

Arc by Infiltrator

DESIGN & INSTALLATION MANUAL – MASSACHUSETTS



INTRODUCTION

This manual provides general design and installation information for use of Arc chambers in the state of Massachusetts. The configurations presented in this document are common designs and are provided for illustrative purposes. They are not intended to restrict the use of other configurations, which may be utilized provided the design conforms with Massachusetts Dep Title 5, 310 CMR 15.000 and the Arc Chamber approval (www.mass.gov.dep)

Each revised version of this manual supersedes the previous version. The use of Arc chambers in this manual at regulation sizing is authorized per product approval by the the Commonwealth of Massachusetts Department of Environmental Protection (MassDEP).

All chamber configurations and installations must comply with applicable state and local rules.

CAD details in DWG format may be found on the Infiltrator Systems website at www.infiltratorsystems.com.

For more detailed design and installation information, please contact Infiltrator Systems at 1-800-221-4436

Arc Chambers in Massachusetts	
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PRODUCT SPECIFICATIONS

Arc 36 System

- 34.5" wide chamber
- Lightweight design with articulating joints
- AASHTO H-10 load rated with proper installation.
- See Pages 4-5



Arc 36 LP System

- 34" wide chamber
- AASHTO H-10 load rated with proper installation.
- See Pages 6-7



Arc 36 High Capacity System

- 34.5" wide chamber
- AASHTO H-10 load rated with proper installation.
- See Pages 4-5



Arc 24 System

- 22.5" wide chamber
- Lightweight design with articulating joints and pivot lockout feature
- AASHTO H-10 load rated with proper installation.
- See Pages 8-9



Arc 18 System

- 16" wide chamber
- Lightweight design with articulating joints and pivot lockout feature
- AASHTO H-10 load rated with proper installation.
- See Pages 10-11



Additional products approved for use by MassDEP

Arc 36 HD

Arc 36 HCHD

BioDiffuser – 11" Standard

BioDiffuser – 16" High Capacity

BioDiffuser – 16" High Capacity H-20

BioDiffuser – 15" Bio2

BioDiffuser – 22" Bio3

NOTE: The MassDEP approval allows the use of the BioDiffuser 16" High Capacity H-20 Chamber (BD 1620) but makes no determination as to the chambers meeting the H-20 loading requirements.

Contact Infiltrator Systems, Inc. 1-800-221-4436 for additional technical and product information.

ARC 36 AND ARC 36 HC SYSTEM

Before beginning installation, please note the following engineered features of the Arc 36 model chambers and endcaps.

Each chamber end is either marked “Dome” or “Post” on the round observation/vent knockout ports. These indicate section of assembly, dome over post.

Arc 36 Chamber Specifications	
Length	63"
Effective Length	60"
Overall Width	34.5"
Invert Height	7.13"/10.75"*
Overall Height	13"/16" **

*10.75" invert height for Arc 36 HC

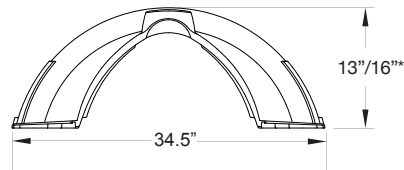
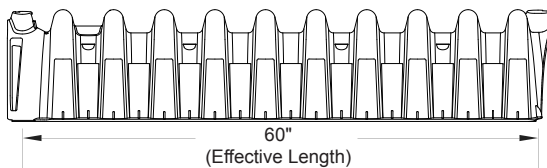
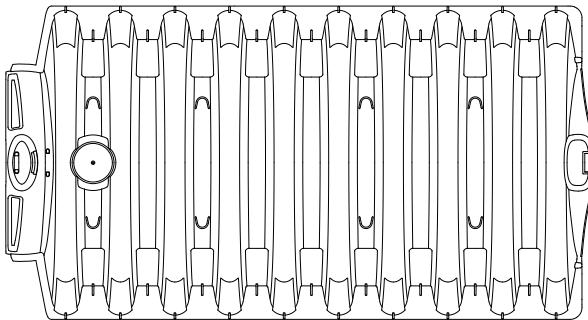
**16" overall height for Arc 36 HC

Calculations and dimensions are nominal



Arc 36 and Arc 36 HC Chamber

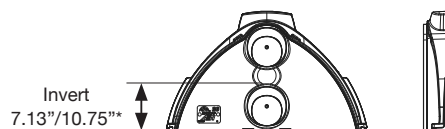
Top, Side, and End Views (not to scale)



* 16" overall height for Arc 36 HC

Arc 36 and Arc 36 HC Endcap

Side and End Views (not to scale)



*10.75" Invert height for Arc 36 HC

ARC 36 AND ARC 36 HC SYSTEM

Arc 36 Features

- The post and dome creates a positive lock securing the chambers for final engagement. Lock and drop feature for faster installation.
- The Arc 36 chamber feet are designed to provide support, particularly in sandy soils.
- Sidewall louvers are designed to allow effluent to exit the chamber sidewalls while preventing soils from migrating into the chamber void.
- Observation/venting knockout ports provide for inspection of system performance as well as a convenient location for ventilation pipes.
- Each chamber end has small knockouts on the dome positioned in the “Post” end joint. When removed, these knockouts allow for the use of zip ties to support piping in dosing systems. See page 18 for pressure dosing.



• Lock and Drop



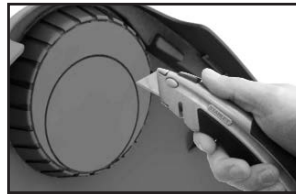
• Louvers and Feet



• Observation Port

Arc 36 Universal Endcap

- Upper and lower knockouts accommodate both Schedule 40 and SDR 35 piping. Knockouts can be removed with a knife or hole saw. Dimples are also offered for the positioning of hole saw pilot drills.
- Endcaps are designed to attach to the chamber's dome or post end in the same fashion for each end with the Arc 36 logo facing outward.



Arc 36 Swivel Feature

- The engagement mechanism of the Arc 36 chamber is designed to allow for a pivot between joined chambers of up to 10° in either direction.



Arc 36 Side Port Coupler (SPC)

- SPC component snaps in place to allow additional pivoting space when used mid-line.



Arc 36 System Configurations

- Trench Installation: Pages 15
- Additional Configurations: Pages 17-18

ARC 36 LP SYSTEM

Before beginning installation, please note the following engineered features of the Arc 36 LP model chambers and endcaps.

Each chamber end is either marked “Dome” or “Post” on the round observation/vent knockout ports. These indicate direction of assembly, dome over post.

