City of Kenora

Private Service Connection Application
External Water and Sewer

In Accordance with the City of Kenora Water and Wastewater Regulation By-law

Section 1: Instructions for the Applicant

1. The applicant must be the registered owner of the property to be serviced.

2. The applicant must complete this application in full and pay the required fee per the City's Tariff of Fees and Charges at City Hall at 1 Main Street South.

3. Once the application has been reviewed to ensure that frontage and connection fees have been paid, it will be forwarded to the Underground Services Manager for authorization. The applicant will be contacted regarding the status of the application. Please allow 10 working days for this process.

4. Upon approval of the application, the applicant shall complete a sewer and water service contract for billing purposes. The contract shall be signed at City Hall, 1 Main Street South.

5. A customer service representative will notify Underground Services and you will be contacted to pick up your water meter at the Operations Centre building located at 60 Fourteenth Street North.

6. The water meter must be installed within a maximum of eighteen inches (18") of where the water line enters the premises.

7. The touch pad will be located on the outside of the building adjacent to the water meter.

8. No soldered fittings are permitted before the water meter.

9. Where the property is located on the City's low-pressure sewer system, the Property Owner shall supply and install an external grinder pump with canister to convey wastewater from the property. The grinder pump shall be the type specified in this application form (or an alternate with PRIOR approval from the Underground Services Manager, or their designate). The Property Owner shall ensure the grinder pump is installed with a warning light or audible alarm, or both, to warn of any failure in the Pump or its control systems.

10. The applicant is responsible locating all buried services such as communications, natural gas, electrical, etc.

11. The applicant is responsible for any damages to City of Kenora property, including pavement restorations, sidewalks, storm drainages, etc.

12. The applicant is responsible for any damage to adjacent properties caused by the installation of water and/or sewer services.

13. Before burying any of the services, the applicant must arrange with the Underground Services Manager, or their designate, to have the entire installation inspected.

14. Inspections are available between 8 a.m. to 4 p.m., Monday to Friday (excluding holidays).

Section 2: (please print)

Date_____ Name _____

Mailing address _____

_____

Telephone: Home_____ Work _____

Property Location
Physical address _____

Legal Description

Lot _____ Block _____ Plan _____ Parcel _____

Applicable Charges

Frontage Fee _____

Connection Fee _____

Type of Installation

Residential _____ Commercial _____ Industrial _____

Section 3: Requested Services

Water
Size _____ Type _____ Materials _____

Sewer
Size _____ Type _____ Materials _____

Contractor

Name _____

Address _____

Telephone_____ Cell _____

Construction

Start date _____

Inspection date _____

The application acknowledges that he/she is responsible for any and all damages, direct or consequential, arising from any work authorized by this permit, whether performed directly by the owner or his contractor, employee, agent or otherwise, and agrees to indemnify and save harmless the City of Kenora from any and all losses, costs, damages in connection with the work being performed.

Signature of Applicant_____ Date _____

Remarks

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Authorized _____ Not Authorized _____

