

Design and Installation Manual for Quick4 Chambers in Maine



The purpose of this product information sheet is to provide specific design and installation information pertinent for the use of Infiltrator Quick4 Plus chambers in Maine. Exceptions and changes may be made, but should be confirmed by Infiltrator Water Technologies. Each revised version of this manual supersedes the previous version.

This manual provides a brief description of each Infiltrator chamber with its sizing specifications. **For more detailed design information, please contact Infiltrator Water Technologies at 1-800-221-4436**

Infiltrator Chambers in Maine

INTRODUCTION	2
PRODUCTS	3
SYSTEM SIZING	5
CHAMBER CONFIGURATIONS	12
INSTALLATION INSTRUCTIONS	12
APPROVAL LETTER	18
WARRANTY	19

INTRODUCTION

Quick4 Chambers

The Quick4 Equalizer 24 chamber can be installed in an 18-inch wide trench. The Quick4 High Capacity and the Quick4 Standard chambers fit into a 36-inch wide trench. There are a variety of system inletting options to choose from with and without a distribution box.

**Quick4 Equalizer 24 Chamber
nominal chamber specifications**

Size	16"W x 53"L x 11"H
Effective Length	48"
Invert Elevation	6"

**Quick4 High Capacity Chamber
nominal chamber specifications**

Size	34"W x 53"L x 16"H
Effective Length	48"
Invert Elevation	11.5"

**Quick4 Standard Chamber
nominal chamber specifications**

Size	34"W x 53"L x 16"H
Effective Length	48"
Invert Elevation	8"



Quick4 Equalizer 24 Chamber



Quick4 High Capacity Chamber

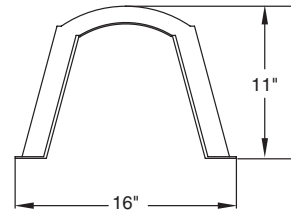
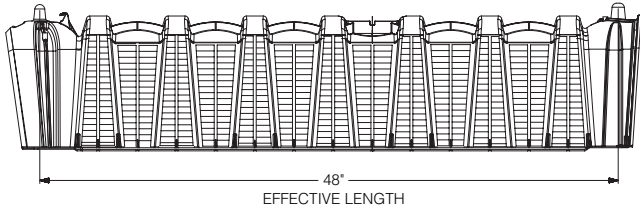


Quick4 Standard Chamber

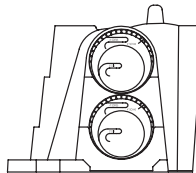
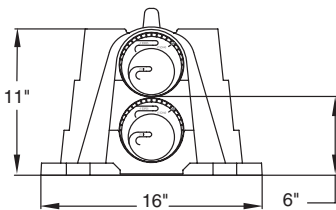
PRODUCTS

Quick4 Equalizer 24 Chamber (not to scale)

SIDE AND END VIEWS



MULTIPORT ENDCAP FRONT AND SIDE VIEWS



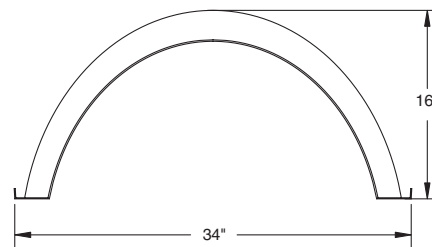
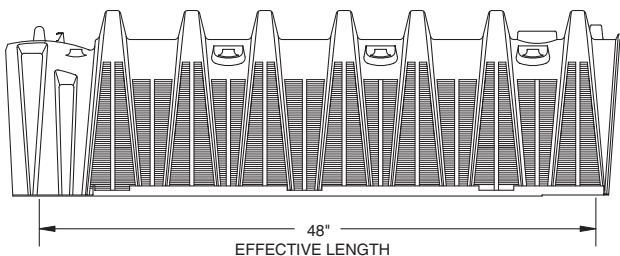
Trench Application Rating

- 16 sq. ft. per chamber maximum
- 4.0 sq. ft. per linear foot maximum
- 7.52 sq. ft. endcap rating per pair installed

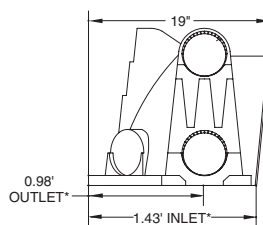
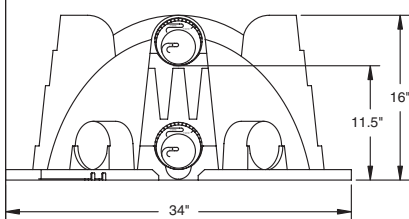
* Installed lengths

Quick4 High Capacity Chamber (not to scale)

SIDE AND END VIEWS



MULTIPORT ENDCAP FRONT AND SIDE VIEWS



Trench Application Rating

- 32 sq. ft. per chamber maximum
- 8.0 sq. ft. per linear foot maximum

Cluster Application Rating

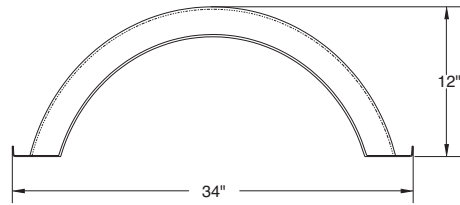
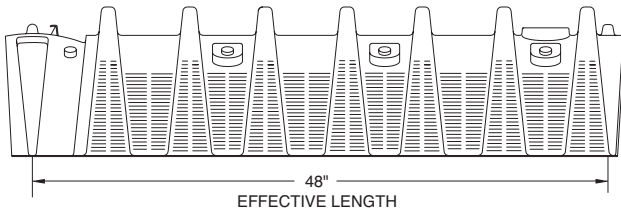
- 23.2 sq. ft. per chamber maximum, bottom area only
- 5.8 sq. ft. per linear foot maximum, bottom area only
- 19.28 sq. ft. endcap rating per pair installed for trenches
- 13.97 sq. ft. for cluster

* Installed lengths

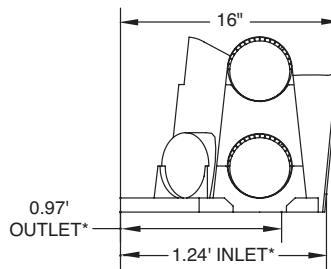
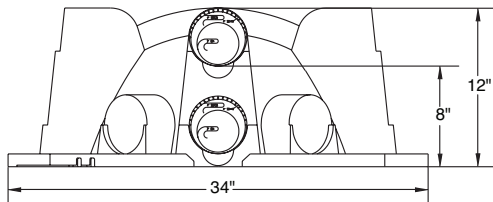
PRODUCTS

Quick4 Standard Chamber (not to scale)

SIDE AND END VIEWS



MULTIPORT ENDCAP FRONT AND SIDE VIEWS



Trench Application Rating

- 28 sq. ft. per chamber maximum
- 7.0 sq. ft. per linear foot maximum

Cluster Application Rating

- 23 sq ft. per chamber max., bottom area only
- 5.8 max.sq ft. per linear foot max., bottom area only
- 15.47 sq. ft. endcap rating per pair installed for trenches 12.81 sq. ft. for cluster

* Installed lengths

SYSTEM SIZING

Sizing of Quick4 Equalizer 24 Chamber Trench Systems

STEP 1

Use **Table 1** to determine the number of Quick4 Equalizer 24 chambers required based upon the number bedrooms and soil profile.

