

Pump Specification BN Series
Thermoplastic, Horizontal
End Suction Centrifugal Pump

- **GENERAL**

Pump casing, impeller, shaft sleeve of (PVC), Polyethylene (PE), polypropylene (PP), polyvinylidene fluoride (PVDF), ethylene-chlorotrofluoro-ethylene (E-CTFE), polytetrafluoroethylene (PTFE) thermoplastic materials. Flows to 6200 GPM (1408 m³/h) and heads to 330 FT (100m). Temperatures to 300 degrees F (148 degrees C). Pump casing shall be completely encased in epoxy-coated cast iron. Flanges shall be ANSI design, 150 # ANSI B16.5. Pipe flange shall be bolted to the steel casing.

- **IMPELLER**

Machined homogeneous thermoplastic material chosen for compatibility with the pumped fluids machined (not molded) from solid plastic. Impeller to be embedded with a dynamically balanced (un-wetted) steel insert using fusion welding.. The impeller shall have a keyway for mounting on the shaft for positive drive. It shall be semi-open vane design. (In some of the larger sizes, the impeller will be closed, depending on the specific application)

- **CASING AND COVER**

Homogeneous thermoplastic material chosen for compatibility with the pumped fluids. The casing and cover will be machined (not molded) from solid plastic

- **PROTECTIVE ARMOR**

Cast iron will completely encase the casing and cover so that no plastic is exposed to external damage. The armor will be painted with an epoxy coating (polyethylene at least 160 microns in thickness)

- **SHAFT AND SLEEVE**

Alloy steel shaft with shaft sleeve made in thermoplastic material, isolating it completely from the fluid being pumped.

- **BEARING ASSEMBLIES**

There shall be two sets of bearings. The outboard bearings shall be double row angular contact, the inboard bearings shall be single row.

- **DISCHARGE CONNECTION/PIPE FLANGES**

The piping flanges (suction and discharge) shall be bolted into the cast iron cover plate, not the plastic flange on the discharge pipe.

- **FACTORY TESTING**

Pumps will be fully tested to assure performance at conditions of service. The test data will permanently recorded and provided upon request.