COMMERCIAL SEWAGE AND EFFLUENT PUMPS

WHR5H-WHR20H SERIES



The Myers WHR5H-WHR20H series vortex pumps are designed for use in light commercial sewage and effluent applications.

Recessed impeller is standard allowing the pump to handle stringy waste without plugging the impeller. The series passes 2 inch solids.

SPECIFICATIONS

- **Shut-off Head** – Up to 71′ (18.4 m)
- **Solids Handling** – 2″ (50.8 mm)
- **Liquids Handling** – Raw sewage and sewage effluent
- **Intermittent Liquid Temperature** – Up to 140°F (60°C)
- **Motor/Electrical Data** – 1/2 HP 115V, 1/2, 1, 1-1/2 and 2 HP 208/230V 1Ø, 60 Hz 3400 RPM PSC; 1/2, 1, 1-1/2, and 2 HP 208-230/460V, 575V 3Ø, 60Hz 3450 RPM
- **Acceptable pH Range** – 6-9
- **Discharge, NPT** – Discharge, NPT – 2″, Optional 3″
- **Housing** – Cast iron
- **Power Cord** – 1/2 HP 115 V = 20′ (6.1 m), 14/3, SJOW/SJOW-A, 1Ø. All other 1Ø = 16/3 cords. All 3Ø = 20′ (6.1 m), 16/4, SJOW/SJOW-A
- **Impeller** – Ductile iron, recessed
- **Volute Case** – Cast iron
- **Shaft Seal** – Type 21, carbon and ceramic
- **Minimum Sump Diameter** – Simplex: 24″ (610 mm); Duplex: 30″ (762 mm)

FEATURES

Tough Against Corrosion
All cast iron construction resists the most extreme corrosive environments.

Runs Cooler
Oil-filled motor for bearing lubrication and maximum heat dissipation.

Flow to Meet Demand
Higher head performance for demanding sewage and effluent applications.

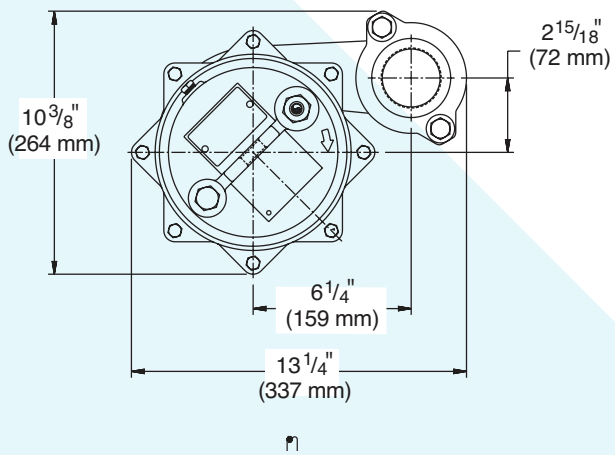
Powerful Starts
High-torque, permanent split capacitor (PSC) motor on single phase motors.

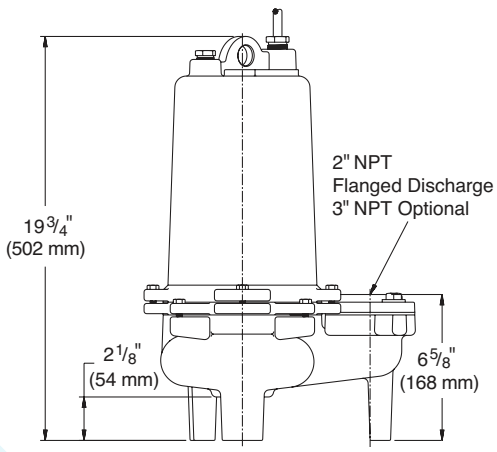
Thermal Protection
Single phase motors have heat sensor overload protection with automatic reset when motor cools to a safe operating temperature.

