Design and Installation Manual for **Infiltrator Chambers**

Florida

Version August 2024
Florida Department of Environmental Protection
Onsite Sewage Program
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The purpose of this product manual is to provide specific design and installation information pertinent for the use of Infiltrator products. **For more detailed design information, please contact Infiltrator Water Technologies at (800) 221-4436.**

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Infiltrator™ Water Technologies
Part of ADS

INTRODUCTION

Quick4 Equalizer® 36 Chamber

The patented Quick4 Equalizer 36 Chamber can be installed in a 24-inch wide trench. The chamber offers advanced contouring capability with its Contour Swivel Connection™. The patented MultiPort Endcap, with its six molded-in high and low inlets, allows for maximum piping flexibility.

QUICK4 EQUALIZER 36

Quick5 Equalizer® 36 Chamber

The patent-pending Quick5 Equalizer 36 Chamber can be installed in a 24-inch wide trench. The chamber offers advanced contouring capability with its Contour Swivel Connection™. The patented MultiPort Endcap, with its six molded-in high and low inlets, allows for maximum piping flexibility.

QUICK5 EQUALIZER 36

Equalizer 36 QuickCut Chamber

The Equalizer 36 QuickCut chamber features a unique premarked cut line, allowing you to create two chambers that are over 4 feet in length. This product innovation offers increased design and installation flexibility, while maintaining structural integrity and long-term performance. The chamber provides greater options for all sites, including tight or sloped lots.

EQUALIZER 36 QUICKCUT

Quick4 Equalizer 24 Chamber

The Quick4 Equalizer 24 Chamber can be installed in an 18-inch wide trench. The chamber offers advanced contouring capability with its Contour Swivel Connection™. The Quick4 Equalizer 24 HD chamber was designed to provide exceptional strength when used in trench or bed applications The chamber's enhanced features, which include an increased wall thickness, structural x-ribs and reinforced connection joints make it one of the strongest Quick4 chambers available today. The patented MultiPort Endcap, with its six molded-in high and low inlets, allows for maximum piping flexibility.

QUICK4 EQUALIZER 24

INTRODUCTION

Quick4 Equalizer 24 LP Chamber

The Quick4 Equalizer 24 LP chamber was designed for shallow placement applications. The Low Profile Endcap offers a simple overlap design for easy installation.

QUICK4 EQUALIZER 24 LOW PROFILE

Quick4 Plus Equalizer 36 Low Profile (LP) Chamber

The Quick4 Plus Equalizer 36 Low Profile (LP) chamber can be installed in a 24-inch-wide trench. This chamber is 4 inches shorter than other Equalizer 36 models allowing for shallower installation where a shallow groundwater table, impervious conditions, or other restrictions limit vertical separation distance. The Quick4 Plus All-in-One 8 and the Quick4 Plus Endcaps are available with this chamber, providing increased flexibility in system configurations.

QUICK4 PLUS EQUALIZER 36 LOW PROFILE

Quick4 Plus Endcaps

The Quick4 Plus All-in-One 8 Endcap may be used at the end of a chamber row or in-line with chambers. Pipe connection options include the end, sides or top. Compatible with the Quick4 Plus Equalizer 36 Low Profile Chamber.

QUICK4 PLUS ALL-IN-ONE 8 ENDCAP

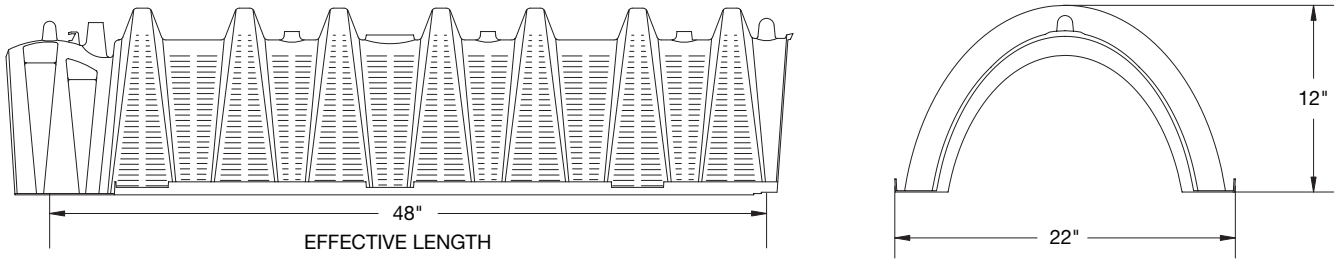
The Quick4 Plus Endcap is installed at the end of the chamber and allows installation of a pipe from the end only. This endcap does not provide side-inletting capability. Pipe connection options include drill points for gravity or pressure pipe Compatible with the Quick4 Plus Equalizer 36 Low Profile Chamber.

QUICK4 PLUS ENDCAP

PRODUCTS

Quick4 Equalizer 36 Chamber

SIDE AND END VIEWS
(not to scale)

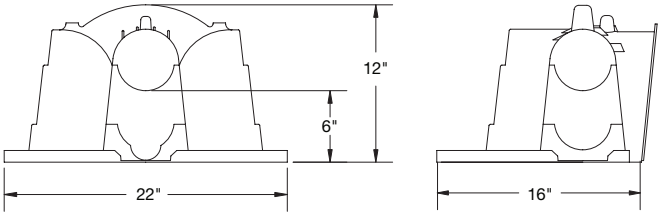


Quick4 Equalizer 36
nominal chamber specifications

Size (W x L x H)	22"W x 53"L x 12"H
Effective Length	48"
Invert Height	6"

NOTE: Lower inverts on sides and end can be used for looping ends, pressure piping, and for piping around obstructions.

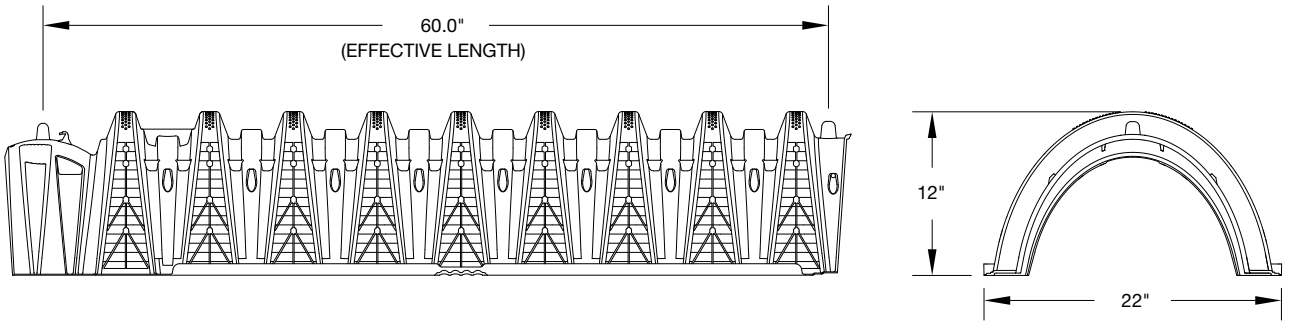
MULTIPORT ENDCAP
(not to scale)



FRONT VIEW **SIDE VIEW**

Quick5 Equalizer 36 Chamber

SIDE AND END VIEWS
(not to scale)

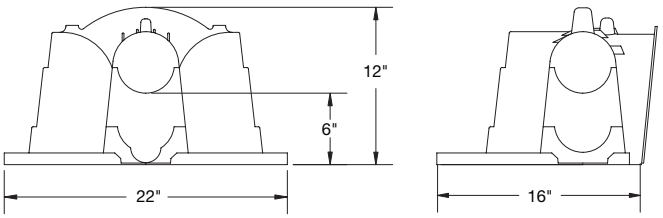


Quick5 Equalizer 36
nominal chamber specifications

Size (W x L x H)	22"W x 65"L x 12"H
Effective Length	60"
Invert Height	6"

NOTE: Lower inverts on sides and end can be used for looping ends, pressure piping, and for piping around obstructions.

MULTIPORT ENDCAP
(not to scale)

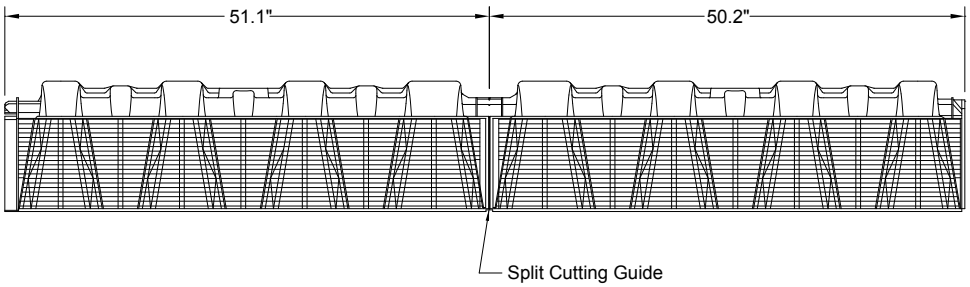


FRONT VIEW **SIDE VIEW**

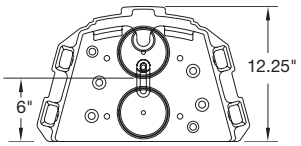
PRODUCTS

Equalizer 36 QuickCut Chamber

SIDE AND END VIEWS
(not to scale)



END PLATE
(not to scale)



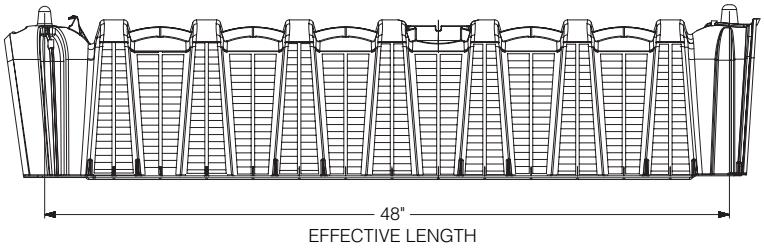
Equalizer 36 QuickCut
nominal chamber specifications

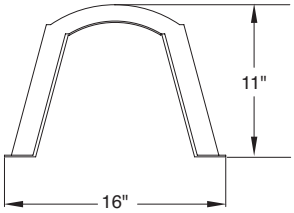
Size (W x L x H)	22”W x 100”L x 13.5”H
Effective Length	100”
Invert Height	6”

NOTE: Lower inverts on sides and end can be used for looping ends, pressure piping, and for piping around obstructions.

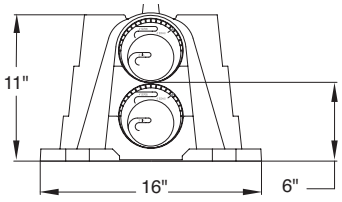
Quick4 Equalizer 24 HD Chambers

SIDE AND END VIEWS
(not to scale)

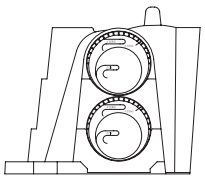




MULTIPORT ENDCAP
(not to scale)



FRONT VIEW



SIDE VIEW

Quick4 Equalizer 24 HD
nominal chamber specifications

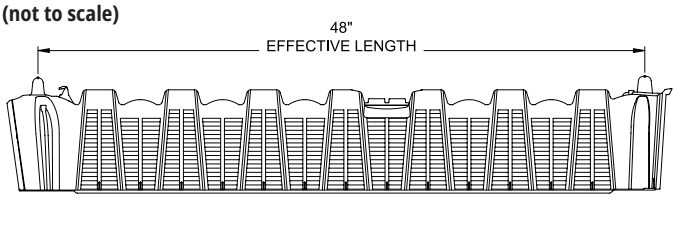
Size (W x L x H)	16”W x 53”L x 11”H
Effective Length	48”
Invert Height	6”

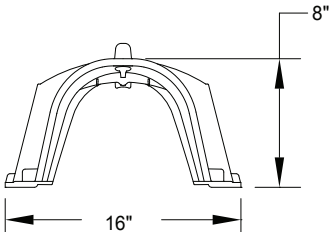
NOTE: Lower inverts on sides and end can be used for looping ends, pressure piping, and for piping around obstructions.

PRODUCTS

Quick4 Equalizer 24 Low Profile (LP) Chamber

SIDE AND END VIEWS
(not to scale)

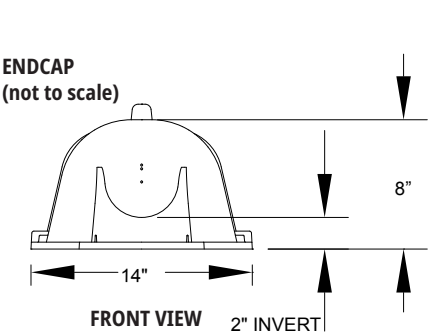




Quick4 Equalizer 24 Low Profile (LP)
nominal chamber specifications

Size (W x L x H)	16″W x 53″L x 8″H
Effective Length	48″
Invert Elevation	2″

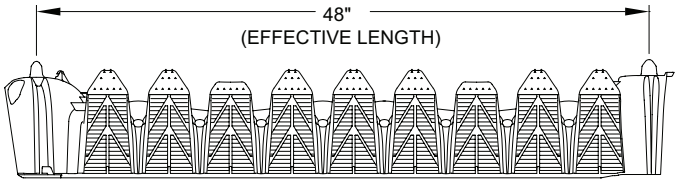
ENDCAP
(not to scale)

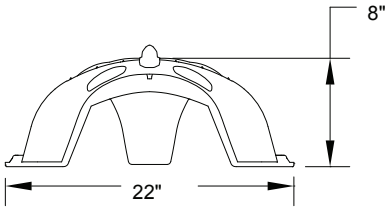


FRONT VIEW **SIDE VIEW**

Quick4 Plus Equalizer 36 Low Profile (LP) Chambers

SIDE AND END VIEWS
(not to scale)

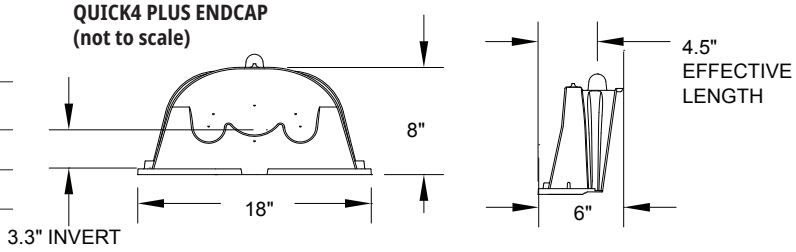




Quick4 Plus Equalizer 36 Low Profile (LP)
nominal chamber specifications

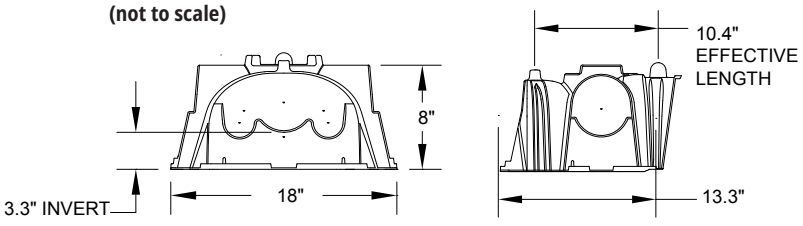
Size (W x L x H)	22″W x 53″L x 8″H
Effective Length	48″
Invert Elevation	3.3″ and 9″

QUICK4 PLUS ENDCAP
(not to scale)



FRONT VIEW **SIDE VIEW**

QUICK4 PLUS ALL-IN-ONE 8 ENDCAP
(not to scale)



FRONT VIEW **SIDE VIEW**

SYSTEM SIZING

Chamber System Sizing

TABLE 1: CHAMBER RATINGS

Chamber	Rating (sf/chamber)	Trench Width (in)	Min. Bed Spacing (in)
Quick4 EQ36 (22" x 48" x 12")	12.00	24	4
Quick5 EQ36 (22" x 60" x 12")	15.00	24	4
Quick4 Plus EQ36 LP (22" x 48" x 8")	11.32	24	0
Equalizer 36 QuickCut (22" x 100" x 13.5")	25.00	24	4
Quick4 Equalizer 24 HD (16" x 48" x 11")	8.00	18-24	0
Quick4 Equalizer 24 LP (16" x 48" x 8")	7.28	18-24	0
Dual Parallel Quick4 Equalizer 24 HD	8.57	36	Trench Only
Dual Parallel Quick4 Equalizer 24 LP	7.80	36	Trench Only

TABLE 2: BED SYSTEMS WIDTH USING MINIMUM SEPARATION

No. of Rows	Quick4 Plus EQ36 LP[1]	Quick4 EQ24, Quick4 EQ24 LP[1]	Quick5 EQ36 Quick4 EQ36 EQ36 QuickCut[2]
2	3' 8"	2' 8"	4' 0"
3	5' 6"	4' 0"	6' 2"
4	7' 4"	5' 4"	8' 4"
5	9' 2"	6' 8"	10' 6"
6	11' 0"	8' 0"	12' 8"
7	12' 10"	9' 4"	14' 10"
8	14' 8"	10' 8"	17' 0"
9	16' 6"	12' 0"	19' 2"
10	18' 4"	13' 4"	21' 4"

NOTES:
1. See Table 1 for minimum bed spacing.
2. Measurements are to the outside edge of chamber.
3. The one foot perimeter area required for dig-out around the system shall be measured from end of chambers and not the endcaps. Endcaps are not given any credit for drainfield area and can be placed within soil replacement perimeter.