TABLE 1: DETERMINE MINIMUM NUMBER OF QUICK4 EQUALIZER 24 CHAMBERS (FOR RESIDENTIAL USE)

Soil Profile	Number of Bedrooms					Each Additional Bedroom
	2	3	4	5	6	
	180 GPD	270 GPD	360 GPD	450 GPD	540 GPD	
1	47	70	93	116	139	24
2	38	56	75	93	112	19
3	38	56	75	93	112	19
4	30	44	59	74	88	15
5	30	44	59	74	88	15
6	30	44	59	74	88	15
7	38	56	75	93	112	19
8	47	70	93	116	139	24
9	57	85	113	141	169	29

NOTE:

1. Quick4 Equalizer 24 Chambers Equivalent Sizing Credit = 16 ft² PER CHAMBER
2. Combined, the Quick4 MultiPort inlet/outlet Endcaps add an increased sizing benefit to the system. Two endcaps are required for each row of chambers. The appropriate sizing factor may be applied in a bed or trench to account for the MultiPort Endcaps. The minimum number of chambers shown above may be reduced by accounting for the area provided by the MultiPort Endcaps.
3. The effective length of the Quick4 Equalizer 24 chamber is 4 feet.

Average additional length added by each MultiPort Endcap

Model: Quick4 Equalizer 24 chamber:

Length Added Per Pair (Installed): 1.88 linear feet

Added Square Foot Credit Per Pair: 7.52 ft².

Design of Quick4 Equalizer 24 Chamber Single Row Trench Systems

Tables 2-4 will assist you in determining the size and layout of your Infiltrator Quick4 Equalizer 24 system. In order to complete the system design you will need to have already identified the following criteria: soil profile, original ground slope, and area available for construction.

NOTE: The use of stone along the sidewall of Infiltrator chambers is not recommended. All the design criteria used in this manual does not include the use of stone. If stone is incorporated into the design, spacing must be measured from edge to edge of adjacent stone sidewalls.

STEP 2

Use **Table 2** to establish the system's center-to-center spacing using the original ground slope and soil profile.

TABLE 2: DETERMINE QUICK4 EQUALIZER 24 CENTER-TO-CENTER SPACING IN FEET

Original Ground Slope	Soil Profile					
	6	4 & 5	2	3 & 7	1 & 8	9
0–10%	1.83 ft (1'10")	1.83 ft (1'10")	2.08 ft (2'1")	2.33 ft (2'4")	2.83 ft (2'10")	2.83 ft (2'10")
11–15%	1.83 ft (1'10")	2.08 ft (2'1")	2.33 ft (2'4")	2.58 ft (2'7")	2.83 ft (2'10")	2.83 ft (2'10")
16–20%	2.08 ft (2'1")	2.33 ft (2'4")	2.58 ft (2'7")	2.83 ft (2'10")	2.83 ft (2'10")	2.83 ft (2'10")

SYSTEM SIZING

Design of Quick4 Equalizer 24 Chamber Single Row Trench Systems

STEP 3

Use **Tables 3 and 4** to determine the width and length of the system based upon the available construction area on your site.

NOTE: Infiltrator Water Technologies encourages long and narrow designs to minimize linear loading rates..

TABLE 3: DETERMINE TOTAL WIDTH OF SYSTEM - OUTSIDE EDGE TO OUTSIDE EDGE OF QUICK4 EQUALIZER 24 CHAMBERS

Number of Rows	Spacing Center Line to Center Line				
	1.83' (1 ft, 10 in)	2.08' (1 ft, 1 in)	2.33' (4 ft, 4 in)	2.58' (2 ft, 7 in)	2.83' (2 ft, 10 in)
	6 inch separation	9 inch separation	12 inch separation	15 inch separation	18 inch separation
2	3.16' (3 ft, 2 in)	3.41' (3 ft, 5 in)	3.66' (3 ft, 8 in)	3.91' (3 ft, 11 in)	4.16' (4 ft, 2 in)
3	4.99' (4 ft, 12 in)	5.49' (5 ft, 6 in)	5.99' (5 ft, 12 in)	6.49' (6 ft, 6 in)	6.99' (6 ft, 12 in)
4	6.82' (6 ft, 10 in)	7.57' (7 ft, 7 in)	8.32' (8 ft, 4 in)	9.07' (9 ft, 1 in)	9.82' (9 ft, 10 in)
5	8.65' (8 ft, 8 in)	9.65' (9 ft, 8 in)	10.65' (10 ft, 8 in)	11.65' (11 ft, 8 in)	12.65' (12 ft, 8 in)
6	10.48' (10 ft, 6 in)	11.73' (11 ft, 9 in)	12.98' (12 ft, 12 in)	14.23' (14 ft, 3 in)	15.48' (15 ft, 6 in)
7	12.31' (12 ft, 4 in)	13.81' (13 ft, 10 in)	15.31' (15 ft, 4 in)	16.81' (16 ft, 10 in)	18.31' (18 ft, 4 in)
8	14.14' (14 ft, 2 in)	15.89' (15 ft, 11 in)	17.64' (17 ft, 8 in)	19.39' (19 ft, 5 in)	21.14' (21 ft, 2 in)
9	15.97' (15 ft, 12 in)	17.97' (17 ft, 12 in)	19.97' (19 ft, 12 in)	21.97' (21 ft, 12 in)	23.97' (13 ft, 12 in)
Each Add'l Row	1.83' (1 ft, 10 in)	2.08' (2 ft, 2 in)	2.33' (2 ft, 4 in)	2.58' (2 ft, 7 in)	2.83' (2 ft, 10 in)

EXAMPLE 1

3-bedroom house on a profile 3 soil with original slope of 14 percent

Table 1 Minimum of 56 Q4EQ24 chambers

Table 2 2.58 feet center-to-center spacing. Decide what the best layout is for the site (length and width)

Table 3 7 rows of 8 - 16.81 feet wide x 33.88 feet long (with endcaps)

Table 7 - Recommends a 3-inch elevation difference between rows using serial distribution

NOTE: If the layout was 8 rows of 7 then **Table 3** results in a system that is 19.39 feet wide x 29.88 feet long (with endcaps). Depending on the layout and number of MultiPort endcaps used, number of chambers can be reduced by accounting for credit allowed for MultiPort endcaps.

EXAMPLE 2

4-bedroom house on a profile 2 soil with original slope of 8 percent

Table 1 Minimum of 75 Q4EQ24 chambers

Table 2 2.08 feet center-to-center spacing. Decide what the best layout is for the site (length and width).

Table 3 5 rows of 15 - 9.65 feet wide x 61.88 feet long (with endcaps)

Table 5 Recommends 0 elevation difference between rows (level system)

NOTE: When using the same layout of 5 rows of 15 and if the original slope was 16% instead of 8% then **Table 2** requires 2.58 feet center-to-center spacing (15 inches edge to edge). Using **Tables 3 & 4** results in a system 11.65 feet wide x 61.88 feet long (with endcaps). **Table 7** recommends a 4-inch drop between

TABLE 4: DETERMINE LENGTH OF SYSTEM OF QUICK4 EQUALIZER 24 CHAMBERS WITH INSTALLED ENDCAPS

Number of Units Per Row	Length of System	Square Feet Provide
6	25.88' (25 ft, 11 in)	100.6
7	29.88' (29 ft, 11 in)	116.6
8	33.88' (33 ft, 11 in)	132.6
9	37.88' (37 ft, 11 in)	148.6
10	41.88' (41 ft, 11 in)	164.6
11	45.88' (45 ft, 11 in)	180.6
12	49.88' (49 ft, 11 in)	196.6
13	53.88' (53 ft, 11 in)	212.6
14	57.88' (57 ft, 11 in)	228.6
15	61.88' (61 ft, 11 in)	244.6
16	65.88' (65 ft, 11 in)	260.6
17	69.88' (69 ft, 11 in)	276.6
18	73.88' (73 ft, 11 in)	292.6
19	77.88' (77 ft, 11 in)	308.6
20	81.88' (81 ft, 11 in)	324.6
21	85.88' (85 ft, 11 in)	340.6
22	89.88' (89 ft, 11 in)	356.6
23	93.88' (93 ft, 11 in)	372.6
24	97.88' (97 ft, 11 in)	388.6
25	101.88' (101 ft, 11 in)	404.6

SYSTEM SIZING

Design of Quick4 Equalizer 24 Chamber Single Row Trench Systems

NOTE: The recommended elevation difference between rows in the following tables is intended to be a guideline. Many factors were considered including the difficulty of constructing systems with 2 inches or less elevation difference between rows. Each site is different and site conditions may result in a different design than those shown.

