



MYERS[®]
MODELS 4VH AND 4VHX
SOLIDS HANDLING
WASTEWATER PUMPS

STANDARD (4VH) AND HAZARDOUS LOCATION (4VHX) CONSTRUCTION



MYERS® MODELS 4VH AND 4VHX

Solids Handling Wastewater Pumps

The Right Choice

The 4VH and 4VHX (hazardous location) submersible wastewater pumps are a heavy-duty 4" solids handling series capable of passing a full 3" spherical solid. Myers rounded port, 2-vane, enclosed impellers prevent solids from binding or clogging and offer high operating efficiencies to cut your pumping costs. The 4VH series modified constant velocity volute case provides smooth operation over an extended portion of the performance curve for longer seal and bearing life. For use in municipal lift stations, treatment plants and industrial waste applications. 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.

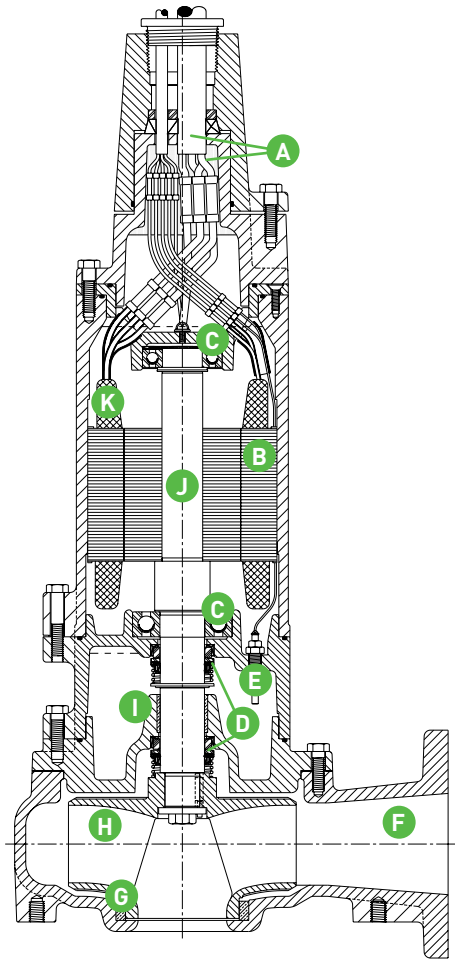


| Product Capabilities | | |
|--|---|------------|
| Capacities To | 900 gpm | 56.7 l/s |
| Heads To | 85 ft. | 25.9 m |
| Solids Handling | 3 in. | 76 mm |
| Liquids Handling | raw unscreened sewage, effluent, storm water | |
| Intermittent Liquid Temp. | up to 140°F | up to 60°C |
| Winding Insulation Temp. (Class H) | 356°F | 180°C |
| Available Motors | 1750 RPM, 5–20 HP 220/230/460/575 volts 3Ø, 60 Hz 1150 RPM, 3 and 5 HP 200/230/460/575 volts 3Ø, 60 Hz | |
| Std. Third Party Approvals | CSA | |
| Optional Approvals | FM, Class 1, Groups C & D (4VHX 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 |

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 |
| Enclosed 2-Vane Impeller | ductile iron, Class 65 ASTM A536 |
| Power and Control Cord | S00W, W |
| Mechanical Seals | double tandem, type 21 |
| Standard | carbon and ceramic |
| Optional | lower tungsten, carbide |
| Pump, Motor Shaft | 416 SST |
| Fasteners | 300 Series SST |
| Volute Wear Ring | brass |

Pump Features and Applications



A. Cable Entry System

Provides double seal protection. Cable jacket sealed by compression grommet. Individual wires sealed by epoxy potting.

B. Motor Stator

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

C. Ball Bearings

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

D. Shaft Seals

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

E. Seal Leak Probes

Detect water in seal housing. Activate warning light in control panel. (Test resistor on FM Listed models.)

F. Volute Case

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

G. Brass Wear Ring

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

H. High Efficiency Impeller

2-vane with rounded ports. (Optional single vane) Handles 3" solids. Pump-out vanes help keep trash from seal; reduce pressure at seal faces.

