

**NOTES:**

- ALL PUMP DISCHARGE PIPING, UNIONS, GUIDE RAILS AND SUPPORT ASSEMBLIES, ACCESS LADDER, VALVE EXTENSIONS, FLOAT HANGERS, CORD GRIPS, FASTENERS ETC. SHALL BE STAINLESS STEEL. ISOLATION AND CHECK VALVES MAY BE BRONZE IF STAINLESS VALVES ARE UNAVAILABLE. PUMP DISCHARGE BASES ARE ONLY AVAILABLE IN CAST IRON.
- PROVIDE A SAFETY GRATE WITH THE PAD-LOCKABLE ALUMINUM ACCESS HATCH.
- ELECTRICAL CONTROL PANEL SHALL BE NEMA 4X STAINLESS STEEL, 3 POINT LATCH WITH PAD-LOCKABLE HANDLE SIZED TO ACCOMMODATE CONTROLS, ALARM DIALER, CONVENIENCE OUTLET, ETC. LOCATED BELOW THE CONTROL. A NEMA 4X STAINLESS STEEL PAD-LOCKABLE JUNCTION BOX SHALL BE PROVIDED FOR PUMP AND FLOAT CORD SPLICING. ALL OTHER ELECTRICAL COMPONENTS, ENCLOSURES, STRUTS, CONDUIT, FASTENERS, ETC. SHALL BE STAINLESS STEEL OR ALUMINUM.
- NO JUNCTION BOXES OR SPLICES ARE ALLOWED IN THE WET WELL. JUNCTION BOXES CAN BE LOCATED BELOW THE CONTROL PANEL.
- COMBINATION AUDIBLE AND VISUAL ALARM TO BE INSTALLED WITH CONTROL PANEL ADJACENT TO THE WET WELL AE34=3-511.
- PUMPS TO BE LIBERTY LSG203M 230 V 3 PHASE.

**DUCKETT CREEK SEWER DISTRICT NOTES:**

- EXISTING SANITARY SEWER SERVICE SHALL NOT BE INTERRUPTED.
- CONNECTION TO DUCKETT CREEK SEWER DISTRICT (DCSD) SANITARY SEWERS REQUIRES DCSD INSPECTION. CONTACT THE DCSD INSPECTION DEPARTMENT AT (636) 441-1244 TO SCHEDULE INSPECTION. 48 HOUR ADVANCE NOTICE IS REQUIRED.
- ALL LATERALS UNDER ANY FUTURE PAVEMENT WILL REQUIRE GRANULAR FILL TO TOP OF TRENCH AND/OR BOTTOM OF PAVEMENT SECTION.
- FUTURE LOTS INCLUDING THE CAR WASH REQUIRE SEPARATE PLAN REVIEW AND APPROVAL.
- EACH BUILDING MUST HAVE ITS OWN CONNECTION TO THE PUBLIC WASTEWATER FACILITIES.
- IT IS THE RESPONSIBILITY OF THE OWNER/DEVELOPER TO OBTAIN ALL PERMITS NECESSARY FOR THE PROJECT.

**PROJECT TITLE:**  
CONSTRUCTION PLANS FOR  
Scrubbles Car Wash  
Highway K  
O'Fallon, MO 63368

**Issue Date:** 07/21/2023

**ENGINEERING**  
PLANNING  
SURVEYING

221 Point West Blvd.  
St. Charles, MO 63301  
636-928-5592  
FAX 636-928-1718

**DISCLAIMER OF RESPONSIBILITY**  
I hereby certify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project.

**LARRY E. WICKER**  
PROFESSIONAL ENGINEER  
No. 0111024  
LARRY E. WICKER  
CIVIL ENGINEER  
2007020343

Copyright 2024  
Box Engineering Company, Inc.  
Authority No. 000855  
All Rights Reserved

**REVISIONS**

08-03-23	FORCE MAIN
09-13-23	COMMENTS
09-27-23	REPLACE
10-26-23	CITY COMMENTS
11-08-23	PAY CANOPY REV.
12-06-23	CITY COMMENTS
12-13-23	PWS COMMENTS
12-18-23	MODOT COMMENTS
01-10-24	LIGHT STANDARDS

**AE-SERIES**  
Duplex Pump Controls

**LibertyPumps**  
A Family and Employee Owned Company

AE-Series duplex panels control two 1-phase or 3-phase pumps in water and sewage installations. This panel includes a new innovative duplex controller for pump control, alternation and alarm. Including float switch status LEDs, control/alarm pump ON/OFF switch with LED indicator, pump run LEDs, HOA switches, pump lead/lag selector switch, auxiliary contacts and more.

