

# Professional UV-C disinfection solutions



# VGE PRO: EXPERTS IN UV-C DISINFECTION SOLUTIONS



WE MAKE WATER SAFE

## VGE Pro

The VGE Pro range consists of a complete selection of professional water treatment systems based on UV-C technology. Our UV-C systems can be used for water treatment against bacteria, viruses, moulds, yeasts, spores, protozoa and algae. This makes VGE Pro the driving force in water treatment installations.

## UV-C disinfection solutions

When developing VGE Pro systems everything revolves around efficiency and ease of maintenance. The VGE Pro UV-C systems are equipped with unique Smart Pin Technology (SPT), Single-end Bayonet Technology (SBT) or Special Use Technology (SUT). These innovative technologies ensure that UV-C lamps are integrated into the UV-C treatment chambers efficiently and intelligently.



UV-C Experts  
since 1982



Annual production  
of 40,000+ units



Exporting to over  
80 countries



Made in  
The Netherlands





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# UV-C SOLUTIONS IN FEATURED APPLICATIONS

## Horticulture



- Reusage of drain water
- Reduction of pesticides
- Inactivates all waterborn plant diseases

Clean water is vital in horticulture. A VGE Pro UV-C system inactivates harmful bacteria, viruses and fungi such as Pythium and Fusarium without residues. In recirculating irrigation, pathogens spread easily. Treat reused water with VGE Pro UV-C to protect crops and ensure a safe growing environment. Safe, chemical-free method.

## Aquaculture



- Healthy aquatic life
- Lower mortality rate
- Higher Yields
- Reduced Medicine costs

Pollution, food residues and waste foster bacteria that harm water quality and aquatic life. VGE Pro UV-C system control microorganisms effectively. Benefits include higher density, lower mortality, higher yields and reduced medicine costs, keeping water healthy and clear in aquaculture and aquariums.

## Swimming pool and Spa



- Effective chloramine reduction
- Non selective disinfection
- Energy efficient
- Easy to install and service

VGE Pro UV-C systems deliver excellent water disinfection for homes, including chlorine-resistant microorganisms. In commercial pools, VGE Pro UV-C systems reduce chloramines and provides broad disinfection, inactivating organisms like Cryptosporidium and Giardia lamblia, improving water quality and overall wellness.

## Industry and Cooling systems



- Reduction of biocides
- Legionella prevention
- Less maintenance

Biofouling is a major issue in cooling towers, reducing capacity and accelerating corrosion. Warm water promotes microorganisms, including Legionella. VGE Pro UV-C systems control growth, limit Legionella spread, reduce chemical use and extend service intervals.

## Drinking water



- **Chemical free UV-C disinfection**
- **No Disinfection-By-Products**
- **Reliable water disinfection**
- **Proven technology**

VGE Pro UV-C systems provide reliable water disinfection, effectively treating microorganisms, viruses and chlorine-resistant species. As a final step in drinking water treatment, UV-C ensures safe use. UV-C intensity monitoring guarantees consistent, trustworthy disinfection results.

## Food and Process Industry



- **Chemical free UV-C disinfection**
- **No Disinfection-By-Products**
- **Reliable water disinfection**
- **Proven technology**

Maintaining water quality is essential for food safety. VGE Pro UV-C disinfection inactivates pathogens, ensuring safety and reducing contamination risk. VGE Pro UV-C systems enable water reuse, saving costs and boosting sustainability. It disinfects surfaces such as conveyor belts, improving hygiene and product quality.

## Intensive Livestock Farming



- **Improve animal welfare**
- **Reduce biofilm formation**
- **Reduce antibiotics**

In intensive livestock farming, water quality is crucial for animal health. Clean water supports sustainable livestock farming. Animals need safe drinking water and good hygiene. VGE Pro UV-C systems inactivate microorganisms without residues, reducing disease risks and improving welfare.

## Maritime



- **Compact designs for installation**
- **Effective drinking water disinfection**
- **Disinfection for waste water**

Water tanks in maritime environments can harbor pathogens such as Legionella, posing risks to guests and staff. VGE Pro UV-C systems treat water, eliminating microorganisms for safe drinking water. They also disinfect wastewater before discharge, ensuring compliance with shipping regulations.

# INOX LOW PRESSURE UV-C LAMP SYSTEMS



## SINGLE LAMP INOX SYSTEMS

- High corrosion resistance
- Easy to install
- UV-C radiation reflection
- 16,000 hour lamp life

## Benefits INOX UV-C systems

The high quality 316L stainless steel treatment chamber of the VGE Pro INOX series have been designed for maximum performance. After the high quality welding process the units are leak tested. They get a pickling and passivation treatment which significantly improves the corrosion resistance and lifetime of the unit. Another last treatment with glass pearls (shot peening) gives the units a nice, matt grey surface.

All VGE Pro INOX systems are fitted with low pressure UV-C lamps with 16,000 hours of lamp life. The complete range consists of single-lamp systems with threaded connections, up to 6 lamps with DN flanges. The stainless steel chamber ensures a pressure resistance of 6 bar. VGE Pro INOX systems come with SPT lamps, ensuring easy maintenance and lamp replacement without tools, even while the system is under pressure. All systems have connection ports for the installation of UV-C and temperature sensors.

### INOX 40-76



Connection: **3/4" BSPT**  
Number of lamp(s): **1 x 40 W**  
Rated power: **0.05 kW**

### INOX 75-76



Connection: **1 1/2" BSPT**  
Number of lamp(s): **1 x 75 W**  
Rated power: **0.08 kW**

### INOX 140-76



Connection: **2" BSPT**  
Number of lamp(s): **1 x 140 W**  
Rated power: **0.16 kW**

### INOX 75-114



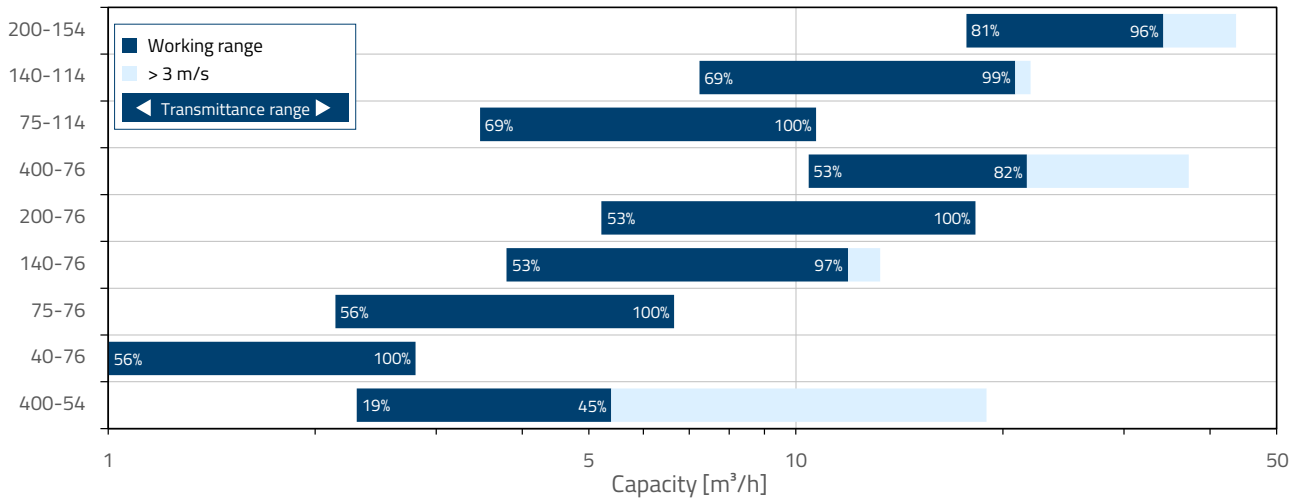
Connection: **2" BSPT**  
Number of lamp(s): **1 x 75 W**  
Rated power: **0.08 kW**

