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 in your pool?
- 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.

Benefits to pool users
- Safer and more pleasant environment.
- Cleaner & clearer water.
- Fresh clean air with significantly reduced chlorine smell.
- Eliminates 'Red Eye' & skin irritations by reducing chloramines.

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.

The graphs below shows 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. Sparkling, pleasant, healthy water and air, without the smell of chlorine during and after swimming.
UV-Systems for pool water treatment in public swimming pools

Technical data

<table>
<thead>
<tr>
<th>Type Alfaline</th>
<th>Basic Connections EN-1092-1 PN10 (2)</th>
<th>Power Consumption (kW/kVa) (3)</th>
<th>Number of UV lamps</th>
<th>Type of UV lamps</th>
<th>Distance between flanges (mm)</th>
<th>Dimensions cabinet (h x w x d) (mm)</th>
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</thead>
<tbody>
<tr>
<td>AM1.700</td>
<td>NW80</td>
<td>0,65/1,0</td>
<td>1</td>
<td>C700</td>
<td>300</td>
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<td>AL2.700</td>
<td>NW125</td>
<td>1,3/2,0</td>
<td>2</td>
<td>C700</td>
<td>400</td>
<td>600x600x200</td>
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<tr>
<td>AL1.1500</td>
<td>NW125</td>
<td>1,8/2,5</td>
<td>1</td>
<td>C1500</td>
<td>400</td>
<td>800x800x300</td>
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<tr>
<td>AXL1.1500</td>
<td>NW200</td>
<td>1,8/2,5</td>
<td>1</td>
<td>C1500</td>
<td>600</td>
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<tr>
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<td>3,6/5,0</td>
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<td>800x800x300</td>
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</tbody>
</table>

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

(1) Capacity at UV transmission of 95% (254nm, 10mm cell). The velocity has to be taken into account
(2) Customised connections (smaller as well as larger) are possible.
(3) Average power consumption (kW) at constant flow, UV transmission and UV dose, calculated over the lamp life of the UV lamp(s)