CULTEC RECHARGER® 902HD SPECIFICATIONS

NAGEMENT, THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING 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).
- STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL
- INCLUDE: 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 F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER
- COLLECTION CHAMBERS". 4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND THE INSTALLED CHAMBER 3/31/EM 3/ALL FROVIDE ASSISTANCE TO HE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LIFE BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLIDE THE FOLLOWING:
- A.THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
- B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
- C. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95 5. THE INSTALLED CHAMBER SYSTEMS SHALL BE STRUCTURALLY DESIGNED TO PROVIDE . THE INSTALLED CHAMBER STSTEMS SHALL BE STRUCTURALLY DESIGNED TO RESISTANCE TO THE LIVE LOADS AS DEFINED BY THE AASHTO H-20/HL-93 SPECIFICATION WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
- 6. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
- 8. THE CHAMBER SHALL BE OPEN-BOTTOMED.
- THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD.
 CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE
 COUPLINGS. 10. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER®902HD SHALL BE
- 48 INCHES (1219 MM) TALL, 78 INCHES (1981 MM) WIDE AND 4.25 FEET (1.30 M) LONG THE INSTALLED LENGTH OF A JOINED RECHARGER 902HD SHALL BE 3.67 FEET (1.12 M). 11. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH
- ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 902HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 30 INCHES (750 MM) HDPE OR 36 INCHES (900 MM) PVC.
- 12. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48
 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-48 FEED CONNECTOR
- SHALL BE 12 INCHES (305 MM) TALL, 16 INCHES (406 MM) WIDE AND 49 INCHES (1245
- 14. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 902HD CHAMBER SHALL BE 17.31 FT³/ FT (1.61 M³ / M) WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER 902HD SHALL BE 63.47 FT³ / UNIT (1.80 M³ / UNIT) WITHOUT STONE.
- 15. THE NOMINAL STORAGE VOLUME OF THE HVLV" FC-48 FEED CONNECTOR SHALL BE $0.913~{\rm FT}^3$ / FT $(0.085~{\rm M}^3$ / M) WITHOUT STONE. 16. THE RECHARGER 902HD CHAMBER SHALL HAVE 5 CORRUGATIONS.
- 17. THE CHAMBER SHALL BE CAPABLE OF ACCEPTING A 6 INCH (150 MM) INSPECTION PORT OPENING AT THE TOP CENTER OF EACH CHAMBER, CENTERED ON THE
- 18. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
- 19. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 8.3 FEET (2.53 M).

- 1. THE CULTEC RECHARGER® 902HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, INC. OF BROOKFIELD, CT (CULTEC.COM, 203-775-4416).
- 2. THE END CAP SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
- THE END CAP SHALL BE ARCHED IN SHAPE.
 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. 5. THE END CAP SHALL HAVE 5 CORRUGATIONS.
- 6. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 48.5 INCHES (1231 mm) TALL, 78 INCHES (1982 mm) WIDE AND 28.0 INCHES (711 mm) LONG. WHEN JOINED WITH A RECHARGER 902HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 24.0 INCHES (610 mm).
- "THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 9.01 FT3 / FT (0.83 m3 / m) WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 18.02 FT3 / UNIT (1.67 m3 / UNIT) WITHOUT STONE.
- 8. MAXIMUM INLET OPENING ON THE END CAP IS 30 INCHES (750 mm) HDPE OR 36 INCHES
- 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-48 FEED CONNECTOR PRODUCT SPECIFICATIONS

CULTEC HVLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER MODEL 902HD STORMWATER CHAMBERS.

- THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
- 3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE
- 5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG

- 8. THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT 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 CULTEC RECHARGER STORAMATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
- WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE

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

- THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. 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
- THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
- 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
- 11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491
- TESTING METHOD. 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 D4355 TESTING METHOD.

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 TENSILE STRENGTH OF 320 X 320 LBS (1,420 X 1,420 N) PER ASTM D4632 TESTING METHOD.

- 1,420 N) PER ASTM D4632 TESTING METHOD.

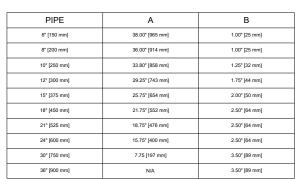
 THE GEOTEXTILE SHALL HAVE A ELONGATION ® BREAK RESISTANCE OF 15 X 15% PER ASTM D4632 TESTING METHOD.

 THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 3,563 X 3,563 LBS/FT (5X Y SZ KWN) PER ASTM D4959 TESTING METHOD.

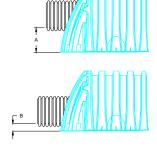
 THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,500 LBS (6,670 N) PER ASTM D624 TESTING METHOD.

