

# Specification for Elevator Submersible Power Unit

## 1.01 Configuration

All components will be mounted inside the tank.

## 1.02 Pumping unit tank

The storage tank shall be constructed of steel and shall be provided with a removable cover containing a removable oil dip stick. The pump and submersible motor shall be mounted on reinforced isolation. The control valve shall be mounted in the discharge line above the oil level and easily accessible from the top of the tank.

## 1.03 Pumping unit motor

The motor shall be of the submersible alternating current, squirrel cage induction type and shall be of a design adapted to electro-hydraulic requirements.

## 1.04 Pumping unit pump

The pump shall be a positive displacement screw type to give smooth operation and shall be designed and manufactured for elevator service.

## 1.05 Pumping unit control valve

The control valve shall be manifold with up, down and check valve sections. A control section including solenoid valves will direct the main valve and control up and down starting, transition from full speed to leveling speed, up and down stops, pressure relief and manual lowering. Down speed and up and down leveling shall be controlled at the main valve sections. All of these functions shall be fully adjustable for maximum smoothness and to meet contract conditions. The manual lowering feature will permit lowering the elevator at slow speed in the event of power failure or for adjusting purposes.

## 1.06 Optional silencer

An air-bladder silencer shall be provided at the control valve discharge.

## 1.07 Optional oil cooler

1. Oil cooler with heat rejection of 18,000 BTU/hr, based on ambient temperature 40 deg F cooler than oil out. Cooler may be mounted adjacent on pumping unit storage tank or remote up to 110 ft. horizontally and 55 ft. vertically.

2. To include:

- a. Single fan radiator
- b. Adjustable thermostat control
- c. Isolated radiator mounts

- d. 10 micron easily changeable filter
- e. Restriction sight glass with bypass in case of plugged filter
- f. Single plug for 115 VAC 20 amp separate circuit
- g. Fittings, hardware, and instructions