Contactor® & Recharger®

Stormwater Chambers



Product Booklet

- Retention
- Detention
- Water Conveyance
- Water Quality







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Contact Information:

For general information on our other products and services, please contact our offices within the United States at (800)428-5832, (203)775-4416 ext. 202, or e-mail us at custservice@cultec.com.

For technical support, please call (203)775-4416 ext. 203 or e-mail tech@cultec.com.

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

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Technical and Design Assistance

Free Design Assistance

CULTEC offers free design assistance including preliminary CAD drawings, details and calculations. Contact our Technical Department at 203-775-4416.

Free Design Tools

Systems may be sized using our own Stormwater Design Calculator and drawn in AutoCAD® using the CULTEC StormGenie® Automated Drawing Program. These design tools are available for download on our website at www.cultec.com.

Software Partners

Our products are modeled in:

- HydroCAD®
- Streamline Technologies' ICPR®
- Bentley Systems' PondPack® V8i
- Autodesk® Storm & Sanitary Analysis (SSA)

CULTEC offers a variety of other stormwater and septic products. Contact us for additional literature and information or visit our website at www.cultec.com.

CULTEC has the solutions!



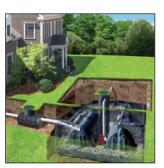
Drywell Applications



Residential Drainage



Commercial Drainage



Rainwater Harvesting



CULTEC Stormwater Systems 101 - The Basics

The CULTEC Contactor® and Recharger® chambers replace conventional stormwater retention/detention systems such as ponds, swales, pipe and stone trenches or beds, or concrete structures. The chambers may be used for drywells. Infiltration contact area is maximized by the fully open bottoms and perforated sidewalls.

Water is collected in a catch basin or other collective device followed by a CULTEC StormFilter® to be treated. The water is then directed into the Contactor® or Recharger® chambers and distributed via the side portal internal manifold and crushed stone embedment. Depending on the system application, the water infiltrates into the ground, or it is detained and released.

Typical CULTEC stormwater systems are designed by using the largest chamber that meets the site's depth constraint and system requirements. By choosing the largest available chamber that meets the system's parameters, you reduce the number of chambers and land area required. The client is able to maximize storage volume at the given workable elevations.

Applications

- Retention Systems
- **Detention Systems**
- Reclamation
- Drywells
- Conveyance
- Manage residential roofdrain run-off
- Contain swimming pool or water conditioner backwash

Features

- Overlapping rib connection
- Unique in-line manifold
- High infiltrative capability
- Lightweight
- Variety of sizes
- Chemically resistant

System Benefits

- Maximum use of land area
- Store larger volumes in a lower profile than comparably sized pipe
- Ability to recharge water on-site
- Single or multi-level systems
- Less heavy equipment required
- The units nest on pallets for convenient shipping and stockpiling of material
- Allows for greater infiltration into the ground
- Permits further development
- Reduces insurance liabilities and potential breeding grounds for infectious mosquitoes associated with open ponds
- Free design assistance available







Typical CULTEC Stormwater System Components

- 1. CULTEC Stormwater Chamber used for retention, detention, reclamation
- 2. CULTEC PAC® 150 chamber with closed bottom used for water conveyance
- 3. CULTEC HVLV™ Feed Connector internal manifold component
- 4. CULTEC StormFilter® 330 Water Quality Unit
- 5. CULTEC No. 410[™] Filter Fabric prevents soil intrusion into system
- 6. CULTEC No. 20L™ Polyethylene Liner placed under CULTEC manifold components, prevents scouring of stone base
- 7. Stone used for stone base, embedment stone and stone above chambers
- 8. CULTEC Warning Tape marks off location of underground CULTEC Stormwater System during construction to prevent vehicular traffic
- **9.** Multicade™ Pylon marks location of underground **CULTEC Stormwater System during construction phase**





CULTEC Contactor® & Recharger® Chamber Specification Information

	Contactor® 100HD	Recharger® 150XLHD	Recharger® 280HD	Recharger® 330XLHD	Recharger® V8HD	Recharger® 902HD
Longeth	8'	11'	8'	8.5'	8'	4.10'
Length	2.44 m	3.35 m	2.44 m	2.59 m	2.44 m	1.25 m
Installed	7.5'	10.25'	7'	7'	7.5'	3.67'
Length	2.29 m	3.12 m	2.13 m	2.13 m	2.29 m	1.12 m
Width	36"	33"	47"	52"	60"	78"
VVIGITI	914 mm	838 mm	1194 mm	1321 mm	1524 mm	1981 mm
Lloight	12.5"	18.5"	26.5"	30.5"	32"	48"
Height	318 mm	470 mm	673 mm	775 mm	813 mm	1219 mm
Chamber Storage	14.00 ft ³	27.16 ft ³	42.55 ft ³	52.21 ft ³	65.09 ft ³	64.75 ft ³
Capacity	0.40 m ³	0.77 m^3	1.21 m³	1.48 m³	1.84 m³	1.84 m³
Min. Storage Capacity	28.81 ft ³	50.17 ft ³	64.46 ft ³	79.26 ft ³	99.56 ft ³	100 ft ³
Surrounded in Stone	0.82 m³	1.42 m³	1.83 m³	2.24 m³	2.82 m³	2.83 m³
Compatible Feed	HVLV SFCx2	HVLV FC-24	HVLV FC-24	HVLV FC-24	HVLV F-110x4 for V8SHD Starter and V8EHD End	HVLV FC-24
Connector					HVLV FC-24 for V8IHD Intermediate	

Based on installed length. Stone void is calculated at 40%. For all units except the Recharger 902HD, calculations include 6" (152 mm) stone base, 6" (152 mm) stone above chamber crown and stone around units based on typical minimum centerto-center spacing. Recharger 902HD includes 9" (229 mm) stone base, 12" (305 mm) stone above the chamber crown and stone around units based on typical minimum center-to-center spacing.

The Recharger V8HD information is based on the V8IHD Intermediate. See pages 12-13 for information on the V8SHD Starter and V8EHD End units.

Other CULTEC models are available if the above chambers do not meet your design parameters. Please contact our Technical Department for more information.



Shown L->R- Contactor 100HD, Recharger 150XLHD, Recharger 280HD, Recharger 330XLHD, Recharger V8HD and Recharger 902HD.



Minimum Fill Requirements

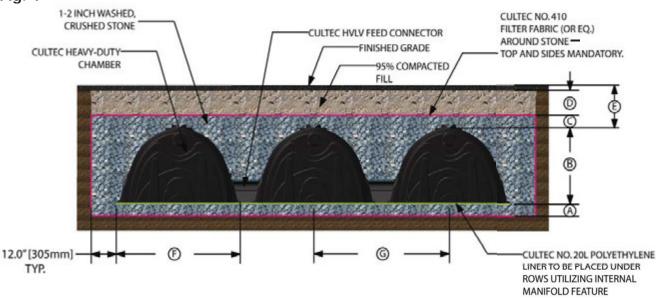
These requirements are for traffic applications only. If these models and design parameters do not meet your needs, please call CULTEC's Technical Department at 1-800-4-CULTEC, Ext. 203 (1-800-428-5832, Ext. 203) for further information and assistance.

Refer to CULTEC's most current installation instructions for further details including but not limited to acceptable fill materials and vehicle loads.

