

THE PRESERVER™

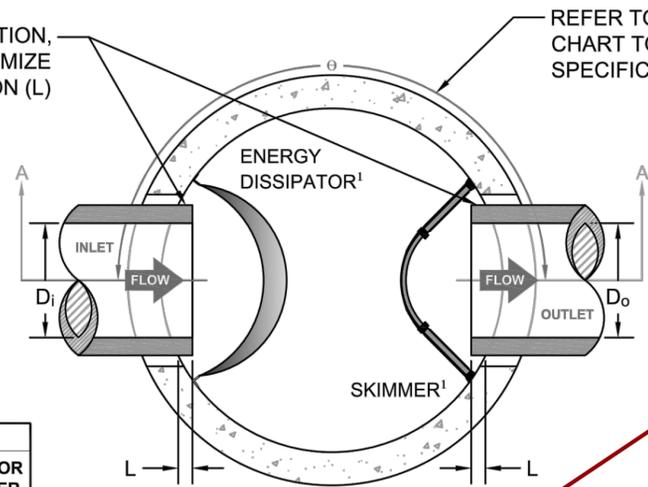


SPECIFY WITH CONFIDENCE

PLAN VIEW

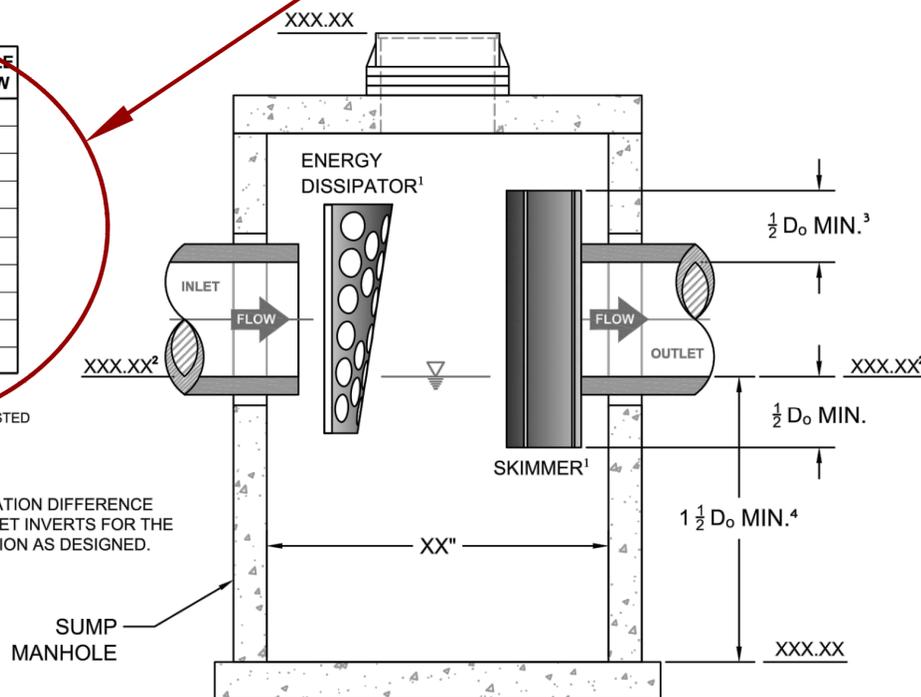
FOR NEW MANHOLE CONSTRUCTION, CONTRACTOR TO MINIMIZE PIPE PROTRUSION (L)

REFER TO MANHOLE SIZING CHART TO ENSURE PROJECT SPECIFIC DESIGN FEASIBILITY



NOTE 1: THE PRESERVER™ ENERGY DISSIPATOR WAS DESIGNED AND TESTED TO FUNCTION WITH OR WITHOUT A SKIMMER. DISSIPATORS & SKIMMERS CAN BE UTILIZED IN TANDEM OR INDEPENDENTLY.

CROSS SECTION AA



NOTE 2: MINIMIZE ELEVATION DIFFERENCE BETWEEN INLET AND OUTLET INVERTS FOR THE PRESERVER™ TO FUNCTION AS DESIGNED.

NOTE 3: STOCK SKIMMERS HAVE A MINIMUM FREEBOARD DEPTH OF 1/2 Do. FOR GREATER FREEBOARD DEPTHS, DESIGNERS CAN UPSIZE THE SKIMMER, OR USE A CUSTOMIZED SKIMMER. FOR CUSTOM DESIGNS, AND/OR PROJECT SPECIFIC DETAILS, CONTACT MOMENTUM.
NOTE 4: ADDITIONAL DEPTH IS RECOMMENDED FOR POLLUTANT STORAGE (1/2 Do + POLLUTANT STORAGE DEPTH). SIZING CALCULATOR SHOULD BE USED TO ENSURE ADEQUATE POLLUTANT STORAGE VOLUME.

