

# IWAKI

## SANWA

Line  
(Europe Edition)

### Metallic Self - priming Magnet Drive Pumps



**MEK series**

**Extensive Hydraulic Performance, Seal-less,  
Corrosion Resistant , Leak Free**



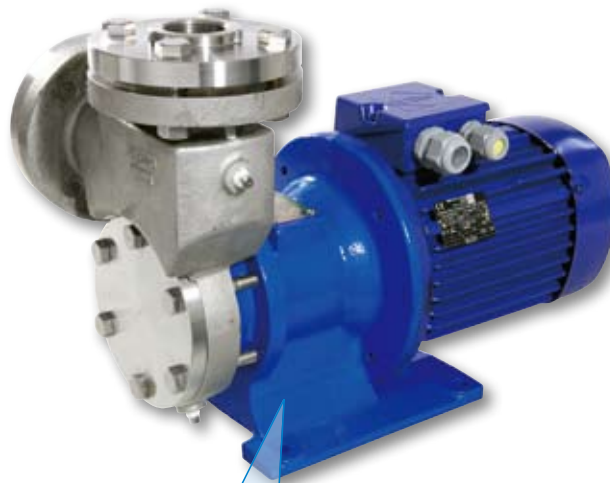
Catalog No.  
ISX-E-1612-003



# MEK

## Magnetic drive turbine pumps designed for process applications

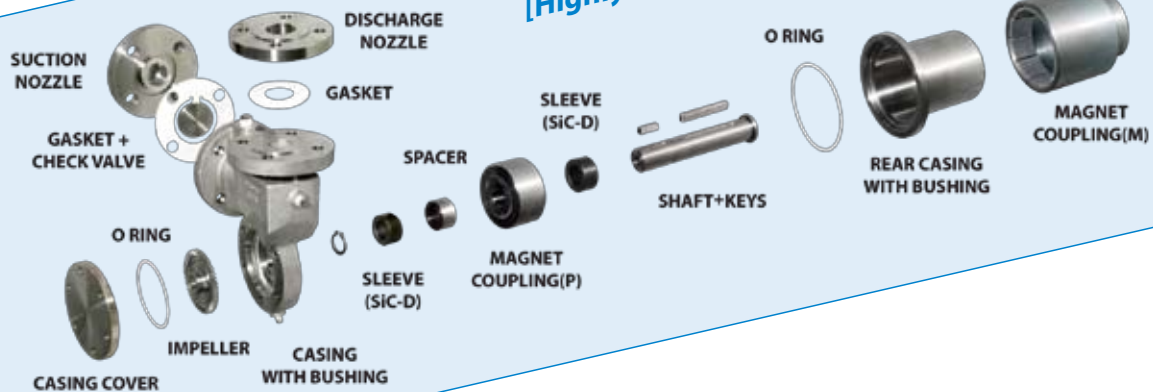
The MEK series stainless steel magnetic drive turbine pumps are free from leakage and are suitable for many applications involving transfer of organic solvents & other chemicals.



**TYPE MEK**  
Motor output :  
**0,25 kW to 4,0 kW**



*[Highly reliable block-building structure]*



### High pump efficiency

The self-centering design automatically positions the impeller for optimum efficiency.

### High Chemical resistance

SUS 316 wet ends offer high chemical resistance for a wide range of chemical processes.

