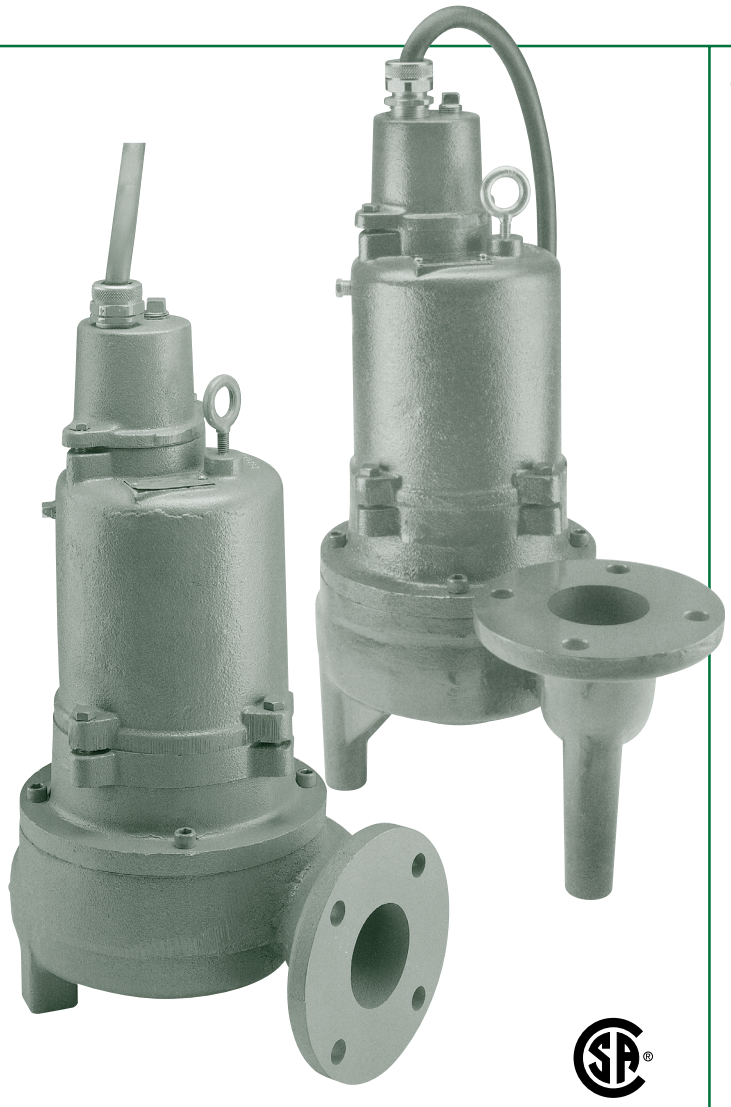
3WHV and V3WHV

3" Non-Clog Wastewater Pumps
Horizontal and Vertical Discharge



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.
- On winding overload (single phase only) protects motor from over current and heat conditions.

PRODUCT CAPABILITIES

Capacities To	400 gpm	25.24 lps
Heads To	48 ft.	14.6 m
Solids Handling (dia.)	2½ in.	63.5 mm
Liquids Handling	raw unscreened sewage, effluent, storm water	
Intermittent Liquid Temp.	up to140°F	up to 60°C
Winding Insulation Temp. (Class B)	266°F	130°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 1-5 HP, 230V, 1Ø, 60 Hz 1-5 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.)	3 in.	76.2 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, Class 30 ASTM A48
Enclosed 2-Vane Impeller	ductile iron, Class 65 ASTM A536
Power and Control Cord	20 ft. SOOW
Mechanical Seals Standard Optional	single, type 21 carbon and ceramic tungsten, carbide
Pump, Motor Shaft	416 SST
Fasteners	300 series SST

THE 3WHV AND V3WHV 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 2½-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.

WHERE INNOVATION MEETS TRADITION

Myers®

Pentair Water

RUBBER BUSHING CORD GRIP
Clamp type to prevent loosening, withstand pull of 300 pounds.