STEP 4

All Quick4 Equalizer 24 Chambers installed with 1.83' (1 foot, 10 inches) center-to-center spacing (6" edge to edge) should be installed level up to 9 rows. (Use Tables 5-8 to establish the recommended elevation drop between the rows of Quick4 Equalizer 24 chambers.)

TABLE 5: RECOMMENDED ELEVATION DIFFERENCE BETWEEN ROWS OF QUICK4 EQUALIZER 24 CHAMBERS FOR 2.08' (2', 1") CENTER-TO-CENTER SPACING (9" SEPARATION)

Original Ground Slope	Number of Rows							
	2	3	4	5	6	7	8	9
1 to 5	0 in	0 in	0 in	0 in	0 in	0 in	0 in	0 in
6	0 in	0 in	0 in	0 in	0 in	0 in	1 in	1 in
7	0 in	0 in	0 in	0 in	1 in	1 in	1 in	1 in
8	0 in	0 in	0 in	0 in	1 in	1 in	1 in	1 in
9	0 in	0 in	0 in	0 in	1 in	1 in	1 in	1 in
10	0 in	0 in	0 in	0 in	1 in	1 in	1 in	1 in
11	0 in	0 in	1 in	1 in	2 in	2 in	2 in	2 in
12	0 in	0 in	1 in	1 in	2 in	2 in	2 in	2 in
13	0 in	0 in	1 in	2 in	2 in	2 in	2 in	2 in
14	0 in	0 in	2 in	2 in	2 in	2 in	2 in	3 in
15	0 in	0 in	2 in	2 in	2 in	2 in	2 in	3 in
16	2 in	3 in	3 in	3 in	3 in	3 in	3 in	3 in
17	2 in	3 in	3 in	3 in	3 in	3 in	3 in	3 in
18	3 in	3 in	3 in	3 in	3 in	3 in	4 in	4 in
19	3 in	4 in	4 in	4 in	4 in	4 in	4 in	4 in
20	3 in	4 in	4 in	4 in	4 in	4 in	4 in	4 in

TABLE 6: RECOMMENDED ELEVATION DIFFERENCE BETWEEN ROWS OF QUICK4 EQUALIZER 24 CHAMBERS FOR 2.33' (2', 4") CENTER-TO-CENTER SPACING (12" EDGE TO EDGE)

Original Ground Slope	Number of Rows							
	2	3	4	5	6	7	8	9
1 to 5	0 in	0 in	0 in	0 in	0 in	0 in	0 in	0 in
6	0 in	0 in	0 in	0 in	0 in	0 in	1 in	1 in
7	0 in	0 in	0 in	0 in	1 in	1 in	1 in	1 in
8	0 in	0 in	0 in	0 in	1 in	1 in	1 in	1 in
9	0 in	0 in	0 in	1 in	1 in	1 in	1 in	2 in
10	0 in	0 in	0 in	0 in	1 in	1 in	2 in	2 in
11	0 in	0 in	1 in	1 in	2 in	2 in	2 in	2 in
12	0 in	0 in	1 in	1 in	2 in	2 in	2 in	2 in
13	0 in	0 in	2 in	2 in	2 in	2 in	2 in	3 in
14	0 in	0 in	2 in	2 in	2 in	2 in	2 in	3 in
15	0 in	0 in	2 in	3 in	3 in	3 in	3 in	3 in
16	2 in	3 in	3 in	3 in	4 in	4 in	4 in	4 in
17	2 in	3 in	3 in	3 in	4 in	4 in	4 in	4 in
18	2 in	3 in	3 in	3 in	4 in	4 in	4 in	4 in
19	3 in	3 in	4 in	4 in	4 in	4 in	4 in	4 in
20	3 in	3 in	4 in	4 in	4 in	4 in	4 in	4 in

SYSTEM SIZING

Design of Quick4 Equalizer 24 Chamber Single Row Trench Systems

TABLE 7: RECOMMENDED ELEVATION DIFFERENCE BETWEEN ROWS OF QUICK4 EQUALIZER 24 CHAMBERS FOR 2.58' (2', 7") CENTER-TO-CENTER SPACING (15" SEPARATION)

Original Ground Slope	Number of Rows							
	2	3	4	5	6	7	8	9
1 to 10	0 in	0 in	0 in	0 in	0 in	0 in	0 in	0 in
11	0 in	0 in	2 in	2 in	2 in	2 in	2 in	3 in
12	0 in	0 in	2 in	2 in	2 in	2 in	2 in	3 in
13	0 in	0 in	2 in	2 in	2 in	2 in	3 in	3 in
14	0 in	0 in	2 in	3 in	3 in	3 in	3 in	3 in
15	0 in	2 in	3 in	3 in	3 in	3 in	3 in	4 in
16	2 in	3 in	3 in	4 in	4 in	4 in	4 in	4 in
17	2 in	3 in	4 in	4 in	4 in	4 in	4 in	4 in
18	3 in	3 in	4 in	4 in	4 in	4 in	4 in	5 in
19	3 in	4 in	4 in	4 in	4 in	5 in	5 in	5 in
20	3 in	4 in	4 in	4 in	5 in	5 in	5 in	5 in

NOTE: Where 0 (zero) elevation (level system) is shown, revert to Table 3 to re-establish system width to 2.33 center-to-center spacing.

TABLE 7: RECOMMENDED ELEVATION DIFFERENCE BETWEEN ROWS OF QUICK4 EQUALIZER 24 CHAMBERS FOR 2.58' (2', 7") CENTER-TO-CENTER SPACING (15" SEPARATION)

Original Ground Slope	Number of Rows							
	2	3	4	5	6	7	8	9
1 to 4	0 in	0 in	0 in	0 in	0 in	0 in	0 in	0 in
5	0 in	0 in	0 in	0 in	0 in	0 in	0 in	1 in
6	0 in	0 in	0 in	0 in	0 in	1 in	1 in	1 in
7	0 in	0 in	0 in	0 in	1 in	1 in	1 in	1 in
8	0 in	0 in	0 in	0 in	1 in	1 in	1 in	2 in
9	0 in	0 in	0 in	1 in	1 in	2 in	2 in	2 in
10	0 in	0 in	0 in	1 in	1 in	2 in	2 in	2 in
11	0 in	0 in	1 in	1 in	2 in	2 in	2 in	3 in
12	0 in	0 in	1 in	2 in	2 in	3 in	3 in	3 in
13	0 in	0 in	2 in	2 in	3 in	3 in	3 in	3 in
14	0 in	0 in	2 in	2 in	3 in	3 in	3 in	4 in
15	0 in	0 in	3 in	3 in	3 in	4 in	4 in	4 in
16	0 in	2 in	3 in	3 in	4 in	4 in	4 in	4 in
17	0 in	2 in	3 in	3 in	4 in	4 in	5 in	5 in
18	0 in	2 in	4 in	4 in	4 in	5 in	5 in	5 in
19	0 in	3 in	4 in	4 in	5 in	5 in	5 in	5 in
20	0 in	3 in	4 in	4 in	5 in	5 in	5 in	6 in

NOTE: Where 0 (zero) elevation (level system) is shown, revert to Table 3 to re-establish system width to 2.33 center-to-center spacing.