Arc 36 LP Chamber Specifications

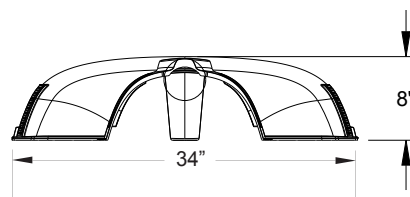
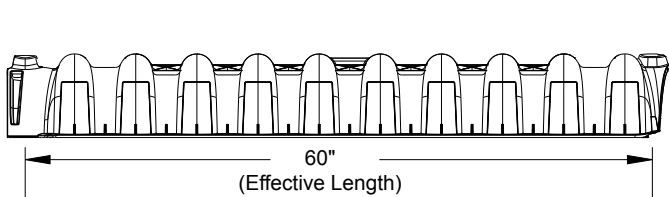
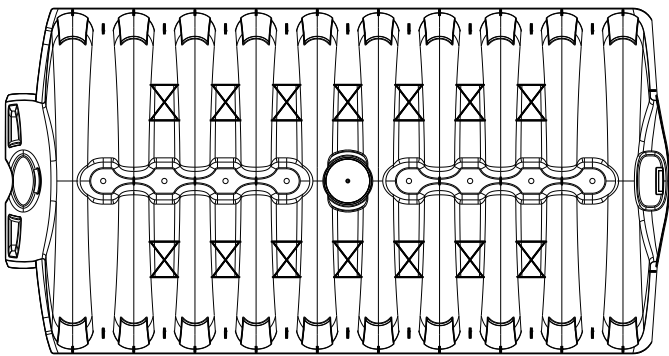
Length	63"
Effective Length	60"
Overall Width	34"
Invert Height	3.8"
Overall Height	8"

Calculations and dimensions are nominal



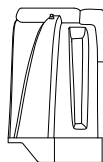
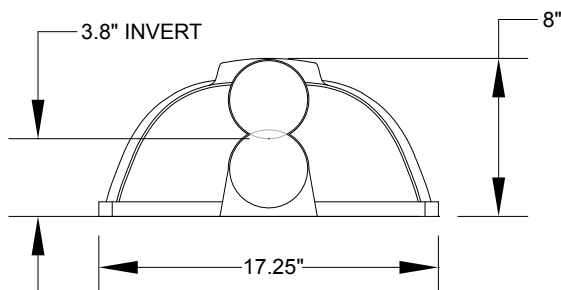
Arc 36 LP Chamber

Top, Side, and End Views (not to scale)



Arc 36 LP Endcap

Side and End Views (not to scale)



ARC 36 LP SYSTEM

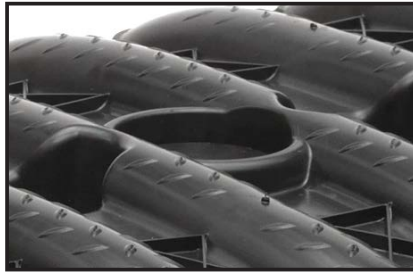
Arc 36 LP Features

The post and dome creates a positive lock securing the chambers for final engagement. Lock and drop feature for faster installation.

- The Arc 36 LP chamber feet are designed with an extra large surface area to provide support, particularly in sandy soils.
- Sidewall louvers are designed to allow effluent to exit the chamber sidewalls in high flow situations, while preventing soils from migrating into the chamber void.
- Observation/venting knockout ports provide for inspection of system performance as well as a convenient location for drain field ventilation pipes.
- The Arc 36 LP employs a central post which creates an exceptionally strong chamber part.
- Arc chambers can be installed to meet an AASHTO H-10 live load (16,000 lbs/axle). Backfilling with a minimum of 12" of properly compacted cover is required for these applications.



• Louvers and Feet



• Observation Port

Arc 36 LP Universal Endcap

- Upper and lower knockouts accommodate both Schedule 40 and SDR 35 piping. Knockouts can be removed with a knife or hole saw. Dimples are also offered for the positioning of hole saw pilot drills.
- Endcaps are designed to attach to the chamber's dome or post end in the same fashion for each end with the Arc 36 logo facing outward.



Arc 36 LP Swivel Feature

- The engagement mechanism of the Arc 36 LP chamber is designed to allow for a pivot between joined chambers of up to 10° in either direction.



• Engagement mechanism

ARC 24 SYSTEM

Before beginning installation, please note the following engineered features of the Arc 24 model chambers and endcaps.

Each chamber end is either marked “Dome” or “Post” on the round observation/vent knockout ports. These indicate direction of assembly, dome over post.

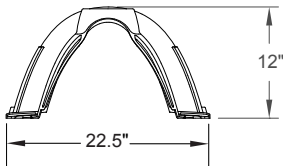
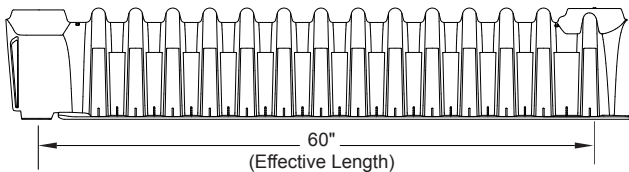
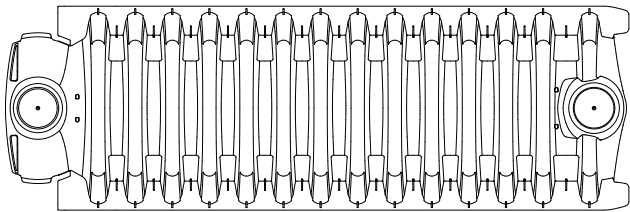
Arc 24 Chamber Specifications	
Length	67”
Effective Length	60”
Overall Width	22.5”
Invert Height	6.25”
Overall Height	12”

Calculations and dimensions are nominal



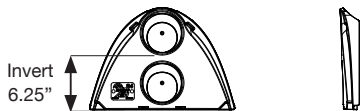
Arc 24 Chamber

Top, Side, and End Views (not to scale)



Arc 24 Endcap

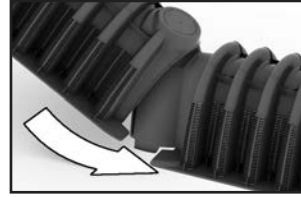
Side and End Views (not to scale)



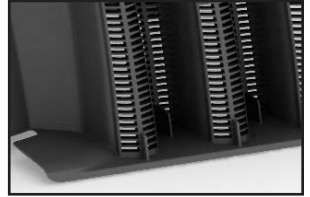
ARC 24 SYSTEM

Arc 24 Features

- Base flanges on the chambers ends over lock during final engagement to form a very strong joint.
- The Arc 24 chamber feet are designed to provide support particularly in sandy soils.
- Sidewall louvers are designed to allow effluent to exit the chamber sidewalls while preventing soils from migrating into the chamber void.
- Observation/venting knockout ports provide for inspection of system performance as well as a convenient location for ventilation pipes.
- Each chamber end has small knockouts on the roof positioned in the “Post” end joint. When removed, these knockouts allow for the use of zip ties to support piping in low pressure dosing systems. *See page 15 for pressure dosing.*



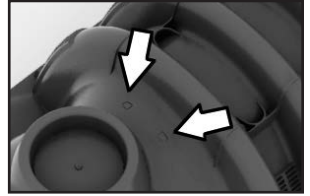
• Overlocking Ends



• Louvers and Feet



• Observation Port



• Zip Tie Knockouts

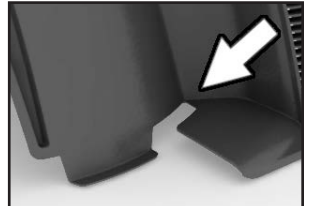
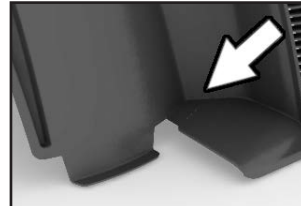
Arc 24 Endcap

- Upper and lower knockouts accommodate both Schedule 40 and SDR 35 piping in a single hole tap. Dimples are also offered for the positioning of 4.25” hole saw pilot drills.
- Endcaps are designed to attach the chamber’s dome or post end in the same fashion for each end with the Arc 24 logo facing outward.



