

# **Pumps for Medical & Analytical Applications**





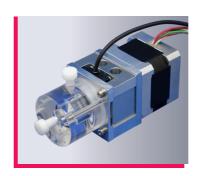














IWAKI is a world wide leading pump manufacturer.

Our high quality, compact products, such as air, magnetic drive and metering pumps, are widely used in medical, laboratory and environmental control systems.



# High Quality DC pumps, compact and simple to use

Compact DC pumps offer long life and easy integration in OEM equipment.

### **Gas-Liquid transfer pumps**

### **APN-W** SERIES

- · Long life design
- Oil free design
- Handles liquids with entrained gas
- Ultracompact & lightweight design reduces mechanical noise
- Brushed or BLDC motor options









APN-P60W(BLDC)

NRD-05

### Diaphragm air pumps

### **APN** 12/24 VDC

- · Long life design
- · Oil free design
- High efficiency



Max. air discharge capacity	14 l/min
Max. air discharge pressure	0.08 MPa
Power voltage	24 VDC
Main materials	GFRPP, PTFE, EPDM, FKM

#### **Direct drive pumps**

# NRD/RD SERIES

- Compact plastic canned pumps
- Seal-less design eliminates leakage problems
- Threaded or hose connections are available
- Motor rpm can be controlled by external
   1-5 V DC signal (option)









Max. discharge capacity	70 l/min
Max. discharge head	19 m
Power voltage	NRD/RD series: 24 VDC
Main materials	PPS, GFRPP, FKM, 316 TI SS, EPDM, Ceramic

#### **Hicera pumps**

### V-05 24 VDC

- Ultra-precise repeatability
- · Valve-less design avoids air lock
- 24VDC stepping motor



Max. discharge capacity	30 ml/min
Max. discharge pressure	0.15 MPa
Power voltage	24 VDC
Main materials	SUS, PVDF, Al <sub>2</sub> O <sub>3</sub> , ZrO <sub>2</sub>

### High resolution pulse pumps

### HRP SERIES

- High stroke rate up to 720 spm
- Compact design
- · Highly efficient diaphragm pump
- External control functions
   Pulse control, 4-20mA control,
   1-5V control, Stop control



Max. discharge capacity	38 ml/min
Max. discharge pressure	0.2 MPa
Power voltage	12/24 VDC
Main materials	PVDF, FKM, Al₂O₃

### **Reciprocating Diaphragm Liquid Pumps**

# HSR SERIES

- Flow rates up to 1400ml/min
- Pressure up to 0.6Mpa
- Rotation speed up to 3000 min
- DC24V blushless motor
- Protection mechanism for abnormal pressure
- · Less flow fluctuation even if pressure fluctuates

Max. discharge capacity	1400 ml/min
Max. discharge pressure	87 PSI (0.6 MPa)
Power voltage	24 VDC
Main materials	GFRPP, PTFE, EPDM

### Magnetic drive gear pumps

### MDG-R2 24 VDC

- · Compact seal-less gear pump
- Liquid temperatures up to 95 °C
- Brushless DC motor with built-in driver



Max. discharge capacity	1.8 l/min
Max. discharge pressure	0.3 MPa
Power voltage	24 VDC
Main materials	SUS, PPS

### Syringe/Piston-type stepping pumps

# Exmire SPV SERIES, SPX SERIES

- High Accuracy: ±0.3% (SPV), ±0.5% (SPX)
- Repeatability: 0.03% (SPV), 0.04% (SPX)
- High Resolution: 6000 steps/stroke (SPV), 2000 steps/stroke (SPX)
- 4 Pump Sizes per model 100µl, 250µl, 500µl, 1000µl
- Applications: Dispensing & Aspiration, In-Vitro & Biochemical Analyzers

Dispense range	0.01667 μl/pulse to 1,000 μl/stroke (SPV) 0.05 μl/pulse to 1,000 μl/stroke (SPX)		
Max. discharge pressure	72 PSI		
Power voltage	24 VDC Stepper Motor Driven		
Port Connections	1⁄4-28 UNF		
Main materials	Peek, Borosilicate Glass, Acrylic, PE		

### **Bellows pumps**

### **KBR** SERIES

- High durability and integrally molded bellows
- Capable of acid and alkali
- Timer type is available Note: AC models also available.



Max. discharge capacity	90 ml/min
Max. discharge pressure	0.01 MPa
Power voltage	24 VDC
Main materials	PP, EPDM



# Versatile compact AC pumps

Extensive series of compact AC powered pumps meet a wide variety of demands.

### Diaphragm type air pumps

# **APN** SERIES

- Wide range of models available
- · Oil free design
- High efficiency



	50/60Hz
Max. air discharge capacity	100/110 l/min
Max. air discharge pressure	0.2 MPa
Power voltage	100, 115, 230 VAC
Main materials	GFRPP, EPDM, FKM

### Magnetic drive pumps

### MD SERIES

- · Leak free magnetic drive design
- Wide range of models available such as: high flow, high head, threaded connection and corrosive-resistant types





	30/00Hz
Max. discharge capacity	135 l/min
Max. discharge head	14.3/20.3 m
Power voltage	100, 115, 230 VAC / IEC
Wet ends	GFRPP or PVDF or ETFE

### **Electromagnetic metering pumps**

# **EZ** SERIES

- High stroke rate up to 360 spm
- Double ball check valves
- · Long lasting diaphragm
- · Small, lightweight and quiet design



Max. discharge capacity	400 ml/min
Max. discharge pressure	1.0 MPa
Power voltage	230 VAC
Main materials	PVC, FKM, Al <sub>2</sub> O <sub>3</sub>

# Magnetic drive gear pumps

# **MDG** SERIES

- · Compact seal-less gear pump
- Liquid temperatures up to 95 °C
- · High corrosion resistance



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	30/00112
Max. discharge capacity	14/17 l/min
Max. discharge pressure	0.6 MPa
Power voltage	100, 115, 230 VAC
Main materials	SUS, PEEK, PTFE, FKM

Thorough quality-control measures and constant pursuit of efficiency have helped Iwaki establish a superior production system.







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ISO 9001 registered company

## Metallic centrifugal magnetic drive pump Sanwa MMP/MA/MB SERIES

- Ideal for low flow applications
- 316 Stainless Steel
- · One piece machined rear casing provide extra strength





Max. discharge capacity 24 lpm Max. discharge head 0.6 MPa 42.6m/140 ft Power voltage 100, 115, 230, 460 VAC (Nema/IEC Frame) SUS, PTFE Main materials