

4WHV and V4WHV

4" Non-Clog Wastewater Pumps
Horizontal and Vertical Discharge



THE 4WHV AND V4WHV SERIES NON-CLOG PUMPS ARE DESIGNED PRIMARILY FOR COMMERCIAL APPLICATIONS SUCH AS: Schools and churches, industrial plants, shopping centers, apartments and condominiums, marinas, interstate rest stops, sewage collection systems, campgrounds, motels, restaurants, office and commercial buildings, state and federal parks, hospitals and nursing homes, dewatering, trailer parks and treatment plants. This pump can be installed on legs (vertical discharge) or with a quick-disconnect slide rail system. Its ability to handle 3-inch spherical solids makes it ideal for most light to medium commercial installations. For more information, contact your Myers distributor or the Myers Ohio sales office at 419-289-1144.

ADVANTAGES BY DESIGN

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 for maximum heat dissipation and constant bearing lubrication.
- Heat sensor thermostats imbedded in windings protect motor from overheat conditions.
- Seal leak probe in seal chamber warns of moisture entry; helps prevent costly motor burnout.

PRODUCT CAPABILITIES

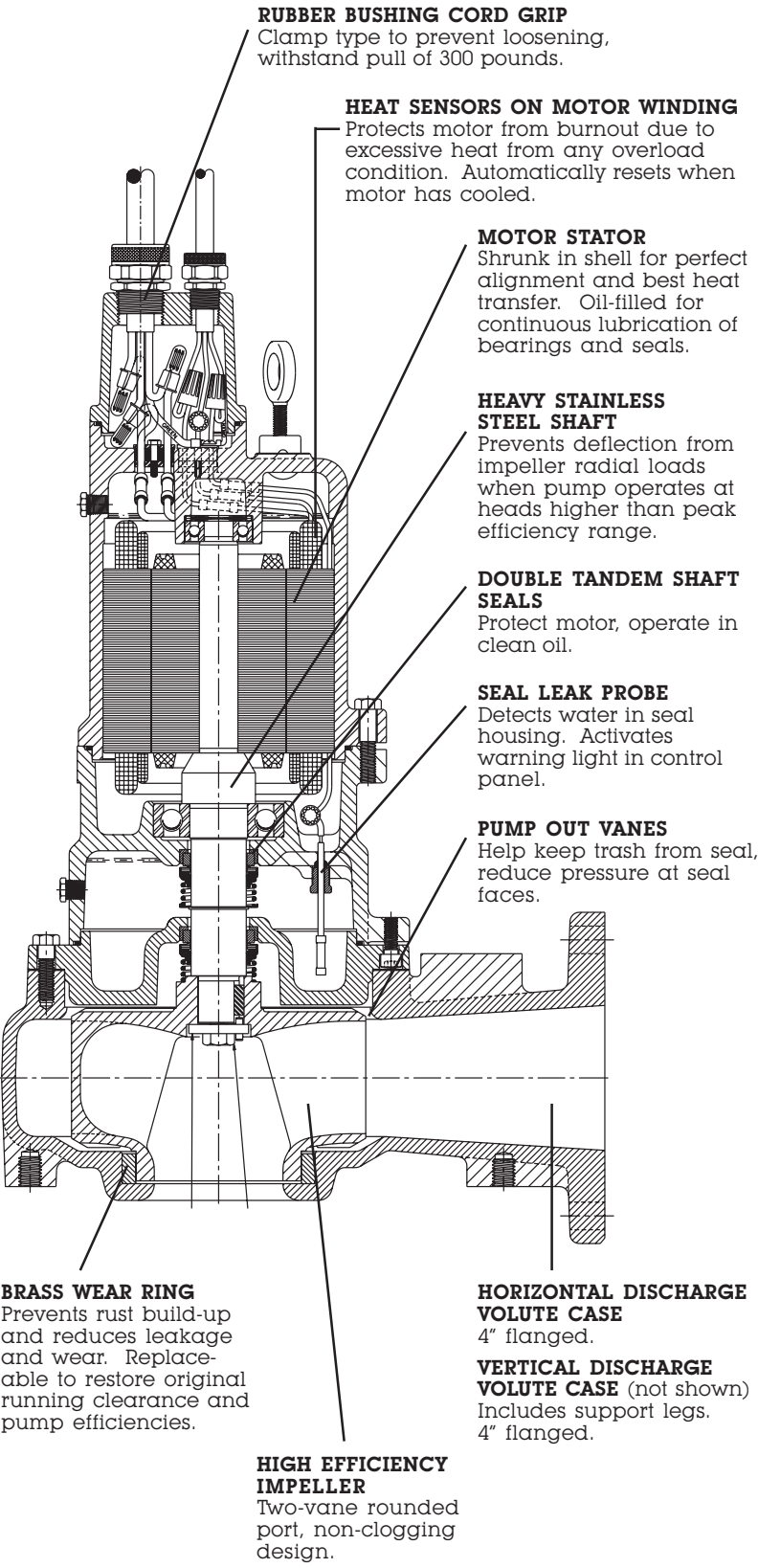
Capacities To	720 gpm	45.5 lps
Heads To	59 ft.	17.9 m
Solids Handling (dia.)	3 in.	76 mm
Liquids Handling	raw unscreened sewage, effluent, storm water	
Intermittent Liquid Temp.	up to 140°F	up to 60°C
Winding Insulation Temp. (Class F)	311°F	155°C
Motor Electrical Data (Single phase motors are capacitor start type. Myers control panels or capacitor kits are required for proper operation and warranty.)	1750 RPM 3-5 HP, 230V, 1Ø, 60 Hz 3-10 HP, 200/230/460/575V, 3Ø, 60 Hz	
Std. Third Party Approvals	CSA	
Acceptable pH Range	6 - 9	
Specific Gravity	.9 - 1.1	
Viscosity	28 - 35 SSU	
Discharge, Flanged Centerline, (Horiz. or Vert.)	4 in.	101.6 mm
Min. Sump Dia. (Duplex)	60 in.	1.5 m

