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by Water*

WATER

TREATMENT

ATECPOOL
By LIFETECH



 **ATECPOOL**
INTERNATIONAL
GROUP



atecpool.com

BASIC - LIFEUVL® - NW-EB

Water disinfection, low-pressure UV systems do not remove Trichloramine, which is harmful to health



Expected life of UV lamp 13,000 hours	Technology (Series) Low-pressure UV systems (Basic)	Application Private pools and whirlpools	Water flow 24-29 m³/h
Connection 2"	Power supply Electronic ballast	Wiper Without wiper	

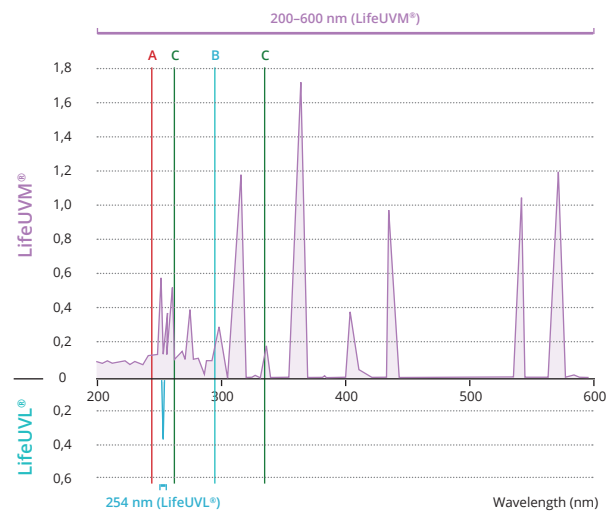
Low-pressure UV technology

The maximum absorption of UV radiation by nucleic acid (DNA) is at a wavelength of 260 nm. The low-pressure UV germicidal lamp emits a linear spectrum with a dominant wavelength of 254 nm, which is very close to the optimal wavelength for maximum absorption by nucleic acids. However, low-pressure UV systems do not remove bound chlorine.

The goal of UV disinfection is genetic material or nucleic acid. As UV radiation penetrates the cell and is absorbed by nucleic acids (DNA), the genetic information is rearranged, making it impossible for the cell to reproduce. A cell that cannot reproduce is presumed dead. It is unable to reproduce in the host in infectious amounts.

200-600 nm	Polychromatic emission spectrum of medium-pressure lamps
254 nm	Monochromatic emission spectrum of low-pressure lamps
245 nm	Reduction of monochloramine (A)
297 nm	Reduction of dichloramine (B)
260, 340 nm	Reduction of trichloramine (C)

Spectral radiation force (relative units)

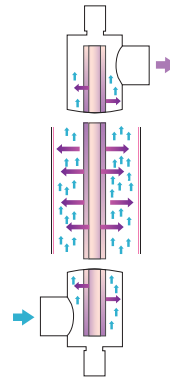
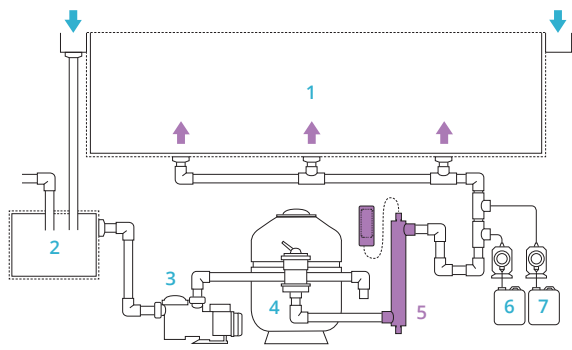


BASIC models

	Connection	Water flow rate m ³ /h (Private pools and whirlpools)	Total power input of UV lamps (kW) / phase
LifeUVL0148-NW-EB	2"	24	48 / 1
LifeUVL0187-NW-EB	2"	29	87 / 1

The PVC fitting shown included in the LifeUVL® supply.

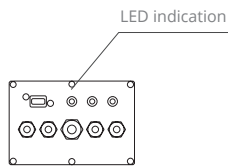
Instalation



- 1 Swimming pool
- 2 Storage tank
- 3 Circulator pump
- 4 Filter
- 5 LifeUVL®
- 6 pH adjustment
- 7 Chlorine dosage

PROFIPURE – LIFEUVM®-MP-LE

Water disinfection and removal of health-harmful bound chlorine and Trichloramines



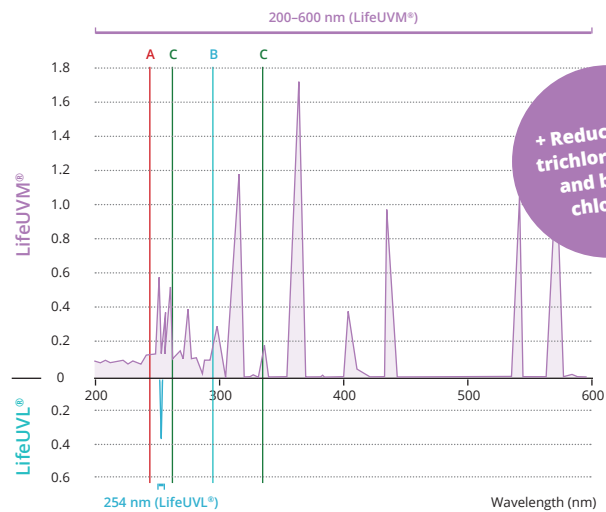
Expected life of UV lamp 5,000 hours	Technology (Series) Medium-pressure UV systems (Classic)	Application Public / Private pools and whirlpools	Water flow 4.7–14 m³/h
Connection 1 ½"–2"	Power supply Magnetic power supply	Wiper Without wiper	Extension Temperature sensor

Medium-pressure UV technology

Medium-pressure UV lamps are based on the broad-spectrum radiation principle – from 200 to 600 nm. And that is an advantage. The wider the range of waves shines through the space, the more pathogens it hits. In addition, this broad-spectrum UV radiation eliminates the DNA of microorganisms permanently, without the possibility of their reactivation (the ability to repair damaged DNA again). Unlike low-pressure systems, medium-pressure UV systems can operate in both cold and hot water. After treatment, the water is treated thoroughly and permanently.

200–600 nm	Polychromatic emission spectrum of medium-pressure lamps
254 nm	Monochromatic emission spectrum of low-pressure lamps
245 nm	Reduction of monochloramine (A)
297 nm	Reduction of dichloramine (B)
260, 340 nm	Reduction of trichloramine (C)

Spectral radiation force (relative units)



i Medium-pressure UVM systems are the only UV systems that reduce the value of bound chlorine in the pool - anchored in the German standard for pools. (DIN 19643)



MEDIUM-PRESSURE UV SYSTEMS



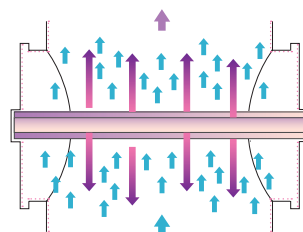
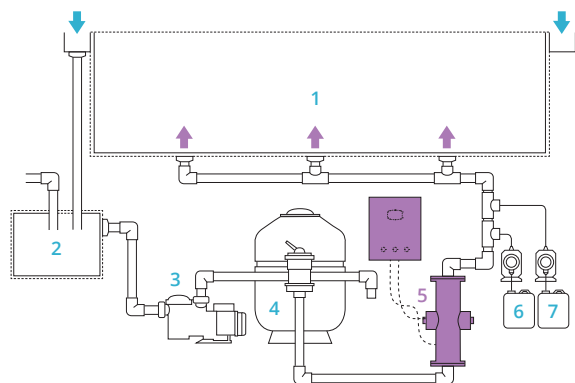
Model	Code	PROFI PURE	PROFITINY	CHARM	CLEAR	TOP
Expected life of LifeUVM® UV lamp		5,000	5,000	10,000	8,000	18,000
Technology LifeAGE®				✓		✓
Water flow (m³/h) (Public pools and whirlpools)		4.7	27	33	616	910
Water flow (m³/h) (Private and semi-public pools and whirlpools)		14	38	42	-	-
Series		Classic	Classic	Classic	Direct	Direct
Magnetic power supply	MP	✓	✓		✓	
Advanced electronic power supply (LifeAGE® technology)	AEP			✓		✓
Without wiper	NW	✓	✓			
Manual wiper	MW		✓	✓	✓	✓
Automatic wiper	AW			✓	✓	✓