STRUCTURE DIAMETER*	MAXIMUM PIPE DIAMETER**		
	DISSIPATOR ONLY	SKIMMER ONLY	DISSIPATOR & SKIMMER
48"	27"	24"	15"
60"	36"	30"	24"
72"	48"	42"	30"
84"		48"	36"
96"			48"

*RECOMMENDED TO PROVIDE ADEQUATE SPACING BETWEEN COMPONENTS FOR INSTALLATION, ACCESS & MAINTENANCE. REFER TO MANHOLE SIZING CHARTS FOR MORE DETAILED STRUCTURE SIZING OR CONTACT MOMENTUM FOR PROJECT SPECIFIC DETAILS.

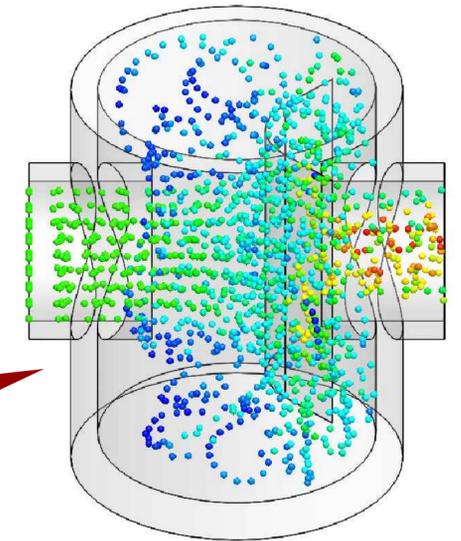
**PRESERVER™ COMPONENTS ACCOMMODATE PIPE SIZES UP TO 48" DIAMETER.

PART NUMBER*	PIPE DIAMETER**	ALLOWABLE PEAK FLOW
D15 / S15	12"	20 CFS
D21 / S21	15"	25 CFS
	18"	30 CFS
D27 / S27	21"	35 CFS
	24"	50 CFS
D36 / S36	27"	60 CFS
	30"	85 CFS
D48 / S48	36"	100 CFS
	42"	145 CFS
	48"	175 CFS

*"D" = DISSIPATOR, PLACED AT INLET(S)
*"S" = SKIMMER, PLACED AT OUTLET
**CONTACT MOMENTUM FOR PIPE SIZES NOT LISTED

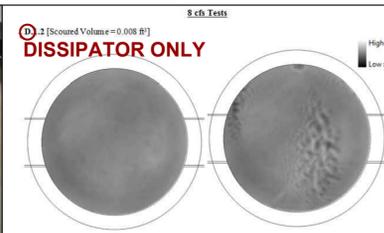
STRUCTURAL:

- DESIGNED TO WITHSTAND EXTREME EVENTS
- FORCES CALCULATED USING COMPUTATIONAL FLUID DYNAMICS



PERFORMANCE:

- SEDIMENT REMOVAL & RETENTION FUNCTIONS DETERMINED WITH LAB TESTING
- FIELD VERIFIED



Ramsey Conservation District Preserver Case Study
County State Aid Highway 23 Reconstruction - Oak Park Heights, MN



MINNESOTA DEPARTMENT OF TRANSPORTATION
WASHINGTON COUNTY PUBLIC WORKS DEPARTMENT
CONSTRUCTION PLAN FOR: GRADING, AGGREGATE BASE, BITUMINOUS SURFACING, STORM SEWER SKIMMING, PAVEMENT MARKING, CONCRETE CURB, SIDEWALK, AND ADA IMPROVEMENTS
LOCATED ON C.S.A.H. 23 (BEACH RD. PARK AVE) FROM UPPER 85TH ST. TO 93TH ST (DORLAND ST.)



Background:

- The Preserver was specified to provide pretreatment prior to discharge to an infiltration basin.
- Drainage Area:**
 - 1.94 acres, residential
 - 0.66 acres impervious (34.0%)
 - Mature tree canopy
- Structure:**
 - 5' diameter
 - 3' sump depth
 - Ø15" inlet, with dissipator
 - Ø15" outlet, with skimmer



2017 Year-End Performance:

- 2,418 lbs material captured, including:
 - 0.232 lbs phosphorus
 - Significant heavy metals
 - 1.50 specific gravity



Observations:

- Heavy leaf loading resulted in some accumulation at the inlet, which cleared following larger storm events.
- Device functioned as intended; capturing & retaining material in the structure.
- Low specific gravity of retained material likely indicates high organic content.



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Not to Scale



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THE PRESERVER™ STANDARD INSTALL DETAIL

ENERGY DISSIPATOR AND/OR SKIMMER

PROUDLY MADE IN THE USA
QUALITY MATERIALS:
• 100% recycled HDPE
• Stainless steel brackets
• Stainless steel hardware

CONCEPTUAL PLAN DISCLAIMER:
THIS GENERIC DETAIL DOES NOT ENCOMPASS THE SIZING, FIT, AND APPLICABILITY OF THE PRESERVER FOR THIS SPECIFIC PROJECT. IT IS THE ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ASSURE THAT THE STORMWATER SYSTEM DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. MOMENTUM ENVIRONMENTAL LLC DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS. THE DESIGN ENGINEER IS RESPONSIBLE FOR ALL DESIGN DECISIONS.