

# LSGX-SERIES

2-Stage High-Head Grinder

# Liberty Pumps®

A Family and Employee Owned Company

**2 hp**

**1-1/4" Discharge**

Unleash the power and reliability of the Omnivore® with patented V-Slice® Cutter Technology

Omnivore® LSGX-Series grinders provide economical, environmentally friendly solutions for multi-unit low pressure sewers

## Features

- Lower installation cost with smaller diameter pressure pipe
- High-head capability reduces the need for costly lift stations
- Superior pump design allows for efficient pumping over a wide range of head applications - even negative head
- Efficient design provides lower operating cost
- Unsurpassed reliability reduces maintenance and homeowner inconvenience



Patent: See  
[LibertyPumps.com/patents](http://LibertyPumps.com/patents)



innovate. evolve.

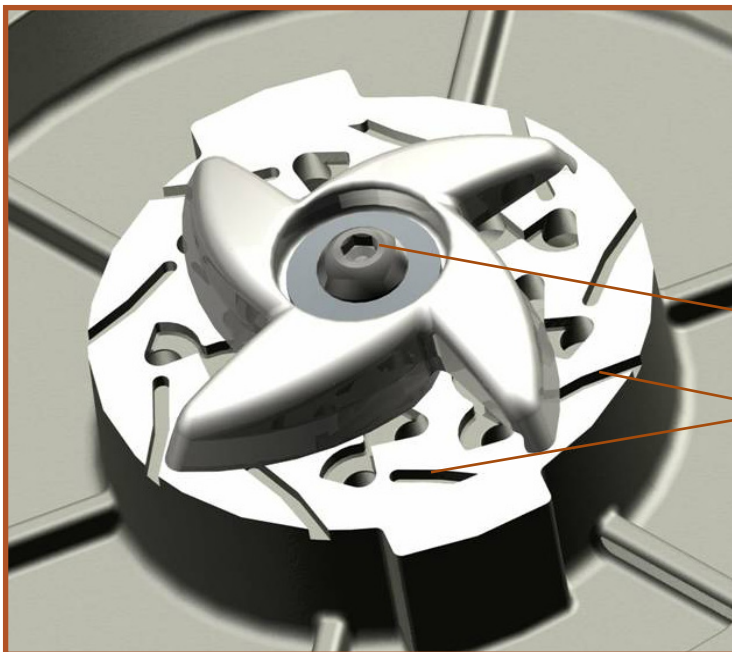
# LSGX-Series Grinder Pumps



## The power to build anywhere

**Omnivore® LSGX-Series** 2-stage grinders provide economical answers for difficult building sites. With proven V-Slice® Cutter Technology, the Omnivore® macerates sanitary waste into a fine slurry allowing it to be pumped through small diameter pipe, eliminating costly gravity systems with larger pipe and deep trenching. Now, engineers, housing developers, and land design planners have the freedom to replace restrictive gravity-style systems with cost-effective, Omnivore®-driven low pressure sewers.

## Patented V-Slice® Cutter Technology



## The Power to Meet High-Head Requirements — now in a Centrifugal Pump Design

With twin stainless-steel impellers driving flow to maximum heads of over 180', the LSGX can be installed in applications where traditional progressive cavity style pumps have been required. Now get the superior cutting of patented V-Slice® Cutter Technology with pumping performance that rivals traditional progressive cavity style pumps.

- Better cutting
- No rotor/stator wear
- Same pressure, more flow
- Greater reliability



### Provides in excess of 370,00 cuts per minute

Superior cutting system provides improved shredding performance over radial cutters. V-pattern provides up to 108 alternated cuts per revolution. Entire cutting system made of 440 stainless steel hardened to 58 Rc.