Table 1

	See Fig. 1	Contactor® 100HD	Recharger® 150XLHD	Recharger® 280HD	Recharger® 330XLHD	Recharger® V8HD	Recharger® 902HD
Typical Center-to-		3.33′	3.25′	4.33′	4.83′	5.5′	7.25'
Center Spacing	G	1.02 m	0.99 m	1.32 m	1.47 m	1.68 m	2.21 m
Chamber width	_	36"	33"	47"	52"	60"	78"
Chamber width	F	914 mm	838 mm	1194 mm	1321 mm	1524 mm	1981 mm
Max. depth of cover allowed	_	12′	12′	12′	12′	8′	8.3'
above crown of chamber	E	3.66 m	3.66 m	3.66 m	3.66 m	2.44 m	2.53 m
Min. depth required of 95%		8"	8″	8"	10″	12"	12"
Compacted Fill for Paved Traffic Application	D	203 mm	203 mm	203 mm	254 mm	305 mm	305 mm
Min. depth required of 95% Compacted Fill for	D	10"	10"	10"	12"	14"	18"
Unpaved Traffic Application	D	254 mm	254 mm	254 mm	254 mm	356 mm	457 mm
Min. depth of stone required	0	6"	6"	6"	6"	6"	12"
above units for traffic applications	С	152 mm	152 mm	152 mm	152 mm	152 mm	305 mm
	-	12.5″	18.5″	26.5"	30.5"	32"	48"
Chamber height	В	318 mm	470 mm	673 mm	775 mm	813 mm	1219 mm
Min. depth of	٨	6"	6"	6"	6"	6"	9"
stone base	Α	152 mm	152 mm	152 mm	152 mm	152 mm	229 mm







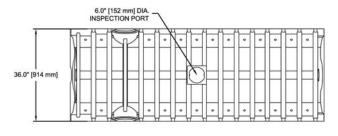
CULTEC Contactor® 100HD

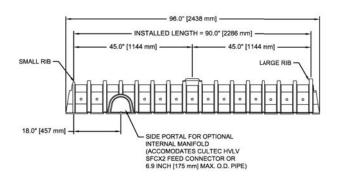
The Contactor® 100HD is a 12.5" (318 mm) tall, low profile chamber and is typically used for installations with depth restrictions or when a larger infiltrative area is required. The Contactor 100HD has the side portal internal manifold feature. The HVLV® SFCx2 Feed Connector is inserted into the side portal of the Contactor 100HD to create the internal manifold.

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Size (L x W x H)	8' x 36" x 12.5"		
	2.44 m x 914 mm x 318 mm		
Installed Length	7.5'		
	2.29 m		
Length Adjustment per Run	0.5'		
	0.15 m		
Chamber Storage	1.87 ft³/ft		
	0.17 m³/m		
	14.00 ft³/unit		
	0.40 m³/unit		
Min. Installed Storage	3.84 ft³/ft		
	0.36 m³/m		
	28.81 ft³/unit		
	0.82 m³/unit		
Min. Area Required	25 ft ²		
	2.32 m ²		
Min. Center-to-Center Spacing	3.33'		
	1.02 m		
Max. Allowable Cover	12'		
	3.66 m		
Max. Inlet Opening in End Wall	10"		
	250 mm		
Max. Allowable O.D.	6.9"		
in Side Portal	175 mm		
Compatible Feed Connector	HVLV SFCx2 Feed Connector		

Size (L x W x H)	8' x 36" x 12.5"
	2.44 m x 914 mm x 318 mm
Installed Length	7.5'
	2.29 m
Length Adjustment per Run	0.5'
	0.15 m
Chamber Storage	1.87 ft ³ /ft
	0.17 m³/m
	14.00 ft³/unit
	0.40 m³/unit
Min. Installed Storage	3.84 ft ³ /ft
	0.36 m³/m
	28.81 ft³/unit
	0.82 m³/unit
Min. Area Required	25 ft²
	2.32 m ²
Min. Center-to-Center Spacing	3.33'
	1.02 m
Max. Allowable Cover	12'
	3.66 m
Max. Inlet Opening in End Wall	10"
	250 mm
Max. Allowable O.D.	6.9"
in Side Portal	175 mm

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	Stone Foundation Depth		
	6"	12"	18"
	152 mm	305 mm	457 mm
Chamber and Stone Storage Per Chamber	28.81 ft ³	33.81 ft ³	38.81 ft ³
	0.82 m^3	0.96 m^3	1.10 m ³
Min. Effective Depth	2.04'	2.54'	3.04'
	0.62 m	0.77 m	0.93 m
Stone Required Per Chamber	1.37 yd³	1.84 yd³	2.30 yd³
	1.05 m³	1.40 m³	1.76 m³

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%.

^{4.5&}quot; [114 mm] DIA. 12.5" [318 mm] @0" [152 mm]



CULTEC Recharger® 150XLHD

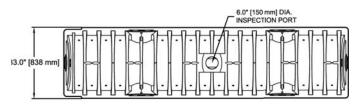
The Recharger® 150XLHD is an 18.5" (470 mm) tall, lower profile chamber and is typically used for installations with depth restrictions or when a larger infiltrative area is required. The Recharger® 150XLHD has the side portal internal manifold feature. HVLV® FC-24 Feed Connectors are inserted into the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

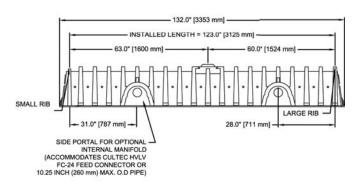
Size (L x W x H)	11' x 33" x 18.5"
	3.35 m x 838 mm x 470 mm
Installed Length	10.25'
	3.12 m
Length Adjustment per Run	0.75'
	0.23 m
Chamber Storage	2.65 ft ³ /ft
	0.25 m³/m
	27.16 ft³/unit
	0.77 m³/unit
Min. Installed Storage	4.89 ft³/ft
	0.45 m³/m
	50.17 ft³/unit
	1.42 m³/unit
Min. Area Required	33.31 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.	10.25"
in Side Portal	260 mm
Compatible Feed Connector	HVLV FC-24 Feed Connector

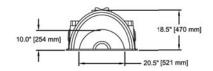
	Stone Foundation Depth		
	6"	12"	18"
	152 mm	305 mm	457 mm
Chamber and Stone Storage	50.17 ft ³	56.83 ft ³	63.49 ft ³
Per Chamber	1.42 m³	1.61 m³	1.80 m³
Min. Effective Depth	2.54'	3.04'	3.54'
	0.77 m	0.93 m	1.08 m
Stone Required Per Chamber	2.13 yd³	2.75 yd³	3.36 yd³
	1.63 m ³	2.10 m ³	2.57 m ³

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%.









3



CULTEC Recharger® 280HD

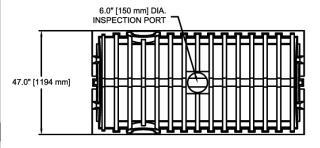
The Recharger® 280HD is a 26.5" (673 mm) tall, midsize chamber and is typically used for installations with depth restrictions or when a larger infiltrative area is required. The Recharger® 280HD has the side portal internal manifold feature. HVLV® FC-24 Feed Connectors are inserted into the side portals to create the internal manifold.

