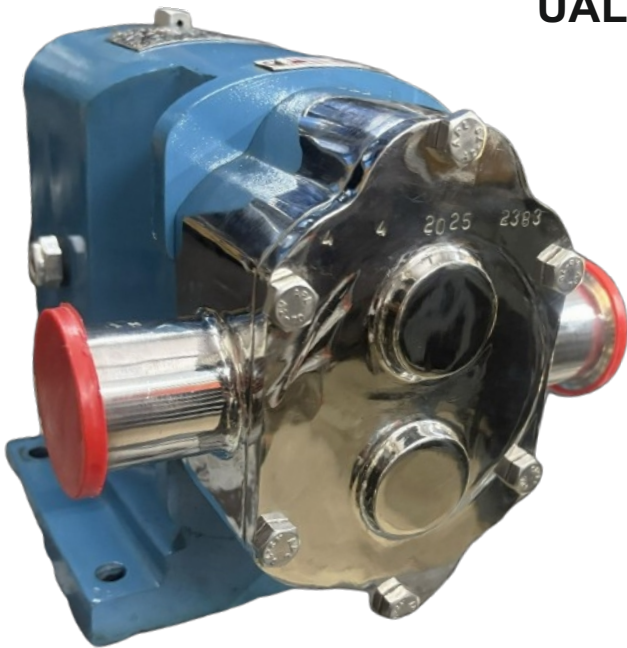


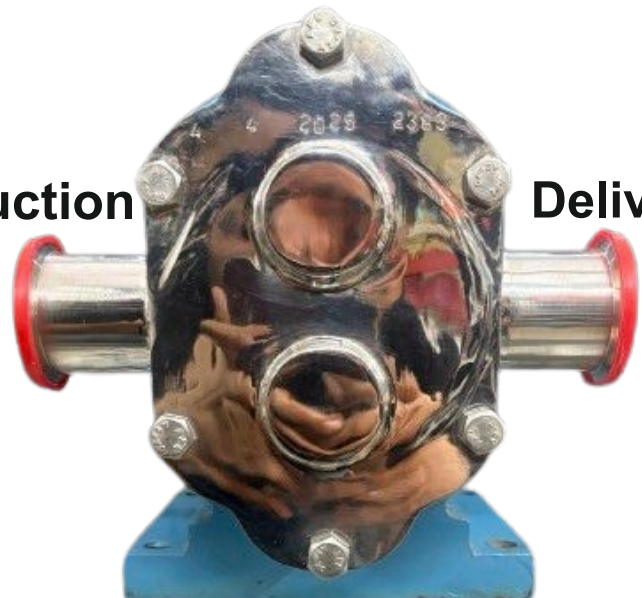
INSTRUCTION MANUAL

STAINLESS STEEL LOBE PUMP (SANITARY PUMPS)

UAL - SERIES



Suction



Delivery

UNIQUE PUMP SYSTEMS

PREFACE

We express our pleasure in welcoming you as a new addition to our customers family. The pumps you have just now acquired have been manufactured by UNIQUE PUMP SYSTEMS using the best technology and the standards.

This manual will provide you with all necessary technical data with detailed illustration to enable you to install the machine correctly to operate the machine properly for excellent results and to maintain it for longer period of trouble free performance.

A section of the manual is devoted specifically for trouble shooting and to correctly ordering the spare part, should it become necessary.

INTRODUCTION

The S. S. LOBE PUMP is intended for the use in Dairies, Pharmaceutical, Beverages & Other Allied Industries constructed for the smooth operation and are totally hygienic.

The S. S. LOBE PUMP is provided with a special soft seal suitable for handling Milk, Pharmaceutical & Food products.

All the parts which are coming in contact with liquid are made of high alloy stainless steel.

The S. S. LOBE PUMP of PP/LP type are non-priming pumps with Double Mechanical Shaft Seal.

INSTALLATION OF PUMP

ALWAYS LEVEL THE PUMP THROW BALL FEET.