NOTE: Consult factory for applications outside of these recommendations.

Construction Materials	
Motor Housing, Seal Housing, Cord Cap and Volute Case	cast iron, Class30 ASTM A48
Enclosed 2-Vane Impeller	ductile iron, Class 65 ASTM A536
Power and Control Cord	20 ft. SOOW
Mechanical Seals Standard Optional	double tandem, type 21 carbon and ceramic tungsten, carbide
Pump, Motor Shaft	416 SST
Fasteners	300 series SST
Wear Ring	brass

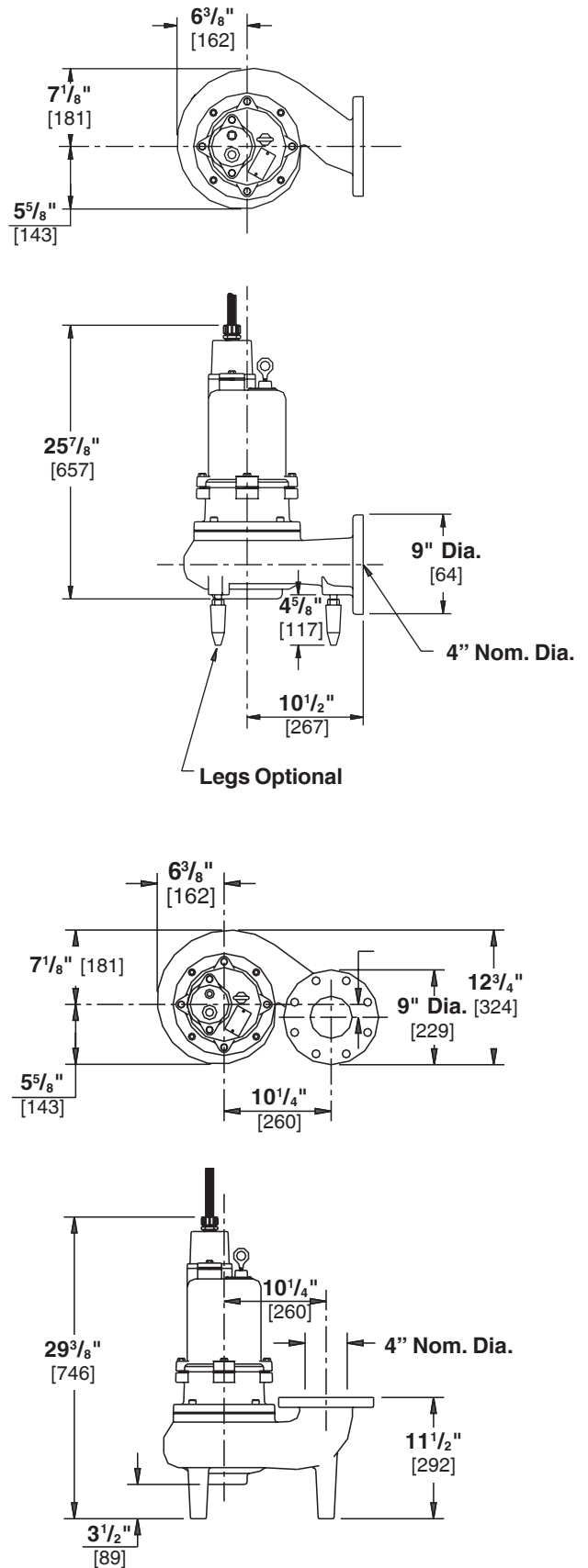
WHERE INNOVATION MEETS TRADITION

Myers[®]
Pentair Pump Group

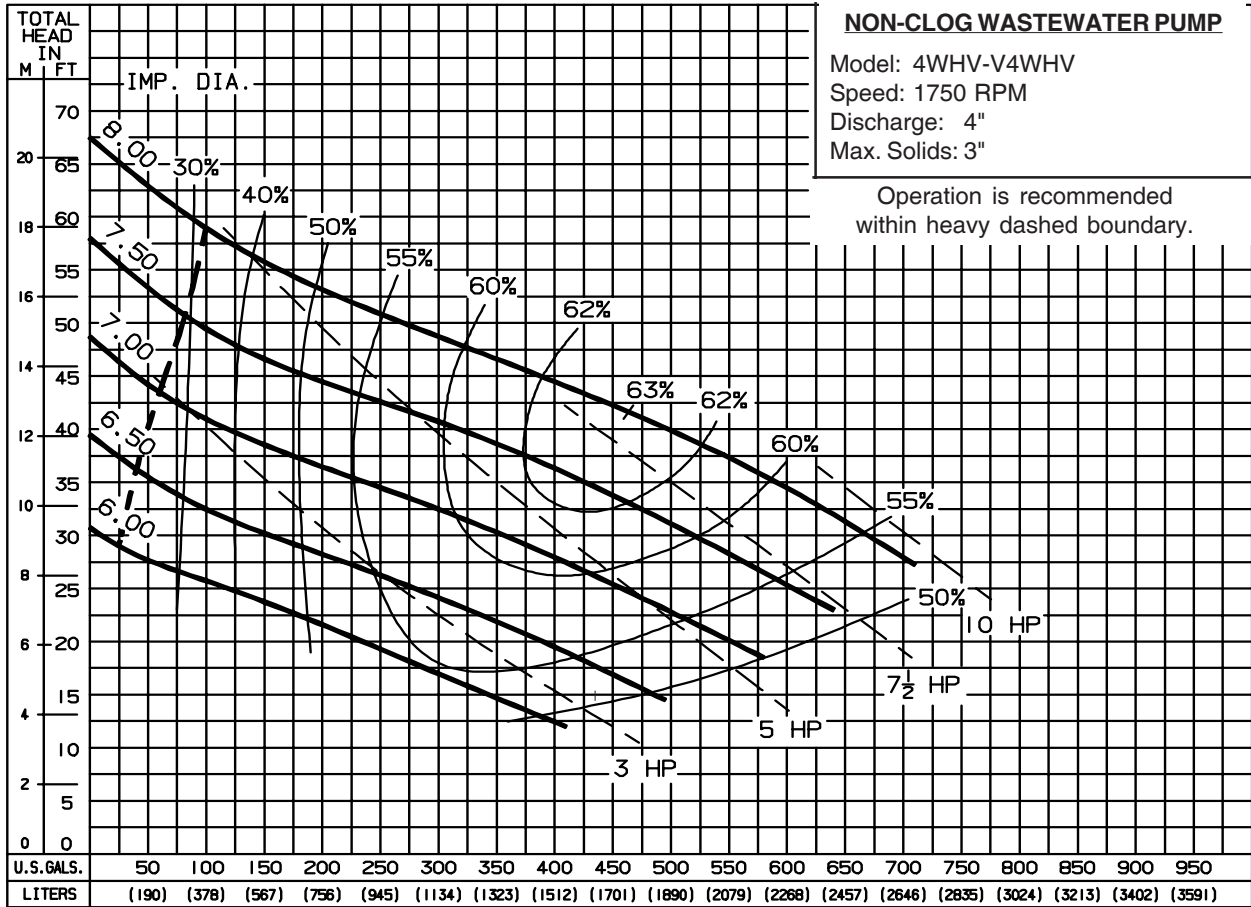


DIMENSIONS

[] Dimensions in mm



PUMP PERFORMANCE