I. Sleeve Bearing

Takes radial shock load; provides flame path.

J. Heavy 416 SST Shaft

Corrosion resistant.

K. Heat Sensor

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

High Efficiency Hydraulic Design Cuts Pumping Costs And Extends Life Of Fluid End Components.

- Two-vane, rounded port, enclosed type impellers handle 3" solids with ease at high operating efficiencies.
- Modified constant velocity volute offers quiet operation and low radial loads over extended portion of performance curve.

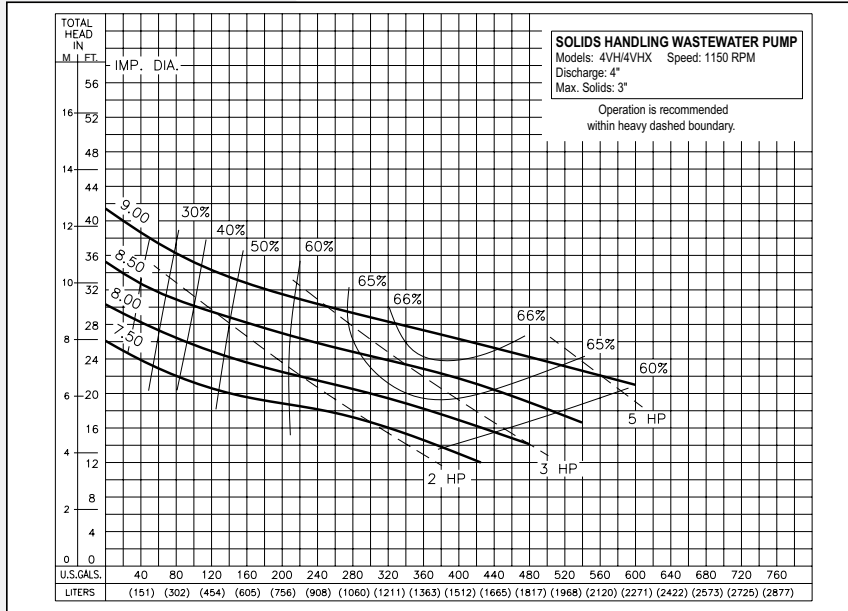
Durable Motor Will Deliver Many Years Of Reliable Service.

- Oil-filled motor for maximum heat dissipation and constant bearing lubrication.
- Heat sensor thermostats embedded in windings protect motor from overheat conditions.
- Seal leak probes warn of moisture entry; help prevent costly motor burnout.
- Double tandem shaft seals prevent sewage from entering motor.
- Power and control cables are double sealed with epoxy and compression grommet.

Available With Optional FM Approval For Use In Class 1, Groups C & D Hazardous Locations (4VHX Only).

Performance Data

1150 RPM



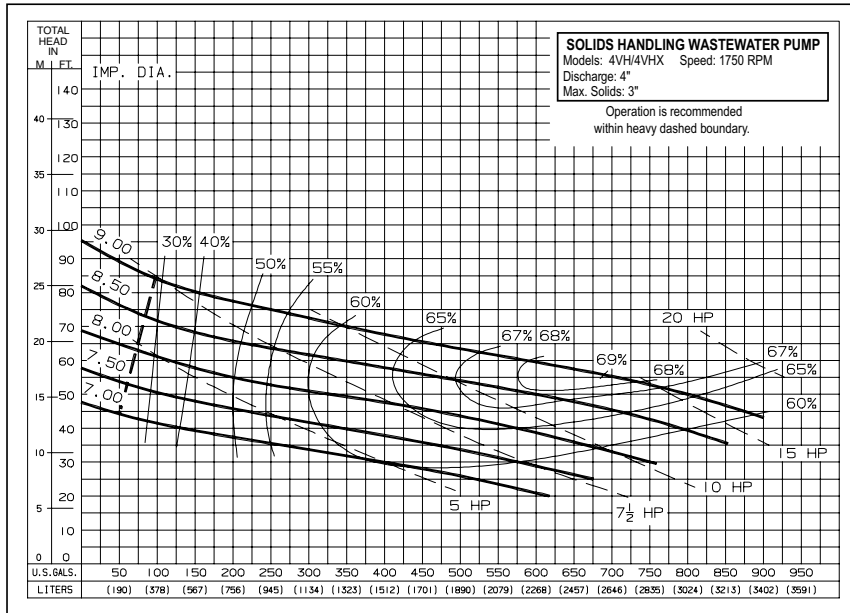
Pump performance is based on clear water (1.0 specific gravity @ 68°F) and pump fluid end (hydraulic) efficiency. Motor data based on 40°C ambient temperature.