Public swimming pools and whirlpools – UV dose 60 mJ/cm² / other models on request

PROFI PURE models

	Connection	Water flow m³/h		Total power input of UV lamps (kW) / phase
		Public pools and whirlpools	Private pools and whirlpools	
Without wiper				
ProfiPure 100	1 ½"	4.7	12	0.25 / I
ProfiPure 200	2"	4.7	14	0.25 / I

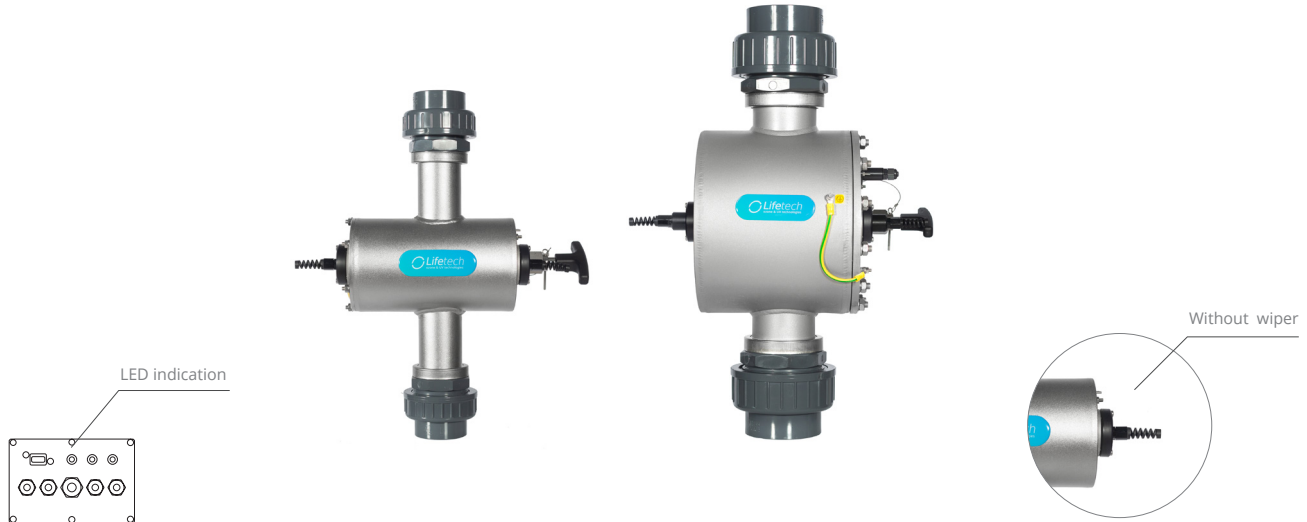
Installation



- 1 Swimming pool
- 2 Storage tank
- 3 Circulator pump
- 4 Filter
- 5 LifeUVM®
- 6 pH adjustment
- 7 Chlorine dosage

PROFITINY - LIFEUVM[®]-NW/MW-MP-LE

Water disinfection and removal of health-harmful bound chlorine and Trichloramines



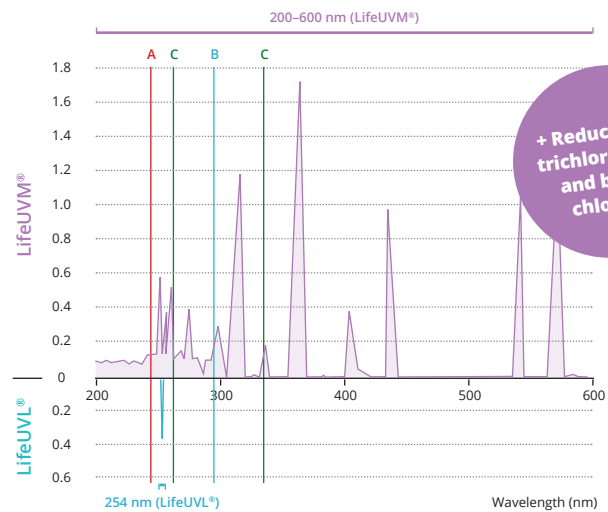
Expected life of UV lamp 5,000 hours	Technology (Series) Medium-pressure UV systems (Classic)	Application Public / Private pools and whirlpools	Water flow 9-38 m ³ /h
Connection 2"-3"	Power supply Magnetic power supply	Wiper Without wiper / Manual wiper	Extension Temperature sensor

Medium-pressure UV technology

Medium-pressure UV lamps are based on the broad-spectrum radiation principle - from 200 to 600 nm. And that is an advantage. The wider the range of waves shines through the space, the more pathogens it hits. In addition, this broad-spectrum UV radiation eliminates the DNA of microorganisms permanently, without the possibility of their reactivation (the ability to repair damaged DNA again). Unlike low-pressure systems, medium-pressure UV systems can operate in both cold and hot water. After treatment, the water is treated thoroughly and permanently.

200-600 nm	Polychromatic emission spectrum of medium-pressure lamps
254 nm	Monochromatic emission spectrum of low-pressure lamps
245 nm	Reduction of monochloramine (A)
297 nm	Reduction of dichloramine (B)
260, 340 nm	Reduction of trichloramine (C)

Spectral radiation force (relative units)



i Medium-pressure UVM systems are the only UV systems that reduce the value of bound chlorine in the pool - anchored in the German standard for pools. (DIN 19643)



MEDIUM-PRESSURE UV SYSTEMS



Model	Code	PROFIPIRE	PROFITINY	CHARM	CLEAR	TOP
Expected life of LifeUVM® UV lamp		5,000	5,000	10,000	8,000	18,000
Technology LifeAGE®				✓		✓
Water flow (m³/h) (Public pools and whirlpools)		4.7	27	33	616	910
Water flow (m³/h) (Private and semi-public pools and whirlpools)		14	38	42	-	-
Series		Classic	Classic	Classic	Direct	Direct
Magnetic power supply	MP	✓	✓		✓	
Advanced electronic power supply (LifeAGE® technology)	AEP			✓		✓
Without wiper	NW	✓	✓			
Manual wiper	MW		✓	✓	✓	✓
Automatic wiper	AW			✓	✓	✓

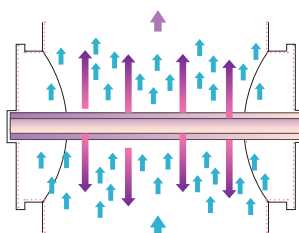
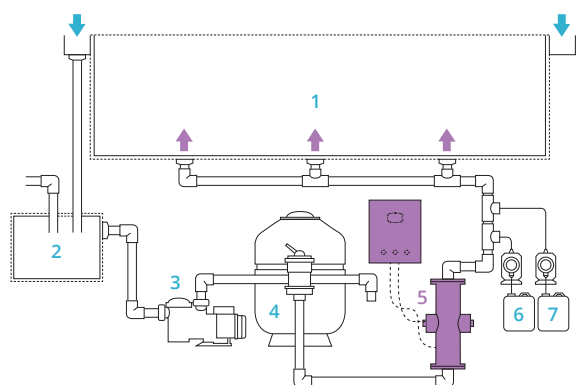
Public swimming pools and whirlpools – UV dose 60 mJ/cm² / other models on request

PROFIPIRE models

Without wiper (NW)	Manual wiper (MW)	Connection	Water flow m³/h		Total power input of UV lamps (kW) / phase
			Public pools and whirlpools	Private pools and whirlpools	
LifeUVM0104-13-NW-MP-LE	LifeUVM0104-13-MW-MP-LE	2"	9	18	0.4 / I
LifeUVM0104-25-NW-MP-LE	LifeUVM0104-25-MW-MP-LE	3"	27	38	0.4 / I

The PVC fitting shown included in the LifeUVM® ProfiTiny supply.

