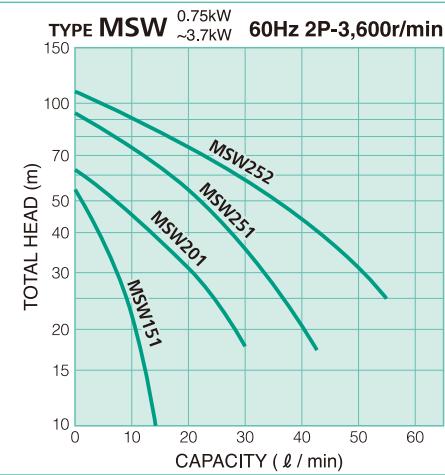
TYPE MHW RT~+230°C 0.75kW~3.7kW

- ▶ Fin type frame adapter dissipates heat away from pump.
- ▶ High temperature SmCo magnets are used for temperatures above 150°C.



Cascade-bladed impeller →

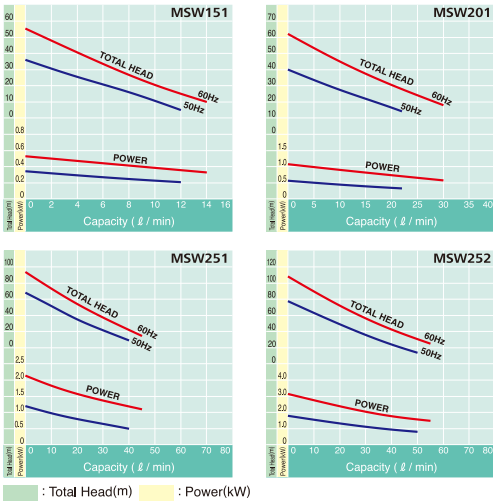
Selection charts



Specifications

	MSW	MHW
Frequency	50Hz	60Hz
Max. total head	65m	90m
Max. capacity	45 ℓ / min	50 ℓ / min
Max. temperature applicable	150°C	230°C
Min. temperature applicable	-30°C	RT
Max. liquid specific gravity	2	
Max. liquid viscosity	50mPa·s(cP)	
Design pressure	1.6MPaG	
Bore (suction x discharge)	15x15~25x25mm	
Flange standard	Rc thread / JIS 10K RF / ASME 150LB RF	
Type of impeller	Cascade blades	
Motor output rating	0.75~3.7kW(2P)	
Pump material	SCS14(SUS316)	
Liquid-immersed bearings	SiC-D	

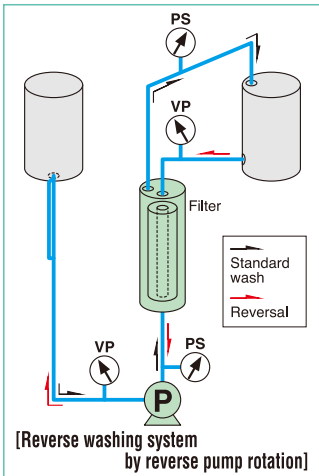
Performance curves (60Hz 2P-3,600r/min, 50Hz 2P-3,000r/min)



Examples of usage

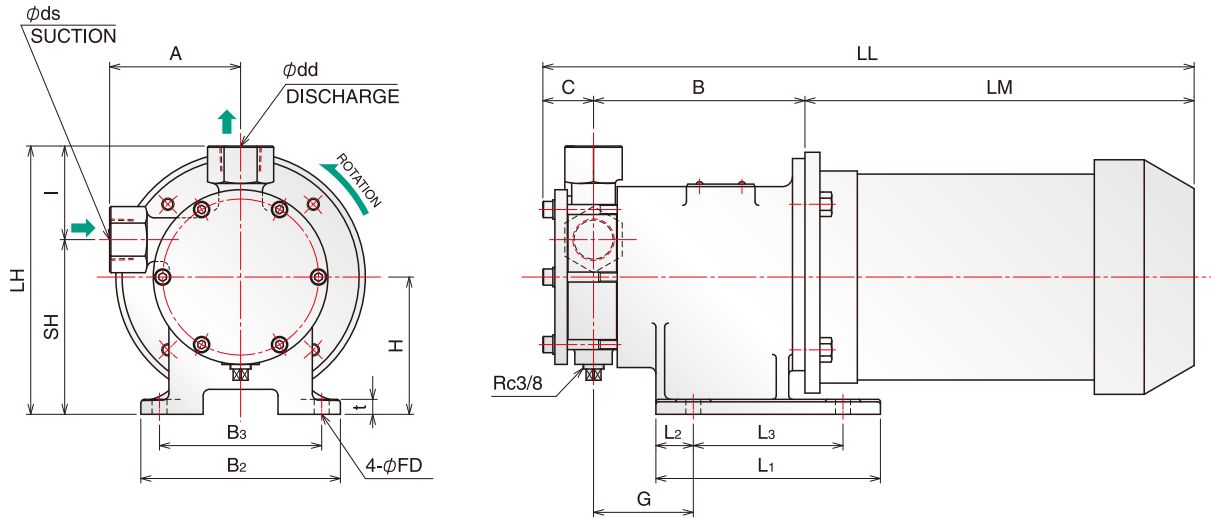
Use	Liquid used
Washing device	Exfoliation liquid
	Hydrocarbon system
	Alcoholic system
Synchrotron orbital radiation/Cooling device	Freon replacing material
Pure water processing	Lithium bromide
Sterilizer/Hot water	Pure water
Absorption type freezer	Ozone water
Low temperature chiller	Fluorinert, Galden
Temperature controller/Dryer	Heat medium
Filter	Various medicines
Solvent collector	Organic solvent
Fine chemicals	Various chemicals

