

MYERS® 3MW

The Myers heavy-duty 3MW series pumps are designed for residential raw sewage and light commercial applications. The non-clogging two-vane impeller delivers high-efficiency pumping and easily handles trashy solids normally found in sewage applications. This series offers vertical discharge and works easily with a quick-disconnect guide rail system. Available in single- and double-seal configurations



APPLICATIONS

Sewage, high-capacity sump, effluent

SPECIFICATIONS

Capacities – Up to 330 GPM (1,247 LPM)

Shut-off Head – Up to 92' (28.0 m)

Solids Handling

1750 RPM: 2-1/2" (63.5 mm)

3450 RPM: 2" (50.8 mm)

Liquids Handling – Raw sewage, rain water, effluent

Intermittent Liquid Temperature – 140°F (60°C)

Motor/Electrical Data – (single phase are PSC type; three phase need Myers control panel); 1750 RPM: 1-1/2 - 3 HP; 3450 RPM: 1 - 3 HP; 208/230V, 1Ø, 60Hz; 208/230/460/575V, 3Ø, 60Hz

Acceptable pH Range – 6-9

Discharge – 3" NPT (vertical)

Sump Diameter Duplex – 48" (1.2 m)

Motor Housing – Cast iron

Power Cord – 25', SOW/SOWA

Shaft Seal – Carbon/ceramic type 21 tungsten carbide (optional)

FEATURES

Lower Costs

High-efficiency hydraulic design reduces pumping costs and extends life of fluid end components

Tough Against Corrosion

All cast iron construction resists the most extreme corrosive environments

Two-vane Impeller

Provides maximum efficiency and eliminates jamming between impeller and volute – engineered thermoplastic composition

Powerful Starts

High-torque, permanent split capacitor (PSC) motor; no starting switches or relays to wear out

Runs Cooler

Rugged, oil-filled motor for bearing lubrication and maximum heat dissipation

Leak Protection

Optional leak probe senses water leakage past seal (dual seal motors only)

Thermal Protection

Heat sensor overload protection with automatic reset when motor cools to a safe operating temperature (single phase only)

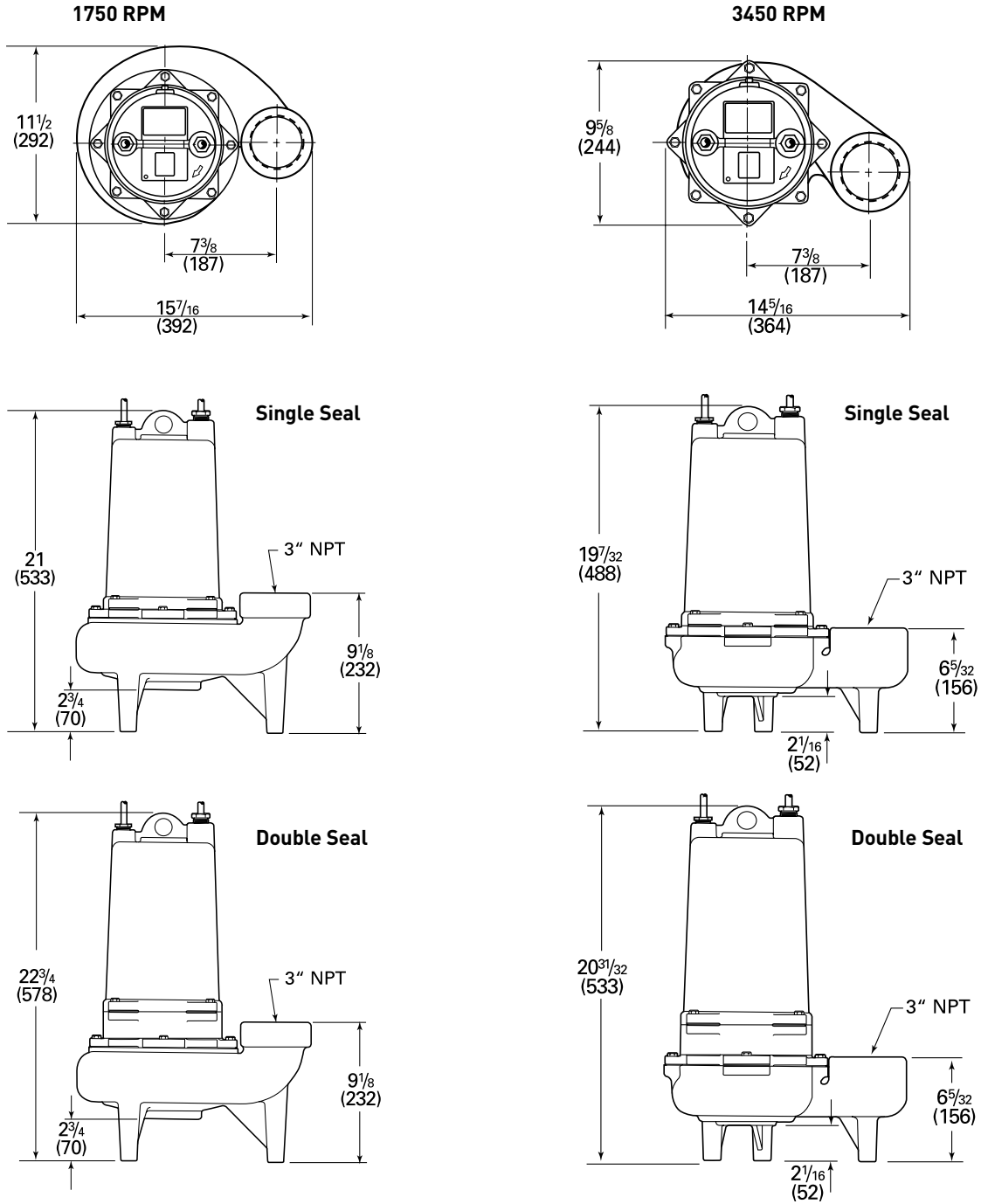
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ORDERING INFORMATION

