PENTAIR

MYERS®

MODELS 12VL & 12VLX

12" SUBMERSIBLE SOLIDS HANDLING WASTEWATER PUMPS

STANDARD (12VL) AND HAZARDOUS LOCATION (12VLX) CONSTRUCTION

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MYERS® MODELS 12VL & 12VLX
Solids Handling Pumps

Ideal for Most High Flow Wastewater Applications

The Myers 12VL submersible solids handling sewage pumps are designed especially for high flow, medium head applications such as large municipal lift stations, treatment plants, transfer stations and dewatering. A quick removal type rail system is available to simplify installation and maintenance.

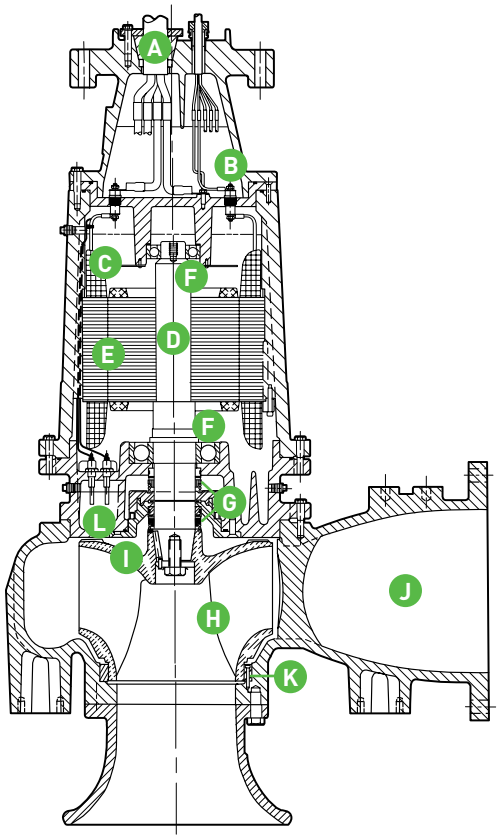
The 12VL has high pumping efficiencies, the ability to handle solids up to 5-1/4 inches in diameter and 2 available motor speeds. For more information, contact your Myers distributor or the Myers sales office at 419-289-1144.

Product Capabilities		
Capacities To	7750 gpm	29331 lpm
Heads To	72 ft.	21.9 m
Solids Handling (dia.)	5-1/4 in.	133.3 mm
Liquids Handling	raw, unscreened sewage, drain water, effluent	
Intermittent Liquid Temp.	up to 140˚F	up to 60˚C
Winding Insulation Temp. (Class H)	356˚F	180˚C
Available Motors	1150 RPM: 40, 50 hp, 3 ph 230, 460 & 575 volts, 60 Hz; 60, 75 hp, 3 ph 460 & 575 volts, 60 Hz 870 RPM: 15, 20, 25 hp, 3 ph 208, 230, 460 & 575 volts, 60 Hz; 30 hp, 3 ph, 230, 460 & 575 volts, 60 Hz	
Std. Third Party Approvals Optional Approvals	CSA FM, Class 1, Groups C & D	
Acceptable pH Range	6 – 9	
Specific Gravity	.9 – 1.1	
Viscosity	28 – 35 SSU	
Horizontal Discharge	12 in. 125 lb. ANSI	304.8 mm

Construction Materials	
Motor Housing, Seal Housing, Cord Cap and Volute Case	cast iron, Class 30, ASTM A48
Enclosed 2-Vane Impeller	ductile iron, Class 65, ASTM A536
Power Cord	SOOW
Control Cord	W
Mechanical Seals: Standard Optional	 double tandem carbon and ceramic lower tungsten carbide
Pump, Motor Shaft	416 SST
Fasteners	300 Series SST
Case Wear Ring	bronze

Note: Consult factory for applications outside these recommendations.

Pump Features and Applications



A. Cable Entry System
Cable jackets sealed with clamped, rubber grommet. Individual wires sealed with epoxy to prevent wicking in case of cable damage.

B. Terminal Board
Provides easy connections from power and control cables to stator. Allows voltage change in field on dual winding motors.

C. Heat Sensor on Motor Winding
Opens to de-energize motor starter if winding temperature reaches 150°C. Automatic reset.

D. Heavy 416 SST Shaft
Reduces deflection from impeller radial loads. Tapered and keyed to accept impeller.

E. Motor Stator
Oil-filled for continuous lubrication of bearings and seals. Class F insulation.

F. Upper & Lower Ball Bearings

G. Double Tandem Shaft Seals
Protect motor, operate in clean oil.

H. High Efficiency Impeller
Two-vane, rounded port, solids handling design. Passes 5-1/4" spherical solids.

I. Pump-Out Vanes
Help keep trash from seal, reduces pressure at seal faces.

J. Horizontal Discharge Volute Case
12" 125 lb. flange.

K. Bronze Wear Ring
Reduces bypass leakage and wear. Replaceable to restore original running clearances and pump efficiencies.