### INOX 140-114



Connection: **2" BSPT**  
Number of lamp(s): **1 x 140 W**  
Rated power: **0.16 kW**

## Capacity flowchart based on UV-C transmittance range:



<sup>1</sup> Capacity based on 400 J/m<sup>2</sup>, T10 mm @ 254 nm = 98 %, MPSSM-average intensity (max. flow of 3 m/s not included)

### INOX 200-76



Connection: **2" BSPT**  
 Number of lamp(s): **1 x 200 W**  
 Rated power: **0.23 kW**

### INOX 400-54



Connection: **DN25 Tri Clamp**  
 Number of lamp(s): **1 x 400 W**  
 Rated power: **0.47 kW**

### INOX 200-154



Connection: **DN65**  
 Number of lamp(s): **1 x 200 W**  
 Rated power: **0.23 kW**

### INOX 400-76



Connection: **2" Tri Clamp**  
 Number of lamp(s): **1 x 400 W**  
 Rated power: **0.47 kW**



Horticulture water treatment - The Netherlands - INOX 200-154

# INOX LOW PRESSURE UV-C LAMP SYSTEMS



## MULTI LAMP INOX SYSTEMS

- High corrosion resistance
- Easy to install
- UV-C radiation reflection
- 16,000 hour lamp life

## Benefits INOX UV systems

The high quality 316L stainless steel treatment chamber of the VGE Pro INOX series have been designed for maximum performance. After the high quality welding process the units are leak tested. They get a pickling and passivation treatment which significantly improves the corrosion resistance and lifetime of the unit. Another last treatment with glass pearls (shot peening) gives the units a nice, matt grey surface.

All VGE Pro INOX systems are fitted with low pressure UV-C lamps with 16,000 hours of lamp life. The complete range consists of single-lamp systems with threaded connections, up to 6 lamps with DN flanges. The stainless steel chamber ensures a pressure resistance of 6 bar. VGE Pro INOX systems come with SPT lamps, ensuring easy maintenance and lamp replacement without tools, even while the system is under pressure. All systems have connection ports for the installation of UV and temperature sensors.

### INOX 400-204



Connection: **DN100**  
Number of lamp(s): **2 x 200 W**  
Rated power: **0.45 kW**

### INOX 420-168



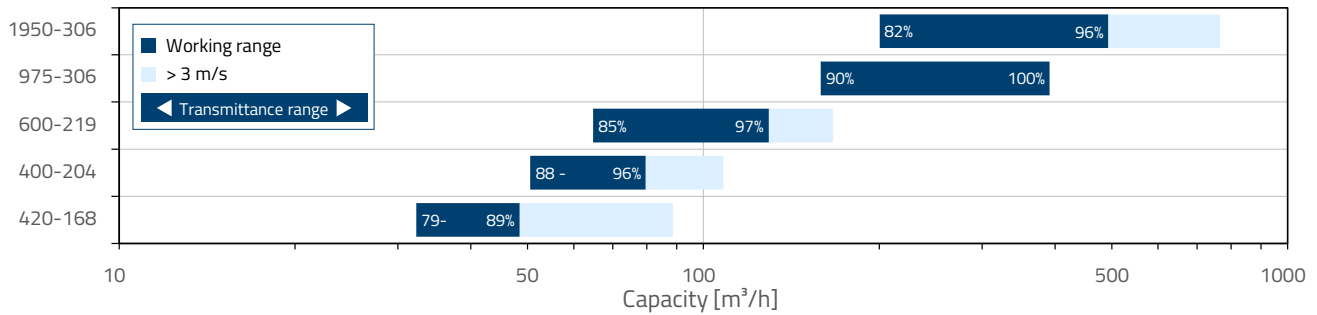
Connection: **3" BSPT**  
Number of lamp(s): **3 x 140 W**  
Rated power: **0.47 kW**

### INOX 600-219



Connection: **DN125**  
Number of lamp(s): **3 x 200 W**  
Rated power: **0.68 kW**

## Capacity flowchart based on UV-C transmittance range:



<sup>1</sup> Capacity based on 400 J/m<sup>2</sup>, T10 mm @ 254 nm = 98 %, MPSSM-average intensity (max. flow of 3 m/s not included)

### INOX 975-306



Connection: **DN250**  
 Number of lamp(s): **3 x 325 W**  
 Rated power: **1.11 kW**

### INOX 1950-306



Connection: **DN250**  
 Number of lamp(s): **6 x 325 W**  
 Rated power: **2.21 kW**



Food and Process Industry - Malaysia - INOX 600-219

# OPTIGUARD UV-C SYSTEMS



## THE MOST OPTIMIZED UV DESIGN POSSIBLE

- Hydraulically optimised
- Full lamp length usage
- High humidity resistant
- Design Pressure: 12 bar / 175 psi

## Benefits OptiGuard UV-C systems

The OptiGuard UV-C systems are designed for optimal protection, to achieve the highest level of biosecurity. Thanks to their unique hydraulic design, utilizing the full length of the lamp, they deliver the best disinfection results. Because of this, these systems are highly suitable for intake water projects where water with a low UV-C transmittance passes through the system only a single time and a high UV-C dose is required.

The treatment chamber is constructed from stainless steel 316L, which not only reflects UV-C radiation, but it also guarantees a maximum pressure of 12 bar ensuring long-term durability and reliability.

Each OptiGuard UV-C system is equipped with multiple low pressure UV-C lamps of 400 W and 16,000 hours lamp life. In total there are 5 models, varying from 6 up to a total of 34 lamps. All lamps are fitted with SUT (Special Use Technology) outdoor connectors with an IP67 rating, providing protection against water and dust.

