

# Catalogue 2014

## Water





## Quality features of our UV equipment

#### **Reactor's material**

Plastic should in principle be rejected for embrittlement reasons Stainless steel, of what quality, material's description

#### Our uv equipment if made of 1.4571 electro polished stainless steel, duly licensed for drinking water

Again and again, increased performance is being offered with **reflex** equipment or reflecting inserts made of stainless steel

#### Stainless steel only has a very small UV radiation reflectivity

#### Service conditions

Fitting position: In the so called **"small print"** of operating instructions there are many people who stipulate an horizontal position

#### Our uv equipment may be fitted no matter how, thus not depending upon a

**given position** Water pressure

#### Our uv equipment is licensed for up to 10 bar

Conditions for electric power connection:

Are there allowances concerning tension and frequency tolerances

Our uv uses devices with voltage ranges of 85-264 V A.C. and 50/60 Hz

frequency of the respective power supply network

#### **Performance data**

Water flow rate:	do we have comparable data?
	what is being frequently mentioned is l/min or gallons/min
	for a water tap a minimum of 360 l/min or 6 l/min is being needed
Performance:	what kind of dose and transmission?
	what is being required are 400 J/m <sup>2</sup> at 90 T/cm
	which is the guaranteed rate of disinfection?
	in the so called "small print" many people mention 99,9%
	what is required are 4 log stages = 99,99%
• . •	

Our uv equipment is designed for a 400 J/m<sup>2</sup> dose and 99,99% germ reduction while maintaining water flow rates, thus meeting WHO, DVGW and Ö-Norm requirements. This is supported by an independent expertise which is available.

#### Warranties

What type of warranties are being offered? What is frequently being mentioned in the so called "small print" are 5.000-6.000 h **Our uv offers a warranty for 10.000 operating hours** 

#### **Replacement possibilities**

Cost and availability of replacement lamps Our uv uses products of the PHILIPS and Light Sources brands

#### Easy servicing

Very good manageability The entire servicing such as the replacement of lamps and the cleaning of the quartz tube is being performed with no tools at all. Many competitors are using uncapped lamps so that entire systems have to be replaced.

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#### PURION 400 for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



### UV Plant PURION 400 is equipped with a polished stainless steel reactor.

PURION 400 can be used to disinfect drinking water up to a flow rate of 300  $\,$  l/h and a transmission of at least 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or optionally 12 V DC, 24 V DC or 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 7,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	
type	PURION 400
flow rate	300 l/h
	drinking water
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	2°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1/2"
seal	FPM
dimensions (L x Ø in mm)	237 x 42
distance flanges	172 mm
weight	1,9 Kg
life time of lamps	10.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	230 V/50 Hz or
(optionally)	110 V/60 Hz
	12 V DC or 24 V DC
total power	10 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water	•	
Water of air conditioning	•	
Disinfection of permeate	•	
Pools		
Aquariums	•	
Fish ponds		
Storm water of sewage plants		
Pharmacy	•	
Greenhouse		
Water of domestic use		

#### Advantages

- additional chemicals are not required for disinfection
- no change of hydro chemistry
  - smell and taste of the water are not influenced by radiation
  - installation in conveyor lines
  - less required space



#### PURION 500 for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 500 is equipped with a polished stainless steel reactor.

PURION 500 can be used to disinfect drinking water up to a flow rate of 400  $\,$  l/h and a transmission of at least 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or optionally 12 V DC, 24 V DC or 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor. Inside the reactor an UV lamp enclosed in a UV-C transparent

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 7,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 500
flow rate	400 l/h
	drinking water
	-
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	2°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1/2"
seal	FPM
dimensions (L x Ø in mm)	320 x 42
distance flanges	255 mm
weight	2,2 Kg
life time of lamps	10.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	230 V/50 Hz or
(optionally)	110 V/60 Hz
	12 V DC or 24 V DC
total power	10 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water	•	
Water of air conditioning	•	
Disinfection of permeate	•	
Pools		
Aquariums	•	
Fish ponds		
Storm water of sewage plants		
Pharmacy	•	
Greenhouse		
Water of domestic use		

#### Advantages

- additional chemicals are not required for disinfection
- no change of hydro chemistry
  - smell and taste of the water are not influenced by radiation
  - installation in conveyor lines
  - less required space



#### PURION 500 PRO for disinfection of process water

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 500 PRO is equipped with a polished stainless steel reactor.

