



# GRINDER STATION MANUAL

## KEEN KPCG GRINDER STATION MANUAL

**STATION MODEL:  
KPCGSL21-24x60**

**PUMP MODEL:  
KEEN KPCGSL21**

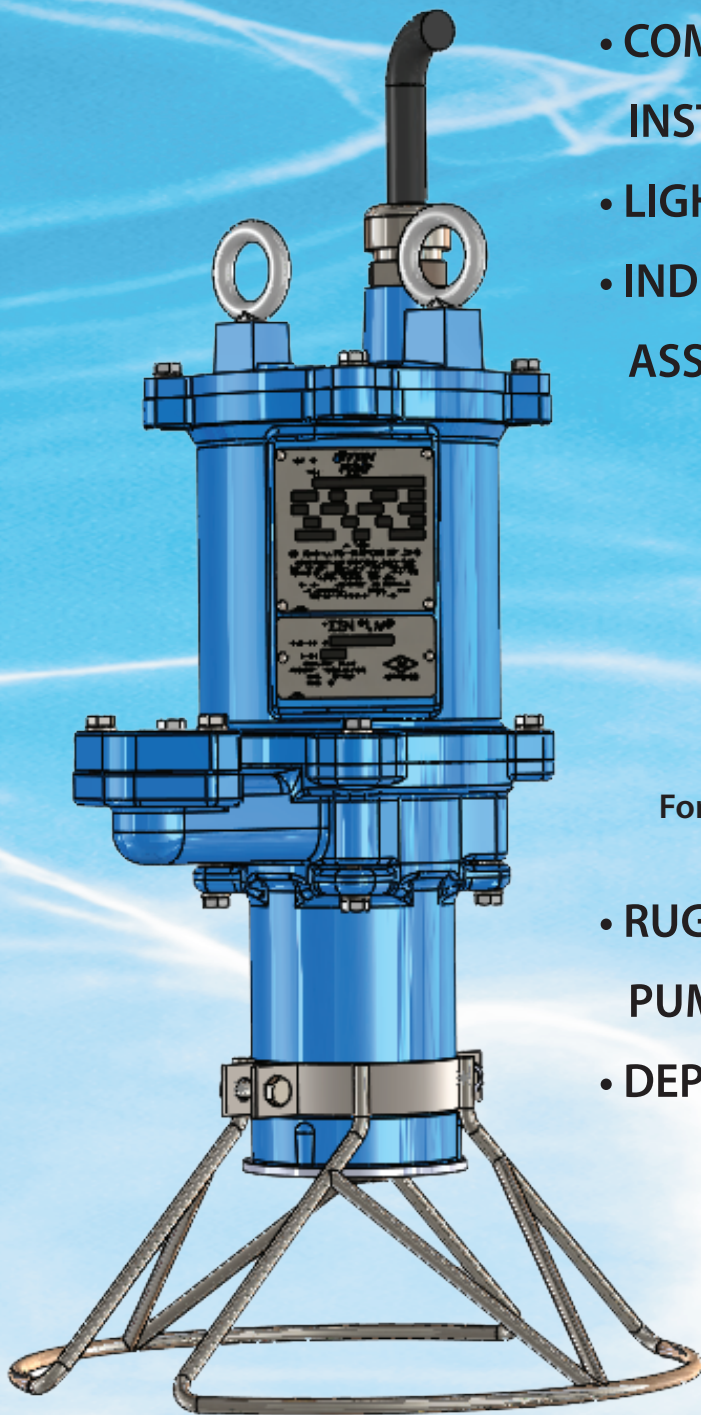
**VOLTAGE:  
230**

**PHASE:  
1**

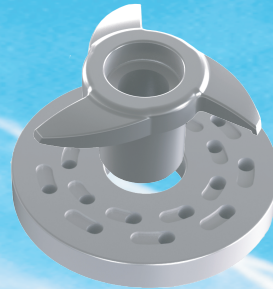
**TANK DIMENSIONS:  
24" DIAMETER X 60" DEEP**