### OptiGuard 2.4



Connection: **DN150 / 6" ANSI**  
Number of lamp(s): **6 x 400 W**  
Rated power: **2.7 kW**

### OptiGuard 4.0



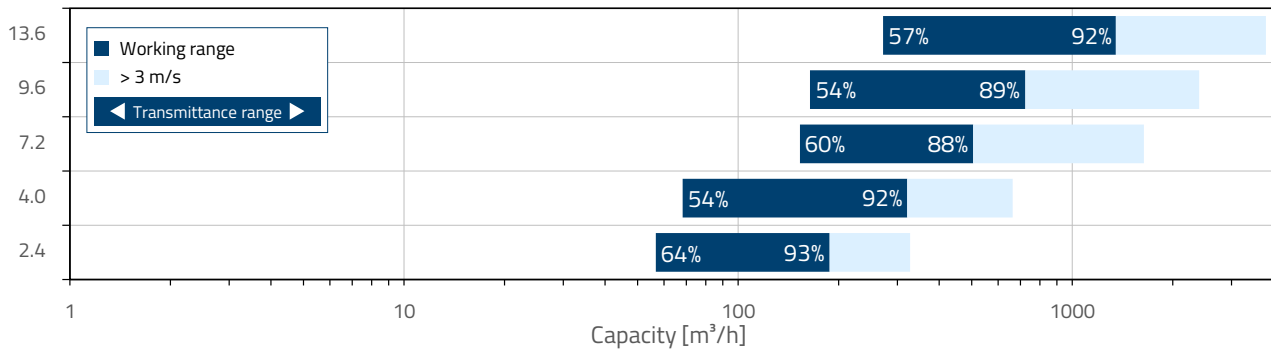
Connection: **DN200 / 8" ANSI**  
Number of lamp(s): **10 x 400 W**  
Rated power: **4.4 kW**

### OptiGuard 7.2



Connection: **DN250 / 10" ANSI**  
Number of lamp(s): **18 x 400 W**  
Rated power: **7.9 kW**

## Capacity flowchart based on UV-C transmittance range:



\* Capacity based on 400 J/m², T10 mm @ 254 nm = 98 %, MPSSM-average intensity (max. flow of 3 m/s not included)

### OptiGuard 9.6



Connection: **DN300 / 12" ANSI**  
 Number of lamp(s): **24 x 400 W**  
 Rated power: **10.5 kW**

### OptiGuard 13.6



Connection: **DN350 / 14" ANSI**  
 Number of lamp(s): **34 x 400 W**  
 Rated power: **14.8 kW**



Horticulture - Ecuador - 2x OptiGuard 13.6

# HDPE LOW PRESSURE UV-C LAMP SYSTEMS



## SALTWATER RESISTANT HDPE SYSTEMS

- UV-C radiation resistant
- Non corrosive treatment chamber
- 16,000 hour lamp life

## Benefits of HDPE UV-C lamp systems

HDPE treatment chambers guarantee a long lifetime, as HDPE is resistant to UV-C radiation and highly corrosive water. Because of its unique benefits, these systems are ideal in saltwater applications.

All VGE Pro HDPE systems are fitted with low pressure amalgam UV-C lamps with 16,000 hours of lamp life at continuous use. The amalgam lamps allow disinfection in low, moderate and high temperature applications up to a water temperature of 45 °C.

The HDPE chambers are designed to have minimal pressure loss at maximum flow capacity. These systems are safe to use at operational pressures of up to 6 bar (type 975 and 1950 max. 4 bar).

Depending on the model, VGE Pro HDPE systems come with SPT or SUT lamp systems, ensuring easy maintenance and lamp replacement without tools, even while the system is under pressure. All systems have sensor ports for optional temperature and UV-C sensors.

### HDPE 40-75 SUT



Connection: 1 ½" BSPT  
 Number of lamp(s): 1 x 40 W  
 Rated power: 0.05 kW

### HDPE 80-75 SUT



Connection: 1 ½" BSPT  
 Number of lamp(s): 1 x 80 W  
 Rated power: 0.08 kW

### HDPE 75-110



Connection: 2" BSPT  
 Number of lamp(s): 1 x 75 W  
 Rated power: 0.08 kW

### HDPE 140-110



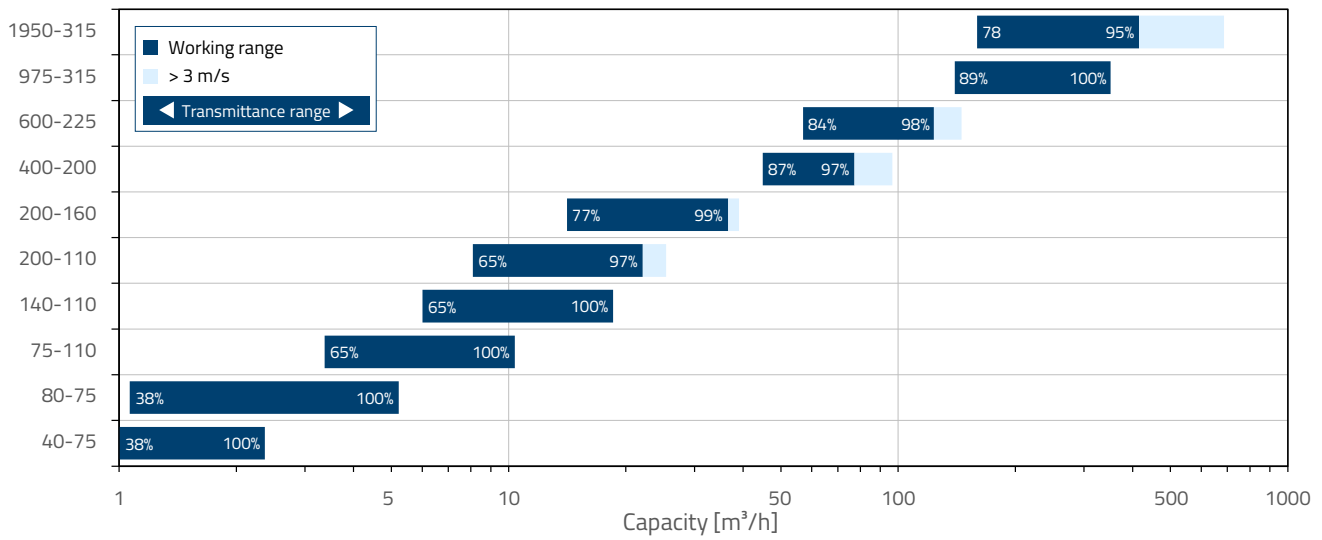
Connection: 2" BSPT  
 Number of lamp(s): 1 x 140 W  
 Rated power: 0.16 kW

### HDPE 200-110



Connection: 2" BSPT  
 Number of lamp(s): 1 x 200 W  
 Rated power: 0.23 kW

## Capacity flowchart based on UV-C transmittance range:



<sup>1</sup> Capacity based on 400 J/m<sup>2</sup>, T10 mm @ 254 nm = 98%, MPSSM-average intensity (max. flow of 3 m/s not included)

### HDPE 200-160



Connection: **DN65**  
 Number of lamp(s): **1 x 200 W**  
 Rated power: **0.23 kW**

### HDPE 975-315



Connection: **DN250**  
 Number of lamp(s): **3 x 325 W**  
 Rated power: **1.11 kW**

### HDPE 400-200



Connection: **DN100**  
 Number of lamp(s): **2 x 200 W**  
 Rated power: **0.45 kW**

### HDPE 1950-315



Connection: **DN250**  
 Number of lamp(s): **6 x 325 W**  
 Rated power: **2.21 kW**

