



# **OPERATING MANUAL**



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## 1. INTRODUCTION TO THE V GEAR PUMP

The V Gear Pump is a positive displacement pump which features new elements in terms of technology and design. Based on features we have implemented into the design of our pump, it is considered superior in its class. Some of these features include:

- End Cap Controller Assembly (ECC) enables the centering of Gears in Housing to eliminate friction between Gears and End Plates
- Multiple Viton Dynamic Seals per Shaft
- Adjustable Teflon Square Rope Seal on the Driver Shaft in case of onsite leakage
- Friction Shields in End Plates offer internal clearance adjustment for suction improvement

Our 6000 series pumps feature a 4.00" inlet/outlet.

Our 7250 series pumps feature a 4.50" inlet/outlet.

## 2. MAINTENANCE AND BREAK IN

Your V Gear Pump comes factory run and adjusted to ensure a simple and problem free lifetime

### 2.1 BREAKING IN YOUR NEW V GEAR PUMP

To ensure a long life for your V Gear Pump, the following break in procedure must be followed:

- A minimum 1/2 hour break-in period at 500 RPM or less
- After this break in period, the pump can be run at full operating speed of 750 RPM

### 2.2 GENERAL MAINTENANCE AND CARE

Your new V Gear Pump comes grease packed for its initial run. All internal surfaces are coated with a layer of protective grease. The V Gear Pump's greasing schedule is as follows:

- Grease Pump frequently with ample amounts of grease NOT WHILE PUMPING. Ensure that Grease Zerks are free of contaminants
- The pump should be flushed of all medium if it is to enter an extended period of being "out of service". This period would be 24 hours or longer
- **Do NOT grease while pump is under load**
- **Do NOT start up a frozen Pump**
- **Do NOT start up a pump which has been out of service for a long period of time without properly lubricating and then rotating Driver Shaft Assembly by hand**

### 3. TROUBLE SHOOTING

#### 3.1 LEAKAGE

- The most likely place for leakage to be spotted is at the Driver Shaft Assembly. Make sure that the leak is "medium being pumped" and not just heated grease lubricating the Teflon Square Rope Seal
- If the leak is pumped medium, the Emergency Nut may be tightened until leak stops
- This procedure is intended to keep the pump from leaking until the truck can be loaded/unloaded and taken to a certified service center. Tightening the emergency nut **IS NOT A PERMANENT FIX** to a leaking pump

#### 3.2 NOISE

- As the Pump wears, more backlash will appear on your Gear set. This larger backlash can cause a slapping noise while pumping. This slap is not abnormal in an older gear set

#### 3.3 HEAT

- The Driver Shaft Assembly may become warm during operation. This is normal
- You should be able to put your hand on the location of the Teflon Square Rope Seal, Bearings and End Caps for at least several seconds
- If you are unable to do this on the Driver Shaft Assembly, check that the Emergency Nut is backed off to decompress the Teflon Square Rope Seal
- If the Emergency Nut is backed off, and the Pump is still overheating – some grease pressure may need to be relieved
- If the End Caps are heating, it may be due to the ECC's being too tight
- Loosen the small Set Screws and rotate the Gap Controller Body clockwise until it stops. Do NOT force. Mark position. Rotate Gap Controller Body counter clockwise until it stops. Do NOT force. Mark position. Set Gap Controller Body position between the left and right markings to center Gears in Housing and create a clearance between Gear end and End Plates