Authorization Signature

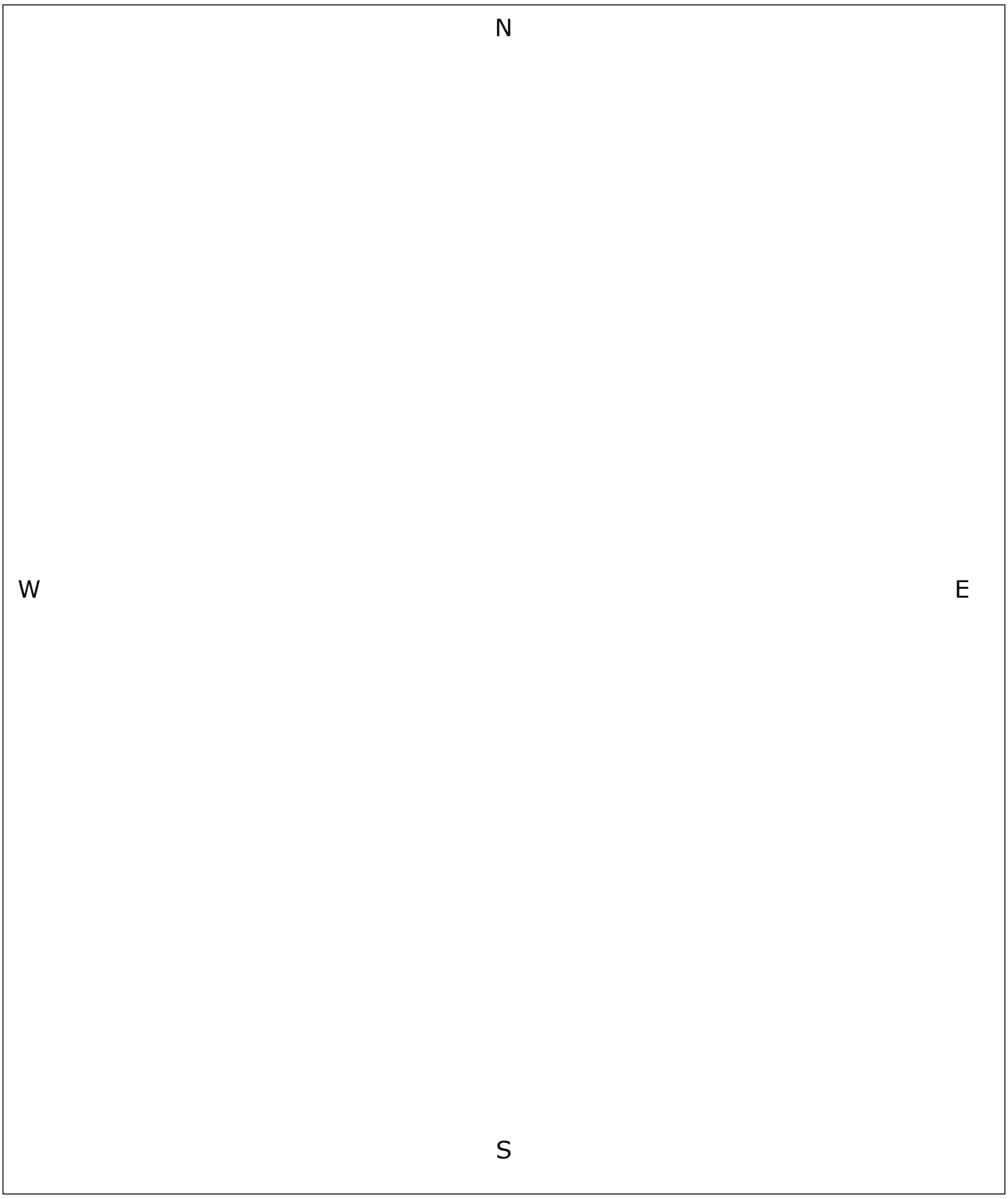
Manager _____ Date _____

Designate _____ Date _____

City of Kenora
Water and Sewer Department

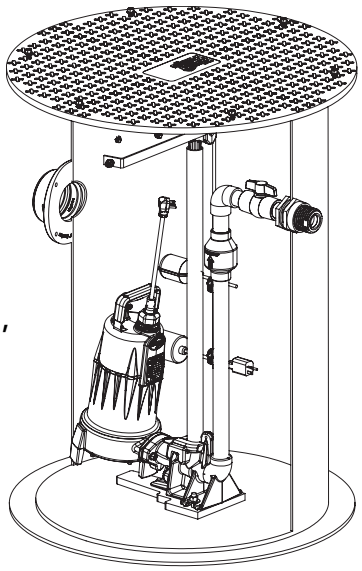
Personal information contained on this form is collected pursuant to the Municipal Act, and will be used for the purpose of determining eligibility for a private water and sewer service connection. Questions about this collection should be directed to: the Freedom of Information and Privacy Coordinator, City of Kenora, One Main Street South, Kenora, ON P9N 3X2, 807- 467-2295.