| 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 |
| 4VH30M6-03 | 4VHX30M6-03 | 3 | 208 | 3 | 60 | 77 | 15.9 | 19 | 3.3 | 4.3 | 26.7 | 5.5 | K | 1.2 |
| 4VH30M6-23 | 4VHX30M6-23 | 3 | 230 | 3 | 60 | 67 | 13.8 | 16.6 | 3.3 | 4.3 | 26.7 | 5.5 | K | 1.2 |
| 4VH30M6-43 | 4VHX30M6-43 | 3 | 460 | 3 | 60 | 33 | 7 | 8.3 | 3.3 | 4.3 | 26.7 | 5.5 | K | 1.2 |
| 4VH30M6-53 | 4VHX30M6-53 | 3 | 575 | 3 | 60 | 27 | 5.5 | 6.6 | 3.3 | 4.3 | 26.7 | 5.5 | K | 1.2 |
| 4VH50M6-03 | 4VHX50M6-03 | 5 | 208 | 3 | 60 | 115 | 24 | 29 | 5.4 | 6.9 | 39.8 | 8.3 | J | 1.2 |
| 4VH50M6-23 | 4VHX50M6-23 | 5 | 230 | 3 | 60 | 100 | 21 | 25.2 | 5.4 | 6.9 | 39.8 | 8.3 | J | 1.2 |
| 4VH50M6-43 | 4VHX50M6-43 | 5 | 460 | 3 | 60 | 50 | 10.5 | 12.6 | 5.4 | 6.9 | 39.8 | 8.3 | J | 1.2 |
| 4VH50M6-53 | 4VHX50M6-53 | 5 | 575 | 3 | 60 | 40 | 8.3 | 10 | 5.4 | 6.9 | 39.8 | 8.3 | J | 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 |
| 3 | 3 | 73 | 72 | 68 | 58.5 | 66 | 61 | 53.5 | 44 |
| 5 | 3 | 74 | 73 | 69.5 | 64 | 68.5 | 65 | 59 | 48.5 |

