S-29 CHAMBER SPECS

<table>
<thead>
<tr>
<th></th>
<th>NOMINAL DIMENSIONS (LAYOUT LENGTH X WIDTH X HEIGHT)</th>
<th>33.35&quot; X 59.00&quot; X 36.00&quot; (847mm X 1499mm X 914mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARE CHAMBER STORAGE</td>
<td>27.35 CUBIC FEET (0.774 CUBIC METERS)</td>
<td></td>
</tr>
<tr>
<td>*MIN INSTALLED STORAGE</td>
<td>41.05 CUBIC FEET (1.162 CUBIC METERS)</td>
<td></td>
</tr>
<tr>
<td>CHAMBER WEIGHT</td>
<td>32 lbs (14.515 kg)</td>
<td></td>
</tr>
<tr>
<td>STORAGE PER LINEAR FOOT WITHOUT STONE</td>
<td>9.84 CUBIC FEET (0.279 CUBIC METERS)</td>
<td></td>
</tr>
<tr>
<td>STORAGE PER LINEAR FOOT WITH STONE</td>
<td>14.77 CUBIC FEET (0.418 CUBIC METERS)</td>
<td></td>
</tr>
</tbody>
</table>

*ASSUMING A MIN OF 6" (152mm) STONE ABOVE AND BELOW AND 7.5" (191mm) BETWEEN ROWS WITH 40% STONE POROSITY (DOES NOT INCLUDE 12" (305mm) PERIMETER STONE VOLUME)

NOTE: S-29 CHAMBER DETAILS TESTED AND RATED FOR H-30 LOAD CONDITIONS WITH 18" (457mm) OF COVER AND NO PAVEMENT.

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 REGULATIONS. 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.

TRITON STORMWATER SOLUTIONS
7600 EAST GRAND RIVER, STE. 198
BRIGHTON, MI 48114
PHONE: (810) 222-7602 | FAX: (810) 222-1769
WWW.TRITONSWS.COM

S-29 CHAMBER DETAIL

TRITON - STANDARD DETAILS

REVISED: 02-26-16
NOTE: REFER TO PAGE 2 FOR SIZES OF DIAMETER CUT GUIDES.

\[
\text{\#32" (810mm) MAX O.D. FOR END CONNECTION (see page 2 for guide diameters)}
\]

\[
\text{ALL PIPE CONNECTIONS MUST BE INSTALLED ALONG CHAMBER CAP CENTERLINE.}
\]

\[
\begin{align*}
1.0" \text{ MIN (25.4mm)} & \\
59.00" \text{ (1499mm)} & \\
36.00" \text{ (914mm)} & \\
\end{align*}
\]

\[
\begin{align*}
S-29 \text{ END CAP SPECS} & \\
\text{NOMINAL DIMENSIONS} & 5.90" \times 59.00" \times 36.00" \\
& (150mm \times 1499mm \times 914mm) \\
\text{BARE END CAP STORAGE} & 1.031 \text{ CUBIC FEET} \\
& (0.029 \text{ CUBIC METERS}) \\
\text{*MIN INSTALLED STORAGE} & 4.98 \text{ CUBIC FEET} \\
& (0.141 \text{ CUBIC METERS}) \\
\text{*ASSUMING A MIN OF 6" (152mm) STONE ABOVE AND BELOW AND 7.5" (191mm) BETWEEN ROWS WITH 40% STONE POROSITY (DOES NOT INCLUDE 12" (305mm) PERIMETER STONE VOLUME)}
\end{align*}
\]

\[
\begin{align*}
5.9" \text{ (150mm)} & \\
5.6" \text{ (142mm)} & \\
\text{ACTUAL LENGTH} & \\
\text{INSTALLED/LAYUP LENGTH} & \\
\end{align*}
\]

THE END CAP FITS UP ON THE OUTSIDE OF THE S–29 CHAMBER. REFER TO INSTALLATION MANUAL FOR FURTHER DETAIL.

CONCEPTUAL PLAN DISCLAIMER

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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 Fahrenheit to 180 degrees Fahrenheit (-40 degrees Celsius to 82.2 degrees Celsius).

2.2 The material property for the chamber and end cap must meet or exceed the following:
- Tensile Strength- Ultimate: 21,755 PSI (150 Mpa)
- Tensile Strength-Yield: 17,404 PSI (120 Mpa)
- Tensile Modulus: 1,750-2,240 KSI (12,066 Mpa - 15,444 Mpa)
- Flex Modulus: 1,600 KSI (11,032 Mpa)
- Flex Yield Strength: 33,100 PSI (226 Mpa)
- Compressive Strength: 30,457 PSI (210 Mpa)
- Shear Strength: 11,500 PSI (79 Mpa)

2.3 The nominal chamber dimensions of the Triton S-29 shall be 36.0 inches tall (914 millimeters), 59.0 inches wide (1499 millimeters) and 35.36 inches long (898 millimeters). Lay-up length is 33.35 inches (847 millimeters).

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 41.05 cubic feet (1,162 cubic meters) per chamber when installed per Triton's typical details. This equates to 2.67 cubic feet (0.075 cubic meters) of storage per 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 24 inch (610 millimeter) diameter optional top feed inlets, inspection ports and/or clean-out access ports.