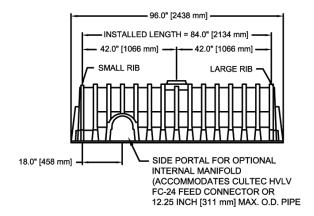
Size (L x W x H)	8' x 47" x 26.5"
	2.44 m x 1194 mm x 673 mm
Installed Length	7'
	2.13 m
Length Adjustment per Run	1'
	0.30 m
Chamber Storage	6.08 ft³/ft
	0.56 m³/m
	42.55 ft³/unit
	1.21 m³/unit
Min. Installed Storage	9.21 ft³/ft
	0.86 m³/m
	64.46 ft³/unit
	1.83 m³/unit
Min. Area Required	30.33 ft ²
	2.82 m²
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.	12.25"
in Side Portal	311 mm
Compatible Feed Connector	HVLV FC-24 Feed Connector

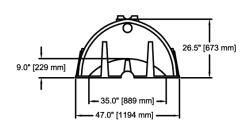
	Stone Foundation Depth		
	6"	12"	18"
	152 mm	305 mm	457 mm
Chamber and Stone Storage	64.46 ft ³	70.53 ft ³	76.59 ft ³
Per Chamber	1.83 m³	$2.00 \; m^3$	2.17 m³
Min. Effective Depth	3.21'	3.71'	4.21'
	0.98 m	1.13 m	1.28 m
Stone Required Per Chamber	2.03 yd^3	2.59 yd³	3.15 yd³
	1.55 m³	1.98 m³	2.41 m³

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%.











CULTEC Recharger® 330XLHD

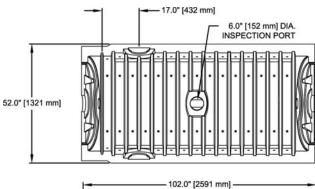
The Recharger® 330XLHD is a 30.5" (775 mm) tall, high capacity chamber. Typically when using this model, fewer chambers are required resulting in less labor and a smaller installation area. The Recharger® 330XLHD has the side portal internal manifold feature. HVLV® FC-24 Feed Connectors are inserted into the side portals to create the internal manifold.

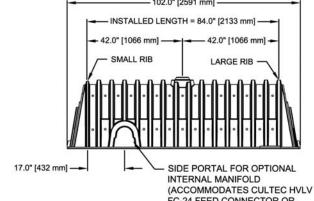
Size (L x W x H)	8.5' x 52" x 30.5"		
	2.59 m x 1321 mm x 775 mm		
Installed Length	7'		
	2.13 m		
Length Adjustment per Run	1.50'		
	0.46 m		
Chamber Storage	7.46 ft ³ /ft		
	0.69 m ³ /m		
	52.21 ft ³ /unit		
	1.48 m³/unit		
Min. Installed Storage	11.32 ft ³ /ft		
	1.05 m³/m		
	79.26 ft³/unit		
	2.24 m³/unit		
Min. Area Required	33.83 ft ²		
	3.14 m ²		
Min. Center-to-Center Spacing	4.83'		
	1.47 m		
Max. Allowable Cover	12'		
	3.66 m		
Max. Inlet Opening in End Wall	24"		
	600 mm		
Max. Allowable O.D.	11.75"		
in Side Portal	298 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	79.26 ft ³	86.03 ft ³	92.79 ft ³	
Per Chamber	2.24 m^3	$2.44 m^3$	2.63 m³	
Min. Effective Depth	3.54'	4.04'	4.54'	
	1.08 m	1.23 m	1.38 m	
Stone Required Per Chamber	2.50 yd³	3.13 yd³	3.76 yd³	
	1.91 m ³	2.39 m^3	2.87 m³	

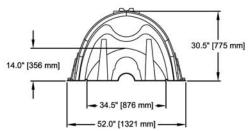
Calculations are based on installed chamber length. Includes 6" (152 mm) stone above crown of chamber and typical stone surround. Stone void calculated at 40%.







FC-24 FEED CONNECTOR OR 11.75 INCH [298 mm] MAX. O.D. PIPE





CULTEC Recharger® V8HD

The Recharger® V8HD is a 32" (813 mm) tall, high capacity chamber. The Recharger® V8HD has the side portal internal manifold feature. HVLV® Feed Connectors are inserted into the side portals to create the internal manifold.

The Recharger V8SHD Starter and V8EHD End sections are shorter in length than the Recharger V8IHD Intermediate section. These differences must be considered during product specification, calculation and design.



Recharger V8SHD Starter

	or V8EHD End Section	Intermediate Section
Size (L x W x H)	5.08' x 60" x 32"	8' x 60" x 32"
	1.55 m x 1524 mm x 813 mm	2.44 m x 1524 mm x 813 mm
Installed Length	4.58'	7.5'
	1.40 m	2.29 m
Length Adjustment per Run	-5.83'	-5.83'
	-1.78 m	-1.78 m
Chamber Storage	8.68 ft ³ /ft	8.68 ft³/ft
	0.81 m³/m	0.81 m³/m
	39.78 ft³/unit	65.09 ft³/unit
	1.13 m³/unit	1.84 m³/unit
Min. Installed Storage	13.27 ft ³ /ft	13.27 ft³/ft
	1.23 m³/m	1.23 m³/m
	60.84 ft³/unit	99.56 ft³/unit
	1.72 m³/unit	2.82 m³/unit
Min. Area Required	25.21 ft ²	41.25 ft ²
	2.34 m ²	3.83 m²
Min. Center-to-Center Spacing	5.5'	5.5'
	1.68 m	1.68 m
Max. Allowable Cover	8'	8'
	2.44 m	2.44 m
Max. Inlet Opening in End Wall	24"	n/a
	600 mm	n/a
Max. Allowable O.D.	15.3"	12.25"
in Side Portal	387 mm	311 mm

Recharger V8SHD Starter Recharger V81HD

HVLV F-110x4 Feed Connector HVLV FC-24 Feed Connector



Recharger V8IHD Intermediate



Recharger V8EHD End

Recharger	Stone Foundation Depth		D. I. WOLLID	Stone Foundation Depth			
V8SHD Starter or V8EHD End	6"	12"	18"	Recharger V81HD Intermediate	6"	12"	18"
	152 mm	305 mm	457 mm		152 mm	305 mm	457 mm
Chamber and Stone	60.84 ft ³	65.88 ft ³	70.92 ft ³	Chamber and Stone	99.56 ft ³	107.81 ft ³	116.06 ft ³
Storage Per Chamber	1.72 m³	1.87 m³	2.01 m ³	Storage Per Chamber	2.82 m³	$3.05 m^3$	3.29 m³
Min. Effective Depth	3.67'	4.17'	4.67'	Min. Effective Depth	3.67'	4.17'	4.67'
	1.12 m	1.27 m	1.42 m		1.12 m	1.27 m	1.42 m
Stone Required Per Chamber	1.95 yd³	2.42 yd³	2.88 yd³	Stone Required	3.19 yd³	3.95 yd³	4.72 yd³
	1.49 m³	1.85 m³	$2.20 \; m^3$	Per Chamber	2.44 m ³	3.02 m^3	3.61 m ³

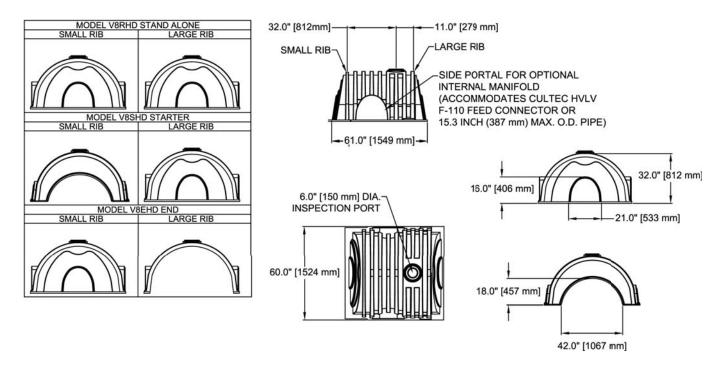
Includes 6" (152 mm) stone above crown of chamber and typical stone surround. Stone void calculated at 40%.

