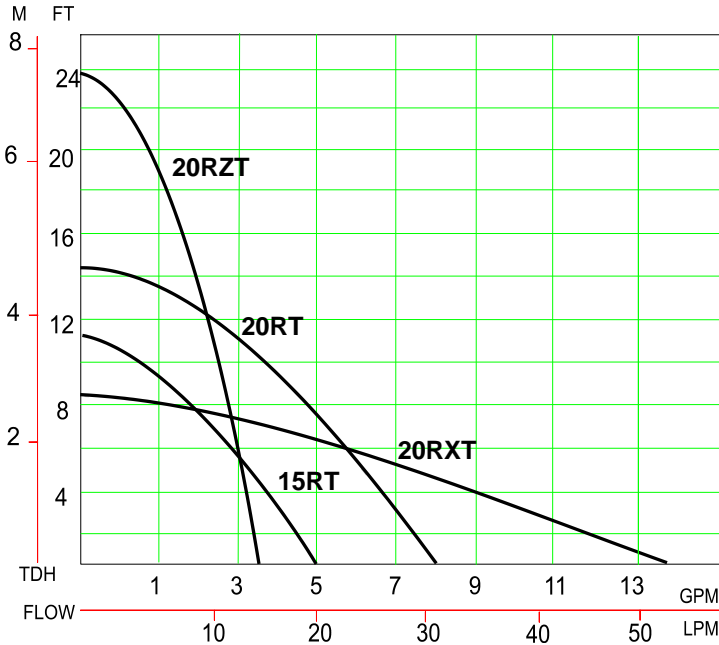


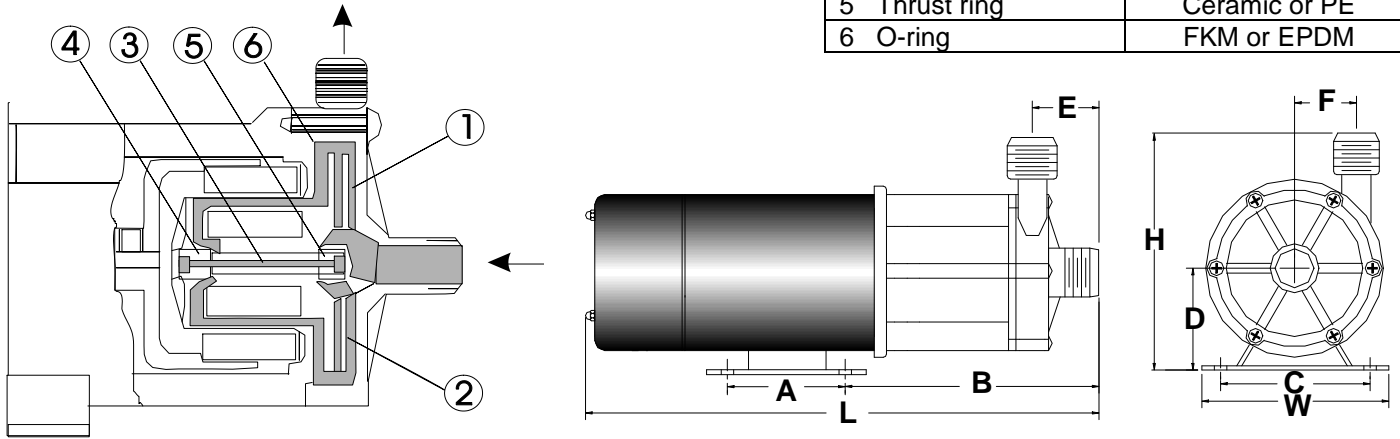


MD-15/20



- Twin bearing system handles thrust loads, extends service life
- Hollow rotating / Internal cooling circuit reduces bearing temperature
- Compact / Quiet energy efficient design
- Few moving parts for easy maintenance
- Other sizes, voltages & materials available

Part	Material
1 Casing	GFRPP
2 Impeller	GFRPP or CFRPP
3 Spindle	Ceramic
4 Bearing	PTFE
5 Thrust ring	Ceramic or PE
6 O-ring	FKM or EPDM