TABLE 3: TRENCH SYSTEM WIDTH USING 2-FOOT SEPARATION

No. of Trenches	22" Chamber System Width	16" Chamber System Width	Quick4 EQ24 HD and Quick4 EQ24 LP Dual Parallel System Width
2	5' 8"	4' 8"	8'
3	9' 6"	8' 0"	13'
4	13' 4"	11' 4"	18'
5	17' 2"	14' 8"	23'
6	21' 0"	18' 0"	28'
7	24' 10"	21' 4"	33'
8	28' 8"	24' 8"	38'
9	32' 6"	28' 0"	43'
10	36' 4"	31' 4"	48'

NOTES:
1. For 22-inch-wide products, add 3'-10" for each additional trench in excess of 10 trenches.
2. For 16-inch-wide products, add 3'-4" for each additional trench in excess of 10 trenches.
3. For dual parallel products, add 5' for each additional trench in excess of 10 trenches.
4. Measurements are to outside edge of chamber.

SYSTEM SIZING

Chamber System Sizing

TABLE 4: QUICK4 EQ36 CHAMBER LENGTHS AND RATING (TRENCH OR BED SYSTEM CONFIGURATION)

No. of Chambers	Length (ft)	Rating (ft^2)
1	4.0	12.0
2	8.0	24.0
3	12.0	36.0
4	16.0	48.0
5	20.0	60.0
6	24.0	72.0
7	28.0	84.0
8	32.0	96.0
9	36.0	108.0
10	40.0	120.0
11	44.0	132.0
12	48.0	144.0
13	52.0	156.0
14	56.0	168.0
15	60.0	180.0
16	64.0	192.0
17	68.0	204.0
18	72.0	216.0
19	76.0	228.0
20	80.0	240.0
21	84.0	252.0
22	88.0	264.0
23	92.0	276.0
24	96.0	288.0
25	100.0	300.0
26	104.0	312.0
27	108.0	324.0
28	112.0	336.0
29	116.0	348.0
30	120.0	360.0
31	124.0	372.0
32	128.0	384.0
33	132.0	396.0
34	136.0	408.0
35	140.0	420.0
36	144.0	432.0
37	148.0	444.0
38	152.0	456.0
39	156.0	468.0

Note: For minimum sizing on standard and split systems (grey water) refer to Chapter 62-6 Florida Administrative Code.

Note: Line lengths can not exceed 100 ft except in low-pressure dosing system installations.

TABLE 5: QUICK5 EQ36 CHAMBER LENGTHS AND RATING (TRENCH OR BED SYSTEM CONFIGURATION)

No. of Chambers	Length (ft)	Rating (ft^2)
1	5.0	15.0
2	10.0	30.0
3	15.0	45.0
4	20.0	60.0
5	25.0	75.0
6	30.0	90.0
7	35.0	105.0
8	40.0	120.0
9	45.0	135.0
10	50.0	150.0
11	55.0	165.0
12	60.0	180.0
13	65.0	195.0
14	70.0	210.0
15	75.0	225.0
16	80.0	240.0
17	85.0	255.0
18	90.0	270.0
19	95.0	285.0
20	100.0	300.0
21	105.0	315.0
22	110.0	330.0
23	115.0	345.0
24	120.0	360.0
25	125.0	375.0
26	130.0	390.0
27	135.0	405.0
28	140.0	420.0
29	145.0	435.0
30	150.0	450.0
31	155.0	465.0
32	160.0	480.0
33	165.0	495.0
34	170.0	510.0
35	175.0	525.0
36	180.0	540.0
37	185.0	555.0
38	190.0	570.0
39	195.0	585.0

Note: For minimum sizing on standard and split systems (grey water) refer to Chapter 62-6 Florida Administrative Code.

Note: Line lengths can not exceed 100 ft except in low-pressure dosing system installations.

SYSTEM SIZING

Chamber System Sizing

TABLE 6: QUICK4 PLUS EQ36 LP CHAMBER LENGTHS AND RATING (TRENCH OR BED SYSTEM CONFIGURATION)

No. of Chambers	Length (ft)	Rating (ft^2)
1	4.0	11.3
2	8.0	22.6
3	12.0	33.9
4	16.0	45.2
5	20.0	56.5
6	24.0	67.8
7	28.0	79.1
8	32.0	90.4
9	36.0	101.7
10	40.0	113.0
11	44.0	124.3
12	48.0	135.6
13	52.0	146.9
14	56.0	158.2
15	60.0	169.5
16	64.0	180.8
17	68.0	192.1
18	72.0	203.4
19	76.0	214.7
20	80.0	226.0
21	84.0	237.3
22	88.0	248.6
23	92.0	259.9
24	96.0	271.2
25	100.0	282.5
26	104.0	293.8
27	108.0	305.1
28	112.0	316.4
29	116.0	327.7
30	120.0	339.0
31	124.0	350.3
32	128.0	361.6
33	132.0	372.9
34	136.0	384.2
35	140.0	395.5
36	144.0	406.8
37	148.0	418.1
38	152.0	429.4
39	156	440.7

Note: For minimum sizing on standard and split systems (grey water) refer to Chapter 62-6 Florida Administrative Code.

Note: Line lengths can not exceed 100 ft except in low-pressure dosing system installations.

TABLE 7: EQ36 QUICKCUT CHAMBER LENGTHS AND RATING (TRENCH OR BED SYSTEM CONFIGURATION)

No. of Chambers	Length (ft)	Rating (ft^2)
1	8′ 4″	25.0
1½	12′ 6″	37.5
2	16′ 8″	50.0
2½	21′ 1″	62.5
3	25′ 0″	75.0
3½	29′ 5″	87.5
4	33′ 7″	100.0
4½	37′ 9″	112.5
5	42′ 1″	125.0
5½	46′ 3″	137.5
6	50′ 0″	150.0
6½	54′ 7″	162.5
7	58′ 9″	175.0
7½	63′ 2″	187.5
8	67′ 4″	200.0
8½	71′ 6″	212.5
9	75′ 0″	225.0
9½	80′ 0″	237.5
10	84′ 2″	250.0
10½	88′ 4″	262.5
11	92′ 6″	275.0
11½	96′ 8″	287.5
12	100′ 0″	300.0
12½	105′ 3″	312.5
13	109′ 5″	325.0
13½	113′ 7″	337.5
14	117′ 9″	350.0
14½	122′ 1″	362.5
15	126′ 3″	375.0
15½	130′ 5″	387.5
16	134′ 7″	400.0
16½	138′ 9″	412.5
17	143′ 1″	425.0
17½	147′ 4″	437.5
18	151′ 6″	450.0
18½	155′ 8″	462.5
19	160′ 0″	475.0
19½	164′ 2″	487.5
20	168′ 4″	500.0

Note: Full EQ36 QuickCut Chambers have a rating of 25 ft^2, half chambers have a rating of 12.5 ft^2.

Note: Line lengths can not exceed 100 ft except in low-pressure dosing system installations.

SYSTEM SIZING

Chamber System Sizing

TABLE 8: QUICK4 EQ24 HD CHAMBER LENGTHS AND RATING (DUAL PARALLEL TRENCH CONFIGURATION)

No. of Chambers	Length (ft)	Rating (ft^2)
2	4.0	17.1
4	8.0	34.3
6	12.0	51.4
8	16.0	68.6
10	20.0	85.7
12	24.0	102.8
14	28.0	120.0
16	32.0	137.1
18	36.0	154.3
20	40.0	171.4
22	44.0	188.5
24	48.0	205.7
26	52.0	222.8
28	56.0	240.0
30	60.0	257.1
32	64.0	274.2
34	68.0	291.4
36	72.0	308.5
38	76.0	325.7
40	80.0	342.8
42	84.0	359.9
44	88.0	377.1
46	92.0	394.2
48	96.0	411.4
50	100.0	428.5
52	104.0	445.6
54	108.0	462.8
56	112.0	479.9
58	116.0	497.1
60	120.0	514.2
62	124.0	531.3
64	128.0	548.5
66	132.0	565.6
68	136.0	582.8
70	140.0	599.9
72	144.0	617.0
74	148.0	634.2
76	152.0	651.3
78	156.0	668.5

Note: For minimum sizing on standard and split systems (grey water) refer to Chapter 62-6 Florida Administrative Code.

Note: Line lengths can not exceed 100 ft except in low-pressure dosing system installations.

TABLE 9: QUICK4 EQ24 HD CHAMBER LENGTHS AND RATING (TRENCH OR BED CONFIGURATION)

No. of Chambers	Length (ft)	Rating (ft^2)
1	4.0	8.0
2	8.0	16.0
3	12.0	24.0
4	16.0	32.0
5	20.0	40.0
6	24.0	48.0
7	28.0	56.0
8	32.0	64.0
9	36.0	72.0
10	40.0	80.0
11	44.0	88.0
12	48.0	96.0
13	52.0	104.0
14	56.0	112.0
15	60.0	120.0
16	64.0	128.0
17	68.0	136.0
18	72.0	144.0
19	76.0	152.0
20	80.0	160.0
21	84.0	168.0
22	88.0	176.0
23	92.0	184.0
24	96.0	192.0
25	100.0	200.0
26	104.0	208.0
27	108.0	216.0
28	112.0	224.0
29	116.0	232.0
30	120.0	240.0
31	124.0	248.0
32	128.0	256.0
33	132.0	264.0
34	136.0	272.0
35	140.0	280.0
36	144.0	288.0
37	148.0	296.0
38	152.0	304.0
39	156.0	312.0

Note: For minimum sizing on standard and split systems (grey water) refer to Chapter 62-6 Florida Administrative Code.

Note: Line lengths can not exceed 100 ft except in low-pressure dosing system installations.

Chamber System Sizing

TABLE 10: QUICK4 EQ24 LP CHAMBER LENGTHS AND RATING (DUAL PARALLEL TRENCH CONFIGURATION)

No. of Chambers	Length (ft)	Rating (ft^2)
2	4.0	15.6
4	8.0	31.2
6	12.0	46.8
8	16.0	62.4
10	20.0	78.0
12	24.0	93.6
14	28.0	109.2
16	32.0	124.8
18	36.0	140.4
20	40.0	156.0
22	44.0	171.6
24	48.0	187.2
26	52.0	202.8
28	56.0	218.4
30	60.0	234.0
32	64.0	249.6
34	68.0	265.2
36	72.0	280.8
38	76.0	296.4
40	80.0	312.0
42	84.0	327.6
44	88.0	343.2
46	92.0	358.8
48	96.0	374.4
50	100.0	390.0
52	104.0	405.6
54	108.0	421.2
56	112.0	436.8
58	116.0	452.4
60	120.0	468.0
62	124.0	483.6
64	128.0	499.2
66	132.0	514.8
68	136.0	530.4
70	140.0	546.0
72	144.0	561.6
74	148.0	577.2
76	152.0	592.8
78	156.0	608.4

Note: For minimum sizing on standard and split systems (grey water) refer to Chapter 62-6 Florida Administrative Code.

Note: Line lengths can not exceed 100 ft except in low-pressure dosing system installations.

TABLE 11: QUICK4 EQ24 LP CHAMBER LENGTHS AND RATING (TRENCH OR BED CONFIGURATION)

No. of Chambers	Length (ft)	Rating (ft^2)
1	4.0	7.3
2	8.0	14.6
3	12.0	21.8
4	16.0	29.1
5	20.0	36.4
6	24.0	43.7
7	28.0	51.0
8	32.0	58.2
9	36.0	65.5
10	40.0	72.8
11	44.0	80.1
12	48.0	87.4
13	52.0	94.6
14	56.0	101.9
15	60.0	109.2
16	64.0	116.5
17	68.0	123.8
18	72.0	131.0
19	76.0	138.3
20	80.0	145.6
21	84.0	152.9
22	88.0	160.2
23	92.0	167.4
24	96.0	174.7
25	100.0	182.0
26	104.0	189.3
27	108.0	196.6
28	112.0	203.8
29	116.0	211.1
30	120.0	218.4
31	124.0	225.7
32	128.0	233.0
33	132.0	240.2
34	136.0	247.5
35	140.0	254.8
36	144.0	262.1
37	148.0	269.4
38	152.0	276.6
39	156.0	283.9

Note: For minimum sizing on standard and split systems (grey water) refer to Chapter 62-6 Florida Administrative Code.

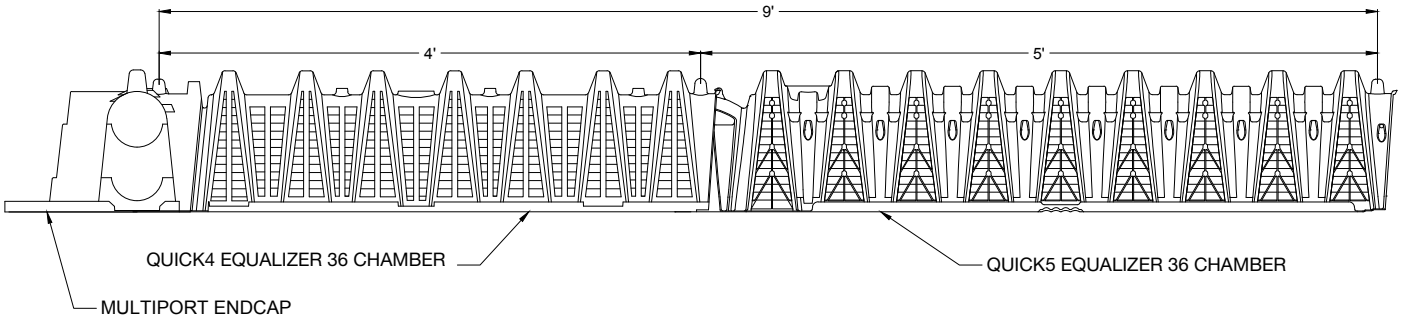
Note: Line lengths can not exceed 100 ft except in low-pressure dosing system installations.

SYSTEM SIZING

COMBINED QUICK4 EQUALIZER 36 AND QUICK5 EQUALIZER 36 CHAMBER ROW

Quick4 Equalizer 36 and Quick5 Equalizer 36 chambers utilize the same latching mechanism and Multiport Endcaps and are therefore compatible. A combination of Quick4 Equalizer 36 and Quick5 Equalizer 36 chambers may be used within a single row to meet the desired minimum row length. Mixed-model chamber rows can be used in trench and bed applications, as well as with both gravity and pressurized flow applications. Use Table 12 below to identify the available chamber combination options.

The position of the Quick4 Equalizer 36 and Quick5 Equalizer 36 within mixed-model chamber rows can be determined by the system installer. The chamber row length is calculated based on the horizontal distance along the chamber row centerline between the centers of the locking pins located at the end of the last chambers in the row, excluding the end cap length, as illustrated below. The chamber row length may be field measured with the end caps engaged on the chambers.