Catalog Number	HP	Volts	Phase/Cycles	Discharge Size	Switch Type	Approx. Cord Length	Wt. Lbs.
SINGLE SEAL, 1750 RPM							
3MW15M4-01	1-1/2	200	1/60	3"	Manual	25	113
3MW15M4-21	1-1/2	230	1/60	3"	Manual	25	113
3MW15M4-03	1-1/2	200	3/60	3"	Manual	25	113
3MW15M4-23	1-1/2	230	3/60	3"	Manual	25	113
3MW15M4-43	1-1/2	460	3/60	3"	Manual	25	113
3MW15M4-53	1-1/2	575	3/60	3"	Manual	25	113
3MW20M4-01	2	200	1/60	3"	Manual	25	113
3MW20M4-21	2	230	1/60	3"	Manual	25	113
3MW20M4-03	2	200	3/60	3"	Manual	25	113
3MW20M4-23	2	230	3/60	3"	Manual	25	113
3MW20M4-43	2	460	3/60	3"	Manual	25	113
3MW20M4-53	2	575	3/60	3"	Manual	25	113
3MW30M4-21	3	230	1/60	3"	Manual	25	113
3MW30M4-03	3	200	3/60	3"	Manual	25	113
3MW30M4-23	3	230	3/60	3"	Manual	25	113
3MW30M4-43	3	460	3/60	3"	Manual	25	113
3MW30M4-53	3	575	3/60	3"	Manual	25	113
SINGLE SEAL, 3450 RPM							
3MW10M2-01	1	200	1/60	3"	Manual	25	100
3MW10M2-21	1	230	1/60	3"	Manual	25	100
3MW10M2-03	1	200	3/60	3"	Manual	25	100
3MW10M2-23	1	230	3/60	3"	Manual	25	100
3MW10M2-43	1	460	3/60	3"	Manual	25	100
3MW10M2-53	1	575	3/60	3"	Manual	25	100
3MW15M2-01	1-1/2	200	1/60	3"	Manual	25	100
3MW15M2-21	1-1/2	230	1/60	3"	Manual	25	100
3MW15M2-03	1-1/2	200	3/60	3"	Manual	25	100
3MW15M2-23	1-1/2	230	3/60	3"	Manual	25	100
3MW15M2-43	1-1/2	460	3/60	3"	Manual	25	100
3MW15M2-53	1-1/2	575	3/60	3"	Manual	25	100
3MW20M2-01	2	200	1/60	3"	Manual	25	100
3MW20M2-21	2	230	1/60	3"	Manual	25	100
3MW20M2-03	2	200	3/60	3"	Manual	25	100
3MW20M2-23	2	230	3/60	3"	Manual	25	100
3MW20M2-43	2	460	3/60	3"	Manual	25	100
3MW20M2-53	2	575	3/60	3"	Manual	25	100
3MW30M2-21	3	230	1/60	3"	Manual	25	100
3MW30M2-03	3	200	3/60	3"	Manual	25	100
3MW30M2-23	3	230	3/60	3"	Manual	25	100
3MW30M2-43	3	460	3/60	3"	Manual	25	100
3MW30M2-53	3	575	3/60	3"	Manual	25	100

