



Introducing

Aqwise **Remote N' Control™ Compact Unit** Solution
Protecting the environment wherever it is



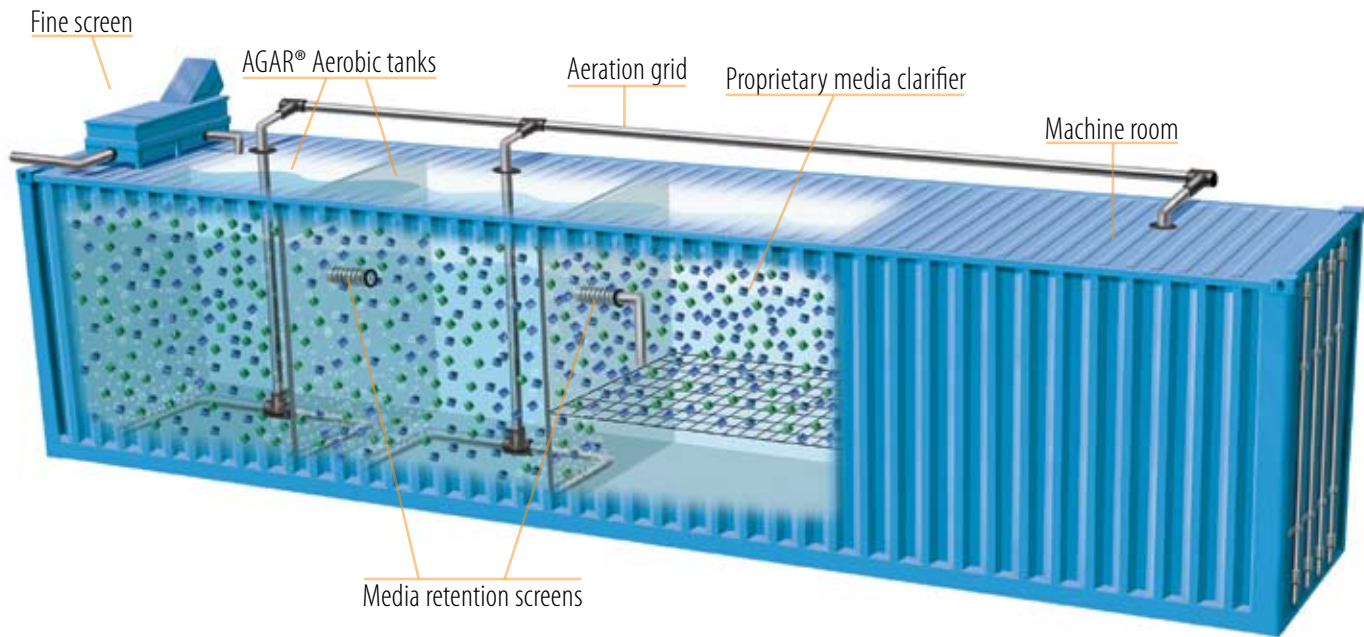
Extending Nature's Capacity

Advanced solutions for small scale Wastewater Treatment plants

Comprehensive compact wastewater treatment solutions

The Aqwise Compact Unit is essentially a standard freight container enclosing a complete wastewater treatment plant for sanitary wastewater flows of 50 to 100 m³/d. The unit can produce effluents to meet all environmental discharge requirements both in terms of BOD and Total Nitrogen requirements. The plant is fully automated, the processes are inherently simple, and as a result minimal operator intervention is required.

Aqwise Remote N' Control™ Compact Unit at-a-glance



State of the Art AGAR® technology sets new standards for next generation solutions

The Aqwise Remote N' Control Compact Unit, using AGAR® (Attached Growth Airlift Reactor) technology, presents customers with a robust wastewater treatment system with the following benefits:

- Small foot print
- Easy delivery & installation in remote locations
- Fast implementation with minimal logistical and staffing requirements
 - No need for high-level technical experience
- Automatic operation
 - With minimal need for human monitoring
- Solution stability – with effective resistance to:
 - Hydraulic shock
 - Toxic shock
 - High organic load
- Supreme cost efficiency
 - No need for extensive local infrastructure
 - Low operational costs
- Inherent scalability
 - Add carriers for greater performance
 - Add parallel units for greater capacity
 - Can be supplied as a separate unit process
- No Odors

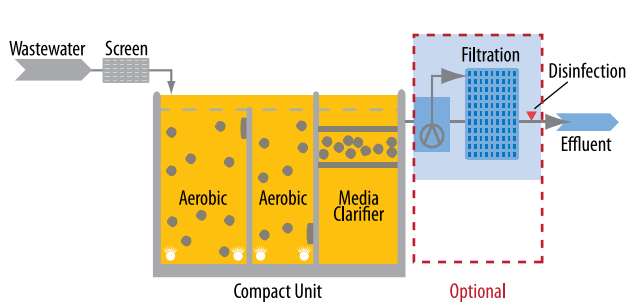
Various Applications:

