



# JAECO HI-FLO MODEL 312 & 316 INSTALLATION AND OPERATION

Reference drawings 31055

**WARNING:** To prevent personal injury all moving parts must be protected. Protective guards for all exposed moving parts are available.

## Installation

Level pump so each side and all corners of the baseplate contact the foundation. Do not twist baseplate or misalignment may damage the pump. Tie down bolt holes are provided. Be sure to allow ample clearance for piping. Do **NOT** support the piping with the pump or connect piping in strain. Jaeco pumps are supplied with single ball check valves on suction and discharge of the pump. Provide a flooded suction. Suction piping should be one pipe size larger than suction valve thread. Install a suction line strainer with a wire mesh screen. A Relief valve may be installed in discharge line close to the pump. Set relief valve for 20% to 25% greater than average operating pressure. Make sure highest pipe plug on gear reducer is removed and the vent plug is installed prior to operation.

## Capacity Adjustment

Stop pump; loosen locknut (332) and turn adjusting screw (306B) until required capacity is indicated on the capacity scale. Retighten locknut (322) after adjustment and before starting pump.

## Packing

The factory has properly installed packing (346) and tested the pump. Gland nut (348) adjustment has been set and should not require further tightening, unless leakage is observed. If plunger (336) is scored/scratched, it should be replaced when installing new packing (see packing replacement below).

## Lubrication

**Gear Reducer** (See enclosed instructions).

### Crosshead/Connecting Rod Bearings/Packing

Lubricate each grease fitting once a week with a light hypoid grease until grease appears on outside of bearing area. Lubricate packing with one shot of grease per week.

## Pump Servicing – Part Replacement

### Packing

Remove grease relief assembly (335, 338, 339), loosen set screws (329) and remove liquid end assembly. Remove gland nut (348), packing set (346) and lantern ring (347) taking care not to scratch cylinder walls (340). Inspect plunger for scoring/scratches and replace if necessary (see below). Install, one at a time, the following packing rings: bottom adapter flat side down, V-rings, top adapter flat side up, lantern ring (must line up with grease fitting holes in cylinder), bottom adapter, V-ring and then top adapter. Loosely install gland nut. Reinstall liquid end assembly, tighten set screw (329) and finger tighten gland nut. Do NOT tighten more than one turn past finger tight. If a rise in stuffing box temperature is observed, loosen and re-adjust gland nut. Packing adjusted too tightly will create excessive friction and heat which will adversely affect the life of the packing, plunger and connecting rod bearings.



# JAECO HI-FLO MODEL 312 & 316 INSTALLATION AND OPERATION

Reference drawings 31055

## **Plunger**

Remove grease relief assembly (335, 338, 339), loosen set screws (329) and remove liquid end assembly. Remove lock nut (322) and rotate connecting rod assembly (331) off tee bolt (320). Slide plunger/connecting rod assembly out of pump housing end. Remove clevis pin (332) from crosshead and remove retaining screw (337) with an allen wrench. Install new plunger and reinstall liquid end assembly.

## **Connecting Rod Assembly**

If connecting rod bearings are worn more than 0.010, replace connecting rod assembly (331).