Compatible Feed Connector

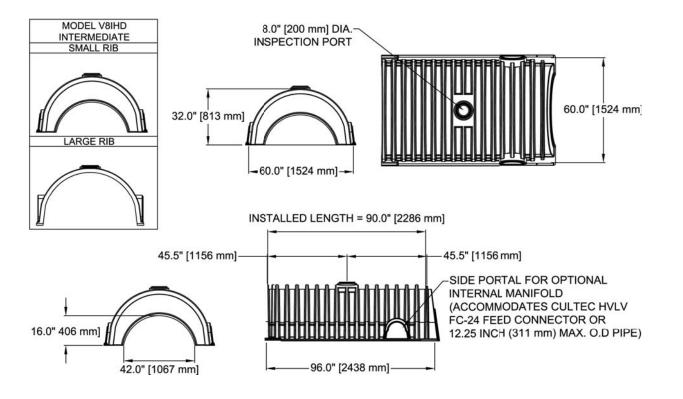


CULTEC Recharger® V8HD

Recharger V8SHD Starter and V8EHD End Three View Drawing



Recharger V8IHD Intermediate Three View Drawing



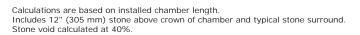


CULTEC Recharger® 902HD

The Recharger® 902HD is a 48" (1219 mm) tall, ultra high-capacity chamber. Minimizes cost by maximizing volume in a given area. Features internal manifold using HVLV FC-24 Feed Connectors for efficiency, design flexibility and cost-effectiveness.

Recharger 902HD Chamber	
Size (L x W x H)	4.10' x 78" x 48"
	1.25 m x 1981 mm x 1219 mm
Installed Length	3.67'
	1.12 m
Length Adjustment per Row -	1.03'
with two end caps installed	0.31 m
Length Adjustment per Row -	0.44'
when not using end caps	0.133 m
Chamber Storage	17.66 ft³/ft
	1.64 m³/m
	64.75 ft ³ /unit
	1.84 m³/unit
Min. Installed Storage	27.27 ft³/ft
	2.53 m³/m
	100 ft³/unit
	2.83 m³/unit
Min. Area Required	26.58 ft ²
	2.47 m ²
Min. Center-to-Center Spacing	7.25'
	2.21 m
Max. Allowable Cover	8.3'
	2.53 m
Max. Allowable O.D.	11.5"
in Side Portal	292 mm
Compatible Feed Connector	HVLV FC-24 Feed Connector

	Stone Foundation Depth		
	9"	9" 12"	
	229 mm	305 mm	457 mm
Chamber and Stone Storage	100 ft ³	102.65 ft ³	107.97 ft ³
Per Chamber	2.83 m³	2.91 m³	3.06 m³
Min. Effective Depth	5.75'	6.00'	6.5'
	1.75 m	1.83 m	1.98 m
Stone Required Per Chamber	3.26 yd³	3.51 yd³	4.00 yd³
	2.49 m³	2.68 m³	3.06 m ³





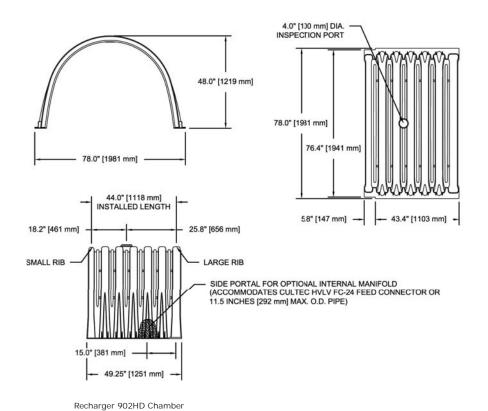


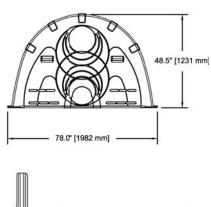
Recharger 902HD End Cap	
Size (L x W x H)	9.7" x 78" x 48.5"
	246 mm x 1982 mm x 1231 mm
Installed Length	6.2"
	157 mm
End Cap Storage	5.34 ft³/ft
	0.50 m³/m
	2.76 ft³/unit
	0.08 m³/unit
Min. Installed Storage	19.88 ft³/ft
	1.85 m³/m
	10.28 ft³/unit
	0.96 m³/unit
Max. Inlet Opening in End Cap	24"
	600 mm

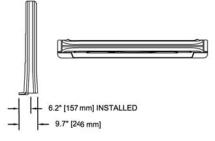


CULTEC Recharger® 902HD

Recharger 902HD Three View Drawing







Recharger 902HD End Cap



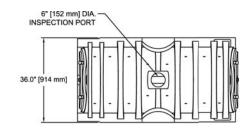
CULTEC HVLV® 180BT LS Landscaper Series®

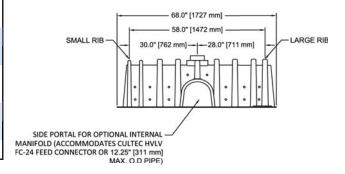
For Non-Traffic Applications Only

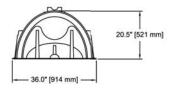
The HVLV® 180BT LS is a 20.5" (521 mm) tall, high capacity chamber. CULTEC's Landscaper Series™ chambers are used in residential applications to control rainwater collected from gutters and/or catch basins. The chambers collect and store the stormwater underground until the soil is able to accept it back into the ground. Puddles and saturated soil are eliminated as water is diverted into the chamber and recharged into the ground. CULTEC chambers are lightweight and easily transported by hand, making them ideal to install in tight areas or where minimal site disturbance is desired.



Size (L x W x H)	5.63' x 36" x 20.5"
	1.72 m x 914 mm x 521 mm
Chamber Storage	145 gal
	549 L
	19.40 ft³/unit
	0.55 m³/unit
Min. Installed Storage	223 gal
	843 L
	29.76 ft³/unit
	0.84 m³/unit
Min. Area Required	26.52 ft ²
	2.46 m ²
Max. Allowable Cover	4'
	1.22 m
Max. Inlet Opening in End Wall	15"
	350 mm
Max. Allowable O.D.	12.25"
in Side Portal	311 mm
Compatible Feed Connector	HVLV® FC-24 Feed Connector









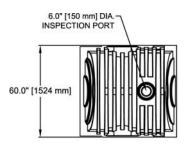
CULTEC Recharger® V8R LS Landscaper Series®

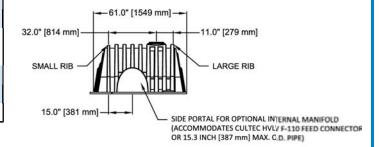
For Non-Traffic Applications Only

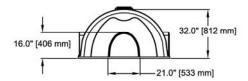
The Recharger V8R LS is a 32" (813 mm) tall, high capacity chamber. CULTEC's Landscaper Series™ chambers are used in residential applications to control rainwater collected from gutters and/or catch basins. The chambers collect and store the stormwater underground until the soil is able to accept it back into the ground. Puddles and saturated soil are eliminated as water is diverted into the chamber and recharged into the ground. CULTEC chambers are lightweight and easily transported by hand, making them ideal to install in tight areas or where minimal site disturbance is desired.



