

#285240- V1

SPEC FOR POSITIVE DISPLACEMENT PUMP**1. GENERAL**

This specification covers the design, fabrication, and supply for a horizontal Foam concentrate transfer pump for concentration delivery system in Ashkelon. The pump shall be driven by an electric motor, supplied and assembled by the vendor, all according to the applicable standards and specifications. The pump shall be designed for intermittent operation.

2. SCOPE OF SUPPLY

- 2.1. The pump unit including pump controller shall meet the requirements of NFPA 20 and shall be UL/FM approved.
- 2.2. Special tools (if required) are necessary for the installation, maintenance, and overhaul of each complete unit, including any required maintenance lifting equipment.
- 2.3. Spare parts for commissioning & start-up.
- 2.4. Pump and motor driver will be mounted on a common base-plate.
- 2.5. The base-plate shall be fitted base by at least 6 grout holes. Those holes shall be located so that the base can be grouted in place without the need to removal of the pump or the drive.
- 2.6. The base-plate shall include drain rims and port effect complete drainage of the pump leaks.
- 2.7. Fixing bolts and dowels for the pump and drive shall supplied by the pump manufacturer.

3. PUMP INSTALLATION

- 3.1. Location



3.1.1 The pump shall be installed indoors pump house at distance 2 m from the concentrate tank. The suction line connected to the concentrate tank is 6" and the discharge line is 4".

3.2. Site condition

Temperature: min winter 2°C
 Max summer 45°C

Altitude: +20 m

Maximum relative humidity: 85%

4. PUMP REQUIREMENTS

4.1 Performance

4.1.1 Pump shall be rated at 180 GPM at a discharge pressure of 15 bar.

4.1.2 The pump shall be fitted ANSI flanges.

4.1.3 The pump shall be fitted with class 150.

4.2 Pump materials

To be offered by the manufacturer.

4.3 Accessories and fittings

- 1/2" automatic air release valve.
- Pressure relief valve upon the pump case for minimum flow rate.
- Flow metering device.

4.4 Paint

All parts that required painting shall be painted.

The painting shall be min 200 micron of epoxy.

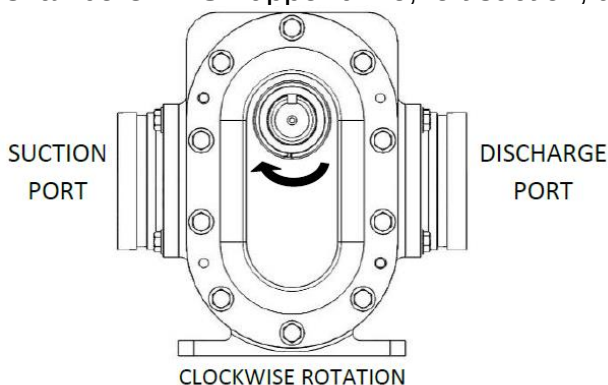
Color will decide before shipment.

5. ELECTRIC MOTOR

See attached files.

6. PUMP ROTATION

the pump rotation shall be UD-LS= upper drive, left suction, as described:



to be noticed: the pump rotation viewed as if sitting on the electric motor looking at the input shaft of the pump.

7. TEST

- 6.1 The pump shall be performance tested at the vendors works to provide detailed performance data, and the pump characteristic curve drawn based in not less than 5 pints (inc. NPSHr), including shut-off and 150% rated flow.
- 6.2 The supplier signed by the purchaser's representative will provide a complete test report.

8. GENERAL TERMS

In order to evaluate the tender's quotations, the following information must be given:

- Dimension drawings.
- Accessories drawings.
- Description of all components of scope of supply.
- Data sheet for all the goods.
- List of recommended spare parts for two (2) years of operation. The spare part list shall be quoted with itemized prices.
- Assembly, installation, operation and maintenance instructions.
- Fabrication schedule.
- Installation description.
- Price listing of the offer.
- The price should include the packing and preparation for seaworthy.
- Units: all drawings and dimension prints shall be in accordance with SI system.



- Language: all proposals, drawings, specifications, material/quality control sheet, reports, test certificates and other documents shall be in English or Hebrew.

