



Oregon

John A. Kitzhaber, MD, Governor

Department of Environmental Quality

Western Region Eugene Office

165 East 7th Avenue, Suite 100

Eugene, OR 97401

(541) 686-7838

FAX (541) 686-7551

TTY 711

FILE COPY

September 6, 2013

Dick Bachelder
Infiltrator Systems Inc.
6 Buisness Park Rd.
P.O. Box 768
Old Saybrook, CT 06475

**RE: Application for IM-540 dosing tank (470 gallons)
Final Review - Approved**

Dear Mr. Bachelder,

The Oregon Department of Environmental Quality (Department) has received the plans, specifications and other associated materials you provided for a septic tank configuration manufactured by Infiltrator Systems Inc. This letter is to inform you that the following tank may be installed in the State of Oregon, based on your certification that the tank complies with all applicable Department rules and regulations

➤ Infiltrator IM-540 dosing tank (470 operating gallons)

The plans were stamped by John Reese Leavitt, from Leavitt & Associates Engineers, Inc. The approved plans and installation manual are attached to this letter. Infiltrator Systems Inc. is authorized to manufacture and distribute the above-described tank for use in onsite wastewater treatment systems in Oregon until further notice, provided the following conditions are met:

1. The tank must be manufactured in compliance with the Department's rules and the plans and design specifications provided. Any deviations to the approved plans and specifications dated September 6, 2013 are not permitted unless authorized in writing by the Department.
2. This tank shall not be used in an onsite system with a design flow greater than 470gpd.
3. The inlet tee location shall be pre-drilled at the manufacturing facility prior to shipment.
4. You are to deliver to each purchaser, a complete tank, including tees, gaskets, risers and lids. If the tank manufacturer does not fully assemble the tank, as with a two piece tank, the manufacturer must provide the bonding and sealing agents and an instruction manual for assembling the tank.
5. The riser connection guidance document identifies the following 24-inch (600mm) diameter riser products, from the following manufacturers as compatible with the IM-1060 tank:
 - Infiltrator TW Riser
 - EZ set by Infiltrator
 - Tuf-Tite® Corporation

- PolyLok™ Inc.

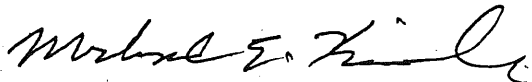
The following 24-inch (600mm) diameter pipe products are also compatible

- IPEX Ultra-Rib™ PVC pipe
 - Corrugated high density polyethylene (HDPE) pipe
6. The minimum burial depth above the top of the tank is six (6) inches. The maximum burial depth above the top of the tank is thirty-six (36) inches.
 7. Each tank listed above must be manufactured to meet the structural specifications described in the plans and are only acceptable for use at locations where top loading will not exceed the engineering design parameters. Tanks proposed for use at other locations require an engineering analysis of the potential top loading, and may require preparation of site specific plans and specifications.
 8. It is the responsibility of Infiltrator Systems Inc. to ensure that each tank delivered to the construction site is watertight. Each tank must be water-tight tested in accordance with Oregon Administrative Rule (OAR) 340-073-0025(3) after complete installation at the job site.
 9. An installation manual, on waterproof paper or equivalent, must be provided with each tank. The manual must describe how to properly install the tank, how to properly connect the risers, gaskets, lids, building sewer piping, effluent sewer piping, water tight testing procedures, tank backfill, and any other special precautions and limitations.
 10. Each tank must be marked with the liquid capacity, date of manufacture, burial depth limits, and either your full business name or the assigned number 580.

This approval should not be construed in any way as the Department's endorsement of this product or any advertising. Moreover, the Department is not responsible for any situation which may result in the improper use of your product.

If you have any questions about this letter, please feel free to contact Dan Wiltse at (541) 687-7436 or by email at wiltse.daniel@deq.state.or.us.

Sincerely,

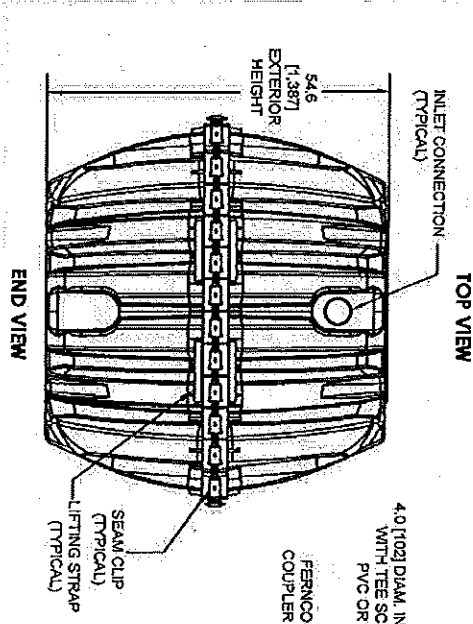
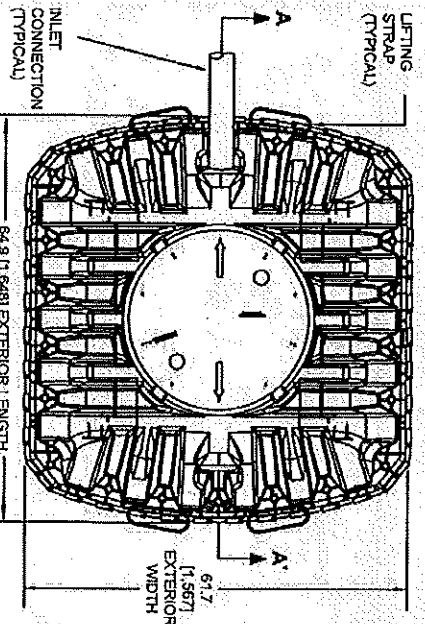


