

# SOLIDS HANDLING WASTEWATER PUMPS

## 3WHV AND V3WHV MODELS

The 3WHV and V3WHV Series Solids Handling Wastewater Pumps are primarily designed for light and medium commercial applications such as schools, industrial and treatment plants, restaurants, and motels among others.

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.

### APPLICATIONS

Designed for light and medium commercial applications.



  
 Tested & Certified  
 to CSA 108.

### FEATURES

- ◆ **Cable Entry System:** Provides double seal protection. Cable jacket sealed by compression fitting. Individual wires sealed by epoxy potting.
- ◆ **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.
- ◆ **Vertical Discharge Volute Case:** Includes support legs. 3" flanged.
- ◆ **Two-Vane Rounded Port Impellers:** Handles solids with ease at high operating efficiencies.
- ◆ **Modified Constant Velocity Volute:** Offers quiet operation, low radial loads over extended portion of performance curve.
- ◆ **Oil-Filled Motor:** Maximum heat dissipation and constant bearing lubrication.

### SPECIFICATIONS

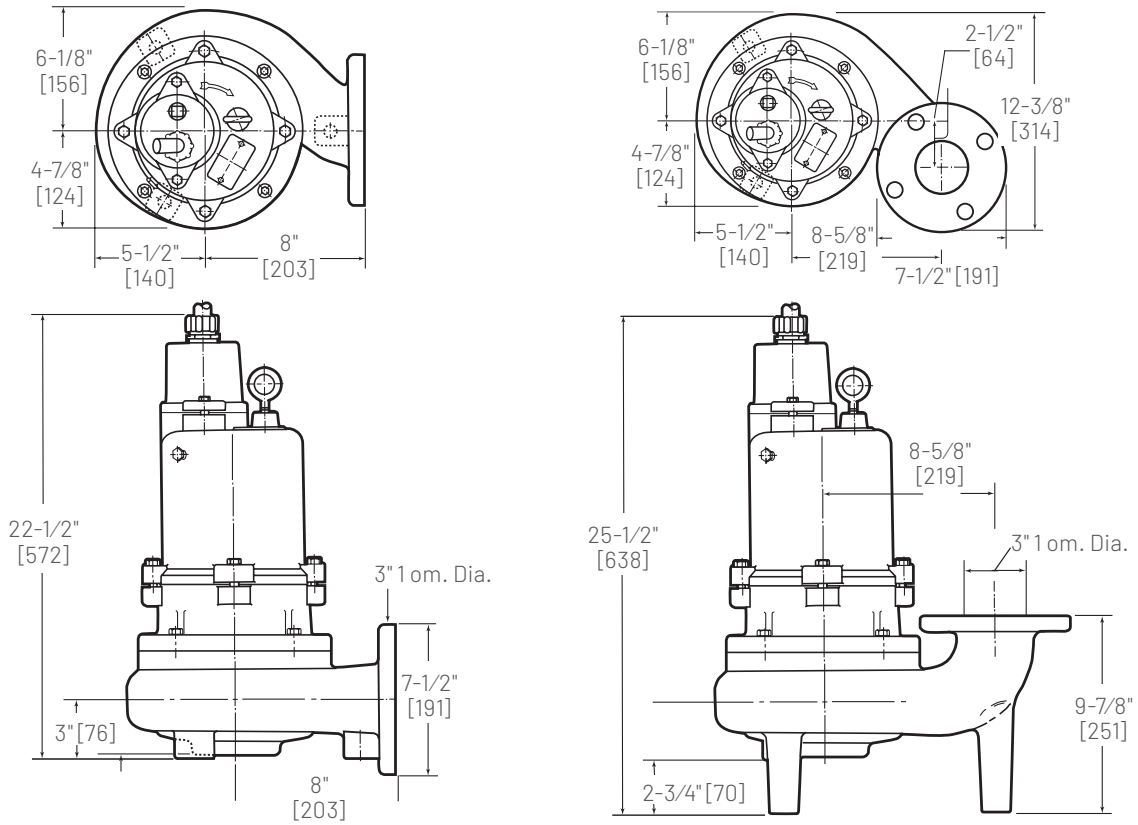
- ◆ **Capacities To:** 400 GPM (25.24 LPM)
- ◆ **Heads To:** 48 ft. (14.6 m)
- ◆ **Solids Handling (dia.):** 2-1/2 in. (63.5 mm)
- ◆ **Liquids Handling :** Raw unscreened sewage, effluent, storm water
- ◆ **Intermittent Liquid Temp.:** Up to 140°F (up to 60°C)
- ◆ **Winding Insulation Temp. (Class B):** 266°F (130°C)
- ◆ **Motor Electrical Data:** (Single phase motors are capacitor start type. Myers control panels or capacitor kits are recommended for proper operation and warranty). 1750 RPM; 1-5 HP, 230V, 1Ø, 60 Hz; 1-5 HP, 200/230/460/575V; 3Ø, 60 Hz
- ◆ **Acceptable pH Range:** 6 - 9
- ◆ **Specific Gravity:** .9 - 1.1
- ◆ **Viscosity:** 28 - 35 SSU
- ◆ **Discharge, Flanged Centerline (Horiz. or Vert.):** 3 in.
- ◆ **Min. Sump Diameter Duplex:** 60 in. (1.5 m)
- ◆ **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
- ◆ **Mechanical Seals:** Standard, Optional = Single, Type 21; carbon and ceramic; Tungsten, carbide
- ◆ **Pump, Motor Shaft:** 416 SST

