

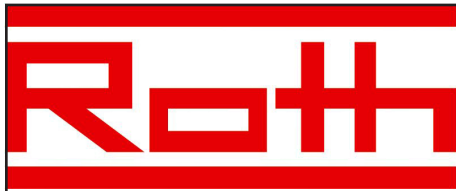
ENERGY STORAGE



Double-Wall Oil Storage Tank Product Catalog



Environmentally-friendly products that produce, distribute
and store energy for the most efficient homes and buildings.



Double-Wall Oil Tank Product Catalog

Updated August 2011

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TANKS



The Roth Double Wall Safety Fuel Oil Storage Tank (DWT) is made with a seamless blow-molded polyethylene inner tank and a 19 ga. galvanized outer tank. The outer tank is formed by joining cold rolled sheet steel, used to form the sides and bottom from a single piece, with two stamped metal end pieces. The edges between the sides and ends have sealant applied to them and are then rolled to create leak-proof seams. A stamped top is then pressed and riveted into place to complete the assembly of the DWT. The DWT is UL® listed in the United States and Canada under SU2258 and approved under NFPA 31 (2001) and CSA B-139-04 as non-metallic fuel oil storage tanks.

Both inner and outer tanks are pressure tested at the factory during assembly according to UL® standards and do not require further field testing. The DWT also comes with a detached saddle base which the tank is placed on at the time of installation. The tank shall be placed into service in accordance with local codes and the listed use (indoor or outdoor) on a flat, level and stable surface, away from heat sources, corrosive atmospheres or fluids, potential mechanical damage or rapid temperature changes. The final location must have the tank label visible after installation. A minimum of 2" (50 mm) from all walls or obstructions is recommended for normal tank expansion and visual inspection. The integral base support shall not be removed and raising the tank height is not allowed except on a continuous concrete platform at least 6" (150 mm) wider than the tank base at all sides. All local fire code set-backs for fuel oil storage tanks must be observed.

Tanks installed indoors shall not be exposed to direct sunlight on any plastic parts. Tanks installed outdoors shall be assembled with the required cover, All tanks must be installed with an approved vent alarm (Roth Vent Alarm #235000999, or equivalent sized UL listed whistle vent) in order to maintain warranty requirements.

-Tanks are available in sizes 110 Gallon (400 Liters), 165 Gallon (620 Liters), 275 Gallon (1000 Liters), 275 Gallon low height (1000 Liters low height), and 400 Gallon (1500 Liters).

-Each tank comes with a base, 3-3" plastic adapters and 1-metal adapter.

Double-Wall Oil Storage Tank

Part #	Description	Weight lbs. (kg)
2335103401	ROTH EcoDWT plus 3 400L - 110 Gallon, UL Listed	99.23 (45)
2335101861	ROTH EcoDWT plus 3 620L - 165 Gallon, UL Listed	136.71 (62)
2335101862	ROTH EcoDWT plus 3 1000L - 275 Gallon, UL Listed	198.45 (90)
2335103722	ROTH EcoDWT plus 3 1000LH - 275 Gallon, UL Listed	208 (94.4)
2335102642	ROTH EcoDWT plus 3 1500L - 400 Gallon, UL Listed	312 (141.5)

INSTALLATION KITS AND TANK COVERS

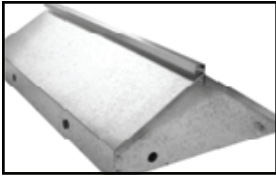
Installation Kits for DWT



The installation kits have all the accessories you need combined in one kit for a single tank installation. You will only have to choose between the tank size and the 3/8" or 1/2" duplex bushing. One (1) male metal adaptor is installed in each tank

