

# INSTALLATION INSTRUCTIONS

## Operation

Check oil level prior to starting and ensure trouble-free water supply.

**Important!** The crankcase must be filled with synthetic motor oil of class SAE 0W 40 when pumping CO<sub>2</sub> under 0° C.

Initial oil change after 50 operating hours and then every 500 hours, after 1 year if used less. Caution when operating in damp places or with high temperature fluctuations. Oil must be changed immediately should condensate (frothy oil) occur in the gear box.

### **NPSH values must be observed.**

Maximum input pressure is 508 PSI (35 bar). The maximum suction head is 14.5 PSI (1 bar). Make sure that suction pulsation is sufficiently dampened - water column resonance must be avoided.

**Important!** If the pump is not used for a long period of time, it is possible the seals (23/23B) could become hard or brittle thus causing the pump to leak when put into operation. If this is the case, we recommend these seals be replaced every 4 years.

## Safety Rules

A safety valve is to be installed in accordance with the guidelines for liquid spraying units so that the admissible operating pressure cannot be exceeded by more than 10%. Pump operation without a safety valve as well as any excess in temperature or speed limits automatically voids the warranty.

When the pump is in operation, the drive shaft end and the coupling must be enclosed by a protective cover or a coupling bell.

Pressure in the discharge line and pump must be at zero before any maintenance to the pump takes place. Shut off suction line. Disconnect fuses to ensure that the driving motor does not get switched on accidentally. Make sure that all parts on the pressure side of the unit are vented before starting the pump. In order to prevent air, or an air-water mixture being absorbed and to prevent cavitation occurring, the pump NPSHR (=suction head) and water temperature must be respected.

**Cavitation and/or compression of gases lead to uncontrollable pressure-kicks which can ruin pump and unit parts and also be dangerous to the operator or anyone standing nearby.**

Eco<sub>2</sub>Blast Plunger Pumps are suitable for pumping clean water and other non-aggressive or non-abrasive media with a specific weight similar to water.

**Before pumping other liquids • especially Inflammable, explosive and toxic media - the pump manufacturer must be consulted with regard to the resistance of the pump material. It is the responsibility of the equipment manufacture and/or operator to ensure that all pertinent safety regulations are adhered to.**