

GENERAL

Furnish Myers MPE series or premium solids handling submersible sewage pump(s) as specified herein.

Pump shall be equipped with stainless steel nameplate, stating the unit is accepted for use in Standard Location or NEC class 1, division 1, groups C, D hazardous locations with third party, Factory Mutual, approval.

The pump shall be non-overloading throughout the entire range of operation without employing service factor. The pump shall reserve a minimum service factor of 1.30. The performance curve submitted for approval shall state in addition to head and capacity performance, the pump efficiency, solid handling capacity, and reflect motor service factor.

Job Name: _____

Pump: MYERS MPE _____

BEARINGS

The upper bearing shall be a heavy-duty radial single row ball bearing while the lower bearing shall be a double row heavy-duty angular contact ball bearing of the thrust limiting design. Minimum of 50,000 hours of B10 bearing life for radial & thrust bearings while operating across entire hydraulic operating range of the pump. Any Pumps having rated B10 life only at the BEP shall not be considered equal or approved. Bearing shall be lubricated for life from the factory and will be accomplished through the non-toxic, low viscous, dielectric oil in the frame. Pump designs requiring periodic scheduled bearing service shall not be considered equal or approved. Single row or sleeve lower bearings shall not be acceptable.

SHAFT

The pump shaft shall be an integral, one piece unit adequately designed to meet the maximum torque required at any normal start up condition or operating point in the system. Shafts of carbon steel, chrome plated or spin welded shafts shall not be considered adequate or equal. Material of shaft shall be 416 stainless steel conforming to ASTM 8582.

FLUID END

The impeller shall be ASTM Class 30 Cast Iron or ASTM Class 65 Ductile Iron with optional SST available. The impeller mounting is to be a slip fit onto a tapered shaft and a drive key. The impeller shall be attached to the shaft by a SST fastener and impeller washer. The impeller is to be balanced to ISO1940-1 Grade G6.3 standard. Impeller designs that rely on fins or pins protruding into the suction path to assist in the handling of fibrous material shall not be considered equal. Impellers shall be of the radial single or two vane type or a vortex impeller having the ability to pass a wide range of solids. Any impeller design requiring mechanical bypass mechanism located in the volute in order to handle solids shall not be considered equal or acceptable.

The volute shall be ASTM Class 30. It will consist of a centerline discharge one piece design. The passages are to be large enough to pass the same solid size as the impeller. The discharge and inlet flanges shall be ANSI Class 125 and be integrated into the volute case. The wear C00880.120f0.015 Tc 0 Tw 0 -1.hmfep

SUBMERSIBLE SOLIDS HANDLING PUMPS - MPE SERIES SPECIFICATION SHEET

SERVICEABILITY

The motor housing, seal housing with seal plate and impeller still attached to the shaft shall be capable of being lifted out of the volute case from the top as one assembly. For ease of repair, the motor stator shall be securely held in place by an end ring so it can be easily removed without the use of heat or a press.

TESTING

All pumps shall be built in a dedicated domestic factory with sixty years of continuous operation. All pumps shall be visually inspected to confirm they are built in accordance with the specification as to HP, voltage, phase and hertz. The motor housing will be filled with dielectric oil and shall be allowed to run dry to check for proper rotation. Discharge piping shall be attached, the pump submerged in water, and amp readings shall be taken on each phase to verify balanced stator windings. All pumps shall receive standard Hydraulic Institute (HI) non-witnessed testing at a third-party agency-certified test lab.

PAINT

The pump shall be painted with waterborne hybrid acrylic/alkyd paint. This custom engineered, quick dry, low VOC paint shall provide superior levels of corrosion and chemical protection. Optional coatings of chlorinated rubber, coal tar epoxy and polyamide epoxy are available through the factory.