

PART 1 - GENERAL**1.1. SCOPE OF WORK**

A. Under this specification, the contractor shall furnish a floating slide rail decant pump FHP2-15TK with anti-sludge sensor and mechanical intake ball check with discharge per the following specifications that direct attention to certain required features of the design. The contractor shall furnish and install the decanters complete in all details and operable under all normal conditions.

The Floating Decanter supplier shall be responsible for providing the entire unit, consisting of:

- Submersible pump & cable with Intake Ball Check
- Anti-sludge sensor & cable.
- Polystyrene filled FRP Float with lifting chain & Shackles (10ft).
- 304 Stainless Steel Slide rail assembly
- Flexible non-collapsible discharge hose with 3" hose connection barb and clamps
- Flexible non-collapsible sensor cleaning hose and clamp.

B. Each Decanter shall be designed for a maximum flow discharge rate of 198 GPM flow at 10ft TDH.

C. The Floating Decanter shall be the TSURUMI FHP2-15TK Floating Decanter manufactured by TSURUMI AMERICA INC., Glendale Heights IL, USA. Tel: 888-878-7864.

PART 2 – PRODUCTS**2.1 SYSTEM COMPONENTS**

A. DECANTER FLOAT ASSEMBLY: Float sustains a submersible pump by buoyancy at an appropriate position, Made of fiber reinforced plastic (FRP), filled with polystyrene foam.

B. Pump Construction & System Components

1. Submersible pump with multi-vane, semi-open impeller.
2. Casing, Channel type Impeller and Motor frame: ASTM 48 Class 35 Cast Iron. And all pump externals coated with fused polymer coating.
3. Shaft and Fasteners: stainless steel.
4. Double inside mechanical seals with silicon carbide faces, running in an oil filled chamber with lip seal.
5. Highly efficient, continuous duty, Inverter rated, air filled, copper wound motor with Class F Insulation.
6. Built in thermal & amperage sensing to prevent motor failure (overload or run-dry).
7. Double shielded, permanently lubricated, high temperature C3 ball bearings rated for a B-10 life of 60,000 hours.
8. Power Cable: 32-feet. With built in strain relief, one piece – three way mechanical compression seal and fatigue reducing cable step. The cable entrance assembly shall contain a anti-wicking block to eliminate water incursion into motor due to capillary wicking should the cable be damaged & compromised.
9. Anti-Sludge Sensor (Beam Type) with amplifier & cable 20-feet. Sensor is attached to FHP unit sensing the settled water layer. The beam emitter transmits via the beam fiber. This beam passes through the sludge fluid and reaches the beam receiver. Sensitivity of the amplifier shall be adjustable. Sensor (emitter & receiver) shall be washed at fixed intervals. This feed water hose for pressurized wash shall be 15mm non-collapsible type hose (not provided).

C. DISCHARGE SYSTEM: Consisting of 304ss intake check housing. Flexible Hose non-collapsible type (not included) with hose connection barb and clamps, used to evacuate the clean water.

D. Guide Rail: The 304S/S guide rail assembly (components & fasteners) shall use as part of the system qty (2) 25A-SUS304TP-Sch10S type guide pipes (not included)- must cut them locally to suitable length.

PART 3 - EXECUTION

3.1 INSTALLATION

A. All equipment specified herein and shown on the plans shall be installed by the Contractor in accordance with the instructions of the manufacturer, or as directed by the Engineer.

B. After completion of installation, the equipment shall be inspected and certified by a representative of the manufacturer as being in compliance with the manufacturer's recommendations and requirements. After such inspection, the equipment shall be given any required adjustment and, when complete, the various items of equipment shall be placed into operation under the supervision of the manufacturer's representative. All equipment shall be placed into operation in accordance with a schedule properly coordinated with the Engineer.

C. Equipment manufacturer shall provide a written report covering his findings and installation approval. The report shall include description of all inspections and any deficiencies noted and shall be mailed directly to the Engineer.

3.2 WARRANTY

The manufacturer shall warrant that the Decanter(s) will be free from defect in material and workmanship under normal use & service for a period of 24 months from date of shipment. Copy of Manufacturer's owner's manual shall be provided to the owner.

-END OF SECTION -