PUMP

# PROGRESSIVE CAVITY GRINDER PUMP "KPCGSL-21-SS"



- COMPACT DESIGN FOR EASY INSTALLATION IN ANY STATION
- LIGHT WEIGHT FOR EASY HANDLING
- INDUSTRY BEST STAINLESS STEEL GRINDER ASSEMBLY FOR DEPENDABLE SERVICE



Slicer-Cutter

For best maceration of sewage into slurry

- RUGGED HIGH-TENSILE IRON PUMP CONSTRUCTION
- DEPENDABLE 50-YEAR PROVEN DESIGN

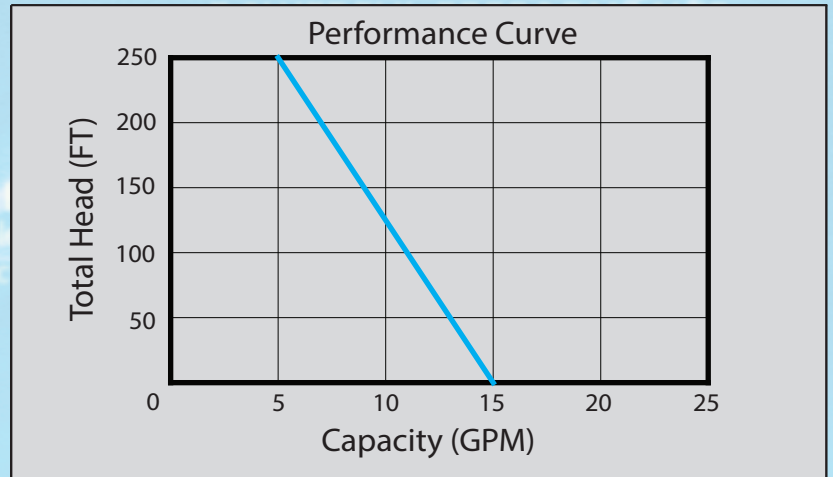


471 US HWY 250 East Ashland, Ohio 44805  
419.207.9400 fax 419.207.8031  
[www.keenpump.com](http://www.keenpump.com)



# PROGRESSIVE CAVITY GRINDER PUMP "KPCGSL-21-SS"

Convenient stainless  
steel eyebolts



## CORD ENTRY

- Double-Barrier Moisture Protection

## HIGH-TORQUE MOTOR HANDLES ALL GRINDING CONDITIONS

## OIL FILLED MOTOR CHAMBER KEEPS MOTOR COOLED AND LUBRICATES BEARINGS

## ABRASIVE RESISTANT SILICON CARBIDE SHAFT SEAL WITH SECONDARY BACK-UP SEAL

## PREMIUM STAINLESS STEEL ROTOR FOR LONG LIFE

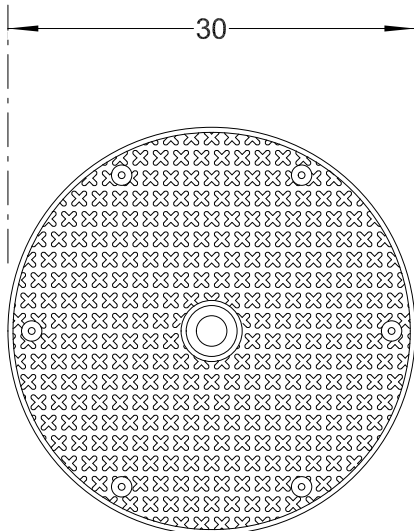