Size (L x W x H)	5.08' x 60" x 32"
	1.55 m x 1524 mm x 813 mm
Chamber Storage	330 gal
	1249 L
	44.12 ft³/unit
	1.25 m³/unit
Min. Installed Storage	489 gal
	1852 L
	65.4 ft³/unit
	1.85 m³/unit
Min. Area Required	36.48 ft ²
	3.39 m ²
Max. Allowable Cover	4'
	1.22 m
Max. Inlet Opening in End Wall	24"
	600 mm
Max. Allowable O.D.	15.3"
in Side Portal	387 mm
Compatible Feed Connector	HVLV F-110x4 Feed Connector









Manifold Options for CULTEC Chambers

	Contactor® 100HD	Recharger® 150XLHD	Recharger® 280HD	Recharger® 330XLHD	Recharger® V8HD	Recharger® 902HD
Preferred Method	In-line internal manifold using Side Portals and Feed Connector	In-line internal manifold using Side Portals and Feed Connector	In-line internal manifold using Side Portals and Feed Connector	In-line internal manifold using Side Portals and Feed Connector	In-line internal manifold using Side Portals and Feed Connector	In-line internal manifold using Side Portals and Feed Connector
Feed Connector to Specify	HVLV® SFCx2 Feed Connector	HVLV® FC-24 Feed Connector	HVLV® FC-24 Feed Connector	HVLV® FC-24 Feed Connector	HVLV® FC-24 Feed Connector (for V8RHD, V8SHD and V8EHD) HVLV® F-110x4 Feed Connector (for V8IHD)	HVLV® FC-24 Feed Connector
Option #2	Pipe Max. Allowable Pipe Size in End Wall = 10" (250 mm) Max. Allowable O.D. Pipe Size in Side Portal = 6.9" (175 mm)	Pipe Max. Allowable Pipe Size in End Wall = 12" (300 mm) Max. Allowable O.D. Pipe Size in Side Portal = 10.25" (260 mm)	External CULTEC HVLV® 180 Header System	External CULTEC HVLV® 180 Header System	External CULTEC HVLV® 180 Header System	Pipe Max. Allowable Pipe Size in End Cap = 24" (600 mm) Max. Allowable O.D. Pipe Size in Side Portal = 11.5"(292 mm)
Option #3	n/a	n/a	Pipe Max. Allowable Pipe Size in End Wall = 18" (450 mm) Max. Allowable O.D. Pipe Size in Side Portal = 12.25" (311 mm)	Pipe Max. Allowable Pipe Size in End Wall = 24" (600 mm) Max. Allowable O.D. Pipe Size in Side Portal = 11.75"(298 mm)	Pipe Max. Allowable Pipe Size in End Wall = 24" (600 mm) Max. Allowable O.D. Pipe Size in V8SHD Starter and V8EHD End Side Portal = 15.3" (387 mm) Max. Allowable O.D. Pipe Size in V8IHD Intermediate Side Portal = 12.25" (311 mm)	n/a



Preferred Method - Internal manifold using side portals and **CULTEC** feed connector



External manifold using CULTEC HVLV® 180 Header System



External conventional pipe and fitting manifold



CULTEC Internal Manifold Components Specification Information

	HVLV® SFCx2 Feed Connector	HVLV® FC-24 Feed Connector	HVLV® F-110x4 Feed Connector
Longth	19.7"	24.2"	39"
Length	500 mm	614 mm	991 mm
Installed	4" min.	Recharger 150XLHD: 6" (152 mm) min. Recharger 280HD: 5" (127 mm) min.	6" min.
Length (exposed)	102 mm min.	Recharger 330XLHD: 6" (152 mm) min. Recharger 902HD: 9" (229 mm) min.	152 mm min.
Width	12"	16"	27.5"
Width	305 mm	406 mm	699 mm
	7.6"	12"	18"
Height	194 mm	305 mm	457 mm
Chamber Storage	0.29 ft ³ /ft	0.91 ft ³ /ft	1.97 ft³/ft
Capacity	$0.03 \text{ m}^3/\text{m}$	0.08 m³/m	0.18 m³/ft
Compatible With	Contactor 100HD	Recharger models 150XLHD, 280HD, 330XLHD, Recharger V81HD Intermediate and Recharger 902HD	Recharger V8RHD Stand Alone, V8SHD Starter and V8EHD End units
Pipe Comparison	Greater flow capacity than 6" (150 mm) pipe	Greater flow capacity than 12" (300 mm) pipe	Greater flow capacity than 18" (450 mm) pipe



Shown L->R- HVLV SFCx2, HVLV FC-24, and HVLV F-110x4 Feed Connector



CULTEC HVLV® SFCx2 Feed Connector

HVLV® SFCx2 Feed Connectors may be used to create an internal manifold by inserting them into the side portals of the CULTEC stormwater chamber. The HVLV® SFCx2 Feed Connector may be used with the Contactor® 100HD chambers. They have a larger flow capacity than 6" (150 mm) diameter pipe.

Size (L x W x H)	19.7" x 12" x 7.6"
	500 mm x 305 mm x 194 mm
Installed Length (exposed)	For Contactor 100HD: 4" (102 mm) typ.
Chamber Storage	0.29 ft ³ /ft
	0.03 m³/m
Compatible Models	Contactor 100HD





Shown: CULTEC HVLV SFCx2 Feed Connector inserted into side portals of CULTEC chamber.

CULTEC HVLV® FC-24 Feed Connector

HVLV® FC-24 Feed Connectors may be used to create an internal manifold by inserting them into the side portals of the CULTEC stormwater chamber. The HVLV® FC-24 Feed Connector may be used with Recharger® 150XLHD, 280HD, 330XLHD, V8IHD and 902HD chambers. They have a larger flow capacity than 12" (300 mm) diameter pipe.

Size (L x W x H)	24.2" x 16" x 12"
	614 mm x 406 mm x 305 mm
Installed Length (exposed)	For Recharger 150XLHD: 6" (152 mm) typ.
	For Recharger 280HD: 5" (127 mm) typ.
	For Recharger 330XLHD: 6" (152 mm) typ.
	For Recharger V8IHD: 6" (152 mm) typ.
	For Recharger 902HD: 9" (229 mm) typ.
Chamber Storage	0.91 ft ³ /ft
	0.08 m³/m
Compatible Models	Recharger 150XLHD, Recharger 280HD, Recharger 330XLHD, Recharger V81HD Intermediate and Recharger 902HD

When installing the Recharger V8HD series, the HVLV FC-24 Feed Connectors are only used on the V8IHD Intermediate chambers. When the manifold is to be located at the ends of the system you must use the HVLV F-110x4 Feed Connector for the Recharger V8HD series.





Shown: CULTEC HVLV FC-24 Feed Connector inserted into side portals of CULTEC chamber.



CULTEC HVLV® F-110x4 Feed Connector

HVLV® F-110x4 Feed Connectors may be used to create an internal manifold by inserting them into the side portals of the CULTEC stormwater chamber. The HVLV® F-110x4 Feed Connector may be used with Recharger® V8SHD Starter and V8EHD End chambers. They have a larger flow capacity than 18" (450 mm) diameter pipe.



