

# **CULTEC Contactor® Field Drain C-4HD Stormwater Chamber**

The Contactor® Field Drain C-4HD is a 8.5" (216 mm) tall, ultra-low profile chamber and is typically used for installations with depth restrictions or when a larger infiltrative area is required.

Size (L x W x H)       8.5' x 48" x 8.5"         2.6 m x 1219 mm x 216 mm         Installed Length       8.0'         2.44 m         Length Adjustment per Run       0.5'         0.15 m         Chamber Storage       1.692 ft³/ft         0.16 m³/m       13.55 ft³/unit         0.38 m³/unit       0.38 m³/m         29.99 ft³/unit       0.85 m³/unit         0.85 m³/unit       0.85 m³/unit         Min. Area Required       32 ft²         2.97 m²       2         Chamber Weight       42.0 lbs         19.05 kg         Shipping       55 chambers/skid         2,455 lbs/skid       11 skids/48' flatbed         Min. Center to Center Spacing       4.00'         Max. Allowable Cover       12'         3.66 m         Max. Inlet Opening in Endwall       6" HDPE, PVC         150 mm HDPE, PVC				
Installed Length 8.0' 2.44 m  Length Adjustment per Run 0.5' 0.15 m  Chamber Storage 1.692 ft³/ft 0.16 m³/m 13.55 ft³/unit 0.38 m³/unit  Min. Installed Storage 3.75 ft³/ft 0.35 m³/m 29.99 ft³/unit 0.85 m³/unit  Min. Area Required 32 ft² 2.97 m²  Chamber Weight 42.0 lbs 19.05 kg  Shipping 55 chambers/skid 2,455 lbs/skid 11 skids/48' flatbed  Min. Center to Center Spacing 4.00' 1.22 m  Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall 6" HDPE, PVC	Size (L x W x H)	8.5' x 48" x 8.5"		
Length Adjustment per Run		2.6 m x 1219 mm x 216 mm		
Length Adjustment per Run  O.5'  0.15 m  Chamber Storage  1.692 ft³/ft 0.16 m³/m 13.55 ft³/unit 0.38 m³/unit  Min. Installed Storage  3.75 ft³/ft 0.35 m³/m 29.99 ft³/unit 0.85 m³/unit  Min. Area Required  32 ft² 2.97 m²  Chamber Weight  42.0 lbs 19.05 kg  Shipping  55 chambers/skid 2,455 lbs/skid 11 skids/48' flatbed  Min. Center to Center Spacing  Max. Allowable Cover  12' 3.66 m  Max. Inlet Opening in Endwall  6" HDPE, PVC	Installed Length	8.0'		
Chamber Storage       1.692 ft³/ft         0.16 m³/m       13.55 ft³/unit         0.38 m³/unit       0.38 m³/unit         Min. Installed Storage       3.75 ft³/ft         0.35 m³/m       29.99 ft³/unit         0.85 m³/unit       0.85 m³/unit         Min. Area Required       32 ft²         2.97 m²       2         Chamber Weight       42.0 lbs         19.05 kg         Shipping       55 chambers/skid         2,455 lbs/skid       11 skids/48' flatbed         Min. Center to Center Spacing       4.00'         Min. Center to Center Spacing       4.00'         Max. Allowable Cover       12'         3.66 m         Max. Inlet Opening in Endwall       6" HDPE, PVC		2.44 m		
Chamber Storage  1.692 ft³/ft 0.16 m³/m 13.55 ft³/unit 0.38 m³/unit  Min. Installed Storage 3.75 ft³/ft 0.35 m³/m 29.99 ft³/unit 0.85 m³/unit  Min. Area Required 32 ft² 2.97 m²  Chamber Weight 42.0 lbs 19.05 kg  Shipping 55 chambers/skid 2,455 lbs/skid 11 skids/48' flatbed  Min. Center to Center Spacing 4.00' 1.22 m  Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall 6" HDPE, PVC	Length Adjustment per Run	0.5'		
0.16 m³/m   13.55 ft³/unit   0.38 m³/unit		0.15 m		
13.55 ft³/unit   0.38 m³/unit	Chamber Storage	1.692 ft <sup>3</sup> /ft		
Min. Installed Storage   3.75 ft³/ft   0.35 m³/m   29.99 ft³/unit   0.85 m³/unit		0.16 m³/m		
Min. Installed Storage       3.75 ft³/ft         0.35 m³/m       29.99 ft³/unit         0.85 m³/unit         Min. Area Required       32 ft²         2.97 m²         Chamber Weight       42.0 lbs         19.05 kg         Shipping       55 chambers/skid         2,455 lbs/skid         11 skids/48' flatbed         Min. Center to Center Spacing       4.00'         1.22 m         Max. Allowable Cover       12'         3.66 m         Max. Inlet Opening in Endwall       6" HDPE, PVC		13.55 ft³/unit		
0.35 m³/m   29.99 ft³/unit   0.85 m³/unit   0.85 m³/unit   0.85 m³/unit		0.38 m³/unit		
29.99 ft³/unit 0.85 m³/unit  Min. Area Required 32 ft² 2.97 m²  Chamber Weight 42.0 lbs 19.05 kg  Shipping 55 chambers/skid 2,455 lbs/skid 11 skids/48' flatbed  Min. Center to Center Spacing 4.00' 1.22 m  Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall 6" HDPE, PVC	Min. Installed Storage	3.75 ft³/ft		
Min. Area Required       32 ft²         2.97 m²       2.0 lbs         19.05 kg         Shipping       55 chambers/skid         2,455 lbs/skid       11 skids/48' flatbed         Min. Center to Center Spacing       4.00'         1.22 m         Max. Allowable Cover       12'         3.66 m         Max. Inlet Opening in Endwall       6" HDPE, PVC		0.35 m³/m		
Min. Area Required       32 ft²         2.97 m²         Chamber Weight       42.0 lbs         19.05 kg         Shipping       55 chambers/skid         2,455 lbs/skid         11 skids/48' flatbed         Min. Center to Center Spacing       4.00'         1.22 m         Max. Allowable Cover       12'         3.66 m         Max. Inlet Opening in Endwall       6" HDPE, PVC		29.99 ft <sup>3</sup> /unit		
2.97 m²  Chamber Weight		0.85 m³/unit		
Chamber Weight  42.0 lbs 19.05 kg  Shipping  55 chambers/skid 2,455 lbs/skid 11 skids/48' flatbed  Min. Center to Center Spacing 4.00' 1.22 m  Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall  6" HDPE, PVC	Min. Area Required	32 ft²		
Shipping  55 chambers/skid 2,455 lbs/skid 11 skids/48' flatbed  Min. Center to Center Spacing 4.00' 1.22 m  Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall 6" HDPE, PVC		2.97 m <sup>2</sup>		
Shipping  55 chambers/skid 2,455 lbs/skid 11 skids/48' flatbed  Min. Center to Center Spacing 4.00' 1.22 m  Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall 6" HDPE, PVC	Chamber Weight	42.0 lbs		
2,455 lbs/skid 11 skids/48' flatbed  Min. Center to Center Spacing 4.00' 1.22 m  Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall 6" HDPE, PVC		19.05 kg		
Min. Center to Center Spacing 4.00' 1.22 m  Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall 6" HDPE, PVC	Shipping	55 chambers/skid		
Min. Center to Center Spacing 4.00' 1.22 m  Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall 6" HDPE, PVC		2,455 lbs/skid		
1.22 m  Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall 6" HDPE, PVC		11 skids/48' flatbed		
Max. Allowable Cover 12' 3.66 m  Max. Inlet Opening in Endwall 6" HDPE, PVC	Min. Center to Center Spacing	4.00'		
3.66 m  Max. Inlet Opening in Endwall  6" HDPE, PVC		1.22 m		
Max. Inlet Opening in Endwall 6" HDPE, PVC	Max. Allowable Cover	12'		
		3.66 m		
150 mm HDPE, PVC	Max. Inlet Opening in Endwall	6" HDPE, PVC		
		150 mm HDPE, PVC		

Calculations are based on installed chamber length.

All above values are nominal.

Min. installed storage includes 6" (152 mm) stone base, 6" (152 mm) stone above crown of chamber and typical stone surround at 48"(1219 mm) center-to-center spacing.

	Stone Foundation Depth				
	6"	12"	18"		
	152 mm	305 mm	457 mm		
Chamber and Stone Storage Per	29.99 ft <sup>3</sup>	36.39 ft <sup>3</sup>	42.79 ft <sup>3</sup>		
Chamber	0.85 m <sup>3</sup>	1.03 m³	1.21 m³		
Min. Effective Depth	1.71'	2.21'	2.71'		
	0.52 m	0.67 m	0.83 m		
Stone Required Per Chamber	1.52 yd³	2.12 yd³	2.71 yd³		
	1.16 m³	1.62 m³	2.07 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%.



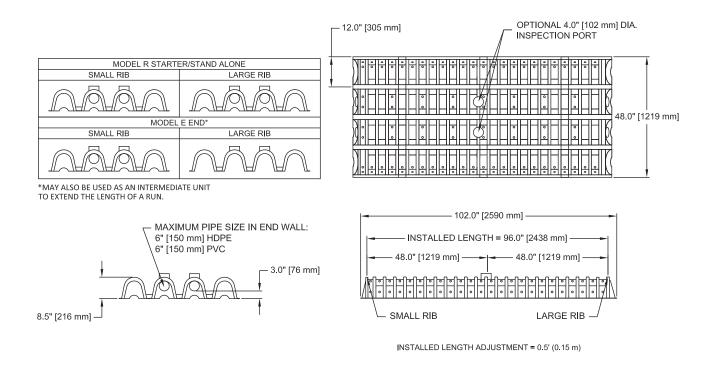
Contactor® Field Drain C-4HD Bare Chamber Storage Volumes

Elevation		Incremental Storage Volume				Cumulative Storage	
in.	mm	ft³/ft	m³/m	ft³	m³	ft³	m³
8.5	216	0.002	0.0002	0.016	0.000	13.552	0.384
8	203	0.064	0.0059	0.512	0.015	13.536	0.384
7	178	0.168	0.0156	1.344	0.038	13.024	0.369
6	152	0.192	0.0178	1.536	0.044	11.68	0.331
5	127	0.224	0.0208	1.792	0.051	10.144	0.287
4	102	0.236	0.0219	1.888	0.053	8.352	0.237
3	76	0.252	0.0234	2.016	0.057	6.464	0.183
2	51	0.264	0.0245	2.112	0.060	4.448	0.126
1	25	0.292	0.0271	2.336	0.066	2.336	0.066
Total		1.692	0.1574	13.552	0.384	13.552	0.384

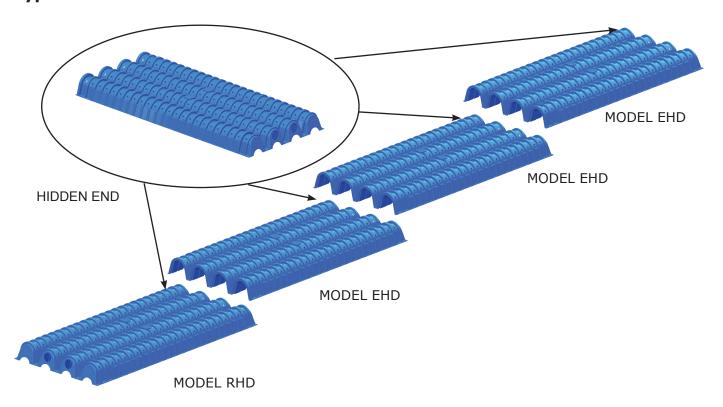
Calculations are based on installed chamber length.