Arc 24 Swivel Feature

- Each chamber’s post end has swivel lockout tabs at either base flange. When removed, the incoming chamber will turn up to ten degrees in the direction of the removed lockout tab. Without removal of the swivel lockout tab, the chambers will align in a straight pattern.
- Swivel lockout tabs may be removed with a striking blow to the tab and then peeling off the remaining piece of plastic or cut with a knife.



Arc 24 Side Port Coupler (SPC)

- SPC component snaps in place to allow additional inletting options or pivoting space when used in-line.



ARC 18 SYSTEM

Before beginning installation, please note the following engineered features of the Arc 18 model chambers and endcaps.

Each chamber end is either marked “Dome” or “Post” on the round observation/vent knockout ports. These indicate direction of assembly, dome over post.

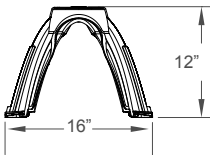
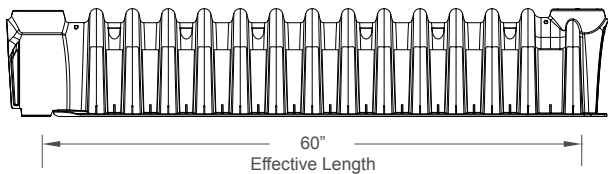
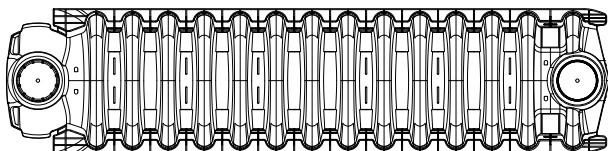
Arc 18 Chamber Specifications	
Length	67”
Effective Length	60”
Overall Width	16”
Invert Height	6.24”
Overall Height	12”

Calculations and dimensions are nominal



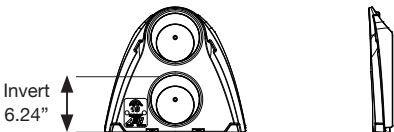
Arc 18 Chamber

Top, Side, and End Views (not to scale)



Arc 18 Endcap

Side and End Views (not to scale)



ARC 18 SYSTEM

Arc 18 Features

- Base flanges on the chambers ends over lock during final engagement to form a very strong joint.
- The Arc 18 chamber feet are designed to provide support particularly in sandy soils.
- Sidewall louvers are designed to allow effluent to exit the chamber sidewalls while preventing soils from migrating into the chamber void.
- Observation/venting knockout ports provide for inspection of system performance as well as a convenient location for ventilation pipes.
- Each chamber end has small knockouts on the roof positioned in the “Post” end joint. When removed, these knockouts allow for the use of zip ties to support piping in low pressure dosing systems. *See page 15 for pressure dosing.*



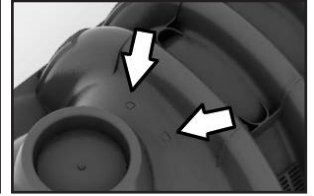
• Overlocking Ends



• Louvers and Feet



• Observation Port



• Zip Tie Knockouts

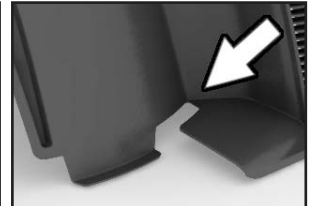
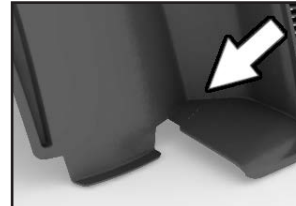
Arc 18 Endcap

- Upper and lower knockouts accommodate both Schedule 40 and SDR 35 piping in a single hole tap. Dimples are also offered for the positioning of 4.25” hole saw pilot drills.
- Endcaps are designed to attach the chamber’s dome or post end in the same fashion for each end with the Arc 18 logo facing outward.



Arc 18 Swivel Feature

- Each chamber’s post end has swivel lockout tabs at either base flange. When removed, the incoming chamber will turn up to ten degrees in the direction of the removed lockout tab. Without removal of the swivel lockout tab, the chambers will align in a straight pattern.
- Swivel lockout tabs may be removed with a striking blow to the tab and then peeling off the remaining piece of plastic or cut with a knife.



SIDE PORT COUPLER

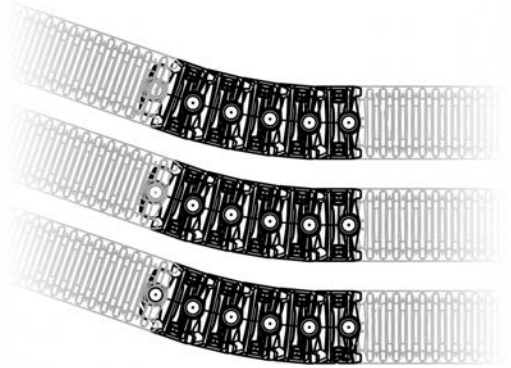
Included in the Arc chamber line is the Side Port Coupler (SPC).
The following Arc chamber model has an accompanying SPC:

Arc 24
Arc 36
Arc 36 HC



Function:

The SPC offers flexibility of pivoting when installed in series between two chambers within the chamber line to allow for increased turning capability.



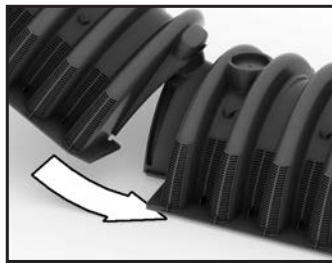
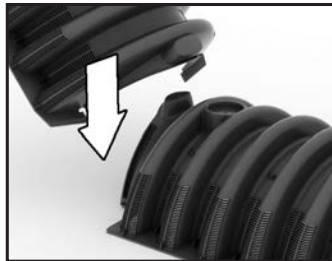
INSTALLATION INSTRUCTIONS

Preparation

- Excavate to proper width and depth as described in the system design or permit and as required by state and local codes.
- Smooth irregularities in the excavation and clear any large rocks or debris from the bottom surface area. Slope of the bottom area shall be determined by the system design, as well as state and local codes.

Installation

- Installation of the any Arc leaching system begins with laying the first chamber onto the prepared bottom surface area dome end first. Each additional chamber is then laid dome over post by raising the post end of the incoming chamber and slightly pulling the chamber back until the dome stops at the underlying post. As the incoming chamber is laid flat on the bottom, slide the lower base flanges under the raised base flanges of the previously installed chamber.



- As the incoming chamber is lowered down onto the excavation bottom, the two chambers fully engage in a straight-line pattern creating a very strong joint.



Note: If the following chamber is simply laid onto the preceding chamber the joint will not be fully engaged.

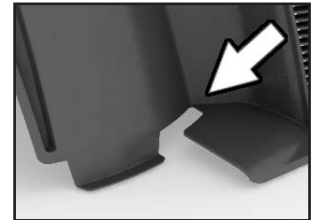
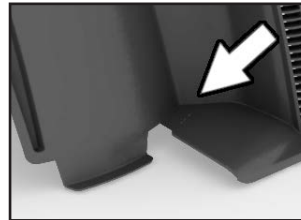
Turns

- The Arc chambers are designed with an articulating joint that allows for a turn of up to 20° of movement with maximum of 10° in either direction.

