# CULTEC RECHARGER<sup>®</sup>300HD SPECIFICATIONS

NAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR VITCOLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

- 1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, OF BROOKFIELD, CT (CULTEC.COM, 203-775-4416).
- 2 THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM E2787 THE CHAMBERS SHALL BE USERIED AND LESTED IN ACCORDANCE WITH ASIM "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL
- A.INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
- B.MAXIMUM PERMANENT (50-YEAR) COVER LOAD
- C.1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
- 3. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER
- 4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LEPD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
- B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
- C.THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95
  S. THE INSTALLED CHAMBER SYSTEM SHALL BE STRUCTURALLY DESIGNED TO PROVIDE
  RESISTANCE TO LIVE LOADS AS DEFINED BY THE ASHTO H-20/ML-93 SPECIFICATION
  WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
- 5. THE CHAMBER SHALL BE INJECTION MOLDED OF BLUE VIRGIN IMPACT-MODIFIED POLYPROPYLENE.
- 7. THE CHAMBER SHALL BE ARCHED IN SHAPE
- THE CHAMBER SHALL BE OPEN-BOTTOMED.

  9. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD.
  CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE
  CONNECTIONS.
- 10. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 300HD SHALL BE 30 INCHES (762 MM) TALL, 51 INCHES (1295 MM) WIDE AND 90.5 INCHES (2299 MM) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER® 300HD SHALL BE 7.08 FEET
- 11. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 300HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCHES (600 MM) HDPE.
- THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HALL" FC-24 FEED
  CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN
  THE SIDE PORTAL IS 10 INCHES (250 MM) HDPE AND 12 INCHES (300 MM) PVC. 13. 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
- (4.1 THE NOMINAL STORAGE VOLUME OF THE RECHARGER® 300HD CHAMBER SHALL BE 6.53 FT 3 / FT (.607 M³ / M) WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER® 300HD SHALL BE 46.27 FT³ / UNIT (1.310 M³ / UNIT) WITHOUT STONE. 15. THE RECHARGER 300HD CHAMBER SHALL HAVE 14 CORRUGATIONS.
- OF THE THE TOP CENTER OF ACCEPTING A 6 INCH (150 MM) INSPECTION PORT OPENING AT THE TOP CENTER OF EACH CHAMBER, CENTERED ON THE CORRUGATION
- THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
- 18. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12.0 FEET

- 1. THE CULTEC RECHARGER  $^{\otimes}$  300HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, OF BROOKFIELD, CT (CULTEC.COM,
- THE END CAP SHALL BE INJECTION MOLDED OF BLUE VIRGIN IMPACT-MODIFIED POLYETHYLENE COPOLYMERS.
- 3. THE END CAP SHALL BE ARCHED IN SHAPE.

  4. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
- SET FOLLY STROUGHED OVERLAPTING NEST, INSURING NO SETAMATE COUPLINGS.

  THE NORMAL DIMENSIONS OF THE END CAP SHALL BE 29.3 INCHES (744 MM) TALL, 45.9

  INCHES (1166 MM) WIDE AND 12.2 INCHES (310 MM) LONG. WHEN JOINED WITH A

  RECHARGER 300HD CHAMBER, THE INSTALLD EINCTH OF THE END CAP SHALL BE 9.6

  INCHES (244 MM), THE NORMAL STORAGE VOLUME OF THE END CAP SHALL BE 3.32 FT<sup>3</sup>/

  FT (0.31 M<sup>3</sup>/) M. WITHOUT STONE. THE NORMAL STORAGE VOLUME OF A

  INTERLOCKED END CAP SHALL BE 2.66 FT<sup>3</sup>/

  JUNIT (0.08 M<sup>3</sup>/) VINITHOUT STONE. 6.MAXIMUM INLET OPENING ON THE END CAP IS 24 INCHES (600 MM) HDPE.
- 7. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALIT' CONTROL AND ASSURANCE PROCEDURES.
- 8. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

### CULTEC HVLV FC-24 FEED CONNECTOR PRODUCT SPECIFICATIONS

CULTEC HVLV FC-24 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER MODEL 300HD STORMWATER CHAMBERS.

- . THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- EXTERIOR.
- 3. THE CHAMBER SHALL BE ARCHED IN SHAPE
- 4. THE CHAMBER SHALL BE OPEN-BOTTOME
- 5. 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
- 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.
- 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 SPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CLITE OR ECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MAINFOLD.
- 10. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2015 CERTIFIED FACILIT

### CULTEC NO. 410™ NON-WOVEN GEOTEXTILE

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS

- THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, OF BROOKFIELD, CT (203-775-4416 OR 1-800-428-5832)
- THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE
- THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
- THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM
- THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD
- THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491
- 12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
- 13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM

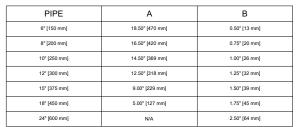
# **CULTEC AFAB-HPF™ WOVEN GEOTEXTILE**

CULTEC AFAB-HIP WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE AND TSS REMOVAL.

