

Direct Drive Series Pumps



Our NRD/RD series design features small canned motor centrifugal pumps powered by brushless DC motors. They are incredibly compact, lightweight and quiet. A variety of features, including a seal-less design to prevent leakage, enable the pumps to meet a full spectrum of user needs, with emphasis on ease of installation, operation and maintenance.

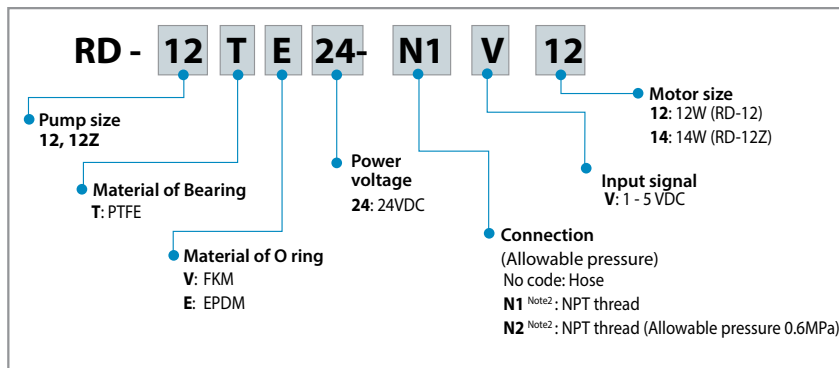
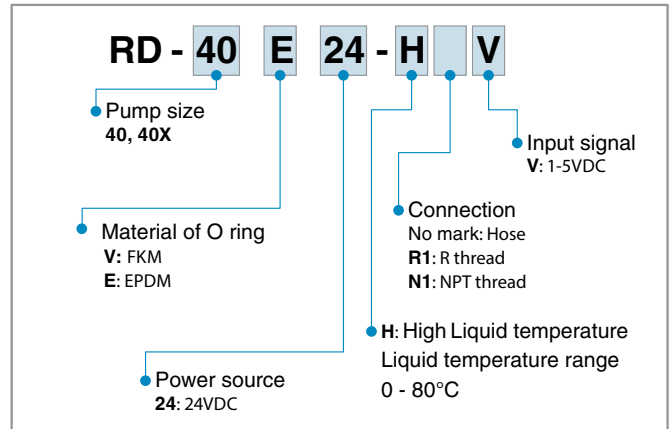
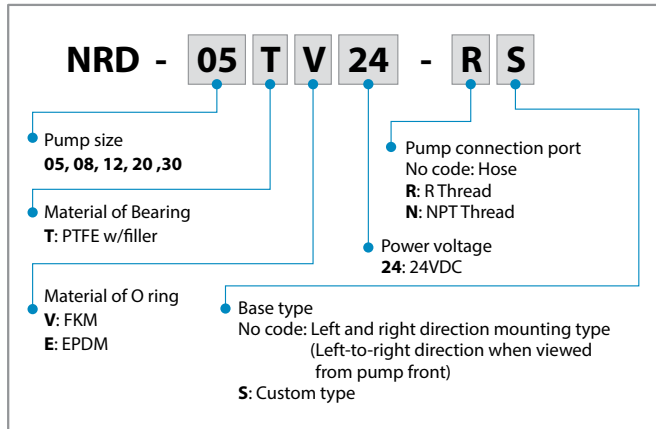
- **Eliminate maintenance costs** - Superior engineering combined with built-in safety, the NRD/RD series is designed to last the life of your system; no service calls or parts kits required.
- **Ease of integration** - BLDC motors with integral driver/controller simplifies wiring and UL regulatory compliance. The NRD/RD series multiple mounting configurations, make it easy to find a home for these pumps.
- **Precision temperature control** - The NRD/RD series has a unique dual bearing system that reduces heat generation and helps your system maintain temperature accuracy.
- **Reduce system size** - The NRD/RD series' canned motor design offers the most compact package available.
- **Extend system life** - Manufactured under strict ISO 9001/14001 quality standards and assembled with the most chemically-inert materials, the NRD/RD pump life will typically exceed 25K hours.
- **Reduce system noise** - With documented sound levels at 40 dB or lower, the NRD/RD series allows for whisper-quiet operation.