Note: The Arc 24 is designed with lockout tabs.

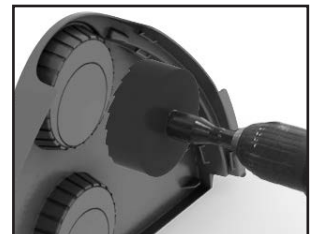
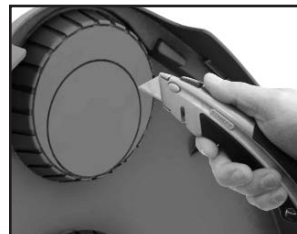


- If a turn application is desired with the Arc 24 chamber, the lockout tab should be removed before installing the incoming chamber. The lockout tab is located at the base flange of the previously-installed chamber (on its "Post" end).
- Strike or cut the lockout tab and tear the remaining tab material away from the chamber.
- If sharper turns are required, 4" pipe and fittings may be used.



Installation of Endcaps & Pipe Connections

- Prior to installing endcaps, remove the appropriate knockout for pipe connections. Snap an endcap on each end of the drain lines with the product or company logo facing out (knockouts can be removed with a knife or a 4" hole saw).



- Upper endcap 4" knockouts — always used as inlet for each line. A four-inch hole saw may be used.

Splash Plates

- Splash plates are mandatory on each inlet endcap for gravity delivery of effluent.
- Company provided splash plates are installed by simply aligning the holes on the splash plate with the corresponding dimples on the endcap and snapping into place.
- Splash plates are used separately.



INSTALLATION INSTRUCTIONS (Continued)

Filter Fabric

The use of filter fabric is recommended, and be required, in certain soil conditions. If used, drape the fabric to completely cover the louvered sidewalls of the chambers to prevent soil intrusion, while allowing water and air to pass through.

The following single or combination of conditions warrant the use of filter fabric:

- The backfill material is fine or very fine uniform sand.
- The drainfield will be left uncovered.
- The drainfield will not be protected from surface drainage (i.e. downspouts, barrel-tile roofs, paved areas, and neighboring property, etc.).

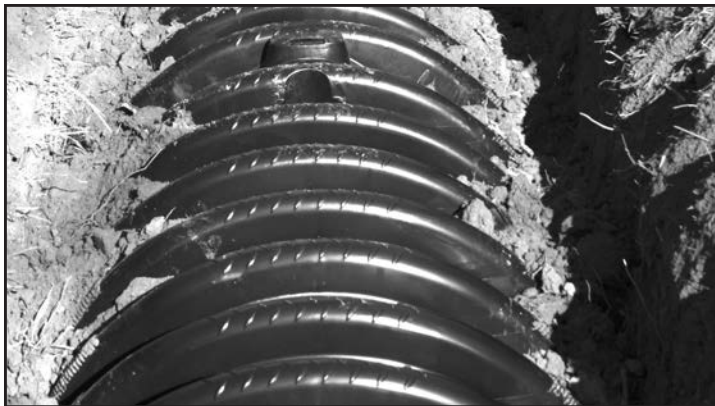
Filter fabric should meet the following specifications and can be purchased from most Infiltrator Systems distributors:

- Fabric: Spun bonded, made up of nylon fibers, hydrophilic in nature
- Weight: 0.35 – 1 oz/yd²

Ventilation

Drainfield ventilation is recommended, but not required, to allow oxygen to access the drain field especially when cover soil quality is questionable.

- Knockouts are provided in the top of all Arc chambers. The dome/post feature of the Arc 24 chamber also acts as a knock-out for observation/vent ports. Here a PVC pipe may be introduced into the chamber and vented to atmosphere.
- Make certain the vent is assembled in such a fashion as to prevent rainwater from entering, effluent from exiting the chamber line.
- Several outlet products are available for this purpose.



Backfill

- Modestly compact the sidewall area backfill material by simply walking down the sides of the chambers. Sidewall compaction is important to begin the stabilization process of the soil, to support the chamber sidewalls,

and help prevent fine sand migration into the chamber louvers. This procedure may be accomplished any time during the installation or covering process.



- All Arc chambers are AASHTO H-10 load rated. Where vehicular loading is anticipated during installation of the system or construction of the facility, AASHTO H-10 loading (16,000 lbs/axle) is achieved by backfilling with a minimum of 12" of properly compacted cover.
- Do not drive heavy equipment over a system comprised of non-compacted cover material without first bridging the excavation. Use lightweight or tracked equipment to push the soil onto the system to the proper height set forth by local and state codes.

Final Grade

- Make certain that storm water is diverted away from the drainfield. System final grade should be crested or sloped, never left flat or concave. Channel water away from the drainfield.
- Final grading subcontractors and landscapers should be alerted and instructed to proper covering procedures, cover materials, and finish contours and elevations.
- Final grade material should be slightly to moderately limited soil to help maintain an aerobic state in the drain field.
- Stabilize the drainfield area with grass-type vegetation prior to heavy rains if possible.

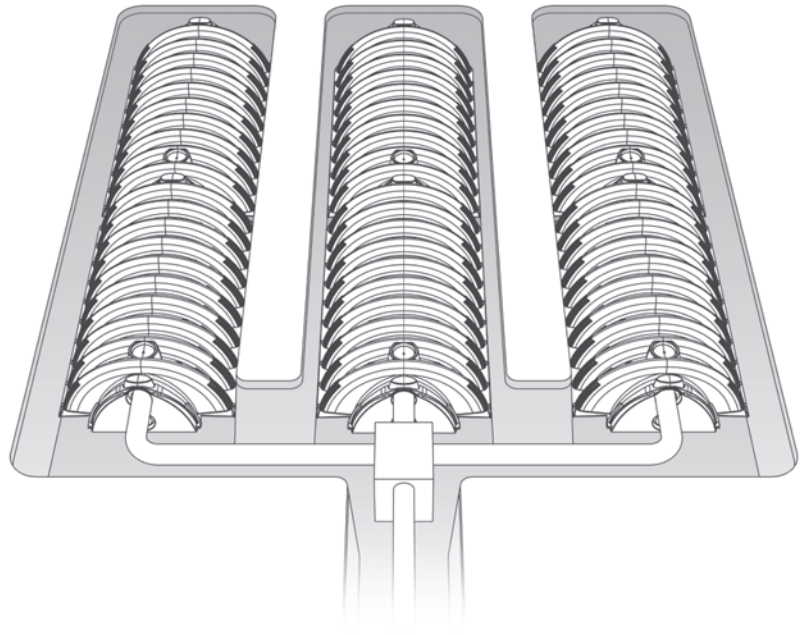
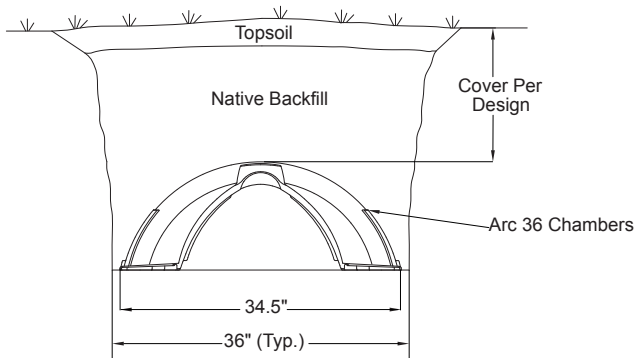
SYSTEM CONFIGURATIONS

Trench System

The typical installation is utilized on level sites.