### HDPE 600-225

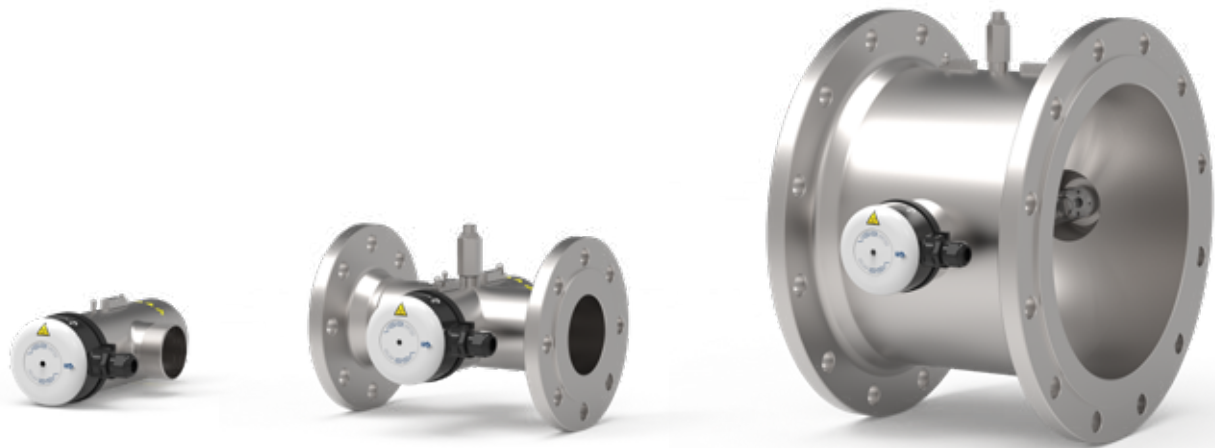


Connection: **DN125**  
 Number of lamp(s): **3 x 200 W**  
 Rated power: **0.68 kW**



Drinking water - Libya - HDPE 600-225

# INOX MEDIUM PRESSURE UV-C LAMP SYSTEMS



## HIGH QUALITY 316L STAINLESS STEEL

- Easy-to-install single-ended lamp
- Compact design for high water flow rates
- Working pressure 10 bar
- Electronic lamp power supply

## Benefits of medium pressure UV-C lamps

VGE Pro's product range includes systems based on both low pressure and medium pressure UV-C lamps. Medium pressure UV-C lamps emit a broad spectrum of ultraviolet (UV-C) radiation, providing excellent disinfection results and being well-suited for photolysis applications, such as reducing chloramine in pool applications. The single-ended lamp, combined with the Single-end Bayonet Technology (S.B.T.) and the visual lamp indicator on the chamber, makes VGE Pro UV-C systems highly user-friendly.

The short and powerful medium pressure lamps, which are positioned perpendicular to the flow, ensure a compact treatment chamber design which makes it easy to retrofit in existing water treatment systems. Due to the high UV-C power produced, a single lamp can treat large water capacities in combination with a minimal pressure drop.

## Features

- Cross-flow stainless steel (SS 316L) treatment chamber design with low pressure loss
- Flange range from DN80 to DN300
- Medium pressure UV-C lamps ranging from 400 W to 3500 W
- Visual lamp indicator in the lamp head

Even the systems with a cleaning mechanism can be serviced from one side. The whole innerpart can easily be removed from the treatment chamber making service very easy and simple.

## MultiMax



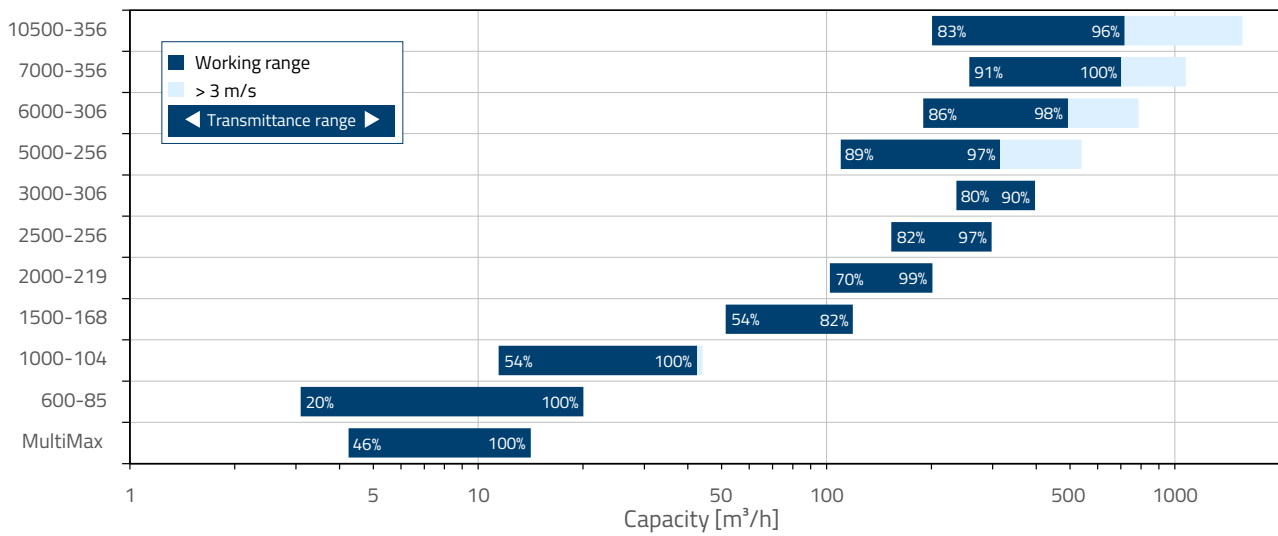
Connection: **2" BSPT**  
Number of lamp(s): **1 x 400 W**  
Rated power: **0.43 kW**

## INOX MP 600-85



Connection: **DN80**  
Number of lamp(s): **1 x 600 W**  
Rated power: **0.64 kW**

## Capacity flowchart based on UV-C transmittance range:



<sup>1</sup> Capacity based on 400 J/m<sup>2</sup>, T10 mm @ 254 nm = 98%, MP55M-average intensity (max. flow of 3 m/s not included)

### INOX MP 1000-104



Connection: **DN100**  
 Number of lamp(s): **1 x 1000 W**  
 Rated power: **1.08 kW**

### INOX MP 2500-256



Connection: **DN250**  
 Number of lamp(s): **1 x 2500 W**  
 Rated power: **2.66 kW**

### INOX MP 1500-168



Connection: **DN150**  
 Number of lamp(s): **1 x 1500 W**  
 Rated power: **1.60 kW**

### INOX MP 3000-306



Connection: **DN300**  
 Number of lamp(s): **1 x 3000 W**  
 Rated power: **3.18 kW**

### INOX MP 2000-219



Connection: **DN200**  
 Number of lamp(s): **1 x 2000 W**  
 Rated power: **2.13 kW**