Michael E. Kucinski, Manager
Water Quality/ Onsite

Encl: - Approved Plans

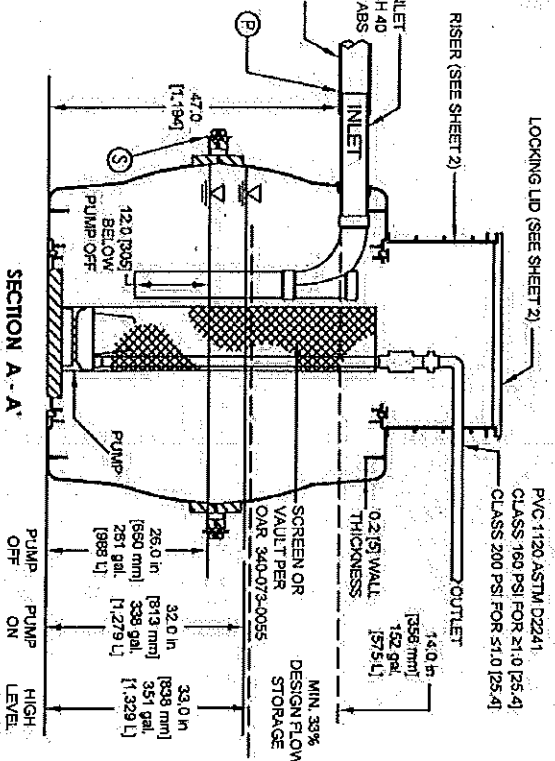
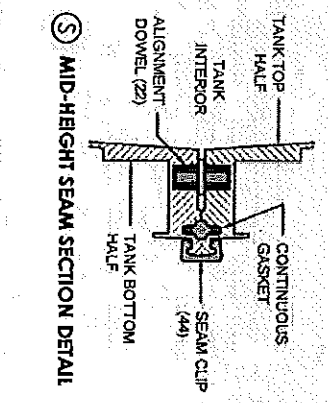
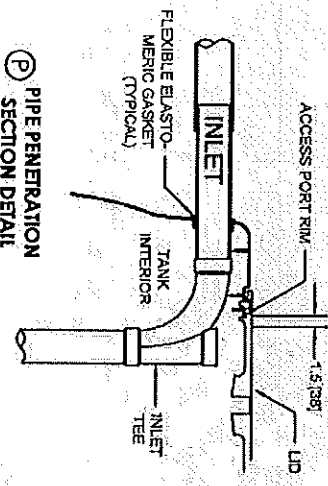
C: Reese Leavitt, P.E., S.E. Leavitt & Associates Engineers, Inc. 1324 First Street South, Nampa, Idaho 83651 (W/enclosure)

ec: All Contract County Offices (w/ enclosures)
All DEQ Direct Services Offices (w/ enclosures)



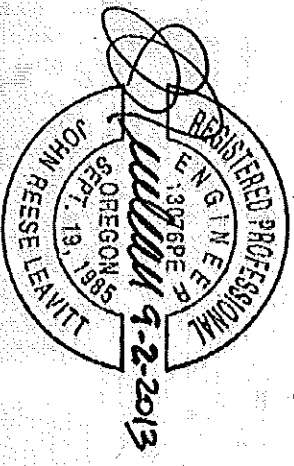
STRUCTURAL DESIGN LOADS

HYDRAULIC	62.4	pcf
HYDROSTATIC	62.4	pcf
EARTH	600	pcf
TRAFFIC	2,500	pcf
W/3' OF COVER		
TANK IS NOT TRAFFIC RATED		



GENERAL NOTES:

- TANK IS NOT RATED FOR VEHICULAR TRAFFIC LOADS.
- RESIN IS COMPLIANT WITH ASTM STANDARDS.
- TANK MARKINGS INCLUDE MANUFACTURER NAME, LIQUID CAPACITY, MODEL NUMBER, AND MAXIMUM BURIAL DEPTH. EXTERIOR OF MANHOLE COVER INCLUDES THE FOLLOWING WARNING: "DANGER DO NOT ENTER POISON GASES" WRITTEN IN ENGLISH, FRENCH, AND SPANISH.
- MAXIMUM BURIAL DEPTH IS 36 IN. (1,279 mm). MINIMUM BURIAL DEPTH IS 6 IN. (152 mm).
- DIMENSIONS ON DRAWINGS SHOWN IN INCHES (MILLIMETERS).
- NOMINAL TANK WALL THICKNESS IS 0.20 IN. (5 mm).
- SEE INSTALLATION PROCEDURES AND DETAILS FOR TANK INSTALLATION PROVIDED AT WWW.INFILTRATORSYSTEMS.COM.
- A WATER TIGHTNESS TEST IS REQUIRED PER OAR 340-073-0026(3). TESTING SHALL BE CONDUCTED BY FILLING THE TANK TO A POINT AT LEAST 2 INCHES ABOVE THE POINT OF RISER CONNECTION TO THE TOP OF THE TANK DURING THE TEST. THERE MAY BE NO MORE THAN ONE GALLON LEAKAGE OVER A 24-HOUR PERIOD.
- INLET AND OUTLET FITTINGS MUST BE INSTALLED PER OAR 340-073-0025(7).
- DOING ASSEMBLY MUST BE SET UP PER OAR 340-073-0025.
- INSTALLERS TO INSTALL ELECTRICAL WIRING AND PIPE ACCORDING TO PIPE PENETRATION DETAIL SHOWN IN DRAWINGS.
- INLET FITTINGS MUST EXTEND BELOW THE LOWEST OPERATING LEVEL OF THE PUMP PER OAR 340-073-0025(7).
- THE RISER COVER IS LESS THAN 50 POUNDS.
- SEE INSTALLATION INSTRUCTIONS FOR SPECIFIC TANK BEDDING AND BACKFILLING INSTRUCTIONS.
- BUOYANCY CONTROL MEASURES MAY INCLUDE DEAD WEIGHT, SOIL ANCHORS, OR OTHER MECHANISMS CAPABLE OF DEVELOPING ADEQUATE RESISTING FORCE TO RESTRAIN THE TANK UNDER SATURATED CONDITIONS.
- BUOYANCY CONTROL MECHANISMS SHALL BE STRAPPED ACROSS THE TANK BODY.



