



Ultra

**ECOSWIM**

**The best solution for the  
reuse of backwash water  
in swimming pools**

**WE BRING CLEAN WATER**  
**Since 1990**

Since 1990 Technol is producing top quality filters for swimming pool and water treatment. Our range consist of media vertical and horizontal filters, DE/perlite filters, cartridge filters, prefilters and other products from GRP.

Our products are installed in the biggest swimming pools and aquaparks in Europe and beyond. We work according ISO 9001/14001 standards with our own production and R&D.

Hereby we present you our product for a sustainable swimming pool, the ULTRA-ECOSWIM recycling device.



With the **ULTRA-ECOSWIM** fully automatic ultrafiltration unit you can recover the backwash water and reuse it in the swimming pool system as fresh water or discharge it in the nature as non-contaminated water. According **DIN 19645**.

# ecoswim

The **ULTRA-ECOSWIM** is the most effective solution how to reduce carbon footprint and reduce running costs in commercial and public swimming pools.

Our units will save you between 75-90% of water that would normally be discharged into sewage/nature.

With the installation of the **ULTRA-ECOSWIM** unit you will made a big step towards a sustainable swimming pool installation that will prove the test of time.



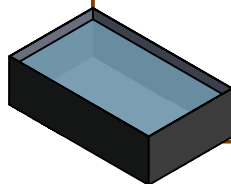


# CONVENTIONAL swimming pool system

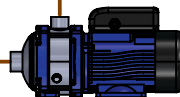


Multimedia filtration system

100% of backwash water



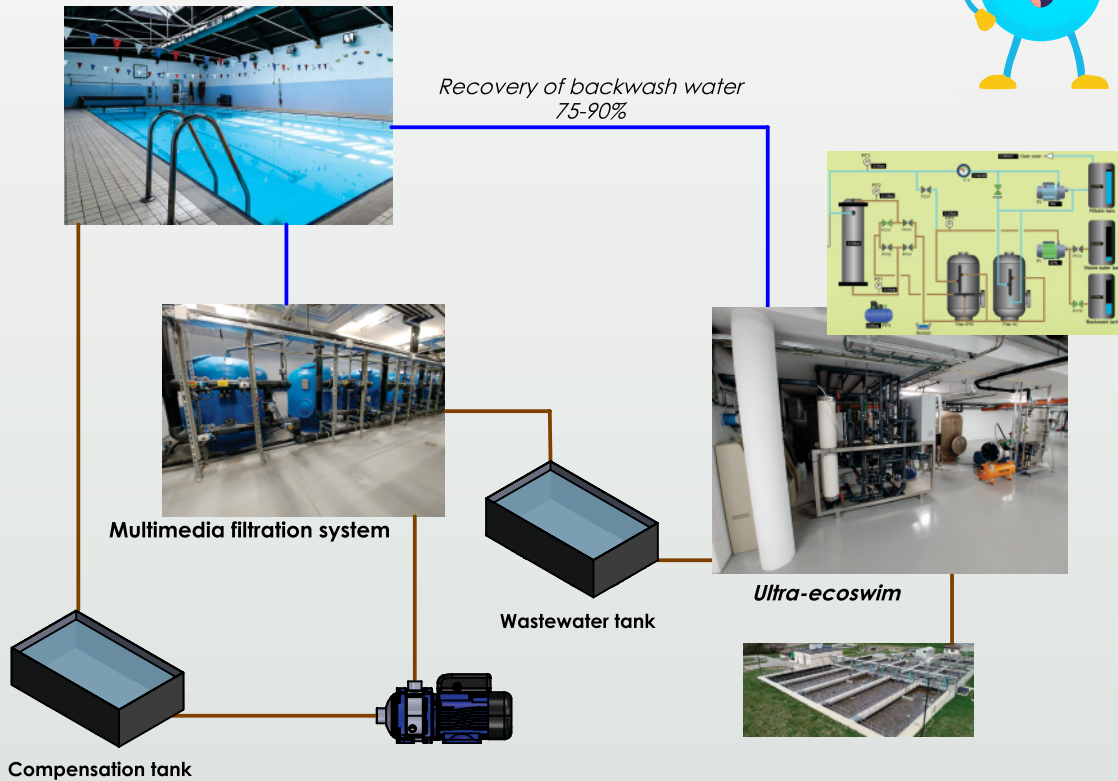
Compensation tank



Multimedia filters are the most economic, reliable and easy to operate filtration system on the market. The only weak point of these filters is the big amount of water needed for backwashing. In the common machine room water from MMF backwash is discharged to sewage leaving high carbon footprint and high running costs.

At present this water goes into waste, which causes extra costs and high needs of water & energy for water heating.

## Sustainable swimming pool system with Ultra ecoswim unit



# BENEFITS

RECYCLE THE BACKWASH WATER  
AND RE-USE IT

SAVE ON WASTE WATER TAX

SAVE ENERGY NEEDED FOR THE  
HEATING OF WATER

AND MOST IMPORTANT - SAVE THE RUNNING  
COSTS OF THE SWIMMING POOL, PRESERVE  
NATURE AND REDUCE CO<sub>2</sub> EMISSIONS.

RECOVER RATE: 75%-90%

The **ULTRA-ECOSWIM** unit can be installed in a new or existing swimming pool installation and can be customized to fit in all filtration systems. We perform the start-up of the unit and provide full support to the customer.



# TECHNICAL DESCRIPTION

of the unit

The unit removes suspended solids, microbiological and organic solutes from wastewater, so it can be re-used in the system.

