

WGL20 Series

2 HP Grinder Pumps
for Residential, Commercial
and Industrial Applications



THE MYERS WGL20 SERIES ARE VERSATILE 2 HP SUBMERSIBLE GRINDER PUMPS DESIGNED SPECIFICALLY FOR USE IN PRESSURE SEWER APPLICATIONS WITH LONG DISCHARGE RUNS OR HIGH STATIC HEADS. It features a patented cutter mechanism and recessed impeller design to effectively macerate typical domestic sewage solids into a fine slurry.

The WGL20 Series can be installed in a variety of packaged systems. Factory-assembled simplex or duplex packages with guide rail systems or suspended systems are available. Myers also has complete turn-key systems to make selection simple. Individual rail components are also available for installation in on-site concrete systems. Myers offers a complete line of submersible sump, sewage, effluent, grinder, non-clog wastewater pumps, controls, basins, and accessories. For additional information, please contact your local Myers representative or the Myers Ashland, Ohio sales office at 419-289-1144.

ADVANTAGES BY DESIGN

IDEAL FOR USE IN PRESSURE SEWER SYSTEMS.

- Choice of standard, high head or high flow designs.
- Recessed impeller provides steep non-overloading operating curve.

DURABLE MOTOR WILL DELIVER MANY YEARS OF RELIABLE SERVICE.

- Oil-filled motor for maximum heat dissipation and constant bearing lubrication.
- Recessed impeller reduces radial bearing loads, increases bearing life.
- High torque capacitor start/run single phase or three phase motors for assured starting under heavy load.
- Optional seal leak probe warns of seal leak condition, helps prevent costly motor damage.
- Single phase motors have on-winding current and temperature sensitive overload.

THE WGL20 SERIES IS DESIGNED FOR EASY MAINTENANCE.

- Shredding ring and grinder impeller are replaceable without dismantling pump or motor.

PRODUCT CAPABILITIES

Capacities To	70 GPM	260 LPM
Heads To	130 ft.	40 m
Liquids Handling	domestic raw sewage	
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 recommended for proper operation and warranty.)	2 HP 3450 RPM 1 ph - capacitor start/run. 208 or 230 volt; 60 Hz 3 ph - induction run 200, 230, 460, 575 volts, 60 Hz	
Third Party Approvals*	CSA, UL, cUL	
Acceptable pH Range	6 - 9	
Specific Gravity	.9 - 1.1	
Viscosity	28 - 35 SSU	
Discharge, NPT	1 1/4 in.	
Min. Sump Diameter		
Simplex	24 in.	61.0 cm
Duplex	36 in.	91.4 cm

Note: Consult factory for applications outside of these recommendations.

* Models with third party approval(s) are clearly marked on individual pump nameplates.

Construction Materials

Motor Housing, Seal Housing, Cord Cap, Volute Case, Recessed Impeller	cast iron, Class 30, ASTM A48
Power Cord w/seal probe w/o seal probe	15' 14/5 SOOW 15' 14/4 SOOW
Mechanical Seals - Std. Opt.	dbl. tandem carbon & ceramic tungsten carbide
Pump, Motor Shaft	416 SST
Fasteners	300 Series SST
Shredding Ring, Grinder Impeller	440 SST, 58-60 Rockwell

WHERE INNOVATION MEETS TRADITION

Myers[®]

Pentair Pump Group

STATOR

2 hp, 3450 RPM, 1 and 3 phase. Press fit for perfect alignment and best heat transfer. Oil-filled motor conducts heat and lubricates bearings. Class F VFD/continuous duty rated.

CABLE ENTRY SYSTEM

Provides double seal protection. Cable jacket sealed by compression fitting. Individual wires sealed by compression grommet. Power cord can be replaced without disturbing motor.

OVERLOAD-HEAT SENSOR

(1 phase only) Protects motor from burn-out due to excessive heat from any overload condition. Automatically resets when motor has cooled.

BALL BEARINGS

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

HEAVY 416 SST SHAFT

Corrosion resistant. Reduces shaft deflection due to grinding loads.

SHAFT SEALS

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

VOLUTE CASE

Cast iron 1 1/4" NPT vertical flanged discharge.

SEAL LEAK PROBE (Opt.)

Detects water in seal housing, activates warning light in control panel.