L. Dual Seal Leak Probes
Detect water in seal housing. Activates warning light in control panel.

High Efficiency Hydraulic Design Cuts Pumping Costs and Extends Life of Fluid End Components.

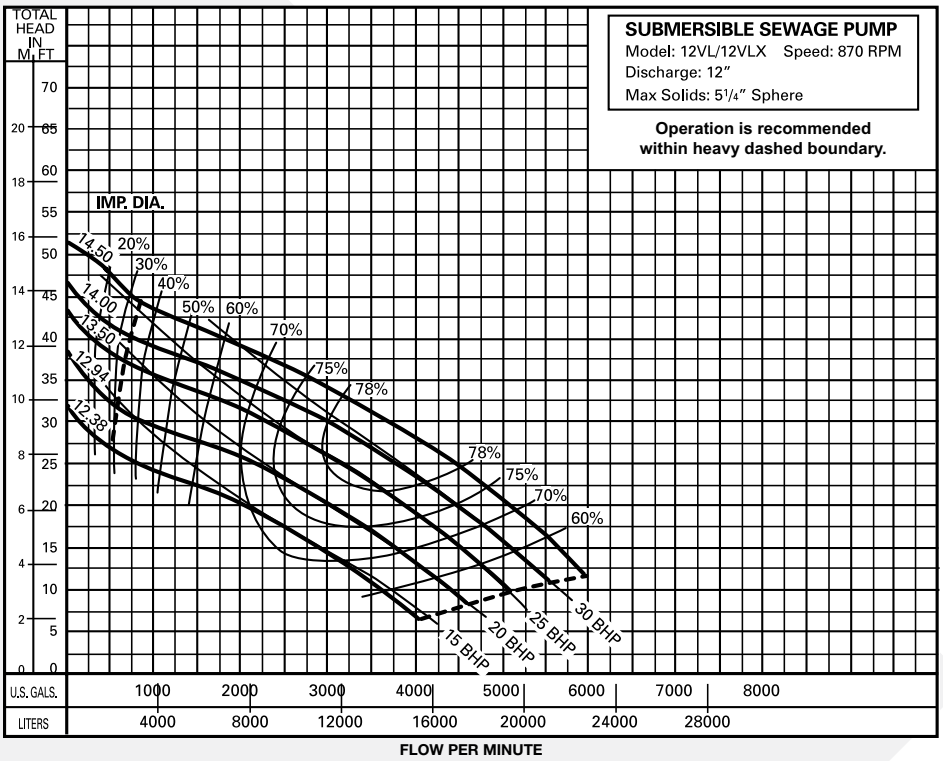
- Two-vane, rounded port impellers handle solids with ease at high operating efficiencies.
- Modified, constant velocity volute offers quiet operation, low radial loads over extended portion of performance curve.

Durable Motor Will Deliver Many Years of Reliable Service.

- Oil-filled motor and seal cavity for maximum heat dissipation and continuous bearing lubrication.
- Heat sensor thermostats embedded in windings protect motor from overheat conditions.
- Seal leak probes warn of moisture entry; help prevent costly motor burn-out.

Performance Data

870 RPM



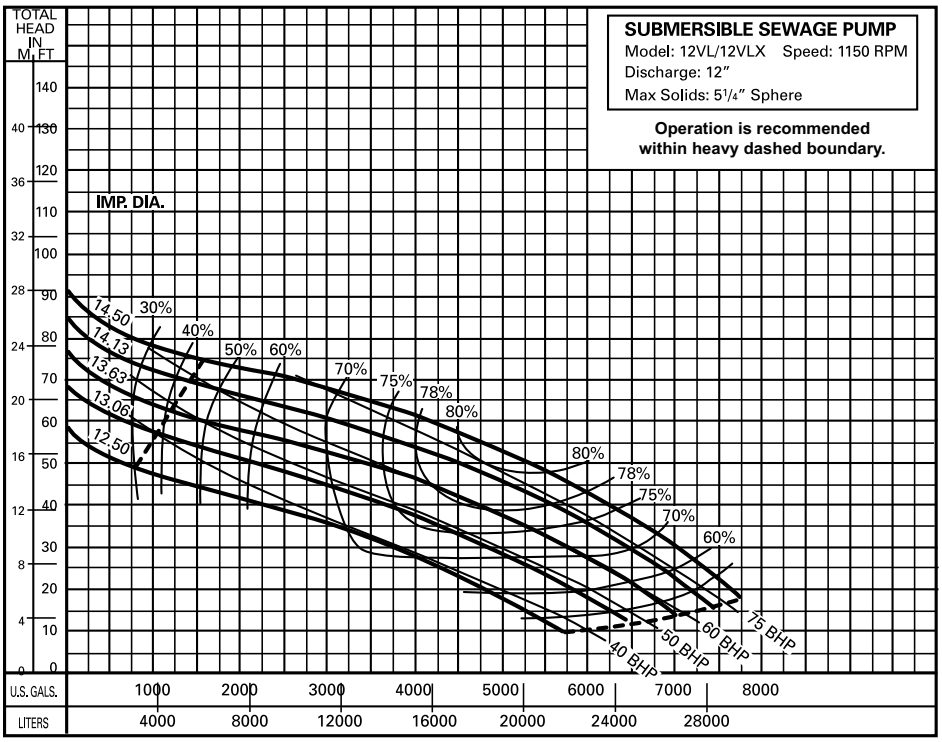
Pump performance is based on clear water (1.0 specific gravity @ 68°F) and pump fluid end (hydraulic) efficiency. Motor data based on 40°C ambient temperature.