EXPIRATION DATE: 12-31-2013

LEAVITT & ASSOCIATES
ENGINEERS, INC.
STRUCTURAL - CIVIL
SURVEYING

PUMP ON, OFF AND HIGH LEVEL SWITCH HEIGHTS SHOWN FOR FOUR BEDROOM RESIDENCE WITH MAXIMUM DESIGN DAILY FLOW OF 450 GALLONS PER DAY.

HIGH LEVEL SWITCH CONNECTED TO AUDIBLE AND VISUAL ALARM.

MINIMUM 33% DESIGN FLOW STORAGE PROVIDED BETWEEN HIGH LEVEL ALARM SWITCH AND INLET INVERT (150 GAL REQUIRED, 182 GAL PROVIDED).

MAXIMUM 20% DESIGN FLOW PER PUMP DOSE (90 GAL MAX ALLOWABLE 77 GAL PROVIDED).



State of Oregon
Department of
Environmental
Quality

PARAMETER	UNITS	VALUE
TOTAL VOLUME	gal [l]	552 [2,089]
PRIMARY VOLUME	gal [l]	475 [1,798]
TANK LENGTH	in. [mm]	64.9 [1,648]
TANK WIDTH	in. [mm]	61.7 [1,567]
TANK HEIGHT	in. [mm]	54.6 [1,387]
INCREMENTAL VOLUME (average)	gal/in [l/cm]	10 [1.9]
WEIGHT	lbs. [kg]	169 [77]

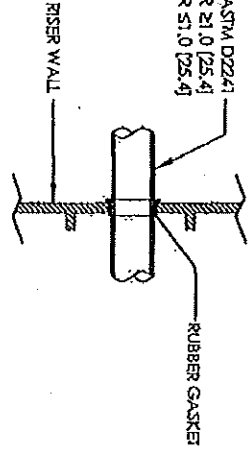


Infiltrator Systems Inc.
4 Business Park Rd. Old Saybrook, CT 06475
(800) 221-4436

Oregon IM-540
Dosing Tank Configuration

Drawn by: JLB
Checked by: DLT
Scale: Not to scale
Drawing: IM-540-OR
Sheet: 1 of 2

PVC 1120 ASTM D2241
CLASS 160 PSI FOR 21.0 (25.4)
CLASS 200 PSI FOR 51.0 (25.4)



RISER AND LID CONNECTION

DETAIL ED PRODUCT SPECIFIC RISER AND LID CONNECTION GUIDANCES, AVAILABLE FROM INFILTRATOR SYSTEMS AT:

www.infiltratorsystems.com

THE INFILTRATOR TANK RISER CONNECTION GUIDANCE DOCUMENT PROVIDES A FULL DESCRIPTION OF THE CONNECTION TYPE AND METHOD FOR EACH COMPATIBLE RISER.

COMPATIBLE RISER AND LID PRODUCTS

THE IM-540 IS COMPATIBLE WITH 24 IN (600 MM) DIAMETER RISER AND LID PRODUCTS FROM THE FOLLOWING MANUFACTURERS:

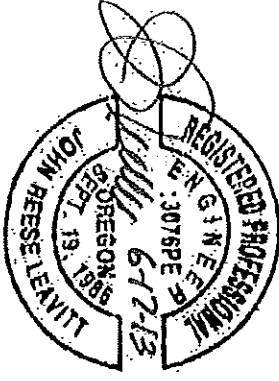
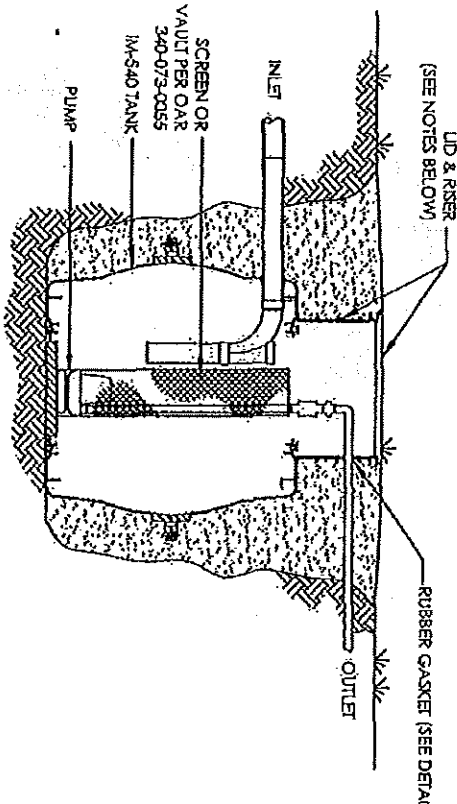
- TAY RISER SYSTEM BY INFILTRATOR
- TUR-ITTE CORPORATION
- POLYLOK

THE FOLLOWING 24 IN (600 MM) DIAMETER PIPE PRODUCTS ARE ALSO COMPATIBLE WITH IM-540 WHEN USED WITH AN INFILTRATOR PIPE ADAPTER RING:

- IPEXUL TRARIS POLYVINYL CHLORIDE (PVC) PIPE - USE THE INFILTRATOR LID, POLYLOK 24 IN (600 MM) HEAVY DUTY COVER, 24 IN (600 MM) JACKET, SEPTIC TANK RISER COVER, OR EQUIVALENT PRODUCT AS A LID FOR THE IPEX PVC PIPE
- CORRUGATED HIGH-DENSITY POLYETHYLENE (HDPE) PIPE - USE THE INFILTRATOR LID, EZSET LID BY INFILTRATOR, POLYLOK 24 IN (600 MM) X 9.5 MM HEAVY DUTY COVER, NOTO SOLUTIONS 24 IN (600 MM) SEPTIC LID, 24 IN (600 MM) JACKET, SEPTIC TANK RISER OR EQUIVALENT PRODUCT AS A LID FOR THE HDPE PIPE

WATERTIGHTNESS TESTING

1. CONDUCT WATER TIGHTNESS TESTING PER OAR 340-73-0026(1).
2. THE INSTALLER MUST TEST EACH TANK FOR WATER TIGHTNESS BY FILLING THE TANK TO A POINT AT LEAST 2 INCHES ABOVE THE POINT OF RISER CONNECTION TO THE TOP OF TANK.
3. DURING THE TEST, THERE MAY BE NO MORE THAN ONE GALLON OF LEAKAGE OVER A 24-HOUR PERIOD.



