

The MC-3500 chamber width has been changed from 75” (1905 mm) to 77” (1956 mm).

The new bare chamber volume is 113.0 ft³ (3.20 m³).

StormTech now requires 12” (305 mm) of stone above the chambers instead of 6” (152 mm).

Nominal Chamber Specifications

Size (L x W x H)	90" (2286 mm) x 77" (1956 mm) x 45" (1143 mm)
Chamber Storage	113.0 ft ³ (3.20 m ³)
Min. Installed Storage*	176.8 ft ³ (5.01 m ³)
Weight	124 lbs (56.2 kg)

Nominal End Cap Specifications

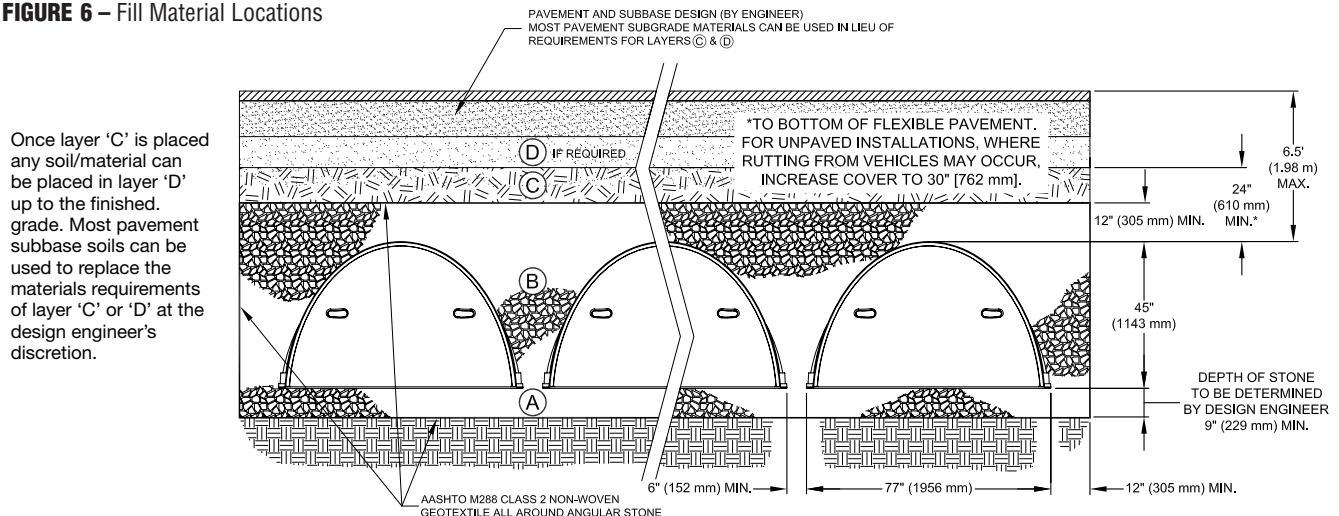
Size (L x W x H)	26.5" (673 mm) x 71" (1803 mm) x 45.1" (1145 mm)
End Cap Storage	15.6 ft ³ (0.44 m ³)
Min. Installed Storage*	45.6 ft ³ (1.29 m ³)
Weight	43 lbs (19.5 kg)

* This assumes a minimum of 12” (305 mm) of stone above, 9” (229 mm) of stone below and 6” (152 mm) of stone between the chambers/end caps and 40% stone porosity. The end cap minimum installed storage also includes the stone storage located in the 6” (152 mm) stone perimeter.