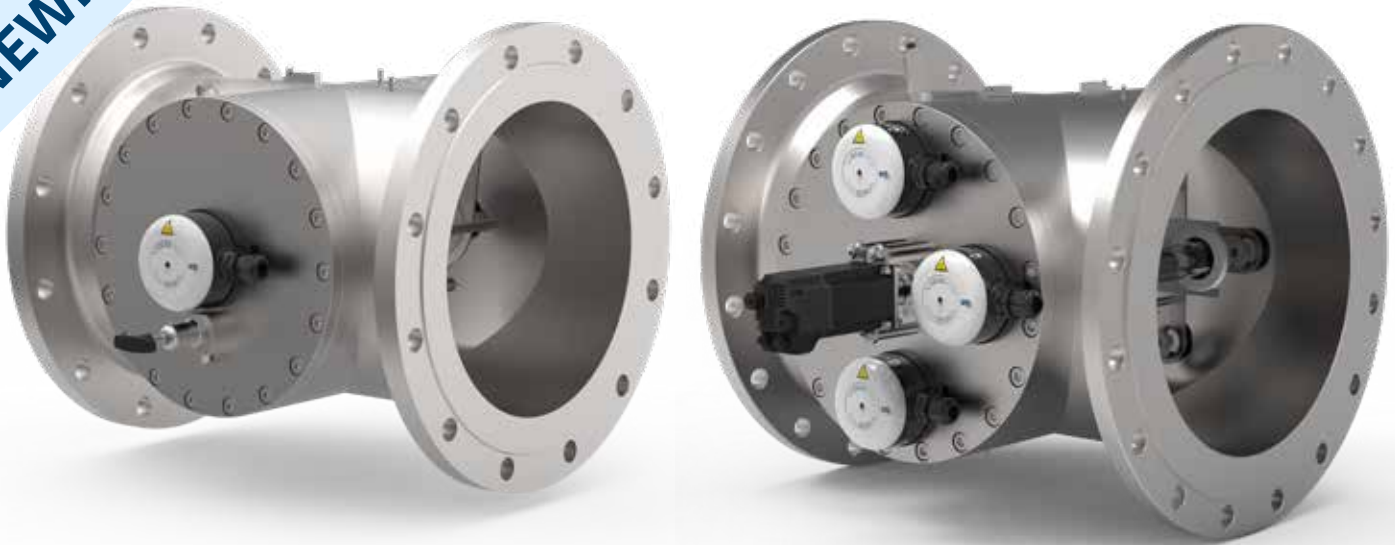
Swimming pool and Spa - The Netherlands - INOX MP 2000-219

## Installation

Medium pressure UV-C lamp systems can be installed in both vertical and horizontal piping systems, just make sure that the lamp remains in a horizontal position. With the single-ended lamps the systems can be integrated in almost every piping system even in installations close to a wall. Glass bead blasting gives the units a nice, matt grey surface. The high quality 316L stainless steel treatment chamber of the VGE Pro INOX series have been designed to perform. After the high quality welding process the units are leak tested.

# INOX MEDIUM PRESSURE UV-C LAMP SYSTEMS

**NEW!**



## MANUAL AND AUTOMATIC CLEANING MECHANISMS

- Easy to install single-ended lamp (SBT)
- Compact design for high water flow rates
- Electronic lamp power supply
- Manual and automatic cleaning mechanisms

### Benefits of medium pressure UV-C lamps

VGE Pro's product range includes systems based on both low pressure and medium pressure UV-C lamps. Medium pressure UV-C lamps emit a broad spectrum of ultraviolet (UV-C) radiation, providing excellent disinfection results and being well-suited for photolysis applications, such as reducing chloramine in pool applications. The single-ended lamp, combined with the Single-end Bayonet Technology (S.B.T.) and the visual lamp indicator on the chamber, makes VGE Pro UV systems highly user-friendly. For optimal results, optional mechanical cleaning is available to remove the fouling from quartz sleeve(s) and UV sensors.

#### UV-C lamp wiper systems

A manual operated cleaning mechanism is available up to a working pressure of 3 bar. The automatic version of the cleaning mechanism (like the non-wiper versions) can handle a working pressure of 10 bar.

The short and powerful medium pressure lamps, which are positioned perpendicular to the flow, ensure a compact treatment chamber design which makes it easy to retrofit in existing water treatment systems. Due to the high UV-C power produced, a single lamp can treat large water capacities in combination with a minimal pressure drop.

#### INOX MP 1500-170



Connection: **DN150**  
Number of lamp(s): **1 x 1500 W**  
Rated power: **1.70 kW**  
Available in: **Manual Wiper**  
**Automatic Wiper**

#### INOX MP 2000-219



Connection: **DN200**  
Number of lamp(s): **1 x 2000 W**  
Rated power: **2.23 kW**  
Available in: **Manual Wiper**  
**Automatic Wiper**

#### INOX MP 2500-256



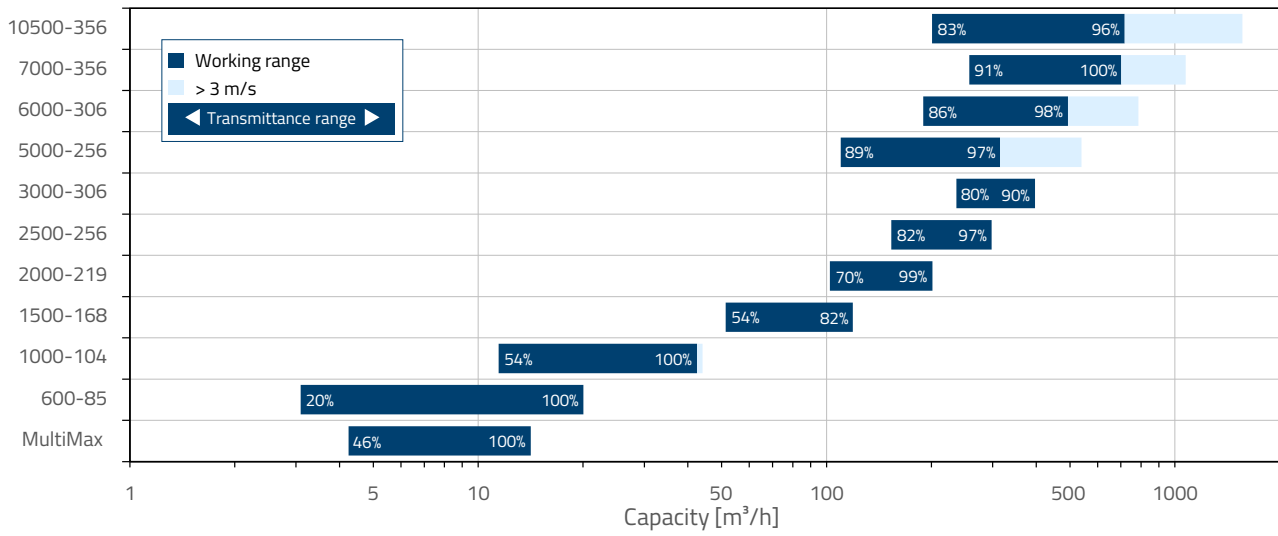
Connection: **DN250**  
Number of lamp(s): **1 x 2500 W**  
Rated power: **2.76 kW**  
Available in: **Manual Wiper**  
**Automatic Wiper**

#### INOX MP 3000-306



Connection: **DN300**  
Number of lamp(s): **1 x 3000 W**  
Rated power: **3.28 kW**  
Available in: **Manual Wiper**  
**Automatic Wiper**

## Capacity flowchart based on UV-C transmittance range:



<sup>1</sup> Capacity based on 400 J/m<sup>2</sup>, T10 mm @ 254 nm = 98 %, MPSSM-average intensity (max. flow of 3 m/s not included)

### INOX MP 5000-256



Connection: **DN250**  
 Number of lamp(s): **2 x 2500 W**  
 Rated power: **5.40 kW**  
 Available in: **Without Wiper**  
**Manual Wiper**  
**Automatic Wiper**

### INOX MP 7000-356



Connection: **DN350**  
 Number of lamp(s): **2 x 3500 W**  
 Rated power: **7.50 kW**  
 Available in: **Without Wiper**  
**Manual Wiper**  
**Automatic Wiper**

