CULTEC Recharger® 150XLHD Stormwater Chamber

The Recharger® 150XLHD is an 18.5" (470 mm) tall, lower profile chamber and is typically used for installations with depth restrictions or when a larger infiltrative area is required. The Recharger® 150XLHD has the side portal internal manifold feature. HVLV® FC-24 Feed Connectors are inserted into the side portals to create the internal manifold.

Size (L x W x H)	11' x 33" x 18.5"
	3.35 m x 838 mm x 470 mm
Installed Length	10.25'
	3.12 m
Length Adjustment per Run	0.75'
	0.23 m
Chamber Storage	2.65 ft^3/ft
	0.25 m^3/m
	27.16 ft^3/unit
	0.77 m^3/unit
Min. Installed Storage	4.89 ft^3/ft
	0.45 m^3/m
	50.17 ft^3/unit
	1.42 m^3/unit
Min. Area Required	33.31 ft^2
	3.09 m^2
Min. Center-to-Center Spacing	3.25'
	0.99 m
Max. Allowable Cover	12'
	3.66 m
Max. Inlet Opening in End Wall	12"
	300 mm
Max. Allowable O.D. in Side Portal	10.25"
	260 mm
Compatible Feed Connector	HVLV FC-24 Feed Connector

	Stone Foundation Depth		
	6"	12"	18"
	152 mm	305 mm	457 mm
Chamber and Stone Storage Per Chamber	50.17 ft^3	56.83 ft^3	63.49 ft^3
	1.42 m^3	1.61 m^3	1.80 m^3
Min. Effective Depth	2.54'	3.04'	3.54'
	0.77 m	0.93 m	1.08 m
Stone Required Per Chamber	2.13 yd^3	2.75 yd^3	3.36 yd^3
	1.63 m^3	2.10 m^3	2.57 m^3

Calculations are based on installed chamber length.
Includes 6" (152 mm) stone above crown of chamber and typical stone surround.
Stone void calculated at 40%.

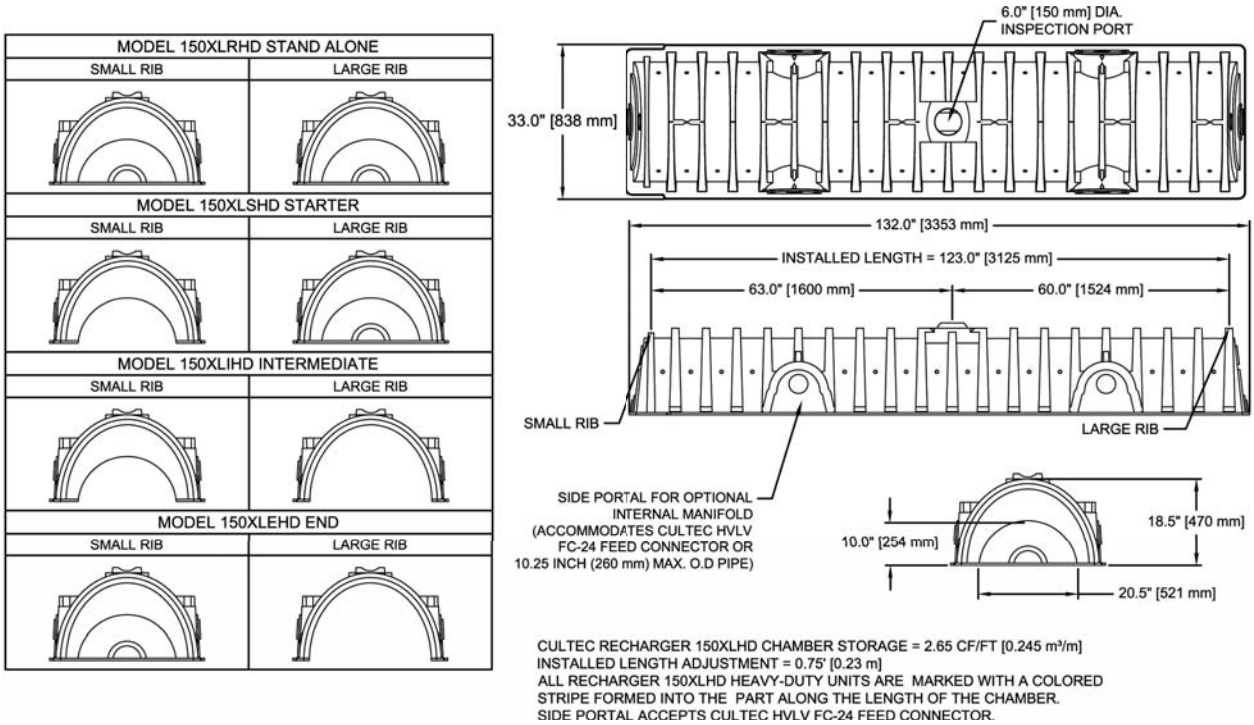
Recharger® 150XLHD Bare Chamber Storage Volumes