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	HP	Volts	Phase	Hertz	Start Amps	Run Amps	Service Factor Amps	Run KW	Service Factor KW	Start KVA	Run KVA	NEC Code Letter
4WHV30M4-21	3	230	1	60	101	17.5	21	2.1	2.5	23.2	4.0	J	1.2
4WHV30M4-03	3	200	3	60	66.7	15	18	3.5	4.3	23.0	5.0	G	1.2
4WHV30M4-23	3	230	3	60	58	12	14.4	3.5	4.3	23.0	5.0	G	1.2
4WHV30M4-43	3	460	3	60	29	6	7.2	3.5	4.3	23.0	5.0	G	1.2
4WHV30M4-53	3	575	3	60	21.3	5	6	3.5	4.3	23.0	5.0	G	1.2
4WHV50M4-21	5	230	1	60	141	34	41	6.3	7.7	32.4	7.8	H	1.2
4WHV50M4-03	5	200	3	60	111	21.6	26	5.6	6.9	38.4	7.2	H	1.2
4WHV50M4-23	5	230	3	60	96	18	21.6	5.6	6.9	38.4	7.2	H	1.2
4WHV50M4-43	5	460	3	60	48	9	10.8	5.6	6.9	38.4	7.2	H	1.2
4WHV50M4-53	5	575	3	60	39	7.2	8.6	5.6	6.9	38.4	7.2	H	1.2
