



# STORMWATER QUALITY UNIT SPECIFICATION

## Scope

This specification designates the requirements for Prinsco's Water Quality Unit 36" through 60" in diameter.

## Device Requirements

The Prinsco Stormwater Quality Unit shall have annular exterior corrugations with a smooth interior meeting the requirements of ASTM F2737. The unit shall have two containment zones, the first to collect sediment, and the second to collect floatables including oil and grease. Each zone shall be separated with the use of a reinforced weir or baffle plate welded to the interior of the unit. The weir and baffle plates shall be welded at all interfaces between the plate and Stormwater Quality Unit. Each containment zone shall contain an access riser to allow for clean-out and personnel access for inspection.

## Materials

The Prinsco Water Quality Unit shall be manufactured using High Density Polyethylene (HDPE) meeting the minimum requirements of cell classification of 424420C for 4- through 10- inch diameters and 435400C for 12- through 60- inch diameters, as defined and described in ASTM D3350 except the carbon black content shall be 2 – 4%.

The HDPE pipe material for 12- through 60- inch diameters shall be tested for slow crack growth resistance using the notched constant ligament-stress (NCLS) test as specified in sections 9.4 and 5.1 of AASHTO M294 and ASTM F2306, respectively. Average failure time of the five test specimens shall not be less than 24 hours.

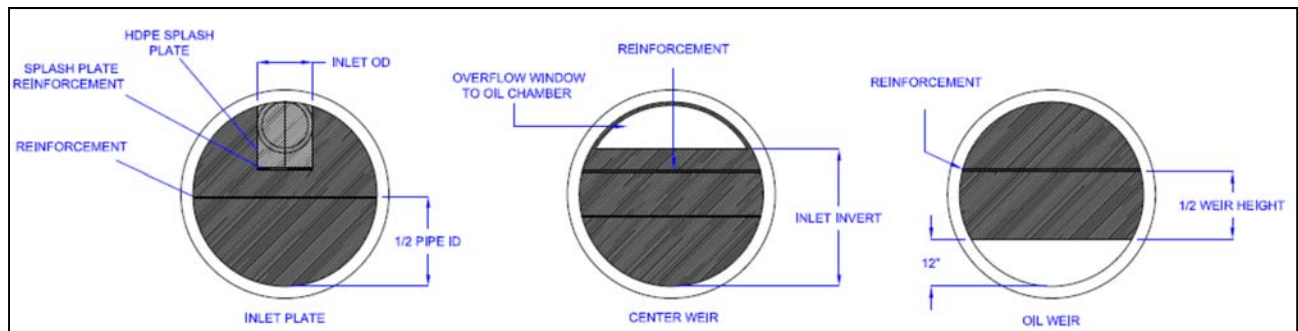
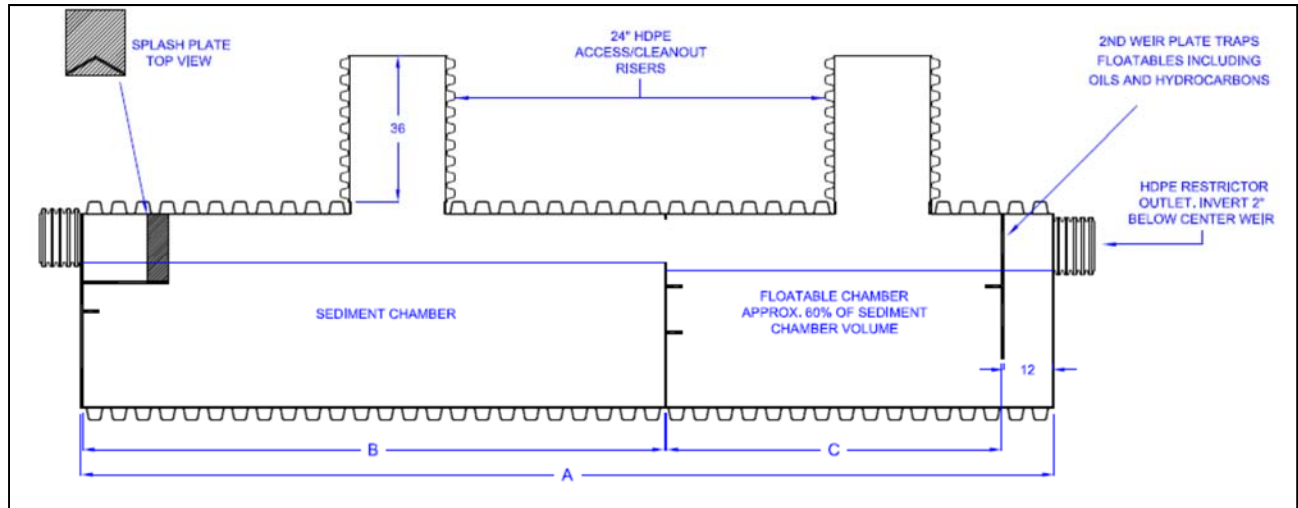
## Joint Performance

Connections to Stormwater Quality Unit shall be of the same joint quality as specified for the remainder of the stormwater pipe system on the project.

## SWQU Dimensions

Product Code	SWQU ID (in)	Inlet Stub ID (in)	Length A (ft)	Total Storage Volume (ft <sup>3</sup> )	Sediment Chamber Storage Volume (ft <sup>3</sup> )	Floatable Chamber Volume (ft <sup>3</sup> )	Sediment Chamber Length B (in)	Floatable Chamber Length C (in)	Max Treated Flow Rate @ 140 Sieve Size CFS	Max Treated Flow Rate @ 200 Sieve Size CFS
WQU3620	36	10	20	96.9	64.2	32.7	147	75	1.50	0.74
WQU3640			40	200.8	132.7	68.1	304	156	3.08	1.54
WQU4220	42	12	20	128.4	86.6	41.8	147	71	1.77	0.88
WQU4240			40	267.9	179.0	88.9	304	151	3.66	1.83
WQU4820	48	12	20	176.9	119.3	57.6	147	71	2.31	1.15
WQU4840			40	369.4	246.8	122.6	304	151	4.77	2.39
WQU6020	60	15	20	282	188.9	93.1	144	71	3.00	1.50
WQU6040			40	590.3	397.5	192.8	303	147	6.31	3.15

## Product Details



## Installation

Pipe and fittings shall be installed in accordance with ASTM D2321 and Prinsco's published installation guidelines. Minimum cover for AASHTO H-25 loads shall be 24" measured from the top of the unit to the bottom of flexible pavement or to top of rigid pavement. Maximum cover for green or trafficked areas shall be no more than 8'. Contact your local Prinsco representative or visit [www.prinsco.com](http://www.prinsco.com) for the latest installation guidelines.

## Reference Specifications

This specification references the latest edition and revisions of the following standard specifications:

- ASTM F2737 – *Standard Specification for Corrugated High Density Polyethylene (HDPE) Water Quality Units*
- AASHTO M294 – *Standard Specification for Corrugated Polyethylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter*
- AASHTO M252 - *Standard Specification for Corrugated Polyethylene Drainage Pipe*
- ASTM F2306 – *Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Gravity-Flow Storm Sewer and Subsurface Drainage Applications*
- ASTM D3350 – *Standard Specification for Polyethylene Plastics Pipe and Fittings Materials*
- ASTM D2321 – *Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications*