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**SPECIFICATIONS** SP-B107

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**Series 60 In-Line Mounted**

**Centrifugal Pump**

**A. Manufacturer**

Contractor shall furnish and install new, long coupled in-line pumps for chilled water and hot water heating systems as indicated on the drawings. Pumps shall be Series 60 as manufactured by Bell & Gossett under base bid. Alternatives may be submitted as deduct alternates. Pumps shall meet types, sizes, capacities and characteristics as scheduled on the Equipment Schedule drawings.

**B. Long Coupled In-line Pump**

1. The pumps shall be horizontal, permanently lubricated, specifically designed and guaranteed for quiet operation. Suitable for 225˚F operation at 175 psig working pressure. The pump shall be single stage, vertical split-case design, in cast iron bronze fitted (or all bronze) construction. The pump internals shall be capable of being serviced without disturbing piping connections.

2. The pump shall be composed of three separable components: a motor, bearing assembly and pump end (wet end). The motor shaft shall be connected to the pump shaft via a replaceable flexible coupler.

3. The pumps shall have a solid SAE 1144 steel shaft supported by two sealed ball bearings. A non-ferrous shaft sleeve shall be employed to completely cover the wetted area under the seal.

4. Pump shall be equipped with an internally flushed mechanical seal assembly. Seal assembly shall have a brass housing, Buna bellows and seat gasket, stainless steel spring, and be of a carbon ceramic design with the carbon face rotating against a stationary ceramic face.

5. Bearing assembly shaft shall connect to a cast bronze impeller. Impeller shall be both hydraulically and dynamically balanced, keyed to the shaft and secured by a locking cap screw or nut.

6. A flexible-type coupling shall be employed between the pump and motor.

7. Pump should be designed to allow for true back pull-out access to the pump’s working components for ease of maintenance.

8. Pump volute shall be of cast iron design for heating systems or cast bronze for domestic water systems. The connection style on cast iron and bronze pumps shall be flanged. Volute shall include gauge ports at nozzles, and vent and drain ports.

9. To ensure alignment, the motor shall be mounted to the bearing assembly via a bolted motor bracket assembly, and a rubber motor mount will be used to assist in aligning the motor shaft with the pump shaft.

10. Motors shall meet scheduled horsepower, speed, voltage and enclosure design. Motors through 1 HP shall be resilient mounted, motors over 1.5 HP shall be rigid mounted. Motors shall have permanently lubricated ball bearings
and must be completely maintenance free. Motors shall be non-overloading at any point on the pump curve and shall meet NEMA specifications.

11. Pump shall be of a maintainable design and for ease of maintenance should use machine fit parts, not press fit components.

12. Pump manufacturer shall be ISO-9001 certified. Pump shall be of U.S. manufacturer.

13. Each pump shall be factory tested and name-plated before shipment.

14. Pump shall have a three (3) year warranty from date of installation.\*

**C. Accessories**

Where noted on schedule, an EPT high pH (7-11) seal should be used in lieu of the Buna standard pH (7-9) seal. EPT seals are applicable on systems with up to 250˚F maximum water temperatures.

\* Warranty coverage is for a period of 36 months from date of manufacture. Consult your local Bell & Gossett representative for warranty details.



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