2.11 The chamber shall have five elliptical, indented, surfaces on either side of the chamber for optional feed inlets, outlets. Capable of accepting pipe O.D. up to 16 inches (450 millimeters).

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 (21,772.4 kg). Design shall consider earth and live loads without pavement as appropriate for the minimum 18 inches (457 millimeters) of total cover to a maximum total cover of 50 feet (15.24 meters).

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 (68.95 Mpa) which is equal to the H-20 loading condition. Under typical loading conditions the Chamber and End Cap has a useful life span of 120 years from date of when manufactured.

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 Fahrenheit to 180 degrees Fahrenheit (-40 degrees Celsius to 82.2 degrees Celsius).

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 17.81 inches (452 millimeters), five middle saw guides capable of accepting pipe O.D. up to 19.99 inches (406mm) and eight lower saw guides capable of accepting pipe O.D. up to 27.92 inches (709 millimeters) to allow easy cutting for various diameters of pipe that may be used to inlet or outlet the system. See end cap detail for further details.

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 five 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 (68.95 Mpa) which is equal to the H-20 loading condition.

3.8 The nominal storage volume of a Triton S-29 end cap shall be 4.98 cubic feet (0.141 cubic meters) per end cap when installed per triton’s typical details. This equates to 1.83 cubic feet (0.052 cubic meters) of storage per square foot of bed.

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

S-29 PRODUCT SPECIFICATIONS
TRITON - STANDARD DETAILS

CONCEPTUAL PLAN DISCLAIMER
THIS GENERIC DETAIL DOES NOT ENCOMPASS THE SIZING, FIT, AND APPPLICABILITY 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 REGULATIONS. 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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WWW.TRITONSWS.COM

REVISED: 03-02-16 JMW
### S-22 Chamber Specs

<table>
<thead>
<tr>
<th>Nominal Dimensions</th>
<th>27.66&quot; x 55.00&quot; x 35.00&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Layup Length X Width x Height)</td>
<td>(703mm x 1397mm x 889mm)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bare Chamber Storage</th>
<th>21.57 Cubic Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.611 Cubic Meters)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Min Installed Storage</th>
<th>31.30 Cubic Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.886 Cubic Meters)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chamber Weight</th>
<th>28 lbs (12.701 kg)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Storage Per Linear Foot Without Stone</th>
<th>9.36 Cubic Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.265 Cubic Meters)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Storage Per Linear Foot With Stone</th>
<th>13.58 Cubic Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.385 Cubic Meters)</td>
<td></td>
</tr>
</tbody>
</table>

**Assuming a min of 6" (152mm) stone above and below and 6" (152mm) between rows with 40% stone porosity (does not include 12" (305mm) perimeter stone volume)**

**Note:** S-22 Chamber details tested and rated for H-30 load conditions with 18" (450mm) of cover and no pavement.

---

**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 regulations. 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.

---

**S-22 Chamber Detail**

TRITON - STANDARD DETAILS

---

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BRIGHTON, MI 48114
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WWW.TRITONWS.COM

---

**REVISED:**

02-26-19 J00M
S-22 END CAP SPECS

<table>
<thead>
<tr>
<th>NOMINAL DIMENSIONS</th>
<th>10.8&quot; X 49.9&quot; X 34.16&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>(LAYUP LENGTH X WIDTH X HEIGHT)</td>
<td>(274mm X 1267mm X 868mm)</td>
</tr>
<tr>
<td>BARE END CAP STORAGE</td>
<td>3.98 CUBIC FEET</td>
</tr>
<tr>
<td></td>
<td>(0.113 CUBIC METERS)</td>
</tr>
<tr>
<td>*MIN INSTALLED STORAGE</td>
<td>9.56 CUBIC FEET</td>
</tr>
<tr>
<td></td>
<td>(0.271 CUBIC METERS)</td>
</tr>
</tbody>
</table>

*ASSUMING A MIN OF 6" (152mm) STONE ABOVE AND BELOW AND 6" (152mm) BETWEEN ROWS WITH 40% STONE POROSITY (DOES NOT INCLUDE 12" (305mm) PERIMETER STONE VOLUME)

**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 REGULATIONS. 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. THIS DESIGN ENGINEER IS RESPONSIBLE FOR ALL DESIGN DECISIONS.

S-22 CHAMBER END CAP DETAIL

TRITON - STANDARD DETAILS

REVISED: 02-26-16 JRM
TRITON S-22 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 Fahrenheit to 180 degrees Fahrenheit (-40 degrees Celsius to 82.2 degrees Celsius).

2.2 The material property for the chamber and end cap must meet or exceed the following:
   Tensile Strength: Ultimate: 21,755 PSI (150 Mpa)
   Tensile Strength-Yield: 17,404 PSI (120 Mpa)
   Tensile Modulus: 1,750-2,240 KSI (12,066 Mpa - 15,444 Mpa)
   Flex Modulus: 1,600 KSI (11,032 Mpa)
   Flex Yield Strength: 33,100 PSI (228 Mpa)
   Compressive Strength: 30,457 PSI (210 Mpa)
   Shear Strength: 11,500 PSI (79 Mpa)

2.3 The nominal chamber dimensions of the Triton S-22 shall be 35.0 Inches tall (889 millimeters), 55.0 inches wide (1397 millimeters) and 30.0 inches long (762 millimeters). Lay-up length is 27.86 inches (703 millimeters).