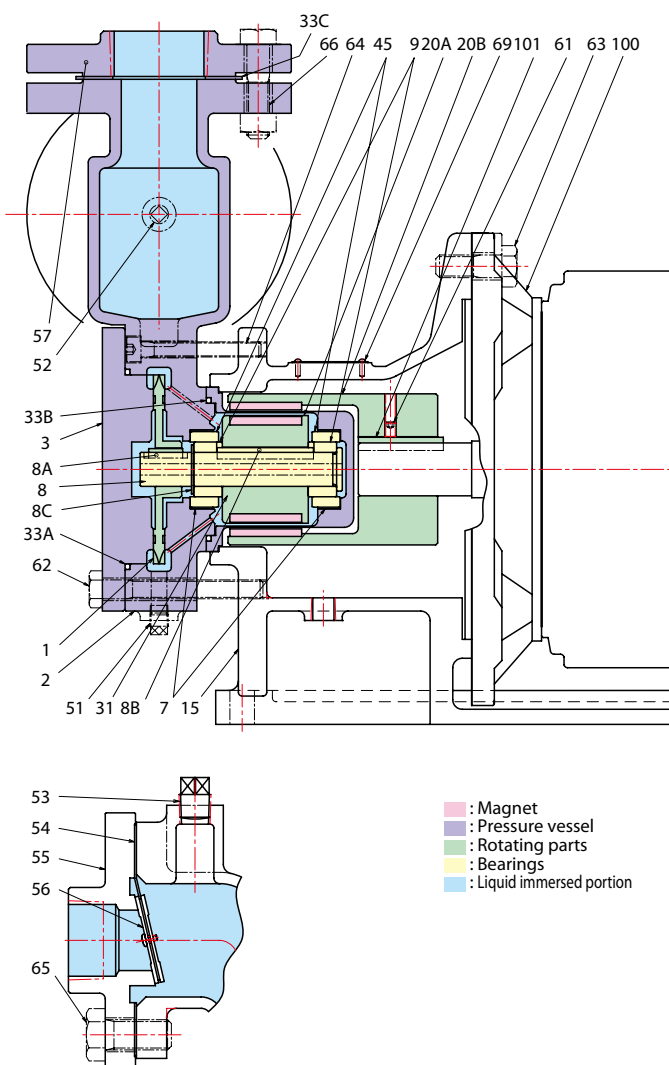
### Applications

Chemical processes, laboratory use, test plants and pilot plants.

Degreasing, water purification and seawater desalination plants.

Food, beverage and pharmaceutical manufacture. Ultrasonic cleaning machines, medical equipment, industrial cleaning devices.

## Construction and materials



101	COUPLING KEY(M)	—	1
100	MOTOR	—	1
69	NAME PLATE	304SS	1
66	HEXAGON HEAD BOLT & NUT	316SS	4
65	HEXAGON HEAD BOLT	316SS	4
64	HEXAGON SOCKET HEAD CAP SCREW	316SS	2
63	HEXAGON HEAD BOLT	316SS	4
62	HEXAGON HEAD BOLT	316SS	6
61	SET SCREW	STEEL	2
57	DISCHARGE NOZZLE	316SS	1
56	CHECK VALVE	316SS	1
55	SUCTION NOZZLE	316SS	1
54	GASKET	PTFE	1
53	PLUG	316SS	1
52	PLUG	316SS	1
51	PLUG	316SS	1
45	BUSHING	SiC	2
33C	GASKET	PTFE	1
33B	O RING	PTFE	1
33A	O RING	PTFE	1
20B	MAGNET COUPLING(M)	STEEL	1
20A	MAGNET COUPLING(P)	316SS	1
31	SPACER	316SS	1
15	FRAME ADAPTER	CAST IRON	1
9	SLEEVE	SiC-D	2
8C	RETAINING RING	316SS	1
8B	COUPLING KEY(P)	316SS	1
8A	IMPELLER KEY	316SS	1
8	SHAFT	316SS	1
7	TOLERANCE RING	316SS	2
4	REAR CASING	316SS	1
3	CASING COVER	316SS	1
2	CASING	316SS	1
1	IMPELLER	316SS	1
<b>MARK</b>	<b>NAME OF PART</b>	<b>MAT'L</b>	<b>No.</b>

### Significance of SiC-D

- Increased damage prevention -

- » SiC-D bearings can withstand accidental dry run for certain periods.
- » Unique materials and manufacturing techniques of our specially treated SiC-D bearings provide a coefficient of friction 1/4 that of SiC.
- » The very low coefficient of friction of our SiC-D bearings results in much less heat being generated in upset or dry running conditions. SiC-D bearings are more forgiving of dry running conditions frequently encountered at start up, during upset conditions or in batch services. Extremely hard surfaces minimize wear and prolong service life; resistance to chemicals is maintained for extended bearing life.