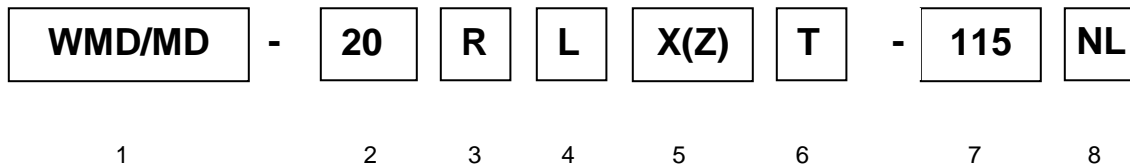
Dimensions (inches) and Specifications

Model	W	H	L	A	B	C	D	E	F
MD-15R(T)	3.74	4.49	7.05	--	4.59	3.35	2.17	1.52	0.85
MD-20R(T)	4.17	4.19	8.00	1.73	3.78	3.54	1.77	1.30	1.12
MD-20RX(T)	4.17	4.80	8.66	1.73	4.45	3.54	1.77	1.83	15+
MD-20RZ(T)	4.17	4.92	8.31	1.73	4.17	3.54	2.17	1.56	1.52

+ Degrees offset from vertical

Model	CONNECTIONS		MOTOR		AMPS 115V	MAX FLOW GPM	MAX HEAD FT	MAX SYS PRESSURE PSI	S.G.	WEIGHT LBS
	HOSE	NPTM	OUTPUT (HP)	SPEED (RPM)						
MD-15R(T)	½	½	1/75	3100	.29	5.0	11.1	7.2	1.3	3.5
MD-20R(T)	5/8	3/4	1/38	3100	.48	8.2	14.1	10.0	1.1	4.4
MD-20RX(T)	1	1	1/38	3100	.50	13.7	8.2	5.7	1.3	4.4
MD-20RZ(T)	5/8	¾	1/38	3100	.53	2.9	22.6	14.2	1.1	4.4

4 MODEL IDENTIFICATION GUIDE



1. **Series name (WMD specifies US motor design)**
2. **Pump Size (6, 10, 15, 20, 30, 55, 70, 100)**
3. **R = Rotating Spindle (omit for MD-6 and MD-10)**
4. **L = UL Listed Motor, included in 6, 10, 55, 70, 100 115V model**
(also on older 15/20/30/40 models)
5. **Pump type**
Blank: Standard Impeller
Z: High Head Impeller
X: High Flow Impeller
6. **Suction/Discharge Port Connections**
Blank: Hose Connection
T: Threaded Connection
7. **Power source voltage:**
115: 115V (50/60Hz) 230: 230V (50/60Hz)
220: 220/240V(50/60Hz)
8. **NL = UL Listed 115V Motor (applies to 15, 20, 30, 40 sizes)**