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-22 chamber shall be 31.30 cubic feet (0.886 cubic meters) per chamber when installed per Triton’s typical details. This equates to 2.67 cubic feet (0.076 cubic meters) of storage per 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 24 inch (600 millimeter) diameter optional top feed inlets, inspection ports and/or clean-out access ports.

2.11 The chamber shall have five elliptical, indented, surfaces on either side of the chamber for optional feed inlets, outlets. Capable of accepting pipe O.D. up to 18 inches (450 millimeters).

2.12 The chamber shall be analyzed, designed and field tested using AASHTO LRFD bridge design specifications. Design live load shall meet or exceed the AASHTO HS30 or a rear axle load of 48,000 pounds (21,772.4 kg). Design shall consider earth and live loads without pavement as appropriate for the minimum 18 inches (457 millimeters) of total cover to a maximum total cover of 50 feet (15.24 meters).


2.14 The service life of the product is over 60 years under a constant sustained load of 10,000 PSI (68.95 Mpa) which is equal to the H-20 loading condition. Under typical loading conditions the Chamber and End Cap has a useful life span of 120 years from date of when manufactured.

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 Fahrenheit to 180 degrees Fahrenheit (-40 degrees Celsius to 82.2 degrees Celsius).

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

3.3 The end cap shall have 7 vertical corrugations across the front the face of the bull nosed surface. The maximum diameter that the end cap can accept is 30.0 inch (760mm) PS46, ASTM F679 PVC pipe.

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 five corrugations and be angled outward to resist horizontal loads generated near the edges of beds.


3.7 The service life of the product to be over 60 years under a sustained load of 10,000 PSI (68.95 Mpa) which is equal to the H-20 loading condition.

3.8 The nominal storage volume of a Triton S-22 end cap shall be 9.56 cubic feet (0.271 cubic meters) per end cap when installed per triton’s typical details. This equates to 2.09 cubic feet (0.059 cubic meters) of storage per square foot of bed.

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
C-10 CHAMBER SPECS

<table>
<thead>
<tr>
<th>NOMINAL DIMENSIONS (LAYUP LENGTH X WIDTH X HEIGHT)</th>
<th>29.58&quot; X 39.70&quot; X 25.00&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(751mm X 1008mm X 635mm)</td>
</tr>
<tr>
<td>BARE CHAMBER STORAGE</td>
<td>9.8 CUBIC FEET</td>
</tr>
<tr>
<td></td>
<td>(0.277 CUBIC METERS)</td>
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<tr>
<td>*MIN INSTALLED STORAGE</td>
<td>17.45 CUBIC FEET</td>
</tr>
<tr>
<td></td>
<td>(0.494 CUBIC METERS)</td>
</tr>
<tr>
<td>CHAMBER WEIGHT</td>
<td>18 lbs</td>
</tr>
<tr>
<td></td>
<td>(8.165 kg)</td>
</tr>
<tr>
<td>STORAGE PER LINEAR FOOT WITHOUT STONE</td>
<td>3.57 CUBIC FEET</td>
</tr>
<tr>
<td></td>
<td>(0.112 CUBIC METERS)</td>
</tr>
<tr>
<td>STORAGE PER LINEAR FOOT WITH STONE</td>
<td>7.08 CUBIC FEET</td>
</tr>
<tr>
<td></td>
<td>(0.200 CUBIC METERS)</td>
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"ASSUMING A MIN OF 6" (152mm) STONE ABOVE AND BELOW AND 6" (152mm) BETWEEN ROWS WITH 40% STONE POROSITY (DOES NOT INCLUDE 12" [305mm] PERIMETER STONE VOLUME)

NOTE: C-10 CHAMBER DETAILS TESTED AND RATED FOR H-30 LOAD CONDITIONS WITH 18" (457mm) OF COVER AND NO PAVEMENT.

Ø12" (300mm)
MAX O.D. FOR SIDE CONNECTION

3.60" (92mm)
2X4 SPACER SLOT TO HELP KEEP CHAMBER ROWS STRAIGHT

Ø18" (450mm)
MAX O.D. FOR TOP CONNECTION

29.58" (751mm)
LAYUP LENGTH

25.00"
(635mm)

23.14"
(588mm)

33.55"
(852mm)

39.70"
(1008mm)

31.52"
(801mm)

CONCEPTUAL PLAN DISCLAIMER
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TRITON - STANDARD DETAILS

REVISED:
02-25-19, REV M

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WWW.TRITONWS.COM

TRITON STORMWATER SOLUTIONS
GREEN INFRASTRUCTURE FOR A SUSTAINABLE FUTURE
C-10 END CAP SPECS

<table>
<thead>
<tr>
<th>NOMINAL DIMENSIONS (LAYUP LENGTH X WIDTH X HEIGHT)</th>
<th>8.0&quot; X 36.49&quot; X 24.53&quot; (203mm X 921mm X 622mm)</th>
</tr>
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<tbody>
<tr>
<td>BARE END CAP STORAGE</td>
<td>1.21 CUBIC FEET (0.034 CUBIC METERS)</td>
</tr>
<tr>
<td>*MIN INSTALLED STORAGE</td>
<td>3.86 CUBIC FEET (0.109 CUBIC METERS)</td>
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</tbody>
</table>

*ASSUMING A MIN OF 6" (152mm) STONE ABOVE AND BELOW AND 6" (152mm) BETWEEN ROWS WITH 40% STONE POROSITY (DOES NOT INCLUDE 12" (305mm) PERIMETER STONE VOLUME)

ALL PIPE CONNECTIONS MUST BE INSTALLED ALONG CHAMBER CAP CENTERLINE.

