



# CULTEC Recharger® 280HD Stormwater Chamber

The Recharger® 280HD is a 26.5" (673 mm) tall, mid-size chamber and is typically used for installations with depth restrictions or when a larger infiltrative area is required. The Recharger® 280HD 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)	8' x 47" x 26.5" 2.44 m x 1194 mm x 673 mm
Installed Length	7' 2.13 m
Length Adjustment per Run	1' 0.30 m
Chamber Storage	6.08 ft <sup>3</sup> /ft 0.56 m <sup>3</sup> /m 42.55 ft <sup>3</sup> /unit 1.21 m <sup>3</sup> /unit
Min. Installed Storage	9.21 ft <sup>3</sup> /ft 0.86 m <sup>3</sup> /m 64.46 ft <sup>3</sup> /unit 1.83 m <sup>3</sup> /unit
Min. Area Required	30.33 ft <sup>2</sup> 2.82 m <sup>2</sup>
Min. Center-to-Center Spacing	4.33' 1.32 m
Max. Allowable Cover	12' 3.66 m
Max. Inlet Opening in End Wall	18" 450 mm
Max. Allowable O.D. in Side Portal	12.25" 311 mm
Compatible Feed Connector	HVLV FC-24 Feed Connector

	Stone Foundation Depth		
	6" 152 mm	12" 305 mm	18" 457 mm
Chamber and Stone Storage Per Chamber	64.46 ft <sup>3</sup> 1.83 m <sup>3</sup>	70.53 ft <sup>3</sup> 2.00 m <sup>3</sup>	76.59 ft <sup>3</sup> 2.17 m <sup>3</sup>
Min. Effective Depth	3.21' 0.98 m	3.71' 1.13 m	4.21' 1.28 m
Stone Required Per Chamber	2.03 yd <sup>3</sup> 1.55 m <sup>3</sup>	2.59 yd <sup>3</sup> 1.98 m <sup>3</sup>	3.15 yd <sup>3</sup> 2.41 m <sup>3</sup>

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® 280HD Bare Chamber Storage Volumes

Elevation		Incremental Storage Volume				Cumulative Storage	
in.	mm	ft <sup>3</sup> /ft	m <sup>3</sup> /m	ft <sup>3</sup>	m <sup>3</sup>	ft <sup>3</sup>	m <sup>3</sup>
26.5	686	0.000	0.000	0.000	0.000	42.553	1.205
26	660	0.018	0.002	0.126	0.004	42.553	1.205
25	635	0.047	0.004	0.329	0.009	42.427	1.202
24	609	0.100	0.009	0.700	0.020	42.098	1.192
23	584	0.134	0.012	0.938	0.027	41.398	1.172
22	559	0.159	0.015	1.113	0.032	40.460	1.146
21	533	0.179	0.017	1.253	0.035	39.347	1.114
20	508	0.195	0.018	1.365	0.039	38.094	1.079
19	483	0.209	0.019	1.463	0.041	36.729	1.040
18	457	0.221	0.021	1.547	0.044	35.266	0.999
17	432	0.232	0.022	1.624	0.046	33.719	0.955
16	406	0.241	0.022	1.687	0.048	32.095	0.909
15	381	0.249	0.023	1.743	0.049	30.408	0.861
14	356	0.263	0.024	1.841	0.052	28.665	0.812
13	330	0.267	0.025	1.869	0.053	26.824	0.760
12	305	0.271	0.025	1.897	0.054	24.955	0.707
11	279	0.275	0.026	1.925	0.055	23.058	0.653
10	254	0.279	0.026	1.953	0.055	21.133	0.598
9	229	0.287	0.027	2.009	0.057	19.180	0.543
8	203	0.292	0.027	2.044	0.058	17.171	0.486
7	178	0.294	0.027	2.058	0.058	15.127	0.428
6	152	0.305	0.028	2.135	0.060	13.069	0.370
5	127	0.306	0.028	2.142	0.061	10.934	0.310
4	102	0.308	0.029	2.156	0.061	8.792	0.249
3	76	0.310	0.029	2.170	0.061	6.636	0.188
2	51	0.312	0.029	2.184	0.062	4.466	0.126
1	25	0.326	0.030	2.282	0.065	2.282	0.065
<b>Total</b>		<b>6.079</b>	<b>0.565</b>	<b>42.553</b>	<b>1.205</b>	<b>42.553</b>	<b>1.205</b>