4WHV75M4-03	7.5	200	3	60	172	32.2	37	8.0	9.9	59.5	11.1	J	1.2
4WHV75M4-23	7.5	230	3	60	150	28	32	8.0	9.9	59.7	11.1	J	1.2
4WHV75M4-43	7.5	460	3	60	74.8	14	16	8.0	9.9	59.7	11.1	J	1.2
4WHV75M4-53	7.5	575	3	60	67.2	11.2	13	8.0	9.9	66.8	11.1	K	1.2
4WHV100M4-03	10	200	3	60	172	37	37	10.1	10.1	59.5	12.8	G	1.0
4WHV100M4-23	10	230	3	60	150	32	32	10.1	10.1	59.7	12.8	G	1.0
4WHV100M4-43	10	460	3	60	74.8	16	16	10.1	10.1	59.7	12.8	G	1.0
4WHV100M4-53	10	575	3	60	67.2	13	13	10.1	10.1	66.8	12.8	H	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
3	1	71	70	67	59	52	51	49	45
3	3	74	73.5	69.5	61.5	73	70.5	62.5	52
5	1	67.5	68	65	56	83	81	73	62.5
5	3	77	77	77	70.5	80	77.5	71	59.5
7.5	3	75	75	72.5	65	77	72	62	49.5
10	3	75	75	75	71	79	79	72	58