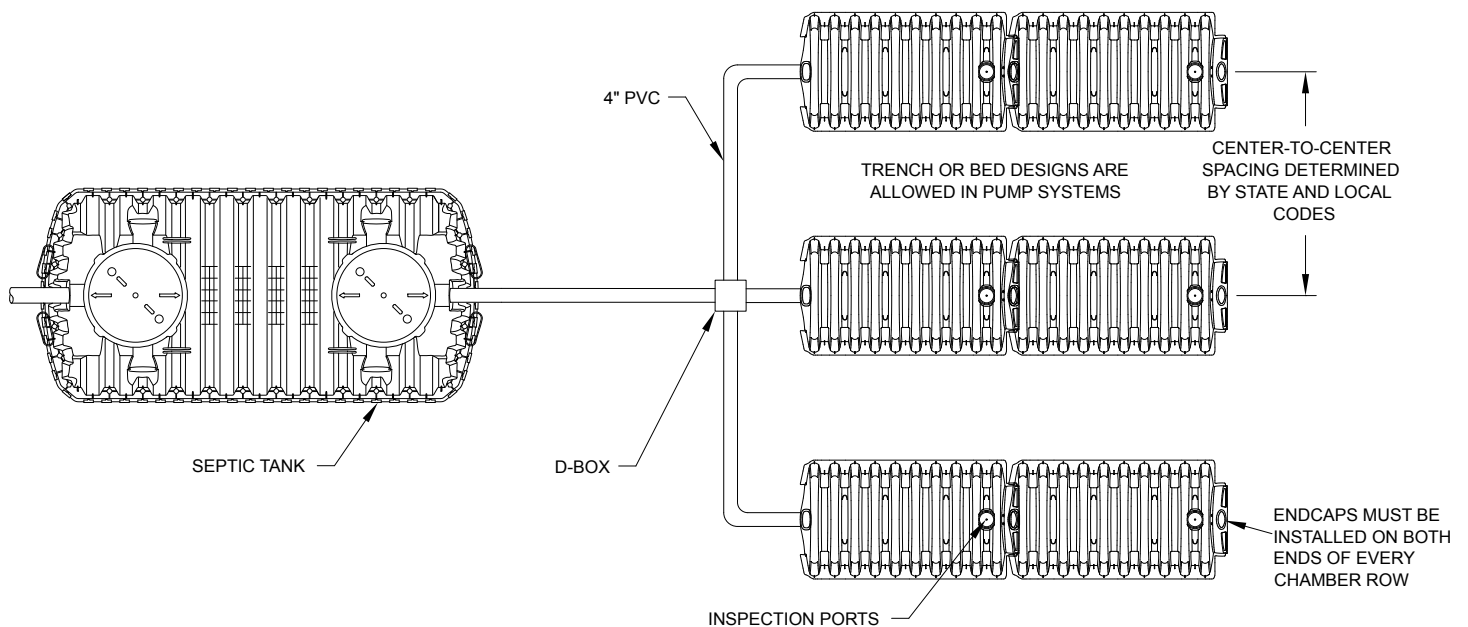
Typical Trench: Cross-Section

Typical (not to scale)



Typical Trench: Plan View

Typical (not to scale)



Notes:

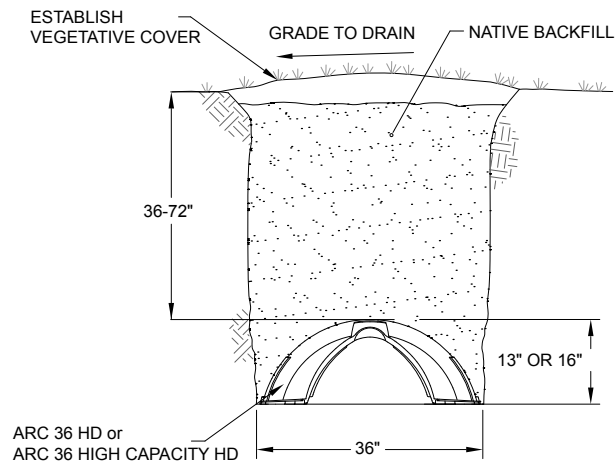
1. System configuration applies to other MassDEP-approved chamber models.
2. Approved chambers are for non-traffic applications, but are capable of withstanding AASHTO H-10 loadings with 12" of cover minimum.

HEAVY DUTY CHAMBERS IN 310 CMR 15.405 APPLICATIONS

Arc 36 Heavy Duty (HD) Chamber and Arc 36 High Capacity Heavy Duty (HD) Chamber 310 CMR 15.405 Cross Section

Typical Trench Detail (not to scale)

Rating size per 310 CMR 15.242



* Length and number of trenches determined by design.

310 CMR 15.405 Contents of Local Upgrade Approval states in part:

(1) In granting local upgrade approvals where full compliance as defined in 310 CMR 15.404(1) is not feasible the options set forth below should be considered.

(b) an increase in the maximum allowable depth of system components required by 310 CMR 15.221(7), from 36" to 72" below finish grade, provided that H-20 loading is provided for all system components."

ADS makes available chambers for use in "deep cover" applications, including those detailed in 310 CMR 15.405(1)(b) (above). These chambers are known as "Heavy Duty" model chambers, and carry a "Heavy Duty" or "HD" label. When installed in accordance with the instructions in this manual and a minimum of 36 inches of cover material, HD chambers can sustain an H-20 load. ADS specifically recommends the use of these "Heavy Duty" model chamber products in deep burial applications, including those specified in 310 CMR 15.405(1)(b).

The following "Heavy Duty" chamber products are required by ADS for use in 310 CMR 15.405(1)(b) applications:

ARC 36 HD Chamber

ARC 36 High Capacity HD Chamber

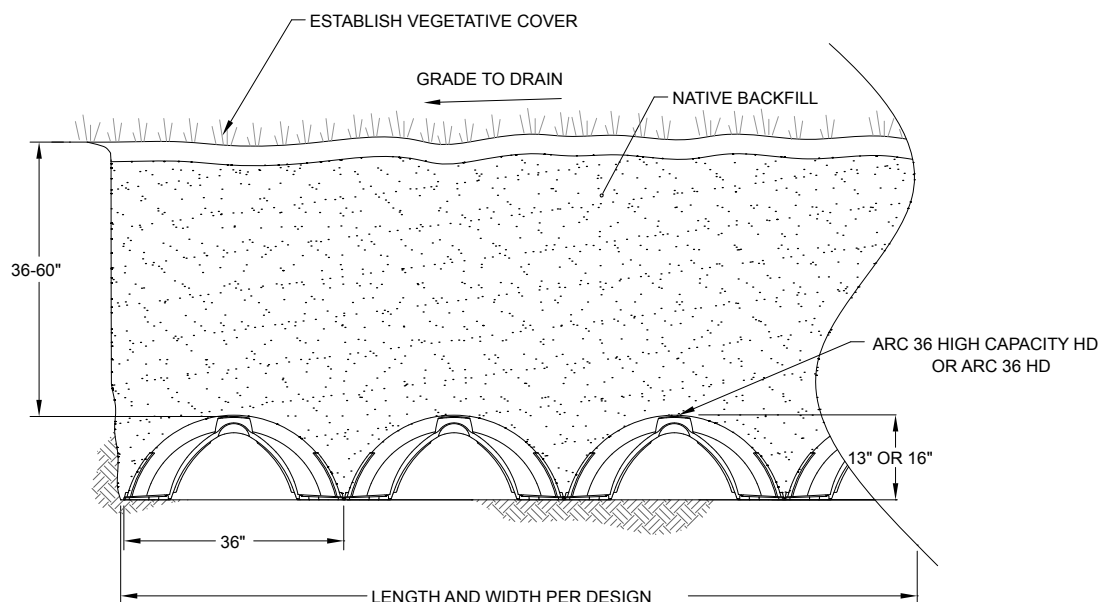
BioDiffuser – 16" High Capacity H-20 Chamber