# SOLIDS HANDLING WASTEWATER PUMPS 3WHV AND V3WHV MODELS

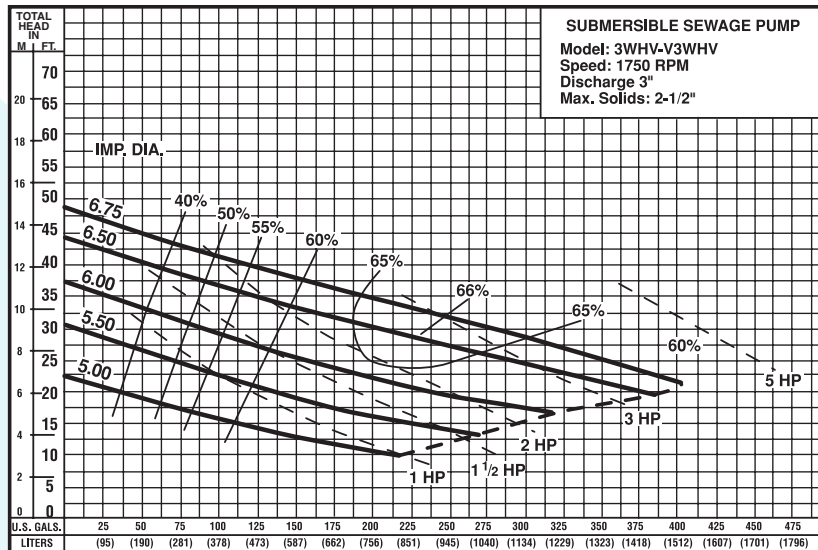
## DIMENSIONAL DATA

[Dimensions in mm]