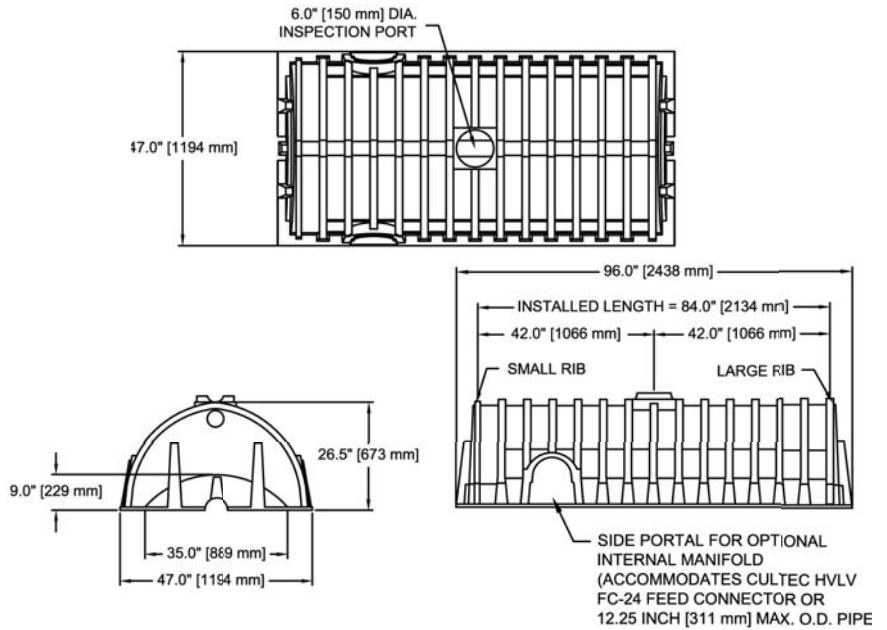
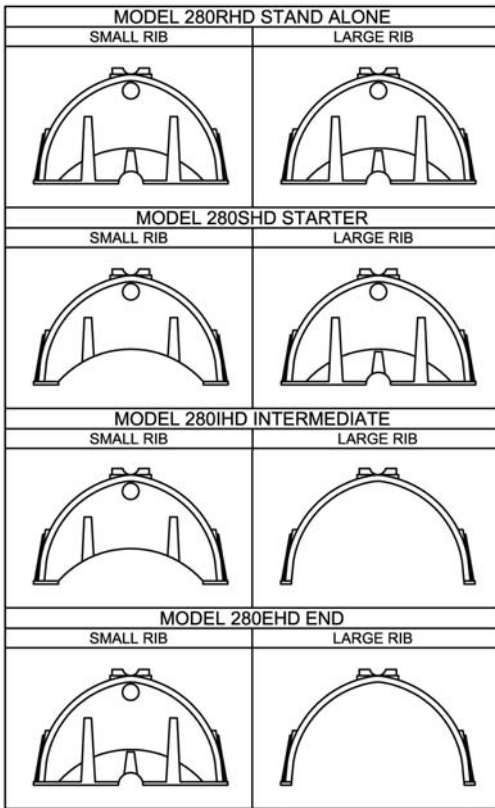
Calculations are based on installed chamber length.

Visit [www.cultec.com/downloads.html](http://www.cultec.com/downloads.html) for Product Downloads and CAD details.



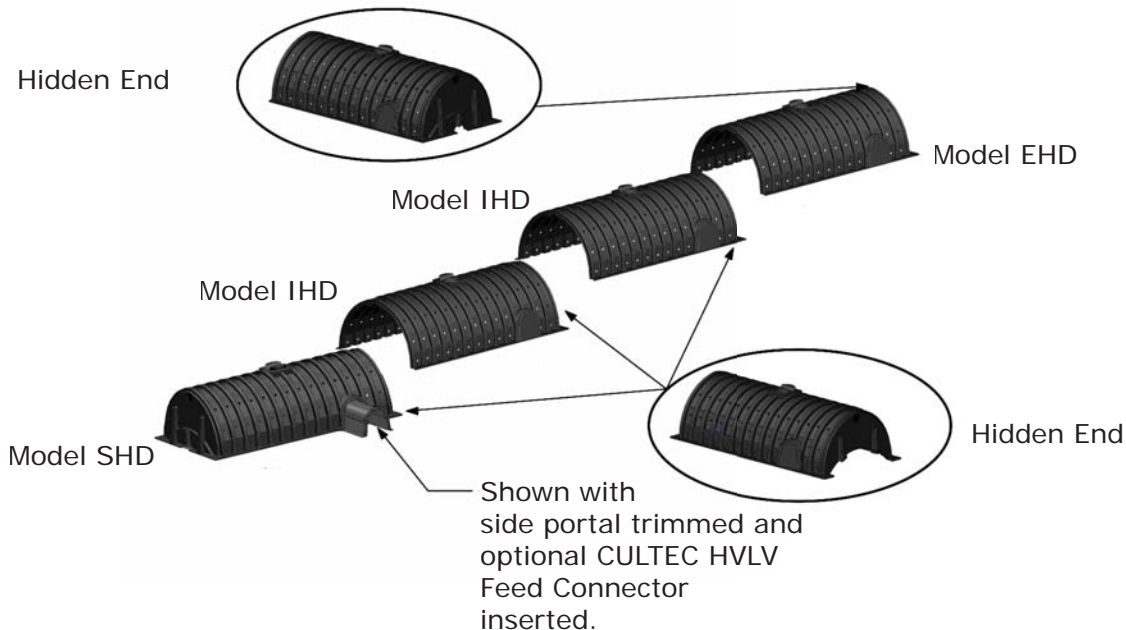
# CULTEC Recharger® 280HD Stormwater Chamber