Elevation		Incremental Storage Volume				Cumulative Storage	
in.	mm	ft^3/ft	m^3/m	ft^3	m^3	ft^3	m^3
18.5	470	0.006	0.001	0.062	0.002	27.193	0.770
18	457	0.010	0.001	0.103	0.003	27.132	0.768
17	432	0.032	0.003	0.328	0.009	27.029	0.765
16	406	0.077	0.007	0.789	0.022	26.701	0.756
15	381	0.102	0.009	1.046	0.030	25.912	0.734
14	356	0.119	0.009	1.220	0.035	24.867	0.704
13	330	0.134	0.011	1.374	0.039	23.647	0.670
12	305	0.146	0.012	1.497	0.042	22.273	0.631
11	279	0.156	0.014	1.599	0.045	20.777	0.588
10	254	0.165	0.015	1.691	0.048	19.178	0.543
9	229	0.172	0.016	1.763	0.050	17.487	0.495
8	203	0.179	0.017	1.835	0.052	15.724	0.445
7	178	0.184	0.017	1.886	0.053	13.889	0.393
6	152	0.188	0.017	1.927	0.055	12.003	0.340
5	127	0.191	0.018	1.958	0.055	10.076	0.285
4	102	0.193	0.018	1.978	0.056	8.118	0.230
3	76	0.195	0.018	1.999	0.057	6.140	0.174
2	51	0.197	0.018	2.019	0.057	4.141	0.117
1	25	0.207	0.019	2.122	0.060	2.122	0.060
Total		2.650	0.246	27.193	0.770	27.193	0.770

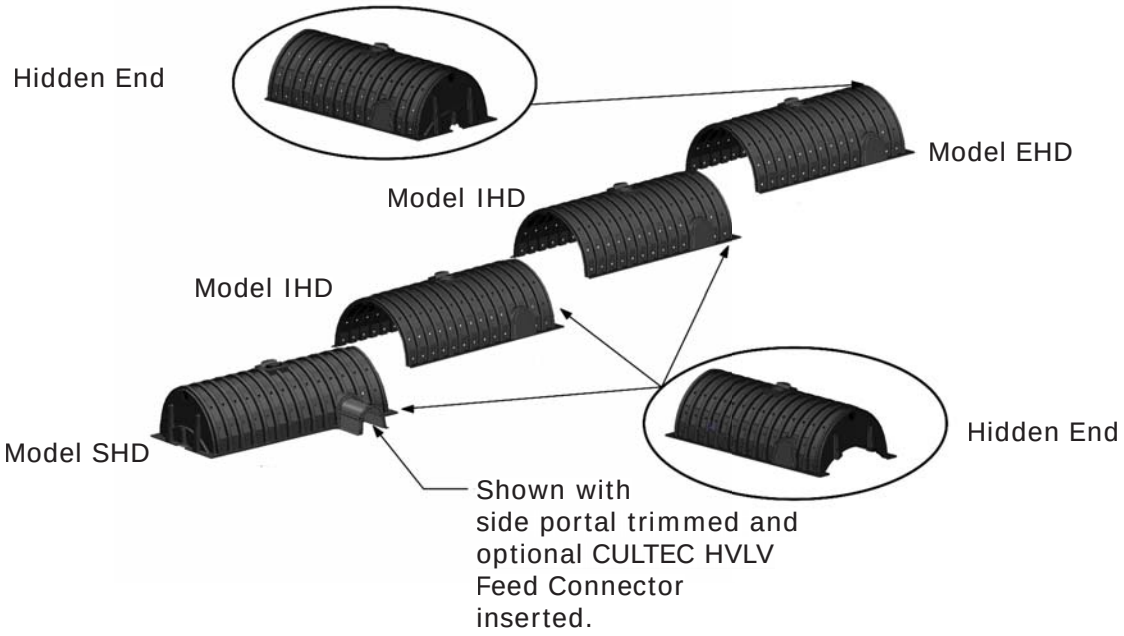
Calculations are based on installed chamber length.

Visit www.cultec.com/downloads.html
for Product Downloads and CAD details.