### INOX MP 6000-306



Connection: **DN300**  
 Number of lamp(s): **2 x 3000 W**  
 Rated power: **6.50 kW**  
 Available in: **Without Wiper**  
**Manual Wiper**  
**Automatic Wiper**

### INOX MP 10500-356



Connection: **DN350**  
 Number of lamp(s): **3 x 3500 W**  
 Rated power: **11.20 kW**  
 Available in: **Without Wiper**  
**Manual Wiper**  
**Automatic Wiper**

# IMMERSION UV-C SYSTEMS

## Flange installation option



## Float option



## Bracket installation option



## HIGH QUALITY 316L & PVC FITTING

- No pressure loss
- 9 Meter long cable
- Easy to install
- Ideal for retrofitting
- Wet and dry installation possible
- Withstands vibrations and strong water flows

## Benefits Immersion UV-C Systems

No pressure loss is the key advantage of the VGE Pro UV-C Immersion series, because these systems are integrated inside your water installation without an irradiation chamber. The socket holders are made of high-quality stainless steel or durable corrosion free PVC. The Immersion UV-C systems can be positioned in a vertical or horizontal way. Immersion UV-C systems are ideally suited for applications such as open channels, where they can be mounted horizontally or vertically.

### PVC



### INOX



### Flange installation option

Use the VGE Pro Flange accessory in combination with the INOX immersions to install the immersion UV-C through a tank wall (not compatible with PVC immersions).

### Float option

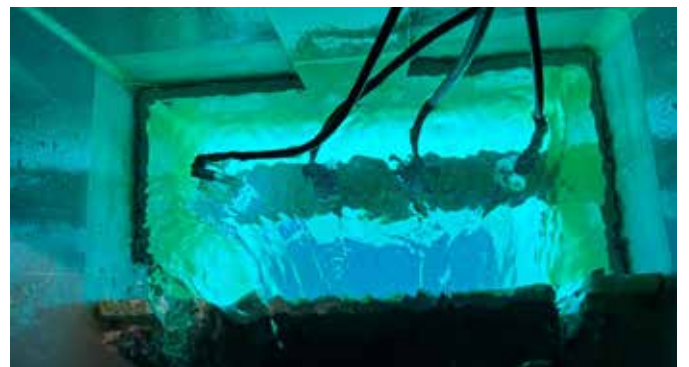
The float version of the VGE immersion helps install the immersion at the water surface. An ideal setup to keep water tanks clean.

### Bracket installation option

The 316L stainless steel immersion bracket helps to keep the immersion in place wherever you need it. It can be used both wet and dry and it can be combined with any immersion model.



Aquaculture - The Netherlands - 6x Immersion 325 W



Aquaculture - The Netherlands - 4x Immersion 40 W

### INOX / PVC 40 W

Number of lamp(s): **1 x 40 W**  
Rated power: **0.05 kW**  
Unit length: **465 mm**



### INOX / PVC 75 W

Number of lamp(s): **1 x 75 W**  
Rated power: **0.08 kW**  
Unit length: **966 mm**



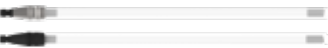
### INOX / PVC 80 W

Number of lamp(s): **1 x 80 W**  
Rated power: **0.09 kW**  
Unit length: **695 mm**



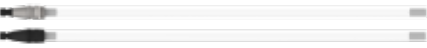
### INOX / PVC 130 W

Number of lamp(s): **1 x 130 W**  
Rated power: **0.17 kW**  
Unit length: **943 mm**



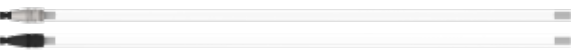
### INOX / PVC 200 W

Number of lamp(s): **1 x 200 W**  
Rated power: **0.23 kW**  
Unit length: **1240 mm**



### INOX / PVC 325 W

Number of lamp(s): **1 x 325 W**  
Rated power: **0.37 kW**  
Unit length: **1673 mm**



### Float 40 W

Number of lamp(s): **1 x 40 W**  
Rated power: **0.05 kW**  
Min. water height: **480 mm**



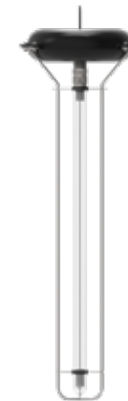
### Float 80 W

Number of lamp(s): **1 x 80 W**  
Rated power: **0.09 kW**  
Min. water height: **725 mm**



### Float 130 W

Number of lamp(s): **1 x 130 W**  
Rated power: **0.17 kW**  
Min. water height: **975 mm**



### Float 200 W

Number of lamp(s): **1 x 200 W**  
Rated power: **0.23 kW**  
Min. water height: **1270 mm**



Aquaculture - The Netherlands - 1x Immersion 80 W

# CONTROL UNITS



## CHOICE OF MULTIPLE CONTROLLERS

### UV-C control units for medium pressure lamp systems

The VGE Pro medium pressure UV-C lamps systems can be controlled by two different type of controllers, the Compact and the Comfort controller.

The Compact controller is a simple plug & play system and the Comfort controller has full functionality with optional sensors. Both controller types are powering the UV-C lamps via high frequency and high efficiency lamp drivers.

#### Compact



In combination with the MultiMax and INOX MP 600-85, 1000-104 and 1500-168 systems.

Features:

- Plug & Play
- All cables are pre-connected
- IP64
- End of lamp life indicator

#### Comfort



In combination with the all INOX MP systems (except MultiMax)

Features:

- PLC based
- Full colour touch screen HMI
- Lamp power control
- Economy mode
- Optional UV sensor

(INOX MP 600-85 has a LCD display with keyboard and no dimming function)

## UV-C control units for low pressure lamp systems

For the VGE pro systems based on low pressure UV-C lamps seven different types of control units are available. Depending on the needed functionality, simple on/off up to full function PLC based controllers can be selected.

All controllers are powering the UV-C lamps via high frequency and high efficiency lamp drivers.

### Basic Controller



For low pressure single lamp systems with 40, 75 and 140 W UV-C lamps.

- Features:
- Basic on/off functionality
  - Compact aluminum housing
  - Plug & Play

### Basic Controller



For low pressure single and multi lamp systems with 140, 200 and 325 W UV-C lamps.

- Features:
- Basic on/off functionality
  - Closed ABS housing
  - Input for lamp control

### Control Timer



For low pressure single lamp systems with 40, 75 and 140 W UV-C lamps.

- Features:
- As Basic Controller
  - Closed ABS housing
  - LED hours counter

### Control Monitor



For VGE Pro UV low pressure single lamp systems with 40, 75, 140, 200 and the multi lamp 3 x 140 W systems.

- Features:
- As Basic in Polycarbonate housing
  - Lamp hours counter
  - Multilingual (UK, DE & FR)
  - Input for optional UV sensor
  - Flow switch/temp switch port

### Control Monitor Plus



For low pressure multi lamp systems with 140 and 200 W UV-C lamps.

- Features:
- As Control Monitor in coated steel housing
  - Multi colour 4 line LCD display
  - Input for optional UV sensor
  - Input for optional temperature sensor

### PLC Touch



For low pressure multi lamp systems with up to 6 x 325 W UV-C lamps.

- Features:
- As Control Monitor Plus
  - Full colour touch screen HMI
  - User interface for remote control

### OptiControl



For low pressure multi lamp systems with 6 or more 325/400 W UV-C lamps.