EXPIRATION DATE: 12-31-2013



LEAVITT & ASSOCIATES
ENGINEERS, INC.
STRUCTURAL-CIVIL
SURVEYING



INFILTRATOR septic tanks	
Infiltrator Systems Inc. 4 Business Park Rd. Old Saybrook, CT 06475 (800) 221-4464	
Oregon IM-540 Dosing Tank Riser Installation Configuration	
Drawn by: SML	Checked by: DL
Scale: Not to scale	Drawn by: OR 1
Sheet: 2 of 2	Date: 06-11-13

Infiltrator IM- and TW-Series Tank General Installation Instructions



MAY 2013

BEFORE YOU BEGIN

Infiltrator Systems' tanks must be installed according to state and/or local regulations, which supersede the manufacturer's installation instructions. If unsure of the installation requirements for a specific site, contact the health department or permitting authority.

WARNING: IMPLISIONS MAY CAUSE SERIOUS INJURY
Follow Infiltrator Systems Inc. vacuum test instructions

MATERIALS AND EQUIPMENT NEEDED

- | | |
|--|--|
| <input type="checkbox"/> Infiltrator tank | <input type="checkbox"/> Shovel |
| <input type="checkbox"/> Access port lids (included) | <input type="checkbox"/> Level |
| <input type="checkbox"/> 10 screws per lid (included) | <input type="checkbox"/> 5-inch-diameter (125 mm) hole saw (IM-Series only) |
| <input type="checkbox"/> 2 Inlet/outlet gaskets (included) | <input type="checkbox"/> 5.25-inch-diameter (133 mm) hole saw (TW-Series only) |
| <input type="checkbox"/> Inlet/outlet tees* | <input type="checkbox"/> Utility knife |
| <input type="checkbox"/> Tape measure | <input type="checkbox"/> PVC pipe glue with primer |
| <input type="checkbox"/> Pipe, risers, etc. | |
| <input type="checkbox"/> Socket wrench | *tee inclusion varies by state/province |
| <input type="checkbox"/> Excavator | |

INSTALLATION SITE SELECTION

- Do not install the tank in vehicular traffic areas. The tank is designed for non-traffic applications.
- The allowable soil cover depth is 6 to 48 inches (150 to 1,200 mm). *18-inch (450 mm) max. in Florida for Cat. 3 IM- and TW-Series tanks; 48-inch (1,200 mm) max. in Florida for Cat. 4 IM-Series tanks; 36-inch (900 mm) max. in Massachusetts, New Hampshire, North Carolina, and Oregon.
- The tank shall not be installed where the subsurface water level outside the tank exceeds the height of the outlet pipe saddle. Follow Table 4 guidelines.

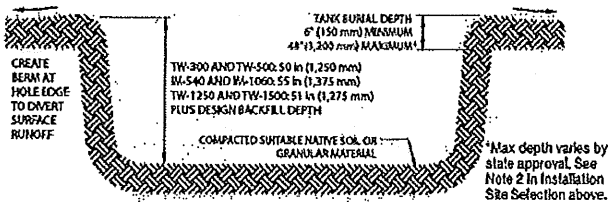
EXCAVATING AND PREPARING THE SITE

1. Unless buoyancy control measures are required, the excavation width and length should be 12 to 36 inches (300 to 900 mm) larger than the tank on each side. See Infiltrator IM- and TW-Series Tank Buoyancy Control Guidance document, available online at www.infiltratorsystems.com, for specific excavation requirements.

2. Excavate to account for the height of tank. 55 inches (1,375 mm) for the IM-540 and IM-1060, 51 inches (1,275 mm) for the TW-1250 through TW-1500, and 50 inches (1,250 mm) for the TW-300 and TW-500. Also account for 4 inches (100 mm) of bedding (if required), and backfill thickness (permissible cover depth is 0.5 to 4 feet (150 to 1,200 mm) of soil).

Note: If the water level outside the tank exceeds the height of the outlet pipe saddle, tank structural integrity may be compromised. Follow Table 4 guidelines.

- Inspect bottom of excavation to verify suitability of native soil for tank installation. Soils with large, protruding, or sharp stones or other similar objects that may damage the tank are not suitable.
- The tank may be installed either in suitable native soil (see Backfilling the Tank section) or a minimum 4-inch (100 mm) layer of well-graded granular soil having particles less than 3 inches (75 mm) in diameter, or maximum 0.5-inch (13 mm) diameter crushed stone.
- Create a uniform, compacted, level surface to ensure that the bottom of the tank is evenly supported. Verify that the installation surface is flat.



INSTALLING THE TANK

- Inspect the tank for damage before installation.
- If the tank inlet and outlet penetrations are not drilled, drill holes using the drill points provided at each of the inlet and outlet ports according to the applicable Inlet and Outlet Hole Locations section of this document. The inlet and outlet may

be drilled on either the sides or ends of the tank, as required based on applicable codes and site conditions.

Florida, Indiana, Kentucky, Oregon, West Virginia and certain Texas tank inlet/outlet holes are factory drilled.

3. The gaskets supplied with the tank are compatible with Schedule 40 and SDR 35 pipe using a 5-inch-diameter (125 mm) hole saw with IM-Series tanks, and a 5 1/4-inch-diameter (133 mm) hole saw with TW-Series tanks.