## STAINLESS STEEL GRINDER ASSEMBLY

- HEAT TREATED
- HARDENED
- PRECISION GROUND



WETWELL

# BCSS VERSION



SOLID FIBERGLASS LID

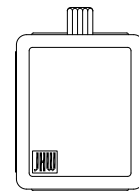
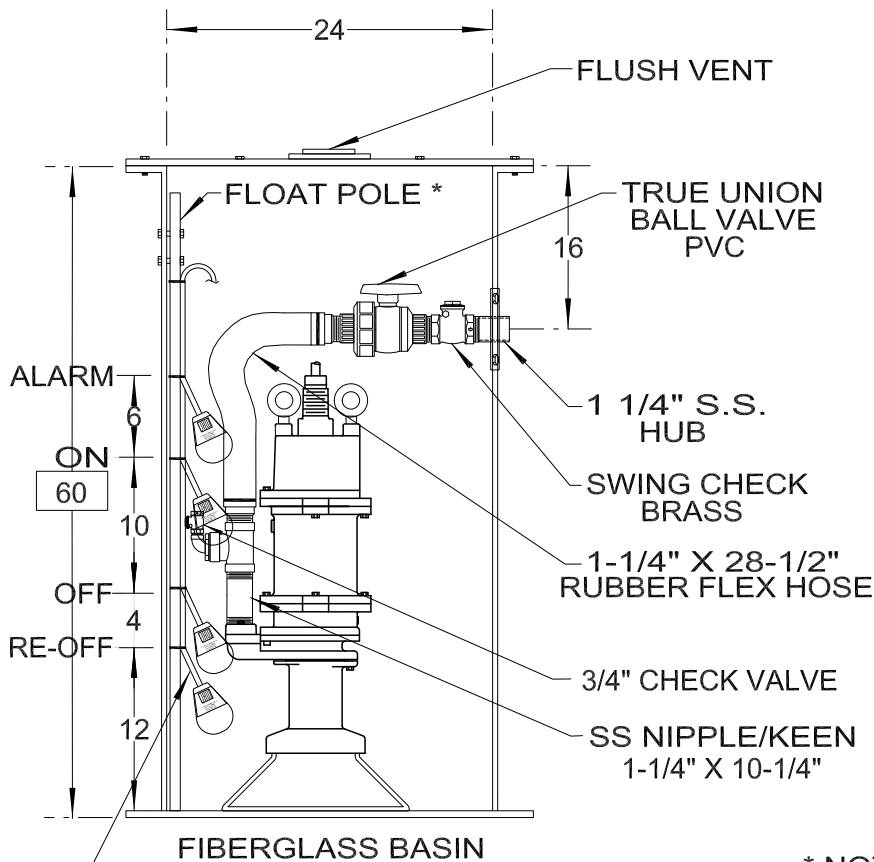


INVERT  
4" GROMMET  
(SHIPPED LOOSE)



CONDUIT  
1-1/2" GROMMET  
(SHIPPED LOOSE)

LIFTING ROPE (18FT)  
(SHIPPED LOOSE)



SIMPLEX PANEL  
4 FLOAT  
KPC - LRD16

\* NOT ACTUAL LOCATION

3-1/2" TETHER LENGTH ON FLOATS

**J.H. WRIGHT & ASSOCIATES, INC.**  
27395 Pollard Road \* P.O. Box 1005 \* Daphne, AL. 36526  
Phone: (888) 655-7867 \* Fax: (251) 621-8111

		DATE	APPROVED BY	DATE
DRAWN	ROBERT O. BROOKE	05-14-15		
CHECKED				
DESIGNED				

**JHW KEEN PC PACKAGE-BCSS  
KPCGHS - 24 X 60 BASIN**

DRAWING NO.	SCALE	REV
KPCGHS SIMPLEX-BCSS	NTS	A



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# PANEL WITH GENERATOR RECEPTACLE

