Close Coupled End Suction, Flanged Connection

General
Furnish and install as shown on the plans, _____ (qty) Weinman End Suction Series 310 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 one piece cast iron construction capable of mounting a type 1 mechanical seal with carbon/(ni-resist)(ceramic) faces, stainless steel metal parts and elastomers, 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 unit 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 flanged casing discharge nozzles shall conform to ANSI B16.1 specifications with minimum 125 psi ratings at 230 degrees F. A renewable wear ring shall be fitted to the case at the suction fitting.

The casing shall have tapped and plugged drain connections, air vent and ¼" npt gauge tappings on the suction and discharge nozzles. 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 motor shaft shall be steel and protected with a (bronze)(stainless steel) sleeve heat fit to the shaft. A neoprene deflector shall be mounted on the shaft to prevent liquid from entering the motor.

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)(premium) 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.