**BUSHING  
(SiC)**



**SLEEVE  
(SiC-D)**

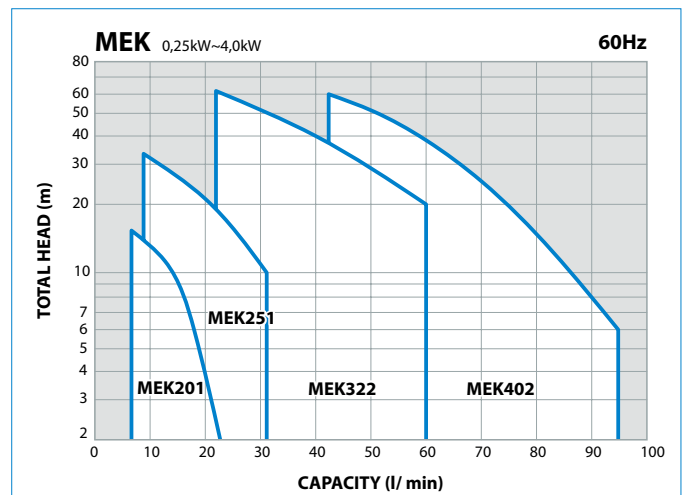
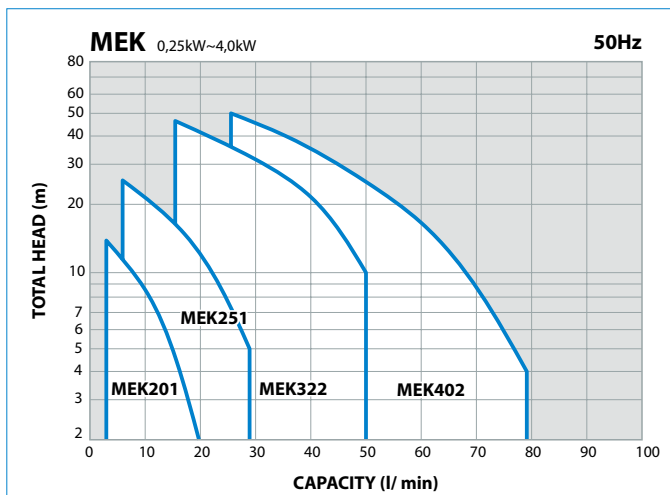


## Specifications

MODEL	Bore	Motor Output	Capacity x Head (L/min x m)		Max. S.G.	Max. Viscosity (mPa·s)	Design Pressure (MPa·G)	Applicable Temperature (°C)
			50Hz	60Hz				
MEK201	20mm (Rc3/4)	0,25kW · 4P	9 x 10	12 x 12,5	(Standard : 1,3) Application base : 1,9	(Standard : 30) Application base : 120	1,0	-20 ~ +120
MEK251	25mm (Rc1)	0,37kW · 4P	12 x 20	16 x 24				
MEK322	32mm (Rc1-1/4)	1,5kW · 2P 2,2kW · 2P	29 x 31	30 x 49				
MEK402	40mm (Rc1-1/2)	3,0kW · 2P 4,0kW · 2P	30 x 45	60 x 40				

Note: DIN or JIS flange is available as an option.  
0,55kW · 4P motor for "MEK251" is available as an option.

