

Arcadia™

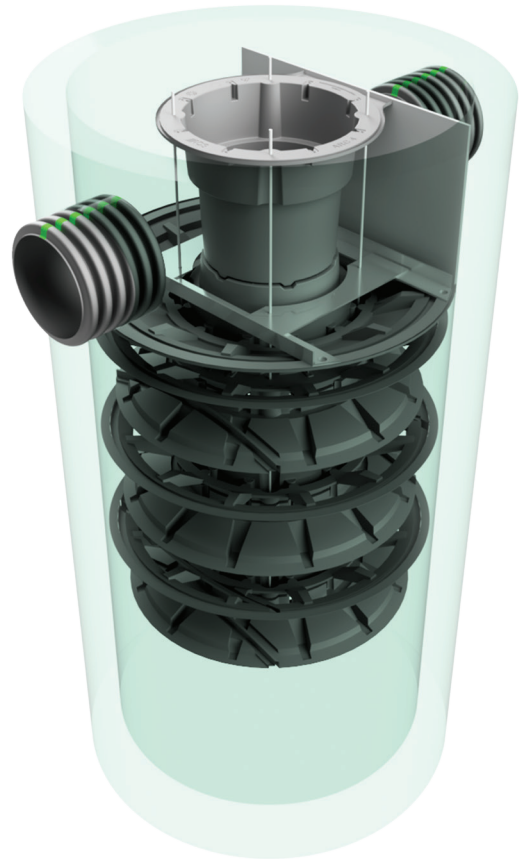
The Arcadia is market-changing stormwater quality technology. This high-performance hydrodynamic separator is designed to remove total suspended solids in order to protect the world's most precious resource, water. The Arcadia is also an outstanding value that offers multiple pipe configurations and quick installation.

Features

- *Single manhole design*
- *No elevation loss between the inlet and outlet*
- *Variable inlet/outlet angle configurations (not just 180 degree orientation)*
- *Internal bypass for inline installation (where applicable)*
- *Innovative, patent-pending design mitigates turbulence in the sump area to prevent resuspension of captured contaminants*

Benefits

- *The AR3, AR4, AR5, AR6, AR8 and AR10 can be installed in a standard 36" (900 mm), 48" (1200 mm), 60" (1500 mm), 72" (1800 mm), 96" (2400 mm) and 120" (3000 mm) precast manhole, respectively*
- *The AR3, AR4 and AR5 can be provided factory assembled within a 36" (900 mm), 48" (1200 mm) and 60" (1500 mm) ADS HP manhole and delivered to the jobsite*
- *The interlocking internals are designed and manufactured for quick and easy installation*
- *Designed for easy maintenance using a vacuum truck or similar equipment*
- *Inspection and maintenance are performed from the surface with no confined space entry.*



Arcadia Specification

Materials and Design

- Concrete Structures: Designed for H-20 traffic loading and applicable soil loads or as otherwise determined by a licensed Professional Engineer. The materials and structural design of the devices shall be per ASTM C857 and ASTM C858.
- HP Manhole Structures: Made from an impact modified copolymer and polypropylene meeting the material requirements of ASTM F2764. Gaskets shall be made of material meeting the requirements of ASTM F477.
- Separator internals shall be substantially constructed of polypropylene, polyethylene or other thermoplastic material approved by the manufacturer.

Performance

- The stormwater treatment unit shall be an inline unit capable of conveying 100% of the design peak flow. If peak flow rates exceed maximum hydraulic rate, the unit shall be installed offline.
- The Arcadia unit shall be designed to remove at least 80% of the suspended solids on an annual aggregate removal basis. Said removal shall be based on full-scale third party verified testing using OK-110 media gradation or equivalent and 300 mg/L influent concentration. Full scale testing shall have included sediment capture based on actual total mass collected by the stormwater treatment unit.
- OR -
The Arcadia unit shall be designed to remove at least 50% of TSS using a media mix with D50=75 micron and 200 mg/L influent concentration per current NJDEP/NJCAT HDS protocol.
- The stormwater treatment unit internals shall consist of one (1) separator assembly.

Arcadia Model*		Manhole Diameter in. (mm)	NJDEP (50% removal) cfs (L/s)	OK-110 (80% removal) cfs (L/s)
AR3HP	HP manhole with concrete top slab	36 (900)	0.95 (26.9)	1.55 cfs (43.9)
AR3HPDT	HP manhole with ductile iron flat top			
AR3PC	Concrete manhole			
AR4HP	HP manhole with concrete top slab	48 (1200)	1.68 (47.6)	2.75 (77.9)
AR4HPDT	HP manhole with ductile iron flat top			
AR4PC	Concrete manhole			
AR5HP	HP manhole with concrete top slab	60 (1500)	2.63 (74.5)	4.30 (121.8)
AR5PC	Concrete manhole			
AR6PC	Concrete manhole	72 (1800)	3.78 (107.0)	6.19 (175.3)
AR8PC	Concrete manhole	96 (2400)	6.72 (190.3)	11.00 (311.5)
AR10PC	Concrete manhole	120 (3000)	10.50 (297.3)	17.19 (486.8)

* NOTE: Peak bypass flows are dependent on final design.

Installation

Installation of the stormwater treatment unit(s) shall be performed per manufacturer's installation instructions. Instructions can be obtained by visiting the Arcadia page at adspipe.com.