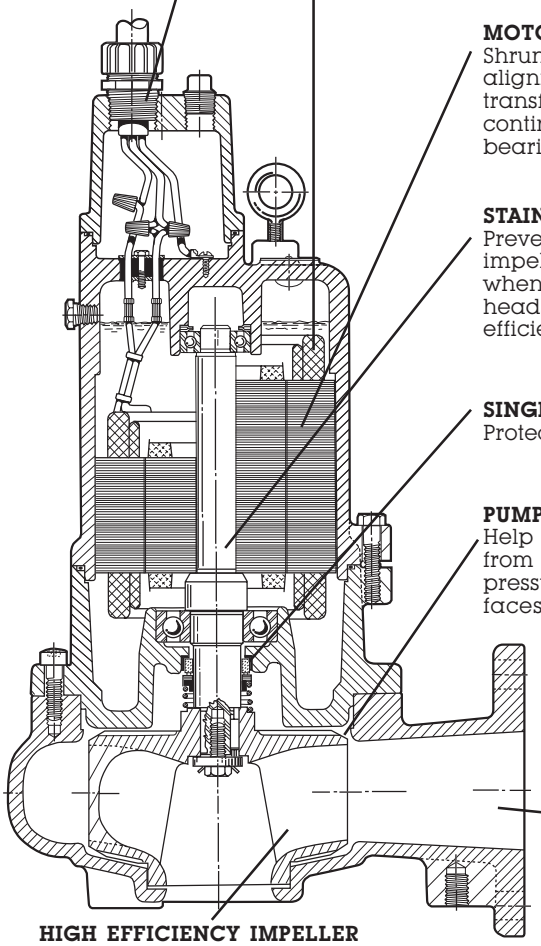
LINE BREAK OVERLOADS – 1Ø Pumps only
Automatically stops motor if winding temperature reaches 110°C (single phase only). Overload automatically resets. Winding insulation is Class B.

MOTOR STATOR
Shrunk in shell for perfect alignment and best heat transfer. Oil-filled for continuous lubrication of bearings and seals.

STAINLESS STEEL SHAFT
Prevents deflection from impeller radial loads when pump operates at heads higher than peak efficiency range.

SINGLE SHAFT SEALS
Protect motor

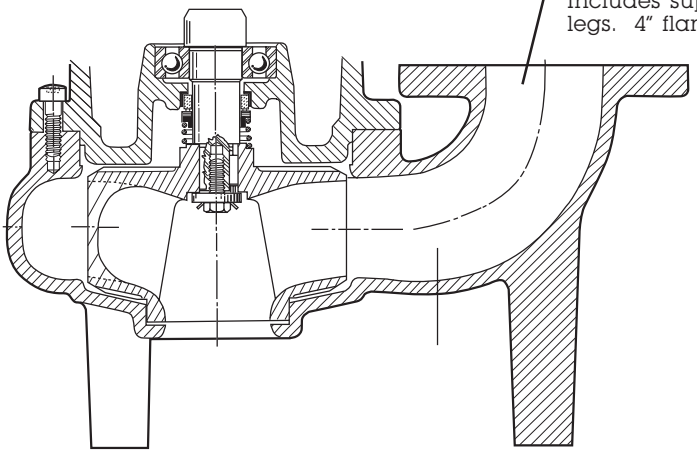
PUMP OUT VANES
Help keep trash from seal, reduce pressure at seal faces.



HORIZONTAL DISCHARGE VOLUTE CASE
3" flanged.

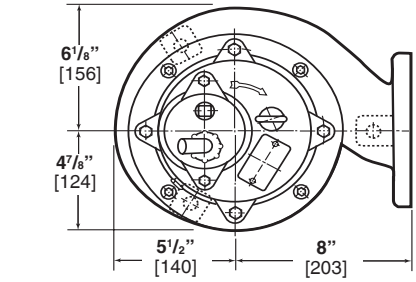
HIGH EFFICIENCY IMPELLER
Two-vane rounded port, non-clogging design.

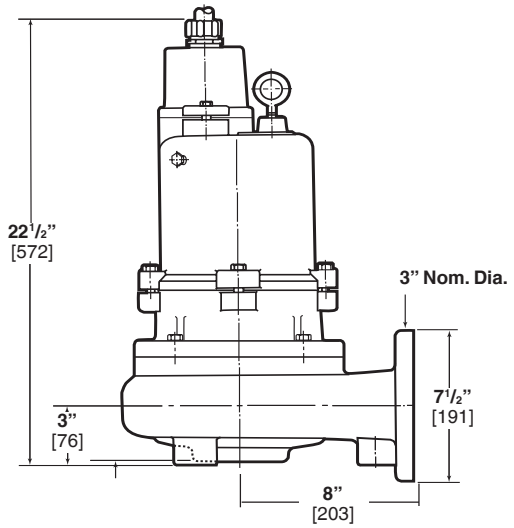
VERTICAL DISCHARGE VOLUTE CASE
Includes support legs. 4" flanged.