ENSURE THAT SUCTION AND DISCHARGE PIPES ARE TENSIONS FREE AND DO NOT LEAN ON THE PUMP.



ASSEMBLY INSTRUCTION OF THE PUMP

After pump is taken out from packing case. It should be checked for any damage during transit. Remove S. S. Motor cover before lifting the pump while connecting the pipe lines to the pump ports, care should be taken by providing pipe supports suitable to avoid the weight of piping on the pump casing. Position the pump horizontally by adjusting the ball feet and ensure that the pump stands freely on all 4 legs. Tighten the clamping ring well before starting the pump.

Connect the motor to the supply as per specification given on the name plate.
Check that Pump rotates in as per direction arrow.

Care should be taken to keep opening in the motor cover free from air circulation. The pump should be run at rated through put. If this is not observed, it may lead to permanent overload of the motor and break down. The through put at the rated head mentioned in the specification column can be adjusted by a throttle valve installed in the discharge line.

The motor current should not exceed the rated current indicated on the name plate of the motor.

DO NOT RUN THE PUMP WITHOUT LIQUID

ALWAYS CLEAN THE PIPE LINE BEFORE COMMISSIONING OF THE PUMP OTHERWISE THE DIRT/WELD PARTICLES SHALL DAMAGE THE MECHANICAL SHAFT SEAL OF THE PUMP.

Water jet should not be directed at the terminal box of motor. Shaft extension, shaft seal should be handled very carefully as these parts are precise and delicate For dismantling the lobe extractor supplied with the pump.

TROUBLE SHOOTING

1. DECREASE IN THE DELIVERY RATE

REASON

- a) Suction line is leaky
- b) Shaft seal defective.
- c) Seal ring is worn out.
- d) Seal ring in suction or discharge ports are worn out.
- e) Air is leaked inside the pump and mixed liquid to be pumped.
- f) Direction or rotation of pump is not correct

REMEDY

- Seal the suction line.
- Replace the shaft seal.
- Replace the seal ring.
- Replace the seal ring.
- Prevent air to leak inside the pump.
- Change the direction of pump rotation. It should be as per direction arrow.

2. PUMP DOES NOT WORK

- a) Suction line is leaky
- b) Shaft seal defective.

- Open the valves.
- Clean the suction line.

HOW TO ORDER SPARES

While ordering spares, furnish the following information:

- A) MODEL NO. / Pump Serial No. / Pump Size.
- B) ITEM NAME AS PER THE ASSEMBLY DRAWING ENCLOSED.
- C) SEND YOUR DETAILED REQUIREMENT OF SPARE PARTS TO THE BELOW MENTIONED DETAILS

EMAIL: uniquepump@gmail.com / ss.uniquepump@gmail.com

OR FACTORY: G-316/315, Kailash Industrial Complex, Park Site, Vikhroli (W),
Mumbai — 400 079 | Mobile - 098206 25476 / 9819830689

| | |
|--|----------------------------|
| UNIQUE LOBE PUMP MODEL No.: SIZE : _____ HP: _____ RPM: _____ | UNIQUE PUMP SYSTEMS |
| DESIGN QUALIFICATION | |

Note: 1) LOBE PUMP IN LET SHOULD BE WITH IN 1 TO 1 ½ METER FROM VESEL OR IF MORE DISTANCE, LIQUID MUST REACH UPTO LOBE PUMP BODY THEN START PUMP.

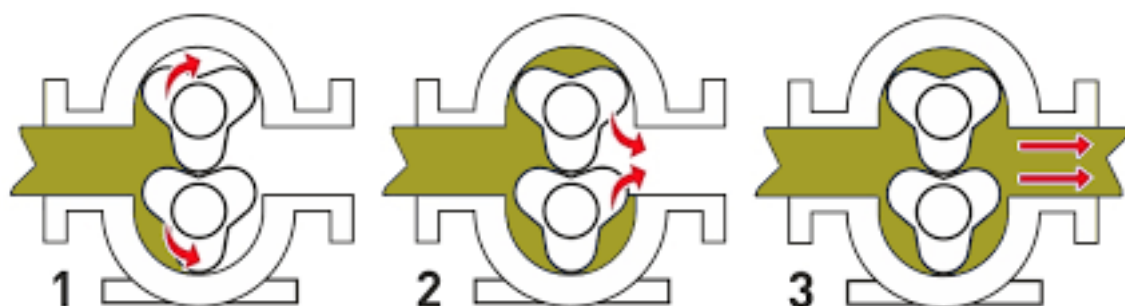
HOW LOBE PUMPS WORK :