1750 RPM



## PERFORMANCE DATA



PERFORMANCE DATA

AVAILABLE MODELS	MOTOR ELECTRICAL DATA											
	STANDARD	HP	VOLTS	PHASE	HERTZ	START AMPS	FULL LOAD AMPS	SERVICE FACTOR AMPS	FULL LOAD KW	START KVA	FULL LOAD KVA	NEC CODE LETTER
3WHV10M4-21	1	230	1	60	71	8	10	1.3	16.3	1.8	N	1.2
3WHV10M4-03	1	208	3	60	38	5.4	6.2	1.5	13.7	1.9	N	1.2
3WHV10M4-23	1	230	3	60	34	4.5	5.4	1.5	13.5	1.8	N	1.2
3WHV10M4-43	1	460	3	60	17	2.3	2.7	1.5	13.5	1.8	N	1.2
3WHV10M4-53	1	575	3	60	14	1.8	2.2	1.5	13.9	1.8	N	1.2
3WHV15M4-21	1.5	230	1	60	71	10	12	1.9	16.3	2.3	M	1.2
3WHV15M4-03	1.5	208	3	60	38	6.6	8	2.2	13.7	2.4	L	1.2
3WHV15M4-23	1.5	230	3	60	34	5.5	7	1.8	13.5	2.2	L	1.2
3WHV15M4-43	1.5	460	3	60	17	2.8	3.5	1.8	13.5	2.2	L	1.2
3WHV15M4-53	1.5	575	3	60	18	2.2	2.8	1.8	17.9	2.2	L	1.2
3WHV20M4-21	2	230	1	60	66	12	14.4	2.4	15.2	2.8	J	1.2
3WHV20M4-03	2	208	3	60	49	8.4	9.8	2.3	17.6	3	K	1.2
3WHV20M4-23	2	230	3	60	44	7	7.6	2.2	17.5	2.8	K	1.2
3WHV20M4-43	2	460	3	60	22	3.5	3.8	2.2	17.5	2.8	K	1.2
3WHV20M4-53	2	575	3	60	18	2.8	3.4	2.2	17.9	2.8	K	1.2
3WHV30M4-21	3	230	1	60	98	21	27	4.5	22.5	4.8	J	1.2
3WHV30M4-03	3	208	3	60	51	15	18	4.2	18.4	5.4	G	1.2
3WHV30M4-23	3	230	3	60	46	12	15	4.1	18.3	4.8	G	1.2
3WHV30M4-43	3	460	3	60	23	6	7.5	4.1	18.3	4.8	G	1.2
3WHV30M4-53	3	575	3	60	19	5	6	4.2	18.9	5	H	1.2
3WHV50M4-21	5	230	1	60	108	34	34	6.7	24.8	7.8	E	1.0
3WHV50M4-03	5	208	3	60	106	24	24	7.3	38.1	8.6	J	1.0
3WHV50M4-23	5	230	3	60	96	21	21	7.2	38.2	8.4	J	1.0
3WHV50M4-43	5	460	3	60	48	10.5	10.5	7.2	38.2	8.4	J	1.0
3WHV50M4-53	5	575	3	60	39	8.4	8.4	7.2	38.8	8.4	J	1.0

MOTOR EFFICIENCIES AND POWER FACTOR									
HP	PHASE	MOTOR EFFICIENCY %				POWER FACTOR %			
		SERVICE FACTOR LOAD	100% LOAD	75% LOAD	50% LOAD	SERVICE FACTOR LOAD	100% LOAD	75% LOAD	50% LOAD
1	1	74	72	67	59	85	75	67	56
1	3	70	66	60	51	70	67	61	47
1.5	1	73	74	67	68	86	83	78	67
1.5	3	71	70	65	58	82	79	71	64
2	1	75	76	75	69	90	88	84	75
2	3	71	70	65	58	80	77	71	61
3	1	67	70	68	62	88	88	85	78
3	3	68	71	71	69	87	88	87	82
5	1	66	69	68	61	86	87	84	75
5	3	63	76	76	75	86	85	83	74

