PENTAIR

MYERS®

MODELS 4VL(X)

4" HIGH HEAD SOLIDS HANDLING WASTEWATER PUMPS

STANDARD (4VL) AND HAZARDOUS LOCATION (4VLX) CONSTRUCTION

FM APPROVED (4VLX only)

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MYERS® MODELS 4VL AND 4VLX
4" High Head Solids Handling Wastewater Pumps

Ideal for Most High Flow Wastewater Applications

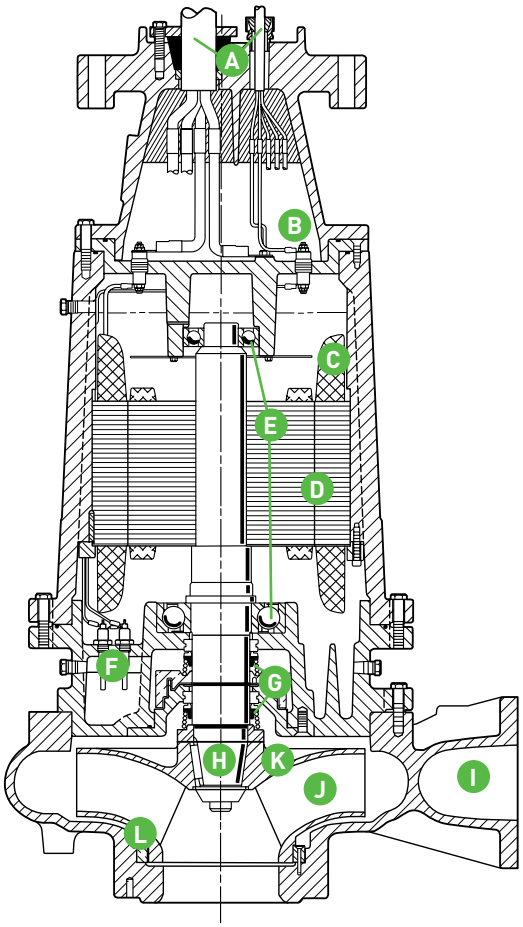
The Myers 4VL submersible solids handling sewage pumps are designed especially for high flow applications such as municipal lift stations, treatment plants, transfer stations and dewatering. A quick removal type rail system is available to simplify installation and maintenance. The 4VL has the ability to handle solids up to 3 inches in diameter. For more information, contact your Myers distributor or the Myers sales office at 419-289-1144.

Product Capabilities		
Capacities To	2100 GPM	8000 LPM
Heads To	275 ft.	84 m
Solids Handling	3 in.	76 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	1750 RPM 50, 60, 75, 100, 125 hp 460 & 575 volts 3 phase, 60 Hz	
Std. Third Party Approvals	CSA	
Optional Approvals	FM Class 1, Groups C & D (4VLX only)	
Acceptable pH Range	6 – 9	
Specific Gravity	.9 – 1.1	
Viscosity	28 – 35 SSU	
Discharge, Horizontal	4 in.	101.6 mm

Note: Consult factory for applications outside these recommendations.

Construction Materials	
Motor Housing, Seal Housing, Cord Cap and Volute Case	cast iron, Class 30, ASTM A48
Impeller	ductile iron, Class 65, ASTM A536
Power and Control Cord	SOOW, W
Double Tandem Mechanical Seals	Standard – carbon & ceramic Optional – lower tungsten carbide
Pump, Motor Shaft	416 SST
Fasteners	300 series SST
Case Wear Ring	bronze

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. Motor Stator

Oil-filled for continuous lubrication of bearings and seals. Class H insulation.

E. Ball Bearings

Upper and lower ball bearings.

F. Dual Seal Leak Probes

Detect water in seal housing. Activate warning light in control panel.

G. Double Tandem Shaft Seals

Protect motor, operate in clean oil.

H. Heavy 416 SST Shaft

Reduces deflection from impeller radial loads. Tapered and keyed to accept impeller.

I. Horizontal Discharge Volute Case

4" 125 lb. flange.

J. High Efficiency Impeller

Two-vane, rounded port, solids handling design. Passes 3" spherical solids.

K. Pump-out Vanes

Help keep trash from seal, reduce pressure at seal faces.

L. Bronze Wear Ring

Reduces bypass leakage and wear. Replaceable to restore original running clearances and pump efficiencies.

High Efficiency Hydraulic Design Cuts Pumping Costs and Extends The Life of the Pump.