The **ULTRA-ECOSWIM** device is a totally automated system. The device is using several filtration steps to achieve the best filtration efficiency. Our intuitive program uses readings such as flow, water level, pressure, temperature, pH value, conductivity value and adopts to all working environments. The system can be monitored and operated via external device such as computer or phone.

- UF membrane from PESM, pore size ~0,02mm;
- RO membranes;
- Pump with frequency regulator – filtration;
- Pump with frequency regulator – backwash;
- Sand filter;
- Screen filter;
- Pneumatic valves with limit switches;
- Pressure sensors, flow meter, pressure gauges etc.;
- Dosing pumps for chemicals; chlorine, pH+, pH-, antiscalant
- Tank of filtered water for the washing of the UF membrane;
- Disinfection via chlorine or UV lamp
- Control panel with microprocessor-controlled PLC system for automatic management of wastewater treatment plants, on a touch screen which shows these operating parameters: pressure, flow rate, filtration time and backwash time, position of each valve, alarm for faults, history etc. The device can be controlled & managed via internet.



## Technical data of ULTRA-ECO SWIM standard units

	Capacity	el. supply	el. power	Tank	Connection	Connection	Sewage flow rate	Dimension
Model	m <sup>3</sup> /h	V	kW	D (mm)	comp. tank	waste tank	m <sup>3</sup> /h	HxWxL (m)
UE 2.5	2,5	400	3,00	Ø 1.000	DN40	DN40	15	2,2x0,9x2,2
UE 5	5	400	4,00	Ø 1.200	DN50	DN50	25	2,2x0,9x2,2
UE 7.5	7,5	400	4,80	Ø 1.400	DN65	DN65	40	2,4x1,2x3,2
UE 10	10	400	5,8	Ø 1.600	DN80	DN80	50	2,5x1,5x3,75

\*Tank height for all models is 2.250mm.

Larger capacity units are available upon request.



## Example of cost saves:

We calculated that for an Olympic pool in EU you save around 17.000EUR per year, taking into consideration the cost of running the device.

### Basic inputs:

Olympic pool: 3x filters d3.000mm

Backwashing frequency/speed/backwashing time/rinse time:  
7 days/50m/h/5min/3min

Temp of tap/pool water: 12°C/26°C

Cost of water: 1.6EUR/m<sup>3</sup>

Cost of waste water: 2.3EUR/m<sup>3</sup>

Cost of heating: 6.11/EUR/GJ or 0.22EUR/kWh

Estimated CO<sub>2</sub> saved emissions: 17.485kg

Feel free to use our  
on- line calculator





**Percentage of recovery: 75% (this is minimal)**

The bigger the installation, the faster is the return investment rate!

**You can choose from these models:**

Capacity: Ultra-ecoswim 2.5/5/7.5/10 m<sup>3</sup>/h

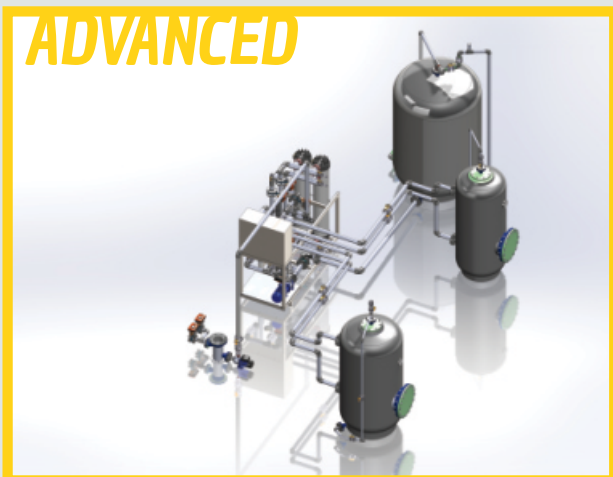
Cleaning steps

*Using ultraftraion*



This system is generally used for swimming pool waste water discharge

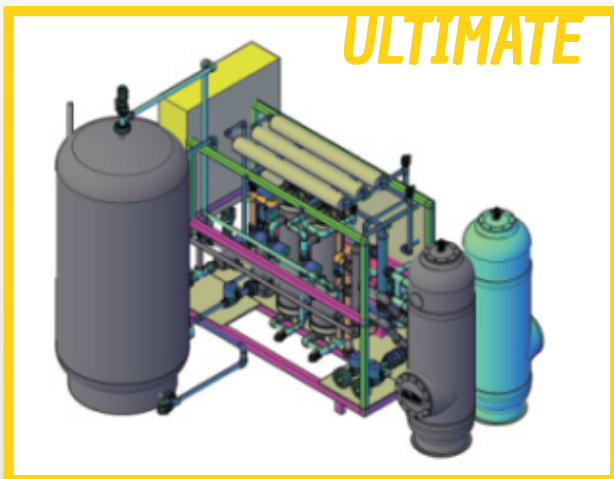
*Using UF and Active carbon filter*



This system is used for swimming pool water reuse.



**REUSE  
REDUCE  
RECYCLE**



*Using UF and RO membranes  
swimming pool water reuse  
for high demand water*

From our standard range you can also choose a tailor made unit. We can build a unit that can fit into smaller machine rooms, add additional sensors, add additional monitoring parameters etc. As a part of the unit we offer an optional distribution system that will evenly distribute the cleaned water into all of your systems.

All units are tested in the factory and carefully packed to ensure safe delivery and fast commissioning / start up times.

**Ultra** **ECOSWIM**



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**RECOVERY DEVICE  
FOR YOUR WATER**