## SUGGESTED MINIMUM GENERATOR SIZE:

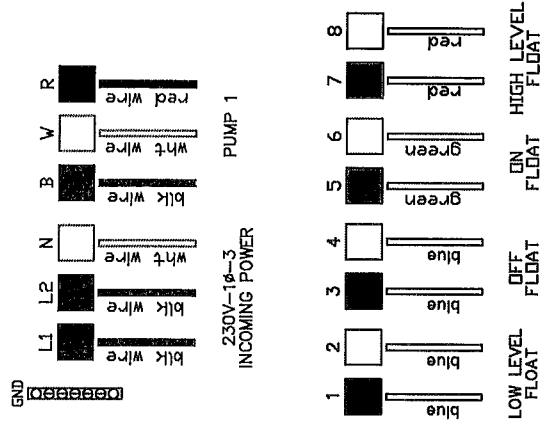
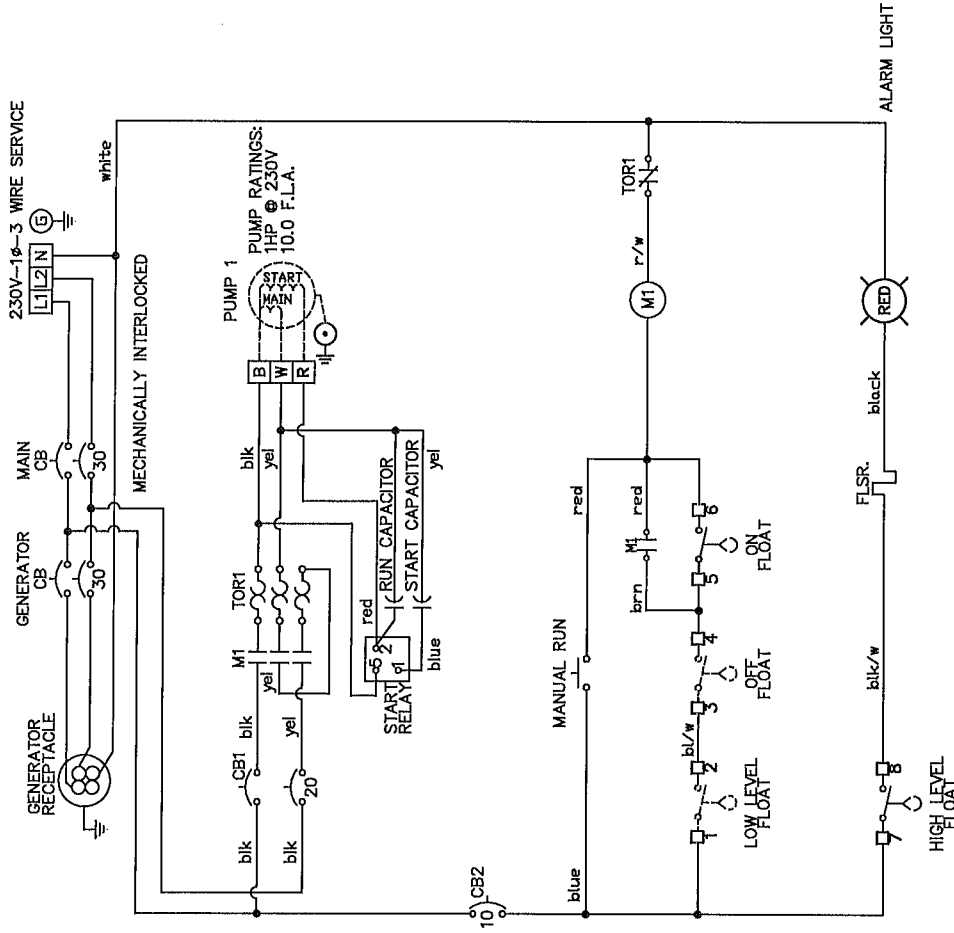
30 AMP 240V 1PHASE 4 WIRE