Part #	Description	Weight lbs. (kg)
2315000401	Kit 400L (Vent Alarm, gauge and 3/8" duplex bushing)	21.2 (9.6)
2315000402	Kit 400L (Vent Alarm, gauge and 1/2" duplex bushing)	21.2 (9.6)
2315001001	Kit 620L / 1000L (Vent Alarm, gauge and 3/8" duplex bushing)	21.2 (9.6)
2315001002	Kit 620L / 1000L (Vent Alarm, gauge and 1/2" duplex bushing)	21.2 (9.6)
2315001101	Kit 1000LH (Vent Alarm, gauge and 3/8" duplex bushing)	21.1 (9.6)
2315001102	Kit 1000LH (Vent Alarm, gauge and 1/2" duplex bushing)	21.1 (9.6)
2315001501	Kit 1500L (Vent Alarm, gauge and 3/8" duplex bushing)	21.1 (9.6)
2315001502	Kit 1500L (Vent Alarm, gauge and 1/2" duplex bushing)	21.1 (9.6)

Tank Cover



The Roth tank cover is designed and tested for outdoor installations. This cover is designed to protect the top of the tank from both mother nature's weather elements as well as harmful ultraviolet rays.

-The cover length and width are not more than .5 in. greater than the overall length and width of the tank it is designed for. The cover height is 12 in. for all models.

-Assembles and installs quickly with stainless steel screws provided.

-Fastens to tank lip with self-tapping screws provided.

-Knock-outs on both ends and back (total of 4) for fuel oil supply lines.

-Required for outdoor tank installations.

-May be used for multiple tank installations with separate fill and vent lines when fuel oil supply lines are manifolded outside the covers.

The installation fit contains the assembly sheet, the warning label, screws to assemble the cover and secure it to the tank, the blind plugs to fill unused knock-out holes, and the lanyards with pins to secure the cover in the closed position.

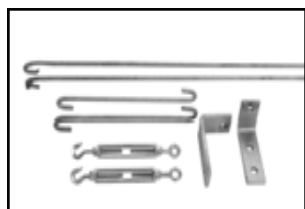
Part #	Description	Weight lbs. (kg)
2335100749	ROTH Tank Cover for 400L and 620L	15.21 (6.9)
2335100757	ROTH Tank Cover for 1000L	21 (9.5)
2335003721	ROTH Tank Cover for 1000LH	21 (9.5)
2335002054	ROTH Tank Cover for 1500L	32 (14.5)

EXPANSION KITS AND TIE DOWN KITS

Expansion Kits

	Part #	Description	Weight lbs. (kg)
	2315107012	ROTH Expansion Kit #1 Dual Tank Installation for 400L, 620L and 1000L	21.17 (9.6)
	2315107013	ROTH Expansion Kit #2 3rd, 4th and 5th Tanks; Added to Dual Tank Installation for 400L, 620L and 1000L	12.79 (5.8)
	2315105343	ROTH Expansion Kit #3 Front to Back Expansion for 1000L	30.87 (14)
	2315106910	ROTH Expansion Kit #4 Dual Tank Installation for 1000LH and 1500L	13.23 (6)
	2315106911	ROTH Expansion Kit #5 Added to Dual Tank Installation for 1000LH and 1500L	22.05 (10)

TIE DOWN KIT



To secure and tighten tanks in low and high risk areas

- Clips over top rim of tank
- Base bolts to floor/concrete
- tumbuckles adjust tension
- 2 tie downs per kit
- anchor/lag bolts supplied by installer
- use one kit in low risk areas
- use multiple kits in high risk areas

Part #	Description	Weight lbs. (kg)
2335000222	ROTH Tie Down Kit (2 per bag) for 400L	3 (1.4)
2335100222	ROTH Tie Down Kit (2 per bag) for 620L and 1000L	3 (1.4)
2335200222	ROTH Tie Down Kit (2 per bag) for 1000LH	3 (1.4)
2335400222	ROTH Tie Down Kit (2 per bag) for 1500L	3 (1.4)

OIL GAUGE, LEAK ALARM, TANK BASE

Oil Gauges



Each tank needs to be installed with an oil gauge. The gauge base is treaded 2" NPT with a rubber "O Ring" for sealing. It needs to be mounted on one of the plastic adapters provided with the tank with no need for pipe dope or Teflon tape on the threads. Must be hand tightened only. String and float must be released slowly during installation to prevent damage to the gearing or loosening the line off the reel. Housing design and color may differ depending on tank model.