Section 4: Location of Services (Diagram)



Liberty Pumps®
A Family and Employee Owned Company

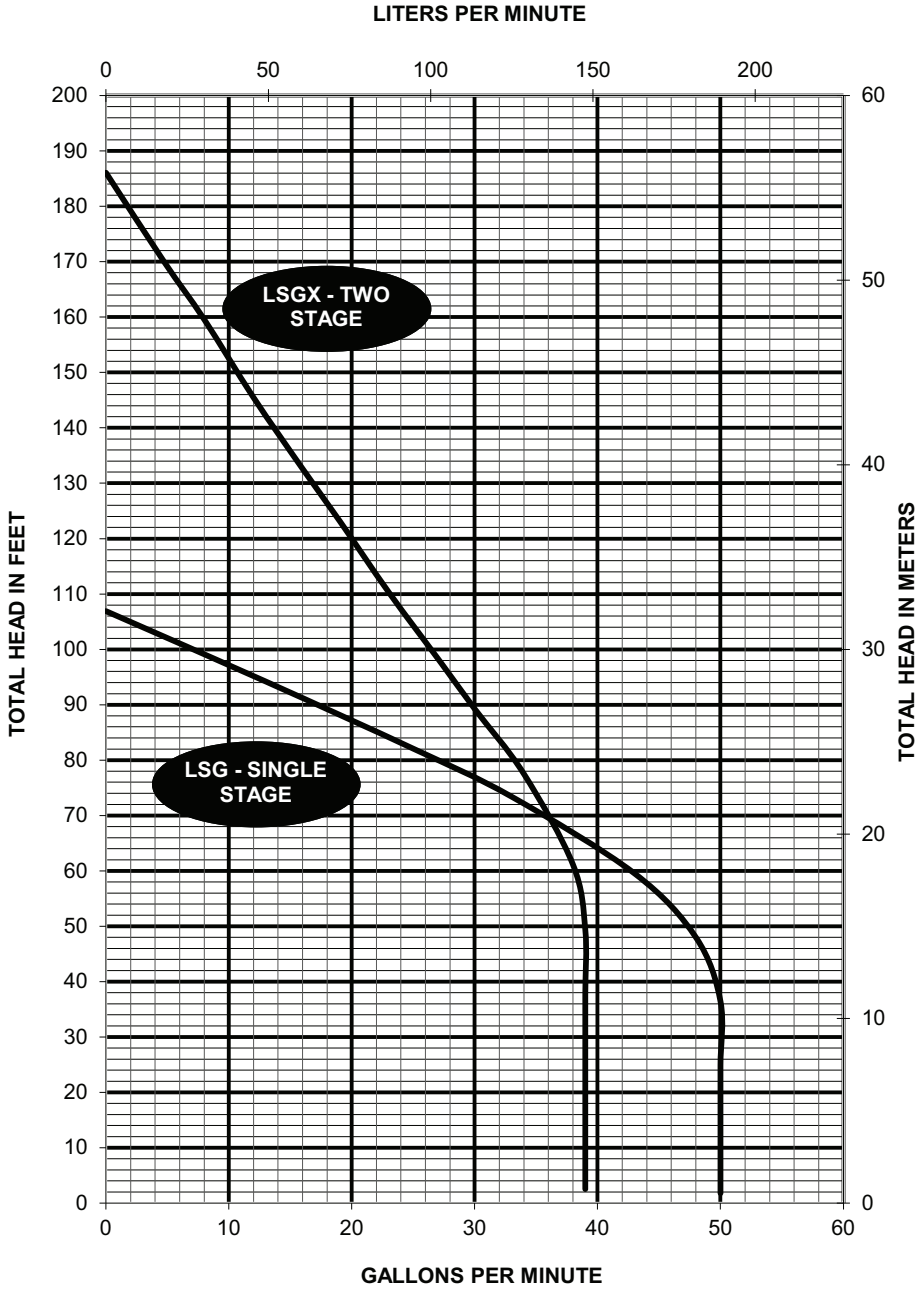
Pump **Specification**



3048LSG/LSGX-Series

Omnivore® 2 HP Simplex Grinder Packages

Please note: although there are two pumps referenced in this document, the 3048LSG pump is used by the City of Kenora most often.