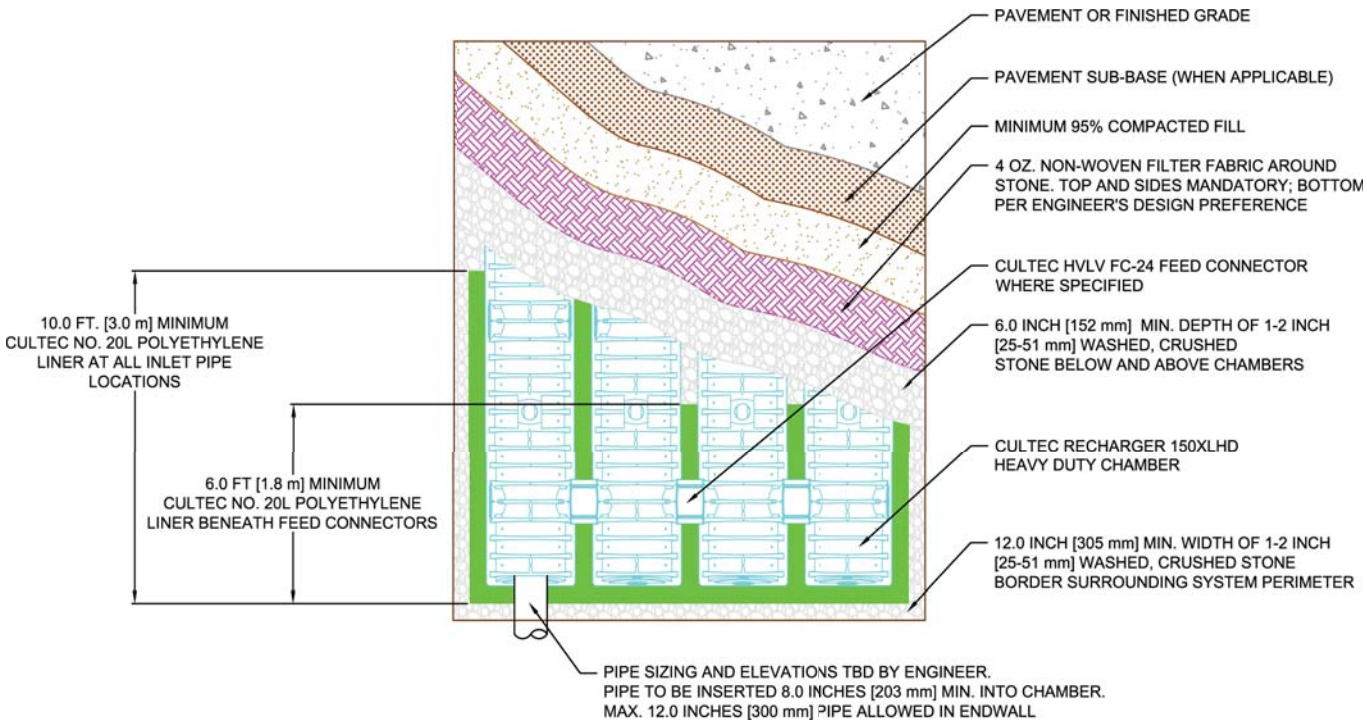
Three View Drawing



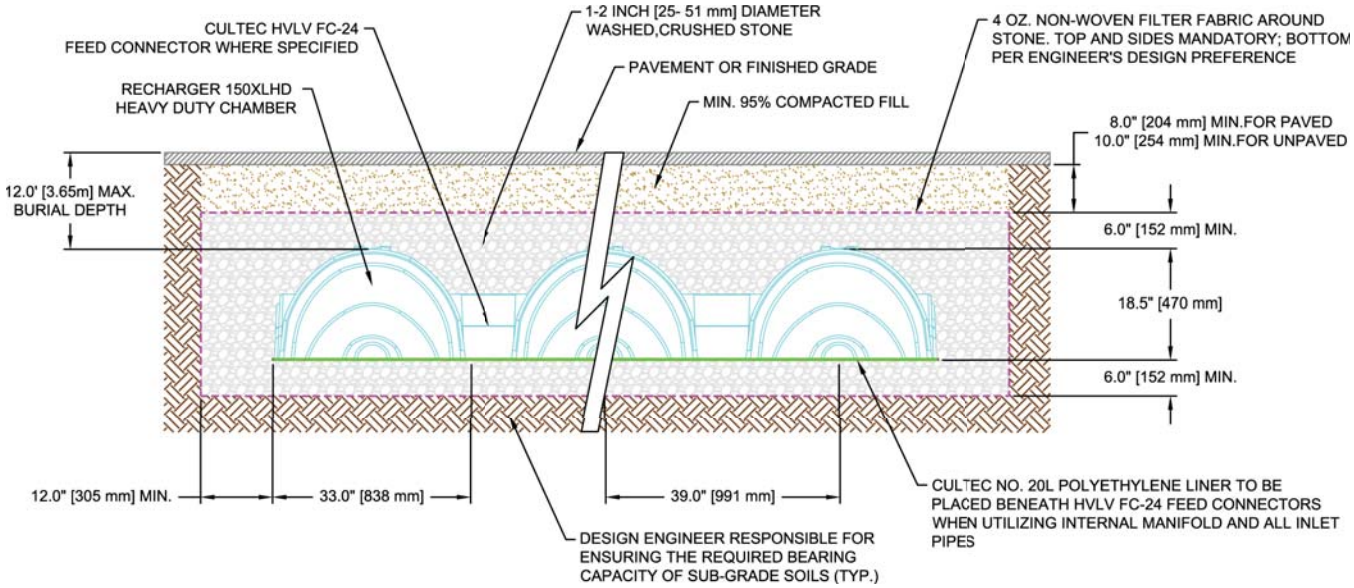
Typical Interlock Installation



Plan View Drawing



Typical Cross Section for Traffic Application



CULTEC Recharger® 150XLHD Specifications

GENERAL

CULTEC Recharger® 150XLHD chambers are designed for underground stormwater management. The chambers may be used for retention, recharging, detention or controlling the flow of on-site stormwater runoff.

CHAMBER PARAMETERS

1. The chambers shall be manufactured by CULTEC, Inc. of Brookfield, CT (203-775-4416 or 1-800-428-5832).
2. The chamber shall be vacuum thermoformed of black polyethylene.
3. The chamber shall be arched in shape.
4. The chamber shall be open-bottomed.
5. The chamber shall be joined using an interlocking overlapping rib method. Connections must be fully shouldered overlapping ribs, having no separate couplings or separate end walls.
6. The nominal chamber dimensions of the CULTEC Recharger® 150XLHD shall be 18.5 inches (470 mm) tall, 33 inches (838 mm) wide and 11 feet (3.35 m) long. The installed length of a joined Recharger® 150XLHD shall be 10.25 feet (3.12 m).
7. Maximum inlet opening on the chamber end wall is 12 inches (300 mm).
8. The chamber shall have two side portals to accept CULTEC HVLV® FC-24 Feed Connectors to create an internal manifold. The nominal I.D. dimensions of each side portal shall be 8.5 inches (216 mm) high by 12 inches (304 mm) wide. Maximum allowable O.D. in the side portal is 10.25 inches (260 mm).
9. The nominal chamber dimensions of the CULTEC HVLV® FC-24 Feed Connector shall be 12 inches (305 mm) tall, 16 inches (406 mm) wide and 24.2 inches (615 mm) long.
10. The nominal storage volume of the Recharger® 150XLHD chamber shall be 2.650 ft^3 / ft (0.246 m^3 / m) - without stone. The nominal storage volume of a single Recharger 150XLRHD Stand Alone unit shall be 29.15 ft^3 (0.83 m^3) - without stone. The nominal storage volume of a joined Recharger® 150XLIHD Intermediate unit shall be 27.16 ft^3 (0.77 m^3) - without stone. The nominal storage volume of the length adjustment amount per run shall be 1.99 ft^3 (0.18 m^3) - without stone.
11. The nominal storage volume of the HVLV® FC-24 Feed Connector shall be 0.913 ft^3 / ft (0.085 m^3 / m) - without stone.