TABLE 2 – Acceptable Fill Materials

Material Location	Description	AASHTO M43 Designation ¹	Compaction/Density Requirement
Ⓓ Fill Material for layer 'D' starts from the top of the 'C' layer to the bottom of flexible pavement or unpaved finished grade above. Note that the pavement subbase may be part of the 'D' layer.	Any soil/rock materials, native soils or per engineer's plans. Check plans for pavement subgrade requirements.	N/A	Prepare per engineer's plans. Paved installations may have stringent material and preparation requirements.
Ⓒ Fill Material for layer 'C' starts from the top of the embedment stone ('B' layer) to 24" (610 mm) above the top of the chamber. Note that pavement subbase may be part of the 'C' layer.	Granular well-graded soil/aggregate mixtures, <35% fines. Most pavement subbase materials can be used in lieu of this layer. (AASHTO M145 A-1, A-2, A-3)	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	Begin compaction after 24" (610 mm) of material over the chambers is reached. Compact additional layers in 12" (305 mm) max. lifts to a min. 95% Standard Proctor density. See MC-3500 Installation Instructions for acceptable compaction equipment loads.
Ⓑ Embedment Stone surrounding chambers from the foundation stone to the 'C' layer above.	Clean, crushed, angular stone, nominal size distribution 3/4 - 2" (19 mm - 51 mm)	3, 357, 4, 467, 5, 56, 57	No compaction required.
Ⓐ Foundation Stone below the chambers from the subgrade up to the foot (bottom) of the chamber.	Clean, crushed, angular stone, nominal size distribution 3/4 - 2" (19 mm - 51 mm)	3, 357, 4, 467, 5, 56, 57	Plate compact or roll to achieve a 95% Standard Proctor Density. ²

FIGURE 6 – Fill Material Locations



Once layer 'C' is placed any soil/material can be placed in layer 'D' up to the finished grade. Most pavement subbase soils can be used to replace the materials requirements of layer 'C' or 'D' at the design engineer's discretion.

Table 1 – Minimum Required Foundation Depth in Inches (mm)

Cover Hgt. ft (m)	Minimum Bearing Resistance for Service Loads ksf (kPa)																								
	4.4 (211)	4.3 (206)	4.2 (201)	4.1 (196)	4.0 (192)	3.9 (187)	3.8 (182)	3.7 (177)	3.6 (172)	3.5 (168)	3.4 (163)	3.3 (158)	3.2 (153)	3.1 (148)	3.0 (144)	2.9 (139)	2.8 (134)	2.7 (129)	2.6 (124)	2.5 (120)	2.4 (115)	2.3 (110)	2.2 (105)	2.1 (101)	2.0 (96)
2.0 (0.61)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	12 (305)	12 (305)	12 (305)	12 (305)	15 (381)	15 (381)	15 (381)	18 (457)	18 (457)	24 (610)
2.5 (0.76)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	12 (305)	12 (305)	12 (305)	12 (305)	15 (381)	15 (381)	15 (381)	18 (457)	18 (457)	24 (610)	24 (610)
3.0 (0.91)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	12 (305)	12 (305)	12 (305)	12 (305)	15 (381)	15 (381)	15 (381)	18 (457)	18 (457)	18 (457)	24 (610)	24 (610)	24 (610)
3.5 (1.07)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)	15 (381)	15 (381)	15 (381)	18 (457)	18 (457)	18 (457)	24 (610)	24 (610)	24 (610)	30 (762)
4.0 (1.22)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)	15 (381)	15 (381)	15 (381)	18 (457)	18 (457)	18 (457)	24 (610)	24 (610)	24 (610)	24 (610)	30 (762)	30 (762)
4.5 (1.37)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	9 (229)	12 (305)	12 (305)	12 (305)	12 (305)	15 (381)	15 (381)	15 (381)	15 (381)	18 (457)	18 (457)	18 (457)	24 (610)	24 (610)	24 (610)	24 (610)	30 (762)	30 (762)	36 (914)
5.0 (1.52)	9 (229)	9 (229)	9 (229)	9 (229)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)	15 (381)	15 (381)	15 (381)	18 (457)	18 (457)	18 (457)	18 (457)	18 (457)	24 (610)	24 (610)	24 (610)	24 (610)	30 (762)	30 (762)	36 (914)	36 (914)
5.5 (1.68)	9 (229)	9 (229)	9 (229)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)	15 (381)	15 (381)	15 (381)	15 (381)	18 (457)	18 (457)	18 (457)	24 (610)	24 (610)	24 (610)	24 (610)	30 (762)	30 (762)	30 (762)	36 (914)	36 (914)	42 (1067)
6.0 (1.83)	9 (229)	9 (229)	12 (305)	12 (305)	12 (305)	12 (305)	15 (381)	15 (381)	15 (381)	15 (381)	18 (457)	18 (457)	18 (457)	18 (457)	24 (610)	24 (610)	24 (610)	24 (610)	24 (610)	30 (762)	30 (762)	36 (914)	36 (914)	42 (1067)	42 (1067)
6.5 (1.98)	9 (229)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)	15 (381)	15 (381)	15 (381)	15 (381)	18 (457)	18 (457)	18 (457)	24 (610)	24 (610)	24 (610)	24 (610)	24 (610)	30 (762)	30 (762)	30 (762)	36 (914)	36 (914)	42 (1067)	42 (1067)