6500 WATTS RUNNING

8125 WATTS STARTING

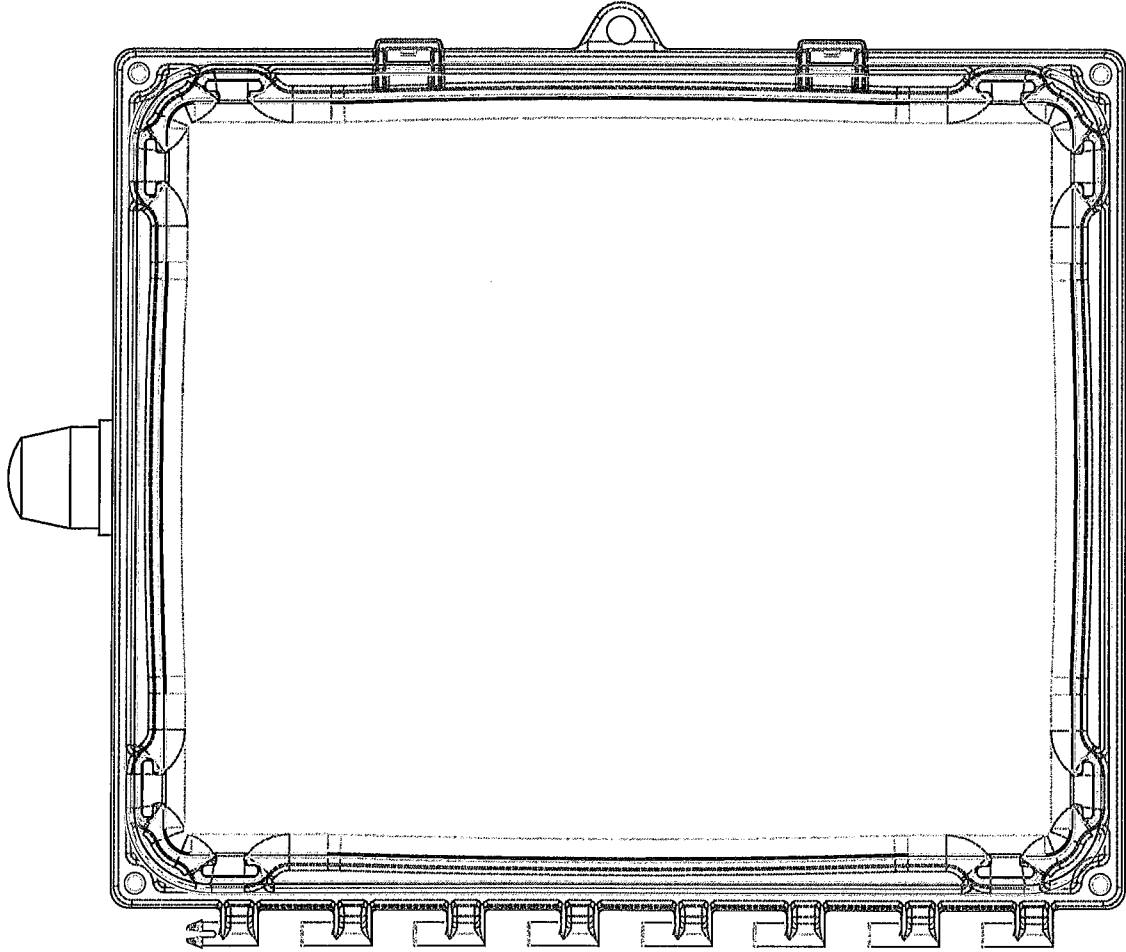
NEMA L14-30R/P



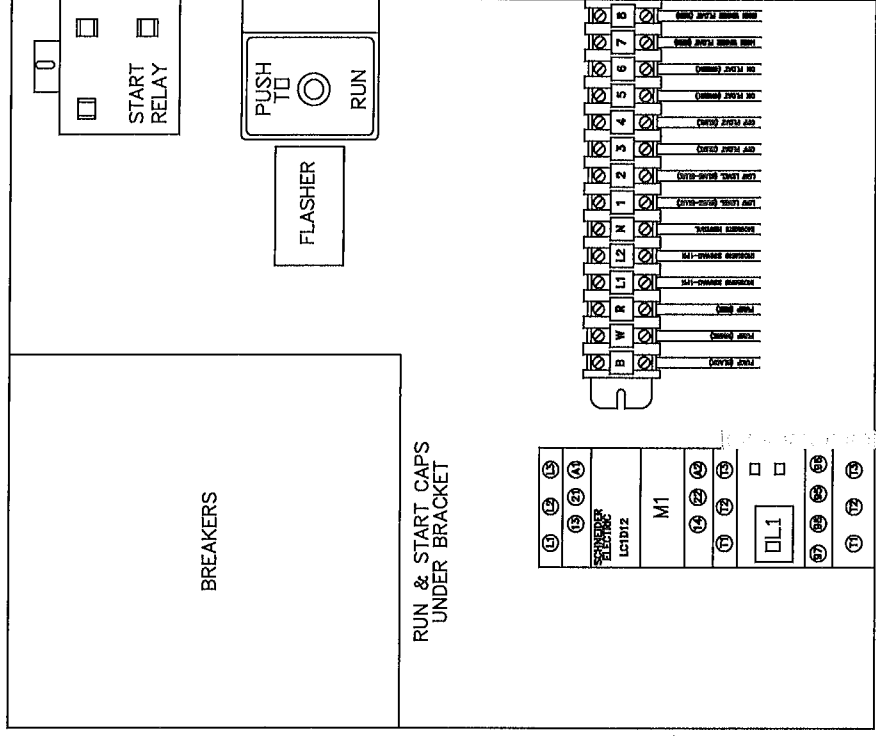


START CAPACITOR : 216-259MFD, 250VAC  
 RUN CAPACITOR : 30MFD, 370VAC  
 RELAY : MARS 19169

VOLTAGE: 230	PHASE: 1	HERTZ: 60	HP/FLA: 1/10	TITLE: KCP - J020
ENCLOSURE TYPE: 4X	SHORT CIRCUIT CURRENT: 5KA	RMS SYMMETRICAL, 240V MAXIMUM	S4-1HP-230-1-C-N-MOM-KPC-LRD16	JDP SHEET OF
DATE: 10-20	REV DATE:	DWG. NO.: 201009DB20		



ENCLOSURE 14X12



RECEPTACLE MOUNTED ON LEFT SIDE				TITLE: KCP - J020			
VOLTAGE: 230				S4-1HP-230-1-C-N-MOM-KPC-LRD16			
PHASE: 1				JDP			
HERTZ: 60				DATE: 10-20			
ENCLOSURE TYPE: 4X				REV DATE: 10-20			
SHORT CIRCUIT CURRENT: 5KA				SHEET OF			
RMS SYMMETRICAL, 240V MAXIMUM				DWG. NO.: 201009DB20			

# CONTROL FLOATS





# anchor scientific inc.

Box 378, Long Lake, MN 55356  
952-473-7115 • FAX 952-473-6002 • www.anchorscientific.com

# mini-float®

Form 2500-D

# mini-float®

## DESCRIPTION

Mini-floats are pilot duty devices designed for small diameter sumps and places where space is a determining factor in the selection of a level control device. Mini-floats control the function of motor load devices, such as contactors, motor starters, and power relays, to automatically cycle a pump or pumps. They can also be used for alarm signaling devices. Two Mini-Floats are needed for a one-pump operation; three for a two-pump operation.

## SPECIFICATIONS

Cable ..... 18-2 SJOW/A  
Housing ..... Polypropylene  
Clamp ..... Adjustable 1"-4"  
(Only on Type P models)  
Temperature Rating ..... 60° C.