SYSTEM SIZING

Sizing of Quick4 High Capacity and Quick4 Standard Chamber Trench Systems

STEP 1

Use **Tables 9 and 10** when designing a trench system to determine the number of High Capacity or Standard chambers required based upon the number bedrooms and soil profile. **NOTE:** Chambers are to be installed with a 3-foot minimum trench separation, edge to edge of units.

TABLE 9: DETERMINE MINIMUM NUMBER OF QUICK4 HIGH CAPACITY CHAMBERS (FOR RESIDENTIAL USE)

Soil Profile	Number of Bedrooms					Each Additional Bedroom
	2	3	4	5	6	
	180 GPD	270 GPD	360 GPD	450 GPD	540 GPD	
1	24	35	47	58	70	12
2	19	28	38	47	56	10
3	19	28	38	47	56	10
4	15	22	30	37	44	8
5	15	22	30	37	44	8
6	15	22	30	37	44	8
7	19	28	38	47	56	10
8	24	35	47	58	70	12
9	57	43	57	71	85	15

NOTE:

1. Quick4 High Capacity Chambers Equivalent Sizing Credit = 32 ft² PER CHAMBER

2. Combined, the Quick4 MultiPort inlet/outlet Endcaps add an increased sizing benefit to the system. Two endcaps are required for each row of chambers. The appropriate sizing factor may be applied in a bed or trench to account for the MultiPort Endcaps. The minimum number of chambers shown above may be reduced by accounting for the area provided by the MultiPort Endcaps.

3. The effective length of the Quick4 High Capacity chamber is 4 feet.

Additional length added by each MultiPort Endcap

Model: Quick4 High Capacity chamber: Length Added Per Pair (Installed): 2.41 linear feet. Added Square Foot Credit Per Pair: 19.28 ft².

TABLE 10: DETERMINE MINIMUM NUMBER OF QUICK4 STANDARD CHAMBERS (FOR RESIDENTIAL USE)

Soil Profile	Number of Bedrooms					Each Additional Bedroom
	2	3	4	5	6	
	180 GPD	270 GPD	360 GPD	450 GPD	540 GPD	
1	27	40	53	66	80	14
2	22	32	43	54	64	11
3	22	32	43	54	64	11
4	17	26	34	42	51	9
5	17	26	34	42	51	9
6	17	26	34	42	51	9
7	22	32	43	54	64	11
8	27	40	53	66	80	14
9	33	49	65	81	97	17

NOTE:

1. Quick4 Standard Chambers Equivalent Sizing Credit = 28 ft² PER CHAMBER

2. Combined, the Quick4 MultiPort inlet/outlet Endcaps add an increased sizing benefit to the system. Two endcaps are required for each row of chambers. The appropriate sizing factor may be applied in a bed or trench to account for the MultiPort Endcaps. The minimum number of chambers shown above may be reduced by accounting for the area provided by the MultiPort Endcaps.

3. The effective length of the Quick4 Standard chamber is 4 feet.

Additional length added by each MultiPort Endcap

Model: Quick4 Standard chamber: Length Added Per Pair (Installed): 2.21 linear feet. Added Square Foot Credit Per Pair: 15.47 ft².

SYSTEM SIZING

Sizing of Quick4 High Capacity and Quick4 Standard Chamber Cluster Systems

Use **Table 11** to size in a cluster system.

NOTE: Infiltrator Water Technologies recommends constructing cluster systems with 6-inch separation between chambers.

TABLE 11: DETERMINE MINIMUM NUMBER OF QUICK4 HIGH CAPACITY OR QUICK4 STANDARD CHAMBERS – BOTTOM OPEN AREA CONSIDERED ONLY (FOR RESIDENTIAL USE)

Soil Profile	Number of Bedrooms					
	2	3	4	5	6	Each Additional Bedroom
	180 GPD	270 GPD	360 GPD	450 GPD	540 GPD	
1	32	48	64	80	96	16
2	26	39	52	65	77	13
3	26	39	52	65	77	13
4	21	31	41	51	61	11
5	21	31	41	51	61	11
6	21	31	41	51	61	11
7	26	39	52	65	77	13
8	32	48	64	80	96	16
9	39	59	78	97	117	20

NOTE:

1. Quick4 High Capacity and Quick4 Standard Chambers Equivalent Sizing Credit = 23.2 ft² PER CHAMBER

2. Combined, the Quick4 MultiPort inlet/outlet Endcaps add an increased sizing benefit to the system. Two endcaps are required for each row of chambers. The appropriate sizing factor may be applied in a bed or trench to account for the MultiPort Endcaps. The minimum number of chambers shown above may be reduced by accounting for the area provided by the MultiPort Endcaps.

3. The effective length of the Quick4 High Capacity and Quick4 Standard chamber is 4 feet.

Additional length added by each MultiPort Endcap

Model: Quick4 High Capacity chamber:

Length Added Per Pair (Installed): 2.41 linear feet

Added Square Foot Credit Per Pair: 19.28 ft².

Model: Quick4 Standard chamber:

Length Added Per Pair (Installed): 2.21 linear feet

Added Square Foot Credit Per Pair: 15.47 ft².

SYSTEM SIZING

Design of Quick4 High Capacity and Quick4 Standard Chamber Trench Systems

STEP 2

Use **Tables 12 and 13** to determine the width of the system based upon the available construction area on your site

NOTE: The use of stone along the sidewall of Infiltrator chambers is not recommended. All the design criteria used in this manual does not include the use of stone. If stone is incorporated into the design, spacing must be measured from edge to edge of adjacent stone sidewalls.

TABLE 12: DETERMINE WIDTH OF SYSTEM - OUTSIDE EDGE TO OUTSIDE EDGE BETWEEN ROWS OF QUICK4 STANDARD OR QUICK4 HIGH CAPACITY CHAMBERS

Number of Rows	Spacing CL to CL 6.00 ft (6 ft, 0 in) 36 in Separation
2	9.00' (9 ft, 0 in)
3	15.00' (15 ft, 0 in)
4	21.00' (21 ft, 0 in)
5	27.00' (27 ft, 0 in)
6	33.00' (33 ft, 0 in)
7	39.00' (39 ft, 0 in)
8	45.00' (45 ft, 0 in)
9	51.00' (51 ft, 0 in)
10	57.00' (57 ft, 0 in)
11	63.00' (63 ft, 0 in)
12	69.00' (69 ft, 0 in)
Each Add'l Row	6.00' (6 ft, 0 in)