Installation

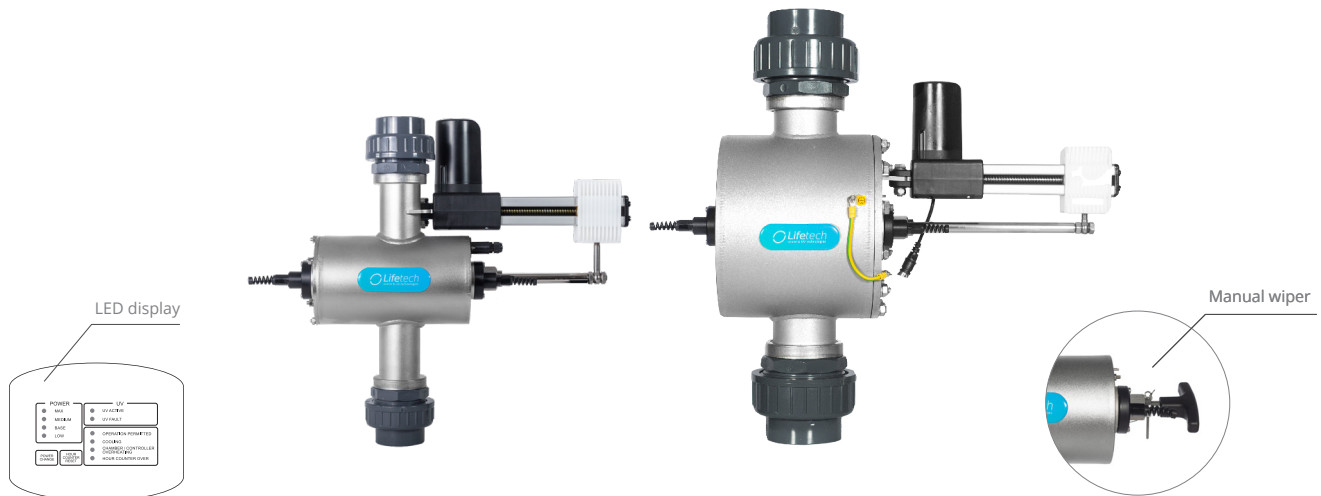


- 1 Swimming pool
- 2 Storage tank
- 3 Circulator pump
- 4 Filter
- 5 LifeUVM®
- 6 pH adjustment
- 7 Chlorine dosage

CHARM - LIFEUVM®-MW/AW-AEP-LD



Water disinfection and removal of health-harmful bound chlorine and Trichloramines while simultaneously reducing operating costs by up to 25% compared to standard medium-pressure UV systems thanks to the unique LifeAGE® technology developed by LIFETECH



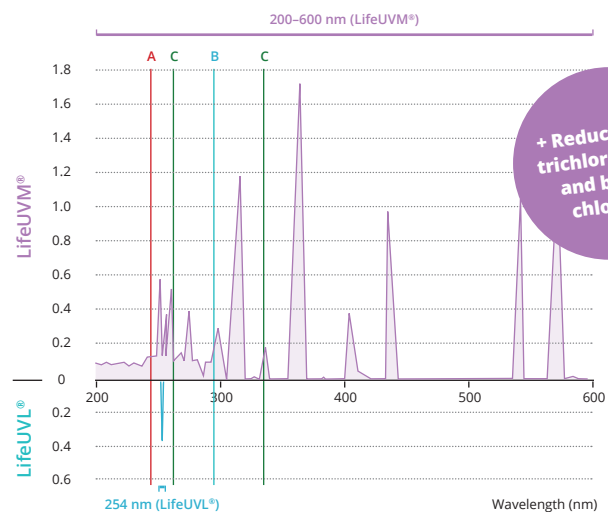
Expected life of UV lamp 10,000 hours	Technology (Series) Medium-pressure UV systems (Classic)	Application Public / Private pools and whirlpools	Water flow 9-42 m³/h
Connection 2" - 3"	Power supply Advanced electronic power supply (LifeAGE® technology)	Wiper Manual / Automatic	Extension Temperature sensor

Medium-pressure UV technology

Medium-pressure UV lamps are based on the broad-spectrum radiation principle – from 200 to 600 nm. And that is an advantage. The wider the range of waves shines through the space, the more pathogens it hits. In addition, this broad-spectrum UV radiation eliminates the DNA of microorganisms permanently, without the possibility of their reactivation (the ability to repair damaged DNA again). Unlike low-pressure systems, medium-pressure UV systems can operate in both cold and hot water. After treatment, the water is treated thoroughly and permanently.

200-600 nm	Polychromatic emission spectrum of medium-pressure lamps
254 nm	Monochromatic emission spectrum of low-pressure lamps
245 nm	Reduction of monochloramine (A)
297 nm	Reduction of dichloramine (B)
260, 340 nm	Reduction of trichloramine (C)

Spectral radiation force (relative units)



i Medium-pressure UVM systems are the only UV systems that reduce the value of bound chlorine in the pool - anchored in the German standard for pools. (DIN 19643)



**MEDIUM-PRESSURE
UV SYSTEMS**



Model	Code	PROFIPURE	PROFITINY	CHARM	CLEAR	TOP
Expected life of LifeUVM® UV lamp		5,000	5,000	10,000	8,000	18,000
Technology LifeAGE®				✓		✓
Water flow (m³/h) (Public pools and whirlpools)		4.7	27	33	616	910
Water flow (m³/h) (Private and semi-public pools and whirlpools)		14	38	42	-	-
Series		Classic	Classic	Classic	Direct	Direct
Magnetic power supply	MP	✓	✓		✓	
Advanced electronic power supply (LifeAGE® technology)	AEP			✓		✓
Without wiper	NW	✓	✓			
Manual wiper	MW		✓	✓	✓	✓
Automatic wiper	AW			✓	✓	✓

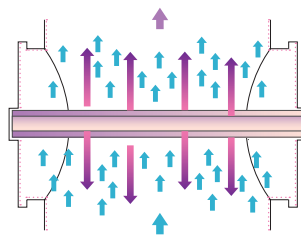
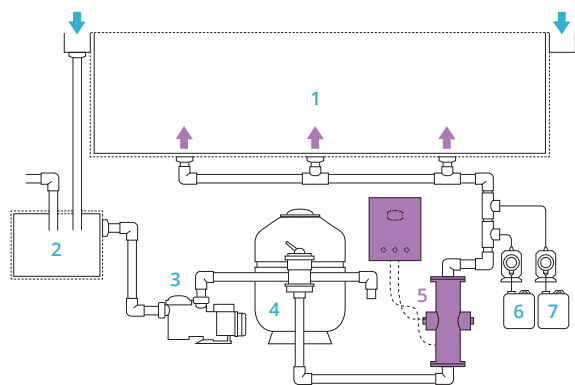
Public swimming pools and whirlpools – UV dose 60 mJ/cm² / other models on request

PROFIPURE models

Manual wiper (MW)	Automatic wiper (AW)	Connection	Water flow m³/h		Total power input of UV lamps (kW) / phase
			Public pools and whirlpools	Private pools and whirlpools	
LifeUVM0104-13-MW-AEP-LD	LifeUVM0104-13-AW-AEP-LD	2"	9	18	0.4 / I
LifeUVM0104-25-MW-AEP-LD	LifeUVM0104-25-AW-AEP-LD	3"	27	38	0.4 / I
LifeUVM0106-25-MW-AEP-LD	LifeUVM0106-25-AW-AEP-LD	3"	33	42	0.6 / I

The PVC fitting shown included in the LifeUVM® Charm supply.

