

# Wastewater Solutions



Wastewater  
Treatment



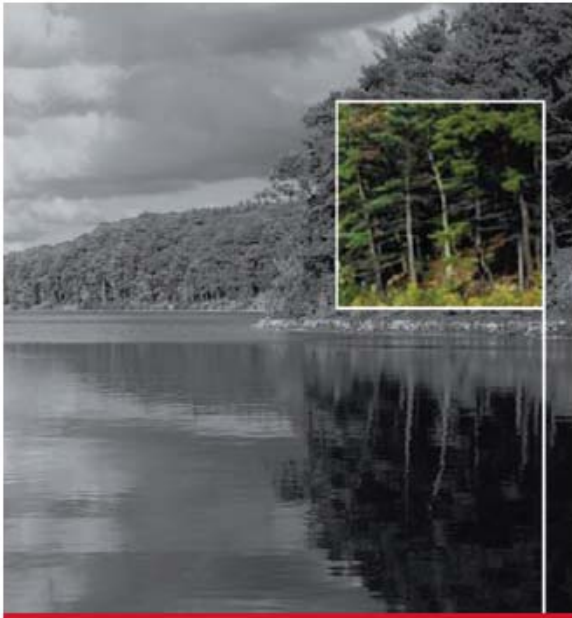
Water Reuse and  
Rainwater Harvesting



Clean Air  
Solutions

## BORD NA MÓNA

ENVIRONMENTAL PRODUCTS U.S. INC.

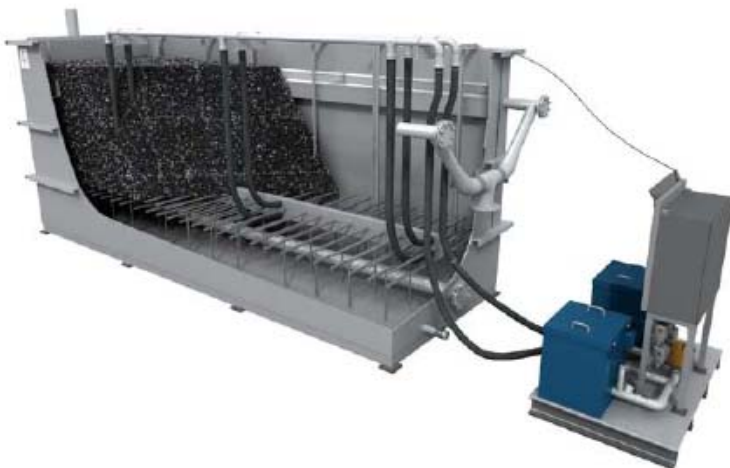


## PuraSAF®

Submerged Aerated Filter

Pre-Engineered System

[www.bnm-us.com](http://www.bnm-us.com)



Tertiary ammonia reduction

Tertiary solids filter

Simple installation and operation

Small footprint

Low energy consumption

Low operating costs

Mobile package plant available

Rental/lease units available



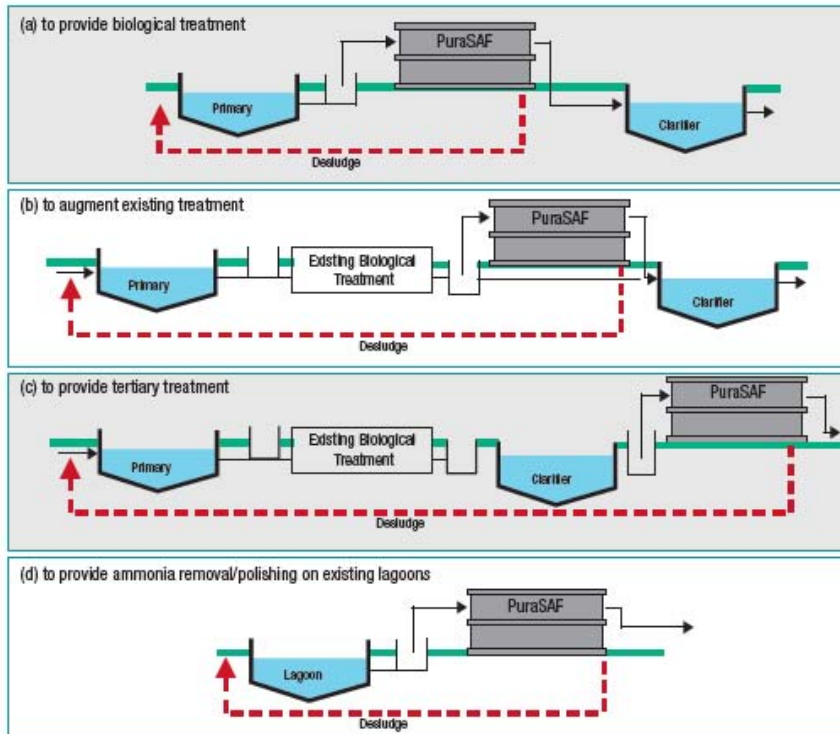
## PuraSAF®: Simple, Effective, Green

The PuraSAF® is a submerged aerated filter that provides a cost effective, low energy pre-engineered wastewater treatment solution that is simple to operate and maintain. The PuraSAF® uses a filter media produced from recycled plastic that provides an ideal medium for biological attached growth. Operating normally in a static mode, it is readily fluidized for cleaning and desludging. In aerobic mode, PuraSAF® offers a small footprint, low headloss solution for BOD, Nitrification and Denitrification. The PuraSAF® can also be used in an unaerated mode as a low-cost tertiary filter approaching sand filter quality.