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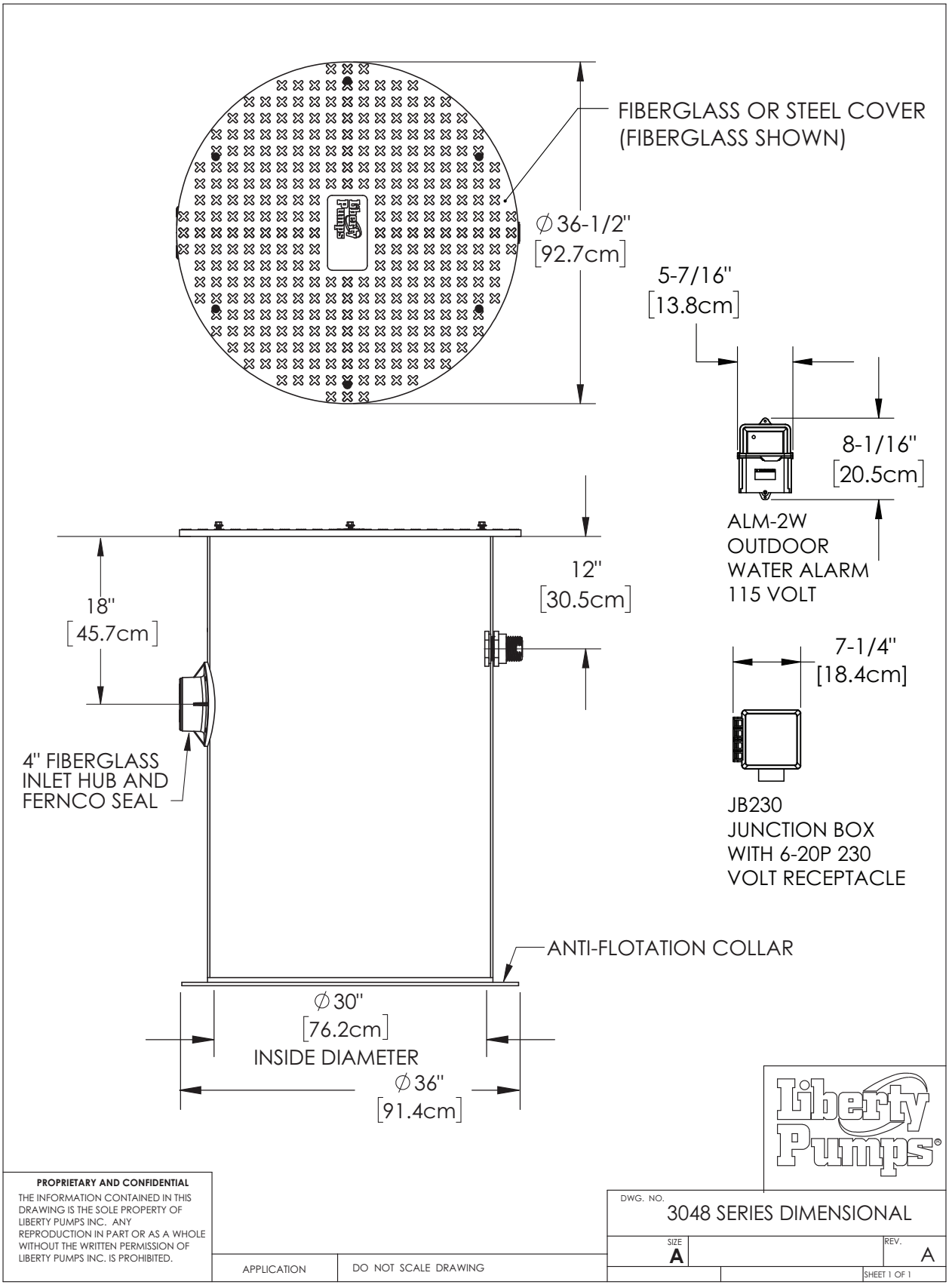
3048LSG/LSGX-Series Dimensional Data