Installation



- 1 Swimming pool
- 2 Storage tank
- 3 Circulator pump
- 4 Filter
- 5 LifeUVM®
- 6 pH adjustment
- 7 Chlorine dosage

CLEAR - LIFEUVM®-MW/AW-MP-TS-D

Water disinfection and removal of health-harmful bound chlorine and Trichloramines



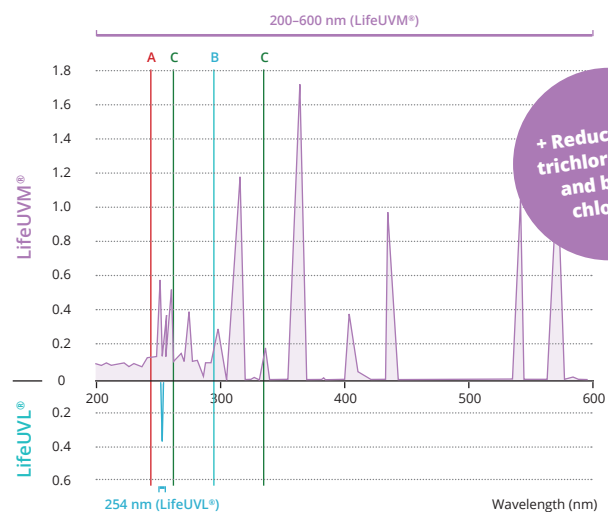
Expected life of UV lamp 8,000 hours	Technology (Series) Medium-pressure UV systems (Direct)	Application Public pools and whirlpools	Water flow 33-616 m³/h
Power supply Magnetic power supply	Wiper Manual / Automatic	Extension Temperature sensor UV sensor	Extension Modbus connection

Medium-pressure UV technology

Medium-pressure UV lamps are based on the broad-spectrum radiation principle – from 200 to 600 nm. And that is an advantage. The wider the range of waves shines through the space, the more pathogens it hits. In addition, this broad-spectrum UV radiation eliminates the DNA of microorganisms permanently, without the possibility of their reactivation (the ability to repair damaged DNA again). Unlike low-pressure systems, medium-pressure UV systems can operate in both cold and hot water. After treatment, the water is treated thoroughly and permanently.

200-600 nm	Polychromatic emission spectrum of medium-pressure lamps
254 nm	Monochromatic emission spectrum of low-pressure lamps
245 nm	Reduction of monochloramine (A)
297 nm	Reduction of dichloramine (B)
260, 340 nm	Reduction of trichloramine (C)

Spectral radiation force (relative units)



Medium-pressure UVM systems are the only UV systems that reduce the value of bound chlorine in the pool - anchored in the German standard for pools. (DIN 19643)



**MEDIUM-PRESSURE
UV SYSTEMS**



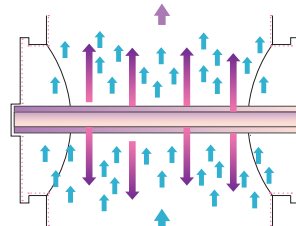
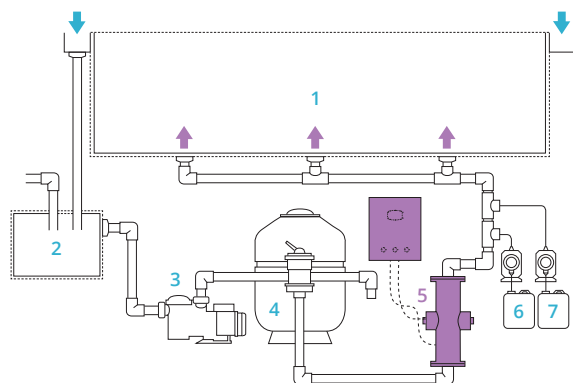
Model	Code	PROFIPURE	PROFITINY	CHARM	CLEAR	TOP
Expected life of LifeUVM® UV lamp		5,000	5,000	10,000	8,000	18,000
Technology LifeAGE®				✓		✓
Water flow (m³/h) (Public pools and whirlpools)		4.7	27	33	616	910
Water flow (m³/h) (Private and semi-public pools and whirlpools)		14	38	42	-	-
Series		Classic	Classic	Classic	Direct	Direct
Magnetic power supply	MP	✓	✓		✓	
Advanced electronic power supply (LifeAGE® technology)	AEP			✓		✓
Without wiper	NW	✓	✓			
Manual wiper	MW		✓	✓	✓	✓
Automatic wiper	AW			✓	✓	✓

Public swimming pools and whirlpools – UV dose 60 mJ/cm² / other models on request

PROFIPURE models

Manual wiper (MW)	Automatic wiper (AW)	Water flow m³/h Public pools and whirlpools	Total power input of UV lamps (kW) / phase
LifeUVM0110-13-MW-MP-TS-D-DN125	LifeUVM0110-13-AW-MP-TS-D-DN125	33	1/I
LifeUVM0110-16-MW-MP-TS-D-DN150	LifeUVM0110-16-AW-MP-TS-D-DN150	46	1/I
LifeUVM0120-16-MW-MP-TS-D-DN150	LifeUVM0120-16-AW-MP-TS-D-DN150	63	2/III
LifeUVM0120-21-MW-MP-TS-D-DN200	LifeUVM0120-21-AW-MP-TS-D-DN200	88	2/III
LifeUVM0120-21-MW-MP-TS-D-DN150	LifeUVM0120-21-AW-MP-TS-D-DN150	88	2/III
LifeUVM0220-27-MW-MP-TS-D-DN250	LifeUVM0220-27-AW-MP-TS-D-DN250	196	4/III
LifeUVM0220-27-MW-MP-TS-D-DN200	LifeUVM0220-27-AW-MP-TS-D-DN200	196	4/III
LifeUVM0320-32-MW-MP-TS-D-DN300	LifeUVM0320-32-AW-MP-TS-D-DN300	315	6/III
LifeUVM0420-32-MW-MP-TS-D-DN300	LifeUVM0420-32-AW-MP-TS-D-DN300	385	8/III
LifeUVM0620-32-MW-MP-TS-D-DN300	LifeUVM0620-32-AW-MP-TS-D-DN300	616	12/III

Installation



- 1 Swimming pool
- 2 Storage tank
- 3 Circulator pump
- 4 Filter
- 5 LifeUVM®
- 6 pH adjustment
- 7 Chlorine dosage



TOP - LIFEUVM®-MW/AW-AEP-TS-D



Water disinfection and removal of health-harmful bound chlorine and Trichloramines while simultaneously reducing operating costs by up to 35% compared to standard medium-pressure UV systems thanks to the unique LifeAGE® technology and the autonomous regulation system developed by the LIFETECH company



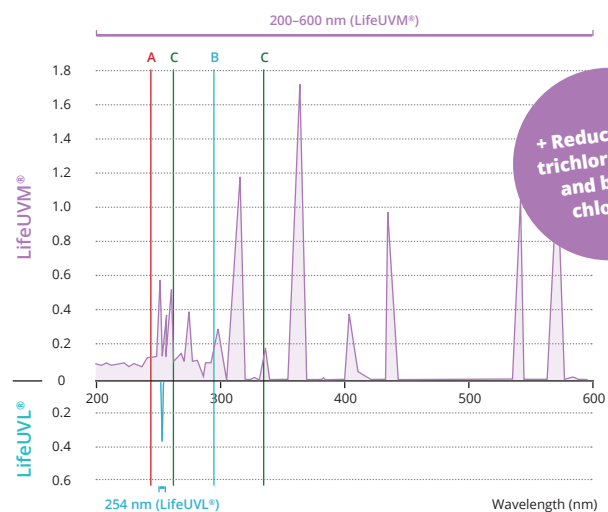
Expected life of UV lamp 18,000 hours	Technology (Series) Medium-pressure UV systems (Direct)	Application Public pools and whirlpools	Water flow 33-910 m³/h
Power supply Advanced electronic power supply (LifeAGE® technology)	Wiper Manual / Automatic	Extension Temperature sensor UV sensor	Extension Modbus connection

Medium-pressure UV technology

Medium-pressure UV lamps are based on the broad-spectrum radiation principle – from 200 to 600 nm. And that is an advantage. The wider the range of waves shines through the space, the more pathogens it hits. In addition, this broad-spectrum UV radiation eliminates the DNA of microorganisms permanently, without the possibility of their reactivation (the ability to repair damaged DNA again). Unlike low-pressure systems, medium-pressure UV systems can operate in both cold and hot water. After treatment, the water is treated thoroughly and permanently.

