



**SL** = Bare shaft pumps with flexible coupling    **TL** = Tractor Pumps

### WARNING "TL-SL"

On receipt, check that the product complies with the unit ordered. The pump is delivered without lubricating oil in the gearbox and without lubricating fluid in the mechanical seal lubricating bowl. Prior to use insure that the pump and bowl are filled to the correct level with the correct lubricating oils. NEVER run the unit without water and remember that the primed pump can only be run for 2-3 minutes with no discharge (delivery closed).

The chopper cone cutters are very sharp – do not place hands inside the cone, even when pump is not running.

### USE LIMITS "TL-SL"

When used on farms for wastewater disposal, the TL-SL pumps may be fitted with an inlet chopper cone (TC-TCK) if the liquid to be pumped contains solids or fibrous material in suspension. The use of pumps without the chopper cone is therefore different from that of pumps fitted with the device.

#### 1) Without Blades

- Liquids with regular sized solids in suspension such as sludge
- Muddy liquids in general
- Swine sewage, etc.

Solids should not exceed 8-12% and be small enough to pass through impeller.

#### 2) With Blades

- Liquids with solid fibers in suspension such as straw, leaves, hair, feathers, cattle sewage etc.

Solids should not exceed 8-12% and should be neither abrasive, nor with fibers or particles to cause waterway clogging.

### IMPORTANT

The chopper cone works correctly and efficiently if its use is restricted to easily grindable parts such as straw, dry grass and leaves but can easily be damaged by pieces of wood, rope, bones, wire, stones, waste textiles etc.. To avoid irreparable damage a special safety device in the form of a special screw has been fitted. This allows the cutter to stop rotating in cases of overloading. Should this occur, stop the pump and chopper assembly and reset ( see technical sheet).

### INSTALLATION "TL-SL"

For installation of chopper assembly ensure unit is standing level and/or securely anchored.

Ensure that the pump and motor (if used) are correctly aligned. Re-check after a short period of running and rectify if necessary. Failure to rectify any misalignment at an early stage will almost certainly result in premature mechanical failure. For "TL" the p.t.o. drive shaft should be connected with an alignment of less than 10 degrees.

### SUCTION PIPING "TL-SL"

When connecting the suction side of the pump, ensure that all pipework and fittings are a larger diameter than the pump inlet opening, ensure that the horizontal section of the suction pipe does not exceed a gradient of 2% and that all joints are perfectly airtight. To prevent damage and possible breakage of suction flanges, ensure that all units are properly anchored and supported. In order that friction loss of 3 feet is not exceeded, ensure that the length of the suction pipe is kept to a minimum, elbows should be long radius, and if a footvalve is used it should be of an adequate size and equipped with a strainer.

### DISCHARGE PIPING "TL-SL"

Ensure that all pipework and fittings are of large enough diameter to reduce pressure loss and that pipework is able to withstand the maximum operating pressure of the pump. A gate valve should be fitted to regulate the delivery flow. In order to prevent breakage of outlet flanges, ensure that all fittings are properly secured and supported.

### STARTING AND RUNNING "TL-SL"

Qualified personnel must operate this equipment. Ensure that bearing supports and gearboxes are filled to the correct level with oil of the correct type. Refer to the pump label for recommended oils. Oil is to be changed after the first 80 hours of operation and every 400/1000 hours thereafter and must be changed at least once a year. Ensure the reservoir for the mechanical seal lubrication is correctly filled with liquid (anti-freeze). If the pump unit is fitted with a footvalve, prime the unit by filling the pump and suction fitting with water, ensuring that no air pockets are in system.

### NOTE "TL-SL"

- When the pump remains inactive for long periods, especially during the winter, drain out the water to prevent freezing problems.
- Protect the internal parts with anti-rust oil and periodically rotate the pump shaft by hand.
- Rovatti pumps are subjected to strict tests during each stage of production and will function regularly for a long time to your full satisfaction if the instructions are followed carefully.
- The installation, use and operation of this equipment must be carried out, under the full responsibility of the installer, in compliance with current local laws and safety regulations.
- Incorrect installation and unsuitable use always causes failures, undue wear and dangerous breakages.
- The product guarantee covers any proven manufacture defects and is not recognized in case of incorrect use.
- For any further information not dealt with in these instructions or for any problems or special applications kindly contact us at 1-800-832-6224 or 1-770-459-4401.