8.0" (203mm)

24.53" (622mm)

36.49" (927mm)

1.0" MIN (25.4mm)

ALLOWED PIPE PLACEMENT AREA

THE END CAP FITS UP INSIDE THE LAST CONNECTING RIBS OF THE C-10 CHAMBER

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 REGULATIONS. 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. THIS DESIGN ENGINEER IS RESPONSIBLE FOR ALL DESIGN DECISIONS.

TRITON STORMWATER SOLUTIONS
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WWW.TRITONWS.COM

TRITON - STANDARD DETAILS

REVISED: 02-28-15 JMRM
TRITON C-10 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 Fahrenheit to 180 degrees Fahrenheit (-40 degrees Celsius to 82.2 degrees Celsius).

2.2 The material property for the chamber and end cap must meet or exceed the following:
- Tensile Strength- Ultimate: 21,755 PSI (150 Mpa)
- Tensile Strength-Yield: 17,404 PSI (120 Mpa)
- Tensile Modulus: 1,750-2,240 KSI (12,066 Mpa - 15,444 Mpa)
- Flex Modulus: 1,600 KSI (11,032 Mpa)
- Flex Yield Strength: 33,100 PSI (228 Mpa)
- Compressive Strength: 30,457 PSI (210 Mpa)
- Shear Strength: 11,500 PSI (79 Mpa)

2.3 The nominal chamber dimensions of the Triton C-10 shall be 25.0 inches tall (635 millimeters), 39.7 inches wide (1008 millimeters) and 31.52 inches long (801 millimeters). Lay-up length is 29.58 inches (751 millimeters).

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 C-10 chamber shall be 17.45 cubic feet (0.494 cubic meters) per chamber when installed per Triton’s typical details. This equates to 1.86 cubic feet (0.053 cubic meters) of storage per 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 18 inch (450 millimeter) diameter optional top feed inlets, inspection ports and/or clean-out access ports.

2.11 The chamber side shall be capable of accepting pipe O.D. up to 12 inches (300 millimeters).

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 (21,772.4 kg). Design shall consider earth and live loads without pavement as appropriate for the minimum 18 inches (457 millimeters) of total cover to a maximum total cover of 50 feet (15.24 meters).


2.14 The service life of the product is over 60 years under a constant sustained load of 10,000 PSI (68.95 Mpa) which is equal to the H-20 loading condition. Under typical loading conditions the Chamber and End Cap has a useful life span of 120 years from date of when manufactured.

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 Fahrenheit to 180 degrees Fahrenheit (-40 degrees Celsius to 82.2 degrees Celsius).

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

3.3 The end cap shall have 7 different diameter connection guides across the front face of the bull nosed surface. The maximum diameter that the end cap can accept is 20 inches (500 millimeter) PS46, ASTM F679 PVC pipe.

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 five corrugations and be angled outward to resist horizontal loads generated near the edges of beds.


3.7 The service life of the product to be over 60 years under a sustained load of 10,000 PSI (68.95 Mpa) which is equal to the H-20 loading condition.

3.8 The nominal storage volume of a Triton C-10 end cap shall be 3.86 cubic feet (0.109 cubic meters) per end cap when installed per Triton's typical details. This equates to 1.52 cubic feet (0.043 cubic meters) of storage per square foot of bed.

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
### M-6 Chamber Specs

<table>
<thead>
<tr>
<th>NOMINAL DIMENSIONS (LAYER LENGTH X WIDTH X HEIGHT)</th>
<th>29.58&quot; X 33.61&quot; X 17.5&quot; (751mm X 854mm X 445mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARE CHAMBER STORAGE</td>
<td>5.6 CUBIC FEET (0.159 CUBIC METERS)</td>
</tr>
<tr>
<td>&quot;MIN INSTALLED STORAGE&quot;</td>
<td>11.36 CUBIC FEET (0.322 CUBIC METERS)</td>
</tr>
<tr>
<td>CHAMBER WEIGHT</td>
<td>14 lbs (6.35 kg)</td>
</tr>
<tr>
<td>STORAGE PER LINEAR FOOT WITHOUT STONE</td>
<td>2.27 CUBIC FEET (0.064 CUBIC METERS)</td>
</tr>
<tr>
<td>STORAGE PER LINEAR FOOT WITH STONE</td>
<td>4.61 CUBIC FEET (0.131 CUBIC METERS)</td>
</tr>
</tbody>
</table>

*Assuming a min of 6" (152mm) stone above and below and 6" (152mm) between rows with 40% stone porosity (does not include 12" [305mm] perimeter stone volume)*

Note: M-6 CHAMBER DETAILS TESTED AND RATED FOR H-30 LOAD CONDITIONS WITH 18" (457mm) OF COVER AND NO PAVEMENT.