"Heavy Duty" or "HD" chambers may be installed with up to a maximum of five-feet (5') of cover in bed and eight-feet (8') of cover in trench installations respectively. These chambers are not designed for use in commercial traffic loading applications.

Arc 36 Heavy Duty (HD) Chamber and Arc 36 High Capacity Heavy Duty (HD) Chamber Chamber 310 CMR 15.405 Cross Section

Typical (not to scale)

Rating size per 310 CMR 15.242

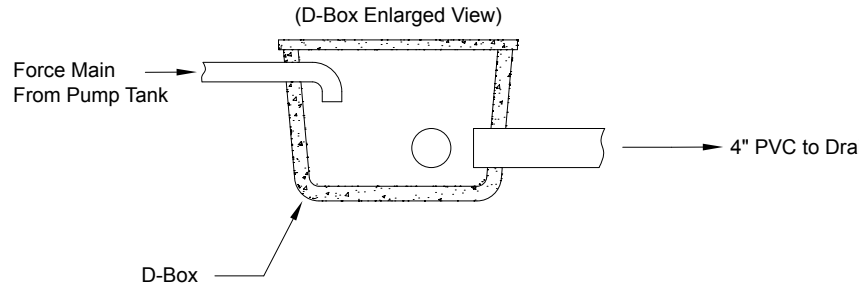


ADDITIONAL SYSTEM CONFIGURATIONS

Pump Systems: Pump to D-Box

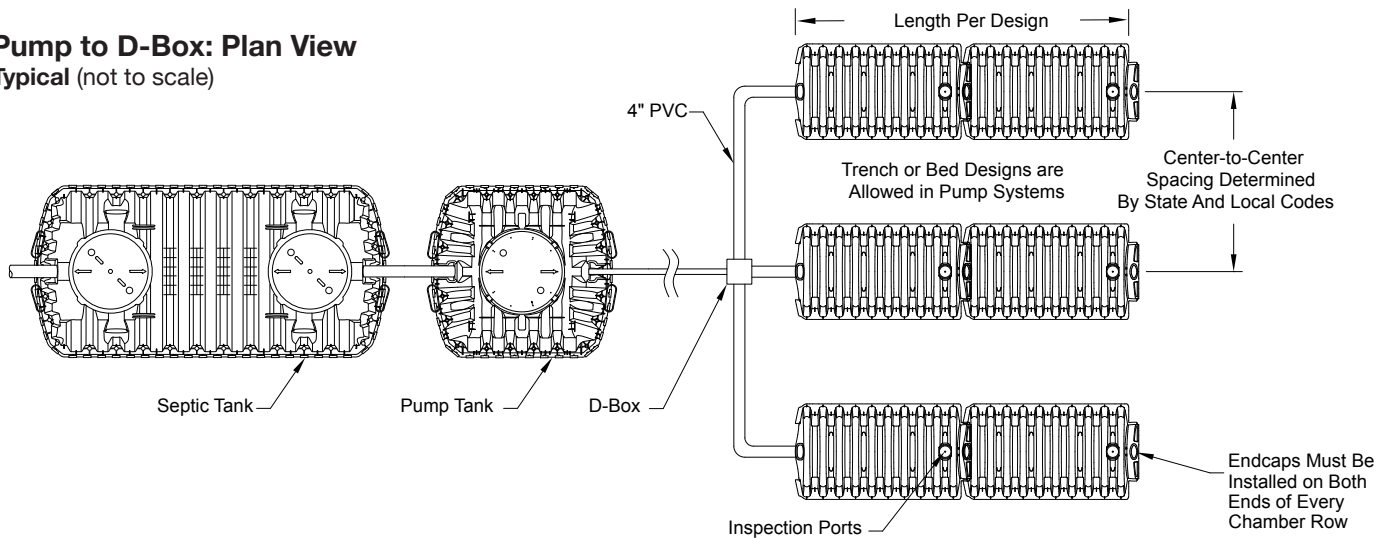
Pump to D-Box: Section View

Typical (not to scale)



Pump to D-Box: Plan View

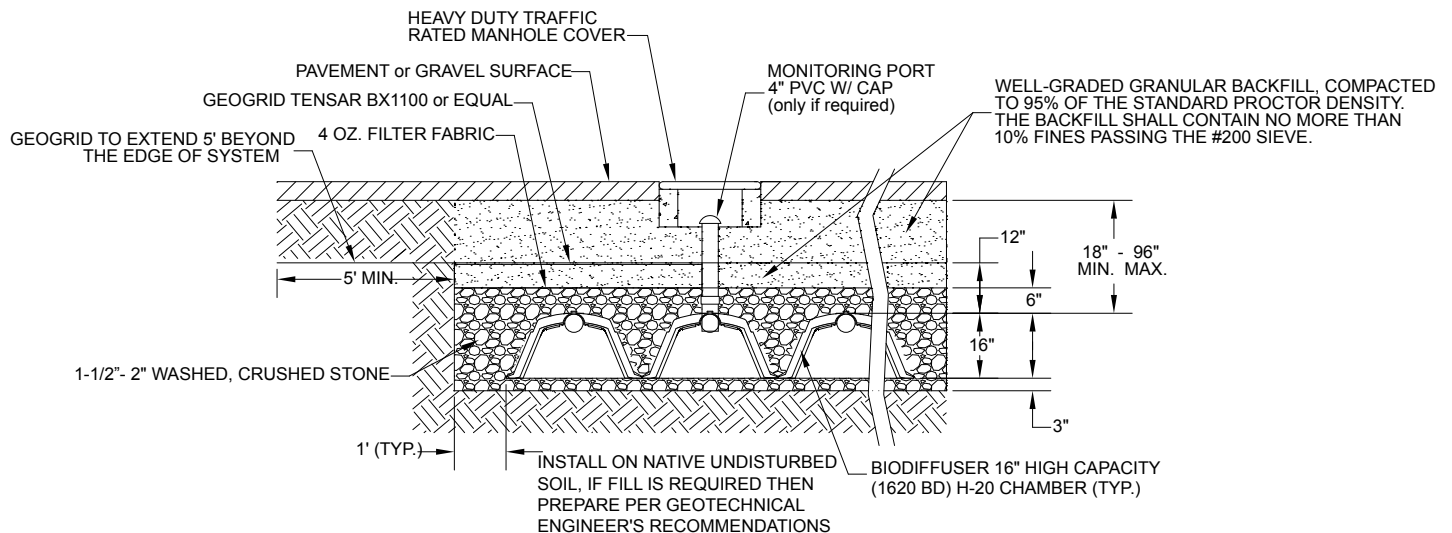
Typical (not to scale)



