

Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

Notice of Proprietary Treatment Product Listing Pursuant to Arizona Administrative Code R18-9-A309(E)

ADEQ LTF #97023

Revised – February 21, 2023

(Revision of Previous LTF #80218)

1. Proprietary Treatment Product Name, Model, and Description

Product Name: Anua AeroCell

Models: ATSCAT-4-AC-C200, ATSCAT-6-AC-C300, ATSCAT-8-AC-C500, ATSCAT-16-AC-C2400, AT540-AC-N, AT1060-AC-N, AT1530-AC-N, ATNS500-AC-N, ATNS750-AC-N, ATNS1000-AC-N, ATNS500-80/20-AC-N, ATNS750-80/20-AC-N, ATNS1000-80/20-AC-N, ATNS500-2-80/20-AC-N, ATNS500-3-80/20-AC-N, ATNS750-2-80/20-AC-N, Q-ATS-A400-80/20-AC, Q-ATS-A400-2-80/20-AC, Q-ATS-A400-3-80/20-AC

Description: The Anua AeroCell recirculating fixed film media filter consists of fiberglass or plastic tank(s) containing a pre-determined amount of open cell foam media. The process consists of four stages in the treatment process. The treatment begins in the pretreatment stage consisting of the septic tank in stage one and the pump tank in stage two. In the third stage, the effluent is sprayed over the media using specialized spray nozzles to evenly distribute wastewater to achieve treatment. The fourth and final stage consists of the recirculation device where treated effluent flows through an 80/20% recirculation device where further treatment occurs before disposal of the effluent. This listing is applicable for design flows up to 24,000 gpd.

2. Manufacturer Information

Name: Anua
Address: P.O. Box 77457
City/State/Zip: Greensboro, NC 27417
Phone: (336) 547-9338
Fax: N/A
Website: www.anuainternational.com

Main Office

1110 West Washington Street • Phoenix, AZ 85007
(602) 771-2300

Southern Regional Office

400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

www.azdeq.gov

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3. Recognized Treatment Performance

Parameter	Statistical Measure	Value
5-Day Biochemical Oxygen Demand (BOD ₅), mg/L	30-day arithmetic mean	3
Total Suspended Solids (TSS), mg/L	30-day arithmetic mean	2
Total Nitrogen as Nitrogen(TN), mg/L	five-month arithmetic mean	9
Total Coliform, Colony Forming Units/100mL	95th percentile	163 (Log ₁₀ 2.2)

4. Product Applicability and Limitations for Use for a Recognized General Permit Technology

Applicability: This listing is for only the Anua AeroCell models and is listed as a textile filter treatment technology specified in A.A.C. R18-9-E312.

Limitations:

- A.** The Anua AeroCell must receive wastewater that is treated to a level equal to or better than specified in R18-9-E302(B). Additionally, it must meet oil and grease ≤ 75 mg/L requirement contained in R18-9-101(42);
- B.** The Anua AeroCell shall be used in conjunction with a septic tank for pretreatment that meets the requirements of R18-9-A314;
- C.** The product shall conform to the following:

Maximum Design Flow (gallons per day) per R18-9-A309(B)(3)	Manufacturer’s Model Number (Stand-alone Pretreatment Tank) Pump or Gravity Disposal	Media Volume Per Pod (cubic feet)	Media Loading Rate (gallons per day per cubic foot)	Treatment Unit Housing	Recirculation Tank Minimum Capacity (gallons)
188	ATS-SCAT-4-AC-C200	32	5.88	Quanics FRP	1.0x Design Flow
312	ATS-SCAT-6-AC-C300	53	5.88	Quanics FRP	1.0x Design Flow
500	ATS-SCAT-8-AC-C500	85	5.88	Quanics FRP	1.0x Design Flow
2352	ATS-SCAT-16-AC-C2400	400	5.88	Quanics FRP	1.0x Design Flow
500	ATS-540-AC-N	85	5.88	Infiltrator IM-540 Tank	1.0x Design Flow
800	ATS-1060-AC-N	136	5.88	Infiltrator IM-1060 Tank	1.0x Design Flow
1500	ATS-1530-AC-N	255	5.88	Infiltrator IM-1530 Tank	1.0x Design Flow
500	ATS-NS500-AC-N	85	5.88	Norwesco-Snyder Next Gen D2 500	1.0x Design Flow