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**Dimensions:**
- 17.5" (445mm)
- 15.64" (397mm)
- 27.36" (695mm)
- 33.61" (854mm)
- 31.52" (801mm)
- 29.58" (751mm)

**Key Features:**
- **∅8" (200mm)** Max O.D. for side connection
- **∅12" (300mm)** Max O.D. for top connection
- 3.60" (91mm) 2x4 spacer slot to help keep chamber rows straight

---

**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 regulations. 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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**Triton - Standard Details**

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**Revision:**
02-26-16 JRM
M-6 END CAP SPECS

| NOMINAL DIMENSIONS (LAYUP LENGTH X WIDTH X HEIGHT) | 7.18" X 30.60" X 17.03" (183mm X 777mm X 432mm) |
| BARE END CAP STORAGE | 0.533 CUBIC FEET (0.015 CUBIC METERS) |
| *MIN INSTALLED STORAGE | 2.26 CUBIC FEET (0.064 CUBIC METERS) |

*ASSUMING A MIN OF 6" (152mm) STONE ABOVE AND BELOW AND 6" (152mm) BETWEEN ROWS WITH 40% STONE POROSITY (DOES NOT INCLUDE 12" (305mm) PERIMETER STONE VOLUME)

ø14" (350mm) MAX O.D. FOR END CONNECTION

ALLOWED PIPE PLACEMENT AREA

1.0" MIN (25.4mm) 30.60" (777mm) 17.03" (432mm)

ALL PIPE CONNECTIONS MUST BE INSTALLED ALONG CHAMBER CAP CENTERLINE.

THE END CAP FITS UP INSIDE THE LAST CONNECTING RIBS OF THE M-6 CHAMBER
TRITON M-6 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 Fahrenheit to 180 degrees Fahrenheit (-40 degrees Celsius to 82.2 degrees Celsius).

2.2 The material property for the chamber and end cap must meet or exceed the following:
   Tensile Strength- Ultimate: 21,755 PSI (150 Mpa)
   Tensile Strength-Yield: 17,404 PSI (120 Mpa)
   Tensile Modulus: 1,750-2,240 KSI (12,086 Mpa - 15,444 Mpa)
   Flex Modulus: 1,600 KSI (11,032 Mpa)
   Flex Yield Strength: 33,100 PSI (226 Mpa)
   Compressive Strength: 30,457 PSI (210 Mpa)
   Shear Strength: 11,500 PSI (79 Mpa)

2.3 The nominal chamber dimensions of the Triton M-6 shall be 17.5 inches tall (445 millimeters), 33.61 inches wide (854 millimeters) and 31.5 inches long (800 millimeters). Lay-up length is 29.58 inches (751 millimeters).

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 M-6 chamber shall be 11.36 cubic feet (0.322 cubic meters) per chamber when installed per Triton's typical details. This equates to 1.40 cubic feet (0.040 cubic meters) of storage per 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 stiffness 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 12 inch (300 millimeter) diameter optional top feed inlets, inspection ports and/or clean-out access ports.

2.11 The chamber side shall be capable of accepting pipe O.D. up to 8 inches (200 millimeters).

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 (21,772.4 kg). Design shall consider earth and live loads without pavement as appropriate for the minimum 18 inches (457 millimeters) of total cover to a maximum total cover of 50 feet (15.24 meters).


2.14 The service life of the product is over 60 years under a constant sustained load of 10,000 PSI (68.95 Mpa) which is equal to the H-20 loading condition. Under typical loading conditions the Chamber and End Cap has a useful life span of 120 years from date of when manufactured.

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 Fahrenheit to 180 degrees Fahrenheit (-40 degrees Celsius to 82.2 degrees Celsius).

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

3.3 The end cap shall have 7 different diameter connection guides across the front face of the bull nosed surface. The maximum diameter that the end cap can accept is 14 inches (350 millimeters) PS46, ASTM F679 PVC pipe.

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 five corrugations and be angled outward to resist horizontal loads generated near the edges of beds.


3.7 The service life of the product to be over 60 years under a sustained load of 10,000 PSI (68.95 Mpa) which is equal to the H-20 loading condition.

3.8 The nominal storage volume of a Triton M-6 end cap shall be 2.26 cubic feet (0.064 cubic meters) per end cap when installed per triton's typical details. This equates to 1.15 cubic feet (0.032 cubic meters) of storage per square foot of bed.

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
AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE OR EQUAL, SIDES AND TOP ONLY

2"-2" (20–50mm) WASHED, CRUSHED, ANGULAR STONE (IGNIOUS RECOMMENDED)

END CAP PIPE CONNECTION MAX O.D.
(see table)

OPTIONAL #6 150mm UNDERDRAIN W/ SOCK PER ENGINEER (TYP)

CHAMBER WIDTH (see table)

MIN CHAMBER SPACING (see table)

MIN. CHAMBER LENGTH (see table)

CONNECTOR PIPE (#12" (300mm) PVC SHOWN)

TRITON CHAMBER

GRANULAR WELL GRADED SOIL/AGGREGATE MIXTURES. <35% FINES, COMPACT IN 6" (150mm) LIFTS TO 95% PROCTOR DENSITY. SEE THE TABLE OF ACCEPTABLE FILL MATERIALS.