Size (L x W x H)	39" x 27.5" x 18"
	991 mm x 699 mm x 457 mm
Installed Length (exposed)	For Recharger V8HD: 6" (152 mm) typ.
Chamber Storage	1.97 ft ³ /ft
	0.18 m³/m
Compatible Models	Recharger V8RHD, V8SHD and V8EHD

When installing the Recharger V8HD series, the HVLV F-110x4 Feed Connectors are only used on the V8RHD, V8SHD, and V8EHD chambers. When the manifold is to be located at the in the middle of the system you must use the HVLV FC-24 Feed Connector for the Recharger V8IHD Intermediate model.



Shown: CULTEC HVLV F-110x4 Feed Connector inserted into side portals of CULTEC chamber.

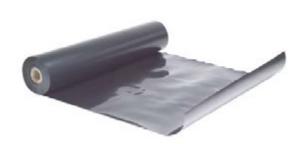
CULTEC No. 410™ Filter Fabric

Use of a non-woven polypropylene filter fabric is required by CULTEC Contactor® and Recharger® stormwater installations. CULTEC Stormwater Systems are typically enveloped top, sides and bottom with filter fabric in order to provide a barrier that prevents soil intrusion into the stone. Covering the bed's top and sides are mandatory; the use of filter fabric on the bottom of the system is up to the engineer's design preference.



CULTEC No. 20L™ Polyethylene Liner

CULTEC No. 20L™ Polyethylene Liner is a membrane consisting of a blended linear polyethylene. It is designed to provide an economical solution to prevent scouring and to provide a smooth surface upon which the water may travel when using the CULTEC manifold feature. The liner is to be placed beneath the CULTEC stormwater chambers that will be utilizing the internal manifold feature and span the entire width of the bed. Carbon black provides protection from UV rays. It does not contain plasticizers that in time can migrate to the surface, causing premature aging.





CULTEC STORMFILTER® 330 Water Quality Unit

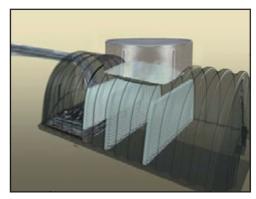
The CULTEC StormFilter® 330 is designed to be a secondary in-line filter system that effectively removes many of the smaller particles not eliminated by conventional structures during the pretreatment process.

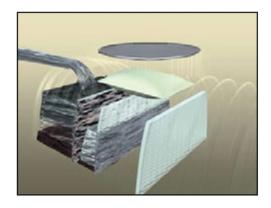
CULTEC StormFilter® 330 is a pass-through filter system. It has a welded and secured solid bottom.

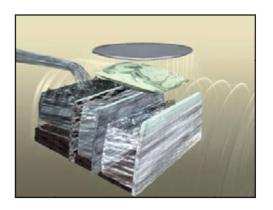
Size (L x W x H)	8' x 55" x 36"
	2.44 m x 1397 mm x 914 mm
Access Opening	22.5"
	572 mm
Capacity	418.5 gal.
	1584 I
Number of Filters	2 Typical (up to 4 available)
Filtration Capability	708.4 gpm 2682 l/min
Apparent Opening Size of Filter	70 US Std. Sieve 0.212 mm
Max. Allowable Cover	4'
	1.22 m
Weight	300 lbs. 136.1 kg
Max. Inlet Opening in End Wall	8" (fully filtered) 203 mm (fully filtered)
	24" (w/ bypass capability) 600 mm (w/ bypass capability)







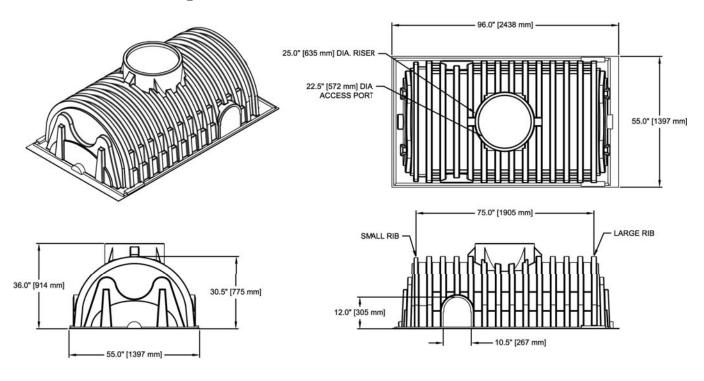


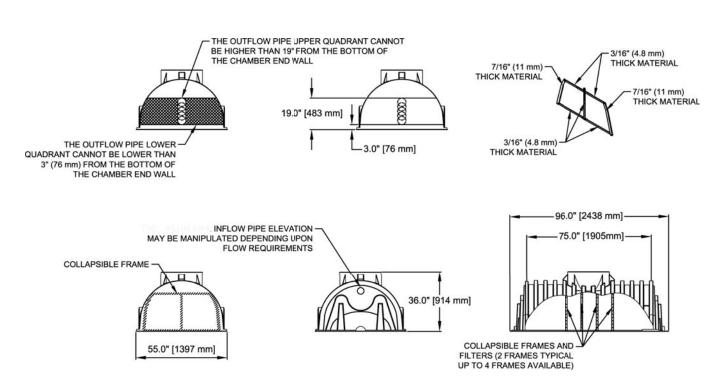




CULTEC STORMFILTER® 330 Water Quality Unit

Three View Drawing







CULTEC STORMFILTER® T-80 Water Quality Unit

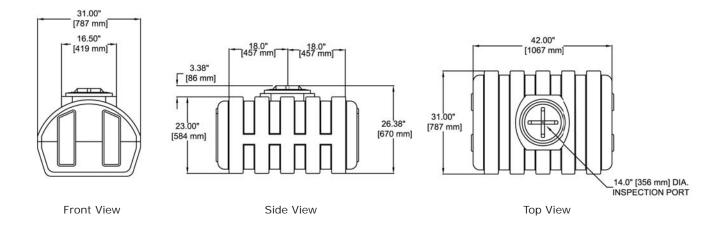
CULTEC StormFilter® T-80 is a cost-effective filtration unit used to remove leaves and debris from rainwater collected by catchbasins or gutters. It is perfect for treating roof and driveway runoff for light commercial or residential applications.

Use the StormFilter® T-80 with or without a corrugated riser, grate or optional filter (each sold separately) based on your needs.

When the filter frames are not installed, the Storm-Filter® T-80 may be used as a holding tank or catchbasin.

Size (L x W x H)	42" x 31" x 26.38"
	1067 mm x 787 mm x 670 mm
Access Opening	12.5"
	318 mm
Capacity	90 gal
	340.7 L
Number of Filters	1 Typical
Filtration Capability	301.4 gpm
	1141 l/min
Apparent Opening Size of Filter	70 US Std. Sieve 0.212 mm
Max. Allowable Cover	12"
	305 mm
Weight	44 lbs.
	20 kg
Max. Inlet Opening in End Wall	4"
	100 mm







End Detail Information for Contactor® Model 100HD

Directional arrows located on the top of the chamber point towards the Small Rib End.

Model RHD is a **starter / stand alone** unit with two full end walls. They are used to start lines or can be used singularly. They may also be trimmed to into model type EHD.