Performance Data

1750 RPM



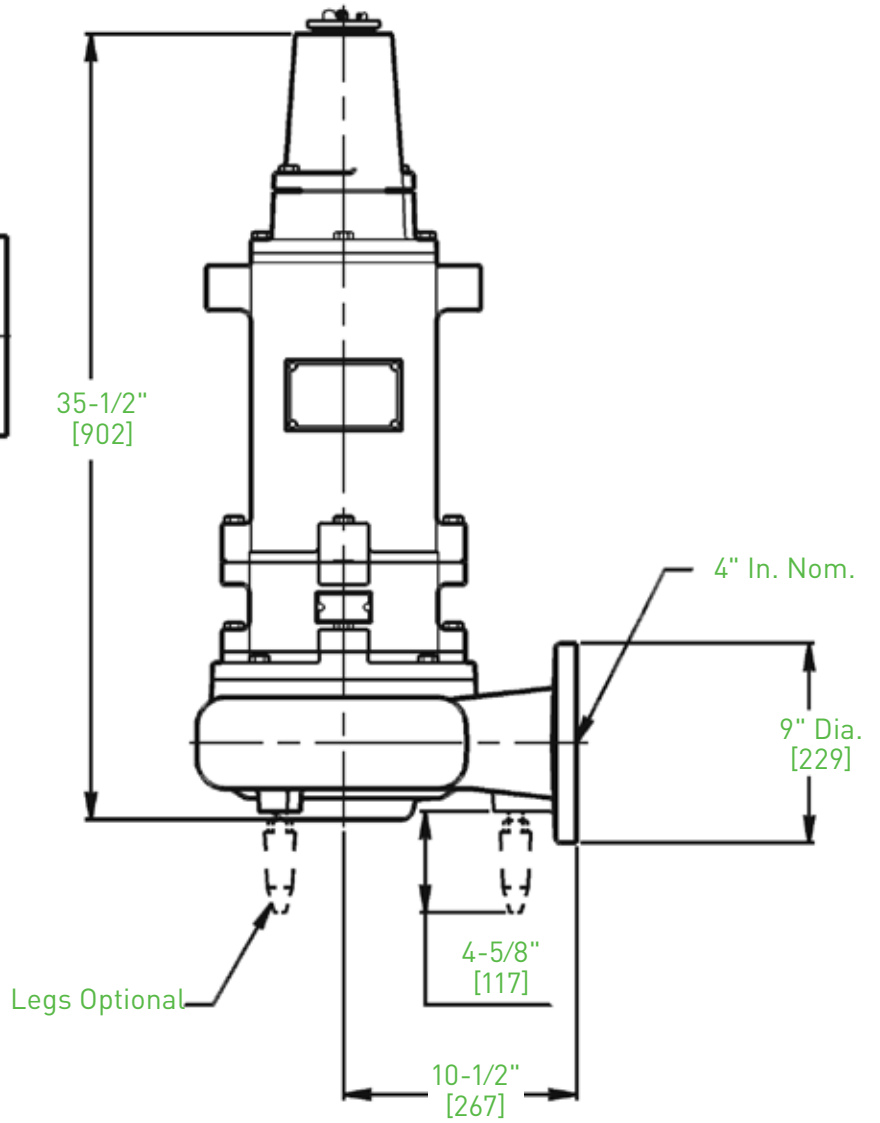
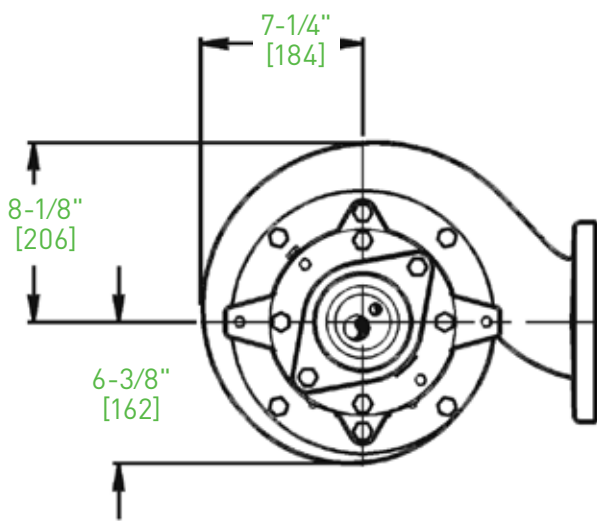
Pump performance is based on clear water (1.0 specific gravity @ 68°F) and pump fluid end (hydraulic) efficiency. Motor data based on 40°C ambient temperature.