NRD/RD

series

Model Identification Codes



Specifications

Model	Connection sizes in (mm)		Max. Capacity ¹ GPM (L/min)	Max. Head ¹ FT (m)	Noise ² dB	Limit of specific gravity	Motor		Mass lbs (kg)
	IN	OUT					Power voltage V	Output W	
NRD-05	0.55 (14)	0.31 (8)	1.3 (5.1)	13.5 (4.1)	up to 40	1.07	DC24	6	0.9 (0.4)
	R3/8	R1/8							
	3/8 NPT	1/8 NPT							
NRD-08	0.55 (14)	0.31 (8)	2.1 (7.9)	37.7 (11.5)	up to 45	1.07	DC24	22	0.9 (0.4)
	R3/8	R1/8							
	3/8 NPT	1/8 NPT							
NRD-12	0.71 (18)	0.71 (18)	3.6 (13.6)	24.3 (7.4)	up to 45	1.07	DC24	17	0.9 (0.4)
	R3/8	R3/8							
	3/8 NPT	3/8 NPT							
NRD-20	0.83 (21)	0.67 (17)	5.2 (19.5)	27.9 (8.5)	up to 55	1.0	DC24	28	2.6 (1.2)
	R1/2	R3/8							
	1/2 NPT	3/8 NPT							
NRD-30	0.83 (21)	0.67 (17)	6.2 (23.5)	36.1 (11)	up to 55	1.0	DC24	45	2.6 (1.2)
	R1/2	R3/8							
	1/2 NPT	3/8 NPT							
RD-12*	3/8 NPT 0.71 (18)		3.4 (12.7)	22.3 (6.8)	up to 40	1.0	DC24	12	1.3 (0.6)
RD-12Z*	3/8 NPT	1/4 NPT	1.0 (3.8)	34.4 (10.5)	up to 40	1.0	DC24	14	1.3 (0.6)
	0.71 (18)	0.4 (10)							
RD-40	1 (25)	0.75 (19)	6.6 (25)	49.2 (15)	up to 55	1.0	DC24	85	3.3 (1.5)
	1 NPT	1/2 NPT							
RD-40(X)	1 (25)	1 (25)	18.5 (70)	26.2 (8)	up to 55	1.0	DC24	72	3.3 (1.5)
	1 NPT	3/4 NPT							

Note1: The numerical values listed in the table represent the average performance values for when NRD series models are shipped from the factory.
The individual differences between models may result in an error discrepancy of ±10%.

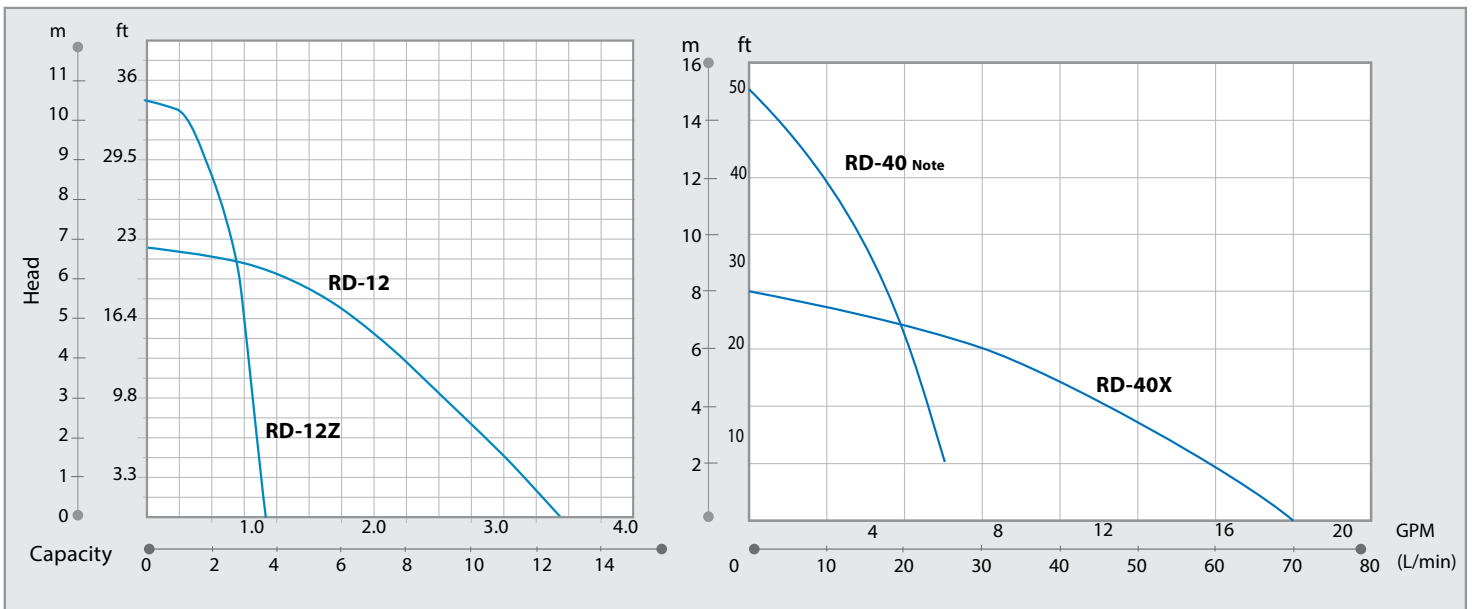
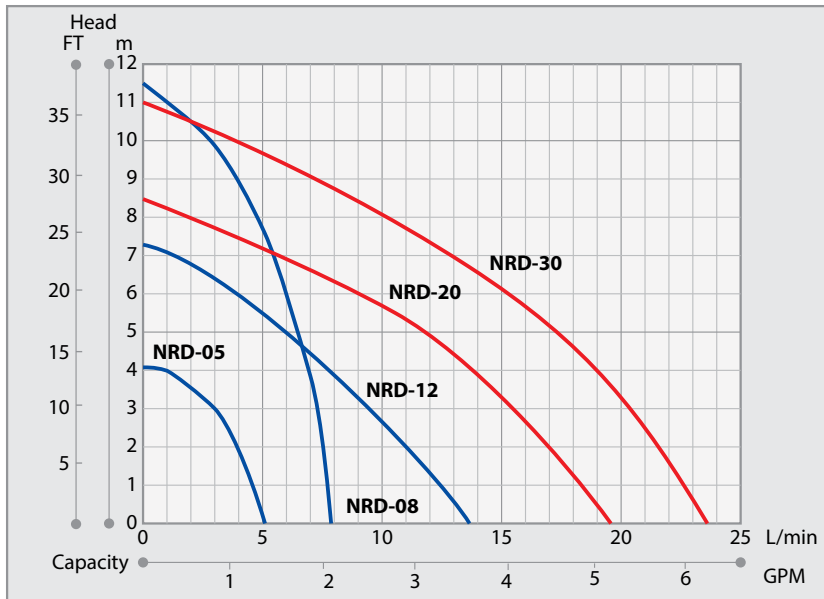
Note2: Noise was measured at a location 1 meter away from pump front, using the A scale.

