PIPE DETENTION SYSTEMS

STORMWATER SOLUTIONS / STORAGE / DETENTION

Detention

Prinsco's underground detention systems are completely customizable to your unique project and can be designed with the support of our Prinsco engineering team. Our detention systems can be perforated, allowing for percolation into the soil for groundwater recharge, or solid, containing the storm event for a controlled release into a municipal storm sewer. Headers and Laterals combine to create an "underground pond" allowing valuable land to be utilized for green-space, parking lots and more. Prinsco systems are closed, mitigating the health risks and safety hazards associated with an open pond.



Available Sizes

Diameter (in.)	DD/Width (in.)	length (ft.)
12"	14.4"	10'/20'
15"	17.6"	10'/20'
18"	21.5"	11'/20'
24"	28.2"	11'/20'
30"	34.6"	11'/20'
36"	40.6"	11'/20'
42"	47.7"	11'/20'
48"	54.0"	11'/20'
60"	66.7"	11'/20'

Backfill Properties: Stone Porosity*

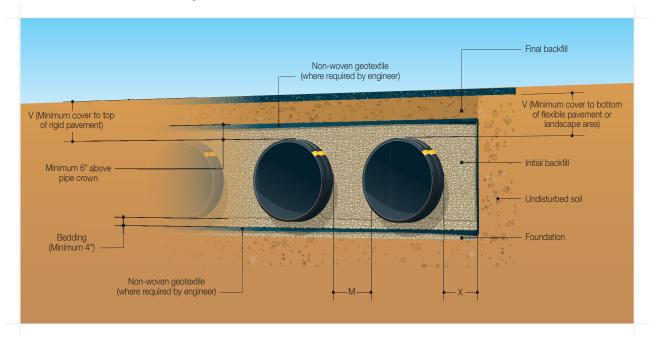
Diameter (in.)	Volume (CF/LF)	40% (CF/LF)	35% (CF/LF)	30% (CF/LF)
12"	0.80	0.89	0.78	0.67
15"	1.24	1.10	0.96	0.82
18"	1.79	1.56	1.39	1.19
24"	3.19	2.62	2.29	1.96
30"	4.78	3.46	3.03	2.60
36"	6.91	4.24	3.72	3.19
42"	9.39	5.31	4.64	3.98
48"	12.57	6.59	5.76	4.94
60"	19.44	9.89	8.63	7.39

^{*}Additional storage (cf/lf) for perforated systems. Based on conservative values.



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Installation of Parallel Pipe



Installation

Detention and/or Retention Systems shall be installed in accordance with the latest edition of ASTM D2321 and Prinsco's installation guidelines. A non-woven geotextile filter fabric or other measures should be taken to prevent native soil from migrating into the initial backfill material, when required.

Foundation: Unstable trench bottoms, or rock, or unyielding material shall be excavated to a depth directed by the engineer and replaced with suitable material. For unstable materials, geotextile may be used to stabilize the trench bottom, if directed by the engineer.

Bedding: Suitable material shall be Class I or II, as specified by ASTM D2321. Minimum bedding thickness shall be 4".

Initial Backfill: Suitable material shall be Class I or II, as specified by ASTM D2321. Compaction and backfill lifts shall be in accordance with ASTM D2321. Initial backfill shall extend to not less than 6" above the top of the pipe.

Minimum Cover: For up to H-25 traffic applications a minimum of 12" for pipe up to 36" diameter, 15" for 42" diameter and 18" for 48" and 60" diameter. Minimum cover, V, shall be measured from the top of the pipe to bottom of flexible pavement or to the top of rigid pavement. Additional cover may be required for heavier loads, construction loads or to prevent floatation.

Final Backfill: Suitable materials directed by the engineer shall be used in landscape or non-traffic applications. For areas subjected to traffic a higher degree of compaction is required and a separation layer of non-woven geotextile may be required. Compaction levels and/or geotextile may be specified at the discretion of the design engineer.

Fittings: Available with either plain end or belled end. Custom fittings can be tailored to meet project needs/requirements.

Installation Recommendations

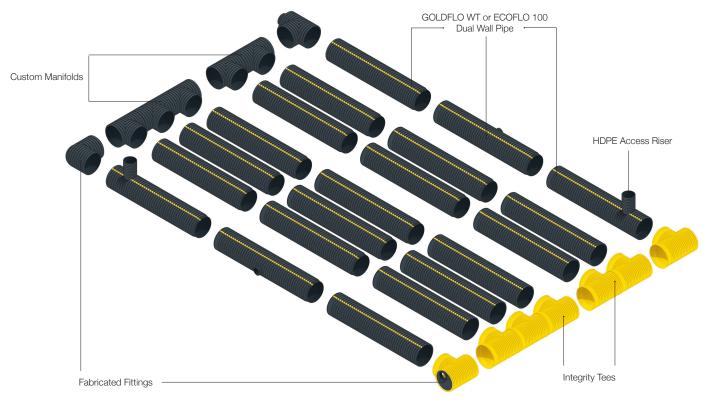
Pipe Diameter (in.)	Bedding Depth to Trench Wall (in.)*	"V" Minimum (in.)*	"X" Minimum (in.)*	"M" Minimum (in.)*
12"	4"	12"	8"	12"
15"	4"	12"	8"	12"
18"	4"	12"	9"	12"
24"	4"	12"	10"	12"
30"	4"	12"	18"	15"
36"	4"	12"	18"	18"
42"	6"	15"	18"	21"
48"	6"	18"	18"	24"
60"	6"	18"	18"	30"

^{*}Dimensions measured from outside diameters.

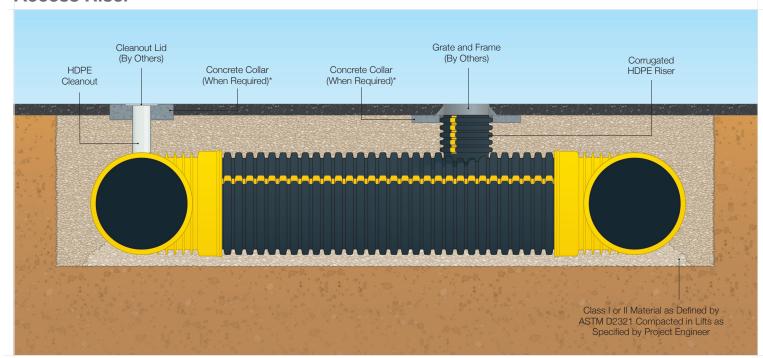


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Underground System Components



Access Riser



*A concrete collar shall be constructed around any riser/cleanout located in a traffic area.

All pipe shall be installed in accordance with ASTM D2321 standard practice for underground installation of flexible thermoplastic sewer pipe, latest edition.



STORMWATER SOLUTIONS / STORAGE / DETENTION



When ECOFLO100 is used in a detention system it creates the perfect sustainable water conservation solution.







MOBILE RESOURCES



More about Detention Installation Videos Installation Documents Specifications Technical Notes



Prinsco.com/detention-resources

ENGINEERED WITH INTEGRITY

Prinsco products are fully supported by our engineering team and are designed, manufactured and tested to meet/exceed the high performance needs of the construction market. Prinsco's engineering, quality control and production teams are committed to a continuous process of innovation, product development and quality improvement. We are focused on current and future market needs centered around environmental sustainability, water quality, stormwater management and performance advancement.

HydroStor Prinsco also offers HydroStor, a Chamber Detention solution. Visit Prinsco.com/HydroStor for more information.





GOLDFLO WT® AASHTO Dual-Wall Pipe

ECOFLO® 100 High Performance Recycled Dual-Wall Pipe









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