Part #	Description	Weight lbs. (kg)
2335003411	Sealed Fuel Oil Gauge 110 Gal	0.44 (2)
2335001863	Sealed Fuel Oil Gauge 165 & 275 Gal	0.44 (2)
2335003832	Sealed Fuel Oil Gauge 275 Gal LH	0.44 (2)
2335000191	Sealed Fuel Oil Gauge 400 Gal	0.44 (2)

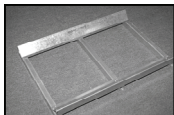
Leak Indicators



The Roth DWT tanks are equipped with a visual leak indicator located in-between the walls. A tripped leak indicator is a sign of oil in the interstitial area of the tank, but does not necessarily mean the inner bottle has failed. The lowest point on the top of the tank is the penetration for the leak indicator. The leak indicator sits in a rubber grommet, supplied with the leak indicator. It takes less than a cup of oil to cause the oil sensitive packing located at the bottom of the leak alarm shaft to swell and raise the red alarm designator. When tripped, the presence of oil has to be determined, cleaned up and the leak indicator needs to be replaced.

Part #	Description	Weight lbs. (kg)
2335001643	ROTH Leak Indicator for 400 L	2.65 (1.2)
2335000889	ROTH Leak Indicator for 620 L and 1000 L	2.65 (1.2)
2335000891	ROTH Leak Indicator for 1000 LH	2.65 (1.2)
2335000890	ROTH Leak Indicator for 1500 L	2.65 (1.2)

Tank Base



Each Roth DWT is supplied with a base, made out of strong, hot dip galvanized, all assembled, weld-less steel, that gives a 2" clearance under the tank and offers stability of the tank. They are shipped completely assembled and packed upside down on the top of each tank protecting the tank connection during transport.

Part #	Description	Weight lbs. (kg)
2350007391	ROTH Tank Base for 400L - 110 Gallon and 620L- 165 Gallon	4.6 (2.1)
2335000643	ROTH Tank Base for 1000L- 275 Gallon	15.66 (7.1)
2335000743	ROTH Tank Base for 1000LH- 275 Gallon LH	15.66 (7.1)
2335001652	ROTH Tank Base for 1500L- 400 Gallon	10 (4.5)

DWT ACCESSORIES

Duplex Bushing



Roth duplex bushings are built to be installed directly into Roth tank's opening, are held in place by the Roth tank cap nut and do not require the use of an additional 2" NPT Die-Cast Adapter like a standard threaded tank bushing would. They are being supplied with their own gasket. Roth duplex bushings are available with a slip-through compression fittings for either 3/8" or 1/2" copper tubing for fuel supply and return lines. When a return line is not being used or replaced by a De-Aerator, one of the fittings could be replaced by a steel plug or could be used as a second supply line for a second appliance. If black iron supply line is more desirable than copper, the fitting could be removed and since the opening in the bushing are threaded either 3/8" or 1/2" NPT on top and bottom, the black iron pipes could be screwed directly in.

Part #	Description	Weight lbs. (kg)
2350000027	1/2" Duplex Bushing with fittings	2 (0.9)
2350000026	3/8" Duplex Bushing with fittings	2 (0.9)

Vent alarm



ALL TANKS MUST BE VENTED. Unless another UL® approved system for fill level detection is used, all tanks must have a vent alarm (whistle) installed. We require the use of our proprietary vent alarm in each tank. This vent alarm also provides a 2" NPT adapter for easy connection of your vent piping to the tank. The Roth Vent Alarm is installed in place of one of the plastic adapters in the top of the tank. Use the cap nut and a #3 gasket (already supplied with the Roth vent alarm) to secure the vent alarm in the manner described in the Roth EcoDWT plus 3 Installation Instruction Manual.

Part #	Description	Weight lbs. (kg)
2350000999	Vent Alarm 2" NPT	1 (0.45)

Suction Line Assembly



The Roth suction line assembly is a European assembly that allows to pipe the tank either one or two pipes. This assembly has a quick action shutoff valve as well as a built in firomatic valve (fuse able link in case of a fire) and an internal check valve. The suction line itself is made of an EPDM rubber hose that will not hold up to biofuels, high concentration of fuel additives, a burner that has a firing rate above 3.0 gph (11.4 l/hr) or an emergency electric generator. It cannot be used if either of these situations are present or can be present in the near future. Only applicable for single-tank installations.