SYSTEM SIZING

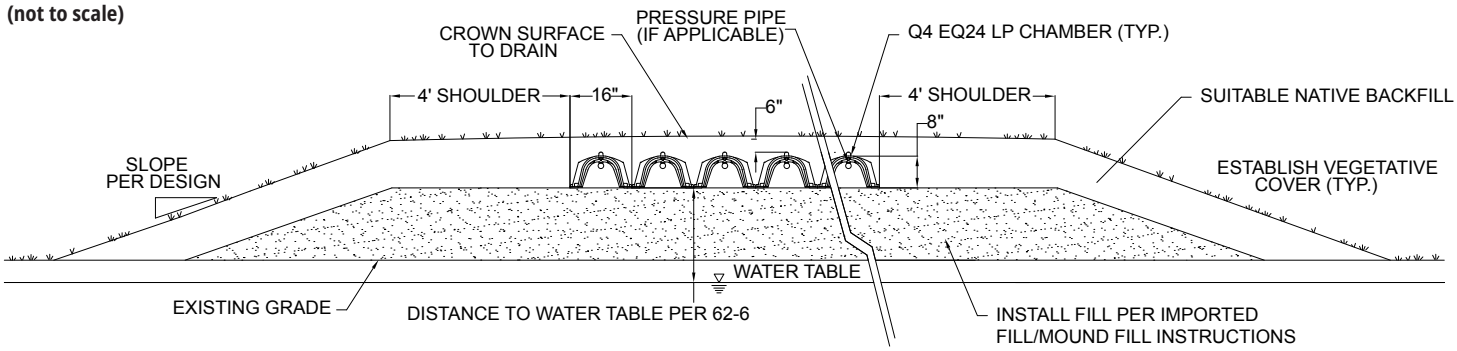
TABLE 12: QUICK4 EQUALIZER 36 AND QUICK5 EQUALIZER 36 COMBINATION TOTAL ROW LENGTH LOOKUP CHART

No. Q4 EQ36 Chambers	Q4 EQ36 Row Length (ft)	Total Row Length of Combined Q4 EQ36 + Q5 EQ36 Chambers at Indicated Number of Q5 EQ36 Chambers (ft)																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	4	9	14	19	24	29	34	39	44	49	54	59	64	69	74	79	84	89	94	99
2	8	13	18	23	28	33	38	43	48	53	58	63	68	73	78	83	88	93	98	
3	12	17	22	27	32	37	42	47	52	57	62	67	72	77	82	87	92	97		
4	16	21	26	31	36	41	46	51	56	61	66	71	76	81	86	91	96			
5	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100			
6	24	29	34	39	44	49	54	59	64	69	74	79	84	89	94	99				
7	28	33	38	43	48	53	58	63	68	73	78	83	88	93	98					
8	32	37	42	47	52	57	62	67	72	77	82	87	92	97						
9	36	41	46	51	56	61	66	71	76	81	86	91	96							
10	40	45	50	55	60	65	70	75	80	85	90	95	100							
11	44	49	54	59	64	69	74	79	84	89	94	99								
12	48	53	58	63	68	73	78	83	88	93	98									
13	52	57	62	67	72	77	82	87	92	97										
14	56	61	66	71	76	81	86	91	96											
15	60	65	70	75	80	85	90	95	100											
16	64	69	74	79	84	89	94	99												
17	68	73	78	83	88	93	98													
18	72	77	82	87	92	97														
19	76	81	86	91	96															
20	80	85	90	95	100															
21	84	89	94	99																
22	88	93	98																	
23	92	97																		
24	96																			
25	100																			

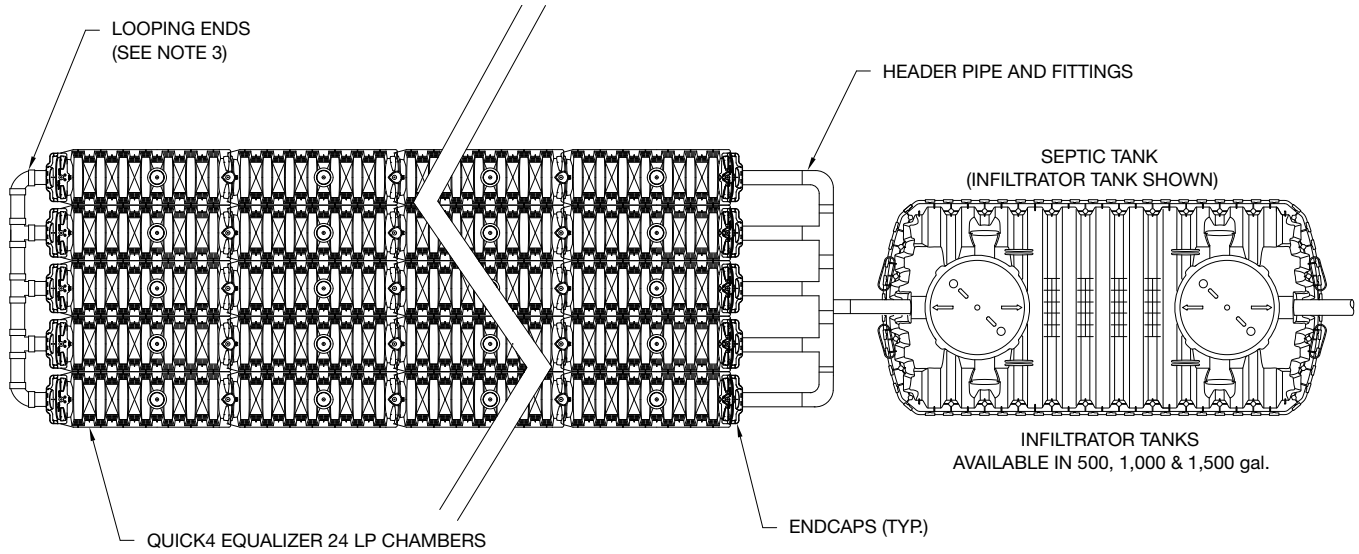
CHAMBER CONFIGURATIONS

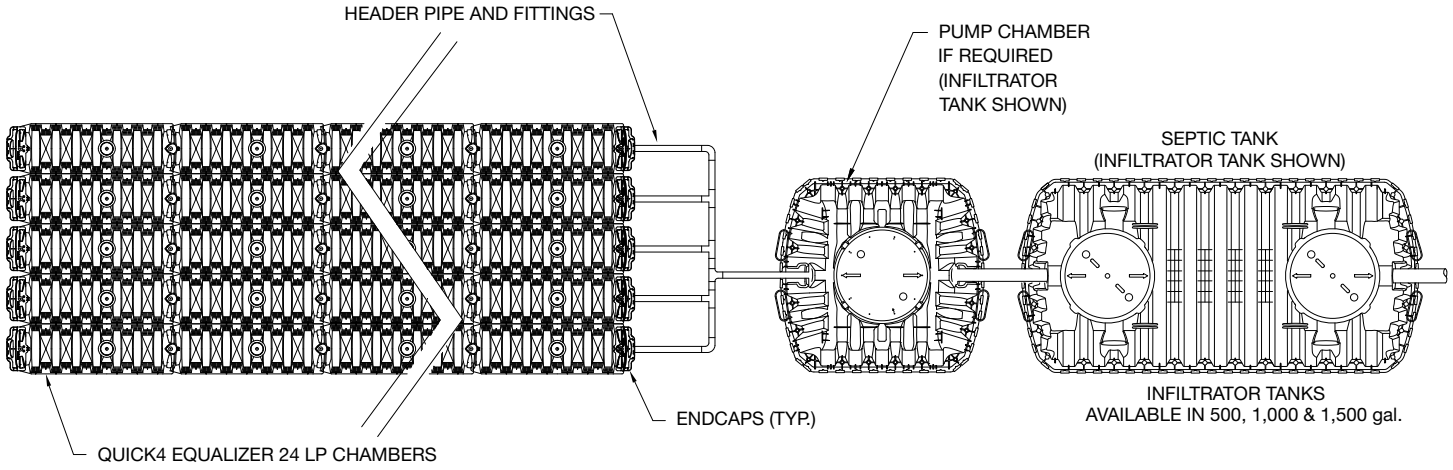
Quick4 Equalizer 24 LP Mound Configurations

CROSS SECTION
(not to scale)



PLAN VIEWS
(not to scale)



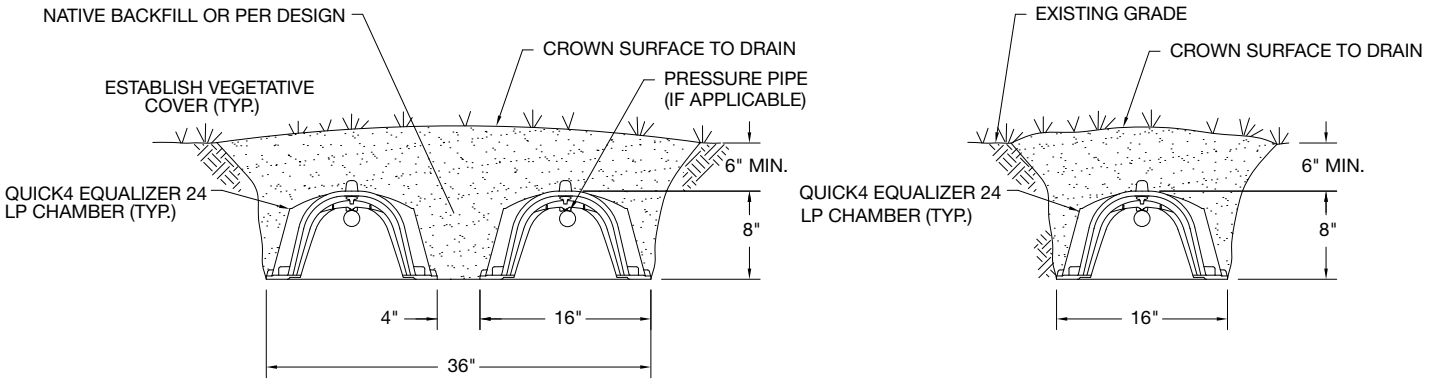


Notes:
1. Length and number of chamber rows per design.
2. Design configuration applies to LPP, gravity, pump, and dosing systems.
3. Looping the distal ends for LPP configurations is prohibited.
4. Looping the distal ends is required by 62-6 FAC for bed and mound systems in gravity applications. Connect endcaps at bottom inverts.

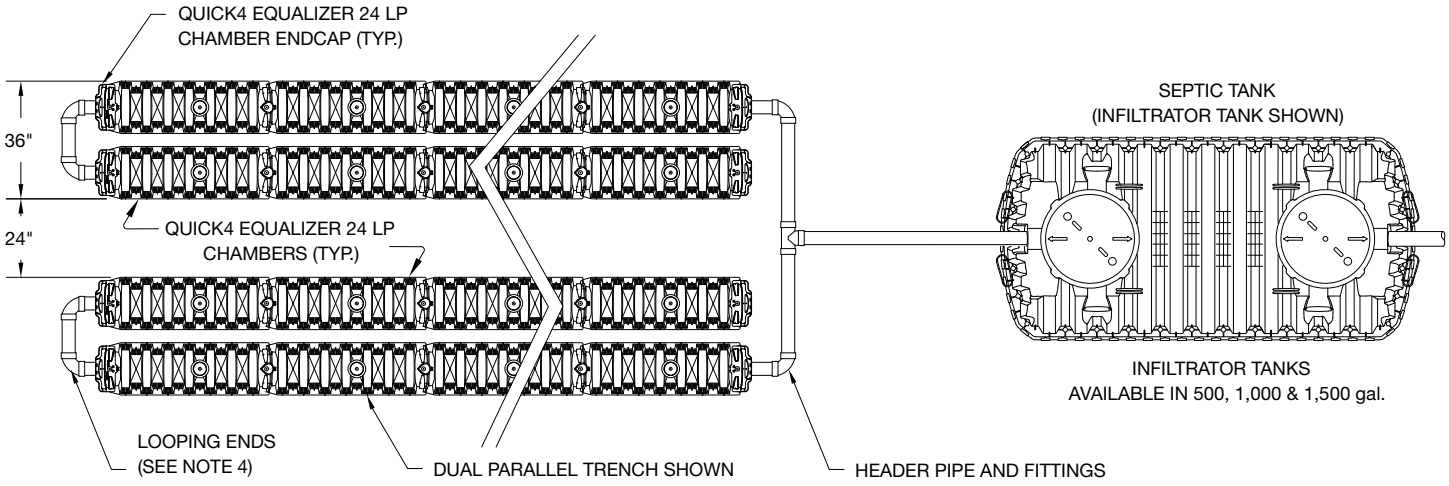
CHAMBER CONFIGURATIONS

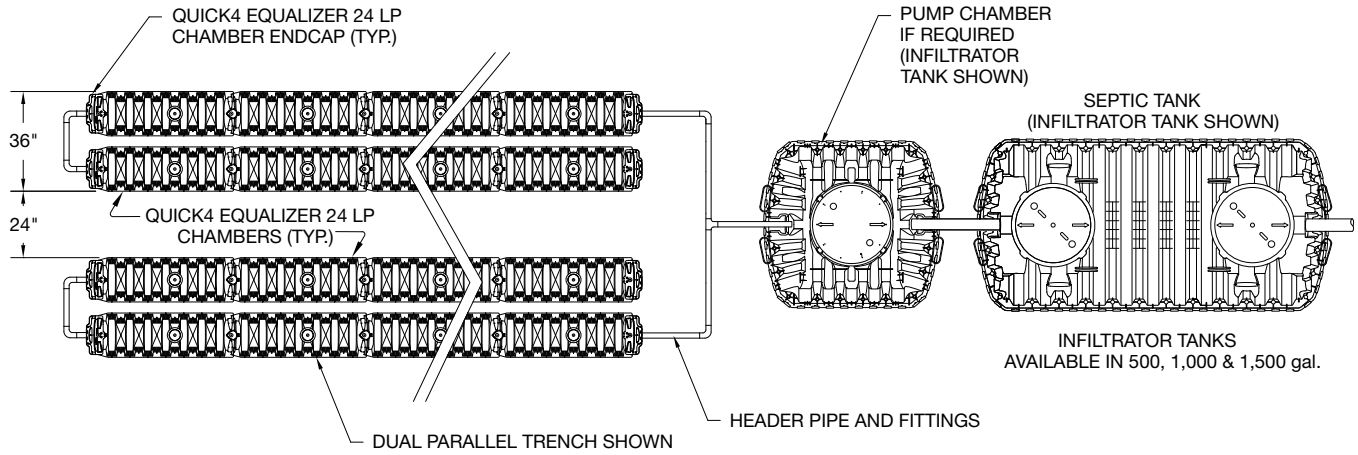
Quick4 Equalizer 24 LP Trench Configurations

CROSS SECTION
(not to scale)



PLAN VIEWS
(not to scale)





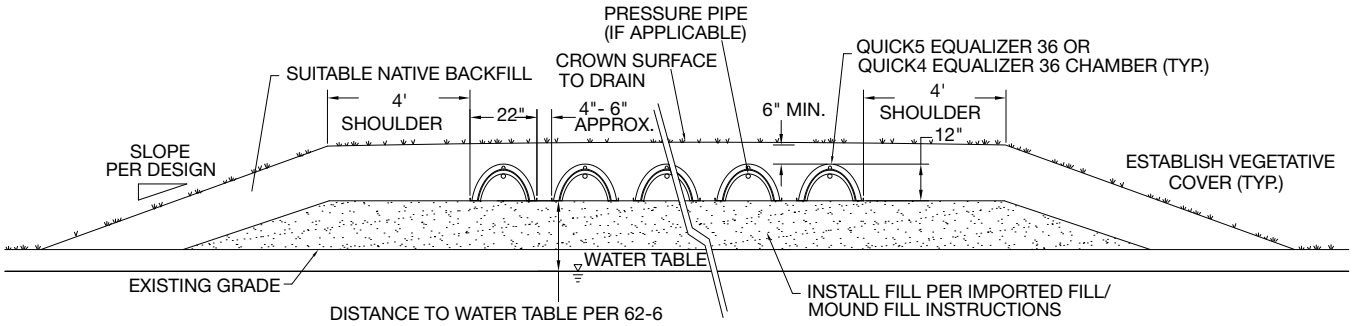
Notes:

1. Length and number of trenches per design.
2. Trench installations require a separation of 2 feet edge to edge (measured from the chamber bottom outside edge).
3. Design configuration applies to gravity, pump, LPP and dosing systems.
4. Looping the distal ends for LPP configurations is prohibited.
5. Looping the distal ends is required for dual parallel trench installation using gravity, pump or dosing systems. Looping ends are created by connecting endcaps as shown in the illustration. Quick4 Equalizer24 HD looping ends are created using the bottom invert.

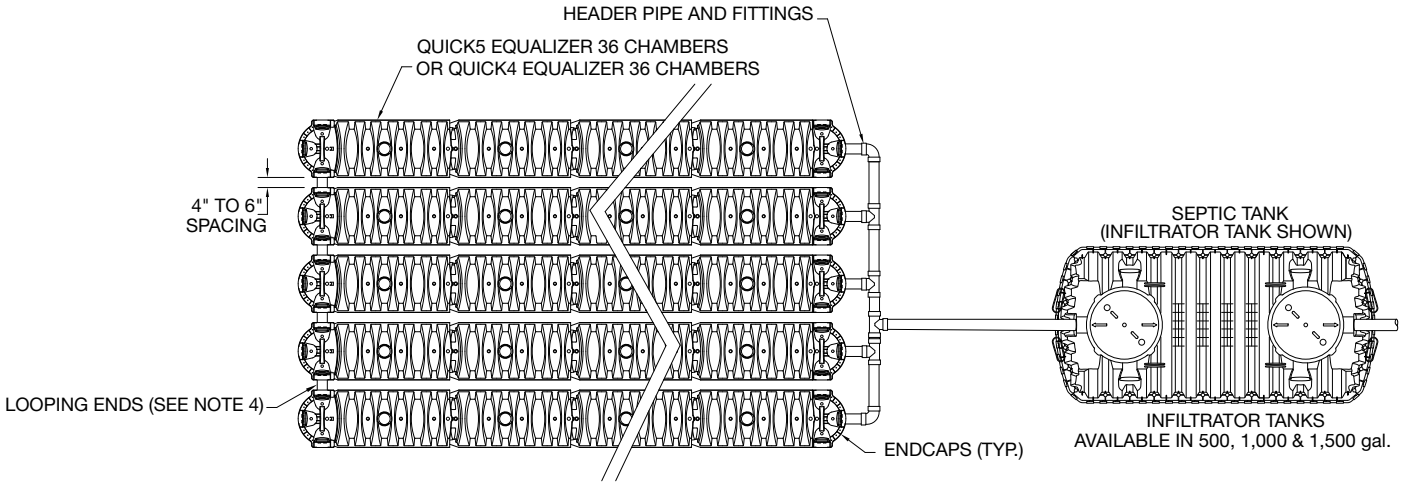
CHAMBER CONFIGURATIONS

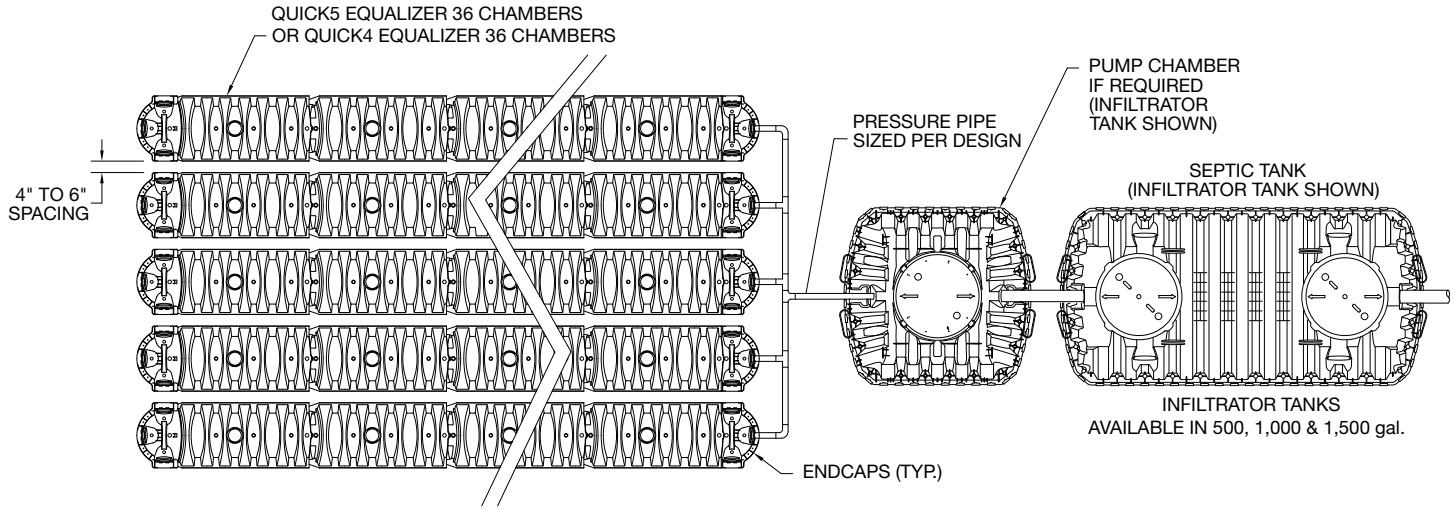
Quick5 Equalizer 36 and Quick4 Equalizer 36 Mound Configurations

CROSS SECTION
(not to scale)



PLAN VIEWS
(not to scale)



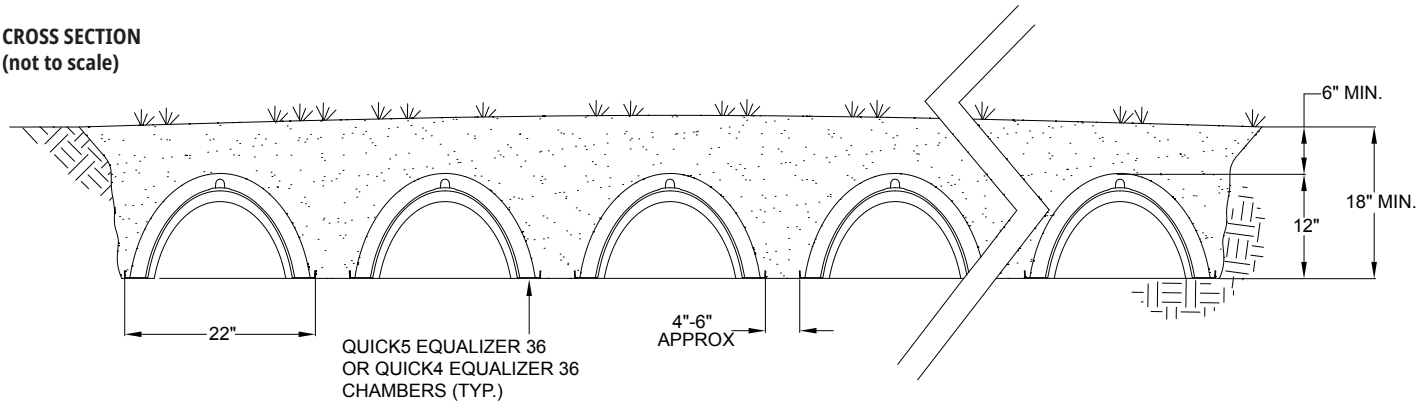


Notes:
1. Length and number of chamber rows per design.
2. Design configuration applies to LPP, gravity, pump and dosing systems.
3. Looping the distal ends for LPP configurations is prohibited.
4. Looping the distal ends is required by 62-6 FAC for bed and mound systems in gravity applications.. Connect endcaps at bottom inverts.
5. A 4”-6” space is required between chamber rows (measured from the chamber bottom outside edge).

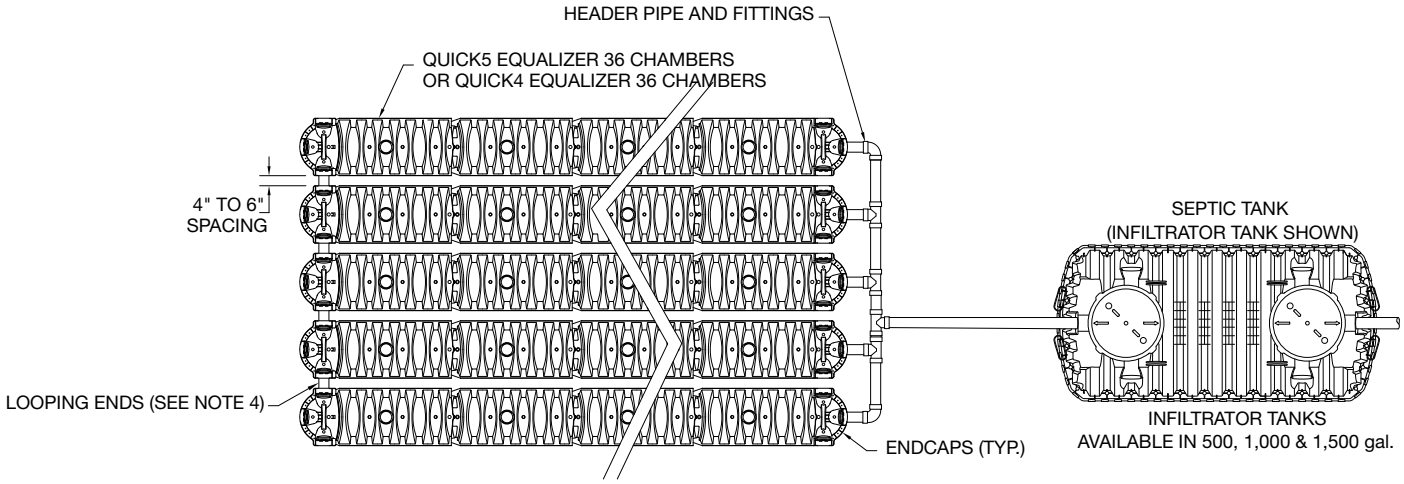
CHAMBER CONFIGURATIONS

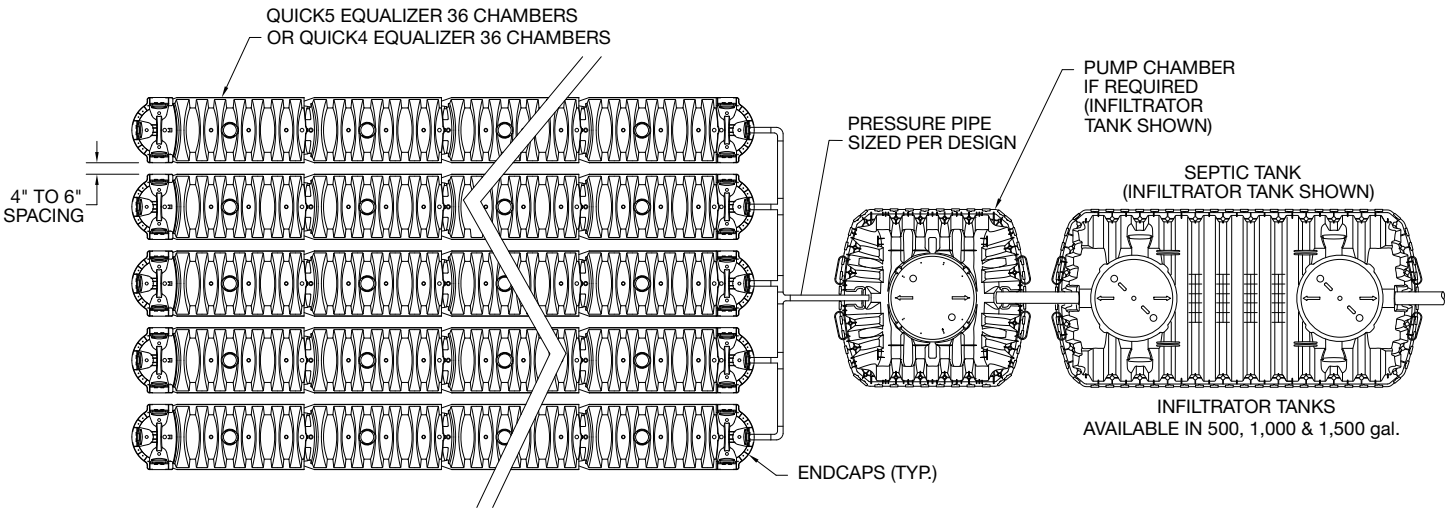
Quick5 Equalizer 36 and Quick4 Equalizer 36 Bed Configurations

CROSS SECTION
(not to scale)



PLAN VIEWS
(not to scale)



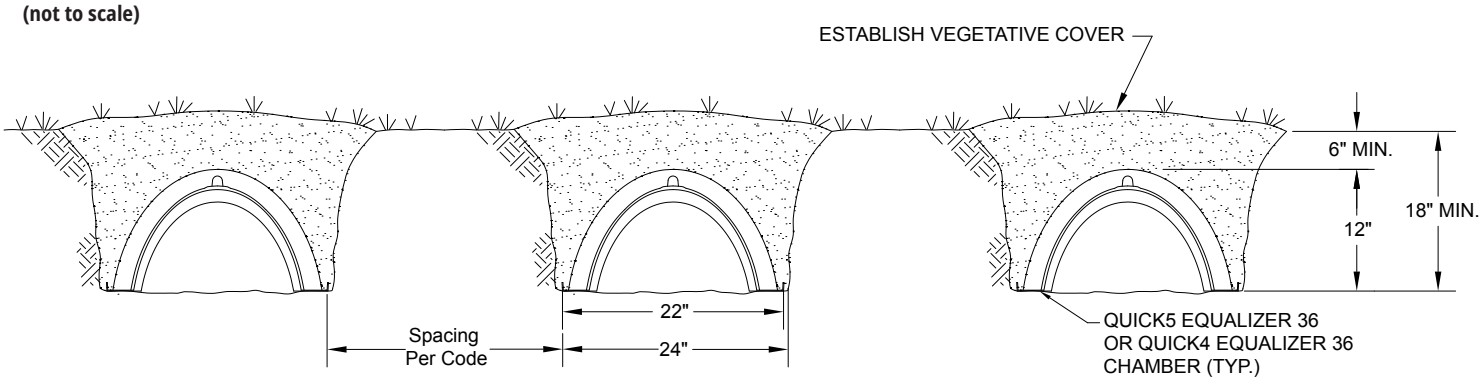


Notes:
1. Length and number of chamber rows per design.
2. Design configuration applies to LPP, gravity, pump, and dosing systems.
3. Looping the distal ends for LPP configurations is prohibited.
4. Looping the distal ends is required by 62-6 FAC for bed and mound systems in gravity applications.. Connect endcaps at bottom inverts
5. A 4”-6” space is required between chamber rows (measured from the chamber bottom outside edge).

