PENTAIR

MYERS®

MODELS 4VE AND 4VEX

4" HIGH HEAD SOLIDS HANDLING WASTEWATER PUMPS

STANDARD (4VE) AND HAZARDOUS LOCATION (4VEX) CONSTRUCTION

FM APPROVED
(4VEX only)

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MYERS® MODELS 4VE AND 4VEX
Solids Handling Wastewater Pumps

Designed for Use In Municipal Lift Stations, Treatment Plants and Industrial Waste Applications

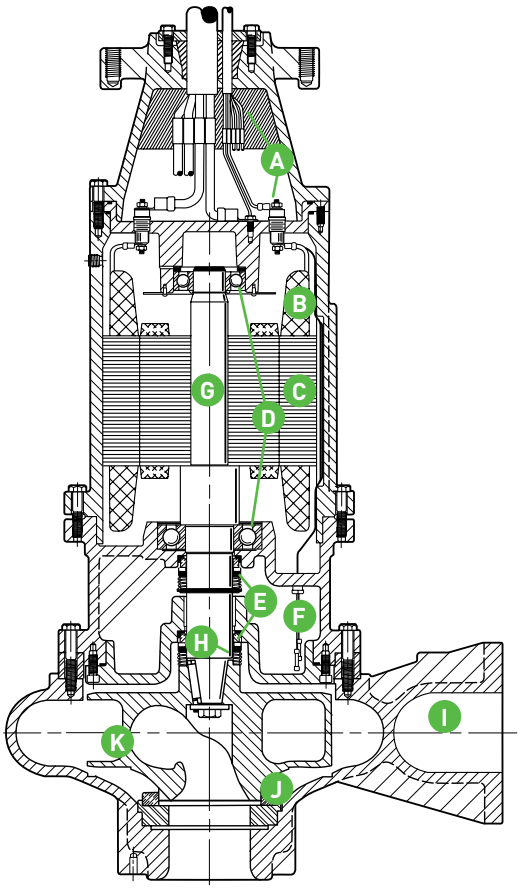
The 4VE and 4VEX submersible wastewater pumps are a heavy-duty 4" solids handling series capable of passing a full 3" spherical solid. Myers rounded port, single vane, enclosed impeller prevents solids from binding or clogging and offers high operating efficiencies to cut your pumping costs. The 4VE series modified constant velocity volute case provides smooth operation over an extended portion of the performance curve for longer seal and bearing life. Myers offers a complete line of wastewater pumps, lift-out rail assemblies, controls and accessories to meet your needs. Call your Myers distributor or the Myers sales office at 419-289-1144 for more details.

Product Capabilities		
Capacities To	700 gpm	2650 lpm
Heads To	165 ft.	50 m
Solids Handling	3 in.	76 mm
Liquids Handling	Raw unscreened sewage, effluent, storm water	
Intermittent Liquid Temp.	up to 140°F	up to 60°C
Winding Insulation Temp. (Class H)	356°F	180°C
Available Motors	1750 RPM 20 – 30 HP 200/230/460/575 volts 3 phase, 60 Hz	
Std. Third Party Approvals	CSA	
Optional Approvals	FM Class 1, Groups C & D (4VEX only)	
Acceptable pH Range	6 – 9	
Specific Gravity	.9 – 1.1	
Viscosity	28 – 35 SSU	
Discharge, Horizontal Flanged Centerline	4 in. 125 lb. ANSI	101.6 mm

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
Mechanical Seals Standard Optional	 dbl. tandem, type 21, carbon & ceramic lower tungsten, carbide
Pump, Motor Shaft	416 SST
Fasteners	300 series SST
Volute Wear Ring	brass

Note: Consult factory for applications outside these recommendations.

Pump Features and Applications



A. Cable Entry System

Provides triple seal protection. Cable jacket sealed by compression grommet. Individual wires sealed by epoxy potting. Terminal board separates motor chamber from cord cap.

B. Heat Sensor

Protects motor from burnout due to excessive heat from any overload condition. Automatically resets when motor has cooled.

C. Motor Stator

Heat shrunk into housing for perfect alignment and best heat transfer. Oil-filled motor conducts heat and lubricates bearings. Class H insulation.

D. Ball Bearings

Upper and lower ball bearings support shaft and rotor, take axial and radial loads.

E. Shaft Seals

Double tandem mechanical shaft seals protect motor. Oil-filled seal chamber provides continuous lubrication.

F. Seal Leak Probes

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

G. Heavy 416 SST Shaft

Corrosion resistant.

H. Sleeve Bearing

Takes radial shock load; provides flame path.

I. Volute Case

Modified constant velocity volute handles 3" solids. 4" ANSI 125 lb. flange.

J. Brass Wear Ring

Prevents rust buildup and reduces leakage and wear. Replaceable to restore original running clearances and pump efficiencies.

K. High Efficiency Impeller

Single vane with rounded ports. Handles 3" solids.

