

Magnetic drive gear pump



Compact gear pumps that completely eliminate leakage problems

R2

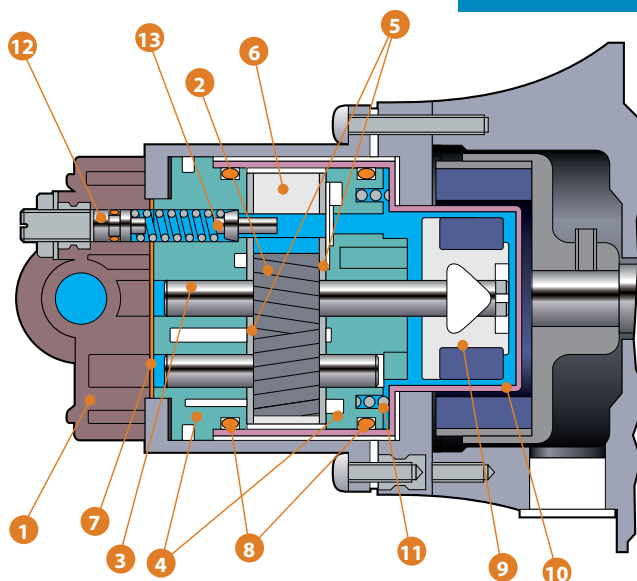
DC24V type

- **Seal-less construction ideal for OEM applications** - Leak-free and seal-less, MDG pumps are ideal for incorporation into equipment. The magnet drive mechanism eliminates the troublesome shaft seal replacement.
- **Outstanding corrosion resistance** - Liquid end parts are manufactured from SUS316, PTFE, PPS and PEEK. This combination of materials offers extremely high levels of corrosion resistance thus making MDG capable of transferring many different aggressive chemical solutions.
- **High pressure gear rotary system**- MDG pumps are characterized by high pressure and low flow rate. Despite its small size, it can attain high pressure to 87 PSI and vacuum of 1.57inHg.
- **Excellent thermal resistance** - Precision machining coupled with Iwaki's innovative technology is used in the gear and body manufacturing process. Because only the most heat-resistant materials are used, pumping problems due to thermal expansion are eliminated. Standard MDG series pumps are rated for 95°C operation.



Construction and materials

No.	Name of Part	Materials
1	Pump head	GFRPPS
2	Gear	PPS
3	Shaft	SUS316
4	Bearing	(CF+PTFE) PPS
5	Plate	SUS316
6	Gear case	SUS316
7	Gasket seal	FKM
8	O ring	FKM
9	Magnet capsule	SUS316, GFRPPS
10	Rear casing	SUS316
11	Retaining spring	equivalent to SUS316
12	Adjusting screw	SUS316
13	Valve	(CF+PTFE) PPS



Identification

MDG - **R2** **R** **V** **B** **24H**

1. Model	R2
2. Temp. range	R : 0 - 50°C, B : 0 - 95°C
3. Relief valve	V : with relief valve, no symbol : without relief valve
4. Connection	B : 1/8NPT <small>Note</small>
5. Motor	24 : DC24V, 10W, 24H : DC24V, 14W

Note: Other connections (Rc1/8, G1/4) are also available on special request but for "-24H" models only.

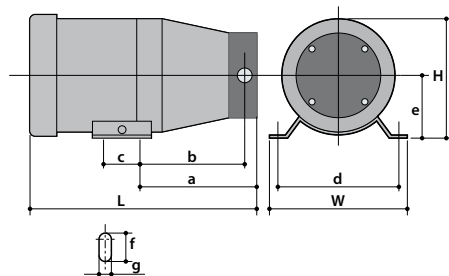
Specifications

Model	Connection size	Max. capacity L/min	Max. discharge pressure PSI (MPa)	Max. vacuum inHg (kPa)	Liquid temp. range °F (°C)	Viscosity limit mPa·s	Motor*	Mass kg
MDG-R2BB24	Rc1/8, 1/8NPT, G1/4	1.7	22 PSI (0.15 MPa)	1.57 inHg (5.3 kPa)	32 - 203°F (0 - 95°C)	10	DC24V, 10W	1.2 (2.6 lbs)
MDG-R2RV□24H*		1.8	44 PSI (0.3 MPa)		32 - 122°F (0 - 50°C)			
MDG-R2B□24H*		1.7			32 - 203°F (0 - 95°C)			

- shows connection size. Please refer above table.
- Pump performance will change depending on kind of liquid. Further information will be provided on request.
- When handling pure water and solvent, please contact us.
- When viscosity of handling liquid exceeds limitation of pump, please contact us.
- Models marked with * are manufactured to order only.

* For additional voltage options, please consult factory

Dimensions in mm



Model	W	H	L	a	b	c	d	e	f	g
MDG-R2□□□□	106	83	202	101.5	91.3	44	90	45	10	6
MDG-R2BB24	90	80.5	154	81	71	44	75	45	10	6
MDG-R2□V24H*	90	80.5	161	81	71	44	75	45	10	6

- Note: Models marked with * are manufactured to order only.
 • Dimensions of models fitted with IEC motors differ from above.