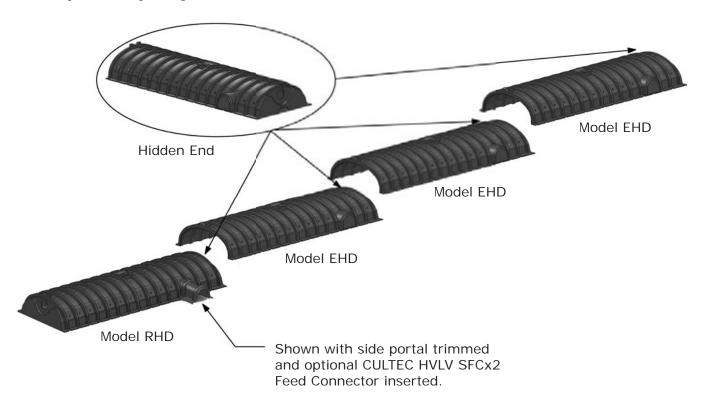
Model EHD is a middle / end unit with one closed end wall and one open end. They are used to continue lines and also used to end a line.



Typical Installation Method for Contactor® Model 100HD

Interlock Model RHD to EHD using the overlapping rib connection.

- Start each line with a Model RHD.
- Use Model EHD to continue the length of your line.
- End your line by using a Model EHD.





End Detail Information for Recharger® Models 150XLHD, 280HD, and 330XLHD

Directional arrows located on the top of the chamber point towards the Small Rib End.

Model RHD is a **stand alone** unit with two fully closed end walls. They are used when a single unit is required. They may also be trimmed to into model types SHD, IHD, or EHD.

Model SHD is a starter unit with one closed end wall and one partially open end wall. They are used to start a chamber row.

Model IHD is an intermediate unit with one fully open end and one partially open end wall. They are used to continue the length of a line of chambers.

Model EHD is an **end unit** with one fully open end and one fully closed end wall. They are used to end a chamber row.

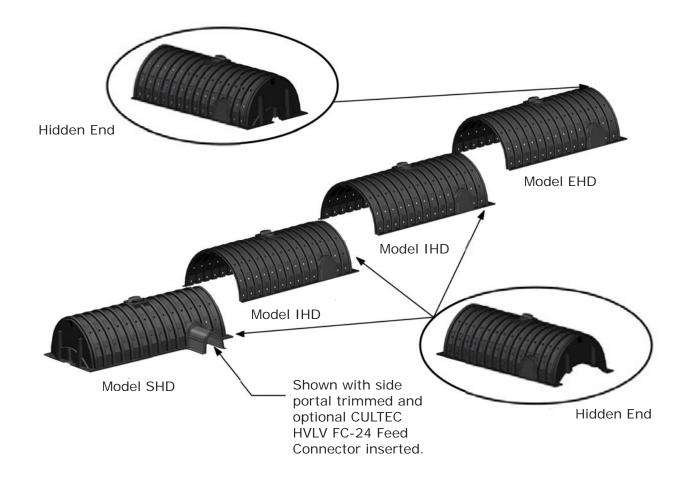




Typical Installation Method for Recharger® Models 150XLHD, 280HD, and 330XLHD

Interlock Model SHD to IHD using the overlapping rib connection. Finish the line with Model EHD.

- Start each line with a Model SHD.
- Use Model IHD to continue the length of your line.
- End your line by using a Model EHD.





End Detail Information for Recharger® V8HD

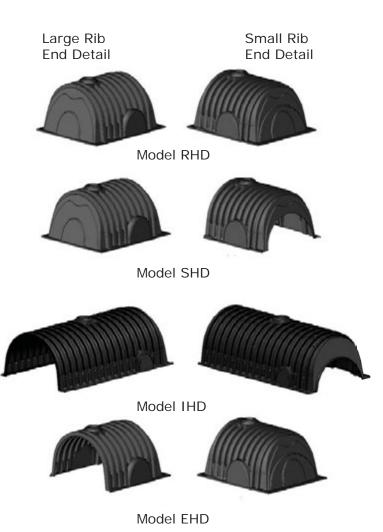
Directional arrows located on the top of the chamber point towards the Small Rib End.

Model RHD is a **stand alone** unit with two fully closed end walls. They are used when a single unit is required. They may be also be trimmed to into model types SHD or EHD.

Model SHD is a starter unit with one closed end wall and one partially open end wall. They are used to start a chamber

Model IHD is an **intermediate** unit with one fully open end and one partially open end wall. They are used to continue the length of a line of chambers.

Model EHD is an **end unit** with one fully open end and one fully closed end wall. They are used to end a chamber run.

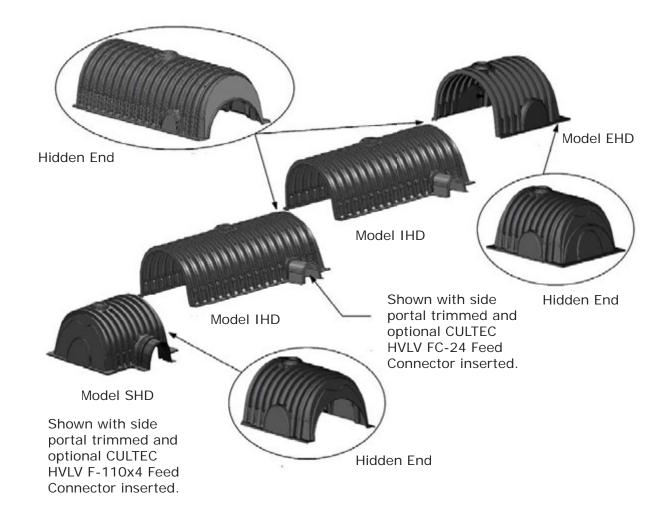




Typical Installation Method for Recharger® V8HD

Interlock Model SHD to IHD using the overlapping rib connection. Finish the line with Model EHD.

- Start each line with a Model SHD.
- Use Model IHD to continue the length of your line.
- End your line by using a Model EHD.



Note:

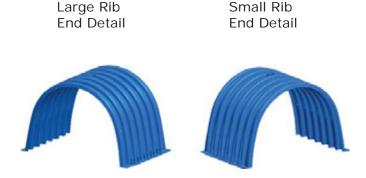
- The Starter and End Sections are shorter in length than the Intermediate sections.
- The Starter and End sections are able to accept the HVLV® F-110x4 Feed Connector into its side portal. The Intermediate sections are able to accept the HVLV® FC-24 Feed Connector into its side portal.



End Detail Information for Recharger® 902HD

Directional arrows located on the top of the chamber point towards the Small Rib End.

The Recharger 902HD chamber comes in only one model type which is fully open on both ends. The Recharger 902HD chamber requires the coordinating Recharger 902HD End Cap (sold separately) to cap rows of chambers or to create single stand alone units.



CULTEC Recharger 902HD End Cap

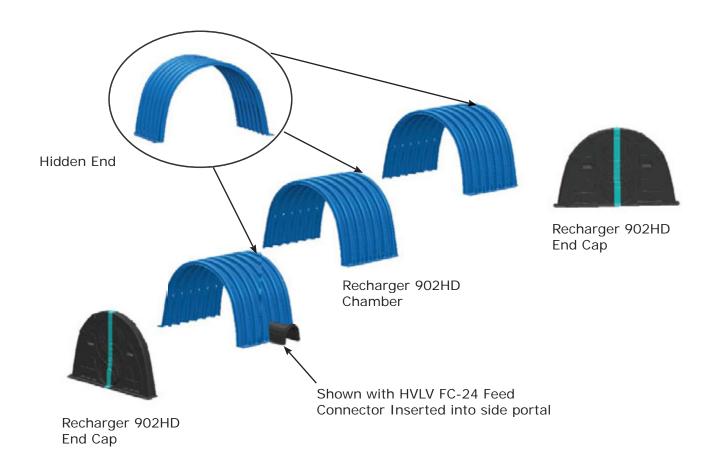
The Recharger 902HD End Cap is used in conjunction with the Recharger 902HD chamber to cap rows of chambers or to create single stand alone units.