200-600 nm	Polychromatic emission spectrum of medium-pressure lamps
254 nm	Monochromatic emission spectrum of low-pressure lamps
245 nm	Reduction of monochloramine (A)
297 nm	Reduction of dichloramine (B)
260, 340 nm	Reduction of trichloramine (C)

Spectral radiation force (relative units)



+ Reduction of trichloramines and bound chlorine:

Medium-pressure UVM systems are the only UV systems that reduce the value of bound chlorine in the pool - anchored in the German standard for pools. (DIN 19643)





**MEDIUM-PRESSURE
UV SYSTEMS**

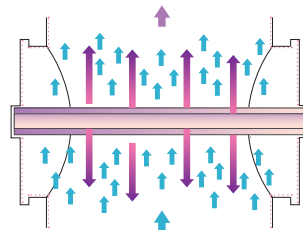
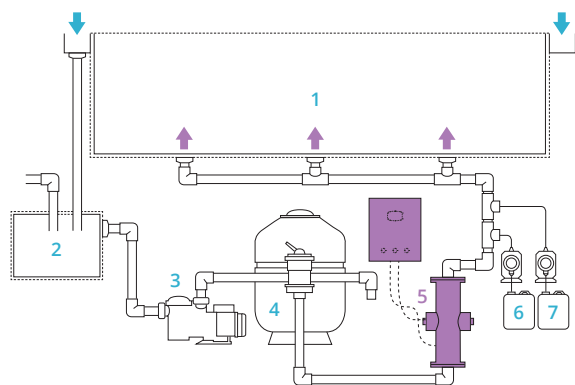
Model	Code	PROFIPIURE	PROFITINY	CHARM	CLEAR	TOP
Expected life of LifeUVM® UV lamp		5,000	5,000	10,000	8,000	18,000
Technology LifeAGE®				✓		✓
Water flow (m³/h) (Public pools and whirlpools)		4.7	27	33	616	910
Water flow (m³/h) (Private and semi-public pools and whirlpools)		14	38	42	-	-
Series		Classic	Classic	Classic	Direct	Direct
Magnetic power supply	MP	✓	✓		✓	
Advanced electronic power supply (LifeAGE® technology)	AEP			✓		✓
Without wiper	NW	✓	✓			
Manual wiper	MW		✓	✓	✓	✓
Automatic wiper	AW			✓	✓	✓

Public swimming pools and whirlpools – UV dose 60 mJ/cm² / other models on request

PROFIPIURE models

Manual wiper (MW)	Automatic wiper (AW)	Water flow m³/h Public pools and whirlpools	Total power input of UV lamps (kW) / phase
LifeUVM0110-13-MW-AEP-TS-D-DN125	LifeUVM0110-13-AW-AEP-TS-D-DN125	33	1/I
LifeUVM0110-16-MW-AEP-TS-D-DN150	LifeUVM0110-16-AW-AEP-TS-D-DN150	46	1/I
LifeUVM0120-16-MW-AEP-TS-D-DN150	LifeUVM0120-16-AW-AEP-TS-D-DN150	63	2/I
LifeUVM0120-21-MW-AEP-TS-D-DN200	LifeUVM0120-21-AW-AEP-TS-D-DN200	88	2/I
LifeUVM0120-21-MW-AEP-TS-D-DN150	LifeUVM0120-21-AW-AEP-TS-D-DN150	88	2/I
LifeUVM0130-27-MW-AEP-TS-D-DN250	LifeUVM0130-27-AW-AEP-TS-D-DN250	147	3/I
LifeUVM0130-27-MW-AEP-TS-D-DN150	LifeUVM0130-27-AW-AEP-TS-D-DN150	147	3/I
LifeUVM0130-32-MW-AEP-TS-D-DN300	LifeUVM0130-32-AW-AEP-TS-D-DN300	207	3/I
LifeUVM0130-32-MW-AEP-TS-D-DN250	LifeUVM0130-32-AW-AEP-TS-D-DN250	207	3/I
LifeUVM0230-27-MW-AEP-TS-D-DN250	LifeUVM0230-27-AW-AEP-TS-D-DN250	252	6/III
LifeUVM0230-32-MW-AEP-TS-D-DN300	LifeUVM0230-32-AW-AEP-TS-D-DN300	315	6/III
LifeUVM0230-32-MW-AEP-TS-D-DN250	LifeUVM0230-32-AW-AEP-TS-D-DN250	315	6/III
LifeUVM0330-32-MW-AEP-TS-D-DN300	LifeUVM0330-32-AW-AEP-TS-D-DN300	462	9/III
LifeUVM0430-32-MW-AEP-TS-D-DN300	LifeUVM0430-32-AW-AEP-TS-D-DN300	616	12/III
LifeUVM0430-37-MW-AEP-TS-D-DN350	LifeUVM0430-37-AW-AEP-TS-D-DN350	630	12/III
LifeUVM0430-40-MW-AEP-TS-D-DN400	LifeUVM0430-40-AW-AEP-TS-D-DN400	644	12/III
LifeUVM0430-40-MW-AEP-TS-D-DN350	LifeUVM0430-40-AW-AEP-TS-D-DN350	644	12/III
LifeUVM0530-40-MW-AEP-TS-D-DN400	LifeUVM0530-40-AW-AEP-TS-D-DN400	770	15/III
LifeUVM0530-40-MW-AEP-TS-D-DN350	LifeUVM0530-40-AW-AEP-TS-D-DN350	770	15/III
LifeUVM0630-40-MW-AEP-TS-D-DN400	LifeUVM0630-40-AW-AEP-TS-D-DN400	910	18/III

Instalation



- 1 Swimming pool
- 2 Storage tank
- 3 Circulator pump
- 4 Filter
- 5 LifeUVM®
- 6 pH adjustment
- 7 Chlorine dosage



EXCLUSIVE

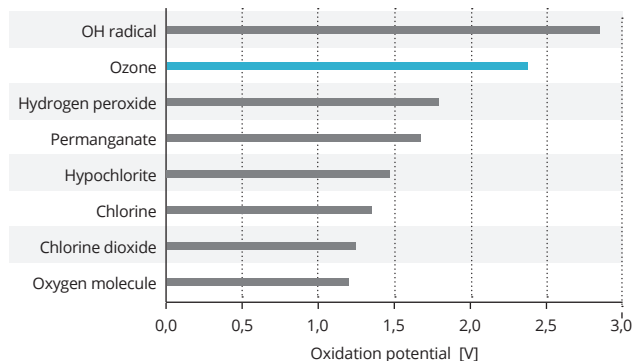
Intelligent design – economical version made of PVC-U. Minimum space requirements, extremely fast and easy installation – Plug & Play



Technology	Ozone production	Application	Pool volume
Ozone water treatment	2-12.5 g O ₃ /h	Public / private pools	200-1,200 m ³
Ozone generation	Power control	Installation	Connection system
Air dryer / Oxygen concentrator	10-100 %	Plug & Play	In by-pass

Ozone

Ozone is a highly active form of oxygen in the form of a gas. Ozone is several hundred times stronger and more effective than chemical water treatment (such as chlorine). Ozone oxidises urea/ammonia, which is responsible for the formation of chloramines, as well as the formation of various forms of chloramines. This reduction in precursors also leads to a reduction in THM levels. Ozone is always generated at the application site. Ozone dissolved in water kills all bacteria and viruses. Ozone-treated water is clean, clear, tasteless and odorless.