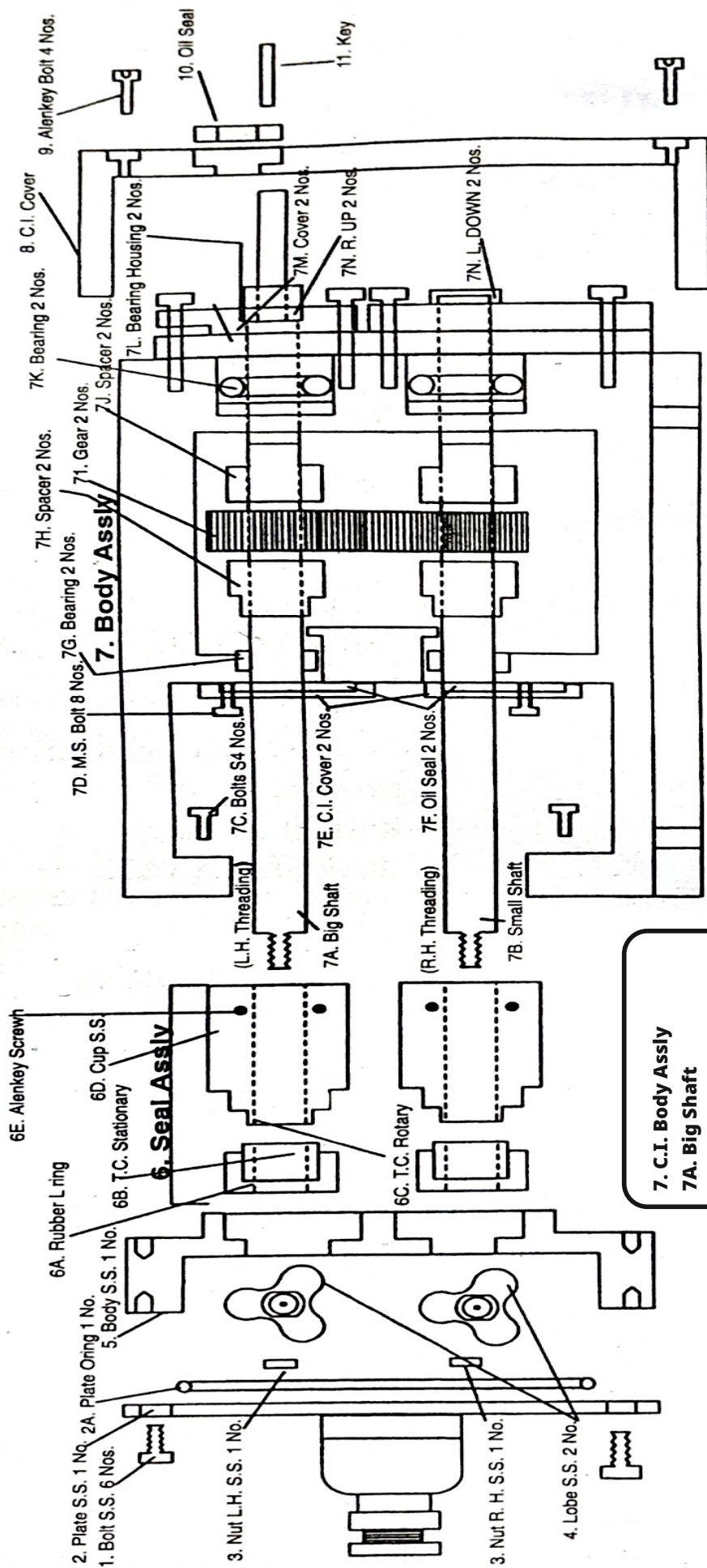
Lobe pumps are similar to external gear pumps in operation in that fluid flows around the interior of the casing. Unlike external gear pumps, however, the lobes do not make contact. Lobe contact is prevented by external timing gears located in the gearbox. Pump shaft support bearings are located in the gearbox, and since the bearings are out of the pumped liquid, pressure is limited by bearing location and shaft deflection.