NOTE: The design engineer is solely responsible for assessing the bearing resistance (allowable bearing capacity) of the subgrade soils and determining the depth of foundation stone. Subgrade bearing resistance should be assessed with consideration for the range of soil moisture conditions expected under a stormwater system.

TABLE 7 – Storage Volume Per Chamber/End Cap ft³ (m³)

	Bare Unit Storage	Chamber/End Cap and Stone Volume — Stone Foundation Depth in. (mm)			
		9 (229)	12 (305)	15 (381)	18 (457)
MC-3500	ft ³ (m ³)				
Chamber	113 (3.20)	176.8 (5.01)	181.8 (5.15)	186.8 (5.29)	191.7 (5.43)
End Cap	15.6 (0.44)	45.6 (1.29)	47.3 (1.34)	48.9 (1.39)	50.6 (1.43)

NOTE: Assumes 40% porosity for the stone plus the chamber/end cap volume. End cap volume assumes 6" (152 mm) stone perimeter.

TABLE 8 – Amount of Stone Per Chamber/End Cap

ENGLISH tons (yds ³)	Stone Foundation Depth			
	9"	12"	15"	18"
MC-3500	8.4 (5.9 yd ³)	9.0 (6.4 yd ³)	9.7 (6.8 yd ³)	10.3 (7.3 yd ³)
End Cap	3.9 (2.8 yd ³)	4.2 (2.9 yd ³)	4.4 (3.1 yd ³)	4.6 (3.2 yd ³)
METRIC kg (m ³)	229 mm	305 mm	381 mm	457 mm
MC-3500	7620 (4.5 m ³)	8164 (4.9 m ³)	8800 (5.2 m ³)	9344 (5.6 m ³)
End Cap	3538 (2.1 m ³)	3810 (2.2 m ³)	3992 (2.4 m ³)	4173 (2.4 m ³)

NOTE: Assumes 12" (305 mm) of stone above, 6" (152 mm) row spacing, and 6" (152 mm) of perimeter stone in front of end caps.

TABLE 9 – Volume of Excavation Per Chamber/End Cap in yd³ (m³)

	Stone Foundation Depth			
	9" (229 mm)	12" (305 mm)	15" (381 mm)	18" (457 mm)
MC-3500	11.9 (9.1)	12.4 (9.5)	12.9 (9.9)	13.3 (10.2)
End Cap	4.0 (3.1)	4.1 (3.1)	4.3 (3.3)	4.4 (3.4)

NOTE: Assumes 6" (152 mm) of separation between chamber rows, 6" (152 mm) of perimeter in front of end caps, and 24" (610 mm) of cover. The volume of excavation will vary as the depth of cover increases.

Each additional foot of cover will add a volume of excavation of 1.8 yd³ (1.4 m³) per MC-3500 chamber and 0.6 yd³ (0.5 m³) per MC-3500 end cap.

Page	Section	Change
8	4.2	The installed MC-3500 chamber bottom filter area is 43.2 ft ² (4.0 m ²).
10 - 11	5.0	An updated Cumulative Storage Volume spreadsheet can be obtained at www.stormtech.com with which the number of chambers, number of end caps, stone porosity, stone above and stone below can be modified to meet the required storage volume requirements.