660	ATS-NS750-AC-N	112	5.88	Norwesco-Snyder Next Gen D2 750	1.0x Design Flow
800	ATS-NS1000-AC-N	137	5.88	Norwesco-Snyder Next Gen D2 1000	1.0x Design Flow
500	ATS-NS500-80/20-AC-N	85	5.88	Norwesco-Snyder Next Gen D2 500	1.0x Design Flow
660	ATS-NS750-80/20-AC-N	112	5.88	Norwesco-Snyder Next Gen D2 750	1.0x Design Flow
800	ATS-NS1000-80/20-AC-N	136	5.88	Norwesco-Snyder Next Gen D2 1000	1.0x Design Flow
1000	ATS-NS500-2-80/20-AC-N	170	5.88	Norwesco-Snyder Next Gen 500x2	1.0x Design Flow
1500	ATS-NS500-3-80/20-AC-N	255	5.88	Norwesco-Snyder Next Gen 500x3	1.0x Design Flow
1320	ATS-NS750-2-80/20-AC-N	244	5.88	Norwesco-Snyder Next Gen 750x2	1.0x Design Flow
400	Q-ATS-A400-80/20-AC	67	5.88	Anua HDPE	1.0x Design Flow
800	Q-ATS-A400-2-80/20-AC	134	5.88	Anua HDPE	1.0x Design Flow
1200	Q-ATS-A400-3-80/20-AC	201	5.88	Anua HDPE	1.0x Design Flow

- D.** The Anua AeroCell shall be used in conjunction with a pump tank (recirculation tank) which must be one times the design flow rate and which meets the design requirements in R18-9-E304(D)(3);
- E.** This approval listing EXCLUDES appurtenances which are considered to be an alarm, control panel, control, switch, timer, wiring, other electrical devices, and installation components; which are subject to both the manufacturer specifications and any more restrictive requirement in 18 A.A.C. 9, Article 3.
- F.** This listing is for the treatment of wastewater that meets the definition of typical sewage in R18-9-101(42).
- G.** Effluent from the Anua AeroCell can be dispersed by gravity to the distribution box and then by gravity to the dispersal field. In addition, effluent can be disposed to the disposal works with a pump or siphon to a distribution box followed by gravity discharge to the disposal works has been determined to be equal to that of a pump and pressure distribution to the disposal works (no distribution box used) as specified in R18-9-E304. An A312G submittal will be required to obtain approval of the design details to use a pump or siphon to a distribution box followed by gravity discharge to the disposal works. In addition, the A312G will be used in conjunction with the Type 4.12 general permit application to gain approval to use this method of discharge to the disposal works instead of using a pressurized discharge to the disposal works.
- H.** If the installation of a pressure distribution system will occur, then the Notice of Intent to Discharge submittal documentation shall include the required materials listed in R18-9-E304. Pressure dosing of the Anua AeroCell effluent, if used, shall be governed by the requirements in the R18-9-E304 permit.
- I.** Effluent disposal shall be based upon trench soil absorption rates.
- J.** In extreme weather conditions, the force main shall be designed to drain back after each cycle and the drain back cycle should be factored into the dosing calculations per the manufacturer's requirements.

- K.** The manufacturer recommends inspection of the Anua AeroCell around year 2 of service in addition to the routine maintenance.
- L.** The requirement of R18-9-A312(B)(4)(e) has been met by providing twenty-four-hour emergency storage of wastewater within the unit itself.
- M.** ADEQ approves the Anua AeroCell Design & Installation Manual, dated 06-2022, for this proprietary product. In addition, it should be noted that the Arizona Administrative Code (AAC) states the following: “if manufactured components are used, an applicant shall design, install, and operate the on-site wastewater treatment facility following the manufacturer’s specifications” as per R18-9-A312(F)(2).
- N.** The product, including the pretreatment works, is subject to A.A.C. R18-9-A312(F)(2) through (4).
- O.** The listing EXCLUDES appurtenances which are considered to be an alarm, control panel, control switch, timer, wiring, other electrical devices, and installation components, which are submit to both the manufacturer specifications and any more restrictive requirements in 18 A.A.C. 9, Article 3.

5. Alternative Criteria and Exceptions for Use under the Recognized General Permit Technology

Alternative:	None
Exception:	<ul style="list-style-type: none"> a. When the wastewater does not meet the definition of typical sewage as defined in R18-9-101(42), a Manufacturer’s Design Review Report shall be submitted for review and approval along with the Notice of Intent to Discharge. This Design Review Report shall specify component capacities, control settings, and supplemental installation & operational practices.