TABLE 13: DETERMINE LENGTH OF SYSTEM OF QUICK4 STANDARD OR QUICK4 HIGH CAPACITY CHAMBERS WITH INSTALLED ENDCAPS

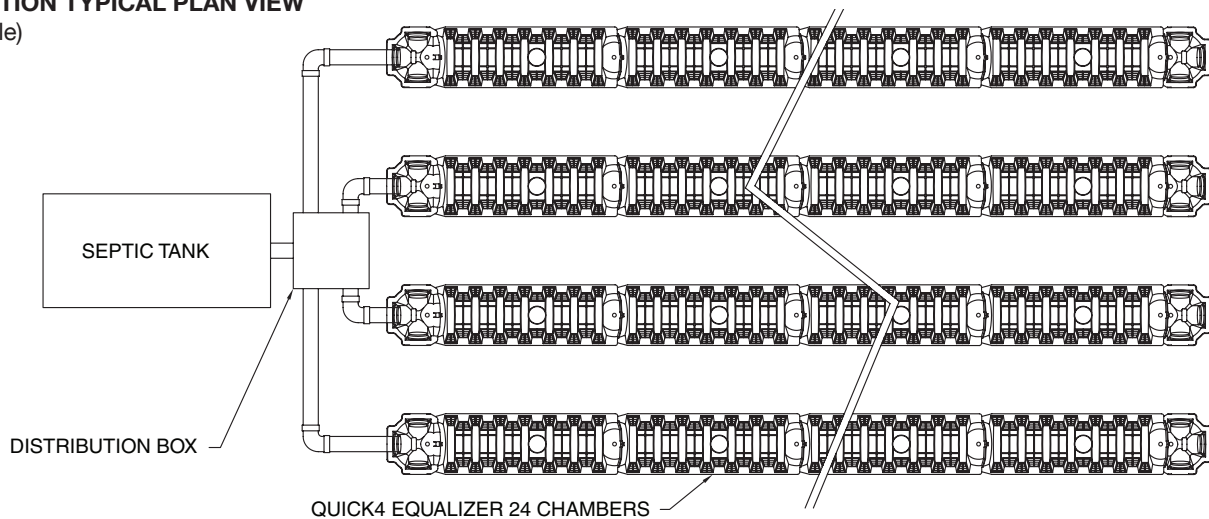
Number of Units per Row	Quick4 Standard Length of System	Square Feet Provided	Quick4 High Capacity Length of System	Square Feet Provided
6	26.21' (26 ft, 3 in)	207.47	26.41' (26 ft, 5 in)	211.28
7	30.21' (30 ft, 3 in)	239.47	30.41' (30 ft, 5 in)	243.88
8	34.21' (34 ft, 3 in)	271.47	34.41' (34 ft, 5 in)	275.88
9	38.21' (38 ft, 3 in)	303.47	38.41' (38 ft, 5 in)	307.28
10	42.21' (42 ft, 3 in)	335.47	42.41' (42 ft, 5 in)	339.28
11	46.21' (46 ft, 3 in)	367.47	46.41' (46 ft, 5 in)	371.28
12	50.21' (50 ft, 3 in)	399.47	50.41' (50 ft, 5 in)	403.28
13	54.21' (54 ft, 3 in)	431.47	54.41' (54 ft, 5 in)	435.28
14	58.21' (58 ft, 3 in)	463.47	58.41' (58 ft, 5 in)	467.28
15	62.21' (62 ft, 3 in)	495.47	62.41' (62 ft, 5 in)	499.28
16	66.21' (66 ft, 3 in)	527.47	66.41' (66 ft, 5 in)	531.28
17	70.21' (70 ft, 3 in)	559.47	70.41' (70 ft, 5 in)	563.28
18	74.21' (74 ft, 3 in)	591.47	74.41' (74 ft, 5 in)	595.28
19	78.21' (78 ft, 3 in)	623.47	78.41' (78 ft, 5 in)	627.28
20	82.21' (82 ft, 3 in)	655.47	82.41' (82 ft, 5 in)	659.28
21	86.21' (86 ft, 3 in)	687.47	86.41' (86 ft, 5 in)	691.28
22	90.21' (90 ft, 3 in)	719.47	90.41' (90 ft, 5 in)	723.28
23	94.21' (94 ft, 3 in)	751.47	94.41' (94 ft, 5 in)	755.28
24	98.21' (98 ft, 3 in)	783.47	98.41' (98 ft, 5 in)	787.28
25	102.21' (102 ft, 3 in)	815.47	102.41' (102 ft, 5 in)	819.28

EQUAL DISTRIBUTION

NOTE: The number of rows in a system and the length of each trench will vary depending on size requirements and site conditions. When designing level systems it is recommended that equal distribution be used, although it is the designer's choice.

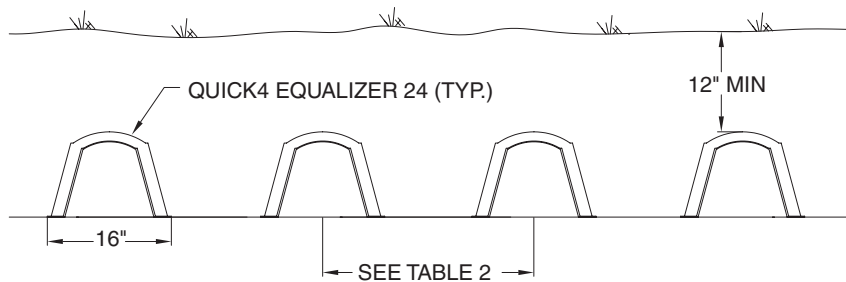
DISTRIBUTION BOX: LEVEL TRENCH SYSTEM EQUAL DISTRIBUTION TYPICAL PLAN VIEW

(not to scale)



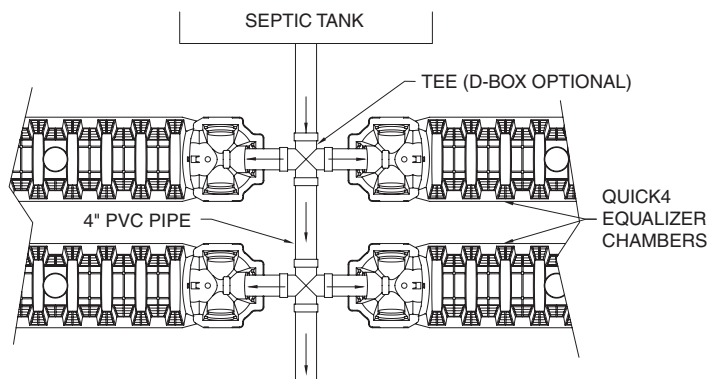
TYPICAL QUICK4 EQUALIZER 24 SINGLE TRENCH SYSTEM (CROSS SECTION)

(not to scale)



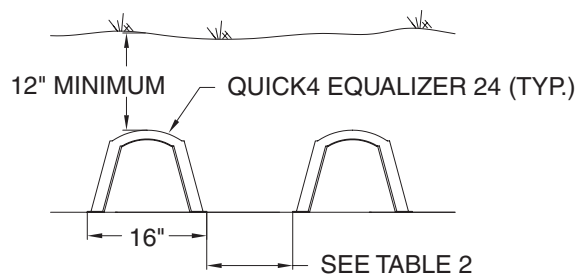
CENTER INLET - LEVEL TRENCH SYSTEM EQUAL DISTRIBUTION (PLAN VIEW)

(not to scale)



CENTER INLET - LEVEL TRENCH SYSTEM (CROSS SECTION)

(not to scale)