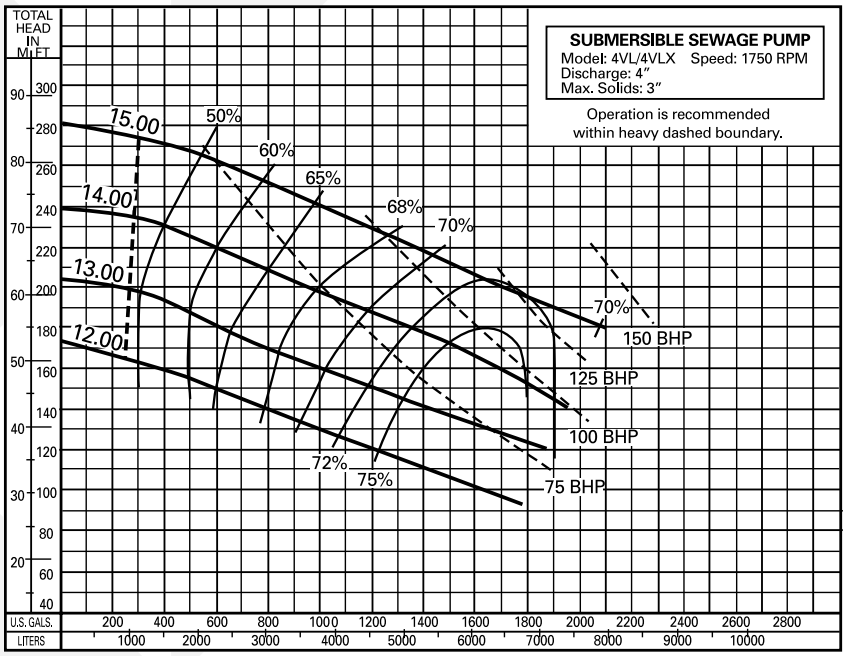
- Two-vane, rounded port impeller handles 3" solids with ease at high operating efficiencies.
- Produces high head.

Durable Motor Will Deliver Many Years of Reliable Service.

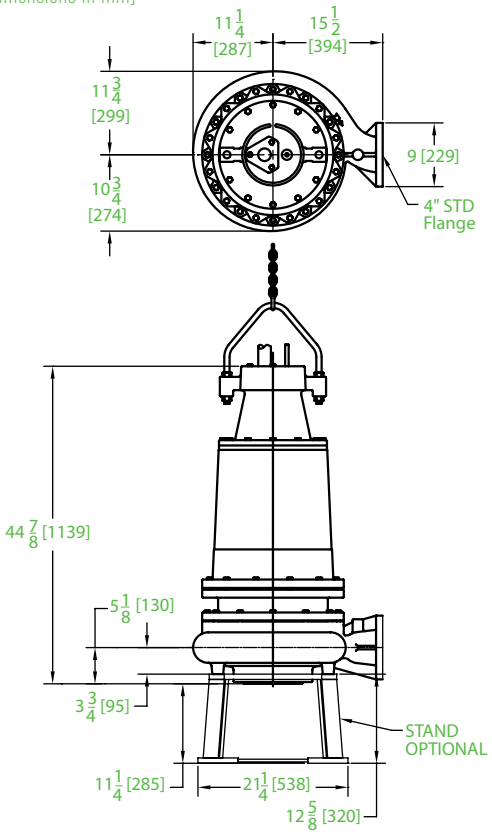
- Class H insulation.
- Continuous duty/VFD rated.
- Oil-filled motor for maximum heat dissipation and constant bearing lubrication.
- Internal thermal overload protection.
- Double tandem shaft seals prevent sewage from entering motor.
- Internal seal leak probes warn of moisture entry.
- Triple sealed power and control cables.

Performance Data and Dimensions

1750 RPM



[Dimensions in mm]



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
4VL500M4-43	4VLX500M4-43	50	460	3	60	490	65	75	52.6	51.3	390	29.9	H	1.2
4VL600M4-43	4VLX600M4-43	60	460	3	60	490	75	90	57	61.6	390	34.5	F	1.2
4VL750M4-43	4VLX750M4-43	75	460	3	60	540	101.8	122.2	64.2	77.0	430	81.0	G	1.2
4VL750M4-53	4VLX750M4-53	75	575	3	60	432	81.4	97.8	64.2	77.0	430	81.0	G	1.2
4VL1000M4-43	4VLX1000M4-43	100	460	3	60	725	129.0	155.0	85.7	103.0	578	103.0	G	1.2
4VL1000M4-53	4VLX1000M4-53	100	575	3	60	580	103.2	124.0	85.7	103.0	578	103.0	G	1.2
4VL1250M4-43	4VLX1250M4-43	125	460	3	60	725	165.0	175.0	108.0	115.0	578	131.0	G	1.1
4VL1250M4-53	4VLX1250M4-53	125	575	3	60	580	132.0	140.0	108.0	115.0	578	131.0	G	1.1

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
50	3	85.0	84.0	80.0	74.0	86.0	85.0	82.0	77.0
60	3	86.0	85.0	83.0	77.0	86.0	86.0	83.0	80.0
75	3	87.1	87.1	87.3	83.5	79.1	79.2	79.1	79.0
100	3	87.0	88.0	87.0	84.0	83.4	83.4	79.2	77.0
125	3	86.0	86.3	88.0	87.0	82.5	82.0	80.0	78.0

PENTAIR

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