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

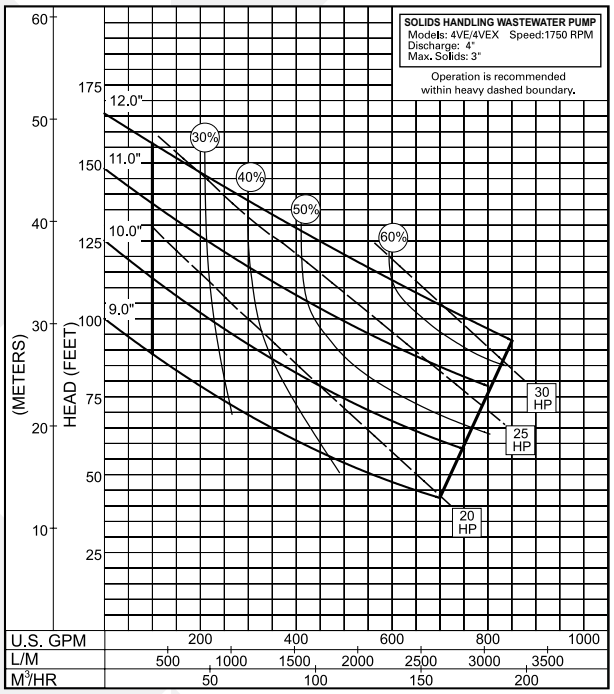
- Single vane, rounded port, enclosed impeller handles 3" solids with ease at high operating efficiencies.
- Solids handling design for trouble-free operation.
- Produces high heads.

Durable Motor Will Deliver Many Years of Reliable Service.

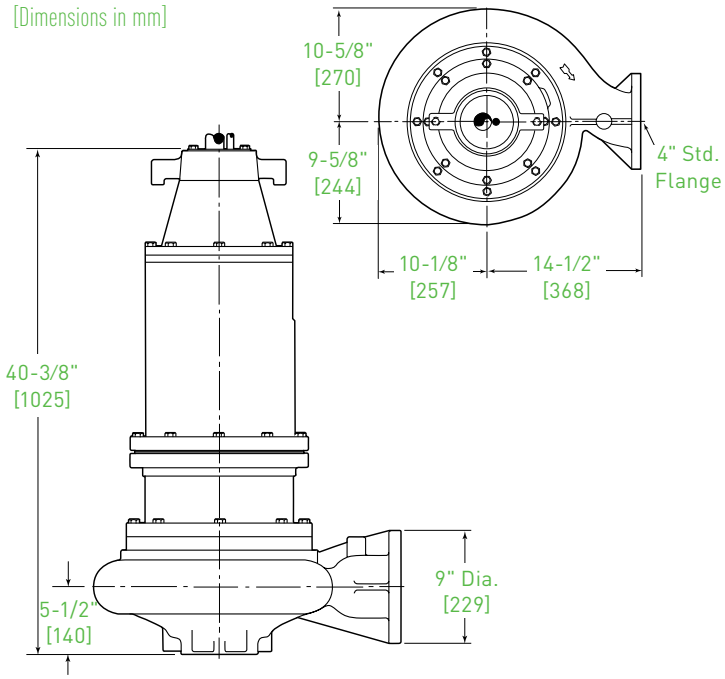
- Class H insulation.
- Continuous duty/VFD rated.
- Oil-filled motor for maximum heat dissipation and constant bearing lubrication.
- Internal thermal overload protection.
- Double tandem shaft seals prevent sewage from entering motor.
- Internal seal leak probes warn of moisture entry.
- Triple sealed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

Performance Data and Dimensions

1750 RPM



[Dimensions in mm]



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
4VE200M4-03	4VEX200M4-03	20	208	3	60	334	62.5	75	21.2	26.1	115.5	23.9	G	1.2
4VE200M4-23	4VEX200M4-23	20	230	3	60	290	60	72	21.2	26.1	115.5	23.9	G	1.2
4VE200M4-43	4VEX200M4-43	20	460	3	60	145	30	36	21.2	26.1	115.5	23.9	G	1.2
4VE200M4-53	4VEX200M4-53	20	575	3	60	116	24	28.8	21.2	26.1	115.5	23.9	G	1.2
4VE250M4-03	4VEX250M4-03	25	208	3	60	575	78.3	92.2	26.9	33.3	180.1	30.3	G	1.2
4VE250M4-23	4VEX250M4-23	25	230	3	60	452	76	92	26.9	33.3	180.1	30.3	G	1.2
4VE250M4-43	4VEX250M4-43	25	460	3	60	226	38	46	26.9	33.3	180.1	30.3	G	1.2
4VE250M4-53	4VEX250M4-53	25	575	3	60	181	30.4	36.8	26.9	33.3	180.1	30.3	G	1.2
4VE300M4-03	4VEX300M4-03	30	208	3	60	575	92.2	110.7	33.3	41.3	180.1	37.4	G	1.2
4VE300M4-23	4VEX300M4-23	30	230	3	60	452	94	114	33.3	41.3	180.1	37.4	G	1.2
4VE300M4-43	4VEX300M4-43	30	460	3	60	226	47	57	33.3	41.3	180.1	37.4	G	1.2
4VE300M4-53	4VEX300M4-53	30	575	3	60	181	37.6	45.6	33.3	41.3	180.1	37.4	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
20	3	88	87.5	81	72.5	91	89	79	69
25	3	87	86	81	73	91	89	80	70
30	3	87	86	83	79	91	89	82	73

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