4. Install the rubber gaskets at the inlet and outlet.

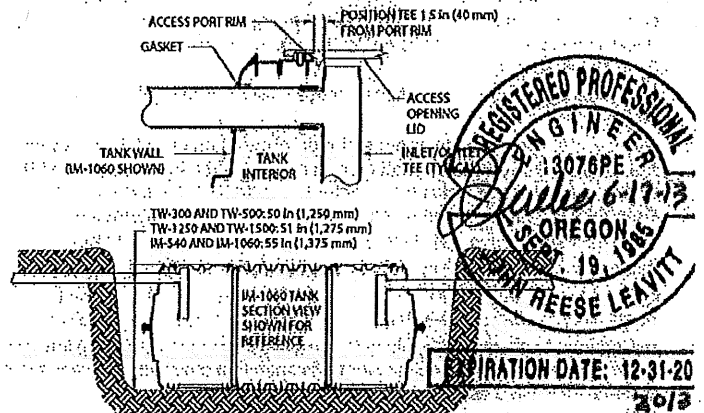
5. Using the tank's integral lifting lugs, lower tank into excavation.

6. Slide the inlet and outlet pipes through the gaskets. Soapy lubricant may be used to slide the pipe in.

*For North Carolina, the inlet pipe shall be a straight pipe with no tee.

7. Horizontally position the tee 1 1/2 inches (40 mm) from the access port rim, allowing the tee to fit into the recess in the access port lid (see detail).

8. Install lids and risers (see Installing Risers section) as necessary. Rotate lid over access opening until it indexes to tank and drops into position.



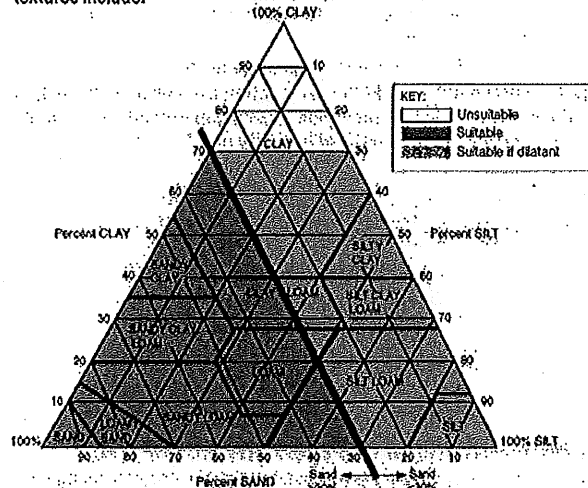
BACKFILLING THE TANK

Note: Infiltrator tanks do not require filling with water prior to backfill placement. Water filling and backfilling to the tank mid-height is required if the tank is left in either an open or backfilled excavation that may fill with water from rain or other sources.

1. Backfill with suitable native soil. If native soil is unsuitable, replace unsuitable fraction with suitable soil. If suitable soil is not locally available, contact Infiltrator Systems for assistance.

2. Suitable soil shall include soil textural classes defined in the United States Department of Agriculture soil triangle. Suitable soil textural classes are based on the tank installation depth, as measured from finished grade to the top of tank.

- For a tank soil cover depth of 0.5 to 2.0 feet (150 to 600 mm), suitable soil textures include:



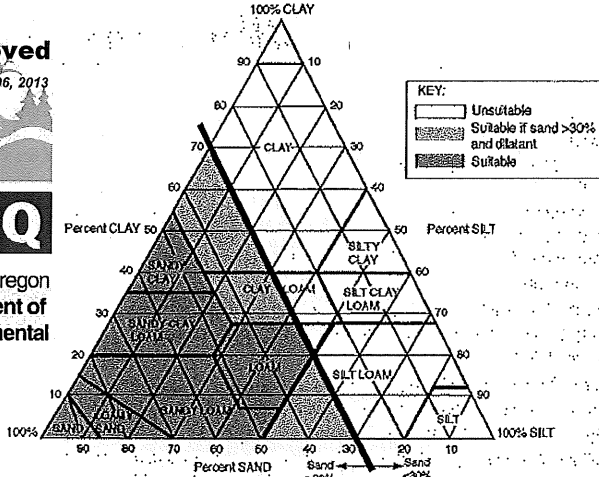
Failure to comply with these installation instructions may invalidate the warranty. Contact Infiltrator Systems' Technical Services Department for assistance at 1-800-221-4136.

a) For a tank soil cover depth that is greater than 2.0 feet and up to 4.0 feet (600 to 1,200 mm), suitable soil textures include:

Approved
September 06, 2013

DEQ

State of Oregon
Department of
Environmental
Quality



1. Backfill should not have stones greater than 3 inches (75 mm) in diameter or excessive clods that do not break apart during placement and compaction. Backfill must be capable of occupying the spaces between the tank ribs and beneath the haunches.

2. Standard field soil classification methods shall be used to determine the soil textural class.

Note: Under most circumstances, the determination of soil dilatancy will not be required. Dilatancy shall be determined in the field using a test that does not require specialized equipment, per ASTM D2488, Section 14.3. Complete instructions can be found at www.infiltratorsystems.com

3. Do not backfill top of tank before sidewalls are completely backfilled.

4. Place and compact soil by walking-in beneath the haunches of the tank.

5. Place backfill around the four sidewalls in an alternating manner, so that the backfill height along the four sidewalls is maintained within a 12-inch (300 mm) tolerance.

6. Continue to place backfill along the sidewalls in 12-inch (300 mm) lifts. Place backfill between the ribs on the sidewalls such that the space between the ribs is completely filled with soil.

7. Compact backfill material either by walking-in, hand tamping or mechanical compaction (includes backhoe bucket). If mechanical compaction is used, such as a walk-behind tamper or backhoe bucket, a single pass is recommended. Compact each lift prior to placement of next lift. Compact backfill from tank walls to excavation sidewalls.

8. Complete backfilling and grade the area.

9. A minimum 6-inch-thick (150 mm) layer of suitable soil must be placed over the top of the tank. The balance of backfill placed to finish grade above the tank may be either suitable or unsuitable soil.