### Recessed cutter bolt eliminates wadding

Exclusion clean out slots and back relief clears debris from under cutter

Patent: See  
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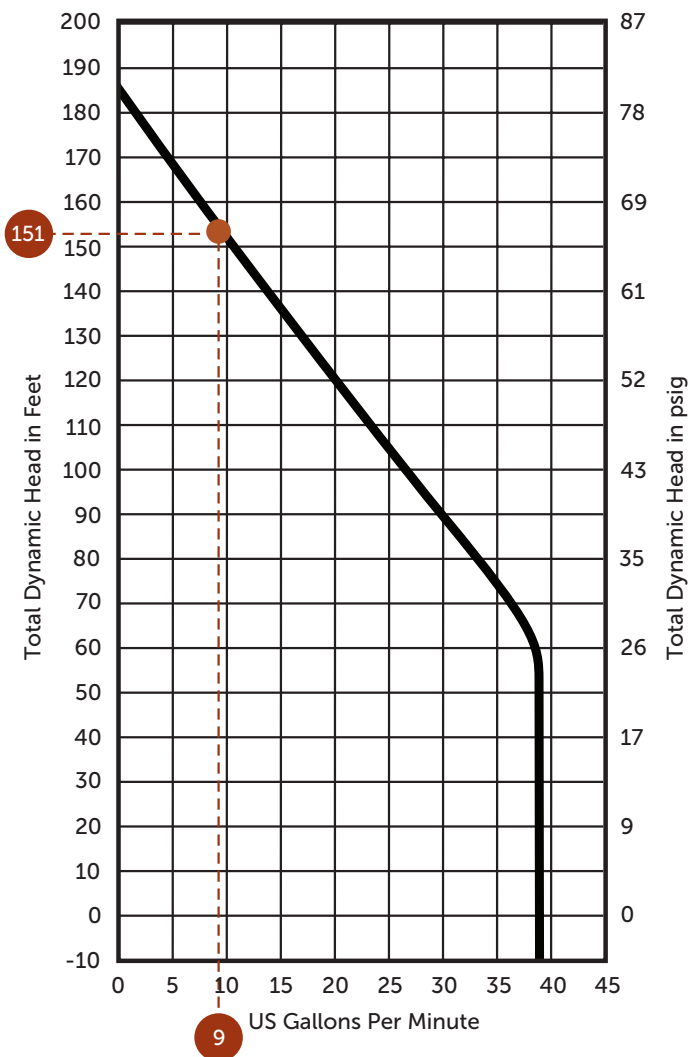
## Robust Performance Over a Wide Range of Heads

The LSGX-Series curve provides superior flows over a wide range of typical pressures, necessary for multi-unit developments and “large-area” low pressure sewer systems. The 2-stage LSGX-Series now allows installation of a centrifugal design where progressive cavity style pumps have traditionally been installed.



## Omnivore® 2-Stage Performance

60 Hz, 3450 RPM



## Complete Engineered Pump Systems (EPS)

Liberty Pumps has the ability to design custom systems for your development project. Whether simplex, duplex, triplex, or quadplex, you can select from a wide array of basin sizes, discharge heights, and control panel options.

## Omnivore® Interchangeability

### You choose - single-stage or 2-stage

Not all applications have the same hydraulic requirements. Since both LSG single-stage and LSGX 2-stage grinder pumps use the same platform and guide rail system, the right pump can be chosen for the individual application, depending on your topography. Complete interchangeability is available with the Omnivore® family of grinders. A single-stage Omnivore® can be pulled and directly replaced with a 2-stage, all within the same basin and guide rail setup—providing total flexibility.

## Superior Hydraulics

Many benefits come with the use of centrifugal impellers instead of positive displacement stators. Many of the maintenance issues are eliminated, such as dry start, clogging, and boot failure. Also, centrifugal impellers have the ability of flow control. When multiple units are competing for space in the same sewer main, the centrifugal design enables pumps to seek the optimum flow without accumulating pressure and causing pipe or boot failure.