| 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 |
| 4VH50M4-03 | 4VHX50M4-03 | 5 | 208 | 3 | 60 | 115 | 21 | 25.3 | 5.7 | 7.2 | 30.0 | 7.2 | J | 1.2 |
| 4VH50M4-23 | 4VHX50M4-23 | 5 | 230 | 3 | 60 | 100 | 18 | 22 | 5.7 | 7.2 | 39.9 | 7.2 | J | 1.2 |
| 4VH50M4-43 | 4VHX50M4-43 | 5 | 460 | 3 | 60 | 50 | 9 | 11 | 5.7 | 7.2 | 39.9 | 7.2 | J | 1.2 |
| 4VH50M4-53 | 4VHX50M4-53 | 5 | 575 | 3 | 60 | 40 | 7.2 | 8.8 | 5.7 | 7.2 | 39.9 | 7.2 | J | 1.2 |
| 4VH75M4-03 | 4VHX75M4-03 | 7.5 | 208 | 3 | 60 | 153 | 30 | 36.8 | 8.3 | 10.4 | 53.0 | 10.0 | H | 1.2 |
| 4VH75M4-23 | 4VHX75M4-23 | 7.5 | 230 | 3 | 60 | 133 | 26 | 32 | 8.3 | 10.4 | 53.0 | 10.0 | H | 1.2 |
| 4VH75M4-43 | 4VHX75M4-43 | 7.5 | 460 | 3 | 60 | 66 | 13 | 16 | 8.3 | 10.4 | 53.0 | 10.0 | H | 1.2 |
| 4VH75M4-53 | 4VHX75M4-53 | 7.5 | 575 | 3 | 60 | 53 | 10 | 12.8 | 8.3 | 10.4 | 53.0 | 10.0 | H | 1.2 |
| 4VH100M4-03 | 4VHX100M4-03 | 10 | 208 | 3 | 60 | 204 | 40 | 48.3 | 11.3 | 13.9 | 70.7 | 13.9 | H | 1.2 |
| 4VH100M4-23 | 4VHX100M4-23 | 10 | 230 | 3 | 60 | 178 | 35 | 42 | 11.3 | 13.9 | 70.7 | 13.9 | H | 1.2 |
| 4VH100M4-43 | 4VHX100M4-43 | 10 | 460 | 3 | 60 | 89 | 17.5 | 21 | 11.3 | 13.9 | 70.7 | 13.9 | H | 1.2 |
| 4VH100M4-53 | 4VHX100M4-53 | 10 | 575 | 3 | 60 | 71 | 14 | 16.8 | 11.3 | 13.9 | 70.7 | 13.9 | H | 1.2 |
| 4VH150M4-03 | 4VHX150M4-03 | 15 | 208 | 3 | 60 | 272 | 60 | 72 | 16.4 | 20.4 | 94.0 | 20.8 | G | 1.2 |
| 4VH150M4-23 | 4VHX150M4-23 | 15 | 230 | 3 | 60 | 236 | 52 | 60 | 16.4 | 20.4 | 94.0 | 20.8 | G | 1.2 |
| 4VH150M4-43 | 4VHX150M4-43 | 15 | 460 | 3 | 60 | 118 | 26 | 30 | 16.4 | 20.4 | 94.0 | 20.8 | G | 1.2 |
| 4VH150M4-53 | 4VHX150M4-53 | 15 | 575 | 3 | 60 | 94 | 21 | 25.5 | 16.4 | 20.4 | 94.0 | 20.8 | G | 1.2 |
| 4VH200M4-23 | | 20 | 230 | 4 | 60 | 236 | 60 | 60 | 20.4 | 20.4 | 94.0 | 25.5 | E | 1.0 |
| 4VH200M4-43 | | 20 | 460 | 3 | 60 | 118 | 30 | 30 | 20.4 | 20.4 | 94.0 | 25.5 | E | 1.0 |
| 4VH200M4-53 | | 20 | 575 | 3 | 60 | 94 | 25.5 | 25.5 | 20.4 | 20.4 | 94.0 | 25.5 | E | 1.0 |

| 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 |
| 5 | 3 | 72 | 73 | 70.5 | 64 | 82 | 80 | 76 | 66.5 |
| 7.5 | 3 | 78 | 77 | 74 | 67.5 | 81.5 | 80 | 75.5 | 68 |
| 10 | 3 | 80 | 80 | 77 | 70.5 | 83 | 81.5 | 75.5 | 67 |
| 15 | 3 | 78.5 | 80 | 79.5 | 74.5 | 82 | 79 | 72 | 61 |
| 20 | 3 | 77 | 77 | 80 | 78 | 82.5 | 82.5 | 79 | 69 |

Dimensions

Dimensions in inches, [] Dimensions in mm



Contact Myers® For All Of Your Engineered Wastewater Systems



SOLIDS HANDLING PUMPS



GRINDER PUMPS



SELF-PRIMING PUMPS



CUSTOM CONTROLS



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