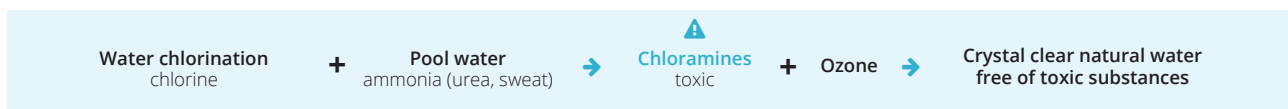
Ozone efficiency

- ✓ Disinfectant
- ✓ Removal of contaminants
- ✓ Decolourisation
- ✓ Deodorisation

Why choose ozone?

1. Ozone is 100 times more effective than chemical water treatment
2. Ozone prevents the formation of chloramines
3. Ozone breaks down chloramines
4. Ozone is effective against chlorine-resistant organisms, algae, bacteria and viruses

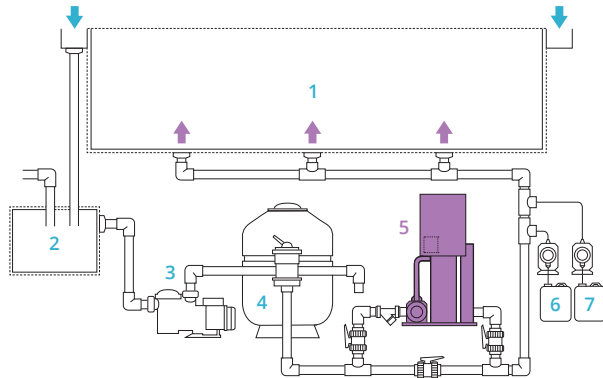
→ Ozone makes your water crystal clear, odorless and healthy again



EXCLUSIVE models

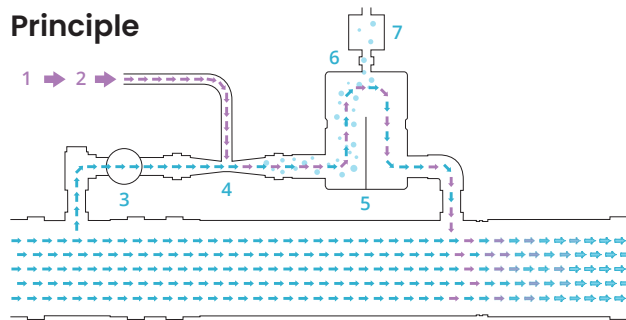
Model	Ozone generation	Ozone production (g O ₃ /h)	Pool volume (m ³)		Input power (kW)	Dimensions (mm)	Weight (kg)
			Private pool	Public pool			
Exclusive 2.EP	Air dryer	2.0	up to 200	up to 100	1.0	550x450x1,100	55
Exclusive 4.EP	Air dryer	4.0	up to 400	up to 200	1.1	550x450x1,100	57
Exclusive 12.EP	Oxygen concentrator	12.5	up to 1,200	up to 600	1.6	1,100x500x1,200	121

Installation



- 1 Swimming pool
- 2 Storage tank
- 3 Circulator pump
- 4 Filter
- 5 Exclusive .EP ozonation unit
- 6 pH adjustment
- 7 Chlorine dosage

Principle



- 1 Air dryer / Oxygen concentrator
- 2 Ozone generation
- 3 Auxiliary pump
- 4 Injector
- 5 Reaction / Degassing tank
- 6 Degassing valve
- 7 Ozone destroyer in degassing tank

COMBI OZONE/UV

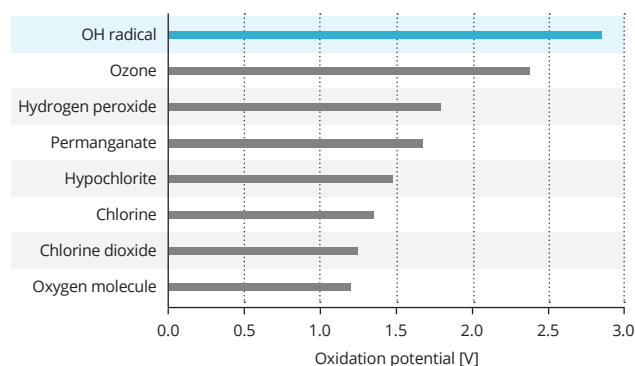
Intelligent design – economical version made of PVC-U. Minimum space requirements. Extremely fast and easy installation – Plug & Play



Technology	Ozone production	Application	Pool volume
AOP (Advanced Oxidation Process)	2–12.5 g O ₃ /h	Public / Private pools	up to 1,200 m ³
Ozone generator	Power control	Installation	Connection system
Air dryer / Oxygen concentrator	10–100 %	Plug & Play	In by-pass

Advanced oxidation process (AOP)

The high oxidation potential of ozone can be significantly increased by combining it with UV radiation or dosing of hydrogen peroxide. This method is known as advanced oxidation or UV oxidation. LIFETECH uses both processes and has developed its own LifeOX® technology based on optimised synergy between ozone and UV radiation.

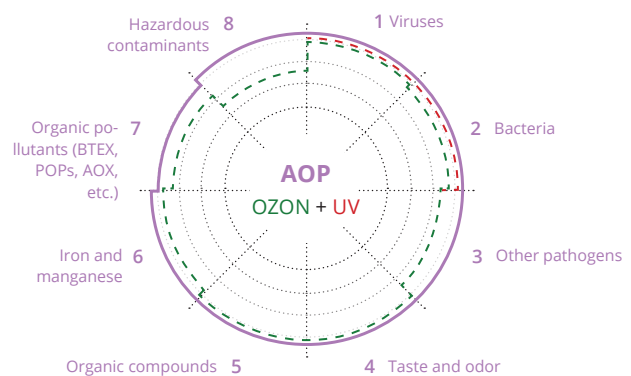


The advanced oxidation process (AOP) is now the best water treatment technology. AOP is based on the formation of OH- radicals in water. These OH- radicals have considerably higher oxidation potential compared to other water treatment oxidants. This means that OH- radicals (i.e., AOP technology) are able to oxidise particles in water much faster and more efficiently. The comparison can be found in the chart above. OH- radicals have a higher oxidation potential than hydrogen peroxide or ozone. The higher the oxidation potential, the more effective the water disinfection and purification.

The AOP technology has proved to be the most effective solution for removing toxic and persistent compounds such as carbamazepine, ibuprofen, hormones, geosmin, mib (2-methylisoborneol), 1,4-dioxane, mtbe (methyl tertiary-butyl ether), ndma (N-methyl-D-aspartic acid), atrazine, diuron, diclofenac, etc.

LifeOX®

Our exclusive LifeOX®M and LifeAGE® technologies reduce the carbon footprint significantly compared to standard ozone and UV technologies. Additionally, these technologies bring competitive advantages to you and your clients. LifeOX®M is the most efficient technology for reducing and preventing the formation of harmful trichloramine in the pool water.





