

## Xclear Industrial applications

VGE International sells the products for Industrial applications using the brand name Xclear. Xclear has a complete range of industrial UV-C equipment of high quality. Xclear is a relative new brand, but already widely used in the industrial sector. Xclear is mostly used in the drinking- and wastewater treatment, but also in the food and aquaculture industry. Xclear Industrial UV-C gives the results for the expected price. The units do what they are made for; Provide Healthy, Clear and Safe water. Xclear Industrial UV-C units are the driving force in an installation; They have the ability to keep the water free of algae, bacteria and fungi. It is therefore essential that the UV unit seamlessly connect to the design and the components used in the whole filter installation. So the right combination of the unit in the whole installation will result in maximum performances. By choosing Xclear, you choose for guaranteed quality for a fair price.

**UV-C; The difference is clear**

### Contact

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**UV-C; The difference is clear**

Passion for Safe, Healthy and Clear water and technique, leads to our variety of filter and UV-C disinfection solutions for industrial applications.





## UV-C; The difference is clear

### About VGE International

Without water and secure, sustainable water management, millions of people all over the world have no prospect of a life in humane circumstances. VGE International B.V., situated in the Netherlands, understands that the water industry has to adjust to new methods and circumstances. VGE addresses new developments and technologies for a sustainable, future-focused water industry from an international perspective. With a combination of the passion for technique and knowledge of water, VGE focuses on innovations for a variety of filter and UV-C disinfection applications in the industrial market.

### How VGE International works

#### Technology and development

As a manufacturer of UV-C equipment and filters, VGE delivers from Ekkersrijt industrial estate in the South of the Netherlands, high-quality products. Innovation is of paramount importance to VGE. Therefore, the company has its own product development department, which regularly introduces new high-quality products. Existing products are continuously reviewed and tested critically and, where necessary, redeveloped. In addition to that, the existing products will be screened constantly and customized to today's needs that are reflected at the market.

#### Sustainable and future focused

More than thirty years of experience has resulted in high quality and innovative products for the industrial market. During the production and manufacturing of the products VGE will always think of the environment. Environmental friendliness and energy conservation are important issues in the production and development process. VGE carries out a pleasant cooperation with customers and partners: through our products and services, VGE adds sustainable value for our customers, users and the society.

#### International perspective

VGE is a major player in the development and production of UV-C equipment and filters. VGE exports its products to over 70 countries worldwide. VGE is known for its high quality products with fair prices. VGE delivers a complete program of products, suitable for filtering and cleaning water. The ultraviolet radiation of our lamps are very suitable for killing harmful bacteria, fungus and other harmful microorganisms. Therefore our filters and UV sterilizers are used for various applications within the agriculture, aquaculture, swimming pool and horticulture branches. Our UV-C units and bulbs are also widely used for industrial use and processes; such as drinking water purification, air treatment and various cleaning / disinfection / purification for a variety of Industrial applications.

STAINLESS  
STEEL

**STAINLESS STEEL HOUSING:**  
A stainless steel interior provides a reflection of UV radiation and this increases the efficiency of the radiation by up to 35%. In addition, the stainless steel ensures a longer life of the housing.

ALU

**ALUMINIUM HOUSING OR INTERIOR:**  
An aluminium housing or coating on the inside provides a reflection of the UV-C radiation and this increases the efficiency of the radiation by up to 35%.

HDPE

**HDPE HOUSING OR INTERIOR:**  
High Density Poly Ethylene housing to treat any type of water. In addition, HDPE is corrosion resistant and suitable for all kind of intensive water treatment.

### UV-C treatment

Over 100 years ago German scientists discovered that the top surface of lake-water was sterile when exposed to sunlight. Investigation led to the discovery of Ultraviolet light. Situated in the electro-magnetic spectrum between X-rays and visible light, Ultraviolet (UV) light has many beneficial properties. UV light is split into four main categories, UV-A, UV-B, UV-C and Vacuum UV. The UV-C spectrum (200 to 280 nanometers) is the most lethal range of wavelengths for microorganisms. This range, with 254 nanometers being the peak germicidal wavelength, is known as the Germicidal Spectrum. UV-C light has the ability to cause permanent damage to a wide variety of nuisance microorganisms in water.

### The Targeted Microorganism

Each type of microorganism requires a specific UV-C radiation exposure rate to successfully complete the disinfection process. The targeted microorganism must be directly exposed to the UV-C radiation long enough for the radiation to penetrate the microorganism's cell wall. However, it takes only seconds for UV-C light rays to inactivate waterborne microorganisms by breaking through the microorganism's cell wall and disrupting their DNA. This often totally destroys the organism, or at the very least will impair its ability to reproduce.

#### UV-C benefits

- UV-C is effective against all micro-organisms
- Vastly improved water quality
- Crystal clear water
- Less use of chemicals for water treatment
- Fully automatic and cannot be overdosed
- Lower cost in chemicals, energy and maintenance
- UV-C is a non-hazardous, green technology

### Partnerships

VGE International cooperates closely with several partners. New insights of our partners are important in our product development. VGE provides in particular UV-C lamps and units to Original Equipment Manufacturers (OEMs). These companies process the high-quality UV-C lamps from for example Philips and Lighttech in their final industrial product. With thirty years of experience, VGE can provide these companies of adequate advice, for the development as well the production of various products. Some of our partners are Lighttech, Philips, Technical University Eindhoven and the International Ultraviolet Association.

LightTech

TU/e

PHILIPS  
TUV Lamps  
Water disinfection