	S-29 CHAMBER SPECS		
	NOMINAL DIMENSIONS (LAYUP LENGTH X WIDTH X HEIGHT)	33.35" X 59.00" X 36.00" (847mm X 1499mm X 914mm)	
	BARE CHAMBER STORAGE	27.35 CUBIC FEET (0.774 CUBIC METERS)	33.90"
	*MIN INSTALLED STORAGE	41.05 CUBIC FEET (1.162 CUBIC METERS)	36.00" 33.90" (914mm) (861mm)
	CHAMBER WEIGHT	32 lbs (14.515 kg)	
	STORAGE PER LINEAR FOOT <u>WITHOUT</u> STONE	9.84 CUBIC FEET (0.279 CUBIC METERS)	
	STORAGE PER LINEAR FOOT <u>WITH</u> STONE	14.77 CUBIC FEET (0.418 CUBIC METERS)	
	*ASSUMING A MIN OF 6" (152mm) STO 7.5" (191mm) BETWEEN ROWS WITH 4 INCLUDE 12" (305mm) PERIMETER STO	40% STONE POROSITY (DOES NOT	59.00 " (1241mm) (1241mm) (1241mm)
	NOTE: S-29 CHAMBER DETAILS TESTE CONDITIONS WITH 18" (457mr	D AND RATED FOR H-30 LOAD n) OF COVER AND NO PAVEMENT.	
MUST MAINTAIN 1" (25.4mm) CLEARANCE IF CENTER OF PIPE CONNECTION IS LOWER THAN 19.4" (493mm) PIPE CONNECTION IS LOWER THAN THE 19.4"	- K G TC TO R S S FOR	412.65" (322mm) 415.45" (392mm) AX O.D. FOR P CONNECTION CHAMBERS TO BE INSTALLED IN THIS DIRECTION. FOLLOW DIRECTION ARROW ON THE PART.	(210.65" (218mm) (164mm) (111mm) (111mm) (33.35" (847mm) LAYUP LENGTH (35.36" (898mm)
PRODUCTS MUST BE DESIGNED AND INSTALLED IN ACCORDANCE WITH	DRAWATER SOLUTIONS	S-29	CHAMBER DETAIL
SOLUTIONS DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS. THE DESIGN ENGINEER IS RESPONSIBLE FOR ALL DESIGN DECISIONS PHONE: (810	BRIGHTON, MI 48114)) 222-7652 ● FAX: (810) 222-1769 /WW.TRITONSWS.COM	TRITO	DN - STANDARD DETAILS





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 injection compression molded of a structural grade 1010 green soy resin composite 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 41.06 cubic feet per chamber when installed per Triton's typical details. This equates to 2.67 cubic feet of storage/square foot of bed. This does not include perimeter stone.
- 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 five corrugations to achieve strengths defined above.
- 2.10 The chamber shall have five circular and elliptical, indented and raised, surfaces on the top to the chamber for a maximum of 33 inch diameter optional top 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 18 inches.
- 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 of 18" of total cover to a maximum total cover of 50'.
- 2.13 The chamber shall be manufactured in an ISO 9001:2008 certified facility
- 2.14 The service life of the product is over 60 years under a constant sustained load of 10,000 PSI which is equal to the H-20 loading condition. Under typical loading conditions the Chamber and End Cap has a useful lifespan of 120 years from date of when manufactured.
- 2.15 Designed to exceed ASTM F2418, F2787, F2922 standard and AASHTO LRFD Bridge specifications. Validated through independent third party performance testing.

3.0 End Cap Parameters

- 3.1 The end cap shall be Injection 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 six upper saw guides capable of accepting pipe O.D. up to 18.2" Six middle saw guides and eight 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 9001:2008 certified facility.
- 3.7 The service life of the product to be over 60 years under a sustained load of 10,000 PSI which is equal to the H-20 loading condition.

4.0 Installation

4.1 Installation shall be in accordance with the latest Triton Installation manual that can be downloaded from the Triton website: www.tritonsws.com/support/downloads

CONCEPTUAL PLAN DISCLAIMER

THIS GENERIC DETAIL DOES NOT ENCOMPASS THE SIZING, FIT, AND APPLICABILITY OF THE TRITON CHAMBER SYSTEM FOR THIS SPECIFIC PROJECT. IT IS THE ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ASSURE THAT THE STORMWATER SYSTEM DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGUALTIONS. TRITON PRODUCTS MUST BE DESIGNED AND INSTALLED IN ACCORDANCE WITH TRITON'S MINIMUM REQUIREMENTS. TRITON STORMWATER SOLUTIONS DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS. THE DESIGN ENGINEER IS RESPONSIBLE FOR ALL DESIGN DECISIONS.



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S-29 PRODUCT SPECIFICATIONS

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