ENGINEER TO VERIFY SUITABILITY OF SUBGRADE SOILS

<table>
<thead>
<tr>
<th>CHAMBER WIDTH</th>
<th>CHAMBER SPACING</th>
<th>CENTER TO CENTER LENGTH</th>
<th>CHAMBER HEIGHT</th>
<th>MAX END CAP CONNECTION</th>
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<td>39.6&quot; (1006mm)</td>
<td>17.5&quot; (445mm)</td>
<td>14&quot; (356mm)</td>
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*7.5" (190mm) SPACING OF DISTRIBUTION ROWS IS REQUIRED ONLY WHEN A PERPENDICULAR MAIN HEADER ROW IS USED. IF AN INCLINE MAIN HEADER ROW IS USED, THEN MIN SPACING CAN BE 6" (150mm)
NOTE: IF USED FOR WATER HARVESTING SYSTEM, FILL THE TRENCH WITH WATER AFTER THE FABRIC AND LINER HAVE BEEN INSTALLED TO ENSURE THERE ARE NO LEAKS IN THE LINER PRIOR TO INSTALLING THE STONE, CHAMBER AND BACKFILL.

AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE OR EQUAL, TOP ONLY

END CAP PIPE CONNECTION MAX O.D. (see table)

OPTIONAL 6" (150mm) UNDERDRAIN W/ SOCK PER ENGINEER (TYP)

IMPERMEABLE MEMBRANE BETWEEN 2 LAYERS OF NON-WOVEN GEOTEXTILE ON BOTTOM AND SIDES OF ROCK SELECTION

CHAMBER WIDTH (see table)

MIN CHAMBER SPACING (see table)

CONNECTOR PIPE (#12" (300mm) PVC SHOWN)

GRANULAR WELL GRADED SOIL/AGGREGATE MIXTURES. <35% FINES, COMPACT IN 6" (150mm) LIFTS TO 95% PROCTOR DENSITY. SEE THE TABLE OF ACCEPTABLE FILL MATERIALS.

FOR UNPAVED INSTALLATION WHERE RUTTING FROM VEHICLES MAY OCCUR; INCREASE COVER TO 24" (600mm)

CHAMBER WIDTH

CHAMBER SPACING

CENTER TO CENTER LENGTH

CHAMBER HEIGHT

MAX END CAP CONNECTION

S29 59" (1499mm) 6.0" (150mm) 66.5" (1690mm) 30" (914mm) 32" (813mm)

S22 55" (1397mm) 6.0" (150mm) 61.0" (1549mm) 35" (889mm) 30" (762mm)

C10 39.7" (1008mm) 6.0" (150mm) 45.7" (1161mm) 25" (635mm) 20" (508mm)

K6 33.6" (853mm) 6.0" (150mm) 39.6" (1006mm) 17.5" (445mm) 14" (356mm)

*7.5" (190mm) SPACING OF DISTRIBUTION ROWS IS REQUIRED ONLY WHEN A PERPENDICULAR MAIN HEADER ROW IS USED. IF AN INLINE MAIN HEADER ROW IS USED, THEN MIN SPACING CAN BE 6" (150mm)

CHAMBER CROSS SECTION

DETENTION - WITH IMPERMEABLE LINER

TRITON - STANDARD DETAILS

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 REGULATIONS. 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.
AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE OR EQUAL, SIDES AND TOP ONLY

\[ \frac{1}{2}^\prime \text{"} (20-50\text{mm}) \text{ WASHED, CRUSHED, ANGULAR STONE (IGNEOUS RECOMMENDED)} \]

GRANULAR WELL GRADED SOIL/AGGREGATE MIXTURES, <35% FINES; COMPACT IN 6" (150mm) LIFTS TO 95% PROCTOR DENSITY. SEE THE TABLE OF ACCEPTABLE FILL MATERIALS.

FOR UNPAVED INSTALLATION WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 24" (610mm)

S22 55" (1397mm) 6.0" (150mm) 61.0" (1549mm) 35" (889mm) 30" (762mm)
C10 39.7" (1008mm) 6.0" (150mm) 45.7" (1161mm) 25" (635mm) 20" (508mm)
M6 33.6" (853mm) 6.0" (150mm) 39.6" (1006mm) 17.5" (445mm) 14" (356mm)

**NOTE:** 17.5" (445mm) SPACING OF DISTRIBUTION ROWS IS REQUIRED ONLY WHEN A PERPENDICULAR MAIN HEADER ROW IS USED. IF AN INCLINE MAIN HEADER ROW IS USED, THEN MIN SPACING CAN BE 6" (150mm)

CONCEPTUAL PLAN DISCLAIMER

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**DOUBLE STACK CROSS SECTION INfiltration**

TRITON - STANDARD DETAILS

CONCEPTUAL PLAN DISCLAIMER

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NOTE: IF USED FOR WATER HARVESTING SYSTEM, FILL THE TRENCH WITH WATER AFTER THE FABRIC AND LINER HAVE BEEN INSTALLED TO ENSURE THERE ARE NO LEAKS IN THE LINER PRIOR TO INSTALLING THE STONE, CHAMBER AND BACKFILL.

AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE OR EQUAL, TOP ONLY

3"-2" (20-50mm) WASHED, CRUSHED, ANGULAR STONE (IGNEOUS RECOMMENDED)

STANDARD END CAP

OPTIONAL #6" (150mm) UNDERDRAIN W/ SOCK PER ENGINEER (TYP)

IMPERMEABLE MEMBRANE BETWEEN 2 LAYERS OF NON-WOVEN GEOTEXTILE ON BOTTOM AND SIDES OF ROCK SELECTION

CHAMBER WIDTH
(see table)

MIN CHAMBER SPACING
(see table)

MAX END CAP CONNECTION

CHAMBER WIDTH CHAMBER SPACING CENTER TO CENTER LENGTH CHAMBER HEIGHT

S29 59" (1499mm) 6.0" (150mm) 66.5" (1690mm) 36" (914mm) 32" (813mm)

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C10 39.7" (1008mm) 6.0" (150mm) 45.7" (1161mm) 25" (635mm) 20" (508mm)

M6 33.6" (853mm) 6.0" (150mm) 39.6" (1006mm) 17.5" (445mm) 14" (356mm)

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TRITON - STANDARD DETAILS

7660 EAST GRAND RIVER, STE.195
BRIGHTON, MI 48114
PHONE: (810) 222-7652 ● FAX: (810) 222-1769
WWW.TRITONWS.COM

REVIEWED: 02-26-19, JWM

DOUBLE STACK CROSS SECTION

DETENTION - WITH IMPERMEABLE LINER
TRIPLE STACK CROSS SECTION
INfiltration

TRITON - STANDARD DETAILS

7600 EAST GRAND RIVER, STE.195
BRIGHTON, MI 48114
PHONE: (810) 222-7652 • FAX: (810) 222-1769
WWW.TRAITONSWS.COM

CONCEPTUAL PLAN DISCLAIMER
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MIN PIPE SIZE
(6" (150mm) SHOWN)

CHAMBER WIDTH
(see table)

MIN CHAMBER SPACING
(see table)

CENTER TO CENTER LENGTH
(see table)

CHAMBER HEIGHT
(see table)

MAX END CAP CONNECTION

Granular Well Graded Soil/Aggregate Mixtures. <.35% fines, compact in 6" (150mm) lifts to 95% Proctor density. See the Table of Acceptable Fill Materials.

The chamber installation may affect the yield of the subsoil. Chemically treated (by injection) soil is recommended over 80-90% (90-100%)

Chamber Height
(see table)

Engineer to verify suitability of subgrade soils

<table>
<thead>
<tr>
<th>CHAMBER WIDTH</th>
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</table>

*7.5" (190mm) spacing of distribution rows is required only when a perpendicular main header row is used. If an inline main header row is used, then min spacing can be 6" (150mm)
AASHTO M288 CLASS 2
NON-WOVEN GEOTEXTILE
OR EQUAL, SIDES AND
TOP ONLY

\[ \frac{3}{4} " - 2 " (20-50mm) WASHED,
CRUSHED, ANGULAR STONE
(IGNEOUS RECOMMENDED)

END CAP PIPE
CONNECTION MAX O.D.
(see table)

CLEAN, WASHED,
CONCRETE SAND (12"
(300mm) DEPTH OVER
UNDERDRAIN, MIN.)

AASHTO M288 CLASS
2 NON-WOVEN
GEOTEXTILE OR
EQUAL, BETWEEN
UNDERDRAIN STONE
AND SAND LAYER

OPTIONAL
\#6" (150mm)
UNDERDRAIN
W/ SOCK PER
ENGINEER (TYP)

\[ 1 " (25mm)

\[ 18" MIN
(450mm)

\[ 6" MIN
(150mm)

\[ CHAMBER WIDTH
MIN (300mm)

\[ CHAMBER SPACING
MIN (300mm)

\[ CENTER TO CENTER
LENGTH (see table)

\[ CHAMBER HEIGHT
(see table)

\[ MAX END CAP CONNECTION

<table>
<thead>
<tr>
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TRITON CROSS SECTION
WITH SAND FILTRATION LAYER - DEEP PROFILE OPTION

TRITON - STANDARD DETAILS

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 REGULATIONS. 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.

7600 EAST GRAND RIVER, STE.195
BRIGHTON, MI 48114
PHONE: (810) 222-7652 ● FAX: (810) 222-1769
WWW.TRITONWSS.COM

REVISED: 02-26-19, WW
SECTION A–A

GRANULAR WELL GRADED SOIL/AGGREGATE MIXTURES, <35% FINES, COMPACT IN 6" (150mm) LIFTS TO 95% PROCTOR DENSITY. SEE THE TABLE OF ACCEPTABLE FILL MATERIALS.

WASHED, CRUSHED, ANGULAR STONE (SEE TABLE OF ACCEPTABLE FILL MATERIALS)

STAINLESS STEEL THREADED ROD TO BE PERMANENTLY INSTALLED INTO THE FILTER PUCK AS SHOWN. THREADED ROD TO BE CUT JUST UNDER THE ACCESS PIPE COVER.