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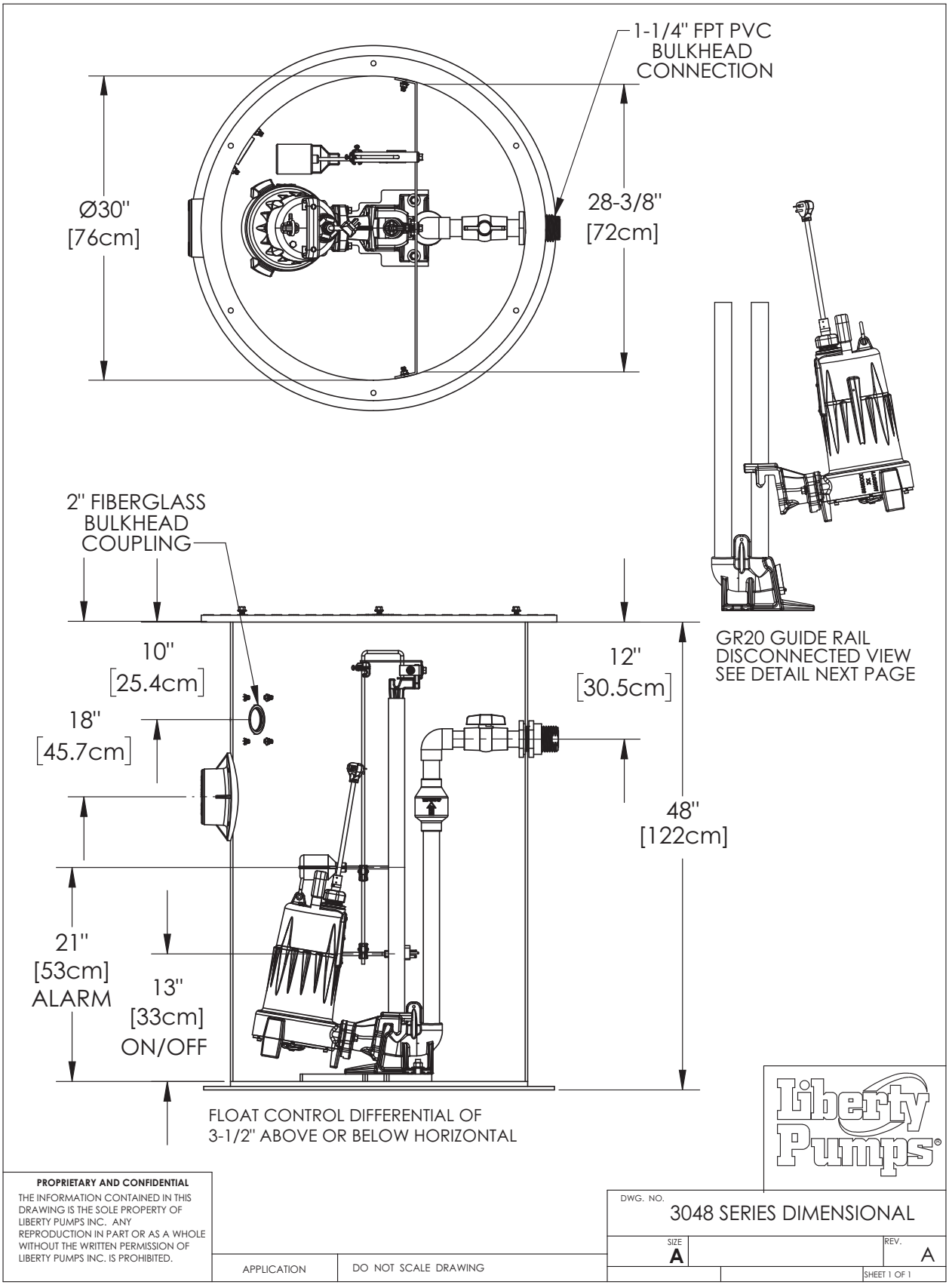