- Test performance using pure water at room temperature.
- The maximum discharge rate is the discharge rate for when the pump head is at 0 meters and the maximum pump head is based on the shut-off total head.
- The viscosity limit of the working fluid is up to 1.0 mPa·s (with specific gravity of NRD-05/08: 1.07 gm, NRD-20/30: 1.0 gm).
- Specifications/Environmental conditions
Ambient temperature: 0°C to 50°C, Working liquid temperature: 0°C to 80°C, Relative humidity: 35% to 85% RH
Please note that the above conditions vary depending on working liquid and heat cycle specifications.

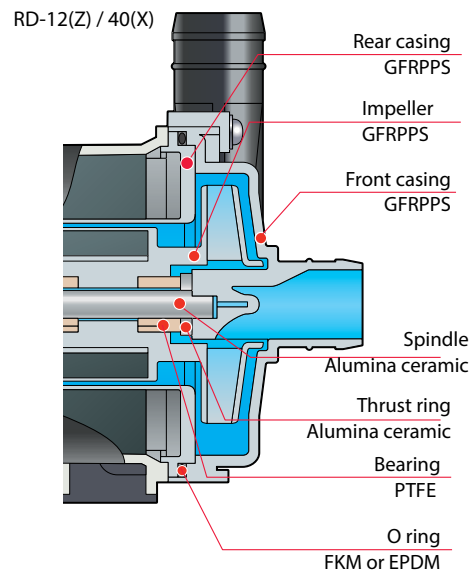
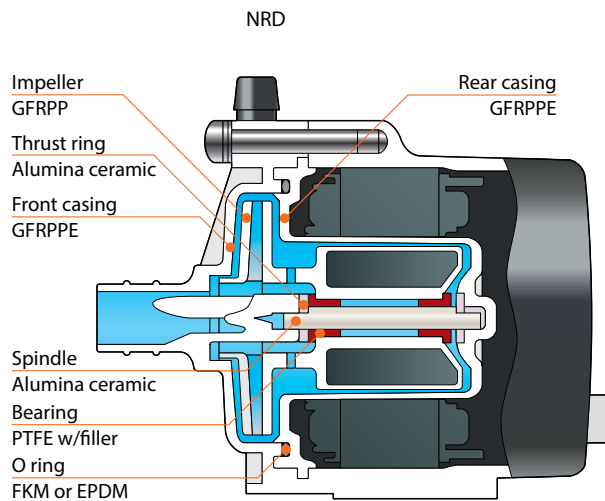
12 VDC option available for OEM applications. Contact Iwaki America for details.

