

**Frame Mounted End Suction, Threaded Connections**

**General**

Furnish and install as shown on the plans, \_\_\_\_\_ (qty) Weinman Centrifugal Frame Mounted Pump Series 200 size (\_\_\_\_x\_\_\_\_x\_\_\_\_) model \_\_\_\_\_ centrifugal pump(s). Each shall be capable of pumping \_\_\_\_\_ GPM when operating against a total pumping head of \_\_\_\_\_ feet (suction lift)(suction pressure) at the temperature, specific gravity and viscosity indicated. The pump shall operate at \_\_\_\_\_ RPM and shall have \_\_\_\_\_ percent minimum efficiency at the design point. The pump(s) shall be rated for continuous service and shall be bronze fitted construction suitable for pumping a liquid with the following characteristics:

- Liquid handled \_\_\_\_\_
- Specific Gravity \_\_\_\_\_
- Temperature \_\_\_\_\_
- Viscosity of liquid at pumping temperature \_\_\_\_\_
- NPSHA \_\_\_\_\_

Note: Add any additional facts concerning the nature of the liquid or installation which might affect the pump construction, application or operation.

**Construction**

The adapter to the casing is to be cast iron construction capable of mounting a Type (6)(21) mechanical seal Buna carbon/ceramic with stainless steel metal parts, Buna rated at (180)(230) degrees F. Casing shall be of cast iron ASTM-A48, Class 30 cast iron with tensile strength of 30,000 psi. Pump units shall be capable of standing hydrostatic test pressures of 1.5 times maximum working pressure. All assembly points shall be of machine register fit to assure proper alignment. The threaded casing discharge nozzles shall conform to ANSI B16.1 and NPT specifications with minimum 125 psi ratings at 230 degrees F.

The casing shall have tapped and plugged drain connections and air vent. The case shall be of the suction cover design for ease of maintenance and service with out disturbing discharge piping, bearing frame or motor mounting. The impeller shall be of the enclosed design constructed of ASTM B584 Bronze (with a renewable impeller wear ring).

The bearing frame shall have a 4140 steel shaft protected by a (bronze sleeve)(stainless steel sleeve) sized for a maximum deflection of .002 inch at the seal faces when

the pump is operating at maximum load conditions. The bearings shall be grease lubricated having a 3 year minimum life (AFBMA B10) under the maximum load conditions. The shaft and bearings shall be mounted in a cast iron ASTM-A48 Class 30 frame. The seal shall be a standard Type (6)(21) mechanical seal.

The pump, frame and motor shall be mounted on a common fabricated bent steel base plate with (drip pan) and mounting flanges the length of both sides, grouting holes and platform motor riser with no more than 1" high motor blocks. The pump shall be coupled to the driver with a flexible (spacer)(non-spacer) type coupling with an (OSHA type) (standard) coupling guard.

**Testing**

The following (witnessed)(non-witnessed) tests are to be performed in accordance to Hydraulic Institute test standards.

- \_\_\_\_\_ Pump performance (A)(B) tolerance level
- \_\_\_\_\_ Routine Motor test
- \_\_\_\_\_ Hydrostatic - Complete Pump

**Motor**

The motor shall be not less than \_\_\_\_\_ hp \_\_\_\_\_ RPM, NEMA design B squirrel cage type, (drip proof)(TEFC) EISA efficiency motor with (1.15)(1.0) service factor and suitable for operation on (115)(230) volt, 1 phase, (50) (60) Hertz power supply OR (200)(230)(460)(575) volt, 3 phase, 60 hertz power supply. Motor size shall be sufficient to prevent overloading at operating conditions or at the lowest listed head conditions whichever point requires greater horsepower. Following installation, grouting and connection of all piping, pump and motor must be checked for alignment in accordance with standards of the Hydraulic Institute.