GRINDER ASSEMBLY

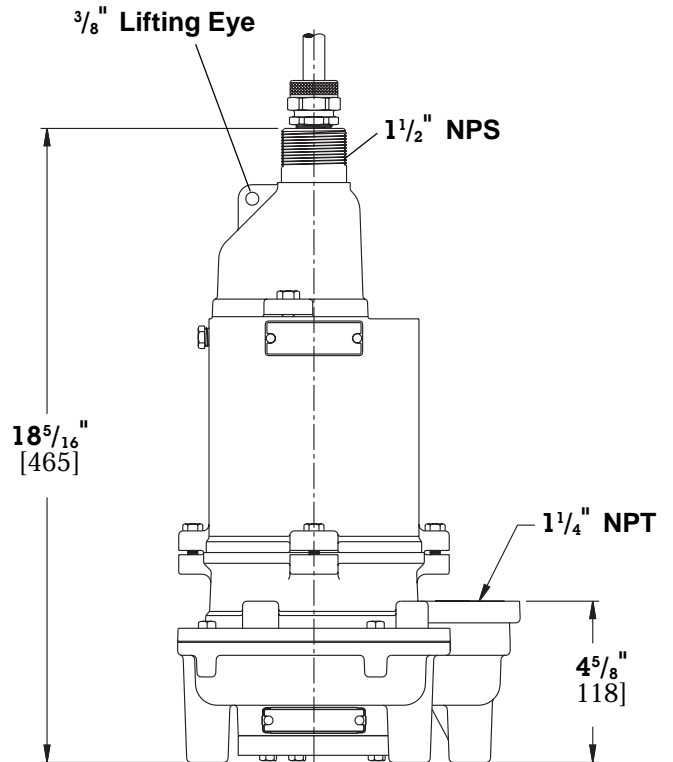
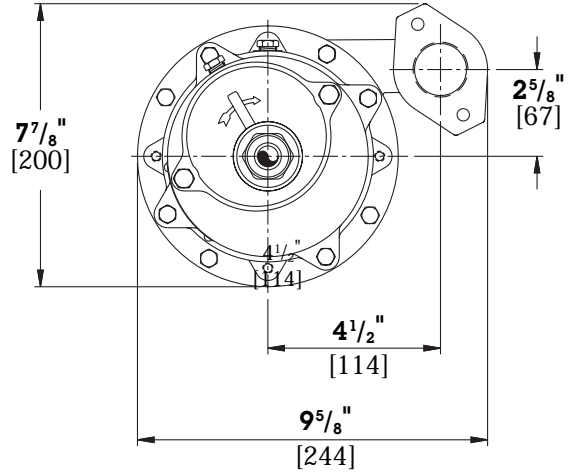
Grinder impeller and shredding ring are replaceable without dismantling pump. Constructed of 440 SST hardened to 56-60 Rockwell.