## Three View Drawing



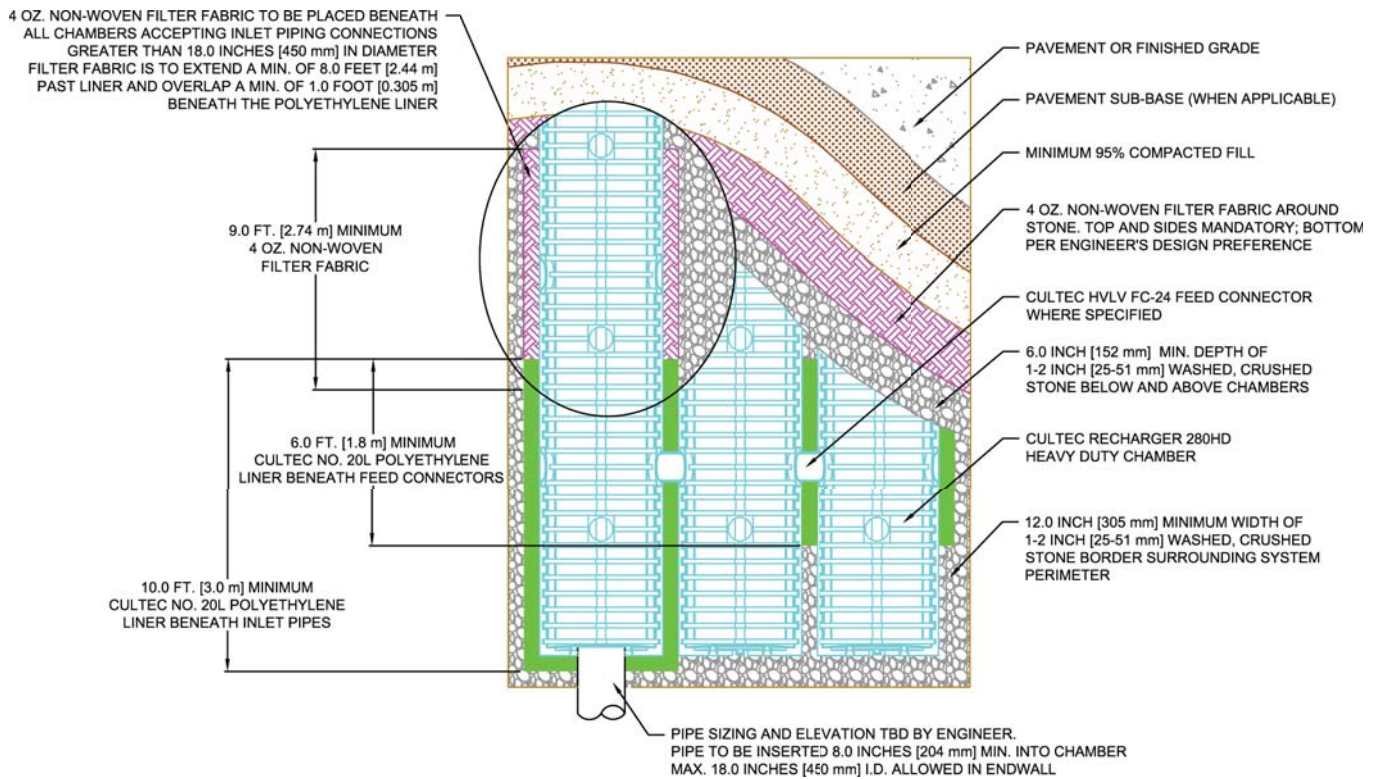
CULTEC RECHARGER 280HD CHAMBER STORAGE = 6.079 CF/FT [0.565 m<sup>3</sup>/m]  
 INSTALLED LENGTH ADJUSTMENT = 1.0' [0.3048 m]  
 ALL RECHARGER 280HD HEAVY DUTY UNITS ARE MARKED WITH A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.  
 SIDE PORTAL ACCEPTS CULTEC HVLV FC-24 FEED CONNECTOR.