**Small or Remote Communities
Industrial Parks and Business Parks**

The Technology

The Compact Unit solution is designed to take advantage of the relative simplicity of Moving Bed technology. Combined with higher effluent quality capabilities of the denitrification unit, it presents a containerized solution which:

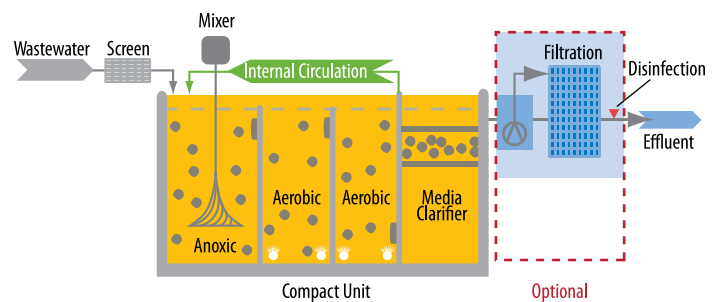
1. Can be deployed rapidly, with minimal infrastructure requirements (a plane area or concrete slab, electrical power connections and influent and effluent piping are all that is needed).
2. Requires minimal operator intervention due to mechanical simplicity and inherent robustness.
3. Produces an effluent with high degree of Nitrogen removal (low Total Nitrogen concentration) suitable for many applications with discharge to the environment (i.e., receiving waters, creek, etc).



Carbon Removal

MBBR (Moving Bed Biological Reactor) technology is characterized by simple operational requirements, as it contains far less process units (compared with an equivalent Activated Sludge system), and as a result such solutions are less prone to process upsets. The technology is often used for carbonaceous BOD removal. Although the process has good nitrification capabilities, it is a less commonly used process for Nitrogen removal, mainly due to denitrification limitations: due to the high Internal Recycle (IR) required, and the lack of an external carbon source, extensive denitrification (and the concurrent Total Nitrogen removal) is hard to achieve.

Aqwise has developed an advanced, unique AGAR® Remote N' Control™ process which overcomes this challenge, while retaining the inherent simplicity of the MBBR technology. The result is a simple, low-maintenance, robust system which produces a high quality effluent which can comply with the most stringent regulatory requirements.



Carbon and Nutrients Removal

The new Aqwise compact-unit solution includes the following stages:

1. An anoxic pre-denitrification stage (used only when Nitrogen removal is required), facilitated by the use of floating media (moving-bed) and a mixer. Nitrified wastewater is returned from the aerobic reactor to this stage by IR stream, and partial denitrification occurs on the biomass attached to the media.
2. The aerobic moving-bed reactor is where BOD removal and Ammonia nitrification takes place. The reactor, filled with floating media and equipped with an aeration system, generates air for oxygenation and mixing. Nitrified effluent from the effluent-end of the reactor is recycled to the anoxic zone for partial denitrification (applicable to the Nitrogen removal option).
3. Effluent from the aerobic reactor is introduced into the new, patented media clarifier unit, consisting of a combined sedimentation-denitrification-filtration unit. The media clarifier unit combines effluent filtration with denitrification, and is based on the same type of media used in the upstream biological units. Implementation of this process unit also allows the process to produce an effluent with very low (<15 mg/l) Total Nitrogen, as well as TSS concentrations, comparable to those produced in an activated sludge system.

Choice of two diversified configurations to match specific local applications

The Aqwise solution comes in two optional configurations: BOD removal only, and BOD & Nitrogen removal. Additional advantages include:

- Two options: 50 m³ / 100 m³ a day
- Ability to upgrade capacity by adding parallel compact-units to the same site
- Suitability to use the unit as an interim/temporary solution, as well as on a seasonal operation (e.g. resorts and hotels affected by high/low season)
- The solution may also be provided as a turn-key service through selected Aqwise distribution partners
- Each Compact Unit may be specifically 'tailored' to particular client specifications

Mining Plants

Marine Gas/Oil Platforms

Rest Areas

Hotels & Spas in remote and secluded areas

About Aqwise®

Aqwise is a world leader in the development and implementation of advanced wastewater treatment solutions for the Industrial and Municipal markets. Aqwise's proprietary AGAR® (Attached Growth Airlift Reactor) family of solutions significantly increases the capacity and efficiency of existing wastewater treatment plants, while offering compact and scalable deployments of new plants.

Aqwise is headquartered in Israel and has regional offices in Latin America, as well as commercial representation in North America, Europe, the Middle East and Asia Pacific.

Flow (m ³ /day)	Effluent Quality (mg/L)	
Up to 50	Designed for effluent quality of:	
	BOD/TSS 20/30	BOD/TSS/TN 10/10/15
Up to 100	20/30	10/10/15



The AGAR® Advantage

- Cost Efficient
- Small Footprint
- Fast Deployment
- Scalable & Simple Operation
- Flexible & Innovative Technology
- Durable & Stable
- Intensive Nitrification
- Environmentally Friendly

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