- Features:
- As PLC Touch
  - Full colour touch screen HMI
  - User interface for remote control

# UV & TEMPERATURE SENSORS



## SYSTEM MONITORING

### UV measurement and control

VGE Pro UV systems can optionally be equipped with a UV-C sensor. The digital INOX UV sensor provides an absolutely calibrated measurement of the UV-C intensity in the INOX treatment chamber. For the HDPE system a corrosion resistant plastic UV-C sensor is available

The UV sensor measures the UV-C intensity inside the chamber to make sure that the required UV dose is realised for a specified flow rate through the chamber. The UV-C intensity can be affected by a changing water quality (UV transmittance), fouling of the system and ageing of the lamps.

### INOX UV sensor



INOX UV sensor, optional with all Control Monitor, Control Monitor Plus, PLC Touch, Comfort and OptiControl Controllers. It measures the UV intensity inside the UV

treatment chamber and the controller signals if its value gets below the application specific setpoint. Two versions are available, one type for low pressure UV-C lamps and a second type for medium pressure UV-C lamps.

### INOX UV sensor in Measuring window



INOX UV sensor in measuring window, the sensor is used in combination with the OptiGuard systems. The UV sensor is placed inside a measuring window which looks inside the treatment chamber. The window can withstand a water pressure up to 16 bar and the UV sensor can be removed from the window without draining the treatment chamber. Functionally the same as the INOX UV sensor.

### PTFE UV sensor



PTFE UV sensor, optional with all Control Monitor, Control Monitor Plus and PLC Touch Controllers. Typical for low pressure lamp HDPE systems. Function wise the same as the INOX UV sensor.



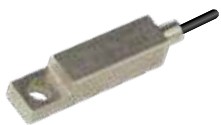


## SYSTEM MONITORING

### Temperature measurement and control

VGE Pro UV systems can optionally be equipped with a temperature sensor. For the INOX systems “bolt-on” temperature sensors and switches are available to monitor the chamber temperature. The corrosion free HDPE systems can be equipped with a HPDE version which can be inserted in a socket to monitor the water temperature. The temperature switches and sensors monitor and protect the system against overheating due to no water in, or stopped flow through the treatment chamber while the UV lamps are in operation.

#### Bolt-on temperature sensor



Bolt-on temperature sensor, optional with all Control Monitor Plus, PLC Touch, Comfort and OptiControl

Controllers. If the measured chamber temperature reaches a first setpoint a warning signal will be activated, if a second higher setpoint is reached an alarm signal will be activated and the lamp(s) will be switched off.

#### HDPE temperature sensor



HDPE temperature sensor, optional with all Control Monitor Plus, PLC Touch, Comfort and OptiControl Controllers. It has the same

functionality as the Bolt-on temperature sensor but specifically for HPDE systems where it measures the water temperature.

#### Bolt-on temperature switch



Bolt-on temperature switch, standard present on the medium pressure lamp based systems and optional for INOX

low pressure lamp systems. This switch is used for protection against overheating and directly switches off the lamp(s) if a dangerous temperature is reached.

#### HDPE temperature switch



HDPE temperature switch, optional with all Control Monitor Plus, PLC Touch, Comfort and OptiControl Controllers. It has the same

functionality as the Bolt-on temperature switch but specifically for HPDE systems.

# MEDIUM AND LOW PRESSURE UV-C LAMPS



## SBT, SPT & SUT TECHNOLOGY



### Medium pressure Single-end Bayonet Technology (SBT)

The lamp base is equipped with a bayonet technology closure for easy and fast lamp (re)placement and a lamp function indication. The lamp itself is single-ended which not only makes it easy to install and replace but also requires service space at only one side of the treatment chamber.



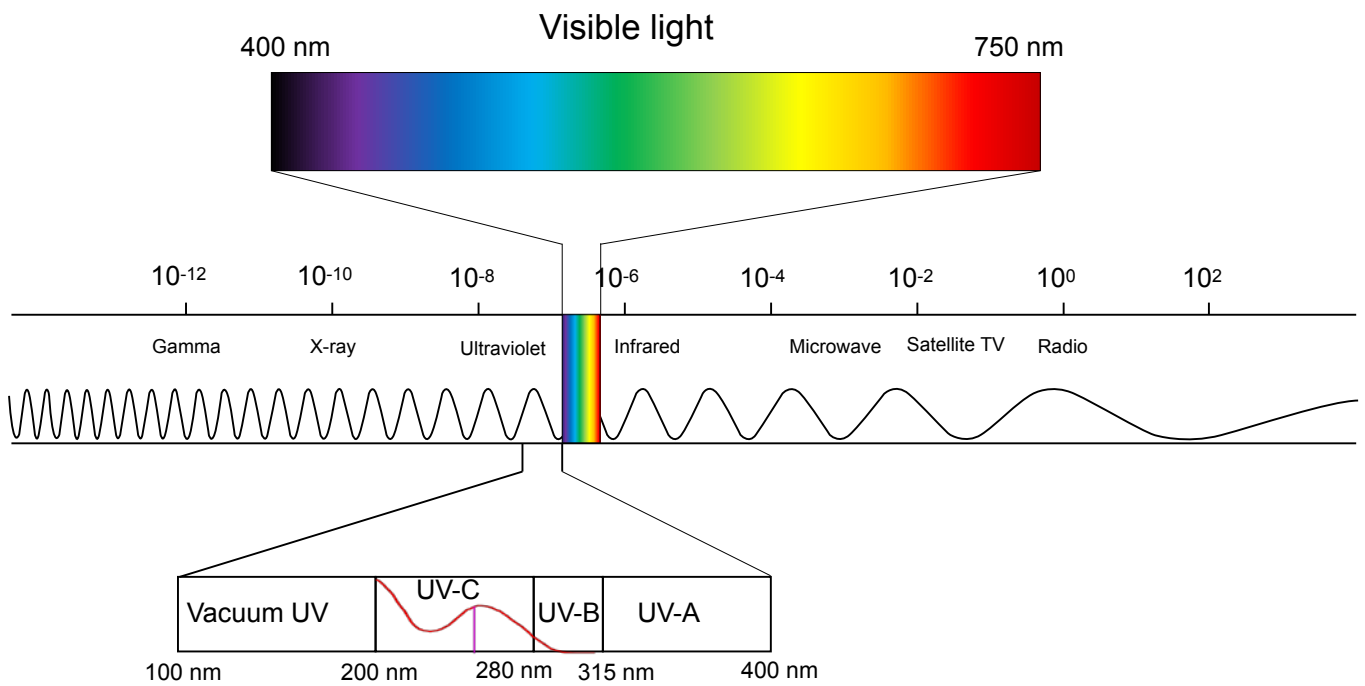
### Low pressure Smart Pin Technology (SPT)

The VGE Pro low pressure UV-C systems are equipped with the unique Smart Pin Technology (SPT). This innovative system is a reliable way to (re)install the UV-C lamp(s) in a safe, efficient and smart way in the chamber. The SPT lamp head has an intergrated visualisation for lamp function indication.



### Low pressure Special Use Technology (SUT)

This lamp connection makes it possible to use the UV-C system in harsh environmental conditions with high humidity and/or high dust content due to the IP67 design/protection. SUT low pressure UV-C lamps are designed to ensure fast and easy lamp replacement, requiring no special tools when removing the quartz sleeve.



## UV-C TREATMENT

UV radiation can be divided in 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. UV-C radiation has the ability to cause permanent damage to microorganisms.

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 a fraction of a second for UV-C radiation rays to inactivate waterborne microorganisms by breaking through the microorganism's cell wall and damaging their DNA. This often totally destroys the organism, or at the very least will impair its ability to reproduce.



# CUSTOM MADE ENGINEERING AND DESIGN



## CUSTOM ENGINEERING AND DESIGN



Whether it involves adapting the design of the treatment chamber, adjusting the number of UV-C lamps, or fine-tuning the control system, we are here to make it happen. Your requirements and preferences are at the core of our process.

Our experienced team leverages their knowledge and expertise to provide you with a solution that not only meets your needs but also exceeds your expectations. We are more than flexible, we are your partner in UV-C disinfection solutions.

## Custom solutions

At VGE B.V., we understand that each UV-C disinfection challenge is unique. We work closely with you to create the ideal solution. While our VGE Pro UV-C series offers outstanding standard systems for a wide range of applications, we recognize that sometimes a customized approach is the key to success.





## CUSTOM ENGINEERING AND DESIGN

### What makes the VGE Pro UV-C systems unique?

- VGE Pro UV-C units are equipped with 316L stainless steel or high-quality HDPE treatment chambers
- Lamps can be replaced while the unit remains pressurized
- Each unit with SPT or SBT lamp connection is equipped with a lamp function indicator at the lamp head
- VGE Pro units can be fitted with UV sensors and/or temperature sensors
- Safe and easy lamp replacement without disconnecting the lamp power cable
- Low-pressure lamps with a lamp life of 16,000 hours for high performance and efficient energy usage
- Medium-pressure lamps with a lamp life of 9,000 hours for high UV-C output applications and compact system design
- Single systems can handle flow rates ranging from 0.5 m<sup>3</sup>/h up to 1500 m<sup>3</sup>/h
- Customization of devices according to specific requirements is possible
- All VGE Pro UV-C systems use high-frequency, high-efficiency electronic lamp drivers for optimized lamp control



# WORKING METHOD FROM IDEA TO CUSTOM UV-C UNIT



At VGE we believe in a transparent process and customized solutions that fully match your application.

Below you can read step by step how we work with you to create a perfectly tuned UV-C unit.

## Step 1



### Inventory of customer needs

We start with an intake interview in which we collect all relevant information together with you, including:

- Purpose of the UV-C unit (disinfection, oxidation, etc.)
- Type of medium (water, process fluid, air)
- Flow rate and pressure conditions
- Connections, construction type and available installation space
- Applicable standards or certifications

**Result:** A clear technical and functional overview of your wishes.

## Step 2



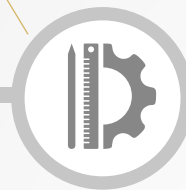
### Technical advice and concept proposal

Based on the initial inventory, our engineers develop a first concept proposal, taking into account:

- Appropriate UV-C technology (wavelength, dose, lamp type)
- Material selection (stainless steel, HDPE, etc.)
- Efficiency and maintenance requirements
- Integration into existing systems

**Result:** A non-binding sketch or 3D concept with technical explanation.

## Step 3



### Custom engineering and design

After approval of the concept, we develop a detailed design, including:

- CAD drawings and technical datasheets
- Simulations and calculations (such as UV-C dose and flow analysis)
- Prototype development where required

**Result:** A fully developed technical design, ready for production.



#### Step 4



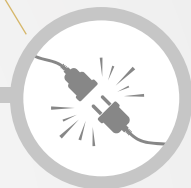
### Production of the UV-C unit

The UV-C unit is manufactured in our own workshop or via certified partners. We provide:

- Strict quality control on all components
- Assembly according to applicable norms and standards
- Optional test and validation reports

**Result:** A high-quality, custom UV-C installation.

#### Step 5



### Delivery, installation and commissioning

We deliver the unit ready for use and, if desired, also take care of the installation and commissioning on site.

**Result:** A working UV-C unit, correctly connected and tested.

#### Step 6



### Aftercare, maintenance and service

We remain involved even after delivery, offering:

- Maintenance contracts and periodic inspections
- Replacement of lamps and components
- Remote monitoring and/or on-site support

**Result:** Maximum lifespan and reliability of your UV-C system.

# ABOUT VGE B.V.



## THE PEOPLE BEHIND OUR SUCCESSES ARE THE HEART OF OUR COMPANY

VGE B.V. is the specialist in UV-C disinfection technology. With an international perspective, we closely follow the latest developments and technologies to contribute to a sustainable and future-oriented water industry. Driven by a passion for technology and extensive knowledge of UV-C, we develop innovative systems for swimming pools (Blue Lagoon), ponds (Xclear), and the professional market (VGE Pro).

### Clean water since 1982

Water and UV-C technology are at the heart of VGE. Since 1982, we have been developing and manufacturing UV-C technology for water disinfection. Over 40 years of experience and an unparalleled passion for our products, we have grown into an international market leader with a global impact. From our modern headquarters in Schijndel, we export to more than 80 countries and provide customized solutions.

### Sustainability and innovation under one roof

Our facility is more than just a workplace, it reflects our core values of sustainability and innovation. With the construction of our new building in 2021, we made conscious choices, including the installation of 365 solar panels, making our building almost completely energy neutral. Additionally, our building operates entirely without natural gas, eliminating the need for fossil fuels.

It stands as tangible proof that technology and sustainability can go hand in hand, directly contributing to a greener future.

### Our people make the difference

At VGE, it's not just about technology, it's about the people who make our UV-C disinfection solutions possible. Our close-knit team of dedicated colleagues works passionately every day to create innovative solutions for clean and safe water. Thanks to our integrated approach and short lines of communication within the organization, we are flexible, solution-oriented, and reliable. Our people are what make VGE what it is, and we're proud of that.

### Continuing to innovate

Water is always in motion, and so is VGE. From optimizing existing products to developing entirely new systems, quality, reliability, and innovation form the foundation of everything we do. Our product developers ensure that our technology meets the highest market standards and complies with all applicable safety regulations.

With our experience, global customer base, and future-focused vision, we work every day on the next step forward.

**Welcome to VGE!**



## OUR UV-C EXPERTS



### **Ruud van de Ven**

SENIOR ACCOUNTMANAGER

**Expertise:**

HORTICULTURE, LIVESTOCK FARMING



### **Rob van Esch**

COMMERCIAL PRODUCTMANAGER

**Expertise:**

UV-C TECHNOLOGIST, SPECIAL APPLICATIONS,  
PRODUCT DEVELOPMENT



### **Arjan van der Spank**

MANAGING DIRECTOR

**Expertise:**

NEW BUSINESS DEVELOPMENT



### **Nick van Lier**

ACCOUNTMANAGER

**Expertise:**

AQUACULTURE



### **Gies Leenders**

SENIOR ACCOUNTMANAGER

**Expertise:**

SWIMMING POOLS AND SPA



### **Bas Tips**

ACCOUNTMANAGER

**Expertise:**

SWIMMING POOLS AND SPA





***WE MAKE WATER SAFE***