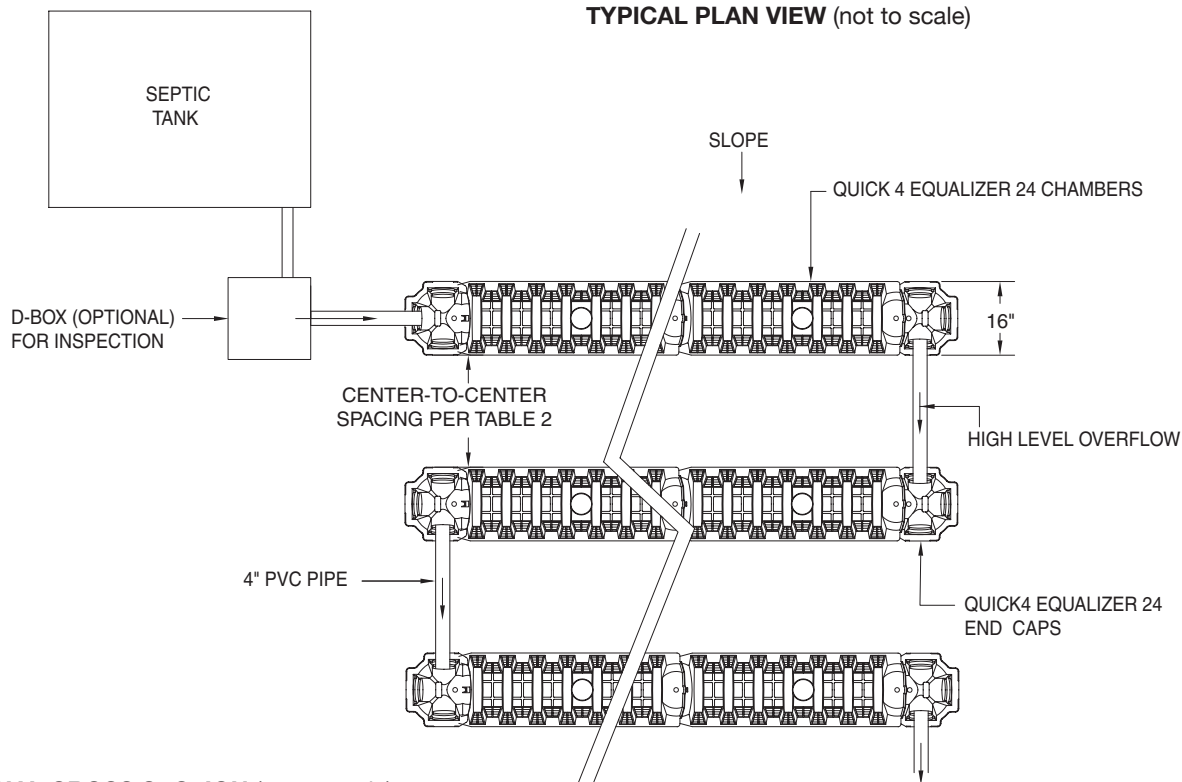
CHAMBER CONFIGURATIONS

Serial Distribution

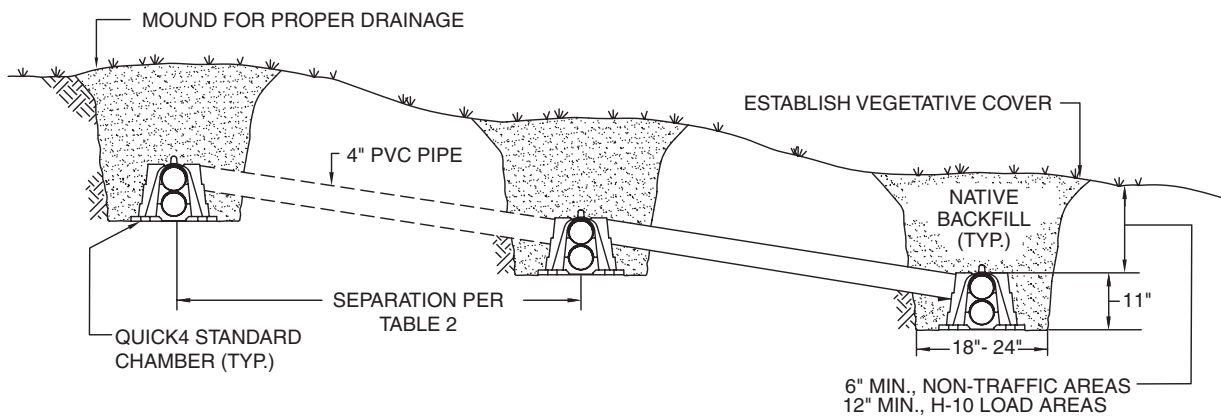
A leachfield built on a sloped site may be designed differently than that of a level system. Although distribution methods are the designers choice, it is recommended that the effluent be serially distributed.

NOTE: For use in under traffic applications contact Infiltrator Water Technologies for specific design sheet.

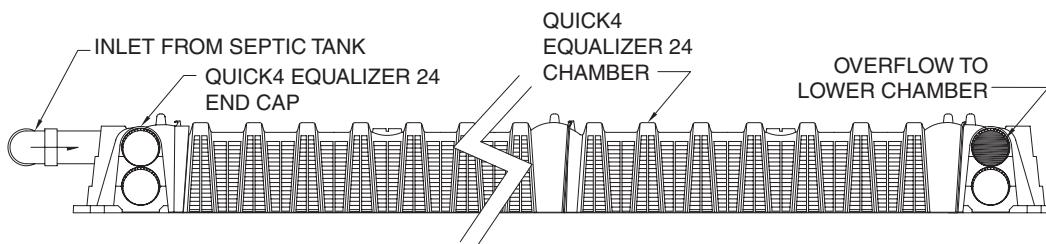
TYPICAL PLAN VIEW (not to scale)



TYPICAL SERIAL CROSS SECTION (not to scale)



TYPICAL SIDE VIEW (not to scale)