### **Three View Drawing**

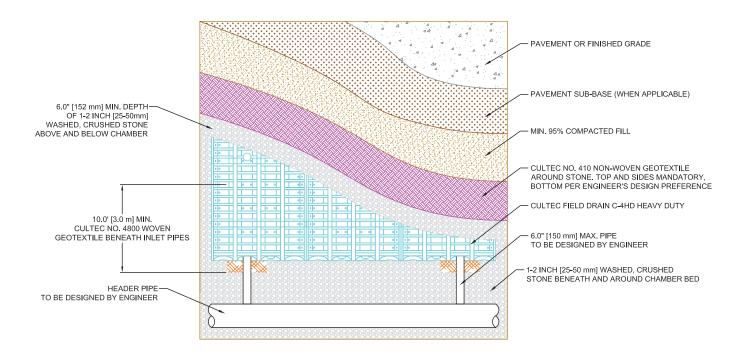


### **Typical Interlock Installation**

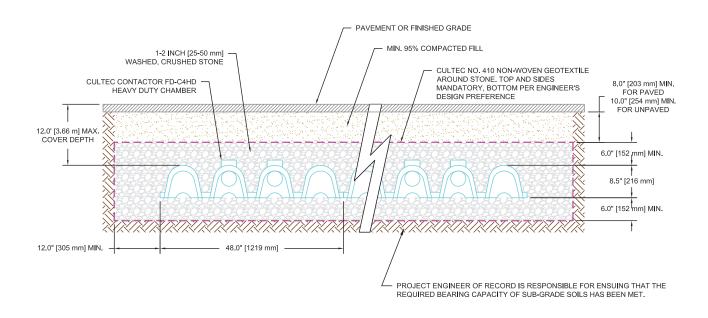




#### **Plan View Drawing**



## **Typical Cross Section for Traffic Application**



# **CULTEC Contactor® Field Drain C-4HD Stormwater Chamber**

## **CULTEC Contactor® Field Drain C-4HD Specifications**

#### **GENERAL**

CULTEC Contactor® Field Drain C-4HD 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 will be manufactured by CULTEC, Inc. of Brookfield, CT. (203-775-4416 or 1-800-428-5832)
- 2. The chamber will be vacuum thermoformed of high molecular weight high density polyethylene (HMWHDPE).
- 3. The chamber will be arched in shape.
- 4. The chamber will be open-bottomed.
- 5. The chamber will 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 Contactor® Field Drain C-4HD shall be 8.5 inches (216 mm) tall, 48 inches (1219 mm) wide and 8.5 feet (2.6 m) long. The installed length of a joined Contactor® Field Drain C-4HD shall be 8.0 feet (2.4 m).
- 7. Inlet opening on the chamber endwall is 6" inches (150 mm) HDPE, PVC.
- 8. The nominal storage volume of the Contactor® Field Drain C-4HD chamber will be 1.692 ft³ / ft (0.16 m³ / m) without stone. The nominal storage volume of a single Contactor® Field Drain C-4RHD Stand Alone unit shall be 14.38 ft³ (0.41 m³) without stone. The nominal storage volume of a joined Contactor® Field Drain C-4EHD as an Intermediate unit shall be 13.54 ft³ (0.38 m³) without stone. The nominal storage volume of the length adjustment amount per run shall be 0.846 ft³ (0.02 m³) without stone.
- 9. The Contactor® Field Drain C-4HD chamber will have eighty discharge holes bored into the sidewalls of the unit's core to promote lateral conveyance of water.
- 10. The Contactor® Field Drain C-4HD chamber shall have 100 corrugations.
- 11. The endwall of the chamber, when present, will be an integral part of the continuously formed unit. Separate end plates cannot be used with this unit.
- 12. The Contactor® Field Drain C-4RHD Starter/Stand Alone unit must be formed as a whole chamber having two fully formed integral endwalls and having no separate end plates or separate end walls.
- 13. The Contactor® Field Drain C-4EHD Middle/End unit must be formed as a whole chamber having one fully formed integral endwall and one fully open end wall and having no separate end plates or end walls.
- 14. Chambers must have horizontal stiffening flex reduction steps between the ribs.
- 15. The chamber will 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.
- 16. The units may be trimmed to custom lengths by cutting back to any corrugation on the large rib end.
- 17. The chamber shall be manufactured in an ISO 9001:2015 certified facility.
- 18. Maximum allowable cover over the top of the chamber shall be 12 feet (3.66 m) for the Heavy Duty version.
- 19. The chamber will be designed to withstand traffic loads when installed according to CULTEC's recommended installation instructions.