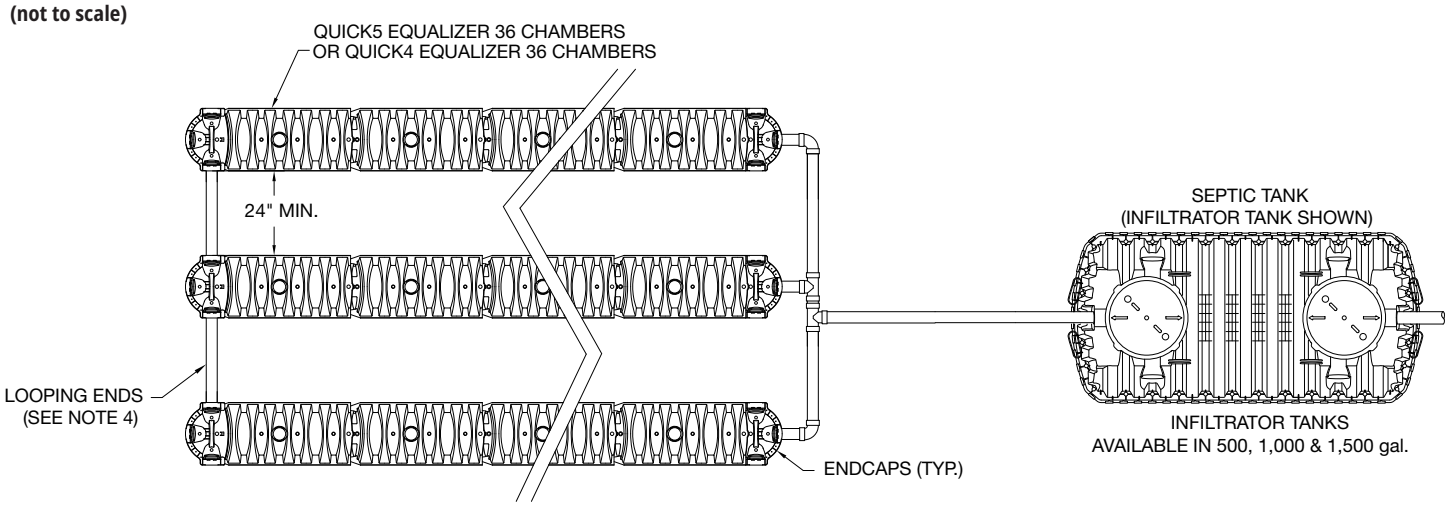
CHAMBER CONFIGURATIONS

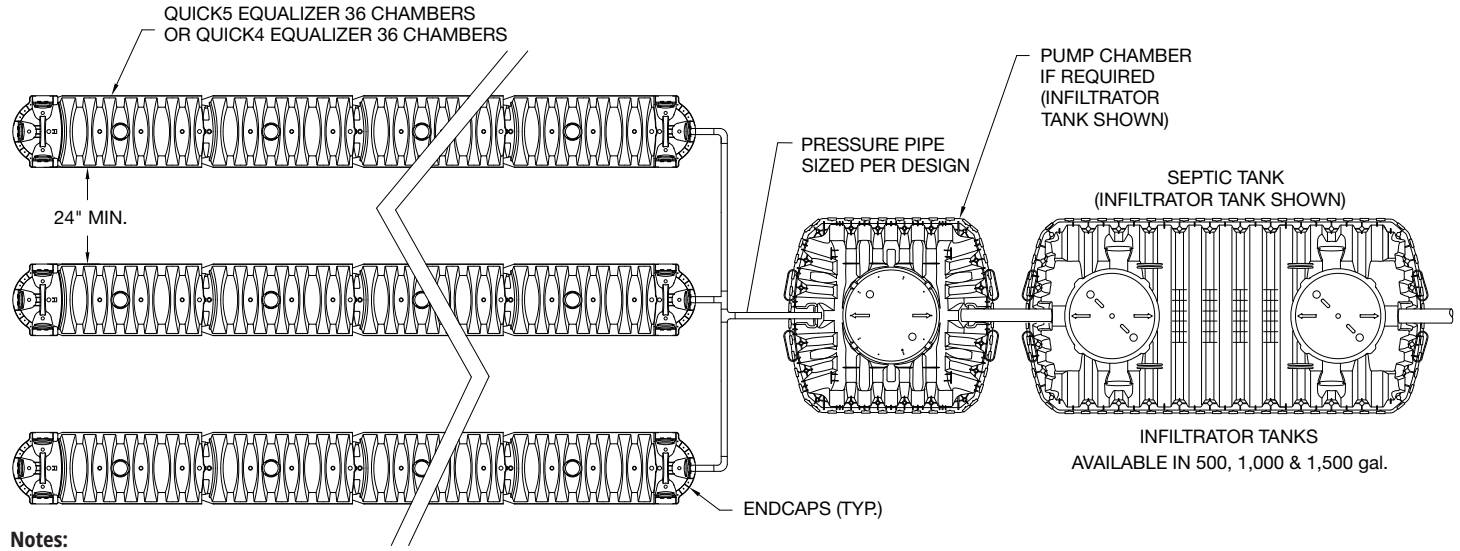
Quick4 Equalizer 36 and and Quick5 Equalizer 36 Trench Configurations

CROSS SECTION
(not to scale)



PLAN VIEWS
(not to scale)





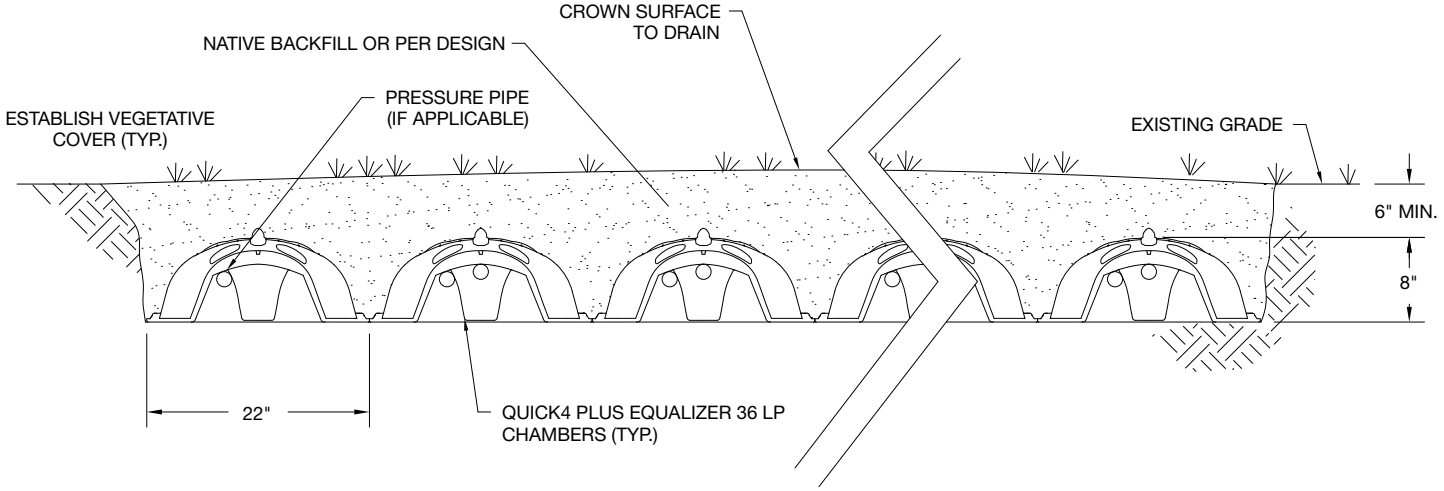
Notes:

1. Length and number of trenches per design.
2. Trench installations require a separation of 2 feet edge to edge (measured from the chamber bottom outside edge).
3. Design configuration applies to LPP, gravity, pump, and dosing systems.
4. Looping the distal ends for LPP configurations is prohibited.
5. Looping the distal ends is not required for subsurface trench systems. However, looping ends will ensure equal distribution to all lines. Connect endcaps at bottom inverts to create looping ends.

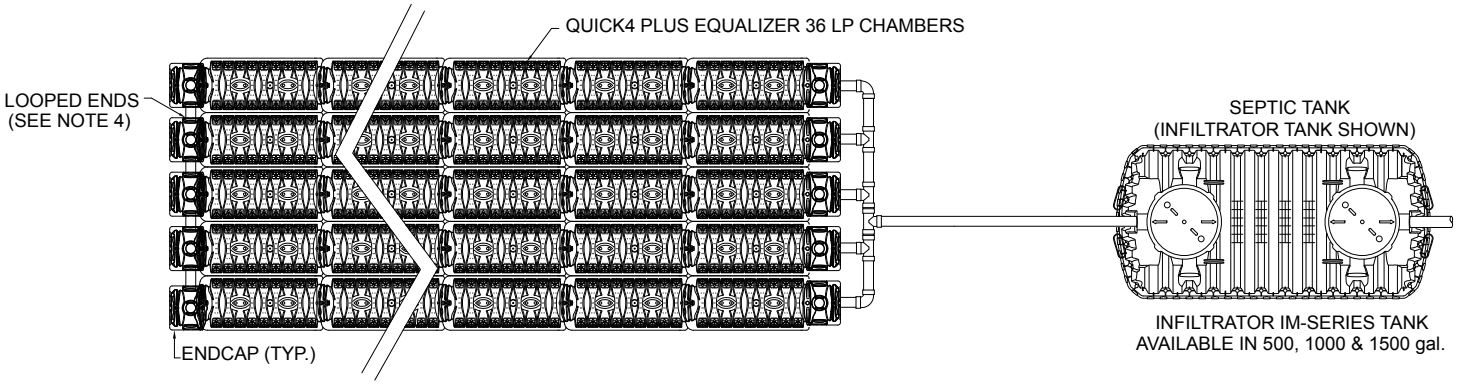
CHAMBER CONFIGURATIONS

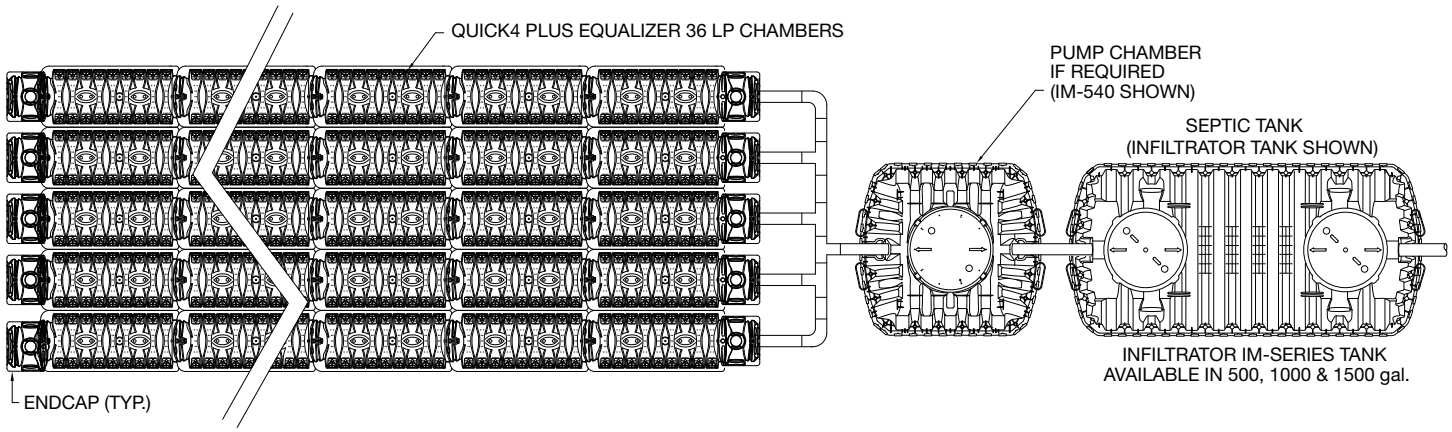
Quick4 Plus Equalizer 36 LP Bed Configurations

CROSS SECTION
(not to scale)



PLAN VIEWS
(not to scale)



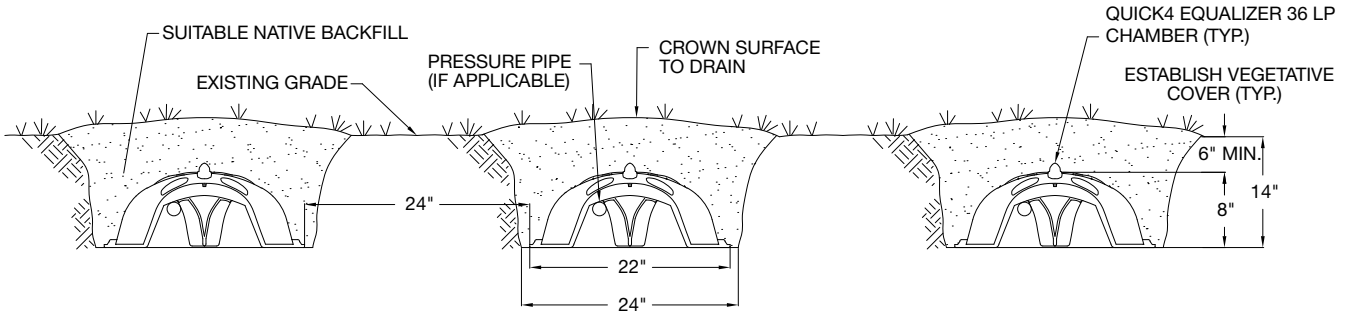


Notes:
1. Length and number of chamber rows per design.
2. Design configuration applies to LPP, gravity, pump, and dosing systems.
3. Looping the distal ends for LPP configurations is prohibited.
4. Looping the distal ends is required by 62-6 FAC for bed and mound systems in gravity applications. Connect endcaps at bottom inverts.
5. Endcaps may be Quick4 Plus Endcap or Quick4 All-in-One 8 Endcap, depending upon piping configuration.

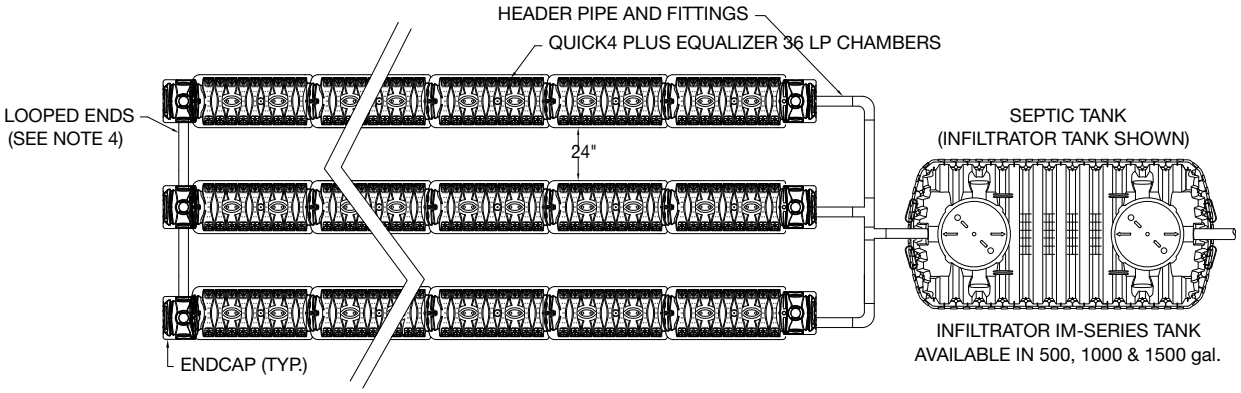
CHAMBER CONFIGURATIONS

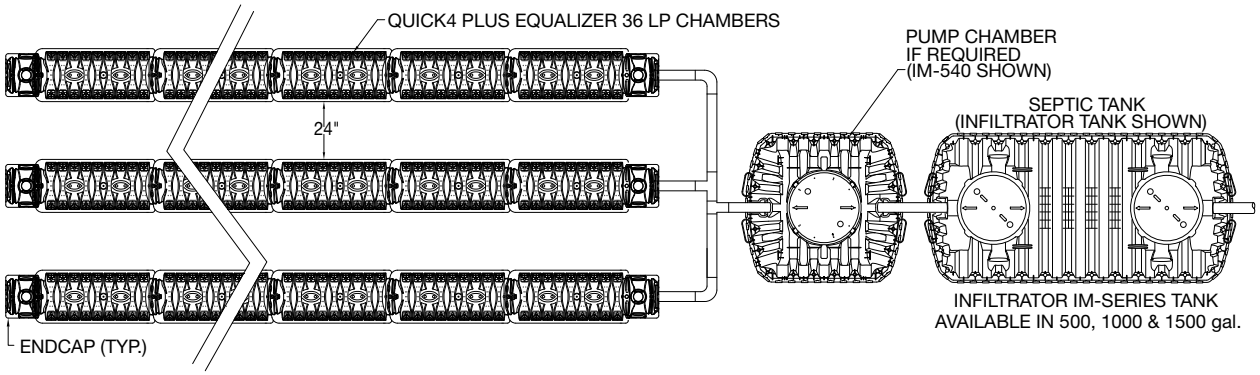
Quick4 Plus Equalizer 36 LP Trench Configurations

CROSS SECTION
(not to scale)



PLAN VIEWS
(not to scale)





Notes:
1. Length and number of trenches per design.
2. Trench installations require a separation of 2 feet edge to edge (measured from the chamber bottom outside edge).
3. Design configuration applies to LPP, gravity, pump, and dosing systems.
4. Looping the distal ends for LPP configurations is prohibited.
5. Looping the distal ends is not required for subsurface trench systems. However, looping ends will ensure equal distribution to all lines. Connect endcaps at bottom inverts to create looping ends.
6. Endcaps may be Quick4 Plus Endcap or Quick4 All-in-One 8 Endcap, depending upon piping configuration.