1. As the lobes rotate, they create expanding volume on the inlet side of the pump. Liquid flows into the cavity and is trapped by the lobes as they rotate.
2. Liquid travels around the interior of the casing in the pockets between the lobes and the casing -- it does not pass between the lobes.
3. Finally, the meshing of the lobes forces liquid through the outlet port under pressure.

Lobe pumps are frequently used in food applications because they handle solids without damaging the product. Particle size pumped can be much larger in lobe pumps than in other PD types. Since the lobes do not make contact, and clearances are not as close as in other PD pumps, this design handles low viscosity liquids with diminished performance. Loading characteristics are not as good as other designs, and suction ability is low. High-viscosity liquids require reduced speeds to achieve satisfactory performance.

Reductions of 25% of rated speed and lower are common with high-viscosity liquids.





1. Bolt S. S. 6 Nos.
2. Plate S. S. 1 No.
- 2A. Plate Oring 1 No.
3. Nut L.H S.S. 1 No.
- Nut R.H. S.S. 1 No.
4. Lobe S.S. 2 Nos.
5. Body S. S. 1 No.

6. Seal Assy
- 6A. Rubber L Ring
- 6B.T.C. Stationary
- 6C. T.C. Rotary
- 6D.Cup S.S.
- 6E. Alenkey Screw

7. C.I. Body Assy
- 7A. Big Shaft
- 7B. Small Shaft
- 7C. Bolt S. S. 4 Nos.
- 7D. M.S. Bolt 8 Nos.
- 7E. C.I. Cover 2 Nos.
- 7F.Oil Seal 2 Nos.
- 7G. Bearing 2 Nos.
- 7H. Spacer 2 Nos.
- 7I. Gear 2 Nos.
- 7J. Spacer 2 Nos.
- 7K. Bearing 2 Nos.
- 7L.Bearing Housing 2 Nos.
- 7M. Cover 2 Nos.
- 7N. R. up 2 Nos.
- 7N. L. down 2 Nos.



UNIQUE

Pump System

Performance that shows in
Every Flow

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UNIQUE PUMP SYSTEMS

G-316/315, Kailash Industrial Complex, Park Site, Vikhroli (W), Mumbai — 400 079

• Telefax (022 025182235) • Mobile - 098206 25476 / 9819830689 • Website : www.uniquepump.com

• Email: uniquepump@gmail.com

COSTUMER :

COUNTRY:

CITY:

COUSTOMER P.O. No.

DATE:

S.S. PUMP :

MOTOR :

TYPE:

MOTOR MAKE:

SERIAL NO.:

SER/REF NO.:

LOBE DIA :

H.P.:

SEALING SLEEVE MATERIAL :

R.P.M.:

PACKING MATERIAL :

ACTUAL VOLTAGE:

MEASURING METHOD :

INSULATION CLASS:

CONNECTION:

| Sr. | CAPACITY (L.P.H) | TOTAL HEAD (METER) | MAX CURRECT (AMP) |
|-----|------------------|--------------------|-------------------|
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NOTE:

- 1) Pump tested on water at ambient temperature.
- 2) Tolerance according to iso 2548, Q: +/-8% H: +/-6% v
- 3) All liquid contact parts viz pumps hsg. back plate, impellar etc. are in S. S.316

Remark: NO LEAKAGE

Tested By

Test Witnessed By

Date: