

**FLORIDA ONSITE SEWAGE TREATMENT and DISPOSAL SYSTEMS
ALTERNATIVE DRAINFIELD PRODUCTS AS OF April 1, 2021 (reviewed June 1, 2021)**

Alternative Drainfield System Components (64E-6.009(7) F.A.C.)

PRODUCT NAME / DESCRIPTION	SIZING CRITERIA	Other																																																																								
Advanced Enviro-Septic (AES) by Presby Environmental Inc.		Approval Memo (Including Manual Clarifications) and Florida Installation Manual																																																																								
Advanced Enviro-Septic (AES)	<p>New systems: Pipe length minimum requirement is 50 feet of pipe per 100 gallons per day of estimated sewage flow. System sand sizing criteria depend on soil texture; see table below.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2" style="width: 30%;">Texture</th> <th rowspan="2" style="width: 15%;">Texture Rating</th> <th rowspan="2" style="width: 10%;">*Loading Rate (GPD/sq ft)</th> <th colspan="2" style="width: 45%;">Comparability Rating (ft² required mineral aggregate / ft² System Sand)</th> </tr> <tr> <th style="width: 15%;">Subsurface/Fill</th> <th style="width: 15%;">Mound</th> </tr> </thead> <tbody> <tr style="background-color: #cccccc;"> <td>Coarse Sand, Sand, Loamy Coarse Sand</td> <td>Slightly Limited</td> <td>1.25</td> <td>2.08</td> <td>2.08</td> </tr> <tr> <td>Fine Sand</td> <td>Slightly Limited</td> <td>1.25</td> <td>2.08</td> <td>2.08</td> </tr> <tr style="background-color: #cccccc;"> <td>Loamy Sand</td> <td>Slightly Limited</td> <td>1.25</td> <td>2.08</td> <td>3.13</td> </tr> <tr> <td>Coarse Sandy Loam, Sandy Loam</td> <td>Slightly Limited</td> <td>1.25</td> <td>2.08</td> <td>3.13</td> </tr> <tr style="background-color: #cccccc;"> <td>Very Fine Sand, Loamy Very Fine Sand</td> <td>Moderately Limited</td> <td>0.60</td> <td>1.71</td> <td>2.40</td> </tr> <tr> <td>Fine Sandy Loam</td> <td>Moderately Limited</td> <td>0.60</td> <td>1.71</td> <td>2.40</td> </tr> <tr style="background-color: #cccccc;"> <td>Very Fine Sandy Loam</td> <td>Moderately Limited</td> <td>0.60</td> <td>1.71</td> <td>n/a</td> </tr> <tr> <td>Loam</td> <td>Moderately Limited</td> <td>0.50</td> <td>1.43</td> <td>n/a</td> </tr> <tr style="background-color: #cccccc;"> <td>Silt Loam</td> <td>Moderately Limited</td> <td>0.43</td> <td>1.23</td> <td>n/a</td> </tr> <tr> <td>Sandy Clay Loam</td> <td>Moderately Limited</td> <td>0.43</td> <td>1.23</td> <td>n/a</td> </tr> <tr style="background-color: #cccccc;"> <td>Clay Loam, Silty Clay Loam</td> <td>Moderately Limited</td> <td>0.27</td> <td>1.35</td> <td>n/a</td> </tr> <tr> <td>Sandy Clay, Silty Clay</td> <td>Moderately Limited</td> <td>0.27</td> <td>1.35</td> <td>n/a</td> </tr> <tr style="background-color: #cccccc;"> <td>Clay</td> <td>Severely Limited</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> </tr> </tbody> </table>	Texture	Texture Rating	*Loading Rate (GPD/sq ft)	Comparability Rating (ft ² required mineral aggregate / ft ² System Sand)		Subsurface/Fill	Mound	Coarse Sand, Sand, Loamy Coarse Sand	Slightly Limited	1.25	2.08	2.08	Fine Sand	Slightly Limited	1.25	2.08	2.08	Loamy Sand	Slightly Limited	1.25	2.08	3.13	Coarse Sandy Loam, Sandy Loam	Slightly Limited	1.25	2.08	3.13	Very Fine Sand, Loamy Very Fine Sand	Moderately Limited	0.60	1.71	2.40	Fine Sandy Loam	Moderately Limited	0.60	1.71	2.40	Very Fine Sandy Loam	Moderately Limited	0.60	1.71	n/a	Loam	Moderately Limited	0.50	1.43	n/a	Silt Loam	Moderately Limited	0.43	1.23	n/a	Sandy Clay Loam	Moderately Limited	0.43	1.23	n/a	Clay Loam, Silty Clay Loam	Moderately Limited	0.27	1.35	n/a	Sandy Clay, Silty Clay	Moderately Limited	0.27	1.35	n/a	Clay	Severely Limited	n/a	n/a	n/a	
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PRODUCT NAME / DESCRIPTION	SIZING CRITERIA	Other
ARC chamber (since 01/17/2012 by Infiltrator; formerly Advanced Drainage Systems)		Florida Approved Installation Manual http://www.infiltratorwater.com
ARC 18 (single chamber)	10.0 sq ft/chamber	0" spacing in bed
ARC 18 (dual parallel chamber)	10.0 sqft / chamber---Trench	4"-6" spacing in 36" trench
ARC 24 (single chamber) (Model # 2412BD)	15.0 sq ft / chamber 3.0 sq ft / linear foot of chamber (for cut chamber; cut chamber not approved for installations effective Sept 16, 2020)	4"-6" spacing in bed
BIO DIFFUSER chamber (since 01/17/2012 by Infiltrator; formerly Advanced Drainage Systems or Hancor)		http://www.infiltratorwater.com
BioDiffuser 11" Standard (marketed as Original BioDiffuser) (Model # 1100BD): Not approved for installations effective Jan 01, 2014	18.75 sq ft / chamber	4"-6" spacing in bed
BioDiffuser 15" Narrow (marketed as Bio 2) (single chamber) (Model # 1500BD)	14.4 sq ft / chamber	4"-6" spacing in bed
BioDiffuser 15" Narrow (marketed as Bio 2) (dual parallel chamber) (Model # 1500BD)	15.4 sq ft / chamber	Trench
BioDiffuser 22" Narrow (marketed as Bio 3) (single chamber) (Model # 2200BD)	21.6 sq ft / chamber	4"-6" spacing in bed
CULTEC chamber by Cultec, Inc.		Installation Manual HSES 01-015 Clarification HSES 02-006 http://www.cultec.com
Contacto EZ24	10.75 sq ft / chamber	
Contacto 100	21.50 sq ft / chamber	
Geotextile Sand Filter (GSF) by Eljen Corporation		
Eljen Geotextile Sand Filter (GSF) model A42	See Innovative System Permit	Must be installed in accordance with the product's Innovative System Permit