Part #	Description	Weight lbs. (kg)
2350003382	Suction Line Assembly—while supplies last—	1.54 (0.7)

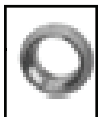
Fuel Oil De-Aerator



The use of an Oil De-Aerator with a top connected tank like the Roth EcoDWT plus 3 tank is a safer, more reliable and most economical way of installing a supply line for a burner. A De-Aerator will continuously separates air/gas from heating oil automatically, eliminates the risk for a return line leakage, and reduces the flow of oil drawn from the tank saving filter life. Oil being preheated in the loop to room temperature will eliminate problems associated with cold oil in the case of an outdoor tank installation and will improve burning efficiency, reducing energy cost for the end user.

Part #	Description	Weight lbs. (kg)
2335100191	ROTH Fuel Oil De-Aerator	2 (0.9)

Die Cast Adapter



Part #	Description	Weight lbs. (kg)
2350006801	ROTH Die Cast 2" FE	1 (0.45)

DWT ACCESSORIES

Cap Nut



The Roth cap nuts are supplied with every tank and are used to attach all of the accessories. They are specifically designed and engineered for the Roth tank. This allows all of our flanged fittings proper support.

Part #	Description	Weight lbs. (kg)
2350000024	ROTH Cap Nut	0.22 (0.1)

#3 Gasket



Part #	Description	Weight lbs. (kg)
2350000031	ROTH #3 Gasket	0.02 (0.01)

Plastic Wrench



Part #	Description	Weight lbs. (kg)
2350002223	ROTH Plastic Wrench	0.11 (0.05)

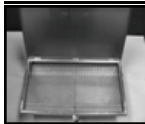
Bulkhead Nut

The bulk head nut is specifically designed to hold the bottle of the tank to the outer metal top of the tank

Part #	Description	Weight lbs. (kg)
2350005738	ROTH Bulkhead Nut	1 (0.45)

Waste Oil Filling Pan

The filling pan connects to the top of the tank using a 2" black iron pipe.



Part #	Description	Weight lbs. (kg)
2335000777	Filling Pan for DWT Waste Oil.	10 (4.5)

Waste Oil Hand Pump



Part #	Description	Weight lbs. (kg)
2335000779	Hand Pump DWT Waste Oil	3 (1.3)

**Roth Industries, Inc. ("Roth")
Limited Warranty Certificate
ROTH DOUBLE WALL TANK (DWT)**

Serial Number: _____

Warranty:

The Roth Double Wall Tank ("Roth Eco DWT plus 3" or "Product") is constructed with an inner tank, which is the primary oil storage tank and an outer containment tank, which is the secondary containment basin. The inner tank is made of corrosion proof polyethylene. The outer containment tank is made of corrosion resistant galvanized steel.

Provided that:

the Roth Eco DWT plus 3 is installed in accordance with the applicable installation instructions and specifications by a Roth Certified Installer, and

the Roth Eco DWT plus 3 is used for its intended purpose, in particular operated with adequate and approved storage mediums and in strict accordance with the Roth Eco DWT plus 3 manuals, instructions and specifications furnished by Roth,

ROTH WARRANTS THE PRODUCT AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF FIFTEEN (15) YEARS FROM THE DATE OF INSTALLATION OR DATE OF MANUFACTURE IF WARRANTY CERTIFICATE IS NOT REGISTERED PROPERLY, SET FORTH BELOW ("Warranty Period"), SUBJECT TO ORDINARY WEAR AND TEAR AND NORMAL USE FROM THE DATE OF MANUFACTURE, AND SUBJECT TO THE TERMS OF THIS LIMITED WARRANTY.

Provided, it is expressly acknowledged that Roth shall have no liability or responsibility for repairs or replacement of the Product arising from any failures of the fill-, vent- and/or collection-system (including the seals) connected with the Roth Eco DWT plus 3.

