



Whether you are looking for a complete plant or a unit to complement an existing plant, the Aspiral™ Flex line includes a variety of modular containerized wastewater treatment blocks so that you can get just the solution you need. Aspiral™ is a good fit for small- to medium- sized treatment plants with a capacity of 5,000 to 250,000 gallons per day (20 to 950 cubic meters per day), or populations from 50 to 3,000 people. Due to the modular design, the units are popular with those looking for flexible, decentralized solutions for example: rest stops, condos and developments, hotels and resorts, RV parks, and more.

Aspiral™ Flex Wastewater Treatment Units

The units can be combined with one another to create a full plant or they can be integrated into your existing wastewater treatment design.



aspiral™ S

All-in-one biological treatment unit
Produces disinfected effluent

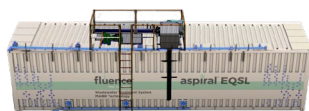
Maximum Capacity:
13k GPD (50 m³/d)



aspiral™ M

All-in-one biological treatment unit
Produces tertiary disinfected effluent

Maximum Capacity:
30k GPD (115 m³/d)



aspiral™ EQSL

Equalization and/or sludge holding

Holding Capacity:
17k GPD (65 m³/d)



aspiral™ BIO

Biological treatment with activated sludge, MABR optional

Maximum Capacity:
75k GPD (300 m³/d)



aspiral™ UF

Ultrafiltration and disinfection

Maximum Capacity:
200k GPD (757 m³/d)

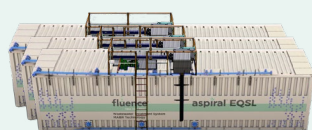


aspiral™ CLARIFIER

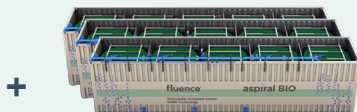
Secondary clarification, optional tertiary treatment, disinfection

Maximum Capacity:
75k GPD (284 m³/d)

Example of an Aspiral™ MBR plant



3 x aspiral™ EQSL



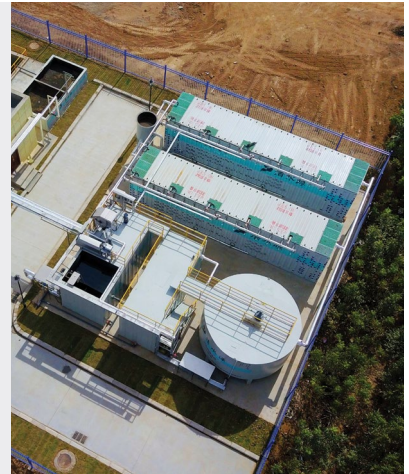
3 x aspiral™ BIO



1 x aspiral™ UF

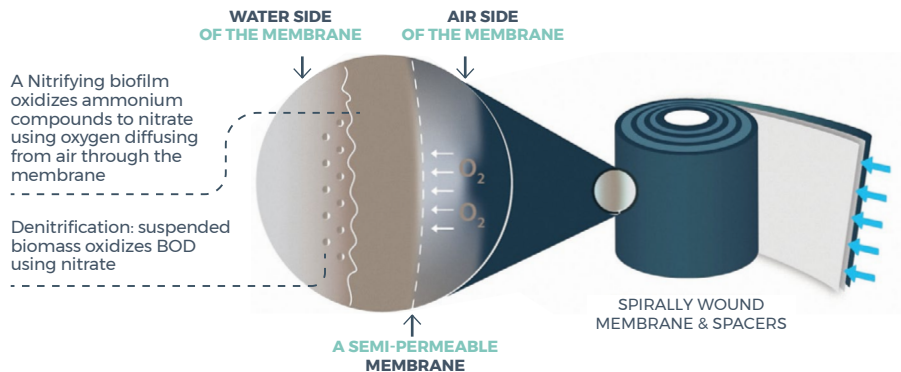
Benefits of Aspiral™ Flex

- Can meet the most stringent U.S. EPA effluent limits
- Pre-engineered solutions, factory tested
- Fast installation: delivered and setup in standard 20- or 40- ft containers
- Completely encapsulated: low odor and noise
- Can accommodate different treatment processes (MABR/MBR/activated sludge)
- Modular and scalable
- Low maintenance and operation cost
- Lower total CAPEX compared to similar systems
- Built-in resilience to flow and temperature fluctuations



MABR Technology

The unique MABR (membrane aerated biofilm reactor) biological process enables simultaneous BOD, TN and TP removal, all in a single pass supported by highly efficient passive aeration which results in up to 90% less energy required for aeration.



Efficient Biological Treatment

The Aspiral™ plants achieve high removal rates resulting in very high effluent quality.

The Aspiral™ systems can easily be designed to allow even higher effluent quality if required.

Pollutant	Typical Influent	Typical Effluent	Removal
Ammonia (NH ₄ N)	45 mg/L	<3 mg/L	>93%
Total Nitrogen (TN)	55 mg/L	<5 mg/L	>90%
Total Phosphorous (TP)	10 mg/L	<1 mg/L	>90%
Total Suspended Solids (TSS)	350 mg/L	<10 mg/L	>93%
Biological Oxygen Demand (BOD ₅)	300 mg/L	<10 mg/L	>96%
Chemical Oxygen Demand (COD)	600 mg/L	<70 mg/L	>88%

*For Aspiral™ Bio, clarifiers, and filtration treating 33,000 GPD (125 m³/d) at 15C/59F

Aspiral™ biological energy consumption: 0.25 kWh/m³ (0.95 kWh/kgal)
Up to <90% less energy for aeration compared to conventional technologies



Fully equipped and checked for fast installation and start-up



Remote monitoring and operation for system optimization



Durable membrane materials with a life expectancy of over 20 years



Flexible payment options available, including leasing and BOO