LIFEFOX® AOP SYSTEM

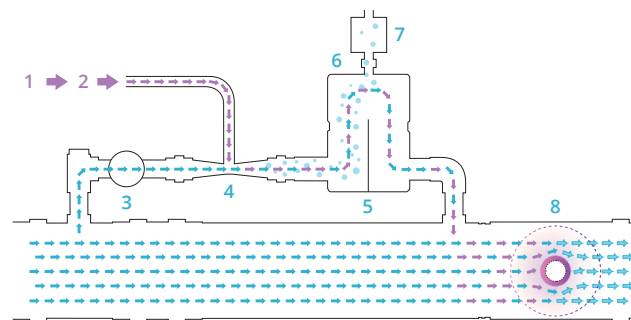
Model	COMBI OZONE/UV .EP	LIFEFOX® M .EP
Ozone production (g O ₃ /h)	2-12.5	By pool volume / water flow
Maximum pool volume (m ³) (Public pools and whirlpools)	600	Not restricted – modular system
Maximum pool volume (m ³) (Private pools and whirlpools)	1 200	Not restricted – modular system
Ozone generation technology	Corona discharge	Corona discharge
AOP technology	Ozone + UV	Ozone + UV
UV lamp type	Low-pressure LifeUVL	Medium-pressure LifeUVM
Unique continuous power control from 10% to 100%	✓	✓
Connection system	In by-pass	In pipes (in-line)
Material	PVC-U	Stainless-steel reactor 316L with internal UV mirror

Combi Ozone/UV .EP models

Model	Ozone generator	Ozone production (g O ₃ /h)	Pool volume (m ³)		Input power (kW)	Dimensions (mm)	Weight (kg)
			Private pools	Public pools			
Combi Ozone/UV 2.EP	Air dryer	2.0	up to 200	up to 100	1.1	550x450x1,100	59
Combi Ozone/UV 4.EP	Air dryer	4.0	up to 400	up to 200	1.2	550x450x1,100	61
Combi Ozone/UV 12.EP	Oxygen concentrator	12.5	up to 1200	up to 600	1.9	1,300x750x1,200	180

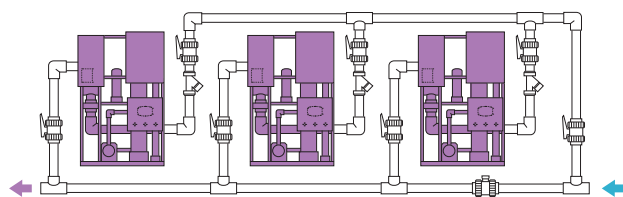
Principle

- 1 Air dryer + Oxygen concentrator
- 2 Ozone generator
- 3 Auxiliary pump
- 4 Injector
- 5 Reaction / Degassing tank
- 6 Degassing valve
- 7 Ozone destroyer in degassing tank
- 8 UV lamp

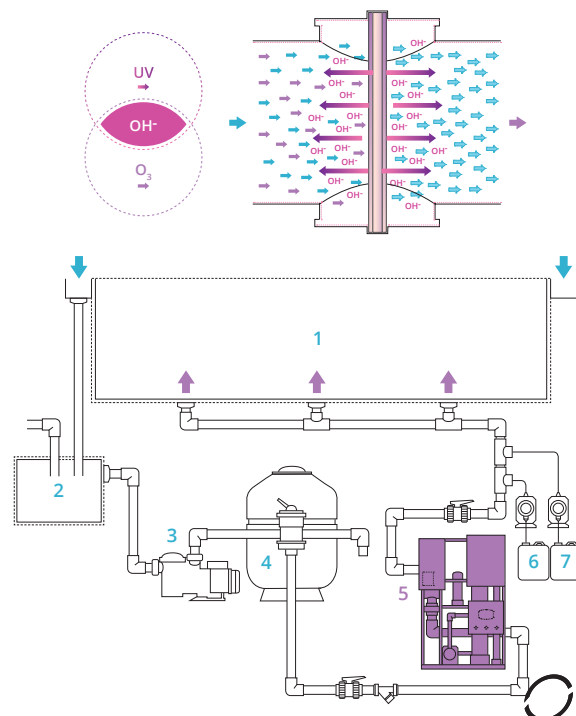


Installation

- 1 Swimming pool
- 2 Storage tank
- 3 Circulator pump
- 4 Filter
- 5 LifeOX® M .EP unit
- 6 pH adjustment
- 7 Chlorine dosage



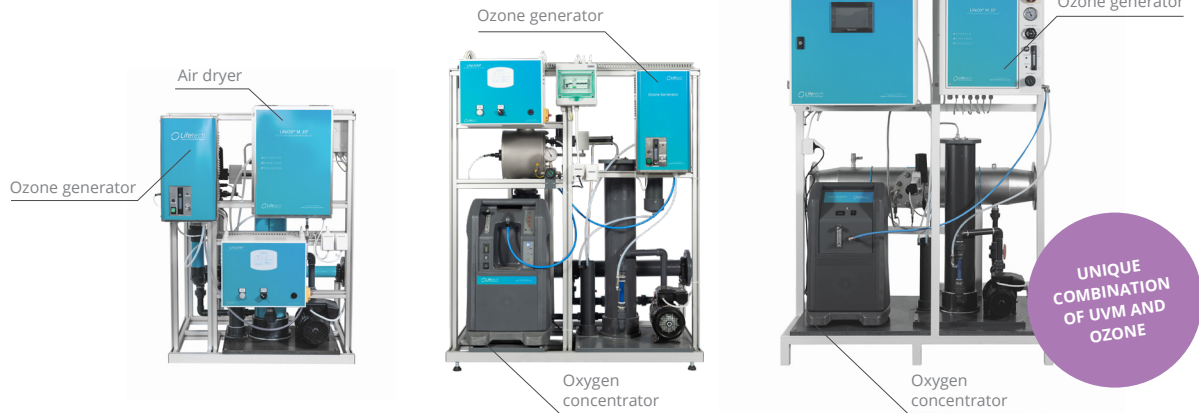
Example of a modular system



LIFEFOX® M.EP



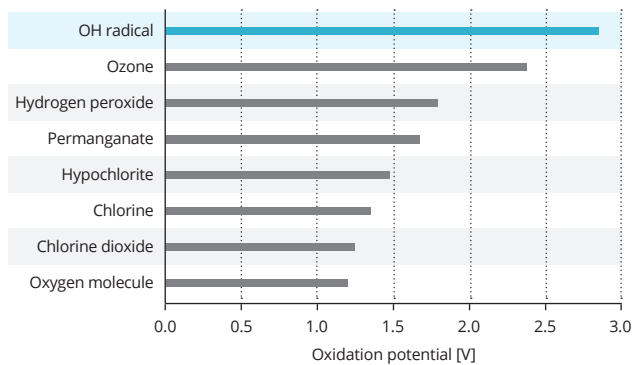
Prevents the formation of bound chlorine and trichloramine. Radical improvement of water and air quality in swimming pools, while simultaneously reducing operating costs by up to 50% compared to standard disinfection technologies. Very short return on investment: 8-16 months. Water quality suitable for toddlers and asthmatics. Plug & Play system. Very simple and quick installation in new and existing pool water treatment plants.



Technology AOP (Advanced Oxidation Process)	Application Public / Private pools	Water flow up to 250 m ³ /h	Ozone generator Air dryer / Oxygen concentrator
Power control 10–100 %	Installation Plug & Play	Connection system In pipes (in-line)	

Advanced oxidation process (AOP)

The high oxidation potential of ozone can be significantly increased by combining it with UV radiation or dosing of hydrogen peroxide. This method is known as advanced oxidation or UV oxidation. LIFETECH uses both processes and has developed its own LifeOX® technology based on optimised synergy between ozone and UV radiation.

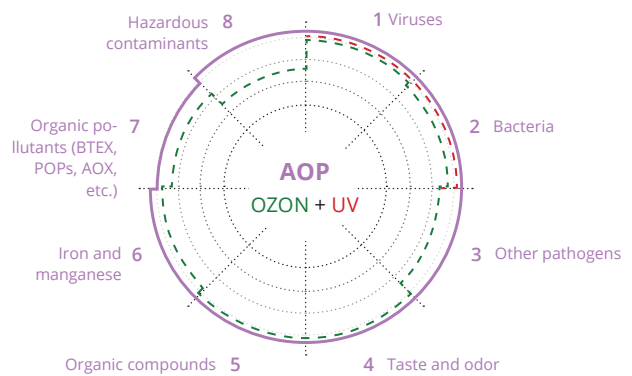


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The AOP technology has proved to be the most effective solution for removing toxic and persistent compounds such as carbamazepine, ibuprofen, hormones, geosmin, mib (2-methylisoborneol), 1,4-dioxane, mtbe (methyl tertiary-butyl ether), ndma (N-methyl-D-aspartic acid), atrazine, diuron, diclofenac, etc.