The control panel features built-in lag pump delay timer, pump failure detection, and float switch out-of-sequence notification. In addition, there are user-selectable field programmable operations: alarm steady-state or flashing, alarm auto reset or manual reset; pump failure notification.

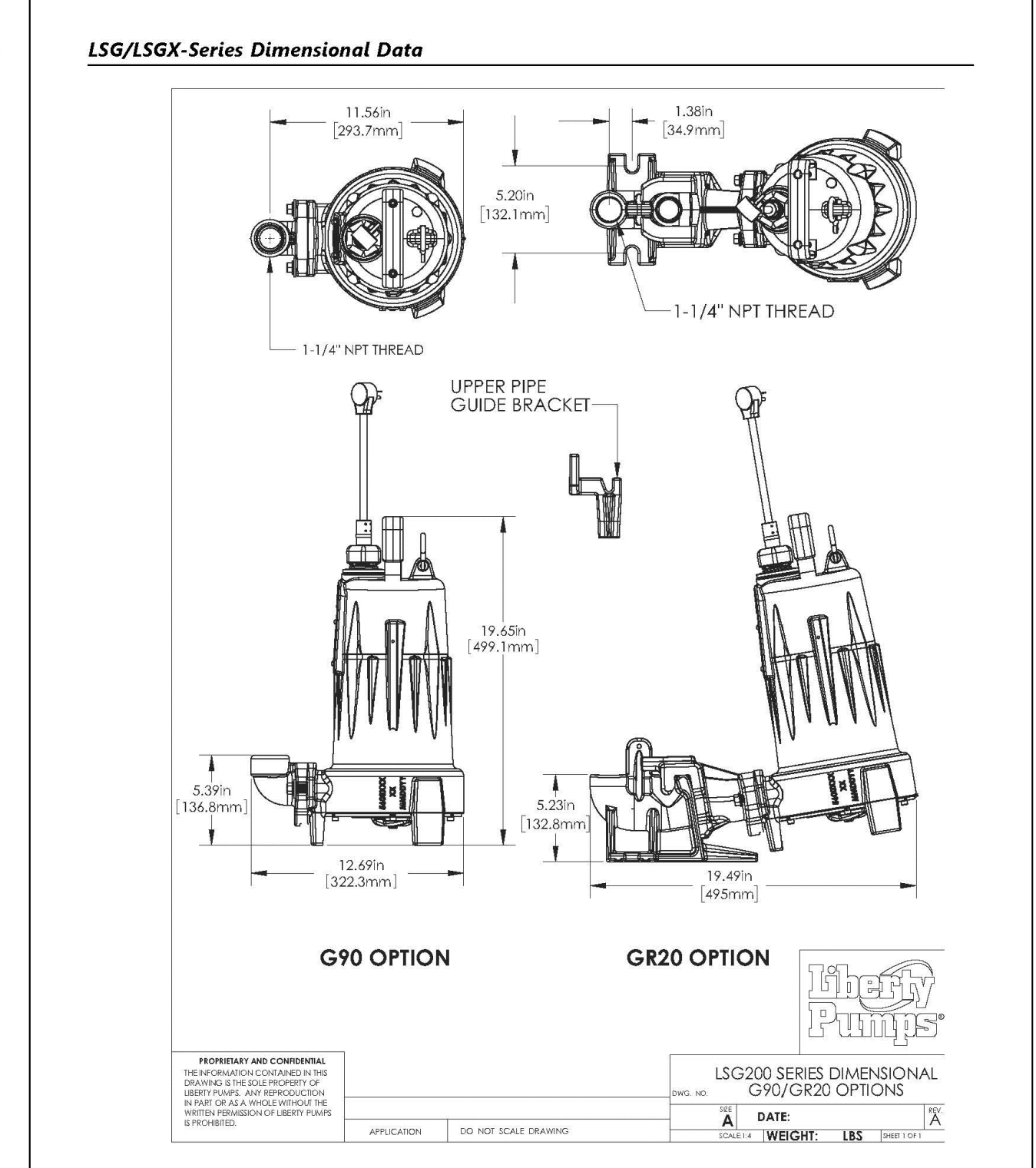
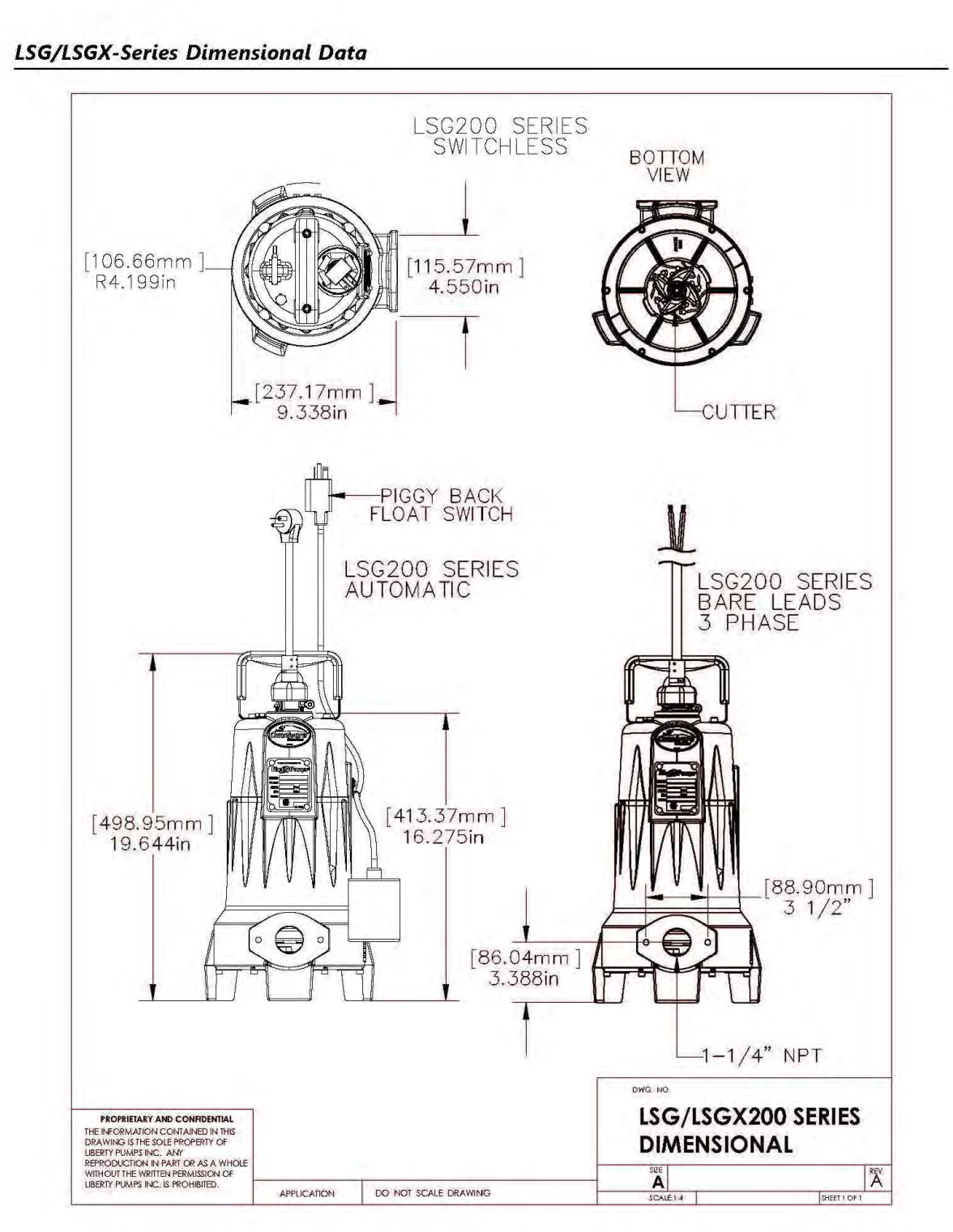
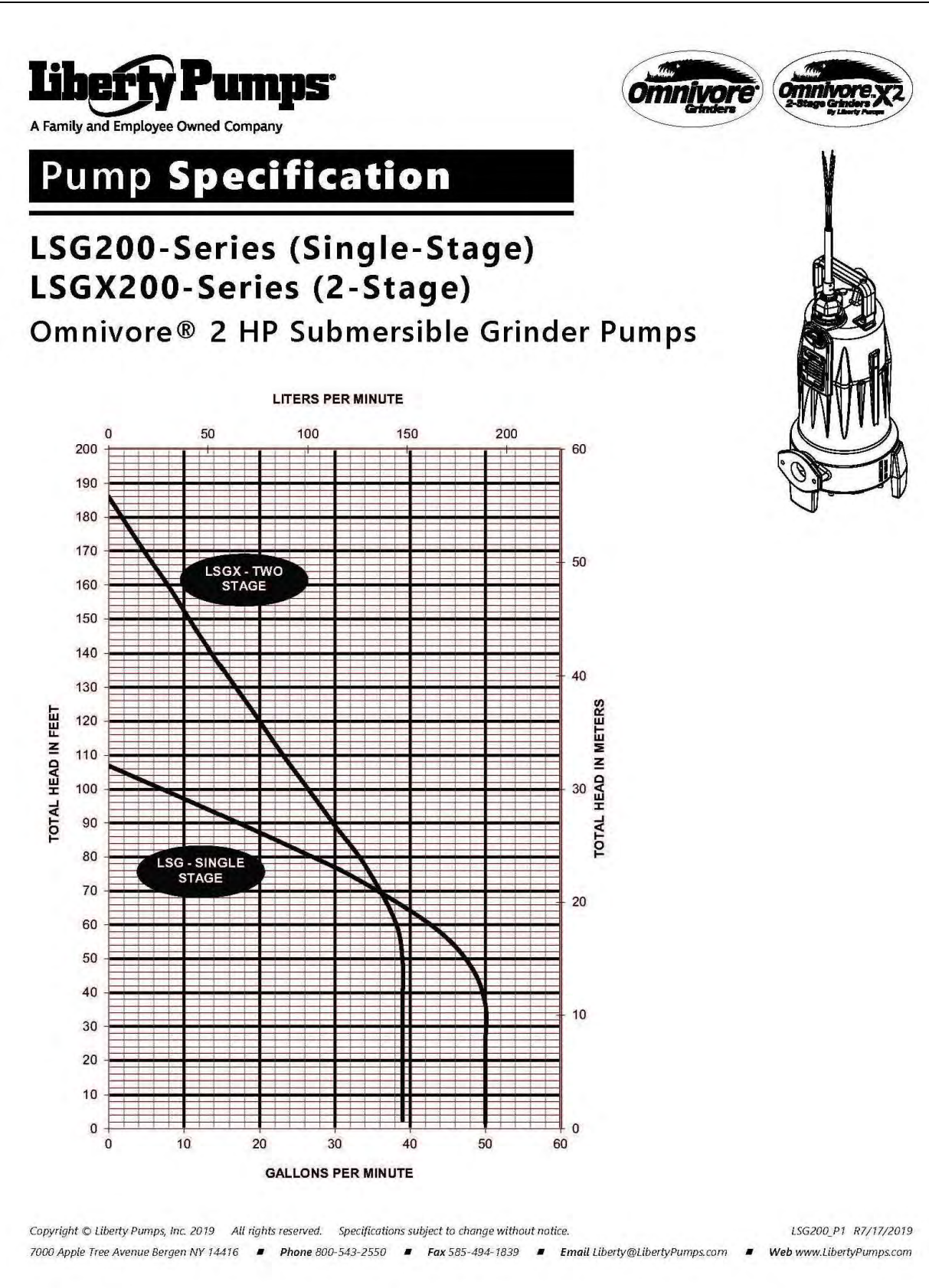
**Components**