Typical Installation Method for Recharger® 902HD

Interlock Recharger 902HD chambers using the overlapping rib connection. Cap the ends of the lines using the Recharger 902HD End Cap.





LIMITED WARRANTY

CULTEC, Inc. finished products, when properly installed, registered with Cultec, Inc., and operated under normal conditions of use, are covered under Cultec Inc.'s Limited Warranty to be free from defects in material and workmanship for a period of one (1) year from the date of manufacture. In order to obtain Cultec's Limited Warranty, the product warranty registration card must be completed and returned to Cultec, Inc., having been postmarked within thirty (30) days of installation. Failure to return the warranty registration card to Cultec, Inc. shall void the Limited Warranty. This Limited Warranty shall be void if the finished product is not installed within forty-five (45) days of the date of purchase from Cultec, Inc. In order to obtain performance under this Limited Warranty, Cultec, Inc. must be provided with written notice of any defect promptly (in no case later than ten (10) business days after initial discovery AND prior to the end of the Limited Warranty period), with such notice sent to 878 Federal Road, PO Box 280, Brookfield, CT 06804-0280. The original purchase receipt for the product must be included with documentation supporting any claim under the terms of this Limited Warranty. Failure to promptly submit notice of defect, a receipt and completed limited warranty certificate will void the Limited Warranty. Cultec, Inc. shall not be responsible for any freight charges incurred in connection with this Limited Warranty. A fee may be incurred when Cultec, Inc. (in its sole discretion) deems it necessary for a Cultec, Inc. representative to visit a product installation site

This Limited Warranty extends only to Cultec, Inc. products when the products are installed in 'single level', provided that such products do not, in the collective, amount to more than 12,000 cubic feet (339.84 cubic meters) of water volume storage capacity. This Limited Warranty shall be void where products are installed in 'multi-layer' or 'multi-tier' systems, as well as wherein collective system volume exceeds 12,000 cubic feet (339.84 cubic meters) of water volume storage capacity. Notwithstanding the foregoing, Cultec, Inc., in its sole discretion, may extend certain Limited Warranty terms upon 'double-layer' or 'double-tier' product installations, as well as 'single level' product installations wherein collective system volume exceeds 12,000 cubic feet (339.84 cubic meters) of water volume storage capacity, provided that (i) the buyer has contacted Cultec, Inc. prior to installation and has advised of the proposed installation design; (ii) all product warranty registration information has been provided prior to product installation; (iii) a pre-construction/pre-installation meeting has been held with representatives of Cultec, Inc.; and (iv) Cultec, Inc. has provided written confirmation of its intent to honor any Limited Warranty terms with respect to the specific installation. Under no circumstances shall any decision by Cultec, Inc. to honor such terms be relied upon by any party in any subsequent product purchase or installation.

This Limited Warranty does not apply to installation piping and/or other parts not supplied by Cultec, Inc. Cultec, Inc.'s limited warranties also do not extend to any goods or parts which have been damaged prior to installation, subjected to misuse, damaged by lack of maintenance, improper installation, neglect, damaged by accident, or damaged by being crushed by heavy equipment weighing in excess of the rated load carrying capacity of the product. This Limited Warranty also does not apply to shipping or in-transit damage

THIS LIMITED WARRANTY DOES NOT APPLY TO CULTEC, INC. PRODUCTS THAT HAVE NOT BEEN INSTALLED ACCORDING TO CULTEC WRITTEN INSTALLATION INSTRUCTIONS. ANY PRODUCT DAMAGE OR FAILURE RESULTING FROM IMPROPER OR NEGLIGENT INSTALLATION IS SPECIFICALLY EXCLUDED FROM THIS WAR-RANTY AND SHALL REMAIN THE BUYER'S RESPONSIBILITY.

THIS WARRANTY IS LIMITED TO THE BUYER AND IS NOT TRANSFERABLE. THIS EXPRESS LIMITED WARRANTY EXCLUDES ALL OTHER WARRANTIES OR REPRESEN-THIS WARRANT IS LIMITED TO THE BUTER AND IS NOT TRANSFERABLE. THIS EXPRESS LIMITED WARRANT FACUUDES ALL OTHER WARRANT HES OR REPRESS TATIONS, EXPRESSED, IMPLIED, OR STATUTORY, BY ANY LITERATURE, DATA, OR PERSON. CULTEC, INC. EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANT-ABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE WITH RESPECT TO THE GOODS SOLD. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTIONS SET FORTH IN THIS LIMITED WARRANTY, NOTWITHSTANDING ANY KNOWLEDGE OF CULTEC, INC. REGARDING THE USE OR USES INTENDED TO BE MADE OF GOODS, PROPOSED CHANGES OR ADDITIONS TO GOODS, OR ANY ASSISTANCE OR SUGGESTIONS THAT MAY HAVE BEEN MADE BY CULTEC, INC. PERSONNEL. BUYER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF CULTEC, INC. PRODUCTS FOR BUYER'S USE OR RESALE, OR FOR INCORPORATING THEM INTO OBJECTS OR APPLICATIONS WHICH BUYER DESIGNS, ASSEMBLES, CONSTRUCTS OR MANUFACTURES.

CULTEC, INC. WILL NOT BE RESPONSIBLE OR LIABLE FOR INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, HOWEVER ARISING, INCLUDING BUT NOT LIMITED TO THOSE FOR USE OF ANY PRODUCTS, LOSS OF TIME, INCONVENIENCE, LOST PROFIT, LABOR CHARGES, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES WITH RESPECT TO PERSONS, BUSINESS, OR PROPERTY, WHETHER AS A RESULT OF BREACH OF WARRANTY, NEGLIGENCE OR OTHERWISE. NOTWITH-STANDING ANY OTHER PROVISION OF THIS LIMITED WARRANTY, BUYER'S REMEDY AGAINST CULTEC, INC. FOR GOODS SUPPLIED OR FOR NON-DELIVERED GOODS OR FAILURE TO FURNISH GOODS, WHETHER OR NOT BASED ON NEGLIGENCE, STRICT LIABILITY OR BREACH OF EXPRESS OR IMPLIED WARRANTY, IS LIMITED SOLELY, AT CULTEC, INC.'S OPTION, TO REPLACEMENT OF OR CURE OF SUCH NONCONFORMING OR NON-DELIVERED GOODS OR RETURN OF THE PURCHASE PRICE FOR SUCH GOODS AND IN NO EVENT SHALL EXCEED THE PRICE OR CHARGE FOR SUCH GOODS. CULTEC, INC.'S MAXIMUM LIABILITY UNDER THIS EXCLUSIVE REMEDY SHALL NEVER EXCEED THE COST OF THE SUBJECT PRODUCT. CULTEC, INC. RESERVES THE RIGHT, AT ITS SOLE DISCRETION, TO REFUND THE PURCHASE PRICE IN LIEU OF REPAIR OR REPLACEMENT.

- Cultec. Inc.'s 1-Year Limited Warranty coverage applies only to new products purchased from an Authorized Cultec Dealer/Distributor and is based on the date
- If warranty service is required, every effort will be made to replace covered product with identical model. However, we reserve the right to make equal or better substitution as needed.

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