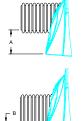
- THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- THE GEOTEXTILE SHALL BE BLACK AND WHITE IN APPEARANCE
- THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 320 X 320 LBS (1,420 X 1,420 N) PER ASTM D4632 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 15 X 15% PER ASTM D4632 TESTING METHOD. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 3,563 X 3,563 LBS/FT (52 X 52 KN/M) PER ASTM D4595 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,500 LBS (6,670 N) PER ASTM D6241 TESTING METHOD.
- THE GEOTEVITLE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 120 X 120 LBS (540 X 540 N) PER ASTM D4533 TESTING METHOD. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 30 US STD. SIEVE (0.60 MM) PER ASTM D4751 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.2 SEC-1 PER ASTM D4491 TESTING METHOD.
- 10. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 22 GPM/FT2 (900 LPM/M2) PER ASTM D4491 TESTING METHOD.

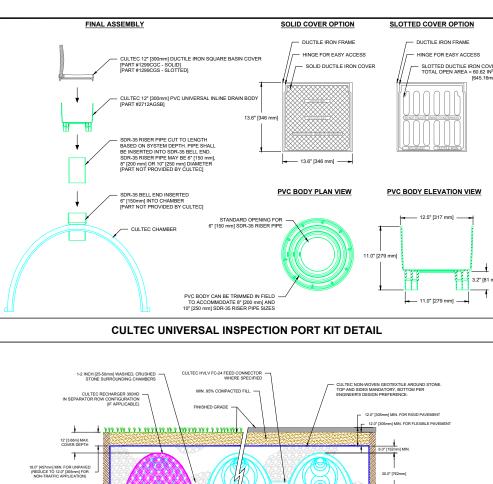
  11. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 70% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

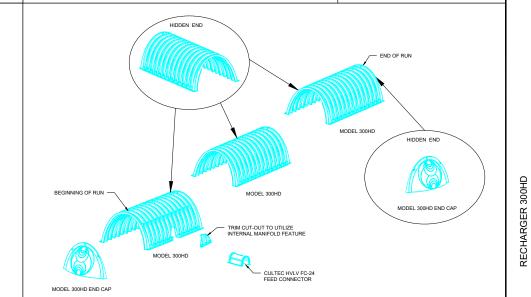
## **GENERAL NOTES**



"THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 6' (150mm), 8' (200mm), 10' (250mm), 10' (250mm), 10' (350mm), 10' (35







**CULTEC RECHARGER 300HD HEAVY DUTY TYPICAL INTERLOCK** 

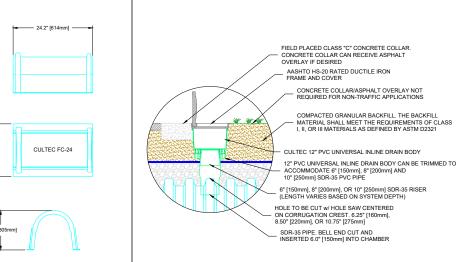
IDE PORTAL FOR OPTIONAL INTERNAL MANIFOLD
SCOOMMODATES OUT TECHNIV V FC-24 FEED CONNECTOR OR STORM PIPE)

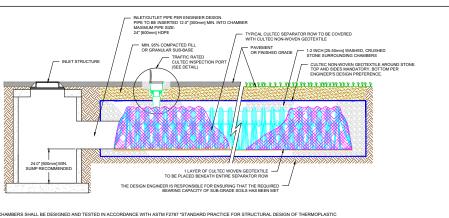
# **CULTEC RECHARGER 300HD HEAVY DUTY CROSS SECTION**

THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM \$2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" THE LOAD CONFIGURATION SHALL INCLUDE A MISSIATE WAS ASSESSED. THE CHAMBER STAND DESIGN TRUCK LIVE LOAD AT INIMIMAM COVER DESIGN ASSESSED. THE CHAMBER STANDARD SPECIFICATION FOR POLYPROPYLER (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS' THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM \$2418 "STANDARD SPECIFICATION FOR POLYPROPYLER (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS' THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE ASSISTOL REPORT OF STANDARD SPECIFICATION SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTALLATION ASSISTAND THE CHAMBERS SHALL INCLUDE THE FOLLOWING:

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NOTES:
1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER







WEEK PARKED AASHTO DESIGN TRUCK LOAD HAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER

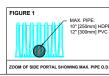
6.0" DIA. INSPECTION PORT KNOCK-OUT -

12" [300mm] PVC 10" [250mm] HDPE

**CULTEC RECHARGER 300HD HEAVY DUTY THREE VIEW** 

CULTEC RECHARGER 300HD CHAMBER STORAGE = 6.53 CF/FT [0.60 m $^3$ /m] INSTALLED LENGTH ADJUSTMENT =  $0.46^{\circ}$  [.14m]

LLECTION CHAMBERS\*
ENSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LIFED BRIDGE DESIGN
ECFICATIONS SECTION 12:12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF 1
MARBERS SHALL LIVILLUDE THE FOLLOWING
THE CREEP MODILLUS SHALL BE SOYEAR AS SPECIFED IN ASTM F2418
THE WINNIMM SAEPTY SECTION ED INFO LOAD SHALL BE 1.78



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DETAIL

1(203) 775-4416 1(800) 4-CULTEC tech@cultec.com

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DESIGNED **PROJECT I** 

DATE:

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CULTEC

9 6" [244mm] INSTALLED

CULTEC RECHARGER 300HD HEAVY DUTY END CAP THREE VIEW

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**CULTEC RECHARGER 300HD TYPICAL PIPE INVERTS** 

**CULTEC HVLV FC-24** FEED CONNECTOR THREE VIEW

**OPTIONAL CULTEC INSPECTION PORT - ZOOM DETAIL** 

**CULTEC SEPARATOR ROW - CULTEC INSPECTION PORT DETAIL (IF APPLICABLE)**