

CERTA-LOK™ DROP PIPE **ENGINEERING SPECIFICATIONS**

1 . 0 SCOPE

This specification covers Polyvinyl Chloride (PVC) Drop Pipe for submersible pumps, which utilizes a spline-lock mechanical joining system. Pipe is produced in nominal sizes 2" – 8".

2 . 0 REFERENCE DOCUMENTS

ASTM International:

ASTM D1784 – Standard Specification for Rigid PVC Compounds and Chlorinated PVC Compounds.

ASTM D1785 – Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.

ASTM D2837 – Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials.

NSF International:

NSF14 – Plastic Piping System Components and Related Materials

NSF61 – Drinking Water System Components – Health Effects

3 . 0 REQUIREMENTS

3.1 Materials: Pipe and couplings shall be made from unplasticized PVC compounds having a minimum cell classification of 12454, as defined in ASTM D1784. The compound shall qualify for a Hydrostatic Design Basis (HDB) of 4000 psi for water at 73.4° F, in accordance with the requirements of ASTM D2837. White pipe shall be supplied, unless otherwise agreed upon at time of purchase.

3.2 Approvals: Products intended for contact with potable water shall be evaluated, tested, and certified for conformance with NSF61, or the health effects portion of NSF14, by an acceptable certifying organization, when required by the regulatory authority having jurisdiction.

3.3 Physical Requirements: Standard pipe laying length is 20'. 10' long joints may also be supplied, if available. Nominal drop pipe diameter should be selected by the Design Engineer based on required flow rate, total dynamic head, pump weight, and setting depth/pumping level, utilizing manufacturer-supplied guidelines on allowable tensile loading, pressure, and torque limitations.

3.4 Performance: All pipe supplied to this specification shall meet the performance requirements of ASTM D1785 for SCH80 pipe.

3.5 Joints: Pipe shall be joined using a spline lock joint. High-strength, acid-resistant, flexible thermoplastic splines shall be inserted into mating precision-machined grooves to provide full 360° restraint with evenly distributed loading. No external pipe-to-pipe restraining devices which clamp onto or otherwise damage the pipe surface as a result of point-loading shall be permitted. The joining system shall incorporate elastomeric sealing gaskets which are designed to provide a watertight seal. Note that this specification does not cover pipe with threaded joints.

3.6 Adapters: Drop pipe shall be joined to pumps, check valves, pitless adapters, or other components using a PVC or Stainless Steel Drop Pipe Adapter provided by the same manufacturer as provides the drop pipe, and which utilizes the same spline lock joint as used on the drop pipe.

3.7 Marking: Drop pipe shall be legibly and permanently marked in ink with the following information:

- Manufacturer and Trade Name
- Nominal Size & SCH Rating
- Manufacturing Date Code

- (NSF-61)

3.8 Workmanship: Pipe and couplings shall be homogeneous throughout and free from visible cracks, holes, foreign inclusions, blisters and dents, interior roughness, and other injurious defects that may affect wall integrity. The pipe and couplings shall be as uniform as commercially practicable in color, opacity, density, and other physical characteristics.

4.0 INSTALLATION

Installation of drop pipe shall be in strict accordance with manufacturer's procedures and recommendations. Prior to installation, drop pipe shall be visually inspected to ensure there is not dirt or foreign matter in the pipe, and any such material which is found shall be removed before installation.

5 . 0 SUGGESTED SOURCE OF SUPPLY

Certa-Lok PVC Drop Pipe as supplied by:

CertainTeed Corporation

P.O. Box 860

Valley Forge, PA 19482

866-CT4-PIPE