4WHV and V4WHV

SPECIFICATIONS

PUMP MODEL - Pump shall be Myers Model Number 4WHV/V4WHV Non-Clog Submersible Pump with 2 vane enclosed impeller. All openings in pump impeller and volute case to be large enough to pass a 3" diameter sphere. Discharge flange shall be four (4) inch standard.

OPERATING CONDITIONS - Pump shall have a capacity of _____ GPM at a total head of _____ feet and shall use a _____ HP motor operating at _____ RPM.

MOTOR - Pump motor shall be of the sealed submersible type rated _____ HP at _____ RPM 60 Hertz. Motor shall be for single phase 230 volts _____ or three phase 200 volts _____ 230 volts _____ 460 volts _____ or 575 volts _____. Single phase motors shall be of capacitor start, capacitor run, NEMA L type. Three phase motors shall be NEMA B type.

Stator winding shall be of the open type with Class F insulation good for 155°C (311°F). maximum temperature. Winding housing shall be filled with a clean high dielectric oil that lubricates bearings and seals and transfers heat from winding and rotor to outer shell. Air-filled motors which do not have the superior heat dissipating capabilities of oil-filled motors shall not be considered equal.

Motor shall have two heavy duty ball bearings to support pump shaft and take radial and thrust loads. Ball bearings shall be designed for 50,000 hours B-10 life. Stator shall be heat shrunk into motor housing.

A heat sensor thermostat shall be attached to and imbedded in the winding and be connected in series with the motor starter contractor coil to stop motor if temperature of winding is more than 130°C. Thermostat to reset automatically when motor cools to safe operating temperature. Three heat sensors to be used on 3 phase motors. The common pump, motor shaft shall be of 416 stainless steel.

SEALS - Motor shall be protected by two mechanical seals mounted in tandem with a seal chamber between the seals. Seal chamber shall be oil filled to lubricate seal face and to transmit heat from shaft to outer shell. Seal faces shall be carbon and ceramic and lapped to a flatness of one light band. Lower seal faces can be tungsten carbide _____ (optional).

An electrode shall be mounted in the seal chamber to detect any water entering the chamber through the lower seal. Water in the chamber shall cause a red light to turn on at the control box. This signal shall not stop motor but shall act as a warning only, indicating service is required.

IMPELLER - The impeller shall be cast ductile iron and of the 2 vane non-clog enclosed type. Vane inlet tips shall be carefully rounded to prevent stringy material from catching in vanes. Pump-out vane shall be used in front and back chamber. Impeller shall be dynamically balanced.

Impeller to be driven by stainless steel shaft key and impeller held in place with lock screw and washer. Impeller and motor shall lift off of case as a unit without disturbing discharge piping.

Impeller neck shall run in bronze wear ring that is pressed into volute case.

PUMP CASE - The volute case shall be cast iron and have a flanged center line discharge. Discharge flange shall be four (4) inch standard with bolt holes straddling center line. Bronze wear ring to be pressed into case for guiding impeller neck and to prevent corrosion freeze up. Wear ring to be held from rotating by locking with stainless steel set screw in end of ring. The volute shall have integrally cast legs for mounting pump on bottom of wet well (V4WHV).

PUMP AND MOTOR CASTING - All castings shall be of high tensile cast iron and shall be treated with phosphate and chromate rinse.

All fasteners shall be 302 stainless steel.

POWER CABLES - Power cable and control cable shall be double sealed. Cable entry into cord cap shall be sealed by a cord grip fitting. Individual wire entry into top of motor housing shall be sealed by a rubber compression sealing grommet.

Insulation of power cable and control cable shall be type SOOW.