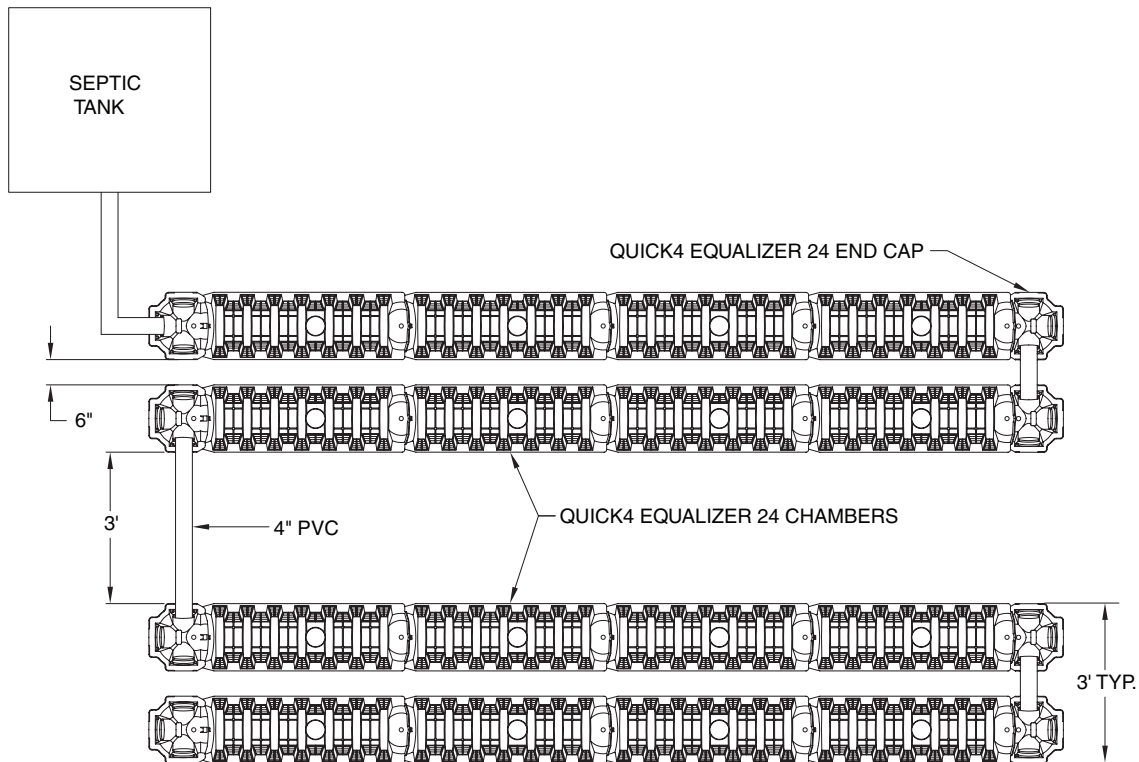


CHAMBER CONFIGURATIONS

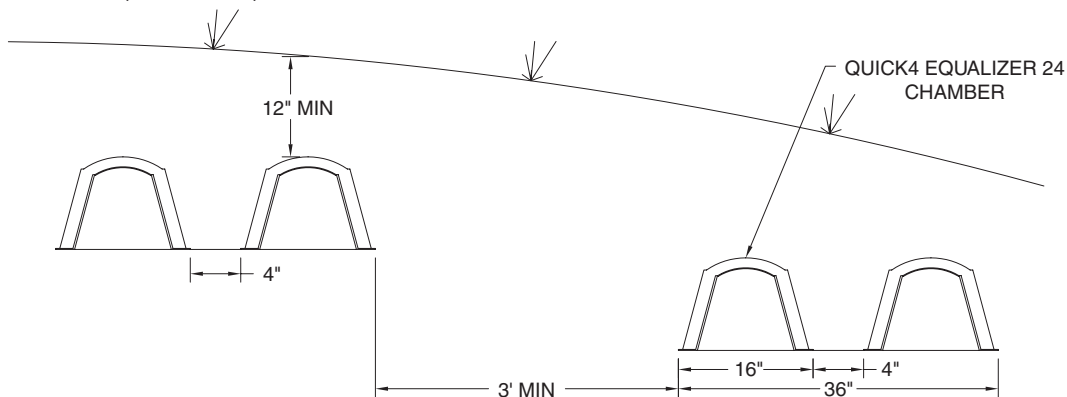
Serial Distribution

Double Row Trenches for Sloped Sites

TYPICAL PLAN VIEW (not to scale)



TYPICAL CROSS SECTION (not to scale)

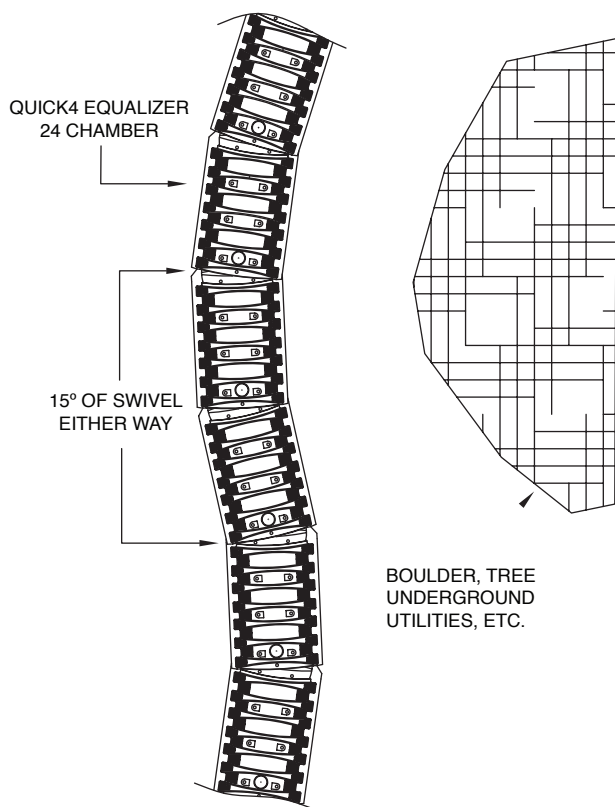


NOTE: Trenches containing two chambers require 3' spacing between trenches.

NOTE: A minimum of 12\" of compacted cover is necessary to maintain H-10 wheel loading (16,000 lb/axle). For non-traffic areas, a minimum of 6\" of cover is required.

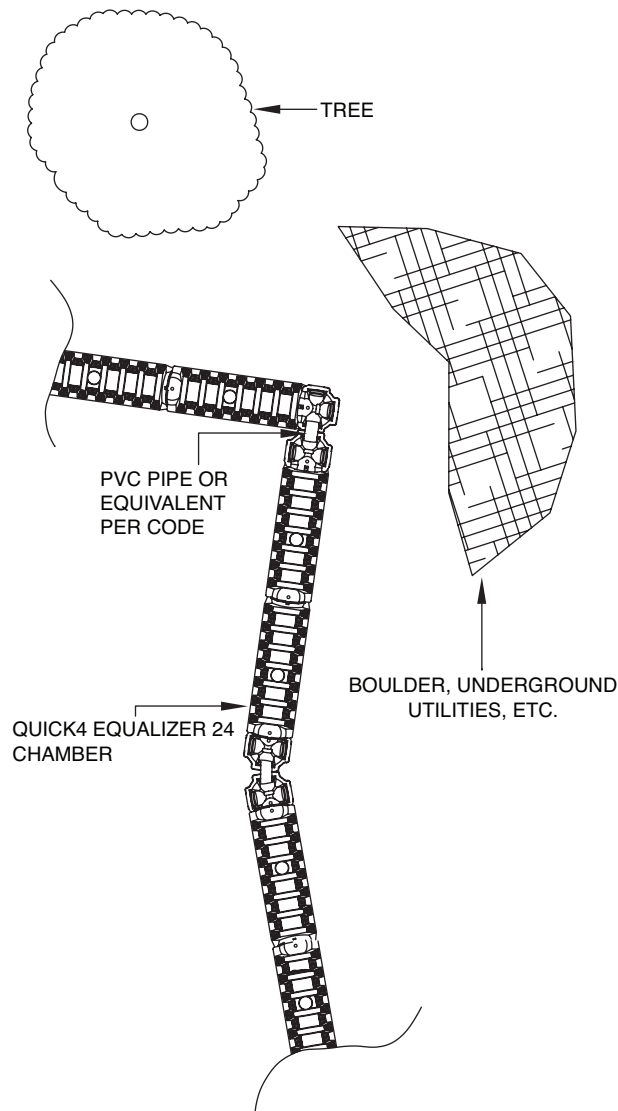
TURN DESIGN CONFIGURATIONS

Contour Swivel Connection



The **Quick4 Chamber's Contour Swivel Connection** allows systems to be constructed on sloped sites and avoid obstructions without additional parts or accessories. The chamber easily follows contours or an "S" curve and avoids obstacles without additional parts or accessories. Each chamber connection swivels 10 or 15-degrees right or left.

PVC Pipe with MultiPort Endcaps



The Quick4 MultiPort Endcap's universal multi-port design offers unlimited piping and design options. The molded-in inlets/outlets allow for maximum piping flexibility (must use bottom inlet in endcap).

INSTALLATION INSTRUCTIONS

Trench Systems

Before You Begin

Quick4 Equalizer 24 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

- | | |
|---|---|
| <input type="checkbox"/> Quick4 Equalizer 24 chambers | <input type="checkbox"/> Screwdriver or Knife |
| <input type="checkbox"/> Multiport Endcaps | <input type="checkbox"/> Hole Saw** |
| <input type="checkbox"/> PVC pipe and couplings | <input type="checkbox"/> 1-1/4-inch Drywall Screws* |
| <input type="checkbox"/> Backhoe | <input type="checkbox"/> Screw gun* |
| <input type="checkbox"/> Laser, transit or level | <input type="checkbox"/> Small valve-cover box* |
| <input type="checkbox"/> Shovel and rake | <input type="checkbox"/> 4-inch cap for Inspection port |
| <input type="checkbox"/> Tape Measure | <input type="checkbox"/> Invert adapter* |
- *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.

Excavating and Preparing the Site

NOTE: As is the case with conventional systems, do not install the systems in wet conditions or in overly moist soils, as this causes machinery to smear the soil.