Bed Systems

Before You Begin

Chambers may only be installed according to state and/or local regulations. If unsure of the installation requirements for a particular site, be sure to contact your local regulator.

Like conventional systems, the soil and site conditions must be approved prior to installation. Conduct a thorough site evaluation to determine the proper sizing and siting of the system before installation.

Materials and Equipment Needed

- ☐ Chambers
- ☐ Endcaps
- ☐ Pipe for Header and Inlet
- ☐ Backhoe / Excavator
- ☐ Laser, Transit, or Level
- ☐ Shovel and Rake
- ☐ Tape Measure
- ☐ Utility Knife / Screwdriver
- ☐ Screw Gun*
- ☐ 2-inch Drywall Screws*

*Optional

These guidelines for construction machinery must be followed during installation:

- ☐ Avoid direct contact with chambers when using construction equipment. Chambers require a 12-inch minimum of compacted cover to support a wheel load rating of 16,000 lbs/axle or equivalent to an H-10 AASHTO load rating.
- ☐ Only drive across the system when necessary.
- ☐ Never drive down the length of the system.
- ☐ To avoid additional soil compaction, never drive heavy vehicles over the completed system.

Excavating and Preparing the Site

NOTE: A State of Florida Department of Health Construction Permit (Form DH 4016) must be obtained before the system is constructed, modified or repaired. Form DH 4016 will specify all necessary information for constructing and repairing an onsite sewage system. Tank/drain field size, elevations, system configurations, and fill/excavation required can all be found on this form.

1. Stake out the location of drainfield area. Set the elevations of the tank, pipe, and drainfield bottom in accordance with specifications on Form DH 4016.

2. Excavate and level drainfield area.

NOTE: The bed should be installed level or no more than 1" fall per 10' of bed length per Chapter 62-6 FAC of the Florida Administrative Code.

Preparing MultiPort Endcaps

NOTE: Quick4 MultiPort Endcaps are available for use with the Quick4 EQ36 and Quick5 EQ36 chambers.

1. With a screwdriver or utility knife start the tear-out at the appropriate diameter for the inlet pipe. The seal allows for a tight fit for 3-inch, 4-inch SDR35, and 40inch SCH 40 pipe.

2. Pull the tab on the tear-out seal (or use hole saw) to create an opening on the endcap.

3. Snap off the molded splash plate located on the bottom front of the endcap.

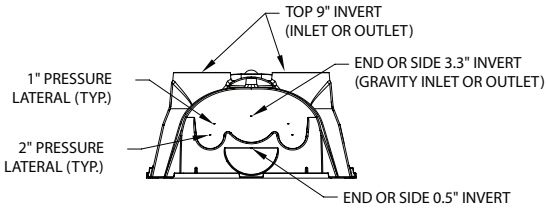
4. Install splash plate into the appropriate slots below the inlet to prevent trench bottom erosion.

5. The molded splash plate may be substituted with a flat, stable, corrosion- and decay-resistant splash plate having minimum plan dimensions of 3.5 inches by 5 inches, maximum plan dimensions of 7 inches by 11 inches, and a thickness between 0.125 and 1.0 inch. The splash plate area shall not exceed the end cap area. The splash plate shall be placed beneath the effluent discharge location on the infiltrative surface. The substitute splash plate shall be stabilized to prevent migration by fastening it to the end cap or shall have a weight sufficient to prevent migration during system operation.

Preparing Q4 Plus EQ36 LP Endcap

NOTE: Quick4 Plus and Quick4 Plus All-in-One 8 Endcaps are available for use with the Quick4 Plus EQ36 Low Profile chambers on either end of the trench, depending upon installer's preference and configuration requirements.

1. With a hole saw drill an opening appropriate for pipe diameter being used (normally 3 - 4 inches) on front or side of endcap using center point marking (see illustration below) as a guide.



2. Snap off the molded splash plate located on the bottom front of the endcap.

3. Install splash plate into the appropriate slots below the inlet to prevent trench bottom erosion.

4. The molded splash plate may be substituted with a flat, stable, corrosion- and decay-resistant splash plate having minimum plan dimensions of 3.5 inches by 5 inches, maximum plan dimensions of 7 inches by 11 inches, and a thickness between 0.125 and 1.0 inch. The splash plate area shall not exceed the end cap area. The splash plate shall be placed beneath the effluent discharge location on the infiltrative surface. The substitute splash plate shall be stabilized to prevent migration by fastening it to the end cap or shall have a weight sufficient to prevent migration during system operation.

Bed Systems

Preparing Q4 EQ24 LP Endcap

1. With a hole saw drill a opening appropriate to the pipe diameter being used (normally 3 to 4 inches) on the front of the endcap.

2. Snap off the molded splash plate located on the bottom front of the endcap.

3. Install splash plate into the appropriate slots below the inlet to prevent trench bottom erosion.

4. The molded splash plate may be substituted with a flat, stable, corrosion- and decay-resistant splash plate having minimum plan dimensions of 3.5 inches by 5 inches, maximum plan dimensions of 7 inches by 11 inches, and a thickness between 0.125 and 1.0 inch. The splash plate area shall not exceed the end cap area. The splash plate shall be placed beneath the effluent discharge location on the infiltrative surface. The substitute splash plate shall be stabilized to prevent migration by fastening it to the end cap or shall have a weight sufficient to prevent migration during system operation.

Installing the System with the Q4 EQ36 or Q5 EQ36

1. Place inlet end of first chamber over back edge of endcap.

Optional: Fasten the endcap to the chamber with at least one screw at the top of endcap.

2. Lift and place the end of the next chamber onto the previous chamber by holding it at a 90-degree angle. Line up the chamber end between the connector hook and locking pin at the top of the first chamber. Lower it to the ground to connect the chambers.

Place first chamber onto endcap.

NOTE: When the chamber end is placed between the connector hook and locking pin at a 90-degree angle, the pin will be visible from the back side of the chamber.

NOTE: The connector hook serves as a guide to ensure proper connection and does not add structural integrity to the chamber joint. Broken hooks will not affect the structure or void warranty.

Connect the chambers.

3. Continue connecting the chambers until chamber row is completed.

NOTE: As chambers are installed, verify they are level or have the prescribed slope.

4. The last chamber in the row requires an endcap. Lift the endcap at a 45-degree angle and insert the connector hook through the opening on the top of the endcap. Applying firm pressure, lower the endcap to the ground to snap it into place. Do not remove the tear-out seal.

Optional: Fasten the endcap to the chamber with at least one screw at the top of endcap.

5. Space adjacent chamber rows per plan.

NOTE: Use straight lengths of pipe with the MultiPort Endcap at the trench ends to create fitting-free looped ends.

Installing the System with Q4 Plus EQ36 LP

1. Place the first chamber into the excavated and leveled area.

2. Place the back edge of the endcap over the inlet end of the first chamber.

Optional: Fasten the endcap to the chamber with at least one screw at the top of endcap.

3. Insert the inlet pipe 2.5 inches into the opening on the front of the endcap.

Optional: Fasten the pipe to the endcap with at least one screw at the top of endcap.

4. Lift and place the end of the next chamber onto the previous chamber by holding it at a 45-degree angle.

Line up the chamber end between the connector hook and locking pin at the top of the first chamber. Lower the chamber to the ground to connect the chambers.

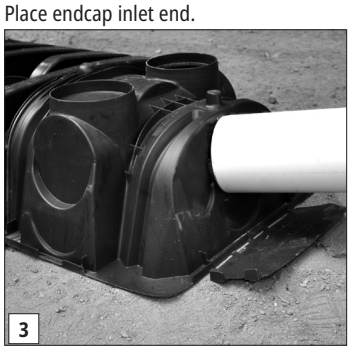
NOTE: The connector hook serves as a guide to ensure proper connection and does not add structural integrity to the chamber joint. Broken hooks will not affect the structure or void the warranty.

5. Continue connecting chambers until the system is completed.

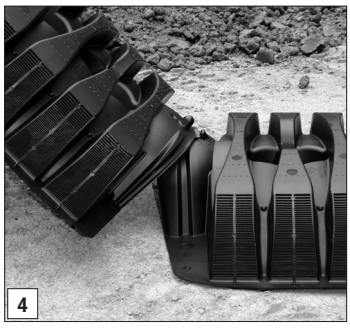
NOTE: As chambers are installed, verify they are level or have the prescribed slope.

6. Place inlet end of first chamber over back edge of endcap.

Place endcap inlet end.



Insert inlet pipe.



Connect chambers.

Place first chamber onto endcap.

Bed Systems

Attaching the Q4 Plus EQ36 LP Endcap

1. The last chamber in the row requires an endcap. Lift the endcap at a 45-degree angle and align the connector hook on the top of the chamber with the raised slot on the top of the endcap. Lower the endcap to the ground and into place.

NOTE: Place a few shovels of soil around the endcap to secure it during backfill.

Optional: Fasten the endcap to the chamber with at least one screw at the top of endcap.

Installing the System with Q4 EQ24 LP


1

Place endcap outlet end.

1. Place the first chamber in the excavated and leveled area.

2. Place the back edge of the endcap over the inlet end of the first chamber. Be sure to line up the locking pins on the top of both the chamber and endcap.

Optional: Fasten the endcap to the chamber with at least one screw at the top of the endcap.

3. Insert the header pipe 2.5 inches into the opening on the front of the endcap.

4. Lift and place the end of the next chamber onto the previous chamber by holding it at a 45-degree angle. Line up the chamber end between the connector hook and locking pin at the top of the first chamber.

Lower the chamber to the ground to connect the chambers.

NOTE: When the chamber end is placed between the connector hook and locking pin at a 45-degree angle, the pin will be visible from the back side of the chamber.

NOTE: The connector hook serves as a guide to ensure proper connection and does not add structural integrity to the chamber joint. Broken hooks will not affect the structure or void the warranty.

5. Swivel the chamber on the pin to achieve the proper direction for the trench layout.

6. Continue connecting the chambers until the row is completed.

Attaching Q4 EQ24 LP Endcaps


4

Connect chambers.

1. Lift the endcap at a 45-degree angle and align the connector hook on the top of the chamber with the raised slot on the top of the endcap. Lower the endcap to the ground and into place.

NOTE: Place a few shovels of soil around the endcap to secure it during backfill.

Optional: Fasten the endcap to the chamber with at least one screw at the top of endcap.

Installing Header and Footer

1. Install the header assembly level with the inlet tee and as close to the center of the system as possible. The header is installed to the upper opening of the endcap.

2. Pack the soil around the header to secure the assembly and provide support for easier leveling.

NOTE: As an option, fasten the pipe to the endcap with at least one screw at the top of endcap. If a footer assembly is required (bed/mound) the side ports of the endcap may be connected using sections of pipe.

NOTE: The bottom ports of the endcap shall be used for continuous circuit in a bed.

3. The system is now ready for Department of Health inspection.

Backfilling and Covering the System

Before backfilling, the system must be inspected by a health officer or other official as required by State and local codes. Create an as-built drawing at this time for future records.

1. Ladle soil with a backhoe bucket or carefully place soil on the dome of the chambers and spread in between.

2. Pack down fill by walking along the edges of bed and chambers.

NOTE: In wet or clay soils, do not walk in the sidewalls.

3. When placing final cover on the system, backfill by building a ramp of compacted soil (2 feet approx.) and broadcast the cover material over the system with a small-tracked dozer, backhoe, or Bobcat. Be sure to cover the system perpendicular to the chambers and do not drive heavy equipment lengthwise on the chambers.

NOTE: Chapter 62-6 FAC of the Florida Administrative Code requires a minimum of 6 inches of compacted cover after natural settling on standard installation. Mounded and Fill Systems require a soil cap of slightly or moderately limited soil material over the drainfield and shoulder area. The soil cap shall be no less than 6 inches thick at the outer perimeter of the shoulder.


1

Ladle soil on chamber domes.

4. Seed or sod the site (per state and local requirements), shortly after final cover and be sure that the area is graded for proper drainage.

3

Build ramp of soil.

Mound Systems

Imported Fill/Mounded Systems

Preparing the Site

1. Review approved system design to determine the height of the seasonal high water table or other limiting factors.

2. Calculate the number of sand lifts necessary. Lifts should measure 6 to 12 inches in height.

3. Confirm that the fill material meets plan specifications.

4. Stake out the site for fill placement.

5. Install sedimentation and erosion control measures.

6. Remove vegetation and organic soil layers per design. Stockpile topsoil free of debris for final cover and grading.

Placing the Sand

1. After placement of six inches of specified fill, use a crawler or tracked machine to evenly spread a one-foot lift of specified fill material over required area.

NOTE: Firming up the fill is critical to prevent settling and will not have a significant effect on permeability of specified fill.

2. To firm up the fill, a crawler or track-type tractor can be driven over the entire bed. After first tracks are made across the bed, move across the bed at increments equal to the width of the tracks.

3. Place consecutive lifts following Steps 1 and 2 until design elevation is achieved (desired elevation is the infiltrative surface). Lifts should not exceed a 12 inch height.

4. Lightly drag a landscape rake over the final infiltrative surface to scarify the top 1⁄2 inch of the sand. Check bed elevation to be sure it is level and has the correct depth of specified fill in accordance with the approved system design.

5. Install chamber system per instructions

INSTALLATION INSTRUCTIONS

Trench Systems

Before You Begin

Chambers may only be installed according to State and/or local regulations. If unsure of the installation requirements for a particular site, contact the local health department.

Like conventional systems, the soil and site conditions must be approved prior to installation. Conduct a thorough site evaluation to determine the proper sizing and siting of the system before installation.

Materials and Equipment Needed

- ☐ Chambers
- ☐ Endcaps
- ☐ Backhoe / Excavator
- ☐ Laser, Transit, or Level
- ☐ Shovel and Rake
- ☐ Pipe for Header and Inlet
- ☐ Tape Measure
- ☐ Utility Knife / Screwdriver
- ☐ Screw Gun*
- ☐ 2-inch Drywall Screws*

*Optional

These guidelines for construction machinery must be followed during installation:

- ☐ Avoid direct contact with chambers when using construction equipment. Chambers require a 12-inch minimum of compacted** cover to support a wheel load rating of 16,000 lbs/axle or equivalent to an H-10 AASHTO load rating.
- ☐ Only drive across the trenches when necessary. Never drive down the length of the trenches.
- ☐ To avoid additional soil compaction, never drive heavy vehicles over the completed system.

**Compacted to a comparable level of native soil.

Excavating and Preparing the Site

NOTE: A State of Florida Department of Health Construction Permit (Form DH 4016) must be obtained before any system is constructed, modified or repaired. Form DH 4016 will specify all necessary information for constructing and repairing an onsite sewage system. Tank/drain field size, elevations, system configurations, and fill/excavation required can all be found on this form.

1. Stake out the location of all trenches and lines. Set the elevations of the tank, pipe, and trench bottom in accordance with specifications on Form DH 4016.

2. Install sedimentation and erosion control measures. Temporary drainage swales/berms may be installed to protect the site during rainfall events.

3. Excavate and level 2-foot wide trenches with proper center-to-center separation. Verify that the trenches are approximately level or have the prescribed fall of no more than 1" per 10' of trench length.

NOTE: Over excavate the trench width in areas where chambers will contour.