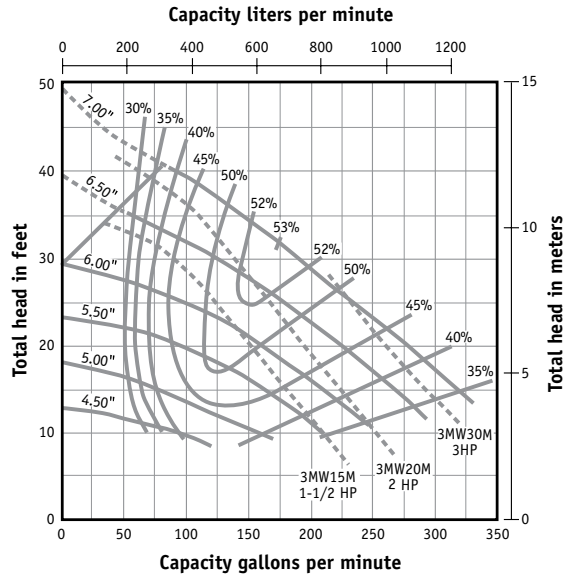
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DIMENSIONS



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PUMP PERFORMANCE - 1750 RPM



MOTOR EFFICIENCIES/POWER FACTOR

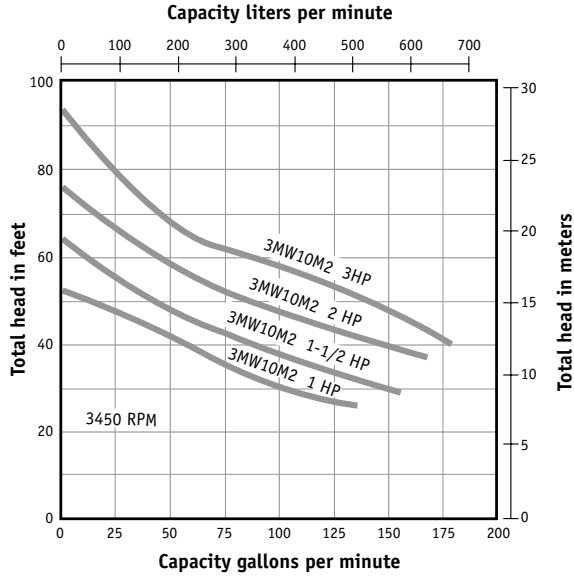
HP	Phase	Motor Efficiency %			Power Factor %				
		Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
1.5	1	59	59	54	45	99	99	99	99
1.5	3	67	67	64	57	72	72	64	51
2.0	1	59	59	57	48	99	99	99	99
2.0	3	66	66	65	58	75	75	66	52
3.0	1	62	63	61	53	91	89	83	73
3.0	3	64	65	64	58	77	74	66	52