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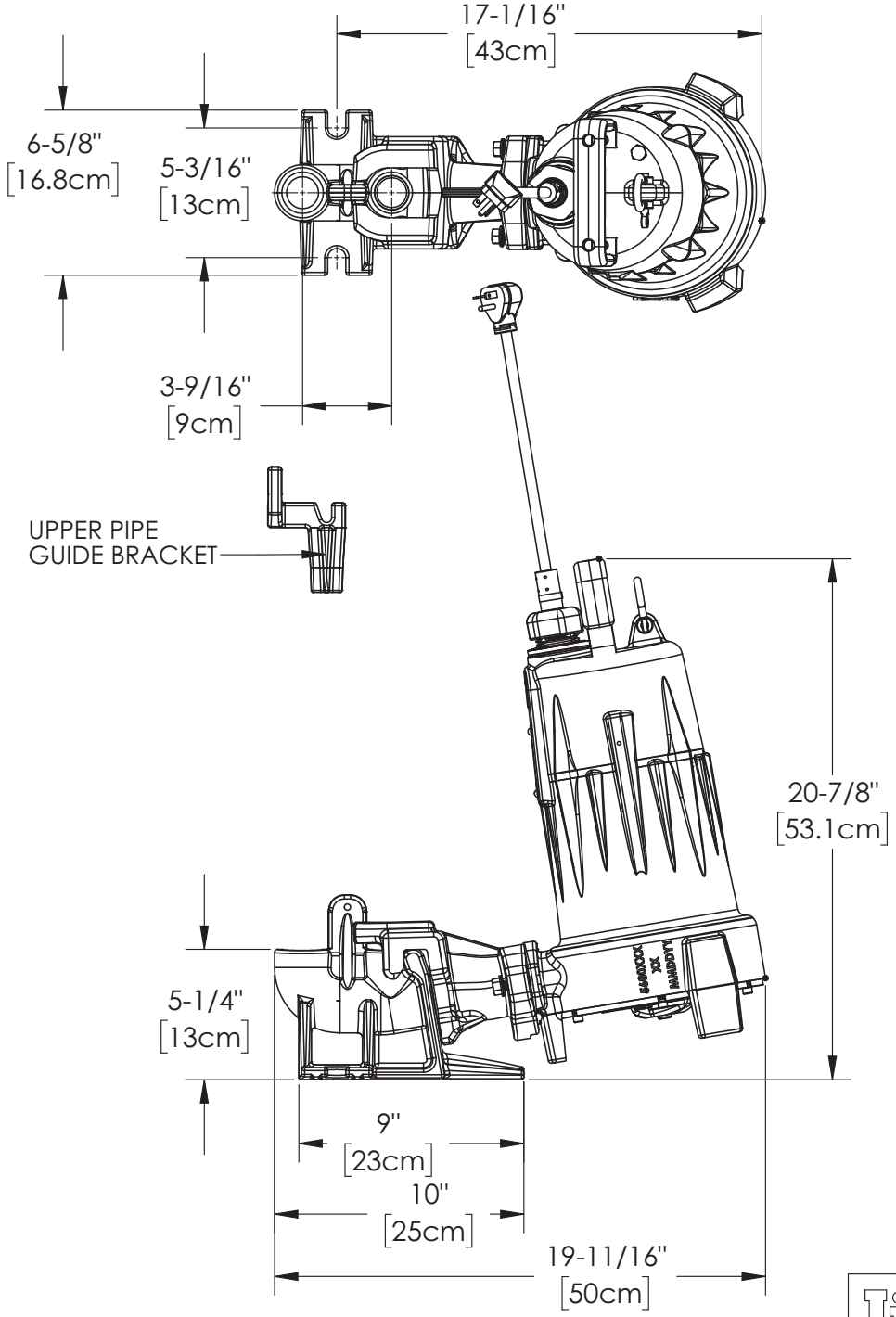

GR20 GUIDE RAIL BASE

APPLICATION | DO NOT SCALE DRAWING

DWG. NO. 3048 SERIES DIMENSIONAL

SIZE A | REV. A

SHEET 1 OF 1

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3048LSG/LSGX-Series Electrical Data

MODEL	HP	VOLTAGE	PHASE	SF	FULL LOAD AMPS	LOCKED ROTOR AMPS	THERMAL OVERLOAD TEMP	STATOR WINDING CLASS	CORD LENGTH	DISCHARGE	AUTOMATIC
3048LSG202	2	208/230	1	1.0	15	53	105°C	B	25'	1-1/4" NPT	YES
3048LSGX202	2	208–230	1	1.0	15	53	135°C	B	25'	1-1/4" NPT	YES