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LIFEFOX® AOP SYSTEM



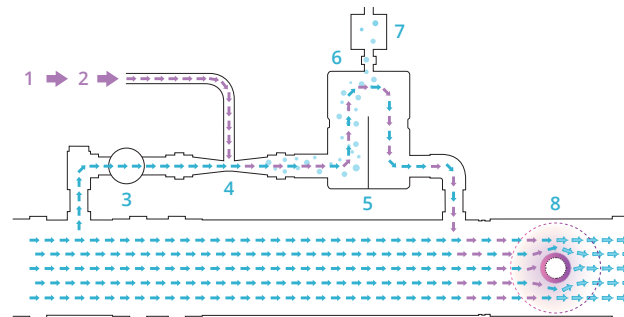
Model	COMBI OZONE/UV .EP	LIFEFOX® M .EP
Ozone production (g O ₃ /h)	2-12.5	By pool volume / water flow
Maximum pool volume (m ³) (Public pools and whirlpools)	600	Not restricted – modular system
Maximum pool volume (m ³) (Private pools and whirlpools)	1 200	Not restricted – modular system
Ozone generation technology	Corona discharge	Corona discharge
AOP technology	Ozone + UV	Ozone + UV
UV lamp type	Low-pressure LifeUVL	Medium-pressure LifeUVM
Unique continuous power control from 10% to 100%	✓	✓
Connection system	In by-pass	In pipes (in-line)
Material	PVC-U	Stainless-steel reactor 316L with internal UV mirror

LifeOX® M .EP models

Model	Ozone generator	Water flow (m ³ /h) Public pool	Input power (kW)	Dimensions (mm)	Weight (kg)
LifeOX® M10.EP	Air dryer	up to 10	1.8	985x847x1,202	100
LifeOX® M20.EP	Air dryer	up to 20	2.0	985x847x1,202	100
LifeOX® M40.EP	Oxygen concentrator	up to 40	2.5	1,110x857x1,472	140
LifeOX® M90.EP	Oxygen concentrator	up to 90	3.9	1,300x1,300x2,000	250
LifeOX® M140.EP	Oxygen concentrator	up to 140	5.9	1,300x1,300x2,000	250
LifeOX® M250.EP	Oxygen concentrator	up to 250	9.0	1,500x1,300x2,000	280

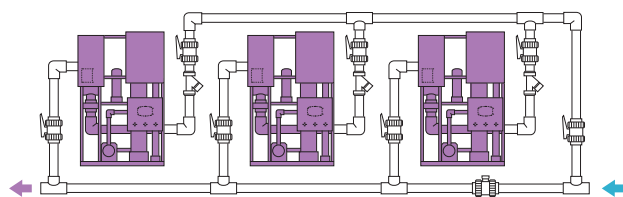
Principle

- 1 Air dryer + Oxygen concentrator
- 2 Ozone generator
- 3 Auxiliary pump
- 4 Injector
- 5 Reaction / Degassing tank
- 6 Degassing valve
- 7 Ozone destroyer in degassing tank
- 8 UV lamp

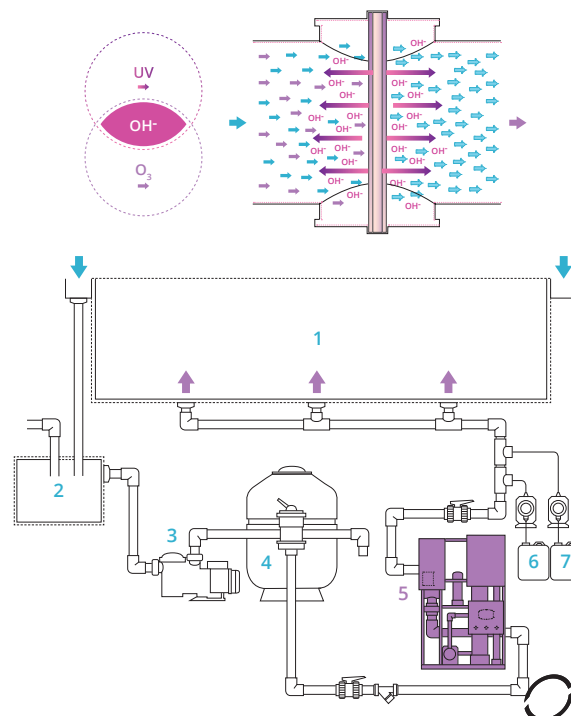


Installation

- 1 Swimming pool
- 2 Storage tank
- 3 Circulator pump
- 4 Filter
- 5 LifeOX® M .EP unit
- 6 pH adjustment
- 7 Chlorine dosage



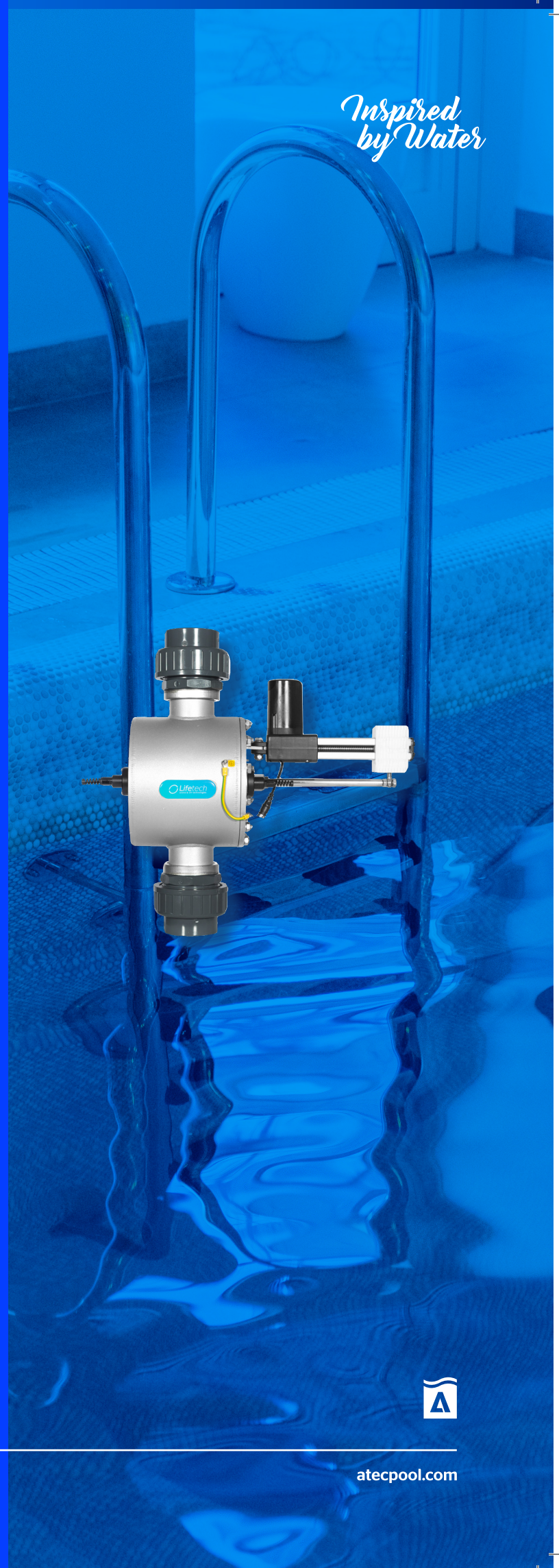
Example of a modular system





*Inspired
by Water*

ATECPOOL *By* LIFETECH



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