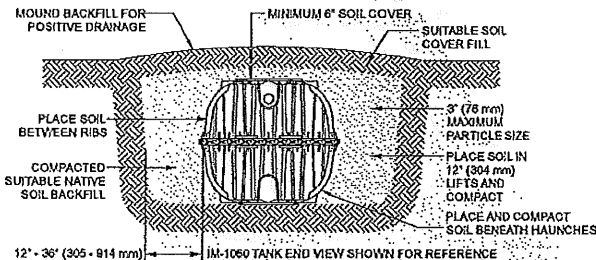
10. Establish a strong stand of erosion-resistant vegetation.

Note: Grade to prevent the backfilled excavation from filling with surface runoff. If the water level in the backfilled excavation exceeds the height of the outlet pipe saddle, tank structural integrity may be compromised.

11. A minimum 6-inch-thick (150 mm) layer of suitable soil must be placed over the top of the tank. The balance of backfill placed to finish grade above the tank may be either suitable or unsuitable soil.

12. Establish a strong stand of erosion-resistant vegetation.

Note: Grade to prevent the backfilled excavation from filling with surface runoff. If the water level in the backfilled excavation exceeds the height of the outlet pipe saddle, tank structural integrity may be compromised.



SHORT AND LONG-TERM GROUNDWATER CONTROL

It may be necessary to implement groundwater control measures during tank installation. Maintain dry conditions by expanding the excavation to create a short-

term groundwater collection sump for temporary placement of a dewatering pump if needed. Long-term groundwater control measures such as underdrains and interceptor trenches may be sensible if the site is amenable to construction of a control system and such systems are not prohibited by regulation or law, and the tank location is not subject to flooding. Properly installed underdrains and groundwater interceptor trenches may prevent the need for tank buoyancy control measures.

INSTALLING UNDER SHALLOW GROUNDWATER CONDITIONS

Buoyancy control measures may be required if the infiltrator tank is to be installed with less than 18 inches (450 mm) of soil backfill cover, and where the water level outside the tank has the potential to rise 24 inches (600 mm) or more above the elevation of the tank bottom. Otherwise, no control measures are required (see Table 1). The need for buoyancy control measures must be determined based on backfill cover depth and height of water outside of tank above the tank bottom according to Table 1. Refer to Infiltrator IM- and TW-Series Tank Buoyancy Control Guidance document for more information.

Water height above tank bottom	Soil cover depth above tank ³		
	6 in (150 mm) to 12 in (300 mm)	12 in (300 mm) to 18 in (450 mm)	Above 18 in (450 mm)
Above outlet pipe saddle	Do not install	Do not install	Do not install
36 in (900 mm) to outlet pipe saddle ⁴	All models	TW-300 and 500	None
30 in (750 mm) to 36 in (900 mm)	All models except IM-540 and IM-1060	TW-300 and 500	None
24 in (600 mm) to 30 in (750 mm)	TW-300 and 500	None	None
Less than 24 in (600 mm)	None	None	None

1 TW-300, TW-500, IM-540, IM-1060, TW-1250, TW-1500.

2 See Infiltrator IM- and TW-Series Tank Buoyancy Control Guidance for detailed information on the use of controls.

3 No controls are required for soil cover depths exceeding 12" (300 mm).

4 The tank shall not be installed where the water level outside the tank exceeds the height of the outlet pipe saddle. Follow Table 4 guidelines.

INSTALLING RISERS

1. Compatible risers include 24-inch (600 mm) diameter products such as the Infiltrator TW-Riser, EZset by Infiltrator, PolyLok®, Inc., and Tuf-Tite® Corporat. in addition to 24-inch (600 mm) diameter corrugated HDPE and IPEX Ultra Rib® PVC pipe. Follow Infiltrator's IM- and TW-Series Tank Riser Connection Guidance.

2. Oregon watertightness testing shall include filling with water at least 2 inches above riser connection, with no more than 1 gallon leakage per 24 hours, per OAR 340-073-0025(3).

INSTALLING PUMPS AND RELATED EQUIPMENT

Pumps may be supported on a stable, level 16 x 16 inch (400 x 400 mm) platform positioned on the bottom of the tank. One 16 x 16 inch block or two 8 x 16 inch (200 mm x 400 mm) side-by-side blocks may be used. Limit block height to account for pump height and liquid levels during pump cycles. Block(s) should be placed below an access opening and level upon the tank bottom. For two blocks, orient them perpendicular to ribs on the tank bottom, if present, for stability.

Installation of products such as electrical conduit and wiring, pumps, water level control equipment, valves, siphon equipment, etc. shall be in accordance with the product manufacturer's instructions and compliant with applicable state or local rules and regulations. Appurtenances shall be fastened to the tank riser system and not the tank body or access opening rim. Where possible, appurtenances shall be installed to facilitate maintenance and repair access via the tank access openings.

GENERAL SPECIFICATIONS

- Failure to comply with installation instructions will void warranty.
- Prior to ground disturbance, check for subsurface obstructions and utilities in conformance with applicable requirements.
- Operating water temperature shall be less than 100° F (40° C).
- Tanks are not fire resistant. Store away from ignition sources.
- Removal of structural bulkheads is prohibited; removal of locking clips on the IM-Series tank mid-seam connection is also prohibited.
- Suitable for potable applications only if the tank bearing an NSF/ANSI 61 certification mark, otherwise tank is recommended for use in septic, rainwater/stormwater storage, and pump applications or other non-potable unit.
- Infiltrator tanks are designed for installation underground. Contact Infiltrator Systems for above-ground use requirements.