3048LSG/LSGX-Series Technical Data

TANK	WOUND FIBERGLASS WITH ANTI-FLOTATION FLANGE STANDARD – FIBERGLASS COVER OPTIONAL – STEEL COVER
CAPACITY	TOTAL BASIN VOLUME – **147** GALLON / 556 LITERS PUMP CYCLE – **21** GALLONS / 79 LITERS
GUIDE RAIL	STANDARD – SCHEDULE 40 GALVANIZED OPTIONAL – SCHEDULE 40 STAINLESS STEEL
GUIDE RAIL BASE/DISCONNECT (GR20)	CAST IRON
INLET HUB	4" WITH FLANGE GASKET AND PIPE SEAL
DISCHARGE PIPING	SCHEDULE 80 PVC
JUNCTION BOX	NEMA 4X OUTDOOR WITH 6-20R 230V RECEPTACLE
ALARM	NEMA 4X OUTDOOR ALARM WITH VISUAL AND AUDIBLE (80 DBI) ALARM
IMPELLER	300 SERIES STAINLESS STEEL
PAINT	POWDER COATING
MAX LIQUID TEMP	60°C / 140°F
MAX STATOR TEMP	LSG MODELS – 105°C / 221°F LSGX MODELS – 135°C / 275°F
THERMAL OVERLOAD	LSG MODELS – 105°C / 221°F LSGX MODELS – 135°C / 275°F
POWER CORD TYPE	SJOOW
MOTOR HOUSING	CLASS 25 CAST IRON
VOLUTE	CLASS 25 CAST IRON
SHAFT	300 SERIES STAINLESS STEEL
HARDWARE	STAINLESS
O-RINGS	BUNA-N
MECHANICAL SEAL	UNITIZED SILICON CARBIDE
MIN BEARING LIFE	50,000 HRS
WEIGHT	270 LBS / 123 KG

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3048LSG/LSGX-Series Specifications

1.01 GENERAL

The contractor shall provide labor, material, equipment, and incidentals required to provide _____ (QTY) centrifugal grinder pump systems as specified herein. The pump models covered in this specification are LSG/LSGX-Series single-phase grinder pumps. The pump furnished for this application shall be model _____ as manufactured by Liberty Pumps.

2.01 OPERATING CONDITIONS

Each submersible pump shall be rated at 2 hp, _____ volts, 1-phase, 60 Hz, 3450 RPM. The unit shall produce _____ GPM at _____ feet of total dynamic head.

The submersible pump shall be capable of handling residential and commercial sewage and grinding it to a fine slurry enabling it to be pumped over long distances in pipelines as small as 1.25" in diameter. The LSG-Series single stage submersible pump shall have a shut-off head of 110 feet and a maximum flow of 50 GPM @ 10 feet of total dynamic head. The LSGX-Series 2-stage submersible pump shall have a shut-off head of 185 feet and a maximum flow of 38 GPM @ 10 feet of total dynamic head.

The pump shall be controlled with:

A piggyback style on/off float switch

3.01 CONSTRUCTION

Each centrifugal grinder pump shall be equal to the C SP US certified LSG/LSGX-Series Grinder pumps as manufactured by Liberty Pumps, Bergen NY. The castings shall be constructed of class 25 cast iron. The motor housing shall be oil filled to dissipate heat. Air filled motors shall not be considered equal since they do not properly dissipate heat from the motor. All mating parts shall be machined and sealed with a Buna-N O-ring. All fasteners exposed to the liquid shall be stainless steel. The motor shall be protected on the top side with sealed cord entry plate with molded pins to conduct electricity eliminating the ability of water to enter internally through the cord. The motor shall be protected on the lower side with a dual seal arrangement. The first seal is a double lip seal molded in fluoroelastomer. The second/main seal shall be a unitized hard face silicon carbide seal with stainless steel housings and spring.

The upper and lower bearing shall be capable of handling all radial thrust loads. The lower bearing shall have the additional ability to handle the downward axial thrust produced by the impeller and cutters by design of angular contact roller races. The pump housing shall be of the concentric design thereby equalizing the pressure forces inside the housing, which will extend the service life of the seals and bearings. Additionally there shall be no cutwater in the housing volute in order to discourage the entrapment of flowing debris. The pump shall be furnished with a stainless steel handle having a nitrile grip.

4.01 ELECTRICAL POWER CORD

The submersible pump shall be supplied with 25 feet of multi-conductor power cord. It shall be cord type SJOOW, capable of continued exposure to the pumped liquid. The power cord shall be sized for the rated full load amps of the pump in accordance with the National Electric Code. The power cable shall not enter the motor housing directly but will conduct electricity to the motor by means of a water tight compression fitting cord plate assembly, with molded pins to conduct electricity. This eliminates the ability for water to enter internally through the cord by means of a damaged or wicking cord.

