

BJM PUMPS, LLC

PUMP SPECIFICATION

PERFECTA PUMPS

PUMP REQUIREMENTS

Supply (qty) _____, _____ inch discharge electric submersible chemical resistant pump(s). The pump shall be driven by a close coupled 0.4 HP, submersible electric motor with a nominal rating 115 volts, 1 phase, 60 Hz, 3450 RPM.

The pump shall be capable of delivering _____ US GPM flow at _____ FT TDH. The pump shutoff head shall be at least 27 FT TDH. The pump shall be capable of a maximum submergence depth of 33 ft.

DESIGN AND CONSTRUCTION

The pump suction cover, motor housing and upper volute shall be designed and constructed of glass filled PPO. The pump base/strainer shall be constructed of PPO. The pump top cover shall be constructed of nylon. The pump handle shall be constructed of PP. The pump shall be equipped with (choose one)

304SS Hardware with Buna-N and FKM Elastomers – GF Model

316SS Hardware with Buna-N and FKM Elastomers – IGF Model

Titanium Hardware with all FKM Elastomers – TIGF Model

Titanium Hardware with all EPDM Elastomers – TIGF w/ EPDM

Impeller

The pump shall be supplied with a multivane impeller constructed of glass filled PPO.

The impeller shall be affixed to the motor rotor shaft by placing it on the shaft, locked in place by a drive flat molded into both the impeller hub and pump shaft. The impeller shall then be tightened to the shaft with a screw and lock washer screwed into threads tapped into the end of the shaft.

Strainer

The pump shall be fitted with a replaceable strainer and suction cover. The suction cover be constructed of glass filled PPO and shall be press fit into place. The strainer shall be constructed of PPO and shall be screwed directly to the pump housing. The strainer shall pass solids up to ¼”.

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Pump Housing/Motor Housing

The upper pump housing and motor housing should be molded as 1 piece constructed of glass filled PPO.

Discharge Flange

The pump shall be supplied with a 1.25" NPT-F discharge flange screwed directly into the pump/motor housing. The pump shall also be supplied with a 1.5" tapered hose discharge flange as an alternate. The discharge flanges shall be constructed of glass filled PPO.

Seals

The pump shall be supplied with two lip seals to protect the motor from the pumped liquid. The seals shall be constructed of (choose one)

Buna-N Lower Seal/FKM Upper Seal – GF Model

FKM Lower Seal/FKM Upper Seal – IGF Model, TIGF* Model

EPDM Lower Seal/EPDM Upper Seal – TIGF* w/ EPDM

*TIGF lip seals to utilize an o-ring of same material as lip seal in place of SS garter spring.

Motor

The pump motor shall be an oil filled Permanent Split Capacitor motor designed specifically for submersible pump usage and continuous duty of pumped liquid up to 135 degrees F.

The stator windings and leads for Perfecta motors shall be insulated with moisture resistant Class F insulation rated for 311 degrees F.

The motor horsepower shall be non-overloading over the full range of the performance curve, from shut-off to full flow. The combined service factor (frequency, voltage and liquid specific gravity) of the motor shall be 1.10.

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The motor shall be protected from failure from overheating and from low voltage or high amperage by a thermal overload switch built into the stator windings.

The pump/motor housing shall be constructed of glass filled PPO. The motor top cover shall be constructed of nylon.

Rotor / Pump Shaft

The rotor (pump) shaft shall be constructed of (choose one)

304SS – GF Model

316SS – IGF Model

Titanium – TIGF Model

Rotor shall be made of steel with cast aluminum insulation and shall be dynamically balanced.

Bearings

The upper bearing shall be a single row deep groove ball bearing.

The lower bearing shall be a single row deep groove ball bearing.

The upper and lower bearings shall be lubricated by NSF Approved ISO 32 mineral oil. Minimum bearing L10 life shall be 30,000 hours.

Power Cable

The pump shall be supplied with a 22 foot power cable (15' on TIGF with alternate lengths optional) connected to the motor lead wires in a water and oil resistant sealed cable entry. The power cable shall be sized in accordance with NEC standards. The outer jacket of the power cable shall be oil resistant and capable of submergence in water to 104 degrees F.

Power cables shall be type SJOW. For GF and IGF models, the power cable shall have a Neoprene outer jacket. For TIGF model, the outer jacket shall be EPDM.

The power cable entry shall be sealed by a cable grommet between the cable and the power cable entry.

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Float Switch (not available on TIGF)

The pump shall be (*choose one*) supplied/not supplied with an integral float switch. The float switch body shall be constructed of PE. The float switch cord shall be type SJOW with a Neoprene outer jacket.

TESTING

At the end of the assembly process, each pump is high potential tested to UL/CSA standards and then dry run tested. BJM Pumps also performs qualification audits on each production lot to confirm product quality.

OVERALL

The pump shall be a BJM Perfecta Pump® model _____

The pump shall be 10.12 inches in height; 7.5* inches long; 6.5 inches wide and shall weigh 13.5 lbs.

*Length becomes 11” for models with float switch

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