Preparing the MultiPort Endcap

1. With a screwdriver or utility knife start the tear-out seal at the appropriate diameter for the inlet pipe. The seal allows for a tight fit for 3-inch, 4-inch SDR35, and 4-inch SCH40 pipe.

2. Pull the tab on the tear-out seal (or use a hole saw) to create an opening on the endcap.

3. Snap off the molded splash plate located on the bottom front of the endcap.

4. Install splash plate into the appropriate slots below the inlet to prevent trench bottom erosion.

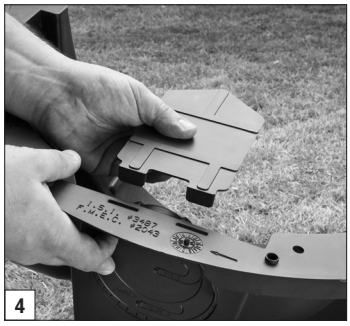
5. The molded splash plate may be substituted with a flat, stable, corrosion- and decay-resistant splash plate having minimum plan dimensions of 3.5 inches by 5 inches, maximum plan dimensions of 7 inches by 11 inches, and a thickness between 0.125 and 1.0 inch. The splash plate area shall not exceed the end cap area. The splash plate shall be placed beneath the effluent discharge location on the infiltrative surface. The substitute splash plate shall be stabilized to prevent migration by fastening it to the end cap or shall have a weight sufficient to prevent migration during system operation.

6. Insert the inlet pipe or hub of fitting into the endcap at the beginning of the trench.

Optional: Fasten the pipe to the endcap with at least one screw at the top of endcap.

Start tear-out seal.

Pull tab on tear-out seal.



Install splash plate.

Insert inlet pipe.

Trench Systems

Preparing the Q4 Plus EQ36 LP Endcap

NOTE: Quick4 Plus and Q4 Plus All-in-One 8 Endcaps are available for use with Quick4 Plus chambers on either end of trench, depending upon installer's preference and configuration requirements.

1. With a hole saw drill an opening appropriate for pipe diameter being used (normally 3 - 4 inches) on front or side of endcap using center point marking as a guide.

Drill endcap.

2. Snap off the molded splash plate located on the bottom front of the endcap.

3. Install splash plate into the appropriate slots below the inlet to prevent trench bottom erosion.

4. The molded splash plate may be substituted with a flat, stable, corrosion- and decay-resistant splash plate having minimum plan dimensions of 3.5 inches by 5 inches, maximum plan dimensions of 7 inches by 11 inches, and a thickness between 0.125 and 1.0 inch. The splash plate area shall not exceed the end cap area. The splash plate shall be placed beneath the effluent discharge location on the infiltrative surface. The substitute splash plate shall be stabilized to prevent migration by fastening it to the end cap or shall have a weight sufficient to prevent migration during system operation.

Installing the Quick4 or Quick5 Systems

1. Check the header pipe to be sure it is level or has the prescribed slope.

Optional: Fasten the pipe to the endcap with at least one screw at the top of endcap.

2. Place the inlet end of the first chamber over the back edge of the endcap.

3. Lift and place end of next chamber onto previous chamber by holding it at a 45-degree angle. Line up chamber end between the connector hook and locking pin at top of the first chamber. Lower it to the ground to connect the chambers.

Place first chamber onto endcap.

NOTE: When chamber end is placed between connector hook and locking pin at a 45-degree angle, pin will be visible from back side of chamber.

NOTE: Connector hook serves as a guide to ensure proper connection and does not add structural integrity to the chamber joint. Broken hooks will not affect structure or void warranty.

Connect the chambers.

4. Swivel the chamber on the pin to the proper direction for the trench layout.

5. Continue connecting the chambers until the trench is completed.

6. The last chamber in the trench requires an endcap. Lift the endcap at a 45-degree angle and insert the connector hook through the opening on the top of the endcap. Applying firm pressure, lower the endcap to the ground to snap it into place. Do not remove the tear-out seal.

Optional: Fasten the endcap to the chamber with at least one screw at the top of the endcap.

Attach endcap to chamber.

NOTE: Use straight lengths of pipe with the MultiPort Endcap at the trench ends to create fitting-free looped ends (continuous circuit).

7. To backfill the chambers, fill the sidewall area by pulling soil from the sides of the trench. Continue backfilling the entire sidewall area, making sure the fill covers the louvers.

8. Proceed to the next trench and begin with Step 1.

Trench Systems

Installing the Quick4 Plus EQ36 LP System

1. Check the header pipe to be sure it is level or has the prescribed slope.

2. Set the invert height as specified in the design from the bottom of the inlet.

3. Place the first chamber in the trench.

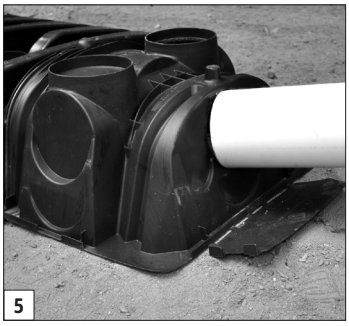
4. Place the back edge of the endcap over the inlet end of the first chamber. Be sure to line up the locking pins on the top of both the chamber and endcap.

Optional: Fasten the endcap to the chamber with at least one screw at the top of the endcap.

Place endcap inlet end.

5. Insert the inlet pipe 2.5 inches into the opening on the front of the endcap.

Optional: Fasten the pipe to the endcap with at least one screw at the top of endcap.



Insert inlet pipe.

6. Lift and place the end of the next chamber onto previous chamber by holding it at a 45-degree angle. Line up the chamber end between the connector hook and locking pin at the top of the first chamber. Lower the chamber to the ground to connect chambers.

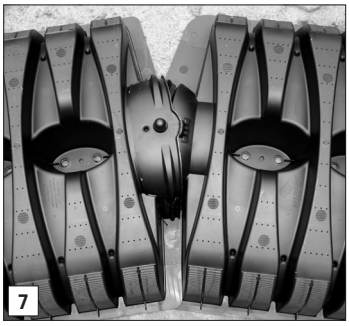
NOTE: When the chamber end is placed between the connector hook and locking pin at a 45-degree angle, the pin will be visible from the back side of the chamber.

Connect chambers.

NOTE: The connector hook serves as a guide to ensure proper connection and does not add structural integrity to the chamber joint. Broken hooks will not affect the structure or void the warranty.

7. Swivel the chamber on the pin to achieve the proper direction for the trench layout.

NOTE: The chamber allows up to 10-degree swivel in either direction at each joint.



Swivel chambers.

8. Continue connecting chambers until the trench is completed.

NOTE: As chambers are installed, verify they are level or have the prescribed slope.

9. The last chamber in the trench requires an endcap. Lift the endcap at a 45-degree angle and align the connector hook on the top of the chamber with the raised slot on the top of the endcap. Lower the endcap to the ground and into place.

Place endcap outlet end.

NOTE: Place a few shovels of soil around the endcap to secure it during backfill.

10. To ensure structural stability, fill the sidewall area by pulling soil from the sides of the trench with a shovel. Start at the joints where the chambers connect. Continue backfilling the entire sidewall area, making sure the fill covers the louvers.

11. Pack down fill by walking along the edges of trench and chambers.

NOTE: In wet or clay soils, do not walk in the sidewalls.

12. Proceed to the next trench and begin with Step 1.

Covering the System

Before backfilling, the system must be inspected by a health officer or other official as required by State and local codes. Create an as-built drawing at this time for future records.

1. Backfill the trench by pushing fill material over the chambers with a backhoe. Keep a minimum of 12 inches of compacted cover over the chambers before driving over the system.

NOTE: Do not drive over system while backfilling in sand.

NOTE: For shallow cover applications, mound 12 inches of soil over the system before driving over it, and then grade it back to 6 inches upon completion.

2. It is best to mound several inches of soil over the finish grade to allow for settling. This also ensures runoff water is diverted away from the system.

3. After the system is covered, site should be seeded or sodded (per state and local requirements) to prevent erosion.

NOTE: If the system is for new home construction it is important to leave marking stakes along the boundary of the system. This will notify contractors of the site location so they will not cross it with equipment or vehicles.

Inspection Port

Installing Optional Quick4 or Quick5 Inspection Ports

1. With a hole saw drill the pre-marked area in the top of the chamber to create a 4-inch opening.

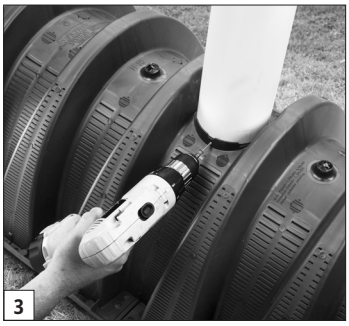
2. Set a cut piece of pipe of the appropriate length into the corresponding chamber's inspection port sleeve.

NOTE: The sleeve will accommodate a 4-inch SCH40 pipe.

3. Use two screws to fasten the pipe to the sleeve around the inspection port.

4. Attach a threaded cap or cleanout assembly onto the protruding pipe at the appropriate height.

5. A small valve cover box may be used if inspection port is below the desired grade.



3

Fasten the pipe.

Installing Optional Quick4 Plus Inspection Ports

Inspection ports may be installed on the chamber or the Quick4 Plus All-in-One 8 Endcap. The Quick4 Plus Endcap does not allow inspection port construction.

Quick4 Plus All-in-One 8 Inspection Port

1. With a hole saw drill the pre-marked area in the top of the Quick4 Plus All-in-One 8 Endcap to create a 4-inch opening.

2. Set a cut piece of pipe of the appropriate length into the corresponding endcap's inspection port sleeve.

NOTE: Sleeve will accommodate up to a 4-inch Schedule 40 pipe.

3. Use two screws to fasten pipe to the sleeve around the inspection port.

4. Attach a threaded cap or cleanout assembly onto the protruding pipe at appropriate height.

5. A small valve cover box may be used if inspection port is below desired grade.

All-in-One 8 inspection port.

Chamber Inspection Port

1. With a hole saw drill the pre-marked area in the top of the chamber to create a 2.5-inch opening.

2. Set a cut piece of pipe of appropriate length into the corresponding chamber's inspection port sleeve.

NOTE: The sleeve will accommodate up to a 2.5-inch Schedule 40 pipe.

Chamber inspection port.

SPECIAL PROCEDURES

Installing Filter Fabric*

Infiltrator Water Technologies suggests (non-mandatory) the installation of filter fabric over chambers when installed in uncompacted, fine/very-fine sands, and when the following conditions exist:.

- Installations left uncovered for extended periods of time.
- Drainfield area not sodded immediately after final cover-up.
- Drainfield located in area where infiltrative surface is less than 24" above seasonal high water table.

Filter Fabric Specifications:

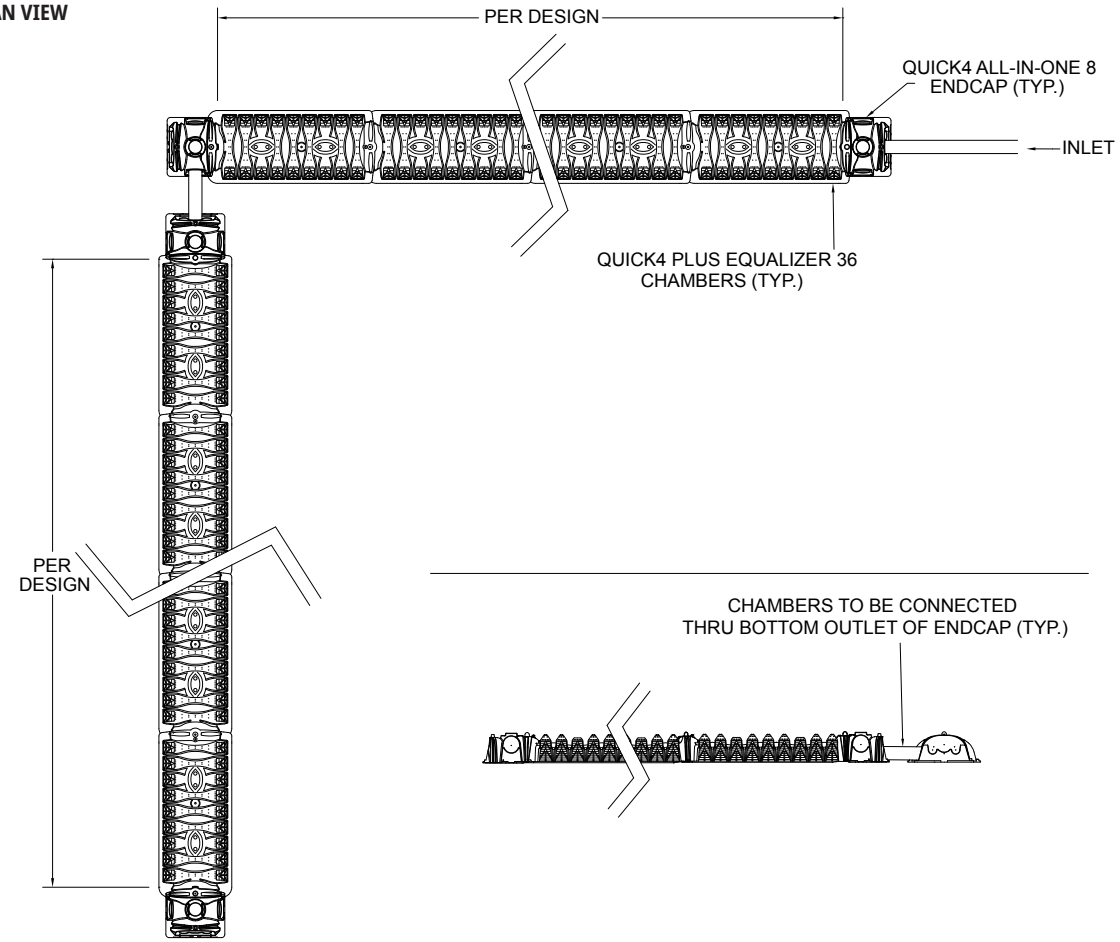
- Fabric shall be non-woven
- Weight: 0.35 oz./s.y. to 1 oz./s.y.
- Apparent Opening Size (AOS): 20-30 U.S. Sieve (ASTM D 4571)

NOTE: Filter fabric on an Infiltrator chamber does not affect the warranty.

Place fabric lengthwise over chamber so sidewall is completely covered. See below.

90-Degree Bend Example Application

BED DETAIL PLAN VIEW
(not to scale)



Note: Applicable to any degree of bend in drainfield

M E M O R A N D U M

DATE: May 8, 2019

TO: Regulators, Distributors, Contractors and Designers

FROM: Infiltrator Water Technologies

RE: Chamber Installations in Ground Burrowing Animal Areas

Since first being introduced in 1986, Infiltrator Water Technologies LLC (Infiltrator) has manufactured over 170 million chambers, which have been installed in over 4 million onsite wastewater systems. Infiltrator chamber systems have been installed in a wide range of soil types, climate conditions and topography with a proven record.

The incidence of problems associated with ground burrowing animals (with gophers posing the most significant threat) has been minimal. This issue has been reported and investigated on less than 0.005% of installed systems in the Northwestern United States and Western Canada, where ground burrowing animal issues are particularly pronounced. Infiltrator has investigated this issue through an informal field study of randomly selected sites in gopher-prone areas and found no greater incidence of system malfunction. However, since the potential for system disruption exists, Infiltrator is providing a solution to our customers installing systems in areas inhabited by ground burrowing animals. Please note, however, that in the vast majority of chamber installations in the Northwestern United States and Western Canada, Infiltrator recommends installing chambers per the standard installation instructions without the use of supplemental materials.

As a measure of protection when installing chambers in significant ground burrowing animal areas, Infiltrator suggests (non-mandatory) the installation of wire mesh under the chambers. Items to consider when installing chambers in ground burrowing animal areas:

1. Does the area show visible signs of ground burrowing animal activity?
2. Will the system be put into service immediately or remain unused for an extended period of time?
3. Will the system be serially loaded? If so, install wire mesh on the down slope trenches or bed.