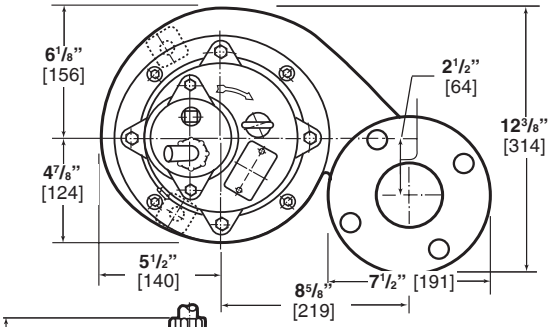


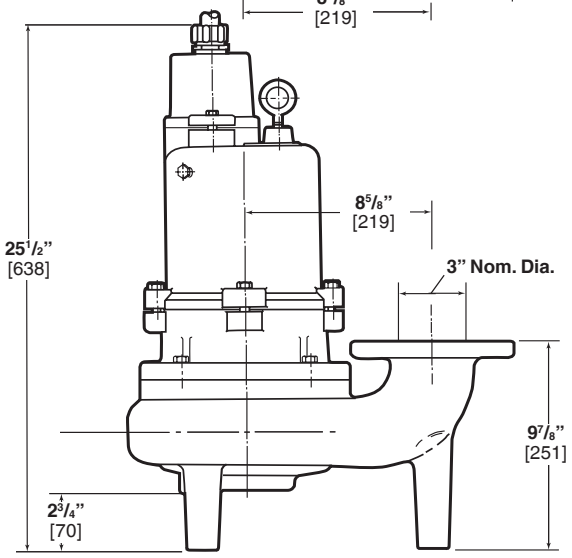
DIMENSIONS

[ ] Dimensions in mm

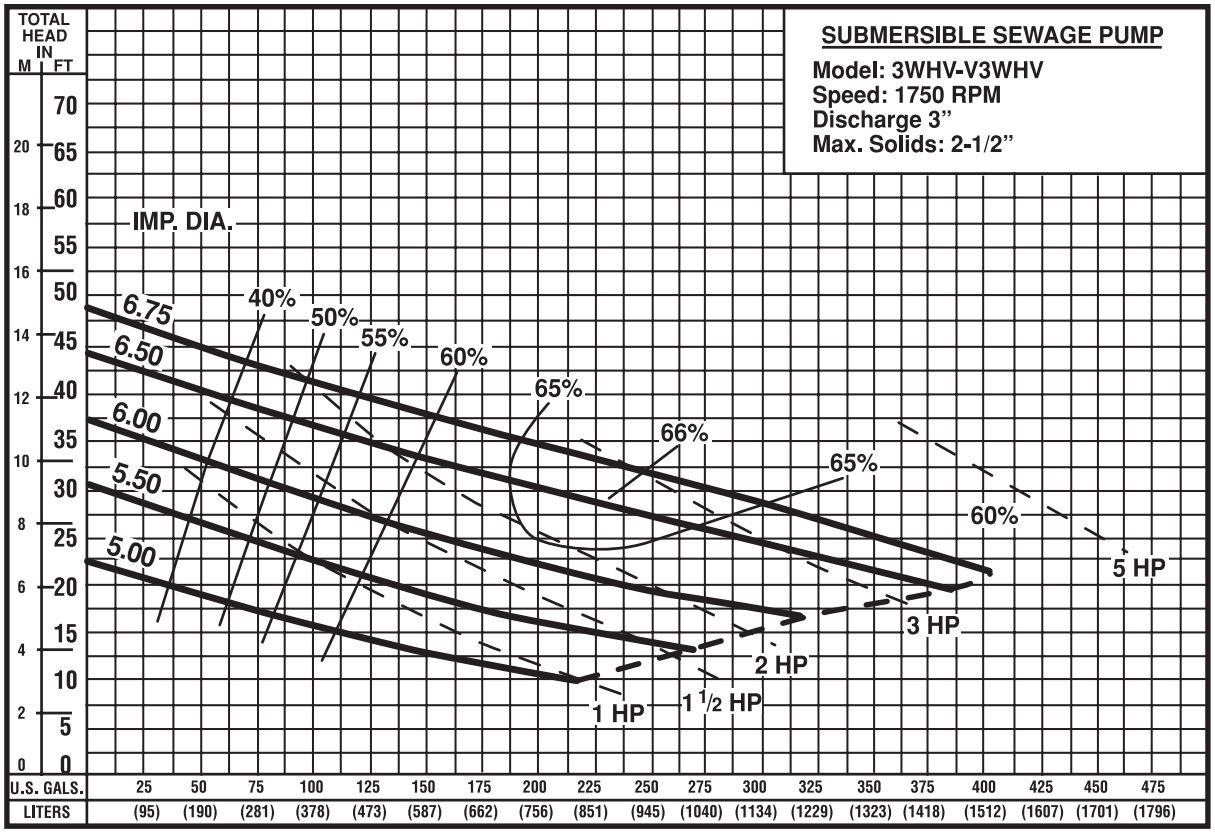








PUMP PERFORMANCE



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	Service Factor
3WHV10M4-21	1	230	1	60	50	8	10	1.2	1.6	11.5	1.8	J	1.2
3WHV10M4-03	1	200	3	60	36	5.4	6.2	1.3	1.5	12.5	1.8	K	1.2
3WHV10M4-23	1	230	3	60	32	4.5	5.4	1.2	1.5	12.7	1.8	K	1.2
3WHV10M4-43	1	460	3	60	19	2.3	2.7	1.2	1.5	15.1	1.8	M	1.2
3WHV10M4-53	1	575	3	60	13	1.8	2.2	1.2	1.5	12.7	1.8	J	1.2
3WHV15M4-21	1.5	230	1	60	50	10	12	1.6	1.9	11.5	2.3	J	1.2
3WHV15M4-03	1.5	200	3	60	36	6.6	8	1.6	1.9	12.5	2.2	K	1.2
3WHV15M4-23	1.5	230	3	60	32	5.5	7	1.6	1.9	12.7	2.2	K	1.2
3WHV15M4-43	1.5	460	3	60	19	2.8	3.5	1.6	1.9	15.1	2.2	M	1.2
3WHV15M4-53	1.5	575	3	60	13	2.2	2.8	1.6	1.9	12.7	2.2	K	1.2
3WHV20M4-01	2	200	1	60	78	15	18	2.1	2.5	15.6	3.0	J	1.2
3WHV20M4-21	2	230	1	60	64	12	14.4	1.9	2.3	14.7	2.8	J	1.2
3WHV20M4-03	2	200	3	60	44	8.4	9.8	1.8	2.3	15.2	2.8	J	1.2
3WHV20M4-23	2	230	3	60	40	7	8.6	1.8	2.3	15.9	2.8	J	1.2
3WHV20M4-43	2	460	3	60	23	3.5	4.3	1.8	2.3	18.3	2.8	L	1.2
3WHV20M4-53	2	575	3	60	16	2.8	3.4	1.8	2.3	15.9	2.8	J	1.2
3WHV30M4-21	3	230	1	60	101	21	26	2.5	3.0	23.2	4.8	J	1.2
3WHV30M4-03	3	200	3	60	66	15	18	3.5	4.5	22.8	5.2	J	1.2
3WHV30M4-23	3	230	3	60	58	12	15.6	3.5	4.5	23.1	4.8	J	1.2
3WHV30M4-43	3	460	3	60	29	6	7.8	3.5	4.5	23.1	4.8	J	1.2
3WHV30M4-53	3	575	3	60	21	5	6	3.5	4.5	20.9	5.0	H	1.2
3WHV50M4-21	5	230	1	60	101	34	34	4.0	4.0	23.2	7.8	J	1.0
3WHV50M4-03	5	200	3	60	66	24	24	6.0	6.0	22.8	8.3	J	1.0
3WHV50M4-23	5	230	3	60	58	21	21	6.0	6.0	23.1	8.3	J	1.0
3WHV50M4-43	5	460	3	60	29	10.5	10.5	6.0	6.0	32.1	8.3	J	1.0
3WHV50M4-53	5	575	3	60	21	8.4	8.4	6.0	6.0	20.9	8.3	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
1	1	68	64	58	49	68	66	60	50
1	3	70	66	60	51	70	67	61	47
1.5	1	69	68	65	59	69	68	61	48
