

Eco-Pure Septic Tank Structural Testing and Storage Verification

All of the Eco-Pure tanks have passed vacuum test and water-tightness tank as required by the Florida Department of Health.

Florida Department of Health Vacuum Test Requirements

Test Requirements for Structural Proofing							
Category 3 = Saturated soil-pumping							
Category 4 = Saturated soil-pumping							
		Cat 3	Cat 4				
Tank soil cover (inches) =		0-18"	18" - 48"				
effective depth (inches)=	30	40	50	60	70	80	90
VACUUM REQUIRED-INCHES OF WATER:-chart 1							
Category 3	38.0	43.0	47.9	52.9	57.9	62.8	67.8
Category 4	73.3	78.2	83.2	88.2	93.1	98.1	103.0
VACUUM REQUIRED-INCHES OF MERCURY:-chart 2							
Category 3	2.8	3.2	3.5	3.9	4.3	4.6	5.0
Category 4	5.4	5.8	6.1	6.5	6.9	7.2	7.6
WATER STANDPIPE (HYDROSATIC HEAD) REQUIRED-INCHES OF WATER:-chart 3							
Category 3	19.7	19.9	20.1	20.4	20.6	20.8	21.1
Category 4	48.6	48.8	49.1	49.3	49.5	49.8	50.0

Florida Administrative Code 64-E, November 26, 2006

(c) Design and testing of fiberglass and polyethylene treatment receptacles:

- Vacuum testing shall be conducted in accordance with the department's policy for Test Requirements for Structural Proofing. The vacuum test shall be followed by a water-tightness test.
- Vacuum testing shall demonstrate a distortion of volume of no more than 1% at a safety factor of 1.0 and 2% at a safety value of 1.4 followed by passing a water-tightness test to be considered satisfactory. To determine the vacuum at a 1.0 safety factor, divide the required total vacuum values by 1.4. There shall be no distortion of the access hatch perimeters at the full vacuum load and the access hatch must be able to be removed and reinstalled at the conclusion of the test.
- Water-tightness testing shall be performed as follows: Fill the receptacle with water to the invert of the outlet. The receptacle is approved as water tight if the water level is held for one hour.

(d) Testing shall be conducted in the presence of an engineer licensed in the state of Florida, or by an employee of the department that has been authorized by the State Health Office to perform or witness receptacle testing. Test results shall be certified by the witnessing engineer or department employee.



1,250 Gallon Tank Under Vacuum (33" of Water)



1,250 Gallon Tank Under Vacuum (44.50" of Water)

The deflection point is a molded feature of the tank to allow for the inserting of the baffle making a two-compartment tank. This point has does not effect the structural integrity of the tank whatsoever.

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Vacuum and Water-tightness Testing Results

1,250 Gallon Tank Vacuum Test Results, Length Deflection

Tank Number	Vacuum Required	Tank Circumference	Deflection Allowance	Deflection Allowance	Tank Circumference	Total Length Deflection	Deflection %
	Category 3	Length (inches)	5% (inches)	2% (inches)	Length (inches)	Category 3	Category 3
	Designation	Before	2004 Requirement	2007 Requirement	Vacuum Applied	3	Vacuum (inches)
	Inches of Water in Manometer	Vacuum (inches)			(inches)	Vacuum (inches)	
1	44.50	341.50	17.08	6.83	339.25	2.25	0.66%
2	44.50	341.38	17.07	6.83	338.75	2.63	0.77%
3	44.50	343.38	17.17	6.87	340.38	3.00	0.87%

1,250 Gallon Tank Vacuum Test Results, Deflection

Tank Number	Vacuum Required	Tank Circumference	Deflection Allowance	Deflection Allowance	Tank Circumference	Total Height Deflection	Deflection %
	Category 3	Height (inches)	5% (inches)	2% (inches)	Height (inches)	Category 3	Category 3
	Designation	Before	2004 Requirement	2007 Requirement	Vacuum Applied	3	Vacuum (inches)
	Inches of Water in Manometer	Vacuum (inches)			(inches)	Vacuum (inches)	
1	44.50	216.50	10.83	4.33	215.94	0.56	0.26%
2	44.50	217.38	10.87	4.35	217.25	0.13	0.06%
3	44.50	217.88	10.89	4.36	217.38	0.50	0.23%

Eco-Pure Septic Tank Volume and Air Space Verification Test

Model Number	Rated Size (Gallons)	Space Required (Gallons)	Total Gallons Required	Volume Effective Depth (Gallons)	Total Tank Volume	Air Space Provided (Gallons)	Air Space Provided %
EPAST-123	1,050	157.50	1,207.50	1,110.00	1,290.00	180.00	17.14%
EPAST-124	1,250	187.50	1,437.50	1,250.00	1,460.00	210.00	16.80%



Design Procedures

Please refer to your state and/or local onsite wastewater treatment and disposal regulations for details pertaining to your systems design, installation and maintenance requirements.

Warranty

Eco-Pure, Inc. warrants the Pump and Septic Tanks against material defects and workmanship for a period of five years from the date of installation. This warranty is only valid for the purchaser of the product. The following will be excluded from warranty coverage: any damage caused by an Act of God such as floods, earthquakes etc., damage caused the users or third parties such as any modification or installation practice not authorized by Eco-Pure, Inc., any damage by heavy vehicles such as cars, trucks, etc. This warranty does not cover direct or indirect consequential damage due in part or in full of Eco-Pure, Inc., it's materials, or their workmanship.