WARNING: IMPLSIONS MAY CAUSE SERIOUS INJURY
Follow Infiltrator Systems Inc. vacuum test instructions

INLET AND OUTLET HOLE LOCATIONS

Drill height marks are provided on all Infiltrator tank models to guide inlet and outlet hole drilling. On the TW-1250 and TW-1500, marks "A" (lower) and "B" (upper) are located at the inlet end, while marks "C" (lower) and "D" (middle) are located at the outlet end. A single drill height mark is provided at each end or side port on the IM-540 and IM-1060 (example illustrated below). Holes may be drilled at the end or side inlet and outlet

locations, as allowed by state and/or local regulations. The drill height mark indicates the center point location for the hole saw. The pilot drill bit on the hole saw should be positioned at the center of the drill height mark to align the hole saw properly. Table 3 provides drilling and invert information by regulatory jurisdiction for the installation of 4-inch-diameter (100 mm) pipe.

Jurisdiction ¹	Inlet Drill Location	Outlet Drill Location	Invert Drop (in) [mm]	Inlet Invert Height ^{2,3} (in) [mm]		Outlet Invert Height ^{2,3} and Liquid Level (in) [mm]
				Above Inside Bottom of Tank	Above Excavation Base	
IM-540						
All	End	End	3 [76]	47.0 [1,994]	47.6 [1,187]	44.0 [1,118]
IM-1060						
All	End	End	3 [76]	47.0 [1,994]	46.7 [1,186]	44.0 [1,118]
	Side	Side	3 [76]	47.5 [1,207]	47.2 [1,199]	44.5 [1,130]
	Side	End	3.5 [89]	47.5 [1,207]	47.2 [1,199]	44.0 [1,118]
	End	Side	2.5 [64]	47.5 [1,207]	46.7 [1,186]	44.5 [1,130]
TW-1250 and TW-1500						
DE, FL, IA, MA, ON	A	D	2 [51]	42.0 [1,067]	44.7 [1,135]	40 [1,016]
AR, CA, CO, CT, ID, IN, KS, KY, MO, MT, ND, OR, PA, SD, VT, WV	B	C	3 [76]	42.75 [1,086]	46.5 [1,181]	39.75 [1,010]
TX	B	D	2.75 [70]	42.75 [1,086]	46.2 [1,173]	40 [1,016]
All Others	A	C	2.25 [57]	42.0 [1,067]	45.0 [1,143]	39.75 [1,010]

NOTES: 1. Florida, Indiana, Kentucky, Oregon, West Virginia, and certain Texas tanks are factory drilled. 2. Invert heights are measured from the lowest interior surface at the bottom of the tank. 3. Invert heights based on 4-inch-diameter (100 mm) inlet/outlet pipes. 4. State, provincial, and local regulatory requirements supersede Table 3 information.

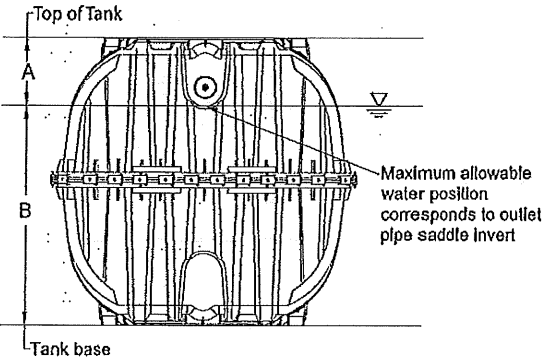


Table 4: Maximum Allowable Subsurface Water Elevation

Tank Model	Vertical Distance to Maximum Allowable Water Elevation Outside of Tank	
	A - From Top of Tank	B - From Tank Base
TW-300	13" (330 mm)	36" (900 mm)
TW-500	13" (330 mm)	38" (975 mm)
IM-540	13" (330 mm)	43" (1,075 mm)
IM-1060	13" (330 mm)	43" (1,075 mm)
TW-1250	11" (280 mm)	39" (975 mm)
TW-1500	11" (280 mm)	39" (975 mm)

INFILTRATOR SYSTEMS, INC. ("Infiltrator") INFILTRATOR® SEPTIC TANK LIMITED WARRANTY FIVE (5) YEAR MATERIALS AND WORKMANSHIP LIMITED WARRANTY

(a) This limited warranty is extended to the end user of an Infiltrator Septic Tank. A Septic Tank manufacturer, Infiltrator, when installed and operated in accordance with Infiltrator's installation instructions and local regulatory requirements, is warranted to you: (i) against defective materials and workmanship for five (5) years of installation. Infiltrator will, at its option, (i) repair the defective product or (ii) replace the defective materials. Infiltrator's liability specifically excludes the cost of removal and/or installation of the Septic Tank.

(b) In order to exercise its warranty rights, you must notify Infiltrator in writing at its corporate headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect.

(c) YOUR EXCLUSIVE REMEDY WITH RESPECT TO ANY AND ALL LOSSES OR DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER SHALL BE SPECIFIED IN SUBPARAGRAPH (a) ABOVE. INFILTRATOR SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND, HOWEVER OCCASIONED, WHETHER BY NEGLIGENCE OR OTHERWISE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

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(e) YOU MAY ASSIGN THIS LIMITED WARRANTY TO A SUBSEQUENT PURCHASER OF YOUR HOME.

(f) NO REPRESENTATIVE OF INFILTRATOR HAS THE AUTHORITY TO CHANGE THIS LIMITED WARRANTY IN ANY MANNER WHATSOEVER, OR TO EXTEND THIS LIMITED WARRANTY.

CONDITIONS AND EXCLUSIONS
There are certain conditions or applications over which Infiltrator has no control. Defects or problems as a result of such conditions or applications are not the responsibility of Infiltrator and are NOT covered under this warranty. They include failure to install the Septic Tank in accordance with instructions or applicable regulatory requirements or guidance, altering the Septic Tank contrary to the installation instructions and disposing of chemicals or other materials contrary to normal septic tank usage.

The above represents the Standard Limited Warranty offered by Infiltrator. A limited number of states and counties have different warranty requirements. Any purchaser of a Septic Tank 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

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U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,338,017; 5,401,116; 5,401,459; 5,611,903; 5,716,163; 5,888,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,584 Other patents pending. Infiltrator, Equalizer, Quick4, and SideWinder are registered trademarks of Infiltrator Systems Inc. Infiltrator is a registered trademark in France. Infiltrator Systems Inc. is a registered trademark in Mexico. Contour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Systems Inc. PolyLox is a trademark of PolyLox, Inc. TUF-TITE is a registered trademark of TUF-TITE, INC. Ultra-Rib is a trademark of IPEX Inc.