Purchaser's exclusive remedies, and Roth's sole and exclusive obligations, arising from, as a result of or in connection with this Limited Warranty or the Product shall be limited to the following:

1. Commencing on the date of manufacture of the Product set forth below through year ten (10) of the Warranty Period, Roth shall (i) at its discretion, either repair the Product or provide a replacement product (or 100% credit towards the purchase price of a replacement product) of similar size, design and quality, and (ii) pay all labor costs associated with such repair and/or replacement, all of which shall be at Roth's expense. Purchaser shall be responsible for payment of the costs of shipping, freight and insurance on any replacement product, all of which shall be at Purchaser's expense. In addition, during this ten (10) year period ONLY, in the event that all conditions contained in this Limited Warranty are otherwise satisfied, Roth shall also reimburse Purchaser, up to a maximum amount of US \$1 million, for the costs and expenses incurred by Purchaser for damage to Purchaser's property directly and proximately caused by a leakage of oil from a defective Product.

2. During years eleven (11) through year fifteen (15) of the Warranty Period, Roth shall, at its discretion, either repair the Product or provide a replacement product (or 100% credit towards the purchase price of a replacement product) of similar size, design and quality. Purchaser shall be responsible for payment of all labor costs associated with such repair and/or replacement, as well as the costs of shipping, freight and insurance on any replacement product, all of which shall be at Purchaser's expense.

EXCEPT AS SPECIFICALLY SET FORTH IN THIS LIMITED WARRANTY, ROTH HEREBY EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES, EXPRESS, IMPLIED AND STATUTORY, WITH RESPECT TO THE PRODUCT, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

The obligations of Roth under this Limited Warranty shall not apply in the event that the Product (i) has been installed or repaired by anyone other than Roth or an authorized Roth installer, representative or dealer; (ii) has been altered in any manner whatsoever; (iii) has been subject to misuse, neglect, abuse, improper storage, alteration, improper or insufficient maintenance, unauthorized repairs, an accident or accidents, fire, flood, other casualty or acts of God, (iv) has had its serial number altered, effaced or removed; or (v) has been assembled other than in accordance with the Product instructions and specifications furnished by Roth.

This Limited Warranty is subject to the following additional conditions:

The warranty period begins at the date of installation of the Product as recorded on the warranty card and submitted to Roth after installation. If the warranty card is not submitted, the warranty period begins at the date of manufacture of the Product. **THIS LIMITED WARRANTY SHALL BE VOID IF THE PRODUCT IS NOT INSTALLED WITHIN TWELVE (12) MONTHS AFTER THE DATE OF SALE BY THE PURCHASER (DISTRIBUTOR) TO THE INSTALLER.**

The installation, assembly and use of component parts in connection with the Product from sources other than Roth or its authorized installers, representatives or dealers shall void the obligations of Roth under this Limited Warranty. Roth expressly disclaims any liability arising out of any combination of the Product with the products of third-parties.

Purchaser must notify Roth in writing at the address below of the defect in materials or workmanship within ten (10) days after the defective materials or workmanship are discovered or reasonably should have been discovered ("Purchaser's Notice").

At the same time as the Purchaser's Notice, Purchaser must also submit proof of purchase in the form of a receipted invoice for the Product as proof that the Product is within the Warranty Period.

At the same time as the Purchaser's Notice, Purchaser must also submit to Roth a valid Limited Warranty Certificate with all information completed below.

THE FAILURE TO TIMELY SUBMIT THE PURCHASER'S NOTICE, RECEIPT AND COMPLETED LIMITED WARRANTY CERTIFICATE WILL VOID THIS LIMITED WARRANTY.

Limitation of Liability

Roth's sole and exclusive liability for any claim arising from, as a result of or in connection with this Limited Warranty or the Product shall be limited to the exclusive terms of this Limited Warranty, whether such claim is based on breach of warranty, tort, negligence, strict liability, product liability or otherwise. **Roth shall in no event be liable for any incidental, special, consequential or punitive damages arising from, as a result of or in connection with this Limited Warranty or the Product, whether or not foreseeable, and even if Roth has been advised of the possibility of such damages.**

No cause of action, regardless of form, arising from or in any manner connected with this Limited Warranty or the Product may be brought against Roth more than one (1) year after the date such cause of action accrued.