

**THERMOPLASTIC SUMP-GARD® SGK
CANTILEVERED BEARINGLESS
VERTICAL CENTRIFUGAL PUMP**

• **GENERAL**

Pump to be constructed with all wetted components of polyvinyl chloride (PVC), polypropylene (PP), or polyvinylidene fluoride (PVDF) thermoplastic materials. Flows to 1000 GPM (227m³/hr). Heads to 210 Ft (64m). Temperatures to 275°F (135°C). Sump depths to 4 Ft (1.2m), deeper with tail pipe.

• **CASING AND CASING COVER**

Injection molded homogeneous thermoplastic material selected for compatibility with the fluids being pumped. These are to be solid, not lined, components.

• **IMPELLER**

Thermoplastic material injection molded with an embedded dynamically balanced stainless steel insert with radial vanes. It shall be closed or semiopen vane design to provide run dry capability and have a keyway for mounting on the shaft to assure positive drive.

• **CANTILEVERED SHAFT**

Alloy steel shaft sleeved with thermoplastic material to isolate it from the fluid. Shaft to be supported above the coverplate by heavy-duty external ball bearings and be machined at the drive end to fit a flexible coupling.

• **VERTICAL SUPPORT COLUMN AND DISCHARGE PIPE**

Fabricated of heavy-sectioned thermoplastic. The upper portion of the column to be fitted with a nonmetallic vapor seal to protect motor and ball bearings in mounting bracket.

• **COVER PLATE**

Sized and shaped to fit the sump, and furnished in the same or compatible thermoplastic material as the pump. All hardware below the coverplate to be nonmetallic.

• **MOTOR MOUNTING BRACKET**

Precision-machined mounting surfaces for a rabbet fit to automatically align pump and motor coupling. The assembly to be designed to house regreasable ball bearing(s) for positioning and locking the shaft into position and to allow adjustable impeller clearance without removing the pump from installation. Cast iron motor mounting bracket to be painted with a two-part chemical resistant epoxy resin or similar resistant coating material.

• **SUCTION STRAINER**

Strainer basket to be provided where required in the same material as the hydraulic head.

• **FACTORY TESTING**

Each pump to be tested to assure performance at conditions of service. Test data to be permanently recorded and retrievable on request.