## Bord na Móna Environmental Products US: Green by Nature.

Bord na Móna has over 60 years experience, and is a leading designer, manufacturer and supplier of innovative, high performance, air, wastewater treatment and water reuse solutions focused on reducing energy & chemical demand, incorporation of recycled materials and water conservation. Our extensive, in-house R&D capability has produced a range of technologies that provide superior quality to homeowners, communities & municipalities and significant benefits to our environment.

### Examples of where the PuraSAF® can be used:



## PuraSAF® Submerged Aerated Filter:

### The PuraSAF® process:

Specially designed, recycled plastic media act as biomass carriers and provide a large surface area for bacteria to attach. The PuraSAF tank is equipped with a rugged, coarse-bubble aeration system that utilizes the media to provide superior oxygen transfer rates, more efficient than fine bubble systems.

The filter media will require periodic, typically daily, cleaning to remove excess biomass and accumulated solids. Cleaning is achieved by increasing the air rate into the reactor using the scour grid, which results in a "fluidization" and scouring of the media bed. Agitation dislodges unwanted particulate matter without unduly disturbing the active biomass.

Once the scour is switched off, the filter bed will reform and biological treatment recommences immediately. Excess solids in the form of sludge are drained from the base of the tank via an actuated desludge valve. The cleaning process is fully automated via the control panel and blower skid configuration.

## Product Range

Unit	Max Hydraulic Flow gpm (l/s)	Max BOD Load lbs/d (kg/d)	Typical Power Hp/KW	Dimensions l x w x h (ft)
M6	158 (10)	59 (27)	1.3 / 1.0	13 x 6.5 x 8
M10	235 (15)	90 (41)	2.0 / 1.5	19.5 x 6.5 x 8

## Performance

	BOD	SS	NH <sub>3</sub>
Secondary Treatment	25mg/l	35mg/l	n/a
Tertiary Mode	5mg/l	n/a	1mg/l

## Benefits

- Lower process air requirements than traditional activated sludge processes
- Small footprint & low head loss solution
- Simple to install, minimal connections required on site
- Provides stable operation where conventional treatment may be subject to operational stresses
- Designed to be mobile, can be moved between sites
- Blowers and control panel are mounted on a portable, pre-wired skid
- Available as rental or lease units
- Low operating cost and maintenance requirements
- Utilizes recycled plastic media

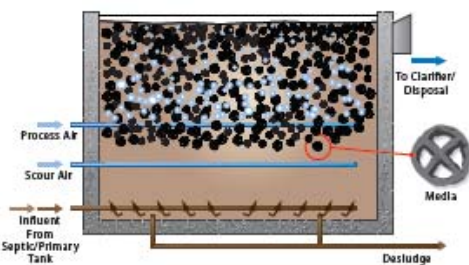
## Applications:

- Ideal temporary solution during planned refurbishment of existing plant
- Excellent solution for ammonia reduction on existing works or lagoon effluent
- Available as a mobile emergency solution for falling works
- Can be brought on-site to handle seasonal peak loads
- Complete secondary treatment system available with clarifier
- As a tertiary filter, low cost alternative to sand filtration
- BOD, Ammonia, Nitrogen, or TSS reduction

## It's time for a new contract with nature.

The air we breathe. The water we drink. It's the environment we live in and we need to protect it. Bord na Móna, a \$550 million, multi-national provider of environmental solutions, offers sustainable thinking about wastewater pollution, water conservation and clean air that can enable development while helping municipalities, communities and homeowners live in harmony with the world around them. If our green principles align with your values, contact us today.

Call 1-800-787-2356 or email: [info@bnm-us.com](mailto:info@bnm-us.com)  
And stop by [www.bnm-us.com](http://www.bnm-us.com) anytime.



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## Product Range:

### Wastewater Solutions for:

- High strength
- Pre-treatment
- Nitrogen reduction
- Phosphorus reduction
- Tertiary treatment

### On-site:

- Puraflo® Peat Fiber Biofilter
- PuraMc® Compact Membrane
- Pura-Dn® Post Anoxic Denitrification

### Municipal Decentralized Community and Commercial:

- PuraM® Membrane Bioreactor
- PuraMax® Moving Bed Biological Reactor
- PuraSAF® Submerged Aerated Filter
- Puraflo® Community

### Rainwater Harvesting:

- Residential and Commercial Systems

### Clean Air Solutions:

- MÓNASHELL® Biofiltration System
- MÓNAFIL® Peat Based Biofilter
- MÓNASHELL® EBf Enhanced Biofiltration System