12. The Recharger® 150XLHD chamber shall have thirty discharge holes bored into the sidewalls of the unit's core to promote lateral conveyance of water.
13. The Recharger® 150XLHD chamber shall have 20 corrugations.
14. The end wall of the chamber, when present, shall be an integral part of the continuously formed unit. Separate end plates cannot be used with this unit.
15. The Recharger® 150XLRHD Stand Alone unit must be formed as a whole chamber having two fully formed integral end walls and having no separate end plates or separate end walls.
16. The Recharger® 150XLSHD Starter unit must be formed as a whole chamber having one fully formed integral end wall and one partially formed integral end wall with a lower transfer opening of 10 inches (254 mm) high x 20.5 inches (521 mm) wide.
17. The Recharger® 150XLIHD Intermediate unit must be formed as a whole chamber having one fully open end wall and one partially formed integral end wall with a lower transfer opening of 10 inches (254 mm) high x 20.5 inches (521 mm) wide.
18. The Recharger® 150XLEHD End unit must be formed as a whole chamber having one fully formed integral end wall and one fully open end wall and having no separate end plates or end walls.
19. The HVLV® FC-24 Feed Connector must be formed as a whole chamber having two open end walls and having no separate end plates or separate end walls. The unit shall fit into the side portals of the Recharger® 150XLHD and act as cross feed connections.
20. Chambers must have horizontal stiffening flex reduction steps between the ribs.
21. Heavy duty units are designated by a colored stripe formed into the part along the length of the chamber.
22. The chamber shall have a raised integral cap at the top of the arch in the center of each unit to be used as an optional inspection port or clean-out.
23. The units may be trimmed to custom lengths by cutting back to any corrugation on the large rib end.
24. The chamber shall be manufactured in an ISO 9001:2008 certified facility.
25. Maximum allowable cover over the top of the chamber shall be 12' (3.66 m).
26. The chamber shall be designed to withstand traffic loads when installed according to CULTEC's recommended installation instructions.