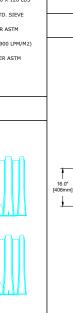
 THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 120 X 120 LBS (540 X 540 N) PER ASTM D6233 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 30 US STD. SIEVE (0.60 MM) PER ASTM D4751 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.2 SEC-1 PER ASTM D4491 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 22 GPM/FT2 (900 LPM/M2) PER ASTM D4491 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 70% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

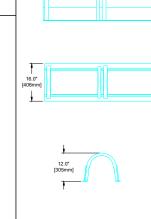
GENERAL NOTES



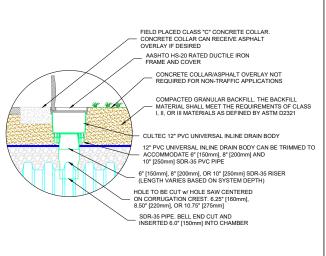
THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 12" (300mm). 15" (375mm). 18" (450mm) AND 24" (600mm). PIPES OF ANY SIZE AND MATERIAL UP TO 24 MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM CROWN OF THE PIPE MUST REMAIN A MINIMUM OF 4* (100mm) FROM THE EDGE OF THE HEAVY DUTY END CAP







8.3' [2.53m] MAX. COVER DEPTH



SOLID COVER OPTION

— 13.6" [346 mm] —

PVC BODY PLAN VIEW

STANDARD OPENING FOR 6" [150 mm] SDR-35 RISER PIPE

CULTEC UNIVERSAL INSPECTION PORT KIT DETAIL

PVC BODY CAN BE TRIMMED IN FIELD

TO ACCOMMODATE 8" [200 mm] AND 10" [250 mm] SDR-35 RISER PIPE SIZES

NOTES:

THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORM COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE

INSTANTANCEUS ASAPTIO DESIGN TEXTLE LE LOAD AT MINIBUM COVER

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1. HYEEK PARKED ASAPTIO DESIGN TEXTLE LOAD ASAPTION TO THE LOAD AND LOAD FACTORS AS DEFINED IN THE ASAPTIO LEFE DRIBUDE DESIGN SPECIFICATIONS SECTION 12.12.

1. ACCORDANG TO CULTEC'S RECOMMENDED MINIBUM LATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE POLLOWING:

1. HE MINIBUM ASAPTIO FOR IT ME LOADS SHALL BE 1.75.

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CULTEC RECHARGER 902HD CROSS SECTION

DUCTILE IRON FRAME

HINGE FOR EASY ACCESS

SLOTTED COVER OPTION

PVC BODY ELEVATION VIEW

____ 11 0" [279 mm] __

m1 MIN. FOR RIGID PAVEMENT

3.2" [81 n

DUCTILE IRON FRAME

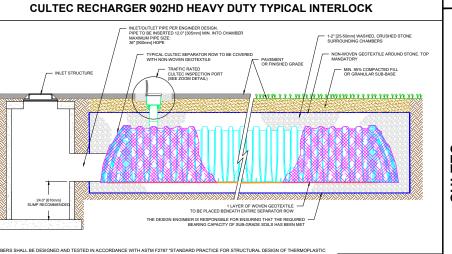
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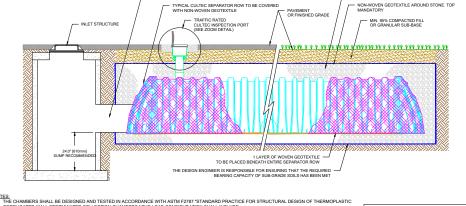
SLOTTED DUCTILE IRON COVI TOTAL OPEN AREA = 60.62 IN²

44.0" [1118mm] INSTALLED LENGTH

BEGINNING OF RUN

MODEL 902HD END CAP





CULTEC RECHARGER 902HD CHAMBER STORAGE = 17.31 CF/FT [1.608m³/m] INSTALLED LENGTH ADJUSTMENT = 0.58' [0.17m]

CULTEC RECHARGER 902HD HEAVY DUTY THREE VIEW

HIDDEN END

MODEL 902HD

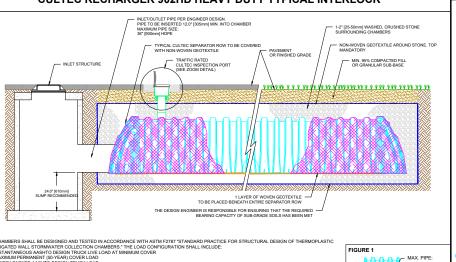
MODEL 902HD

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INSTANTANEOGO POLITICA (COVER LOAD

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PROJECT I CULTEC RECHARGER 902HD HEAVY DUTY END CAP THREE VIEW END OF RUN

28.0" [711mm]

24 0* [610mm] INSTALLED

HIDDEN END

MODEL 902HD

RECHARGER 902H

DETAIL

DPG OF

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DESIGNED

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DATE:

CHAMBER

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CULTEC

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

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

OPTIONAL CULTEC INSPECTION PORT - ZOOM DETAIL

CULTEC RECHARGER 902HD TYPICAL PIPE INVERTS

CULTEC HVLV FC-48 FEED CONNECTOR THREE VIEW

FINAL ASSEMBLY

CULTEC CHAMBER