## Selection charts



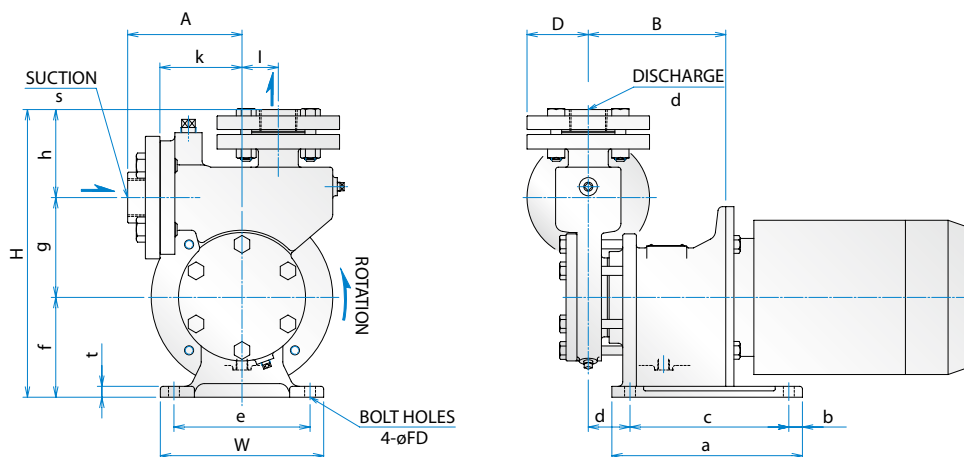
## Pump Type Identification

**MEK201 - 6 TS KD 025**

[1] [2] [3] [4] [5]

- [1] Pump Size "201" / "251" / "322" / "402"
- [2] Pump Material "6": 316SS
- [3] Check Valve Material "TS": PTFE + 316SS
- [4] Bearing Material "KD": SiC & SiC-D
- [5] Motor Output "025": 0,25kW 4P / "03": 0,37kW 4P / "15": 1,5kW 2P / "22": 2,2kW 2P / "30": 3,0kW 2P / "40": 4,0kW 2P

## Outline dimension



(In the unit of mm)

MODEL	BORE SIZE	MOTOR OUTPUT (kW)	MOTOR FRAME	H	A	B	D	W	a	b	c	d	e	f	g	h	k	l	t	FD	PUMP only approx weight (kg)
MEK201	20mm (Rc3/4)	0,25	71	260	121	126,5	50	180	180	84,5	80	44	150	90	95	75	90	20	12	ø12	15,5
MEK251	25mm (Rc1)	0,37	71	267	129	130	62,5	180	180	22	140	50	150	90	100	77	96	27	12	ø12	19
MEK322	32mm (Rc1-1/4)	1,5	90	317	126	151,5	67,5	180	210	15	175	46	150	110	110	97	90	40	12	ø12	23,5
		2,2																			
MEK402	40mm (Rc1-1/2)	3,0	100	367	146,5	165,5	70	270	300	16	270	44	230	135	135	97	110	45	18	ø13	27
		4,0	112																		

## Dry running protector DRN series (Option)

Model DRN is electric current sensing type dry running protector. It detects the decreased load current (lower limit) to stop the pump when it runs dry or runs with air sucking in. It can detect overload, too.



## Specifications

MODEL	DRN-01	DRN-02
<b>Amperometric range</b>	0-30,00A	0-200,0A
<b>Unit's source voltage</b>	AC100-240V 50/60Hz 10VA	
<b>Operating temperature</b>	0-40°C	
<b>Operating humidity</b>	35-85%RH	
<b>Current sensor</b>	JS10FL	JS24FL
<b>Analog input 1</b>	4-20mA or 1-5V	
<b>Analog input 2</b>	4-20mA or 1-5V	
<b>Temperature range</b>	-50-200°C (Pt100,K thermocouple)	
<b>Digital contact input</b>	No-voltage contact signal (also for external reset)	
<b>Contact output</b>	For pre-alarm: AC250V 8A (load resistance) 1c For pump-stopping: AC250V 8A (load resistance) 1a	
<b>Logging capability</b>	Past records (with the calendar)	
<b>Communication</b>	RS485 incorporated	
<b>Supported models</b>	M, MMP, MP, MTFO	
<b>External dimension in mm</b>	D71 x W108 x H90	

\* Not used as an inverter.

\* Safety: UL 61010-1

CAN/CSA-C22.2 No. 61010-1-12  
EN61010-1 EN61326-1, EN50581

\* EMC: EN61326-1

\* RoHS: EN50581