## Typical Interlock Installation

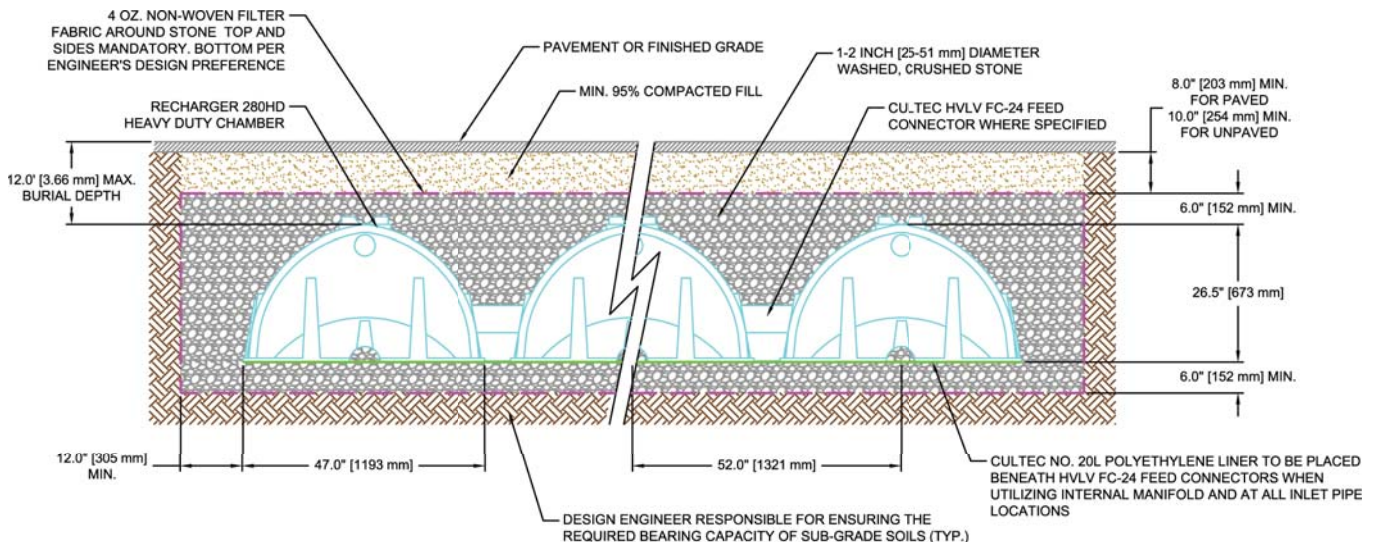




## Plan View Drawing



## Typical Cross Section for Traffic Application





## CULTEC Recharger® 280HD Specifications

### GENERAL

CULTEC Recharger® 280HD 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® 280HD shall be 26.5 inches (673 mm) tall, 47 inches (1194 mm) wide and 8 feet (2.44 m) long. The installed length of a joined Recharger® 280HD shall be 7 feet (2.13 m).
7. Maximum inlet opening on the chamber end wall is 18 inches (450 mm).
8. The chamber shall have two side portals to accept CULTEC HVLV® FC-24 Feed Connectors to create an internal manifold. Maximum allowable O.D. in the side portal is 12.25 inches (311 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 (614 mm) long.
10. The nominal storage volume of the Recharger® 280HD chamber shall be 6.079 ft<sup>3</sup> / ft (0.565 m<sup>3</sup> / m) - without stone. The nominal storage volume of a single Recharger 280RHD Stand Alone unit shall be 48.63 ft<sup>3</sup> (1.38 m<sup>3</sup>) - without stone. The nominal storage volume of a joined Recharger® 280IHD Intermediate unit shall be 42.553 ft<sup>3</sup> (1.205 m<sup>3</sup>) - without stone. The nominal storage volume of the length adjustment amount per run shall be 6.08 ft<sup>3</sup> (0.56 m<sup>3</sup>) - without stone.
11. The nominal storage volume of the HVLV® FC-24 Feed Connector shall be 0.913 ft<sup>3</sup> / ft (0.085 m<sup>3</sup> / m) - without stone.
12. The Recharger® 280HD chamber shall have eighty-two discharge holes bored into the sidewalls of the unit's core to promote lateral conveyance of water.
13. The Recharger® 280HD chamber shall have 15 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® 280RHD 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® 280SHD 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 9 inches (229 mm) high x 35 inches (889 mm) wide.
17. The Recharger® 280IHD 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 9 inches (229 mm) high x 35 inches (889 mm) wide.
18. The Recharger® 280EHD 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® 280HD 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.



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For more information, contact CULTEC at (203) 775-4416 or visit [www.cultec.com](http://www.cultec.com).