



SPECIFICATIONS

STORMCHAMBER®

SCOPE

These specifications apply to all StormChamber retention chambers supplied by Soleno.

CHAMBER REQUIREMENTS

To prevent any points of failure, the chamber shall be manufactured from a single part.

- Each SC-18 chamber shall be 457 mm (18 in) high by 965 mm (38 in) wide by 2527 mm (8.3 ft) long. The useful length, once installed, of the end chambers shall be 2438 mm (8.0 ft) and that of the intermediate chambers shall be 2318 mm (7.6 ft). Each chamber shall include 14 corrugations.
- Each SC-34E chamber shall be 864 mm (34 in) high by 1524 mm (60 in) wide by 2565 mm (8.4 ft) long. The useful length, once installed, of the end chambers shall be 2464 mm (8.1 ft) and that of the intermediate chambers shall be 2311 mm (7.6 ft). Each chamber shall include 14 corrugations.
- Each SC-44 chamber shall be 1118 mm (44 in) high by 1937 mm (76.3 in) wide by 2223 mm (7.3 ft) long. The useful length, once installed, of the end chambers shall be 2089 mm (6.9 ft) and that of the intermediate chambers shall be 1905 mm (6.3 ft). Each chamber shall include 12 corrugations.

Each chamber shall include a horizontal receptacle making it possible to add a 250 mm (10 in) diameter PVC DR35 access shaft. Each chamber shall also include a vertical receptacle making it possible to connect Solflo Max, 320 kPa 200 mm (8 in) diameter interconnection or water intake pipes.

RAW MATERIALS

Chambers shall be made from dual wall high-density polyethylene orange resin.

PERFORATIONS

Perforation diameter shall be 12.7 mm (0.5 in). Each ring shall have 4 perforations (2 per side), except for the first interlocked ring. Each chamber shall therefore have 48 perforations.

CHAMBER STORAGE CAPACITY

- Each chamber SC-18 shall hold at least 0.605 m³ (21.4 ft³) of water, not including the water held in the clear crushed stone.
- Each chamber SC-34E shall hold at least 2.062 m³ (72.8 ft³) of water, not including the water held in the clear crushed stone.
- Each chamber SC-44 shall hold at least 2.662 m³ (94.0 ft³) of water, not including the water held in the clear crushed stone.

CHAMBER STRUCTURAL CAPACITY

The system shall be able to withstand double the CL-625, H-25 or HS-25 highway load, for backfill depths from 457 mm (18 in) to 4.88 m (16 ft) for the SC-18 and SC-34 chambers, and for backfill depths from 559 mm (22 in) to 2.44 m (8 ft) for the SC-44 chamber.

SEDIMENT RECOVERY

SedimenTraps :

The inlet row shall have at least 2 sediment recovery SedimenTraps made from high-density polyethylene with 250 mm (10 in) diameter PVC DR35 vertical access shafts. Each access shaft shall be equipped with an adjustable cast iron frame and cover with identification.

Pretreatment unit :

A pretreatment unit shall be designed to remove sediments, oils and floating debris upstream from the chamber system inlet. It shall include an elbow at each outlet and two smooth outer wall access shafts 750 mm (30 in) in diameter. Maintenance of the system will not require any work in confined spaces. Each access shaft will be provided with a lid and adjustable cast iron frame. If required, a diffuser shall be installed at the end of the pretreatment system to reach the additional rows of chambers. The system will be sized according to the expected inflow.

SEPARATION GEOTEXTILE (NONWOVEN)

A Soleno TX-90 BNQ G.C.T.T.G. 3001 geotextile shall be installed on the excavation bottom and walls, and the top of the system, to insulate the clear crushed stone from the existing soil and/or road/parking lot foundation.

SCOUR PROTECTION GEOTEXTILE (WOVEN)

A Soleno scour protection woven geotextile AASHTO M288 CLASSE 1 shall be installed under all the chambers with an external water uptake, to prevent any rock movement or with a sediment trap, to prevent stones from being sucked into the cleaning hose.

INSTALLATION

Installation shall be carried out in compliance with manufacturer recommendations. Contact your local Soleno representative or visit our website at soleno.com for installation recommendations.