Available Models		Motor Electrical Data												
Standard	Hazardous Location	HP	Volts	Phase	Hertz	Start Amps	Run Amps	Service Factor Amps	Run kW	Service Factor kW	Start KVA	Run KVA	NEC Code Letter	Service Factor
12VL150M8-03	12VLX150M8-03	15	208	3	60	334	53.4	61.2	13.4	15.8	116	18.5	J	1.2
12VL150M8-23	12VLX150M8-23	15	230	3	60	290	46.4	53.2	13.4	15.8	116	18.5	J	1.2
12VL150M8-43	12VLX150M8-43	15	460	3	60	145	23.2	26.6	13.4	15.8	116	18.5	J	1.2
12VL150M8-53	12VLX150M8-53	15	575	3	60	116	18.6	21.3	13.4	15.8	116	18.5	J	1.2
12VL200M8-03	12VLX200M8-03	20	208	3	60	334	67.2	78.5	17.6	20.9	116	23.2	G	1.2
12VL200M8-23	12VLX200M8-23	20	230	3	60	290	63.6	76.3	17.6	20.9	116	23.2	G	1.2
12VL200M8-43	12VLX200M8-43	20	460	3	60	145	31.8	38.1	17.6	20.9	116	23.2	G	1.2
12VL200M8-53	12VLX200M8-53	20	575	3	60	116	23.3	27.3	17.6	20.9	116	23.2	G	1.2
12VL250M8-03	12VLX250M8-03	25	208	3	60	501	84.2	101.0	21.2	26.4	175	29.2	H	1.2
12VL250M8-23	12VLX250M8-23	25	230	3	60	436	73.2	87.8	21.2	26.4	175	29.2	H	1.2
12VL250M8-43	12VLX250M8-43	25	460	3	60	218	36.6	44.0	21.2	26.4	175	29.2	H	1.2
12VL250M8-53	12VLX250M8-53	25	575	3	60	174	29.3	35.1	21.2	26.4	175	29.2	H	1.2
12VL300M8-23	12VLX300M8-23	30	230	3	60	436	88.0	105.6	26.4	31.6	175	35.1	G	1.2
12VL300M8-43	12VLX300M8-43	30	460	3	60	218	44.0	52.8	26.4	31.6	175	35.1	G	1.2
12VL300M8-53	12VLX300M8-53	30	575	3	60	174	35.2	42.2	36.4	31.6	175	35.1	G	1.2

Motor Efficiencies and Power Factor									
		Motor Efficiency %				Power Factor %			
HP	Phase	Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
15	3	85.0	83.5	81.5	75	74.5	72.5	68.0	59.0
20	3	85.5	85.0	83.5	80	77.0	75.5	72.5	66.0
25	3	85.0	88.0	87.0	83	74.3	72.7	68.5	59.5
30	3	85.0	85.0	88.0	85	75.1	75.3	70.8	60.0