IMPELLER

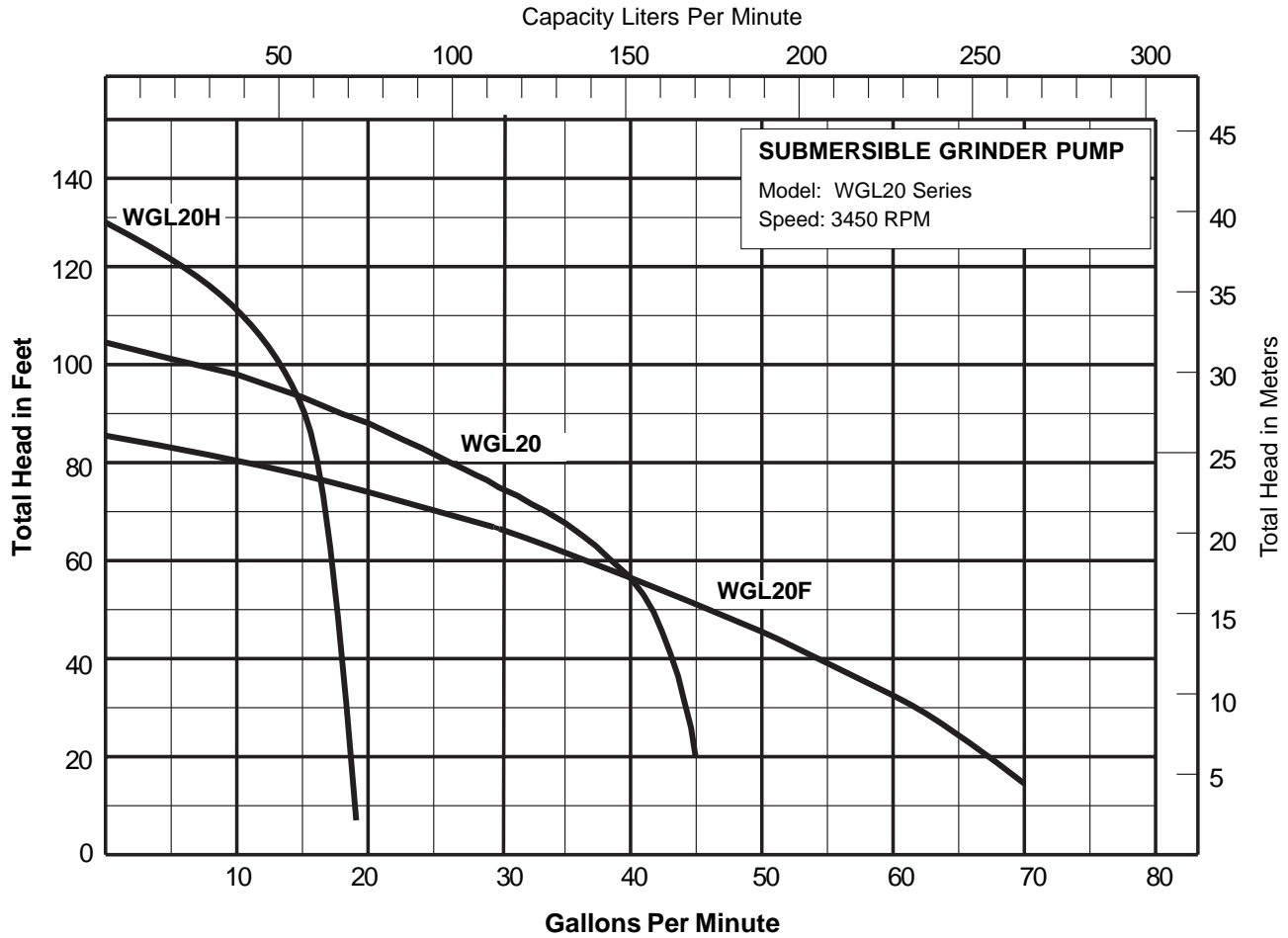
Cast iron recessed impeller handles ground slurry without clogging or binding. Provides unobstructed flow passage. Reduces radial loads. Pump-out vanes help keep trash from seal, reduces pressure at seal faces.

DIMENSIONS

[Dimensions in MM]



PUMP PERFORMANCE



Motor Electrical Data											
Model	HP	Volts	Phase	Hertz	Start Amps	Run Amps	Run KW	Start KVA	Run KVA	NEC Code Letter	Service Factor
WGL20-01	2	200	1	60	50.0	15.0	2.8	10.0	3.0	F	1.25
WGL20-01(LD)	2	200	1	60	50.0	15.0	2.8	10.0	3.0	F	1.25
WGL20-03	2	200	3	60	30.0	9.5	2.9	10.4	3.3	F	1.25
WGL20-21	2	230	1	60	44.0	12.0	2.8	10.1	2.8	F	1.25
WGL20-21(LD)	2	230	1	60	44.0	12.0	2.8	10.1	2.8	F	1.25
WGL20-23	2	230	3	60	27.5	8.4	2.9	11.0	3.3	F	1.25
WGL20-23(LD)	2	230	3	60	27.5	8.4	2.9	11.0	3.3	F	1.25
WGL20-43	2	460	3	60	13.8	4.2	2.9	11.0	3.3	F	1.25
WGL20-43(LD)	2	460	3	60	13.8	4.2	2.9	11.0	3.3	F	1.25
WGL20-53	2	575	3	60	11.0	3.4	2.9	11.0	3.3	F	1.25
WGL20H-01	2	200	1	60	50.0	15.0	2.8	10.0	3.0	F	1.25
WGL20H-21	2	230	1	60	44.0	12.0	2.8	10.1	2.8	F	1.25
WGL20H-01(LD)	2	200	1	60	50.0	15.0	2.8	10.0	3.0	F	1.25
WGL20H-21(LD)	2	230	1	60	44.0	12.0	2.8	10.1	2.8	F	1.25
WGL20H-23	2	230	3	60	30.0	9.5	2.9	10.4	3.3	F	1.25
WGL20H-23(LD)	2	230	3	60	30.0	9.5	2.9	10.4	3.3	F	1.25
WGL20H-43	2	460	3	60	13.8	4.2	2.9	11.0	3.3	F	1.25
WGL20H-43(LD)	2	460	3	60	13.8	4.2	2.9	11.0	3.3	F	1.25
WGL20F-01	2	200	1	60	50.0	15.0	2.8	10.0	3.0	F	1.25
WGL20F-21	2	230	1	60	44.0	12.0	2.8	10.1	2.8	F	1.25
WGL20F-01(LD)	2	200	1	60	50.0	15.0	2.8	10.0	3.0	F	1.25
WGL20F-21(LD)	2	230	1	60	44.0	12.0	2.8	10.1	2.8	F	1.25
WGL20F-23	2	230	3	60	30.0	9.5	2.9	10.4	3.3	F	1.25
WGL20F-23(LD)	2	230	3	60	30.0	9.5	2.9	10.4	3.3	F	1.25
WGL20F-43	2	460	3	60	13.8	4.2	2.9	11.0	3.3	F	1.25
WGL20F-43(LD)	2	460	3	60	13.8	4.2	2.9	11.0	3.3	F	1.25