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5 SPECIFICATIONS

Model	Connections		Motor Output (HP)	Motor Speed (RPM)	Current (Amps)	Max Flow (GPM)	Max Head (Ft)	Max Sys. Pressure (PSI)	Specific Gravity	Weight (Lbs)
	Hose	NPT								
<i>Polypropylene</i>										
MD-6	1/2	---	1/250	3100	0.25	2.3	4.5	2.80	1.2	1.8
MD-10	1/2	---	1/125	2900	0.40	3.1	6.8	4.30	1.1	1.6
MD-15R(T)	1/2	1/2	1/75	3100	0.29	5.0	11.1	7.20	1.3	3.5
WMD-15R(T)	1/2	1/2	1/38	3100	0.82	5.0	11.1	7.20	1.3	6.0
MD-20RT(T)	5/8	3/4	1/38	3100	0.48	8.2	14.1	9.95	1.1	4.4
WMD-20R(T)	5/8	3/4	1/38	3100	0.48	8.2	14.1	9.95	1.1	7.0
MD-20RX(T)	1	1	1/38	3100	0.50	13.7	8.2	5.69	1.3	4.4
WMD-20RX	1	1	1/38	3100	0.50	13.7	8.2	5.69	1.3	7.0
MD-20RZ	5/8	3/4	1/38	3100	0.53	2.9	22.6	14.22	1.1	4.4
WMD-20RZ	5/8	3/4	1/38	3100	0.53	2.9	22.6	14.22	1.1	7.0
MD-30R	3/4	3/4	1/16	3150	0.80	10.0	17.7	11.60	1.3	7.7
WMD-30R	3/4	3/4	1/16	3150	1.00	10.0	17.7	11.60	1.3	9.0
MD-30RX	1	1	1/16	3150	1.10	19.0	13.5	8.54	1.1	7.7
WMD-30RX	1	1	1/16	3150	1.00	19.0	13.5	8.54	1.1	9.0
MD-30RZ	5/8	3/4	1/16	3150	1.10	4.5	36.1	24.18	1.0	7.7
WMD-30RZ	5/8	3/4	1/16	3150	1.00	4.5	36.1	24.20	1.0	9.0
MD-40R	3/4	3/4	1/12	3200	1.30	13.7	21.3	14.22	1.1	8.6
WMD-40R	3/4	3/4	1/12	3200	1.90	13.7	21.3	14.22	1.1	10.0
MD-40RX	1	1	1/12	3200	1.20	22.4	15.4	9.95	1.1	8.6
WMD-40RX	1	1	1/12	3200	1.90	22.4	15.4	9.95	1.1	10.0
MD-55R	1	1	1/8	3400	1.60	18.4	26.9	17.06	1.2	10.1
MD-70R	1	1	1/4	3400	2.80	25.6	31.8	21.33	1.0	13.2
MD-70RZ	3/4	3/4	2/7	3400	3.80	11.4	66.6	42.70	1.0	13.2
MD-100R	1	1	1/3	3300	3.40	35.6	39.0	25.60	1.2	18.7
WMD-100R	1	1	1/3	3400	*	35.6	39.0	25.60	1.2	*
<i>Fluoroplastic</i>										
WMD-30FX	---	1/2	1/16	3200	0.9	3.2	35.2	17.0	1.3 (1.5)	9
WMD-30FY	---	1/2	1/16	3200	0.9	3.2	26.0	17.0	1.5 (1.8)	9
WMD-30FZ	---	1/2	1/16	3200	0.9	2.6	24.0	21.3	1.9 (2.1)	9
MD-55Y	---	1	1/8	3300	1.9	17.1	25.6	21.3	1.3 (1.5)	11.9
MD-55Z	---	1	1/8	3300	1.6	13.0	19.0	21.3	2.0 (2.2)	11.9
WMD-100FY	---	1	1/3	3450	*	36.0	38.0	31.2	1.3 (1.6)	*
MD-100FY	---	1	1/3	3300	3.4	35.7	37.7	31.2	1.3 (1.6)	18.7
WMD-100FZ	---	1	1/3	3450	*	28.0	27.2	31.2	1.9 (2.2)	*
MD-100FZ	---	1	1/3	3300	3.4	28.0	27.2	31.2	1.9 (2.2)	18.7

Notes:

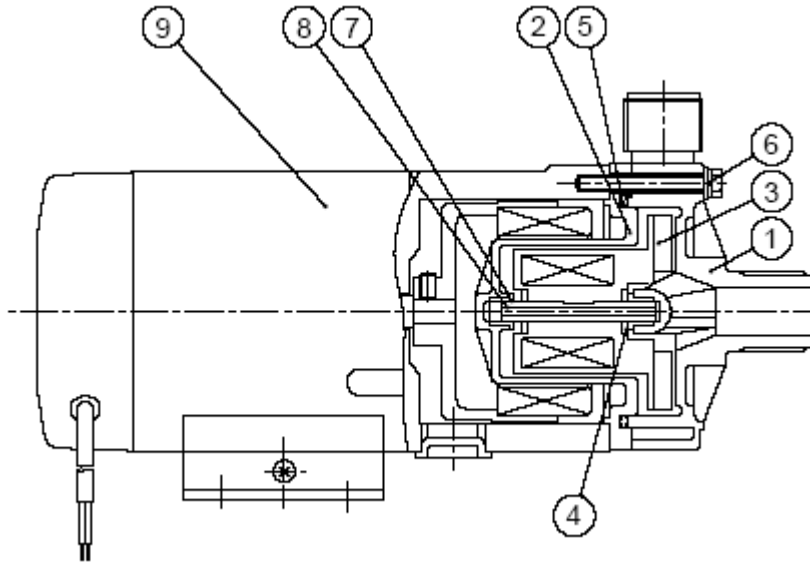
1. Pump performance data is based on pumping clean water at ambient temperature.
2. The maximum flow rate is at 0 discharge head.
3. Maximum viscosity of liquid: 1.0 cP (for a specific gravity of 1.0)
4. Permissible liquid temperature: 32-176°F (0 – 80°C). Note, permissible temperature range may differ depending upon the type of liquid and operating conditions.)
5. The maximum specific gravity of the liquid is the value at max. flow rate. The value varies depending on the flow rate, ambient temperature, viscosity of liquid, etc.
6. Motor: Single-phase capacitor-run induction motor or 3-phase induction motor.