Performance Data

1150 RPM

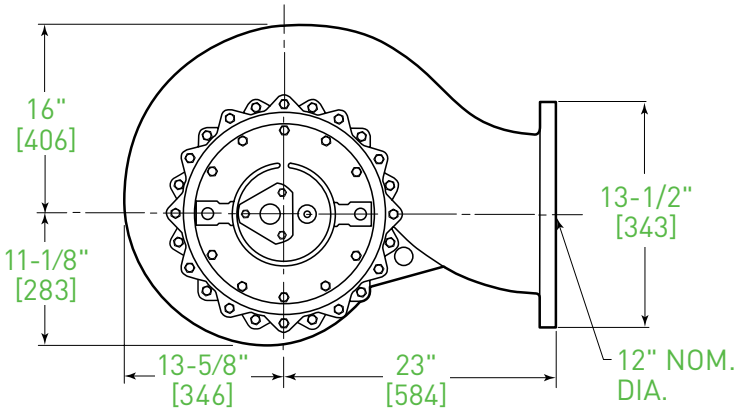


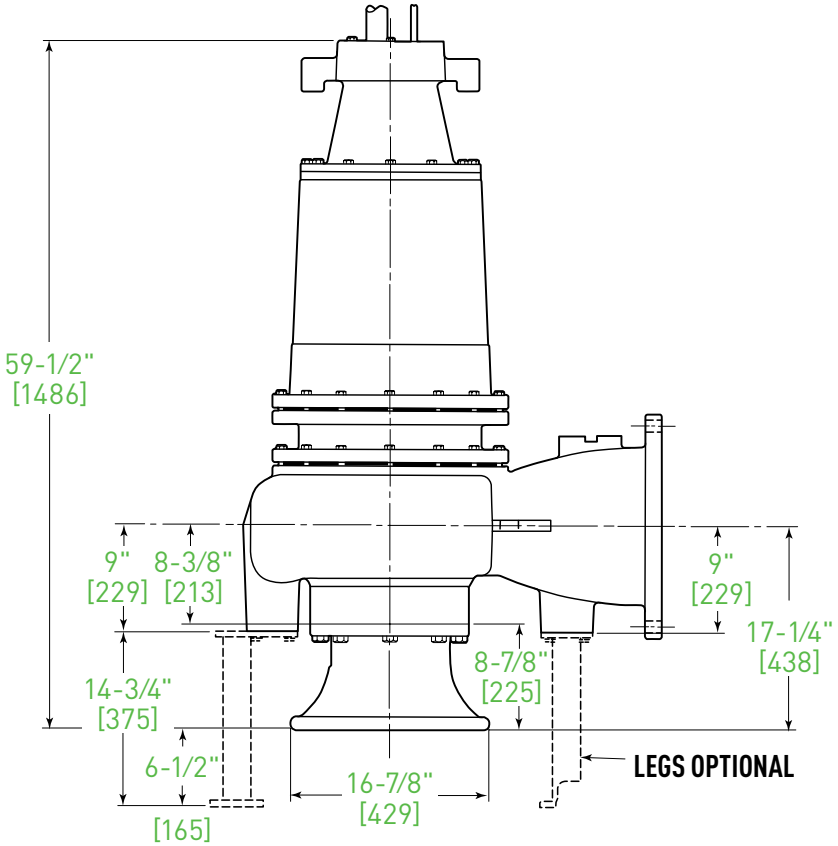
Pump performance is based on clear water (1.0 specific gravity @ 68°F) and pump fluid end (hydraulic) efficiency. Motor data based on 40°C ambient temperature.

Available Models		Motor Electrical Data												
Standard	Hazardous Location	HP	Volts	Phase	Hertz	Start Amps	Run Amps	Service Factor Amps	Run kW	Service Factor kW	Start KVA	Run KVA	NEC Code Letter	Service Factor
12VL400M6-23	12VLX400M6-23	40	230	3	60	580	120.4	144.4	34.3	41.2	230	44.0	G	1.2
12VL400M6-43	12VLX400M6-43	40	460	3	60	290	60.2	72.2	34.3	41.2	230	44.0	G	1.2
12VL400M6-53	12VLX400M6-53	40	575	3	60	232	44.2	53.0	34.3	44.2	230	44.0	G	1.2
12VL500M6-23	12VLX500M6-23	50	230	3	60	417	138.0	165.6	42.6	51.4	290	63.3	G	1.2
12VL500M6-43	12VLX500M6-43	50	460	3	60	363	73.0	87.6	42.6	51.4	290	63.3	G	1.2
12VL500M6-53	12VLX500M6-53	50	575	3	60	290	55.2	66.2	42.6	51.4	290	63.3	G	1.2
12VL600M6-43	12VLX600M6-43	60	460	3	60	405	84.0	101.0	51.4	62.7	323	65.9	F	1.2
12VL600M6-53	12VLX600M6-53	60	575	3	60	324	69.0	82.8	51.4	62.7	323	65.9	F	1.2
12VL750M6-43	12VLX750M6-43	75	460	3	60	490	103.0	124.0	66.0	79.0	390	82.1	F	1.2
12VL750M6-53	12VLX750M6-53	75	575	3	60	392	84.0	101.0	66.0	79.0	390	82.1	F	1.2

Motor Efficiencies and Power Factor									
Motor Efficiency %						Power Factor %			
HP	Phase	Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
40	3	87	87	86	82.5	78	78.0	73.8	65.2
50	3	87	88	87	85.0	78	77.5	77.5	68.0
60	3	86	87	87	86.0	78	78.0	78.0	72.5
75	3	85	85	87	87.0	80	80.4	79.0	71.0

Dimensions [Dimensions in mm]





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