6. Documents Used as the Basis for this Proprietary Treatment Product Listing Notice

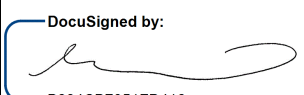
Application for Treatment Product Listing:	November 21, 2022
3 rd Party Test data:	Wastewater Technology NSF International Final Report: Quanics AeroCell ATS-SCAT-8-AC-C500 Wastewater Treatment System June 2008 Received November 21, 2022
Installation Instructions:	AeroCell Open Cell Foam Biofilter - Installation Manual - dated 06/2022 Received November 21, 2022 AeroCell Open Cell Foam Biofilter – Pad Dispersal Manual – dated 06/2022 Received November 21, 2022
Manufacturer’s Warranty:	Quanics Warranty – Received May 9, 2019
Manufacturer’s Specifications:	AeroCell Open Cell Foam Biofilter – Table of Limitations Received November 21, 2022
Manufacturer’s Design Calculations & Drawings:	AeroCell Open Cell Foam Biofilter – Engineering & Technical Specifications – dated 07/2022 Received November 21, 2022

	<p>Anua 400 GPD AC/BC W/ 80/20 Split in Anua Housing (Dwg. No. Q-ATS-A-400-80/20-XC Drawings – dated 03/07/22 Received November 21, 2022</p> <p>Anua 400 GPD AC/BC W/ 80/20 Split in Anua Housing (Dwg. No. Q-ATS-A-400-80/20-XC Drawings – dated 06/15/22 Received November 21, 2022</p>
Residential Design Guide:	<p>AeroCell Open Cell Foam Biofilter – Residential Design Guide – dated 06/2022 Received November 21, 2022</p>
Maintenance Manual:	<p>AeroCell Open Cell Foam Biofilter - Maintenance Manual – dated 06/2022 Received November 21, 2022</p>
Owner’s Manual:	<p>AeroCell Open Cell Foam Biofilter – Owner’s Manual – dated 06/2022 Received November 21, 2022</p>
Supplemental Documentation:	<p>NSF Official Listing with updated models Received May 6, 2022</p> <p>NSF Anua Approval Letter – RUSH Review Against Alternative and Added Models Within the Quanics/AeroCell/BioCoir Series, NSF Workorder W0764635. Received November 21, 2022</p> <p>AeroCell Open Cell Foam Biofilter – Product Flyer Received November 21, 2022</p>

7. Terms and Conditions for this Proprietary Treatment Product Listing Notice

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| <p>A. This Notice of Proprietary Treatment Product Listing shall remain in effect until any of the following occurs:</p> <ol style="list-style-type: none"> 1. Applicable provisions of the Arizona Administrative Code, Title 18, Chapter 9, Article 3 are revised; 2. Documents used for the basis of this listing are altered or modified; 3. Manufacturer claims which are relied upon for this listing are later determined to contain an error or omission; 4. The manufacturer requests termination of this listing; 5. A listing error or omission is identified; or 6. The manufacturer and ADEQ mutually agree to reissue this notification to incorporate correction or update for any reason. <p>B. This Notice of Proprietary Treatment Product Listing does not apply when the:</p> <ol style="list-style-type: none"> 1. Listed proprietary treatment product is modified or operated in a manner that conflicts with Arizona law or the documents used for the basis of this listing action in Section 6. 2. Listed proprietary treatment products are used in a manner that cannot achieve the performance in Section 3 above. |
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- C. This Notice of Proprietary Treatment Product Listing applies solely to the product specified in Section 1 above.
- D. The manufacturer is responsible for notifying ADEQ of changes to the contact information at the following address:
Attention: Product Listing Supervisor
Engineering Review Desk,
1110 West Washington Street
Phoenix, AZ 85007.
- E. The listing by ADEQ of any proprietary product or service is not an endorsement by ADEQ or the State of Arizona. ADEQ does not endorse, represent, guarantee, warranty or defend the use of any product which is authorized for use pursuant to A.A.C. R18-9-A309(E). Product providers are a direct source unrelated to ADEQ or the State of Arizona. Use of any listed product is at the user's risk and the State assumes no liability.

Signature:	 <small>DocuSigned by: B394CB7064FD416...</small>	Date Signed:	4/26/2023
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Title:	Deputy Director, Water Quality Division
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ADEQ LTF # 97023
Revision of Previous Permit ADEQ LTF# 80218
Reviewer: LAL, RDM