1.5	3	71	70	68	60	70	70	62	49
2	1	73	73	71	68	70	69	63	50
2	3	71	70	68	61	66	65	52	42
3	1	70	70	67	59	51	51	49	45
3	3	74	73.5	69.5	61.5	72	70.5	62.5	52
5	1	70	70	69	65	51	51	50	47
5	3	74	74	72	67	72	72	64	58

3WHV and V3WHV

SPECIFICATIONS

PUMP MODEL – Pump shall be Myers Model Number 3WHV/V3WHV Non-Clog Submersible Pump with 2 vane enclosed impeller. All openings in pump impeller and volute case to be large enough to pass a 2-1/2" diameter sphere. Discharge flange shall be three (3) 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 inverter duty 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. On single phase motors a line break overload shall be attached to the windings to stop the motor if the temperature of the winding is more than 130°C. This overload will automatically reset when the motor cools to safe operating temperature. On three phase motors overcurrent protection should be provided in the control panel. The common pump-motor shaft shall be of 416 stainless steel.

SEAL – Motor shall be protected by a mechanical seal. Seal faces shall be lubricated by the oil-filled motor housing above seal. Seal faces shall be carbon and ceramic and lapped to a flatness of one light band. Seal faces of tungsten carbide are optional.

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.

PUMP CASE – The volute case shall be cast iron and have a flanged center line discharge. Discharge flange shall be three (3) inch standard with bolt holes straddling center line. The volute shall have integrally cast legs for mounting pump on bottom of wet well (V3WHV).

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 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 shall be type SOOW.

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Pentair Water

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