# Omnivore® 2-Stage LSGX-Series

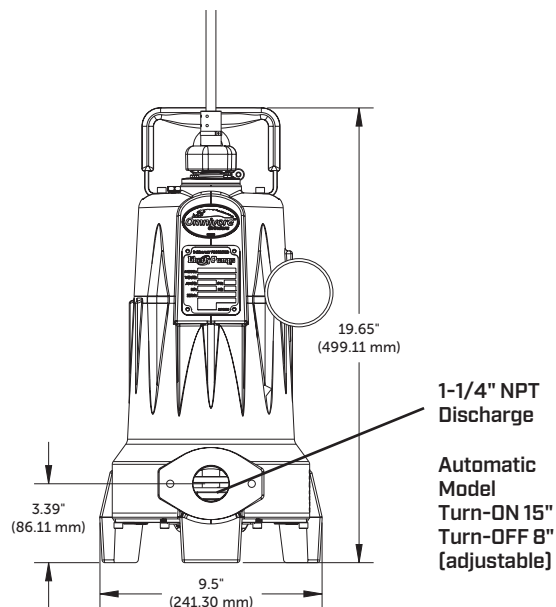
## Materials

- Handle:** Stainless steel with over-mold rubber grip
- Motor Housing:** Cast Iron Class 25
- Volute Housing:** Cast Iron Class 25
- Rotor Shaft:** 300 Series stainless steel
- Seal Upper:** Unitized graphite impregnated silicon carbide
- Seal Lower:** \*Viton™ double lip
- Impeller:** 300 Series stainless steel
- Cutter Plate:** 440 Series stainless steel hardened to Rockwell 58c
- Cutter Blade:** 440 Series stainless steel hardened to Rockwell 58c
- Upper Bearing:** Single row ball
- Lower Bearing:** Single row ball (Angular Contact)
- Fasteners:** All 300 Series stainless steel
- Lift-out Clasp:** 300 Series stainless steel
- Exterior:** All cast parts powder coated

LSGX202 is available in automatic or manual models. 3-phase models require a properly sized control panel for automatic operation.

\*Viton is a trademark of The Chemours Company FC, LLC.

## Dimensional Data



## Max Fluid Temperature

- 140°F (60°C) Intermittent
- 104°F (40°C) Continuous duty

## Power Cord Type

Quick-connect design

MODEL	POWER CORD TYPE	STANDARD LENGTH
LSGX202A LSGX202M	12/3 SJOOW 300V	25'
LSGX202M-C	12/4 SOOW 600V	35'
LSGX203M	14/4 SEOOW 600V	25'
LSGX204M	14/4 SEOOW 600V	25'
LSGX205M	14/4 SEOOW 600V	25'

## Models

MODEL	HP	PH	VOLTAGE	AMPS	LOCK ROTOR AMPS	MOTOR INSULATION	THERMALLY PROTECTED	DISCHARGE SIZE	STARTING CIRCUIT	WEIGHT IN LBS
LSGX202A LSGX202M	2	1	208-230	15	53	Class B	Yes	1-1/4"	Solid state	92
LSGX202M-C	2	1	208-230	15	53	Class B	Yes	1-1/4"	Panel	97
LSGX203M	2	3	208/230	10.6	62	Class B	No	1-1/4"	N/A	90
LSGX204M	2	3	440-480	5.3	31	Class B	No	1-1/4"	N/A	90
LSGX205M	2	3	575	4.9	24	Class B	No	1-1/4"	N/A	90

Optional 35' cord available on LSG202M and LSGX202M.

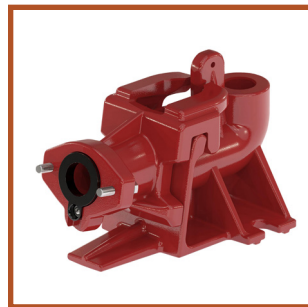
Add "-3" suffix to model number.

Add "-5" for 50' power cord on manual models.

A 50' cord is available on the LSGX202A automatic model. Order model LSGX202A-5-Y. The model features an integrated Y-cord and float switch with bare wire leads.

Internal start/run capacitors on 1-phase models except "-C" models, which have external caps and require a control panel.

## GR20 Guide Rail



- Optional GR20 guide rail (sold separately)
- Cast Iron construction
- Single 1-1/4" guide rail pipe design



- Auto alignment feature
- Upper rail support bracket
- GR20 works only with LSG and LSGX-Series pumps

## Options for LSGX202M-C: External Cap Grinder

MODEL	DESCRIPTION
K001316	Start/Run Capacitor Kit (for retrofit in existing panels)
SXHC24=3-3	Simplex NEMA 4X Panel with Start/Run capacitors
AE24HC=3-3	Duplex NEMA 4X Panel with Start/Run capacitors

For complete panel specifications, see SX or AE-Series literature.

Specifications subject to change without notice.

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