

Swimming Pool Ultra Violet Disinfection

Key features

- High efficient MP lamps
- Anti-corrosive
- Manual or automatic wipers
- UV sensor
- Temperature controlled
- In-line installation

Achieve clean and clear water with bestUV

bestUV is an innovative manufacturer of professional ultraviolet (UV) water treatment systems for industrial and municipal markets. UV reactors are optimized with 'in-house' Computational Fluid Dynamics. bestUV selects each unit for its unique application, applying in-depth knowledge of microbiology, chemistry, process and reactor design.

Ultraviolet (UV) light is an established method for treating water in a swimming pool. The experts of bestUV have two decades of practical experience in the use of UV light to treat swimming pool water. bestUV applies this experience to determine the most effective and economical UV system to break down bound (or combined) chlorine levels (typically the source of the 'chlorine smell').

The lamp technology, which is most effective in reducing bound chlorine to required levels, uses UV lamps with multiple wavelengths. A broad spectrum of wavelengths is proven to effectively to break down bound chlorine (or chloramines), especially trichloramine (TCA). It is TCA which is most volatile and likely to irritate eyes, nose and lungs.

bestUV uses polychromatic UV lamps. These are short and compatible with most compact UV chambers. The high-grade stainless steel UV reactors ensure very little headloss and can be protected against attack by humidity and/or corrosive pool air in plant rooms.

bestUV is now bringing to the swimming pool market a smart, economical solution with many years of practical experience.



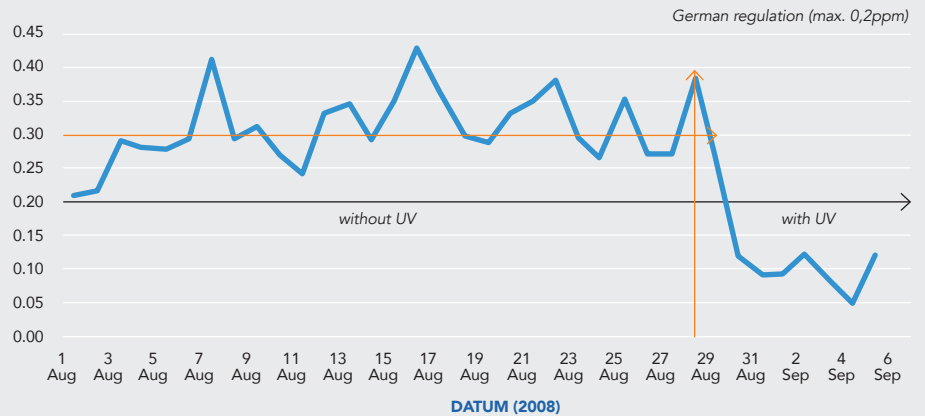
Why use bestUV?

- UV is effective against chlorine resistant micro-organisms such as Cryptosporidium and Giardia.
- UV light breaks down chloramines and other organics which build up in your pool water.
- UV disinfection can not be overdosed and is fully automatic.
- UV disinfection greatly improves water quality reducing the necessity for backwash.
- UV disinfection reduces the need for 'shock dosing' of chlorine.
- bestUV systems are programmable to suit the bather load of the pool.
- UV disinfection reduces the wear on your plant and equipment due to a less corrosive environment.

bestUV Technology Systems

	Optimal Wavelengths	Lamp Technology
Monochloramine	200 - 210nm, 250 - 260nm	MP, LP
Dichloramine	200 - 240nm	MP
Trichloramine	200 - 240nm	MP
Micro-organisms	200 - 300nm	MP, LP

The graph below show measurements of bound chlorine (chloramines) by use of MP bestUV systems. Average concentration of 0,35 mg/l went down to av. 0,1 mg/l.

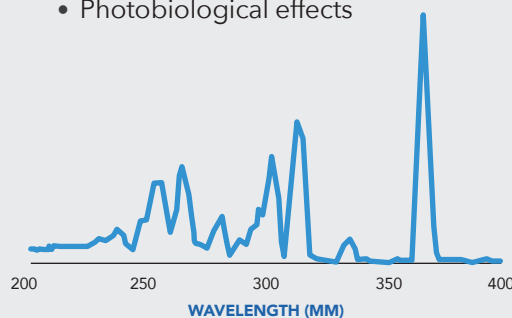


Lamp Technology

A medium-pressure (MP) UV lamp has some important differences compared to the more well known low-pressure (LP) UV lamps. These differences are a major reason to select UV systems with medium-pressure lamps:

- Dechloramination in public swimming pools (reduction of all chloramines, mono-, di- and trichloramines, only reached by the emission of wavelengths between 200 and 400nm).
- To reduce the footprint of the installation, as high-powered medium-pressure lamps greatly reduce the size of a UV reactor.

- High power
- Energy efficiency
- Compact size
- Reduce quantity needed in a UV reactor
- Broad range of wavelengths (200 - 400nm)
- Photobiological effects



Benefits to Pool Users

- Sparkling, pleasant, healthy water and air, without the smell of chlorine during and after swimming.
- Safer and more pleasant environment.
- Cleaner & clearer water.
- Fresh clean air with significantly reduced chlorine smell.
- Eliminates 'Red Eye' & skin irritations by reducing chloramines.





UV-Systems

Pool water treatment in public swimming pools

Technical Information

Type Alfaline	Basic Connections EN-1092-1 PN10 (2)	Power Consumption (kW/kVa) (3)	Number of UV lamps	Type of UV lamps	Distance between flanges (mm)	Dimensions cabinet (h x w x d) (mm)
AM1.700	NW80	0,65/1,0	1	C700	300	600x600x200
AL2.700	NW125	1,3/2,0	2	C700	400	600x600x200
AL1.1500	NW125	1,8/2,5	1	C1500	400	800x800x300
AXL1.1500	NW200	1,8/2,5	1	C1500	600	800x800x300
AL2.1500	NW200	3,6/5,0	2	C1500	600	800x800x300
AXL2.1500	NW200	3,6/5,0	2	C1500	600	800x800x300
AXL3.1500	NW200	5,4/7,5	3	C1500	600	800x800x300
AXL4.1500	NW250	7,2/10,0	4	C1500	600	800x800x300

Other types are available upon request. Models available in manual or automatic wiper and constructed of either Stainless Steel or Polyethylene.

1. Customised connections (smaller as well as larger) are possible.

2. Average power consumption (kW) at constant flow, UV transmission and UV dose, calculated over the lamp life of the UV lamp.