MOTOR ELECTRICAL DATA - 1750 RPM

Model	HP	Volts	Phase	Hertz	Start Amps	Run Amps	Service Factor Amps	Run KW	Service Factor KW	Start KVA	Run KVA	NFC Code Letter	Service Factor
3MW15M4-01	1.5	200	1	60	25.2	13.8	13.8	3.1	3.1	5.0	2.8	A	1.0
3MW15M4-21	1.5	230	1	60	24.0	12.0	12.0	2.7	2.7	5.5	2.8	A	1.0
3MW15M4-03	1.5	200	3	60	36.8	9.8	9.8	1.7	1.7	12.7	3.4	G	1.0
3MW15M4-23	1.5	230	3	60	32.0	8.6	8.6	1.7	1.7	12.7	3.4	G	1.0
3MW15M4-43	1.5	460	3	60	16.0	4.3	4.3	1.7	1.7	12.7	3.4	G	1.0
3MW15M4-53	1.5	575	3	60	12.8	3.4	3.4	1.7	1.7	12.7	3.4	G	1.0
3MW20M4-01	2	200	1	60	25.2	15.5	15.5	3.5	3.5	5.0	3.1	A	1.0
3MW20M4-21	2	230	1	60	24.0	13.5	13.5	3.1	3.1	5.5	3.1	A	1.0
3MW20M4-03	2	200	3	60	36.8	10.4	10.4	2.2	2.2	12.7	3.6	G	1.0
3MW20M4-23	2	230	3	60	32.0	9.0	9.0	2.2	2.2	12.7	3.6	G	1.0
3MW20M4-43	2	460	3	60	16.0	4.5	4.5	2.2	2.2	12.7	3.6	G	1.0
3MW20M4-53	2	575	3	60	12.8	3.6	3.6	2.2	2.2	12.7	3.6	G	1.0
3MW30M4-21	3	230	1	60	45.5	17.7	20.0	4.0	4.5	10.5	4.6	F	1.13
3MW30M4-03	3	200	3	60	48.3	13.3	15.0	3.5	3.9	16.7	5.2	G	1.13
3MW30M4-23	3	230	3	60	42.0	12.0	13.5	3.5	3.9	16.7	5.4	G	1.13
3MW30M4-43	3	460	3	60	21.0	6.0	6.8	3.5	3.9	16.7	5.4	G	1.13
3MW30M4-53	3	575	3	60	16.8	4.9	5.5	3.5	3.9	16.7	5.4	G	1.13

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PUMP PERFORMANCE – 3450 RPM



MOTOR ELECTRICAL DATA – 3450 RPM

Model	HP	Volts	Phase	Hertz	Start Amps	Run Amps	Service Factor Amps	Run KW	Service Factor KW	Start KVA	Run KVA	NFC Code Letter	Service Factor
3MW10M2-01	1	208	1	60	21.0	10.3	10.3	2.7	2.7	4.4	2.1	D	1.0
3MW10M2-21	1	230	1	60	19.0	9.3	9.3	2.4	2.4	4.4	2.1	D	1.0
3MW10M2-03	1	208	3	60	20.2	6.6	6.6	2.1	2.1	7.3	2.4	J	1.0
3MW10M2-23	1	230	3	60	20.2	6.0	6.0	2.1	2.1	8.0	2.4	K	1.0
3MW10M2-43	1	460	3	60	10.1	3.0	3.0	2.1	2.1	8.0	2.4	K	1.0
3MW10M2-53	1	575	3	60	8.1	2.4	2.4	2.1	2.1	8.0	2.4	K	1.0
3MW15M2-01	1.5	208	1	60	25.0	14.8	14.8	3.3	3.3	5.0	2.8	B	1.0
3MW15M2-21	1.5	230	1	60	23.0	12.8	12.8	3.0	3.0	5.5	2.8	B	1.0
3MW15M2-03	1.5	208	3	60	30.0	7.7	7.7	2.5	2.5	12.7	3.4	J	1.0
3MW15M2-23	1.5	230	3	60	30.0	7.0	7.0	2.5	2.5	12.7	3.4	K	1.0
3MW15M2-43	1.5	460	3	60	15.0	3.5	3.5	2.5	2.5	12.7	3.4	K	1.0
3MW15M2-53	1.5	575	3	60	12.0	2.4	2.4	2.5	2.5	12.7	3.4	K	1.0
3MW20M2-01	2	208	1	60	39.9	15.3	15.3	3.3	3.6	8.3	3.2	D	1.0
3MW20M2-21	2	230	1	60	33.4	13.1	13.1	3.3	3.6	7.7	3.0	C	1.0
3MW20M2-03	2	208	3	60	30.0	8.5	8.5	2.8	2.8	10.8	3.4	F	1.0
3MW20M2-23	2	230	3	60	30.0	7.7	7.7	2.8	2.8	11.9	3.1	G	1.0
3MW20M2-43	2	460	3	60	15.0	3.9	3.9	2.8	2.8	11.9	3.1	G	1.0
3MW20M2-53	2	575	3	60	12.0	3.1	3.1	2.8	2.8	11.9	3.1	G	1.0
3MW30M2-21	3	230	1	60	63.0	18.0	18.0	3.8	3.8	14.5	3.7	E	1.0
3MW30M2-03	3	208	3	60	53.0	10.4	10.4	3.3	3.3	19.1	3.6	G	1.0
3MW30M2-23	3	230	3	60	46.0	9.0	9.0	3.3	3.3	18.3	3.6	G	1.0
3MW30M2-43	3	460	3	60	23.0	4.5	4.5	3.3	3.3	18.3	3.6	G	1.0
3MW30M2-53	3	575	3	60	18.4	3.6	3.6	3.3	3.3	18.3	3.6	G	1.0