NRD/RD series

Performance curves



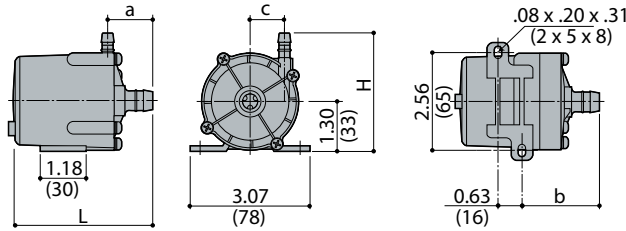
Wet End Materials



Dimensions

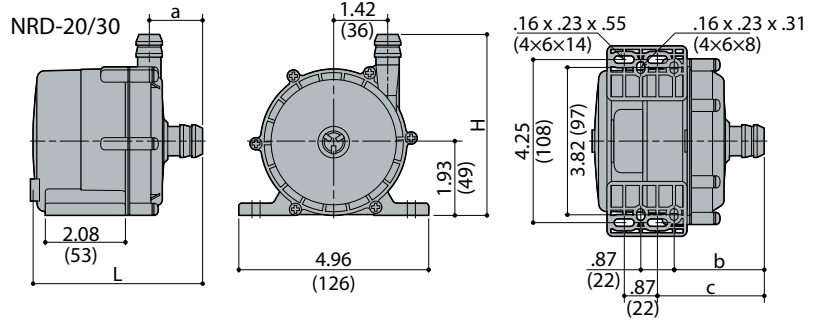
Inches (mm)

NRD-05/08/12 (Right and left direction mounting type)



Inches (mm)

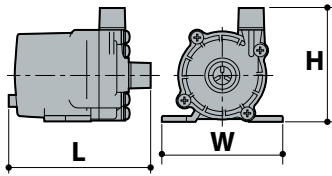
		H	L	a	b	c
NRD-05/08	Hose	3.07 (78)	3.58 (91)	1.16 (29.5)	1.99 (50.5)	0.88 (22.4)
	R Thread	2.97 (75.5)	3.56 (90.5)	1.14 (29)	1.97 (50)	
	NPT Thread					
NRD-12	Hose	3.31 (84)	3.64 (92.6)	1.22 (31)	2.05 (52)	0.83 (21)
	R Thread					
	NPT Thread					



Inches (mm)

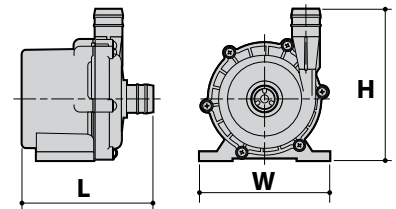
NRD-20/30	H	L	a	b	c
Hose	4.69 (119)	4.41 (112)	1.38 (35)	2.34 (59.5)	2.78 (70.5)
R Thread	4.53 (115)	4.21 (107)	1.18 (30)	2.14 (54.5)	2.58 (65.5)
NPT Thread					

RD-12(Z)



Model		W	H	L
RD-12	Hose	3.07 (78)	3.21 (81.5)	3.68 (93.5)
	NPT		2.97 (75.5)	3.46 (88)
RD-12Z	Hose	3.07 (78)	3.13 (79.5)	3.68 (93.5)
	NPT		2.97 (75.5)	3.46 (88)
RD-40	Hose	4.96 (126)	5.47 (139)	4.99 (127)
	NPT		5.24 (133)	
RD-40X	Hose		5.63 (143)	
	NPT		5.27 (134)	

RD-40(X)



Wide range of pump technologies at your service

Magnetic drive pumps

MD SERIES



- Flow rates up to 36 GPM and head to 67 FT
- Magnetic drive sealless design
- Quality construction for high efficiency and low hydraulic noise
- Variety of pump/motor configurations and materials-Polypropylene, ETFE, PVDF
- AC standard / DC per request (Brush and brushless)
- OEM systems including chiller and filtration

High resolution pulse pumps

HRP SERIES



- High stroke rate up to 720 spm
- Ultra-Compact design (4" x 2" x 3.5")
- Available in 12 or 24VDC for increased portability
- Vertical or horizontal porting configurations
- Highly efficient diaphragm pump
- External control functions
Pulse control, 4-20mA control, 1-5V control, Stop control

Electromagnetic metering pumps

EZ SERIES



- High stroke rate up to 360 spm
- Double ball check valves
- Long lasting diaphragm
- Small, lightweight and quiet design
- High Compression ratio ensures proper feed
- EZ-Timer module is a simple and effective way to automate additions in small systems



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