Application example



MAGPAC®series
MSW(MHW)

Outline dimension

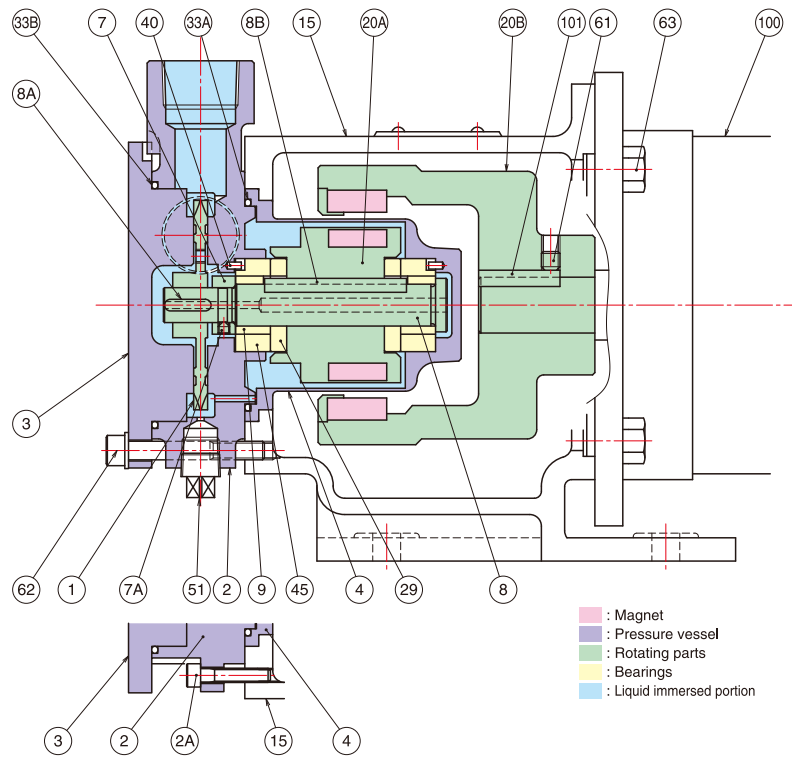


(In the unit of mm)

PUMP SIZE	MOTOR		BORE				PUMP & MOTOR										BASE PLATE							WEIGHT APPROX(kg)		
	FRAME SIZE	OUTPUT (kW)	SUCT ds	S	DISCH dd	D	A	B	C	H	I	SH	LH	LM	LL	G	L1	L2	L3	B2	B3	t	FD	PUMP	MOTOR	TOTAL
MSW151	80M	0.75	15	Rc1/2	15	Rc1/2	80	165	35	110	55	135	190	235.5	435.5	76	180	30	120	160	130	12	ϕ12	16	13.5	29.5
MSW201	80M	0.75	20	Rc3/4	20	Rc3/4	80	170	37	110	55	135	190	235.5	442.5	80	180	30	120	160	130	12	ϕ12	20	13.5	33.5
	90L	1.5												273	480										19.5	39.5
MSW251	90L	1.5,2.2	25	Rc1	25	Rc1	105	170	41	110	75	140	215	302	513	80	180	30	120	160	130	12	ϕ12	20	24	44
	(100L)	(2.2)										200	275	306	527									25	34	59
MSW252	90L	2.2	25	Rc1	25	Rc1	105	170	45	110	75	140	215	302	517	80	180	30	120	160	130	12	ϕ12	20	24	44
	(100L),112M	(2.2),3.7										200	275	326	551									25	36	61

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

Construction and materials



MARK	NAME OF PART	MAT'L	No.REQ'D
101	COUPLING KEY(M)	S45C	1
100	MOTOR	-	1
63	HEXAGON HEAD BOLT	SUS304	4
62	HEXAGON SOCKET HEAD CAP SCREW WITH WASHER	SUS304	6 ^S
61	SET SCREW	SCM435	1
51	PLUG	SUS316	1
45	BUSHING	SiC	2
40	PIN	SUS316	2
33B	O RING	PTFE	1
33A	O RING	PTFF	1
29	THRUST RING	SiC	2
	MAGNET	RARE EARTH	1 ^S
20B	MAGNET COUPLING(M)	FCD	1
	MAGNET	RARE EARTH	1 ^S
20A	MAGNET COUPLING(P)	SUS316	1
15	FRAME ADAPTER	FC200	1
9	SLEEVE	SiC-D	2
8B	COUPLING KEY(P)	SUS316	1
8A	IMPELLER KEY	SUS316	1
8	SHAFT	SUS316	1
7A	SET SCREW	SUS316	2
7	SET RING	SUS316	1
4	REAR CASING	SUS316	1
3	CASING COVER	SUS316	1
2A	HEXAGON SOCKET HEAD CAP SCREW	SUS304	2
2	CASING	SCS14	1
1	IMPELLER	SUS316	1