TRAFFIC CONFIGURATIONS

BioDiffuser 16" High Capacity Chamber (BD1620) H-20 SYSTEM DETAIL

Typical (not to scale)



NOTES:

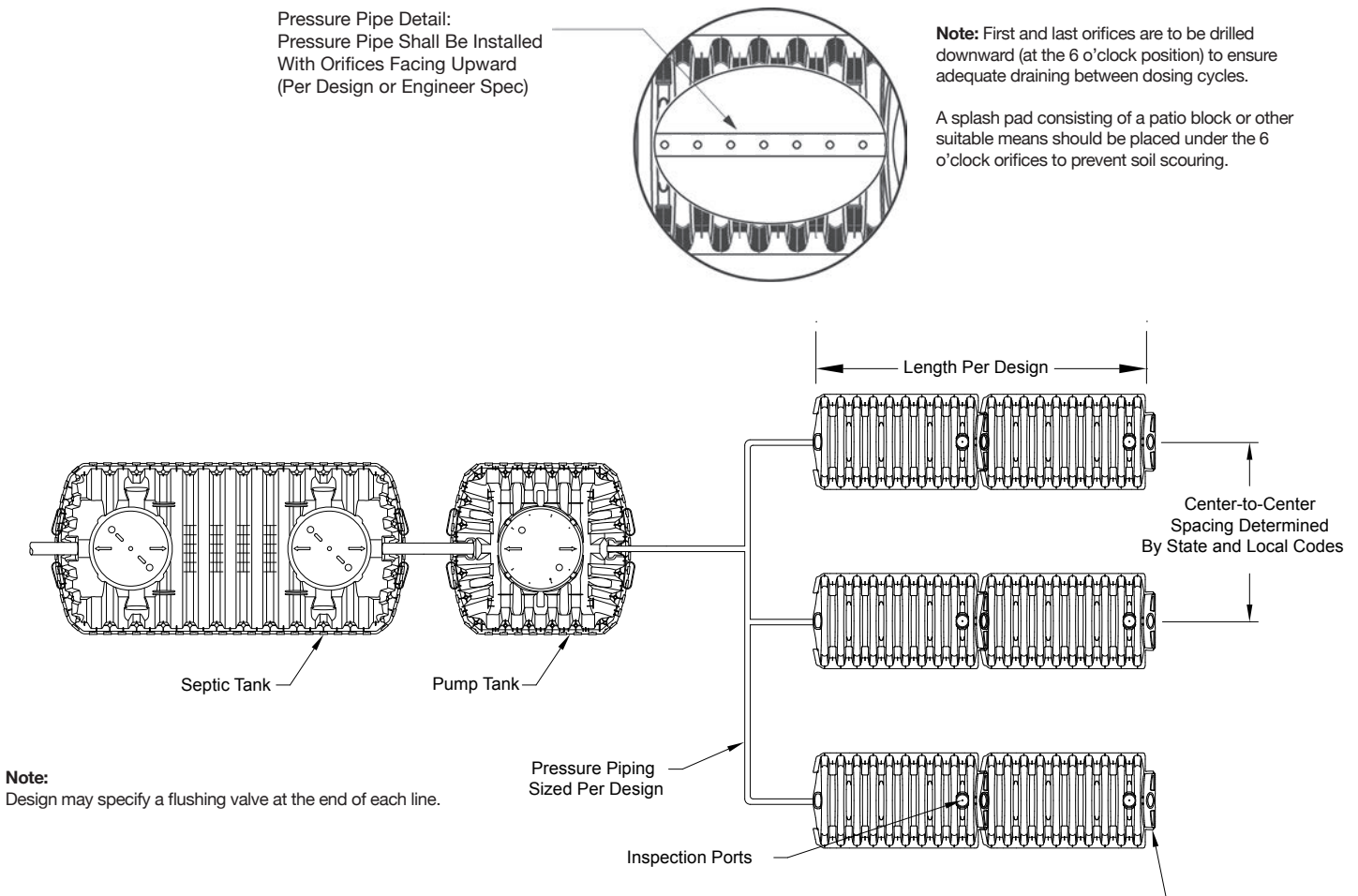
1. Due to stone on the bottom of trench, these applications must be sized similarly to stone beds.
2. The MassDEP approval allows the use of the BioDiffuser 16" High Capacity H-20 Chamber (BD 1620) but makes no determination as to the chambers meeting the H-20 loading requirements.

ADDITIONAL SYSTEM CONFIGURATIONS

Low Pressure Distribution System

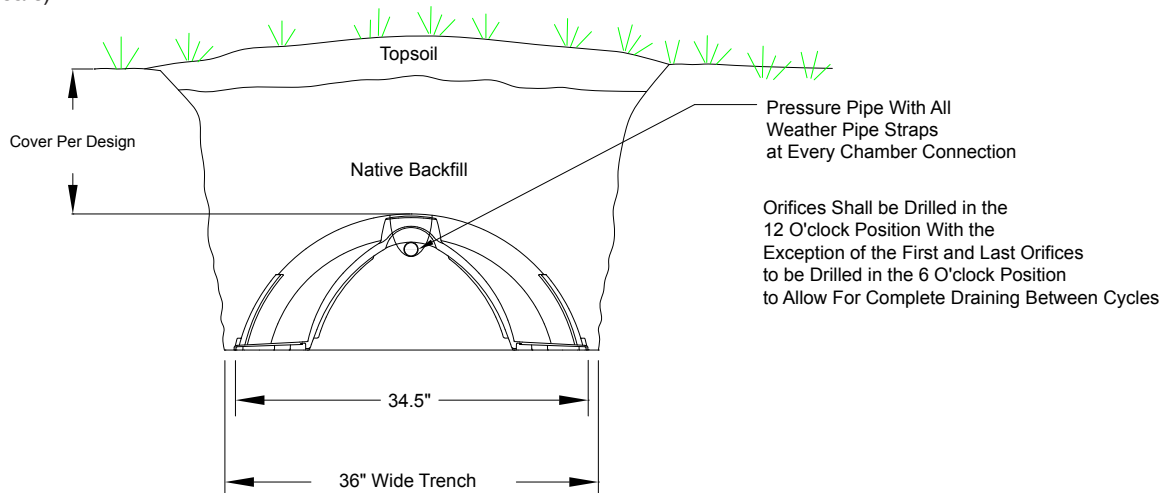
Pressure Dosing: Plan View with Detail

Typical (not to scale)



Pressure Distribution: Pipe Support Installation Cross-Section

Typical (not to scale)



Notes:

1. System configuration applies to other MassDEP-approved chamber models.
2. Approved chambers are for non-traffic applications, but are capable of withstanding AASHTO H-10 loadings with 12" of cover minimum.