12" MIN (300mm)

CONNECTING PIPE SCHEDULE 40 OR SDR35 RECOMMENDED

ACCESS PIPE/RISER INSTALL
ACCESS/RISER PIPE PER TRITON INSTALLATION MANUAL (HDPE DUAL WALLED PIPE RECOMMENDED)

OPTIONAL OVERFLOW PIPE SIZE AND INVERT TO BE DETERMINED BY CIVIL ENGINEER. SCHEDULE 40 OR SDR35 RECOMMENDED INSTALL PER TRITON INSTALLATION MANUAL

15" MIN (381mm)

24" MAX (610mm)

#8" (216mm) #10" (267mm) #12" (318mm)

DISTRIBUTION ROW

MAIN HEADER ROW (MHR)

STAINLESS STEEL FILTER PUCK

FILTER ELBOW

OPTIONAL SEDIMENT FLOOR

CONCEPTUAL PLAN DISCLAIMER
THIS GENERIC DETAIL DOES NOT ENCOMPASS THE SRING, 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 REGULATIONS. 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.
NOTES:

- TRITON HEADER ROW SEDIMENT CONTAINMENT AND SCOUR PROTECTION OPTIONS:
  - Sediment floors placed above one layer of AASHTO M288 Class 2 Non-Woven Geotextile or Equal.
  - Impermeable Membrane.
  - Two layers of AASHTO M288 Class 1 Woven Geotextile or Equal.

- Geotextile or impermeable membrane to be placed as one piece, lengthwise above base stone:
  - 7.0' (210 mm) width for S-29 Chambers
  - 7.0' (210 mm) width for S-22 Chambers
  - 5.5' (180 mm) width for C-10 Chambers
  - 5.0' (150 mm) width for M-6 Chambers

- See access detail for Triton header row access

<table>
<thead>
<tr>
<th>MAX DIAMETER FOR CONNECTOR PIPE</th>
<th>CHAMBER SPACING</th>
</tr>
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<tbody>
<tr>
<td>S29 18&quot; (450mm)</td>
<td>6.0&quot; (150mm)</td>
</tr>
<tr>
<td>S22 18&quot; (450mm)</td>
<td>6&quot; (150mm)</td>
</tr>
<tr>
<td>C10 12&quot; (300mm)</td>
<td>6&quot; (150mm)</td>
</tr>
<tr>
<td>M6 8&quot; (200mm)</td>
<td>6&quot; (150mm)</td>
</tr>
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*7.5" (190mm) spacing of distribution rows is required only when a perpendicular main header row is used. If an inline main header row is used, then min spacing can be 6" (150mm).
1. 24" (610mm) minimum depth required between casting rim and top of chambers (assuming 4" (102mm) low-profile casting with 1 adjusting ring).
2. Connect standpipe to chamber per latest installation instructions.
3. Connection of the standpipe to the top slab is typically not necessary. If a connection is determined to be necessary, a flexible connection is required.

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*7.5" (190mm) spacing of distribution rows is required. Only when a perpendicular main header row is used, if an inline main header row is used, then min spacing can be 6" (150mm).
NOTES:
1. PIPE/MANHOLE CONNECTIONS TO BE GROUTED.
2. PIPE/CHAMBER CONNECTIONS PER LATEST INSTALLATION INSTRUCTIONS.

MAX PIPE DIAMETER, D (IN.):
- S-29 CHAMBERS = 24" (610mm)
- S-22 CHAMBERS = 24" (610mm)
- C-10 CHAMBERS = 18" (450mm)
- M-6 CHAMBERS = 12" (300mm)

1" MIN. (25mm) BETWEEN PIPE O.D. AND BOTTOM OF CHAMBERS

CONNECTOR PIPES

FOR UNPAVED INSTALLATION WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 24 INCHES (610mm)

TRITIONS - STANDARD DETAILS

HEADER ROW ACCESS
STANDARD MH CONNECTION

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TRITON - STANDARD DETAILS

REVISED: 01-26-19

6100 EAST GRAND RIVER, STE. 195
BRIGHTON, MI 48114
PHONE: (810) 222-7652 ● FAX: (810) 222-1769
WWW.TRITONWS.COM
44" (1115mm) DIAMETER X 5" (125mm) CIRCULAR CONCRETE TOP SLAB WITH 12" (300mm) DIAMETER CONCENTRIC ACCESS HOLE

MAX PIPE SIZE FOR RISER
- S29: 24" (600mm)
- S22: 24" (600mm)
- C10: 18" (450mm)
- M6: 12" (300mm)
*RISER PIPE CAN BE PVC OR DUAL WALL CORRUGATED PIPE

EXTEND RISER PIPE APPROX. 3" (75mm) INTO THE TOP SLAB

AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE OR EQUAL

EXTEND RISER PIPE A MIN. OF 5" (125mm) INTO THE CHAMBER

NEENAH R-1976 FRAME AND LID OR EQUAL

18" MIN (450mm)

6" MIN (150mm)

6" MIN (150mm)

(OPTIONAL) 2'x3' BLANK CONCRETE CB WITH BASE SLAB

NOTES:
1. CONNECT RISER TO CHAMBER PER LATEST INSTALLATION INSTRUCTIONS

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TRITON TOP ACCESS
SMALL DIAMETER CONNECTION
TRITON - STANDARD DETAILS