* Built-in thermal protector

A thermal protector is built in the motor. The protector automatically stops motor operation when the motor is overheated. (The motor starts again when the temperature falls to normal.)

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Typical Construction/Materials



No.	Part Name	Qty	Material
1	Front Casing	1	GFRPP (Note 1)
2	Rear Casing	1	
3	Impeller	1	
4	Thrust	2	Alumina Ceramic
5	O-ring	1	FKM or EPDM (Note 2)
6	Screw	4~6	Stainless steel
7	Bearing	2	Fluororesin containing filler material (Note 3)
8	Spindle	1	Alumina ceramic
9	Motor	1	

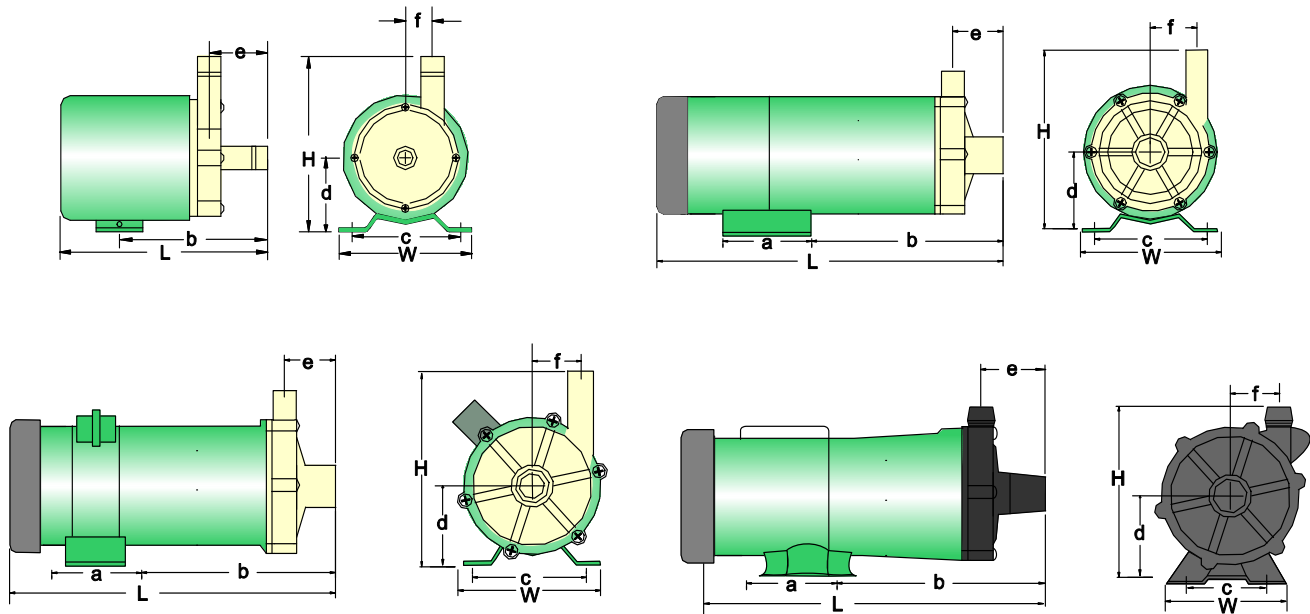
Note 1: The material of the impeller used in MD-70RZ, 100R, 100R-5 is CFRPP.