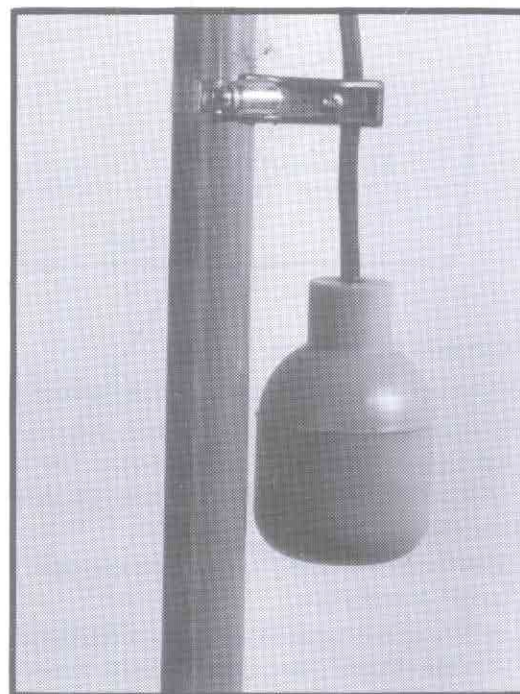
## MODELS

Mini-Floats are available in a combination of mounting styles, cable lengths, and circuit configurations. Mounting styles are shown at right: pipe mounted (Type P), and suspended (Type S). 10, 15, and 25-foot cable lengths are standard, but other lengths can be special ordered. Electrical configurations must be specified; normally open, (NO), for pump out applications and normally closed, (NC), for pump in applications.

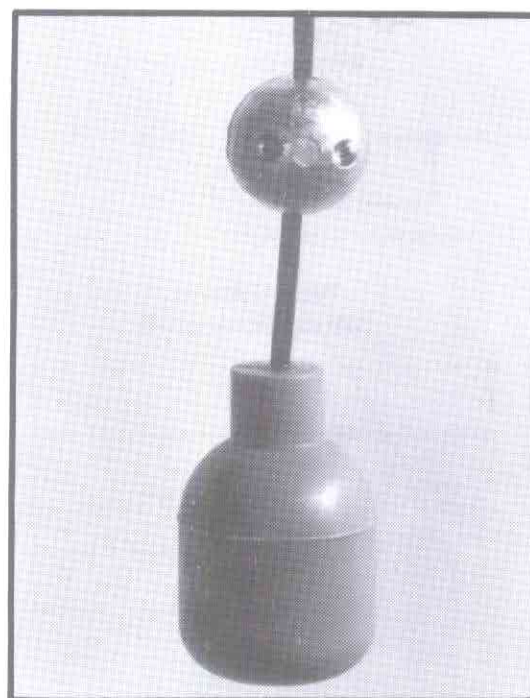
## EXAMPLE:

P Mounting Style	M Mini- Float	10 Cable Length	NO Electrical Configuration
ELECTRICAL CONFIGURATION	CABLE LENGTH	SUSPENDED TYPE 'S' MODEL NO.	PIPE MOUNTED TYPE 'P' MODEL NO.
NORMALLY OPEN	10	S M 10 NO	P M 10 NO
	15	S M 15 NO	P M 15 NO
	20	S M 20 NO	P M 20 NO
	25	S M 25 NO	P M 25 NO
	30	S M 30 NO	P M 30 NO
NORMALLY CLOSED	10	S M 10 NC	P M 10 NC
	15	S M 15 NC	P M 15 NC
	20	S M 20 NC	P M 20 NC
	25	S M 25 NC	P M 25 NC
	30	S M 30 NC	P M 30 NC

## MOUNTING STYLES



TYPE P - M



TYPE S - M

# USER INFO

# **GRINDER STATION USER GUIDE**

**Congratulations on your purchase of your new grinder pump system. With proper care and by following a few simple guidelines your grinder pump will give you many years of dependable service.**

## **Use and Care**

**The grinder pump station is designed to handle routine, domestic sewage. Solid waste materials should be thrown in the trash. While your station is capable of accepting and pumping a wide range of materials, regulatory agencies advise that the following items should not be introduced into any sewer, either directly or through a kitchen waste disposal:**

- **Glass**
- **Metal**
- **Diapers**
- **Socks, rags or cloth**
- **Plastic objects (e.g., toys, utensils, ect.)**
- **Sanitary napkins or tampons.**
- **Mop strings**
- **Cooking Oils**
- **Dental floss**

**In addition you must NEVER introduce into any sewer:**

- **Explosives**
- **Flammable Material**
- **Lubricating Oil and/or Grease**
- **Strong Chemicals**
- **Gasoline**

## **General Information**

**Your home wastewater disposal system is part of a low pressure sewer system. The key element in this system is the grinder pump station. The basin collects all wastewater from the house. The solids in the sewage are then ground to a small size suitable for pumping in the collection system. The grinder pump generates sufficient pressure to pump this slurry from your home to wastewater plant or utility pump station.**