ORDERING INFORMATION

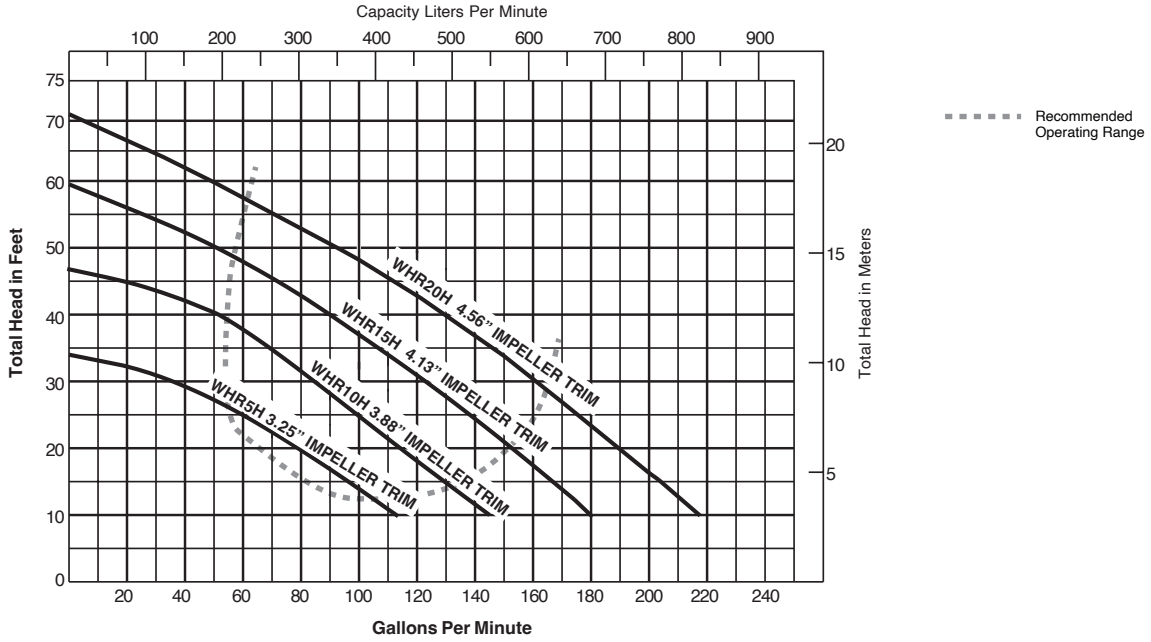
MODEL NUMBER	HP	VOLTS	PHASE/ CYCLES	DISCHARGE SIZE	SWITCH TYPE	CORD LENGTH	WT. LBS
WHR5H-11	1/2 (0.37 kw)	115	1/60	2" NPT	Manual	20' (6.1 mm)	75 (34 kg)
WHR5H-01		208	1/60				
WHR5H-21		230	1/60				
WHR5H-03		208	3/60				
WHR5H-23		230	3/60				
WHR5H-43		460	3/60				
WHR5H-53		575	3/60				
WHR10H-01	1 (0.75 kw)	208	1/60	2" NPT	Manual	20' (6.1 mm)	79 (35.8 kg)
WHR10H-21		230	1/60				
WHR10H-03		208	3/60				
WHR10H-23		230	3/60				
WHR10H-43		460	3/60				
WHR10H-53		575	3/60				
WHR15H-01	1-1/2 (1.1 kw)	208	1/60	2" NPT	Manual	20' (6.1 mm)	85 (38.6 kg)
WHR15H-21		230	1/60				
WHR15H-03		208	3/60				
WHR15H-23		230	3/60				
WHR15H-43		460	3/60				
WHR15H-53		575	3/60				
WHR20H-21	2 (1.5 kw)	230	1/60	2" NPT	Manual	20' (6.1 mm)	95 (43.1 kg)
WHR20H-03		208	3/60				
WHR20H-23		230	3/60				
WHR20H-43		460	3/60				