# SOLIDS HANDLING WASTEWATER PUMPS 3MW SERIES

## ORDERING INFORMATION

MODEL NUMBER	ENGINEERING NUMBER	HP	MAX CAPACITY	MAX HEAD	DISCHARGE NPT	SOLIDS HANDLING	VOLTS	FULL LOAD AMPS	PHASE	CORD LENGTH	SWITCH
3WHV10M4-21	24415E030	1	237	32	3"	2-1/2"	230	8.0	1	35'	M
3WHV10M4-03	24415E031	1	237	32	3"	2-1/2"	200	5.4	3	35'	M
3WHV10M4-23	24415E032	1	237	32	3"	2-1/2"	230	4.5	3	35'	M
3WHV10M4-43	24415E033	1	237	32	3"	2-1/2"	460	2.3	3	35'	M
3WHV10M4-53	24415E034	1	237	32	3"	2-1/2"	575	1.8	3	35'	M
3WHV15M4-21	24415E000	1-1/2	280	39	3"	2-1/2"	230	10.0	1	35'	M
3WHV15M4-03	24415E001	1-1/2	280	39	3"	2-1/2"	200	6.6	3	35'	M
3WHV15M4-23	24415E002	1-1/2	280	39	3"	2-1/2"	230	5.5	3	35'	M
3WHV15M4-43	24415E003	1-1/2	280	39	3"	2-1/2"	460	2.8	3	35'	M
3WHV15M4-53	24415E004	1-1/2	280	39	3"	2-1/2"	575	2.2	3	35'	M
3WHV20M4-21	24415E010	2	310	43	3"	2-1/2"	230	12.0	1	35'	M
3WHV20M4-03	24415E011	2	310	43	3"	2-1/2"	200	8.4	3	35'	M
3WHV20M4-23	24415E012	2	310	43	3"	2-1/2"	230	7.0	3	35'	M
3WHV20M4-43	24415E013	2	310	43	3"	2-1/2"	460	3.5	3	35'	M
3WHV20M4-53	24415E014	2	310	43	3"	2-1/2"	575	2.8	3	35'	M
3WHV30M4-21	24415E020	3	363	35	3"	2-1/2"	230	21.0	1	35'	M
3WHV30M4-03	24415E021	3	363	35	3"	2-1/2"	200	15.0	3	35'	M
3WHV30M4-23	24415E022	3	363	35	3"	2-1/2"	230	12.0	3	35'	M
3WHV30M4-43	24415E023	3	363	35	3"	2-1/2"	460	6.0	3	35'	M
3WHV30M4-53	24415E024	3	363	35	3"	2-1/2"	575	5.0	3	35'	M
3WHV50M4-21	24415E040	5	463	34	3"	2-1/2"	230	34.0	1	35'	M
3WHV50M4-03	24415E041	5	463	34	3"	2-1/2"	200	24.0	3	35'	M
3WHV50M4-23	24415E042	5	463	34	3"	2-1/2"	230	21.0	3	35'	M
3WHV50M4-43	24415E043	5	463	34	3"	2-1/2"	460	10.5	3	35'	M
3WHV50M4-53	24415E044	5	463	34	3"	2-1/2"	575	8.4	3	35'	M
V3WHV10M4-21	24415E050	1	237	32	3"	2-1/2"	230	8.0	1	35'	M
V3WHV10M4-03	24415E051	1	237	32	3"	2-1/2"	200	5.4	3	35'	M
V3WHV10M4-23	24415E052	1	237	32	3"	2-1/2"	230	4.5	3	35'	M
V3WHV10M4-43	24415E053	1	237	32	3"	2-1/2"	460	2.3	3	35'	M
V3WHV10M4-53	24415E054	1	237	32	3"	2-1/2"	575	1.8	3	35'	M
V3WHV15M4-21	24415E055	1-1/2	280	39	3"	2-1/2"	230	10.0	1	35'	M
V3WHV15M4-03	24415E056	1-1/2	280	39	3"	2-1/2"	200	6.6	3	35'	M
V3WHV15M4-23	24415E057	1-1/2	280	39	3"	2-1/2"	230	5.5	3	35'	M
V3WHV15M4-43	24415E058	1-1/2	280	39	3"	2-1/2"	460	2.8	3	35'	M
V3WHV15M4-53	24415E059	1-1/2	280	39	3"	2-1/2"	575	2.2	3	35'	M
V3WHV20M4-21	24415E060	2	310	43	3"	2-1/2"	230	12.0	1	35'	M
V3WHV20M4-03	24415E061	2	310	43	3"	2-1/2"	200	8.4	3	35'	M
V3WHV20M4-23	24415E062	2	310	43	3"	2-1/2"	230	7.0	3	35'	M
V3WHV20M4-43	24415E063	2	310	43	3"	2-1/2"	460	3.5	3	35'	M
V3WHV20M4-53	24415E064	2	310	43	3"	2-1/2"	575	2.8	3	35'	M
V3WHV30M4-21	24415E065	3	363	35	3"	2-1/2"	230	21.0	1	35'	M
V3WHV30M4-03	24415E066	3	363	35	3"	2-1/2"	200	15.0	3	35'	M
V3WHV30M4-23	24415E067	3	363	35	3"	2-1/2"	230	12.0	3	35'	M
V3WHV30M4-43	24415E068	3	363	35	3"	2-1/2"	460	6.0	3	35'	M
V3WHV30M4-53	24415E069	3	363	35	3"	2-1/2"	575	5.0	3	35'	M
V3WHV50M4-21	24415E070	5	463	34	3"	2-1/2"	230	34.0	1	35'	M
V3WHV50M4-03	24415E071	5	463	34	3"	2-1/2"	200	24.0	3	35'	M
V3WHV50M4-23	24415E072	5	463	34	3"	2-1/2"	230	21.0	3	35'	M
V3WHV50M4-43	24415E073	5	463	34	3"	2-1/2"	460	10.5	3	35'	M
V3WHV50M4-53	24415E074	5	463	34	3"	2-1/2"	575	8.4	3	35'	M



293 Wright St  
Delavan, WI 53115  
Ph: 888.987.8677  
Fx: 800.426.9446

490 Pinebush Rd, Unit 4  
Cambridge, Ontario N1T 0A5, Canada  
Ph: 800.363.7867  
Fx: 888.606.5484

pentair.com

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