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PRODUCT NAME / DESCRIPTION	SIZING CRITERIA	Other
ENVIROCHAMBER (since 01/17/2012 by Infiltrator; formerly Hancor)		http://www.infiltratorwater.com
EnviroChamber Pro 11" Standard (Model # 1100BDH): Not approved for installations effective Jan 01, 2014	18.75 sq ft / chamber	(discontinued)
Original 34" Standard Envirochamber): Not approved for installations effective Jan 01, 2014	18.75 sq ft / chamber	(discontinued in 2007)
Original 34" Hi-Capacity Envirochamber): Not approved for installations effective Jan 01, 2014	18.75 sq ft / chamber	(discontinued in 2007)
EZflow by Infiltrator (formerly Ring Industrial Group, L.P.; formerly EZflow, L.P.)		Florida Approved Installation Manual http://www.infiltratorwater.com
EZflow 1003H-GEO (3, 10" pipes)	1 linear foot of product = 3 sqft of mineral aggregate	Trench or Bed
EZflow 1203H-GEO (3, 12" pipes)	1 linear foot of product = 4 sqft of mineral aggregate	Trench or Bed
FLOWTECH by Infiltrator (formerly ICC Technologies, LLC)		Florida Approved Installation Manual http://www.infiltratorwater.com
FTSG-123H-1OC (3, 12" bundles)	1 linear foot of product = 4 sqft of mineral aggregate	Trench or Bed
GeoMat Leaching Systems by Geomatrix		
GeoMat 1200, 3900 in several variations	See Innovative System Permit	Must be installed in accordance with the product's Innovative System Permit

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PRODUCT NAME / DESCRIPTION	SIZING CRITERIA	Other
INFILTRATOR chamber by Infiltrator		Florida Approved Installation Manual http://www.infiltratorwater.com
Original 30" Chamber Models 1HC10, 1STD10, 1STD10C, 1STD20C, 1STDSC and 1HC20): Not approved for installations effective Jan 01, 2014	18.75 sq ft / chamber	4"-6" spacing in bed
Sidewinder Models: 1HC10SWC, 1STD10SW, 1STDSCSW and 1HC10SW): Not approved for installations effective Jan 01, 2014	18.75 sq ft / chamber	4"-6" spacing in bed
EQ24 (single chamber)	16.67 sq ft / chamber	4"-6" spacing in bed
Double EQ24 (dual parallel chamber)	17.85 sqft / chamber---Trench	4"-6" spacing in 36" trench
EQ36 and EQ36 QuickCut (single chamber)	25.00 sqft / chamber	4"-6" spacing in bed
Quick4 EQ24 LP (single chamber)	7.28 sqft / chamber, 0.00 sqft / end plate	0" spacing in bed
Double Quick4 EQ24 LP (dual parallel chamber)	7.80 sqft / chamber, 0.00 sqft / end plate---Trench	4"-6" spacing in 36" trench
Quick4 EQ24 (single chamber) and Quick4 EQ24 HD (single chamber)	8.00 sqft / chamber; 0.00 sqft / end plate	0" spacing in bed
Double Quick4 EQ24 (dual parallel chamber) and Double Quick4 EQ24 HD (dual parallel chamber)	8.57 sqft / chamber; 0.00 sqft / end plate---Trench	4"-6" spacing in 36" trench
Quick4 EQ36 and Quick4 EQ36 SL	12.00 sqft / chamber; 0.00 sqft / end plate	4"-6" spacing in bed
Quick4 Plus EQ36 LP and Quick4 Plus EQ36 SL LP	11.32 sqft / chamber, 0.00 sqft / end plate	0" spacing in bed
Quick4 Standard Chamber): Not approved for installations effective Jan 01, 2014	12.00 sqft / chamber; 0.00 sqft / end plate	4"-6" spacing in bed

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PRODUCT NAME / DESCRIPTION	SIZING CRITERIA	Other
Multi-Pipe Rockless Drainfield System (MPRDS) by Plastic Tubing Industries, Inc.		Florida Approved Installation Manual
10 pipes - 3 tier	1 linear foot of product = 2 sqft of mineral aggregate	
14 pipes - 3 tier	1 linear foot of product = 3 sqft of mineral aggregate	
9 pipes - 2 tier; Marketed by PTI as "MPS-9"	1 linear foot of product = 3 sqft of mineral aggregate	
11 pipes - 2 tier; Marketed by PTI as "MPS-11"	1 linear foot of product = 3 sqft of mineral aggregate	
13 pipes - 2 tier; Marketed by PTI as "MPS-13"	1 linear foot of product = 3 sqft of mineral aggregate	
Polyrock by Turner's Septic Services, Inc.		Florida Approved Installation Manual
Polyrock (3, 12" bundles)	1 linear foot of product = 4 sqft of mineral aggregate	Performance warranty required
Septic Stack by Advanced Drainage Systems, Inc.		Florida Approved Installation Manual
Septic Stack-9	1 linear foot of product = 3 sqft of mineral aggregate	Limited warranty required
Septic Stack-11	1 linear foot of product = 3 sqft of mineral aggregate	Limited warranty required
Septic Stack-13	1 linear foot of product = 3 sqft of mineral aggregate	Limited warranty required