5.01 MOTORS

All motors shall be oil filled, capacitor start/capacitor run, class B insulated NEMA B design, rated for continuous duty. Since air filled motors are not capable of dissipating heat as effectively, they shall not be considered equal. At maximum load, the winding temperature shall not exceed 105°C for model LSG and 135°C for LSGX models (unsubmerged). The pump motor shall have an integral thermal overload switch in the windings for protecting the motor. The capacitor circuit shall be mounted internally in the pump. Single-phase motors shall have an integral solid state starting circuit switch for switching the start winding off.

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6.01 BEARINGS AND SHAFT

An upper radial and a lower angular contact ball bearing shall be required. The upper bearing shall be a single ball/race type bearing. The lower bearing shall be an angular contact heavy duty ball/race type bearing, designed to handle axial grinder pump thrust loads. Both bearings shall be permanently lubricated by the oil that fills the motor housing. The bearing system shall be designed to enable proper cutter alignment from shut off head to maximum load at 10 feet of TDH. The motor shaft shall be made of 300 series stainless steel and have a minimum diameter of 0.670".

7.01 SEALS

The pump shall have a dual seal arrangement consisting of a lower and upper seal to protect the motor from the pumping liquid. The lower seal shall be fluoroelastomer OR Buna-N molded double lip seal, designed to exclude foreign material away from the main upper seal. The upper seal shall be a unitized silicon carbide hard face seal with stainless steel housings and spring equal to Crane Type T-6a. The motor plate/housing interface shall be sealed with a Buna-N O-ring.

8.01 IMPELLER

The impeller shall be an investment cast stainless steel impeller, with pump out vanes on the back shroud to keep debris away from the seal area. It shall be keyed and bolted to the motor shaft.

9.01 CUTTER MECHANISM

The cutter and plate shall consist of 440 stainless steel with a Rockwell C hardness of 55–60. The stationary cutter plate shall have specially designed orifices through it, which enable the slurry to flow through the pump housing at an equalized pressure and velocity. The stationary cutter shall consist of V shapes to maximize cutting action and arc shape exclusion slots to outwardly eject debris from under the rotary cutter. The rotary cutter shall have four (4) blades and be designed with a recessed area behind the cutting edge to prevent the accumulation and binding of any material between rotary cutter and the stationary cutter. The cutting system must incorporate close tolerances for optimum performance. Ring or radial cutters, or those that grind on the outside circumference, shall not be considered equal.

10.01 CONTROLS

All single-phase units shall be supplied with CSA and UL approved automatic wide angle tilt float switches. The switches shall be equipped with a piggyback style plug that allows the pump to be operated manually without the removal of the pump in the event that a switch becomes inoperable.

11.01 PAINT

The exterior of the casting shall be protected with powder coat paint.

12.01 SUPPORT

The pump shall have cast iron support legs, enabling it to be a freestanding unit. The legs shall be high enough to allow solids and long stringy debris to enter the cutter assembly.

13.01 SERVICEABILITY

Components required for the repair of the pump shall be shipped within a period of 24 hours.

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14.01 FACTORY ASSEMBLED TANK SYSTEMS WITH GUIDE RAIL AND QUICK DISCONNECT DISCHARGE

_____ Factory mounted guide rail system with pump suspended by means of bolt-on quick disconnect that is sealed by means of nitrile grommets. The Discharge piping shall be schedule 80 PVC and furnished with a check valve and PVC shut-off ball valve. The tank shall be wound fiberglass or roto-molded plastic. An inlet hub shall be provided with the system.

_____ Stainless steel guide rail

_____ Zinc plated steel guide rail

_____ " diameter of basin size

_____ " height of basin size

_____ " distance from top of tank to discharge pipe outlet

_____ Fiberglass cover

_____ Structural foam polymer cover

_____ Steel cover

_____ Simplex system with outdoor panel and alarm

_____ Separate outdoor alarm

_____ Remote outdoor alarm

15.01 TESTING

The pump shall have a ground continuity check and the motor chamber shall be hi-potted to test for electrical integrity, moisture content, and insulation defects. The motor and volute housing shall be pressurized and an air leak decay test performed to ensure integrity of the motor housing. The pump shall be run, voltage current monitored, and checked for noise or other malfunction.

16.01 QUALITY CONTROL

The pump shall be manufactured in an ISO 9001 certified facility.

17.01 WARRANTY

Standard limited warranty shall be 3 years.

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