1. Stake out the location of all trenches and lines. Set the elevations of the tank, pipe, and trench bottom.
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 level or have the prescribed slope.

NOTE: Over excavate the trench width in areas where you are planning to contour.

4. Rake the bottom and sides if smearing has occurred while excavating. Remove any large stones and other debris. Do not use the bucket teeth to rake the trench bottom.

NOTE: Raking to eliminate smearing is not necessary in sandy soils. In fine textured soils (silts and clays), avoid walking in the trench to prevent compaction and loss of soil structure.

5. Verify that each trench is level using a level, transit, or laser.

Preparing the 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 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. Insert the inlet pipe into the endcap at the beginning of the trench. Extend the pipe into the endcap roughly 4 inches. (Screws optional.)



1. Start tear-out seal.



2. Pull tab on tear-out seal.

Installing the System

1. Check the header pipe to be sure it is level or has the prescribed slope.
2. Set the invert height at 6 inches as specified in the design from the bottom of the inlet.

NOTE: Use the Invert Adapter to achieve a 9" or 10" invert height.

3. Place the inlet end of the first chamber over the back edge of the endcap. Line up the notches on the bottom of each side of the endcap with the slots on the bottom edge of the chamber.

4. Insert two 11/4" drywall screws on each side of the chambers. Tighten each screw until the endcap is firmly secured to the chamber.

5. 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 the chamber to the ground to connect the chambers.



3. Place first chamber onto endcap.



5. Connect the chambers.

INSTALLATION INSTRUCTIONS

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 the warranty.

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

NOTE: The chamber allows up to a 15-degree swivel in either direction at each joint.

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

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

8. The last chamber in the trench requires a MultiPort endcap. Lift the endcap at a 45-degree angle and insert the connector hook through the opening on the top of the



8. Attach endcap to chamber.

endcap. Applying firm pressure, lower the endcap to the ground to snap it into place. Do not remove tear-out seal.

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

9. 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.

10. Pack down the fill by walking along the edges of the trench and chambers. This is an important step in assuring structural support.

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

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

Installing Optional Inspection Ports

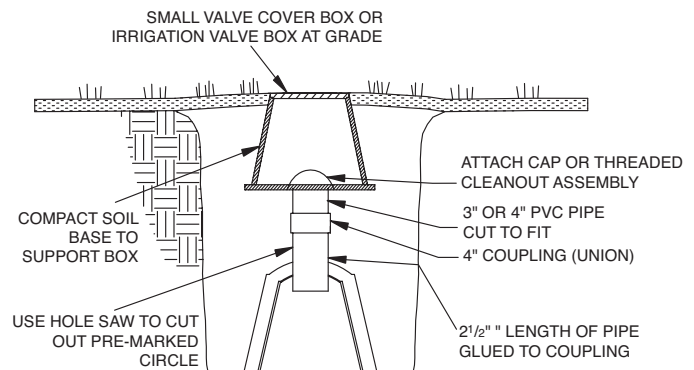
1. With a hole saw, drill the pre-marked area in the top of the chamber to create a 4-inch opening.
2. Set a cut piece of pipe of the appropriate length into the corresponding chamber's inspection port sleeve.

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.



PLEASE NOTE: ALL INFILTRATOR CHAMBER MODELS MAY BE DESIGNED FOR THIS APPLICATION.

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, you must 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 that runoff water is diverted away from the system.

3. After the system is covered, the site should be seeded or sodded 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.



STATE OF MAINE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF HEALTH ENGINEERING
286 WATER STREET
AUGUSTA, MAINE
04333-0011

John Elias Baldacci
Governor

July 26, 2005

John R. Nicholas
Commissioner

Infiltrator Systems, Inc.
Attn.: Brian Parker, Environmental Scientist
6 Business Park Road
P. O. Box 768
Old Saybrook, CT 06475

Subject: Product Registration, Infiltrator Quick 4 High Capacity and Standard, Quick 4 Equalizer 24, and Quick 4 Equalizer 36 Chambers

Dear Mr. Parker:

The Division of Health Engineering has completed a review of a registration application for your company's products. This information was submitted pursuant to Section 1802 of the Maine State Plumbing Code, Subsurface Wastewater Disposal Rules (Rules), for code registration, for use in Maine.

Product Description

The Infiltrator Quick 4 chambers consist of conventional Infiltrator plastic chambers, except that all Quick 4 chambers are four feet long, rather than 6.3 or 8.3 feet long, depending upon original model. A new design for the end caps results in a semi-circular footprint with a corresponding increase in usable bottom and sidewall areas and storage volume.

Claim

According to the information you provided, the Infiltrator Quick 4 chambers have the following effective infiltrative surface areas:

Product	Without End Cap, Trench	Without End Cap, Cluster	With End Cap (per pair)
Quick 4 Standard Chamber	7.0 square feet/linear foot	5.8 square feet/linear foot	9.2 square feet
Quick 4 High Capacity Chamber	8.0 square feet/linear foot	5.8 square feet/linear foot	12.0 square feet
Quick 4 Equalizer 24	4.0 square feet/linear foot	4.0 square feet/linear foot	4.6 square feet
Quick 4 Equalizer 36	5.2 square feet/linear foot	3.7 square feet/linear foot	6.4 square feet

Determination

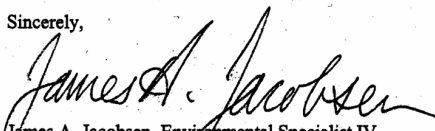
On the basis of the information, the Division has determined that the Infiltrator Quick 4 chambers are acceptable for use in the State of Maine, provided that they are installed, operated, and maintained in conformance with the manufacturer's directions and the sizing table above.

In the event that the products fail to perform as claimed by the applicant, use of the new or experimental technology in Maine, including all installations approved pursuant to Section 1801.7 of the Rules, shall cease. Use of the new or experimental technology shall not resume until the applicant and the Division have reached a mutually acceptable agreement for resolving the failure to perform as claimed.

Because installation and owner maintenance has a significant effect on the working order of onsite sewage disposal systems, including their components, the Division makes no representation or guarantee as to the efficiency and/or operation of Infiltrator Quick 4 chambers. Further, registration of this product for use in the State of Maine does not represent Division preference or recommendation for this product over similar products.

This letter supersedes the letter dated July 7, 2005 which erroneously referenced liner foot rating for the end caps. If you have any questions please feel free to contact me at (207) 287-5695.

Sincerely,


James A. Jacobsen, Environmental Specialist IV
Wastewater and Plumbing Control Program
Division of Health Engineering
e-mail: james.jacobsen@state.me.us

/jaj

xc: Product File

WASTEWATER & PLUMBING PROGRAM
TELEPHONE: (207) 287-5689

FAX: (207) 287-3165

WARRANTY

Maine Limited Septic Warranty for Infiltrator Chambers

(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 ten (10) 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.



4 Business Park Road
P.O. Box 768
Old Saybrook, CT 06475
860-577-7000 • Fax 860-577-7001
1-800-221-4436
www.infiltratorwater.com

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,564 Other patents pending. Infiltrator, Equalizer, Quick4, and SideWinder are registered trademarks of Infiltrator Water Technologies. Infiltrator is a registered trademark in France. Infiltrator Water Technologies is a registered trademark in Mexico. Contour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Water Technologies. PolyLok is a trademark of PolyLok, Inc. TUF-TITE is a registered trademark of TUF-TITE, INC. Ultra-Rib is a trademark of IPEX Inc.

© 2013 Infiltrator Water Technologies. All rights reserved. Printed in U.S.A.

C17 0513ISI

Contact Infiltrator Water Technologies' Technical Services Department for assistance at 1-800-221-4436