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SPECIFICATIONS

Sewage Pumps – Pump(s) shall be F. E. Myers 3MW series single or double seal sewage pumps selected in accordance with the following design criteria:

Number of Pumps: _____
 Primary Design Flow: _____
 Primary Design Head: _____

Pump – The pump shall be designed to handle raw sewage and be capable of passing _____ inch spherical solids (2" for 3450 RPM, 2½" for 1750 RPM). The pump shall be capable of handling liquids with temperatures to 140°F intermittent and shall be capable of intermittently running dry without damage to the seals or bearings.

Motor – The pump motor shall be of the submersible type rated 1, 1-1/2, 2 or 3 hp as required. Motor shall operate at _____ RPM and shall be for 208 or 230 volts single phase, or 200, 230, 460, or 575 volts, 3 phase, 60 cycles. Single phase motors shall be of the permanent split capacitor type with no relays or starting switches. Three phase motors shall be squirrel cage induction type. Stator winding shall be of the open type with Class B insulation rated for 130°C maximum operating temperature. The winding housing will be filled with clean dielectric oil to lubricate bearings, seals, and transfer heat from the windings to the outer shell. The motor assembly shall be of the standard frame design and shall be secured in place by four threaded fasteners allowing for easy field serviceability.

The motor shall be capable of operating over the full range of the performance curve without overloading the motor and causing any objectionable noise or vibration. The common motor pump shaft shall be of 416 stainless steel and shall be heat shrunk into the die cast motor rotor. The motor shall have two bearings to support the rotor; an upper ball bearing to accommodate radial loads and a lower ball bearing to take thrust and radial loads. Ball bearings shall be designed for a B-10 life of 50,000 hours.

A heat sensor thermostat and overload shall be attached to the top end of the motor windings and shall be wired in series with the windings to stop the motor if the motor winding temperature reaches 130°C (266°F). The overload thermostat shall reset automatically when the motor cools to a safe operating temperature. Three phase motors shall be protected by 3 leg overload relay in control box. Overload shall be of the quick trip ambient compensated type and shall have manual reset button.

Power and Control Cord – The motor power and control cords shall be SJOW/SJOWA or SOOW. The cable jacket shall be sealed at the motor entrance by means of a rubber compression washer and compression nut. A heat shrink tube filled with epoxy shall seal the outer cable jacket and the individual leads to prevent water from entering the motor housing.

Shaft Seal (Single Seal) – The motor shall be protected by a rotating mechanical shaft seal. The seal shall have carbon and ceramic seal faces lapped to a tolerance of one light band. Metal parts and springs for seals shall be 300 series stainless steel. Seal faces of tungsten carbide are optional.

Shaft Seal (Double Seal) – The motor shall be protected by two (2) rotating mechanical shaft seals mounted in tandem with an oil filled chamber separating the seals. The seals shall have carbon and ceramic seal faces lapped to a tolerance of one light band. Metal parts and springs for seals shall be 300 series stainless steel. Two electrical sensing probes shall be mounted in the seal chamber to detect any water leakage past the lower seal. The sensing probes shall be connected to a red warning light in the control panel. The warning light shall serve to indicate a seal leak condition and shall not stop the pump.

Pump Impeller – The pump impeller shall be of the two vane enclosed type. The Class 30 cast iron type impeller used with a 2-pole speed motor shall be internally threaded. The Class 65 ductile iron type impeller used with a 4-pole motor shall be internally keyed. A replaceable Buna-N sealing cup shall effect a seal between the volute and impeller in order to maintain high efficiency and prevent recirculation.

Pump Case – The volute case shall be cast iron and have a vertical 3" NPT threaded discharge. It shall have three cast feet that provide stable support and allow proper operation when standing on floor.

Pump and Motor Castings – All castings shall be of high tensile strength Class 30 gray cast iron. Castings shall be treated with phosphate rinse and painted with a high quality air dry alkyd enamel.

Fasteners – All exposed fasteners shall be 300 series of stainless steel.



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