SYSTEM SIZING – TRENCHES

Table 1. Regulation Sizing - Trench Configurations

Soil Class	Perc Rate (min/inch)	Number of Chambers in Aggregate-Free Trench Systems											
		330 GPD Design Flow 3 Bedrooms or Less				440 GPD Design Flow 4 Bedrooms				550 GPD Design Flow 5 Bedrooms			
		ARC 36 3' Wide Trench 6.78 SF/LF	ARC 36 HC 3' Wide Trench 7.79 SF/LF	Arc 36 LP (3.8-in invert) 3' Wide Trench 5.79 SF/LF	ARC 36 LP (8-in invert) 3' Wide Trench 6.96 SF/LF	ARC 36 3' Wide Trench 6.78 SF/LF	ARC 36 HC 3' Wide Trench 7.79 SF/LF	Arc 36 LP (3.8-in invert) 3' Wide Trench 5.79 SF/LF	ARC 36 LP (8-in invert) 3' Wide Trench 6.96 SF/LF	ARC 36 3' Wide Trench 6.78 SF/LF	ARC 36 HC 3' Wide Trench 7.79 SF/LF	Arc 36 LP (3.8-in invert) 3' Wide Trench 5.79 SF/LF	ARC 36 LP (8-in invert) 3' Wide Trench 6.96 SF/LF
Class I Sandy, Loamy Sand	<=5	20	18	24	20	20	18	24	20	22	20	26	22
	6	20	18	24	20	20	18	24	20	24	21	28	23
	7	20	18	24	20	20	18	24	20	24	21	28	24
	8	20	18	24	20	20	18	24	20	25	22	29	24
Class II Sandy Loams, Loams	<=5	20	18	24	20	22	19	26	22	28	24	32	27
	6	20	18	24	20	22	19	26	22	28	24	32	27
	7	20	18	24	20	22	19	26	22	28	24	32	27
	8	20	18	24	20	22	19	26	22	28	24	32	27
	10	20	18	24	20	22	19	26	22	28	24	32	27
	15	20	18	24	20	24	21	28	23	29	26	34	29
	20	20	18	24	20	25	22	29	24	31	27	36	30
	25	25	22	29	24	33	29	38	32	41	36	48	40
	30	30	26	35	29	40	35	47	39	50	43	58	48
Class III Silty Loams	15	27	23	31	26	36	31	42	35	44	39	52	43
	20	29	25	34	28	39	34	45	38	48	42	56	47
	25	30	26	35	29	40	35	47	39	50	43	58	48
	30	34	30	40	33	45	39	53	44	56	49	66	55
	40	39	34	46	38	52	46	61	51	65	57	76	64
	50	49	43	57	48	65	57	76	64	82	71	95	80
	60	65	57	76	64	87	76	102	85	109	95	127	106
Class IV Clays, Silty Clay Loams	50	49	43	57	48	65	57	76	64	82	71	95	80
	60	65	57	76	64	87	76	102	85	109	95	127	106

NOTES:

1. For new construction, no system shall be designed and constructed with a soil absorption system area of less than 400 square feet. Minimum number of chambers based on chamber width and sidewall height below invert; therefore the Arc 36 LP with a 2.82 ft chamber width and 8 inch invert height is $(400 \text{ sf}) / (2' \times 6.67 \text{ ft} + 2.82 \text{ ft}) = 96.3 \text{ ft} = 20$ chambers.
2. Per DEP, where 400 sf of leaching area is not feasible on repair systems, the greatest leaching area shall be installed, provided that no more than a 40% reduction is taken.
3. All Arc chambers are 5 feet long.

SYSTEM SIZING – BED

Table 2. Regulation Sizing -Bed Configurations

Soil Class	Percolation Rate (min/inch)	Number of Chambers in Aggregate-Free Bed Systems		
		330 GPD Design Flow 3 Bedrooms or Less	440 GPD Design Flow 4 Bedrooms	550 GPD Design Flow 5 Bedrooms
		Arc 36 Arc 36 LP Arc 36 HC 3' Wide Trench 4.80 SF/LF	Arc 36 Arc 36 LP Arc 36 HC 3' Wide Trench 4.80 SF/LF	Arc 36 Arc 36 LP Arc 36 HC 3' Wide Trench 4.80 SF/LF
Class 1 Sandy, Loomy	<=5	29	29	31
	6	29	29	33
	7	29	29	34
	8	29	29	35
Class II Sandy Loams, Loams	<=5	29	31	39
	6	29	31	39
	7	29	31	39
	8	29	31	39
	10	29	31	39
	15	29	33	41
	20	29	35	44
	25	35	46	58
	30	42	56	70
Class III Silty Loams	15	38	50	62
	20	41	54	68
	25	42	56	70
	30	48	64	80
	40	55	74	92
	50	69	92	115
	60	92	123	153
	60	92	123	153
Class IV Clays, Silty Clay Loams	50	69	92	115
	60	92	123	153

NOTES:

1. For new construction, no system shall be designed and constructed with a soil absorption system area of less than 400 square feet. Per DEP, the sizing is based on conventional system sizing; therefore the Arc 36, Arc 36 LP, and Arc 36 HC with 2.82 ft chamber widths is $(400 \text{ sf}) / (2.82 \text{ ft}) = 141.8 \text{ ft} = 29 \text{ chambers}$.
2. All Arc chambers are 5 feet long.
3. Other BioDiffuser and Arc model chambers are approved for use. See MA Title 5 Approval or contact Infiltrator Systems, Inc. for more information on these chambers.

INFILTRATOR SYSTEMS, INC. STANDARD LIMITED WARRANTY

(a) The structural integrity of each chamber, endcap and other accessory manufactured by Infiltrator (collectively referred to as "Units"), when installed and operated in a leachfield of an onsite septic system in accordance with Infiltrator's installation instructions, is warranted to the original purchaser ("Holder") against defective materials and workmanship for one year from the date upon which a septic permit is issued for the septic system containing the Units; provided, however, that if a septic permit is not required for the septic system by applicable law, the one (1) year warranty period will begin upon the date that installation of the septic system commences. In order to exercise its warranty rights, Holder must notify Infiltrator in writing at its corporate headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for those Units determined by Infiltrator to be defective and covered by this Limited Warranty. Infiltrator's liability specifically excludes the cost of removal and/or installation of the Units.

(b) THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

(c) This Limited Warranty shall be void if any part of the chamber system (chamber, endcap or other accessory) is manufactured by anyone other than Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to ordinary wear

and tear, alteration, accident, misuse, abuse or neglect of the Units; the Units being subjected to vehicle traffic or other conditions which are not permitted by the installation instructions; failure to maintain the minimum ground covers set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper siting or improper sizing, excessive water usage, improper grease disposal, or improper operation; or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty.

Further, in no event shall Infiltrator be responsible for any loss or damage to the Holder, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Infiltrator's installation instructions.

(d) No representative of Infiltrator has the authority to change this Limited Warranty in any manner whatsoever, or to extend this Limited Warranty. No warranty applies to any party other than the original Holder.

The above represents the standard Limited Warranty offered by Infiltrator. A limited number of states and counties have different warranty requirements. Any purchaser of Units should contact Infiltrator's corporate headquarters in Old Saybrook, Connecticut, prior to such purchase, to obtain a copy of the applicable warranty, and should carefully read that warranty prior to the purchase of Units.



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