## **General Alarm**

**Your grinder pump station will provide a visual flashing red light alarm anytime the level in the storage tank is higher than normal level. If you find your pump station with this condition stop water use immediately and call your utility provider as soon as possible. If water use is continued, a blockage can occur in the plumbing system. This doesn't necessary indicate a major problem, but service may be required.**

## **Power Failure**

**Your grinder pump cannot dispose of wastewater or provide an alarm signal without electrical power. If electrical power service is interrupted, keep water usage to a minimum.**

## **Maintenance**

**When properly installed and used as outlined above the grinder pump requires very little maintenance. It may however, require some cleaning of the level sensors at some point. Any local service provider that is familiar with grinder stations can do this basic cleaning. This cleaning is important as pump station operation will stop if the level sensors are allowed to build enough grease to obstruct proper movement.**

## **Warranty**

**Your grinder pump is furnished with a factory warranty against defects in material or workmanship for a period of one year.**

**If you have a claim under the provisions of the attached warranty, please contact your utility directly as they will route the service through the proper provider.**

# WARRANTY

**KEEN PUMP Co. Inc.**  
**1661 Cleveland Ave., Ashland, Ohio 44805**  
**(419) 207- 9400**

## **Limited Warranty**

During the time periods and subject to the conditions hereinafter set forth, Keen Pump will repair or replace to the original user or consumer, any portion of your new Keen product which proves defective due to defective materials or workmanship of Keen Pump. Contact your closest authorized Keen Pump representative or distributor for warranty service. At all times, Keen Pump shall have and possess the sole right and option to determine whether to repair or replace defective equipment, parts or components. Damage caused by acts of GOD or conditions beyond the control of Keen Pump is not covered by this warranty.

**WARRANTY PERIOD:**

12 months from date of installation / 18 months from date of manufacture, which-ever occurs first.

Start-up reports may be required to support warranty claims. Warranty effective only if Keen Pump supplied or authorized control panels are used. Single phase pumps must utilize Keen Pump supplied start components.

**THIS WARRANTY WILL NOT APPLY:**

- (1) To defects or malfunctions resulting from failure to properly install, operate or maintain the product in accordance with printed instructions provided.
- (2) To failures resulting from abuse, accident or negligence.
- (3) To normal maintenance services and the parts used in conjunction with such service.
- (4) To products which are not installed in accordance with applicable local codes, ordinances and good trade practices.
- (5) The product is used for purposes other than for what it was designed and manufactured.
- (6) If 3 phase motors are installed on a single phase power supply using a phase converter or if 3 phase power is supplied by only two transformers, making an open Delta system.

**WARRANTY EXCLUSIONS:**

Keen Pump specifically disclaims the implied warranties of merchantability and fitness for a particular purpose after the termination of the warranty period set forth herein. No warranties or representations at any time made by any representatives of Keen Pump shall vary or expand the provision hereof.

**LIABILITY LIMITATION:**

In no event shall Keen Pump be liable or responsible for consequential, incidental or special damages resulting from or related in any manner to any Keen Pump product or parts thereof. Personal injury and/or property damage may result from improper installation. Keen Pump disclaims all liability, including liability under this warranty, for improper installation. Keen Pump recommends following the instructions in the installation manual. When in doubt, consult a professional. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

**LABOR, ETC, COSTS:**

Keen Pump shall in no event be responsible or liable for the cost of field labor or other charges incurred by any customer in removing and/or reaffixing any Keen Pump product, part or component thereof.

**RETURNED OR REPLACED COMPONENTS:**

Any item to be replaced under this Warranty must be returned to Keen Pump, or such other place as Keen Pump may designate, freight prepaid.

This warranty gives you specific legal rights and other rights which may vary from state to state.

In the absence of suitable proof of this purchase date, the effective date of this warranty will be based upon the date of manufacture. Example: 0105 = Month-Year = January, 2005