The use of wire mesh in systems installed in ground burrowing animal areas will not void the product warranty. Please see attached Technical Bulletin for additional information. If you have any questions, please contact the Infiltrator Technical Services Department at 1-800-221-4436.

Infiltrator Water Technologies Technical Bulletin: Guidelines for Infiltrator Chamber Installations in Ground Burrowing Animal Areas

Infiltrator suggests (non-mandatory) the installation of wire mesh (chicken wire or other) under the chambers when installed in areas of significant ground burrowing animal activity and when confronted with the specific conditions as follows:

1. Drainfield area shows visible signs of ground burrowing animal activity.
2. Installations not put into service for an extended period after installation.
3. Drainfield designed using serial distribution in significant ground burrowing animal activity.

Wire specifications:

- ½" – 1 ½" hexagon netting and or square netting
- 18" – 36" (width of the chamber being installed)
- 20 gage
- Galvanized wire

Manufacturers included but not limited to: Jackson-Wire International, Inc.

Please note the following supplemental Installation Instructions:

1. Refer to manufacturer's chamber installation instructions.
2. After the excavation is prepared roll out wire mesh on the trench or bed bottom for entire length of the trench or bed (See Figure 1).
3. Install the chambers over the wire base (See Figure 2).
4. Complete remainder of installation per manufacturer's chamber installation instructions.

Figure 1: Roll out wire mesh

Figure 2: Install chambers over the wire

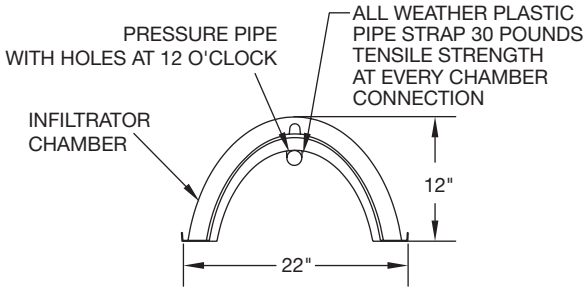
SPECIAL PROCEDURES

Low Pressure Distribution Systems

NOTE: Where the total required area of drainfield is greater than 1000 square feet, an automatic dosing device is required. The device discharges into a low-pressure distribution network designed by a registered engineer (Chapter 62-6 FAC State of Florida DOH Administrative Code).

Method A

1. Use Schedule 40 PVC pipe and fittings ranging from 1.25”- 2” (1.25” Typ.)



2. Connect piping to be used in the length of the field line by aligning the lettering on the pipe.

3. Drill specified holes at specified spacing along lettering to ensure a straight line. Mark the inlet end of the discharge pipe along lettering.

4. Connect all chambers at interlocking joints in a field line. Screws may be used to connect all chambers at interlocking joints in a field line by securing each joint with a drywall screw on each side of the chamber.

5. Lay the discharge pipe inside the entire chamber field line and secure pipe with all-weather plastic tie straps spaced approximately every 4 feet. Be sure to leave about 1 foot of pipe stemming from the inlet end of the chamber for header connection. The distal end of the field line may be capped off inside the endcap of the last chamber or extended to the surface as a cleanout, per design.

6. Once the discharge pipe is secured, roll the row of chambers to an upright position.

7. With a hole saw, drill out the appropriate diameter hole in each endcap to accommodate pipe.

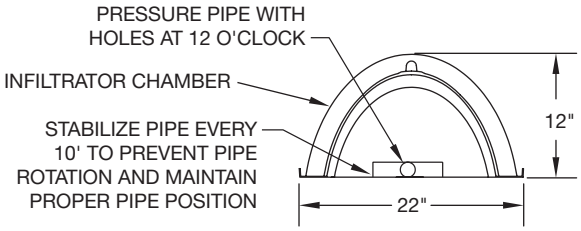
8. Insert the pipe through the hole in the endcap and slide the endcap to attach to the chamber field line.

9. Repeat these steps for each field line.

10. Connect the pipes stemming from the inlet end as the header assembly. Be sure that the mark on the pipe is facing the 12 o’clock position when connecting header. This is to ensure that the discharge holes are facing upward.

11. Backfill according to instructions.

Method B



1. Use Schedule 40 PVC pipe and fittings ranging from 1.25”- 2” (1.25” Typ.) in diameter to be laid on the infiltrative surface underneath the chambers.

2. Connect piping by aligning the lettering on the pipe. The lettering should be facing upward. At every 10’ section connect the pipe using a 4-way cross fitting, tee or other method to stabilize the pipe. Be sure to cap off the sides of the fittings not being used and the end of the field line.

3. Drill specified holes at specified spacing along lettering to ensure a straight line. Again, the holes must be facing upward.

4. Lay the pipe in the trench/bed and begin connecting the chambers over the discharge pipe. The pipe should be centered under the chambers. Leave about 1 foot of pipe stemming from the inlet-end of the chamber for header connection.

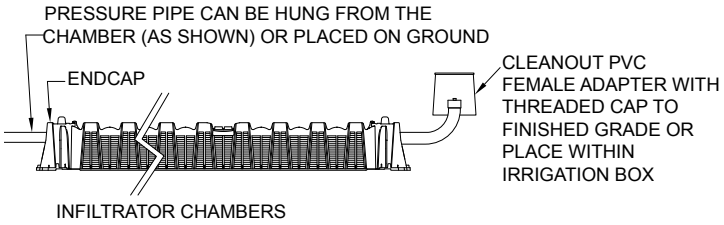
5. With a hole saw, drill out the appropriate diameter hole in each endcap to accommodate pipe.

6. Insert the pipe through the hole in the endcap and slide the endcap to attach to the chamber field line.

7. Repeat steps 1-4 for each field line.

8. Connect header assembly.

9. Backfill according to instructions.



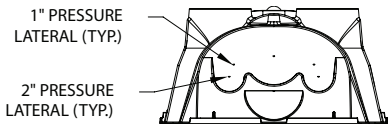
Low Pressure Distribution Systems

Low Pressure Distribution with Quick4 Plus EQ36 LP Chambers

Installing the Chambers and Endcaps

1. To allow pressure laterals to drain after each dose, drill a hole in the bottom of pipe at end of pressure line. Place the snap-off splash plate or a substitute flat, stable, corrosion- and decay-resistant splash plate having minimum plan dimensions of 3.5 inches by 5 inches, maximum plan dimensions of 7 inches by 11 inches, and a thickness between 0.125 and 1.0 inch. The splash plate area shall not exceed the end cap area. The substitute splash plate shall be placed beneath the effluent discharge location on the infiltrative surface. The substitute splash plate shall be stabilized to prevent migration by fastening it to the end cap or shall have a weight sufficient to prevent migration during system operation.

2. With a hole saw, drill out the appropriate diameter hole to accommodate the pressure lateral pipe.



3. Insert pressure lateral pipe into the endcap's drilled opening and slide it into the manifold pipe. Glue pressure lateral pipe to manifold pipe.

4. With pressure lateral pipe through endcap, place back edge of endcap over the inlet end of first chamber. Be sure to line up locking pins on top both chamber and endcap.

NOTE: Health departments may require a wet-run pressure check to be done prior to chamber installation when the pipe is laying on the ground. Check with your local health department for the proper procedure.

5. Method A (pipe strap) With the holes pointing up, secure pressure lateral pipe to top of first chamber with a plastic pipe strap at outlet end of the unit. Slide strap up through slot in chamber top, down through other slot, and cinch the two ends around the pipe.

6. Method B (cross fitting, tee or other method) With holes pointing up, stabilize pressure lateral pipe on ground to prevent from moving.

7. Lift and place next chamber onto previous one at a 45-degree angle. Line up the chamber end between connector hook and locking pin at top of the first chamber. Lower it to ground to engage the interlocks.

Drill pressure pipe hole.

Place endcap over inlet end.

Secure pressure pipe.

8. Method A (pipe strap) Secure lateral pipe to top of the next chamber once in place. Follow the same method in Step 5.

9. Continue interlocking chambers and securing the pipe until the trench bed is completed.

10. Before attaching the final endcap, it may be necessary to remove the tongue of the connector hook on the last chamber with a pair of pliers depending on your pipe diameter.

11. Insert the pressure lateral pipe through the hole in the final endcap and slide the endcap toward the last chamber. Lift the endcap over the modified connector hook and push straight down to secure it to the chamber.

NOTE: If cleanout extensions are required, use a hole saw to cut a hole in the top of Q4 Plus All-in-One 8 Endcap so the pressure lateral pipe with an elbow can extend to the ground surface. For cleanout access, use the "Installing Optional Inspection Ports" section in the general installation instructions.

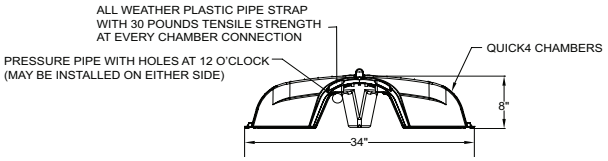
Lateral pipe through endcap.

12. If installing multiple rows of chambers, follow Steps 1-9 to lay next row of chambers parallel to the first. Keep a minimum separation distance between each row of chambers as required by local code.

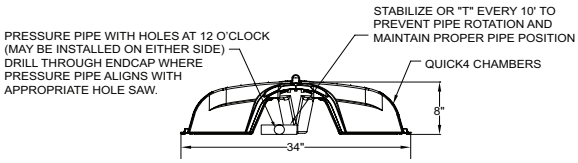
Advantages of Method A (Pipe Strap)

- Pipe and orifice placed closer to the chamber dome offer improved distribution.
- Pipe positioned at the top of the chamber places it well above effluent.
- Plastic pipe hanger easily secures pipe in place.

Method B (Cross Fitting, Tee or Other Method)



- Pipe resting on trench bed bottom allows easy installation and maintenance.
- Stabilizing tees keep pipe level.
- Mark the endcap where the resting pipe will intersect and drill accordingly.
- System promotes efficient pressure checks.
- Pipe resting on trench bed bottom allows easier inspections if monitor ports are installed.



Florida Warranties

Limited Septic Warranty for Infiltrator Chambers
(a) The structural integrity of each Infiltrator chamber and endcap, when installed in accordance with manufacturer's instructions, is warranted to the original purchaser against defective materials and workmanship for two years from the date of purchase. Should a defect appear within the warranty period, purchaser must inform Infiltrator Water Technologies of the defect within fifteen (15) days. Infiltrator Water Technologies will supply a replacement chamber and/or endcap. Infiltrator Water Technologies' liability specifically excludes the cost of removal and/or installation of units.

(b) THE WARRANTY IN SUBPARAGRAPH (a) IS EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE CHAMBERS AND Endcaps, INCLUDING NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. THE WARRANTY DOES NOT EXTEND TO INCIDENTAL, CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES. THE COMPANY SHALL NOT BE LIABLE FOR PENALTIES OR LIQUIDATED DAMAGES, INCLUDING LOSS OF PRODUCTION AND PROFITS, LABOR AND MATERIALS, OVERHEAD COSTS, OR OTHER LOSS OR EXPENSE INCURRED BY PURCHASER. SPECIFICALLY EXCLUDED FROM 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 STRESSES GREATER THAN THOSE PRESCRIBED IN THE INSTALLATION INSTRUCTIONS; THE PLACEMENT BY PURCHASER OF IMPROPER MATERIALS INTO THE PURCHASER'S SYSTEM; OR ANY OTHER EVENT NOT CAUSED BY THE COMPANY. FURTHERMORE, IN NO EVENT SHALL THE COMPANY BE RESPONSIBLE FOR ANY LOSS OR DAMAGE TO THE PURCHASER, THE UNITS, OR ANY THIRD PARTY RESULTING FROM ITS INSTALLATION OR SHIPMENT. PURCHASER SHALL BE SOLELY RESPONSIBLE FOR ENSURING THAT THE INSTALLATION OF THE SYSTEM IS COMPLETED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES, RULES, AND REGULATIONS.

(c) NO REPRESENTATIVE OF THE COMPANY HAS THE AUTHORITY TO CHANGE THIS WARRANTY IN ANY MANNER WHATSOEVER, OR TO EXTEND THIS WARRANTY. NO WARRANTY APPLIES TO ANY PARTY OTHER THAN TO THE ORIGINAL PURCHASER.

(d) All types of chamber systems must be installed in full compliance with the latest version of the product installation requirements. The system must be in full compliance with all aspects of the state regulations and codes.

Performance Warranty for Quick4 or Quick5 Chambers
(a) Infiltrator warrants that each Quick4 or Quick5 chamber and MultiPort endcap manufactured by Infiltrator (collectively, the "Units"), when installed and operated in a leachfield of an onsite septic system of a single family residence in accordance with Infiltrator's instructions, for a period of two (2) years from the date of installation (i) shall be free from defective materials and workmanship; and (ii) shall perform in such a manner to absorb effluent within the design flow rate for the septic system containing the Units, so that there will be no sewage backup into the dwelling or structure which uses the septic system, or visible pooling of effluent around the system. The presence of such sewage backup or such visible pooling shall constitute a "failure" of the system. This Limited Warranty covers new permitted leachfield installations only, and does not cover repairs, extensions or additions to existing leachfields. This Limited Warranty extends only to the original purchasing contractor. For this Limited Warranty to apply, the Units must be installed in accordance with all necessary permits and in accordance with all site conditions required by state and local codes for the installation of gravel and pipe systems, and must be sized according to Infiltrator specifications and state, county and local requirements.

In order to exercise these Limited Warranty rights, the warranty holder must notify Infiltrator in writing at its corporate headquarters in Old Saybrook, Connecticut (address below) within fifteen (15) days of any alleged defect or failure. The notice shall be accompanied by (i) a letter from a state licensed septic tank contractor or Professional engineer detailing cause of failure (ii) a copy of the appropriate permit and design for the septic system; and (iii) proof to Infiltrator's satisfaction that the septic tank has been pumped at least once every three (3) years since installation. Upon notification of a possible breach of warranty, Infiltrator may undertake an investigation of the circumstances of the possible breach. At its discretion, Infiltrator may perform tests to determine the cause of any breach and may hire a soil scientist or professional engineer or use Infiltrator personnel to evaluate soil conditions and otherwise assist in the investigation.

In the event that Infiltrator determines that there has been a breach of this Limited Warranty due to a failure, Infiltrator will, at its option, either: provide Units as it deems necessary to extend the size of the leachfield and a fee of $12.50 per Unit toward the cost of installation; or provide an equivalent, state-approved solution to cure the breach. Infiltrator will not be responsible for pumps or any other necessary mechanical devices needed to extend or repair the leachfield following a failure, nor shall Infiltrator be liable for the addition of pump systems or underground water diversion systems, or repair or replacement of any landscape or irrigation systems, following a Failure.

In the event of any other breach of this Limited Warranty, Infiltrator will, at its option, either: provide replacement Units for Units determined by Infiltrator to be defective and a fee of $12.50 per Unit toward the cost of installation; or provide an equivalent state-approved solution to cure the breach. Infiltrator's liability under this Standard Limited Warranty specifically excludes any other cost of removal and/or installation of
the Units.

(continued)

WARRANTIES

(b) THIS LIMITED WARRANTY AND THE REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES TO THE ORIGINAL PURCHASING CONTRACTOR 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 or endcap) 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 warranty holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to Acts of God or natural disasters; 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 cover 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, improper specified backfill, 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 warranty holder fails to comply with all of the terms set forth in this Limited Warranty, including the information required by subparagraph (a).

Furthermore, in no event shall Infiltrator be responsible for any loss or damage to the warranty holder, the Units, or any third party resulting from installation (except as expressly set forth in subparagraph (a) or shipment, or from product liability claims of the warranty 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 written 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 purchasing contractor.

NOTE: Any chamber systems constructed with less than our minimum sizing requirements will not be covered by any product warranties.

NOTE: In fine and very fine sands, loamy sand and sandy loam soils with low moisture content, it is at the contractor's discretion to cover the chambers with very fine filter cloth prior to backfilling the system. Standard installation instructions apply.

Contact Infiltrator's Technical Services Department for assistance at 1-800-221-4436 or info@infiltratorwater.com

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