Note 2: More elastomer options available

Note 3: The material of the bearing used in (W)MD-20RZ, 30RZ, and MD-70RZ is PPS.

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12 DIMENSIONS



Dimensions in inches

*Varies with motor

Model	Connections		W	H	L	a	b	c	d	e	f
	Hose	NPT(M)									
Polypropylene Models (MD-115V models only)											
MD-6/10	1/2	---	2.91	3.62	4.09	1.18	2.87	2.36	1.77	1.22	0.67
WMD-15R(T)	1/2	1/2	3.50	4.26	9.46	2.37	4.15	2.50	1.94	1.52	0.85
MD-15R(T)	1/2	1/2	3.74	4.39	7.05	1.97	4.59	3.35	2.17	1.52	0.85
WMD-20R(T)	5/8	3/4	3.50	4.35	9.70	2.37	4.39	2.50	1.94	1.30	1.12
MD-20R(T)	5/8	3/4	4.17	4.19	7.99	1.73	4.06	3.54	1.77	1.30	1.12
WMD-20RX(T)	1	1	3.50	4.95	10.37	2.37	5.06	2.50	1.94	1.83	40+
MD-20RX	1	1	4.17	4.75	8.66	1.73	4.45	3.54	1.74	1.83	40+
WMD-20RZ	5/8	3/4	3.50	4.70	9.98	2.37	4.67	2.50	1.94	1.56	1.52
MD-20RZ	5/8	3/4	4.17	4.92	8.31	1.73	4.17	3.54	2.17	1.56	1.52
WMD-30R	3/4	3/4	3.50	4.70	11.65	2.37	5.72	2.50	1.94	1.89	1.22
MD-30R	3/4	3/4	4.72	5.12	9.76	1.57	5.87	3.94	2.36	1.89	1.22
WMD-30RX	1	1	3.50	5.09	11.89	2.37	5.96	2.50	1.94	1.97	40+
MD-30RX	1	1	4.72	5.51	10.00	1.57	6.10	3.94	2.36	1.97	40+
WMD-30RZ	5/8	3/4	3.50	4.70	10.97	2.37	5.04	2.50	1.94	1.56	1.53
MD-30RZ	5/8	3/4	4.72	5.12	9.05	1.57	5.16	3.94	2.36	1.56	1.53
WMD-40R	3/4	3/4	4.38	4.84	11.34	3.09	6.66	3.37	2.08	1.89	1.22
MD-40R	3/4	3/4	4.72	5.12	9.85	1.57	5.87	3.94	2.36	1.89	1.22
WMD-40RX	1	1	4.38	5.23	11.30	3.09	7.02	3.37	2.08	1.97	43+
MD-40RX	1	1	4.72	5.51	10.08	1.57	6.10	3.94	2.36	1.97	43+
MD-55R	1	1	4.72	6.10	10.77	1.57	7.05	3.94	2.56	2.42	1.57
MD-70R	1	1	5.63	6.11	10.18	2.76	5.71	4.25	2.56	2.07	1.70
MD-70RZ	3/4	3/4	5.63	6.50	9.72	2.76	5.24	4.25	2.56	1.65	1.87
MD-100R	1	1	6.14	6.89	12.67	2.76	6.38	4.33	2.95	2.55	1.71
WMD-100R	1	1	*	7.44	*	3.00	10.43	4.87	3.50	2.55	1.71
Fluoroplastic Models (MD-115V models only)											
WMD-30F (X,Y,Z)	---	1/2	3.50	5.02	11.82	2.37	6.67	2.62	2.29	1.84	1.22
MD-30F (X,Y,Z)	---	1/2	4.72	5.12	9.09	1.57	6.77	3.94	2.36	1.53	1.52
MD-55F (Y,Z)	---	1	4.72	6.11	10.53	1.57	6.61	3.94	2.56	2.30	1.56
WMD-100F (Y,Z)	---	1	*	6.80	*	3.00	12.05	4.88	3.56	2.55	1.71
MD-100 (Y,Z)	---	1	6.14	6.89	12.67	2.76	6.38	4.33	2.95	2.55	1.71