NOTE: Minimum impeller diameter available is 3¾".

WGL20 Series

SPECIFICATIONS

PUMP MODEL - Pump shall be of the centrifugal type Myers model WGL20 Series or equal with an integrally built in grinder unit and submersible type motor. The grinder unit shall be capable of macerating all material in normal domestic and commercial sewage including reasonable amounts of foreign objects such as small wood, sticks, plastic, thin rubber, sanitary napkins, disposable diapers and the like to a fine slurry that will pass freely through the pump and 1-1/4" discharge pipe. Discharge shall be 1-1/4" NPT.

OPERATING CONDITIONS - Pump shall have a capacity of _____ GPM at a total head of _____ feet and shall use a 2 HP motor operating at 3450 RPM.

MOTOR - Pump motor shall be of the submersible type rated 2 horsepower at 3450 RPM. Motor shall be for single phase 208 volts____, 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. Motors rated for VFD/continuous duty operation.

Stator winding shall be of the open type with Class F insulation good for 155°C (311°F) maximum operating temperature. Winding housing shall be filled with a clean high dielectric oil that lubricates bearings and seals and transfers heat from windings 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 pressed into motor housing.

Single-phase motors shall have a heat sensor thermostat and overload attached to the top end of the motor windings to stop the motor if the motor winding temperature reaches 200° F. The high temperature shut-off will cause the pump to cease operation, should a control failure cause the pump to run in a dry wet well. The thermostat shall reset automatically when the motor cools to a safe operating temperature.

The common motor pump and grinder shaft shall be of #416 stainless steel threaded to take pump impeller and grinder impeller.

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 face shall be carbon and ceramic and lapped to a flatness of one light band. Lower seal faces shall be _____ 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 the motor but shall act as a warning only, indicating service is required.

PUMP IMPELLER - The pump impeller shall be of the recessed Myers type to provide an open unobstructed passage through the volute for the ground solids. Impeller shall be cast iron and shall be threaded onto stainless steel shaft. Minimum impeller diameter is 3¾".

GRINDER CONSTRUCTION - Grinder assembly shall consist of grinder impeller and shredding ring and shall be mounted directly below the volute passage. Grinder impeller to be threaded onto stainless shaft and shall be locked with screw and washer. The shredding ring shall be pressed into iron holding flange for easy removal. Flange shall be provided with tapped back-off holes so that screws can be used to push the shredding ring from housing. All grinding of solids shall be from action of the impeller against the shredding ring.

Both grinder impellers and shredding ring shall be of 440C stainless steel hardened to 58-60 Rockwell C.

CORROSION PROTECTION - All iron castings shall be pre-treated with phosphate and chromic rinse and to be painted before machining and all machined surfaces exposed to the sewage water to be re-painted. All fasteners to be 302 stainless steel.

POWER CORD - The motor power cord shall be 14-5 SOOW and shall be fastened by means of a cord grip in the top of the pump. The top of the pump shall contain a waterproof junction box which will provide space to connect the power cord to the motor leads. The motor leads shall seal between the motor housing and junction box by means of a rubber compression fitting around each wire. Power cord shall have a green carrier ground conductor that attaches to motor frame.