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Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

ZOELLER® ENGINEERED PRODUCTS

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ZM3231
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Submersible Wastewater Pump Association SWPA MEMBER

FAMILY OWNED AMERICAN PROUD

6922 GUIDE SPECIFICATION

RWD 7020-7021 w/ Flex-Hose Disconnect System
SIMPLEX BASIN PACKAGE

1.01 GENERAL

Contractor shall furnish and install a packaged simplex pump station utilizing a submersible progressing cavity grinder as manufactured by Zoeller Engineered Products Co. (800-928-7867). The station shall include a pump with internally wired level control switches, packaged 30" diameter HDPE basin assembly and control panel. The basin assembly is prepackaged with discharge piping, hose and valves. The control panel and basin inlet fitting will be field installed. After the basin has been installed, the pump will be lowered into the basin with a red polypropylene lifting rope, engage into a quick-disconnect fitting, and sit on the basin floor. The basin's inlet and discharge piping, electrical disconnect, and back-fill materials will be supplied by the installer.

2.01 OPERATING CONDITIONS

Each pump shall be able to deliver _____ GPM against a total dynamic head of _____ feet. The pump will handle materials found in domestic sewage that are deemed acceptable by the local municipal authority. The electrical power source is 230 Volts Single Phase.

3.01 BASIN ASSEMBLY

The rotomolded HDPE basin shall be 30" diameter by 72" deep, have an anti-floatation collar, lifting lugs and a blank fiberglass cover. The wet-well material shall be constructed to withstand or exceed two times the assumed loading on any depth of the basin's side wall. The package shall be manufactured by a firm who has a minimum of 15 years' experience in producing prepackaged basin assemblies for submersible pumps. The package shall allow for the unobstructed viewing of the basin contents, ease of service and identifying any foreign matter.

The system will be equipped with a Flex-Hose discharge system, enabling the pump to be removed with minimal effort using the braided polypropylene rope attached to the pump. A 304 SS nipple, connected to the pump housing and the SS check valve, functions as the float tree and adapts to the 1.25" reinforced flexible rubber hose. The hose assembly includes a SS anti-siphon valve and E-Z Pull disconnect adapter. The adapter, with an O-ring seal, seats into the quick disconnect assembly's taper fitted, injection molded receiver coupling. The 1.25" schedule 80 PVC discharge assembly, connected to the quick disconnect, includes a PVC shut-off valve and basin sidewall bulkhead fitting for supporting and securing the discharge pipe as it exits the basin.

The basin will be installed by the contractor, using fill material covering the anti-flotation collar to prevent floatation during a high groundwater condition. Additionally, 12 inches of backfill material, pea-gravel or crushed stone, shall be provided to support the sides and bottom surfaces of the basin. The bottom of the excavation will be prepared with a compacted fill, preventing the movement or settlement of the basin.

Optional Depths:

_____ 84" Basin Depth using the 12" #31-2949 riser

_____ 98" Basin Depth using the 26" #31-2948 riser

4.01 PUMP

The pump shall be equal to the Zoeller Engineered Products model ☐ RWD 7020 (1 HP) / ☐ RWD 7021 (2 HP) progressing cavity grinder pump equipped with internally wired pump control and high water alarm switches. The pump shall be listed as meeting UL 778, CSA C22.2 108 and NSF/ANSI 46 pump standards. The castings shall be protected with a powder coated epoxy coating. The motor housing shall be designed with cooling fins and be oil filled for superior heat dissipation and continuous lubrication of the seals and bearings. The machined surfaces between castings shall be sealed with Viton square rings and

4.01 PUMP (continued)
gasket. The PSC Class B motor with a 416 SS motor shaft is equipped with overload protection, upper & lower ball bearings and has a 1.2 service factor. The silicon carbide/carbon mechanical seal,seated into the SS deflection shield, shall protect the motor. The SOOW power cable shall be 35' long, sufficient to reach the panel without the need for field splices or a junction box. Air-filled motors will be unacceptable since they fail to meet the heat dissipation and lubricating properties of an oil-filled motor.

The pump housing will have a 1.25" NPT discharge connection. A pressure relief valve inserted into the pump housing shall protect the pump and system from excessive pressure. The hardened 440 C Stainless Steel Rockwell C 55-60 Tri-Slice® cutter, located at the suction of the pump, will grind up all solids to a 1/4" or smaller particle size. The surface of the stationary cutter plate is being continually cleared by the action and design of the two rotating blades. The SS helix hydraulic rotor, incorporating an upper deflection shield, rotates inside a Buna-N stator, pressurizes the liquid and forces it out into the sewer system. No liner is required to stabilize the hydrostatic stator's wall to withstand the pressure requirements of the system. The deflection shield, housing the mechanical shaft seal, protects the motor by preventing debris from getting entangled within the mechanism and maintaning its watertight intergrity.

5.01 CONTROL PANEL
The model 61204-0001 UL listed control panel, for pumps with a wired-in control and alarm switch, is housed in a non-metallic NEMA 4X enclosure with lockable hasp. The panel shall have a pump circuit breaker, pump run light, and manually activated push-to-run button. The panel shall also contain a high water alarm circuit with light and buzzer with a dry contact for remote monitoring and test/silence switch. Upon the activation of the high water alarm, the pump circuit will activate and attempt to evacuate wastewater from the basin. An adjustable continuous pump run alarm shall be a standard feature. Unique globe flash variations shall designate various alarm functions. The panel will include a RJ45 jack for utilizing the panel's on-line monitoring and reporting capabilities.

Optional Features:

_____Control Panel P/N 61204-0002 having the same features as those listed above plus a 20 amp generator receptacle with automatic transfer switch enabling the utilization of a standby generator.

_____ Z Control Gateway P/N 90002-0001. Remotely manage device settings, test equipment and receive push notifications regarding the status of the system. Up to 10 monitoring functions can be enabled when utilizing the gateway, which provides either Wi Fi or ethernet connectivity to an existing router.

Contractor shall be responsible for installing the panel per NEC code and in a manner that maintains the NEMA 4X rating. All conduit, cord connections, and enclosure openings are to be properly sealed in a manner that prevents any liquid or vapors from entering the enclosure.

All electric cables for pump and level controls will be pulled through a sealed conduit sized and buried per NEC code.

The contractor shall furnish and install a properly sized main disconnect switch, separate from the panel, installed on the service side of the panel, within eyesight of the panel and pump station per NEC code.

6.01 TESTING
The pump shall be tested under submerged conditions at the factory during the production process.

Once the assembly is installed and operational, the contractor is responsible for conducting a system start up using reporting form ZM1074, provided by Zoeller Company. A copy of this report shall be kept with the owner's records and another shall be sent to the manufacturer.

7.01 WARRANTY
Standard warranty shall be 24 months from date of purchase (proof of purchase required) or date of start up as listed on the start up report on file at Zoeller Company.

All equipment listed above shall be provided by pump manufacturer.