DIMENSIONS





PERFORMANCE



MOTOR ELECTRICAL DATA

MODEL NUMBER	HP	VOLTS	PHASE	HERTZ	START MAX AMPS	RUN AMPS	RUN KW	START KVA	NEC code KVA	LETTER
WHR5H-11	1/2	115	1	60	30.4	13.8	1.9	3.5	1.6	H
WHR5H-01	1/2	208	1	60	16.2	7.6	1.7	3.4	1.6	H
WHR5H-21	1/2	230	1	60	16.2	6.9	1.7	3.7	1.6	H
WHR5H-03	1/2	208	3	60	20.2	5.2	1.4	7.3	1.9	R
WHR5H-23	1/2	230	3	60	20.2	4.7	1.4	8.0	1.9	S
WHR5H-43	1/2	460	3	60	10.1	2.3	1.4	8.0	1.9	S
WHR5H-53	1/2	575	3	60	8.1	1.9	1.4	8.0	1.9	S
WHR10H-01	1	208	1	60	28.0	14.8	3.0	5.8	2.8	B
WHR10H-21	1	230	1	60	23.0	12.8	3.0	5.3	2.8	B
WHR10H-03	1	208	3	60	30.0	7.7	2.5	10.8	3.0	J
WHR10H-23	1	230	3	60	30.0	7.0	2.5	10.8	3.0	K
WHR10H-43	1	460	3	60	15.0	3.5	2.5	11.9	3.0	K
WHR10H-53	1	575	3	60	12.0	2.8	2.5	11.9	3.0	K
WHR15H-01	1-1/2	208	1	60	39.9	15.3	3.3	8.3	3.2	D
WHR15H-21	1-1/2	230	1	60	33.4	13.1	3.3	7.7	3.0	C
WHR15H-03	1-1/2	208	3	60	30.0	8.5	2.8	10.8	3.4	F
WHR15H-23	1-1/2	230	3	60	30.0	7.7	2.8	11.9	3.1	G
WHR15H-43	1-1/2	460	3	60	15.0	3.9	2.8	11.9	3.1	G
WHR15H-53	1-1/2	575	3	60	12.0	3.1	2.8	11.9	3.1	G
WHR20H-21	2	230	1	60	63.0	18.0	3.8	14.5	3.7	E
WHR20H-03	2	208	3	60	53.0	10.4	3.3	19.1	3.6	G
WHR20H-23	2	230	3	60	46.0	9.0	3.3	18.3	3.6	G
WHR20H-43	2	460	3	60	23.0	4.5	3.3	18.3	3.6	G

SPECIFICATIONS

SEWAGE PUMPS – Pump(s) shall be Myers WHR5H - WHR20H series sewage pumps selected in accordance with the following design criteria:

Number of Pumps:	_____
Primary Design Flow:	_____
Primary Design Head:	_____
Minimum Shut-off Head:	_____
Motor Horsepower:	_____
Motor Speed:	3400/3450 RPM
Electrical:	_____

PUMP – The pump shall be designed to handle raw sewage and be capable of passing 2 inch (50.8 mm) spherical solids. The pump shall be capable of handling liquids with temperatures to 140°F (60°C) intermittent and shall be capable of intermittently running dry without damage to the seals or bearings.

MOTOR –The pump motor shall be of the submersible type rated 1/2, 1, 1-1/2 or 2 hp as required. Single phase motor shall operate at 3400 RPM and shall be for 115, 208 or 230V 60Hz. 3 phase motors shall operate at 3450 RPM and shall be 208, 230, 460 or 575V 60Hz. Single phase motors shall be of the permanent split capacitor type with no relays or starting switches. Three phase motors shall be induction type. Stator winding shall be of the open type with Class B insulation rated for 130°C maximum operating temperature. The winding housing will be filled with clean dielectric oil to lubricate bearings, seals, and transfer heat from the windings to the outer shell. The motor assembly shall be of the standard frame design and shall be secured in place by four threaded fasteners allowing for easy field serviceability.

The motor shall be capable of operating over the full range of the performance curve without overloading the motor and causing any objectionable noise or vibration. The common motor pump shaft shall be of 416 stainless steel and shall be heat shrunk into the die cast motor rotor. The motor shall have two bearings to support the rotor; an upper ball bearing to accommodate radial loads and a lower ball bearing to take thrust and radial loads. Ball bearings shall be designed for a B-10 life of 50,000 hours.

For single phase motors only, a heat sensor thermostat and overload shall be attached to the top end of the motor windings and shall be wired in series with the windings to stop the motor if the motor winding temperature reaches 266°F (130°C). The overload thermostat shall reset automatically when the motor cools to a safe operating temperature. Three phase motors shall be protected by 3 leg overload relay in control box. Overload shall be of the quick trip ambient compensated type and shall have manual reset button.

POWER CORD – The motor power cord shall be SJOW/A for single phase and SOOW for three phase. The cable jacket shall be sealed at the motor entrance by means of a rubber compression washer and compression nut. A heat shrink tube filled with epoxy shall seal the outer cable jacket and the individual leads to prevent water from entering the motor housing.

SHAFT SEAL – The motor shall be protected by a rotating mechanical shaft seal. The seal shall have carbon and ceramic seal faces lapped to a tolerance of one light band. Metal parts and springs for seals shall be 300 series stainless steel.

PUMP IMPELLER – The pump impeller shall be of the recessed vortex type. The impeller shall be constructed of ductile iron. The impeller shall be threaded onto the 416 stainless steel pump/motor shaft.

PUMP AND MOTOR CASTINGS – All castings shall be of high tensile strength Class 30 gray cast iron. Castings shall be treated with phosphate rinse and painted with a high quality air dry alkyd enamel.

FASTENERS – All exposed fasteners shall be of 300 series stainless steel.

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