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Table 2: Infiltrator Tank Nominal Volume Chart

Height ¹		Total liquid volume in tank at indicated height											
		TW-300		TW-500		IM-540		IM-1060		TW-1250		TW-1500	
In	cm	U.S. Gal	Liters	U.S. Gal	Liters	U.S. Gal	Liters	U.S. Gal	Liters	U.S. Gal	Liters	U.S. Gal	Liters
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	3	1	2	2	8	3	11	3	11	14	53	17	64
2	5	2	9	5	19	8	30	13	49	30	115	37	140
3	8	5	19	8	30	14	53	28	106	58	218	71	267
4	10	9	34	13	49	21	80	46	174	87	330	107	404
5	13	15	57	20	76	29	109	65	246	117	444	143	543
6	15	21	79	28	106	37	141	86	326	148	558	180	683
7	18	28	106	37	140	46	173	107	405	178	674	218	825
8	20	36	136	48	182	55	207	129	488	209	791	256	968
9	23	43	163	59	223	64	243	152	575	240	910	294	1,112
10	25	50	189	71	269	74	279	176	666	272	1,029	332	1,257
11	28	57	216	83	314	84	317	200	757	304	1,149	371	1,404
12	30	65	246	95	360	94	356	225	852	336	1,270	410	1,551
13	33	72	273	105	397	105	396	251	950	368	1,393	449	1,700
14	36	80	303	118	447	116	437	277	1,049	400	1,516	489	1,849
15	38	87	329	130	492	127	480	303	1,147	433	1,640	528	2,000
16	40	95	360	142	537	138	523	330	1,249	466	1,765	569	2,152
17	43	102	386	154	583	150	566	357	1,351	500	1,892	609	2,305
18	46	110	416	166	628	161	611	384	1,454	533	2,019	650	2,459
19	48	118	447	179	678	173	656	411	1,556	567	2,146	690	2,614
20	50	126	477	191	723	186	702	438	1,658	601	2,275	732	2,769
21	53	134	507	204	772	198	749	465	1,760	636	2,407	774	2,928
22	56	141	534	216	818	210	796	493	1,866	671	2,541	816	3,091
23	58	149	564	228	863	223	843	521	1,972	708	2,678	860	3,256
24	61	156	590	241	912	235	891	549	2,078	745	2,819	905	3,425
25	64	164	621	253	958	248	940	577	2,184	781	2,955	948	3,589
26	66	171	647	265	1,003	261	988	605	2,290	815	3,086	990	3,747
27	69	178	674	277	1,048	274	1,038	633	2,396	849	3,215	1,031	3,903
28	71	186	704	289	1,094	287	1,088	662	2,506	883	3,342	1,072	4,057
29	74	193	731	300	1,136	300	1,137	691	2,616	916	3,469	1,112	4,210
30	76	200	757	312	1,181	313	1,185	719	2,722	950	3,594	1,152	4,362
31	79	208	787	324	1,226	326	1,233	747	2,828	982	3,719	1,192	4,514
32	81	215	814	336	1,272	338	1,281	775	2,934	1,015	3,842	1,232	4,663
33	84	222	840	347	1,313	351	1,328	802	3,036	1,047	3,964	1,271	4,810
34	86	230	871	359	1,359	363	1,375	830	3,142	1,079	4,084	1,309	4,956
35	89	236	893	370	1,400	375	1,421	857	3,244	1,110	4,203	1,347	5,101
36	91	243	920	382	1,446	387	1,466	884	3,346	1,141	4,320	1,385	5,243
37	94	251	950	393	1,488	399	1,511	911	3,449	1,172	4,436	1,422	5,384
38	97	258	977	404	1,529	411	1,555	938	3,551	1,201	4,548	1,458	5,521
39	99	264	999	416	1,575	422	1,598	965	3,653	1,230	4,657	1,494	5,654
40	102	271	1,026	427	1,616	433	1,640	992	3,755	1,261	4,772	1,532	5,798
41	104	278	1,052	438	1,658	444	1,681	1,018	3,854	1,286	4,889	1,562	5,915
42	107	285	1,079	449	1,699	455	1,722	1,044	3,952	1,314	4,972	1,596	6,042
43	109	292	1,105	460	1,741	465	1,761	1,069	4,047	1,340	5,074	1,629	6,167
44	112	299	1,132	471	1,783	475	1,799	1,094	4,141	1,366	5,172	1,661	6,288
45	114	304	1,151	481	1,821	485	1,836	1,118	4,232	1,390	5,263	1,690	6,399
46	117	310	1,173	490	1,855	494	1,871	1,142	4,323	1,410	5,337	1,715	6,492
47	119	313	1,185	498	1,885	503	1,905	1,165	4,410	1,427	5,402	1,737	6,574
48	122	313	1,185	502	1,900	512	1,938	1,187	4,493	1,439	5,446	1,750	6,626
49	124	313	1,185	504	1,908	520	1,970	1,208	4,573	1,448	5,481	1,762	6,669
50	127	-	-	-	-	528	1,999	1,228	4,648	-	-	-	-
51	130	-	-	-	-	535	2,027	1,247	4,720	-	-	-	-
52	132	-	-	-	-	542	2,050	1,265	4,789	-	-	-	-
53	135	-	-	-	-	547	2,071	1,278	4,838	-	-	-	-
54	137	-	-	-	-	551	2,087	1,287	4,872	-	-	-	-

1. Height measured from lowermost inside surface at bottom of corrugation in tank.

Failure to comply with these installation instructions may invalidate the warranty. Contact Infiltrator Systems' Technical Services Department for assistance at 1-800-221-4436.