Tire Chips (64E-6.009(6) F.A.C.)	SIZING CRITERIA	Other
TIRE CHIP MANUFACTURER		
Affordable Tire (renamed 07/2006 to RMD)	Mineral aggregate substitute on sq ft per sq ft basis	Specifications must be met in the field
Florida Tire Recycling, Inc. Tire Chips	Mineral aggregate substitute on sq ft per sq ft basis	Specifications must be met in the field
Global Tire Recycling, Inc.	Mineral aggregate substitute on sq ft per sq ft basis	Specifications must be met in the field
Modern Recycling Inc.	Mineral aggregate substitute on sq ft per sq ft basis	Specifications must be met in the field
RMD Americas of Florida, LLC	Mineral aggregate substitute on sq ft per sq ft basis	Specifications must be met in the field

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Drip Irrigation (64E-6.009(5) F.A.C.)	Nominal Emitter Flow, Spacing along Line	Other
WASTEFLOW by Geo-Flow		www.geoflow.com
WASTEFLOW CLASSIC (not pressure compensating)		
WF16-4-24	1 gph at 15 psi and 1.44 gph at 30 psi; 24 " spacing	
WF16-4-12	1 gph at 15 psi and 1.44 gph at 30 psi; 12 " spacing	
WASTEFLOWPC (pressure compensating)		
WFPC16-2-24	½ gph, 24 " spacing	
WFPC16-2-12	½ gph, 12 " spacing	
WFPC16-4-24	1 gph, 24 " spacing	
WFPC16-4-12	1 gph, 12 " spacing	
WF-PLAIN	Plain (no emitters)	
BIOLINE for Florida by Netafim (Vinylene-free; all pressure-compensating)		www.netafimusa.com
08WRAM.4-12500	0.4 gph, 12" spacing, 500' roll	
08WRAM.4-12	0.4 gph, 12" spacing, 1000' roll	
08WRAM.4-18500	0.4 gph, 18" spacing, 500' roll	
08WRAM.4-18	0.4 gph, 18" spacing, 1000' roll	
08WRAM.4-24500	0.4 gph, 24" spacing, 500' roll	
08WRAM.4-24	0.4 gph, 24" spacing, 1000' roll	
08WRAM.6-12500	0.6 gph, 12" spacing, 500' roll	
08WRAM.6-12	0.6 gph, 12" spacing, 1000' roll	
08WRAM.6-18500	0.6 gph, 18" spacing, 500' roll	
08WRAM.6-18	0.6 gph, 18" spacing, 1000' roll	
08WRAM.6-24500	0.6 gph, 24" spacing, 500' roll	
08WRAM.6-24	0.6 gph, 24" spacing, 1000' roll	
08WRAM 0.9-12500	0.9 gph flow, 12" spacing, 500' roll	
08WRAM 0.9-12	0.9 gph flow, 12" spacing, 1000' roll	
08WRAM 0.9-18500	0.9 gph flow, 18" spacing, 500' roll	
08WRAM 0.9-18	0.9 gph flow, 18" spacing, 1000' roll	
08WRAM 0.9-24500	0.9 gph flow, 24" spacing, 500' roll	
08WRAM 0.9-24	0.9 gph flow, 24" spacing, 1000' roll	
08WRAM 1-12500	Model number discontinued, was identical to 08WRAM.9-1250	
08WRAM 1-12	Model number discontinued, was identical to 08WRAM.9-12	
08WRAM 1-18500	Model number discontinued, was identical to 08WRAM.9-1850	
08WRAM 1-18	Model number discontinued, was identical to 08WRAM.9-18	
08WRAM 1-24500	Model number discontinued, was identical to 08WRAM.9-24500	
08WRAM 1-24	Model number discontinued, was identical to 08WRAM.9-24	