- Newly designed larger NEMA 4X enclosure for indoor/outdoor use.
  - a. Drip shield
  - b. Heavy-duty wide clamping securable latches
  - c. Stainless steel 1/4 turn cover set screw
  - d. Low profile hinged lockable cover
  - e. Integral mounting flanges
- Duplex Controller
  - a. Pump HOA switches with green/red LED indicators
  - b. Control power ON/OFF switch
  - c. Power ON green LED indicator
  - d. Float switch status red LED indicators
- Terminal blocks for incoming power and float switches
- Magnetic motor contactor control pumps by switching electrical lines
- Circuit breakers provide pump disconnect and branch circuit protection
- Ground lugs
- Red LED alarm beacon
- Alarm horn
- Exterior alarm test/normal/flash switch

**3 Year Warranty**

**Components**

- Pump selector switch
- Auxiliary alarm contacts
- Terminal blocks for incoming power and float switches
- Magnetic motor contactor control pumps by switching electrical lines
- Circuit breakers provide pump disconnect and branch circuit protection
- Ground lugs
- Red LED alarm beacon
- Alarm horn
- Exterior alarm test/normal/flash switch



**LSG/LSGX-Series Electrical Data**

MODEL	HP	VOLTAGE	PHASE	SF	FULL LOAD AMPS	LOCKED ROTOR AMPS	THERMAL OVERLOAD TEMP	STATOR WINDING CLASS	CORD LENGTH OPTIONS (FT)	DISCHARGE	AUTOMATIC
LSG202A	2	208/230	1	1.0	15	53	105°C / 221°F	B	25	1-1/4" NPT + FLANGE	YES
LSG202M	2	208/230	1	1.0	15	53	105°C / 221°F	B	25/35/50	1-1/4" NPT + FLANGE	NO
LSG202M-C1	2	208/230	1	1.0	15	53	135°C / 275°F	B	35/50	1-1/4" NPT + FLANGE	NO
LSG203M	2	208/230	3	1.0	10.6	61	N/A	B	25/35/50	1-1/4" NPT + FLANGE	NO
LSG204M	2	440-480	3	1.0	5.3	31	N/A	B	25/35/50	1-1/4" NPT + FLANGE	NO
LSG205M	2	575	3	1.0	4.9	31	N/A	B	25/35/50	1-1/4" NPT + FLANGE	NO
LSGX202A	2	208-230	1	1.0	15	53	135°C / 275°F	B	25	1-1/4" NPT + FLANGE	YES
LSGX202M	2	208-230	1	1.0	15	53	135°C / 275°F	B	25/35/50	1-1/4" NPT + FLANGE	NO
LSGX202M-C1	2	208-230	1	1.0	15	53	135°C / 275°F	B	35/50	1-1/4" NPT + FLANGE	NO
LSGX203M	2	208/230	3	1.0	10.6	61	N/A	B	25/35/50	1-1/4" NPT + FLANGE	NO
LSGX204M	2	440-480	3	1.0	5.3	31	N/A	B	25/35/50	1-1/4" NPT + FLANGE	NO
LSGX205M	2	575	3	1.0	4.9	31	N/A	B	25/35/50	1-1/4" NPT + FLANGE	NO

1 LSG202M-C1 and LSGX202M-C1 are for external capacitor applications and require the use of control panels fitted with properly matched capacitors and start relays. Consult Liberty Pumps catalog for proper panel model when ordering. For retrofit applications, order Liberty Pump Start Kit #R001316 which includes the correct Start Capacitor, Run Capacitor, and Potential Start Relay. In all cases, control panels must be constructed per applicable UL and/or CSA standards and be installed per NEC.

**Developer / Owner:**  
Tifton Car Wash, L.L.C.  
P.O. Box 7726  
Tifton, GA 31793  
(229) 520-2244

**GRINDER PUMP DETAIL**

**P+Z No.** 22-007743  
**Approved:** 10-06-22

**City No.** #

**Page No.** 9 of 18