

TRITON S-29 PRODUCT SPECIFICATIONS

1.0 General

1.1 Triton chambers are designed to control stormwater runoff. As a subsurface retention or detention system, Triton chambers retain and allow effective infiltration of water into the soil. As a subsurface detention system, Triton chambers detain and allow for the metered flow of water to an outfall.

2.0 Chamber Parameters

2.1 The chamber shall be compression molded of 1010 green soy resin to be inherently resistant to environmental stress cracking (ESCR), creep, and to maintain proper stiffness through temperature ranges of -40 degrees F to 180 degrees F.

2.2 The material property for the chamber and end cap must meet or exceed the following:

Tensile Strength- Ultimate: 21,755 PSI

Tensile Strength-Yield: 17,404 PSI

Tensile Modulus: 1,750-2,240 PSI

Flex Modulus: 1,600 KSI

Flex Yield Strength: 33,100 PSI

Compressive Strength: 30,457,000 PSI

Shear Strength: 11,500 PSI

2.3 The nominal chamber dimensions of the Triton S-29 shall be 36.0 inches tall, 59.0 inches wide and 35.0 inches long. Lay-up length is 33.35"

2.4 The chamber shall have an elliptical curved section profile.

2.5 The chamber shall be open-bottomed.

2.6 The chamber shall incorporate an overlapping corrugation joint system to allow chamber rows to be constructed.

2.7 The nominal storage volume of a Triton S-29 chamber shall be 42.9 cubic feet per chamber when installed per Triton's typical details. This equates to 3.5 cubic feet of storage/square foot of bed.

2.8 The chamber shall have both of its ends open to allow for unimpeded hydraulic flows and visual inspections down a row's entire length.

2.9 The chamber shall have 5 corrugations to achieve strengths defined above.

2.10 The chamber shall have 5 circular and elliptical, indented and raised, surfaces on the top to the chamber for optional feed inlets, inspection ports and or clean-out access ports.

2.11 The chamber shall have 5 elliptical, indented, surfaces on either side of the chamber for optional feed inlets, outlets. Capable of accepting pipe O.D. up to 16"

2.12 The chamber shall be analyzed, designed and field tested using AASHTO LRFD bridge design specifications 1. Design live load shall meet or exceed the AASHTO HS30 or a rear axle load of 48,000 pounds. Design shall consider earth and live loads without pavement as appropriate for the minimum to maximum specified depth of fill.

2.13 The chamber shall be manufactured in an ISO/TS16949:2002 and ISO 14001:2004 certified facility.

3.0 End Cap Parameters

3.1 The end cap shall be Compression molded of 1010 green soy resin to be inherently resistant to environmental stress cracking (ESCR), creep and to maintain proper stiffness through temperature ranges of -40 degrees F to 180 degrees F.

3.2 The end cap shall be designed to fit over the last corrugation of a chamber, which allows: the capping of each end of the chamber row.

3.3 The end cap shall have 6 upper saw guides capable of accepting pipe O.D. up to 18.2" 6 middle saw guides and 8 lower saw guides capable of accepting pipe O.D. up to 28.2" to allow easy cutting for various diameters of pipe that may be used to inlet or outlet the system.

3.4 The end cap shall have excess structural adequacies to allow cutting an orifice of any size at any invert elevation.

3.5 The primary face of an end cap shall have 5 corrugations and be angled outward to resist horizontal loads generated near the edges of beds.

3.6 The end cap shall be manufactured in an ISO/TS16949:2002 and ISO 14001:2004 certified facility.

4.0 Installation

4.1 Installation shall be in accordance with Triton Installation manual instructions....