PURION 500 PRO can be used to disinfect water of domestic use up a flow rate of 300 l/h and a transmission of at least less than 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or optionally 12 V DC, 24 V DC or 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 2 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 500 PRO
flow rate	300 l/h process water
	200 l/h emulsion
UVC-transmission	> 20% T <sub>1</sub> cm
temperature of water	2°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1/2"
seal	FPM
dimensions (L x Ø in mm)	320 x 42
distance flanges	255 mm
weight	2,2 Kg
life time of lamps	10.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	230 V/50 Hz or
(optionally)	110 V/60 Hz
	12 V DC or 24 V DC
total power	10 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water	
Water of air conditioning	•
Disinfection of permeate	•
Emulsion for cooling and lubrication	•
Aquariums	
Fish ponds	
Storm water of sewage plants	•
Pharmacy	
Greenhouse	•
Water of domestic use	•

#### Advantages

- additional chemicals are not required for disinfection
- no change of hydro chemistry
  - smell and taste of the water are not influenced by radiation
  - installation in conveyor lines
  - less required space



#### PURION 1000 for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 1000 is equipped with a polished stainless steel reactor.

PURION 1000 can be used to disinfect drinking water up to a flow rate of 1.000 l/h and a transmission of at least 90% per cm. Other applications are pools or fish ponds up to a volume of 10.000 l at continuous recirculation.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or optionally 12 V DC, 24 V DC or 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 7,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 1000
flow rate	1 m³/h
	drinking water
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	2°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1"
seal	FPM
dimensions (L x Ø in mm)	420 x 42
distance flanges	340 mm
weight	2,8 Kg
life time of lamps	10.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	230 V/50 Hz or
(optionally)	110 V/60 Hz
	12 V DC or 24 V DC
total power	17 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water	•	
Water of air conditioning	•	
Disinfection of permeate	•	
Pools	•	
Aquariums	•	
Fish ponds		
Storm water of sewage plants		
Pharmacy	•	
Greenhouse		
Water of domestic use		

#### Advantages

- additional chemicals are not required for disinfection
- no change of hydro chemistry
  - smell and taste of the water are not influenced by radiation
  - installation in conveyor lines
  - less required space
  - manageable maintenance, small operation expenses



#### PURION 1000 H for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 1000 H is equipped with a polished stainless steel reactor.

PURION 1000 H can be used to disinfect high temperature water especially to protect legionella. It's possible to disinfect drinking water up to a flow rate of 1.500 l/h and a transmission of at least 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 7,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 1000 H
flow rate	1,5 m³/h
	drinking warter
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	up to 90°C
reaktor	stl. steel 1.4571
flanges external thread	R 1"
seal	FPM
dimensions (L x Ø in mm)	420 x 42
distance flanges	340 mm
weight	2,8 Kg
life time of lamps	8.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
max. working pressure	10 bar
protective system	IP 65
electrical connection	230 V/50 Hz
total power	42 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water	•	
Water of air conditioning	•	
Disinfection of permeate	•	
Pools		
Aquariums		
Fish ponds		
Storm water of sewage plants	•	
Pharmacy	•	
Greenhouse	•	
Water of domestic use		

#### Advantages

- safe protection against legionella
- additional chemicals are not required for disinfection
- no change of hydro chemistry
- smell and taste of the water are not influenced by radiation
- installation in conveyor lines
- less required space
- manageable maintenance, small operation expenses



#### PURION 1000 PRO for disinfection of process water

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 1000 PRO is equipped with a polished stainless steel reactor.

PURION 1000 PRO can be used to disinfect water of domestic use up to a flow rate of 1.000 l/h and a transmission of at least less than 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or optionally 12 V DC, 24 V DC or 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the process water to be treated. The small distance of 2 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 1000 PRO
flow rate	1 m <sup>3</sup> /h process water
	700 l/h emulsion
UVC-transmission	> 20%
temperature of water	2°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1"
seal	FPM
dimensions (L x Ø in mm)	420 x 42
distance flanges	340 mm
weight	2,8 Kg
life time of lamps	10.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	230 V/50 Hz or
(optionally)	110 V/60 Hz
	12 V DC or 24 V DC
total power	17 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water		
Water of air conditioning	•	
Disinfection of permeate	•	
Emulsion for cooling and lubrication	•	
Aquariums		
Fish ponds		
Storm water of sewage plants	•	
Pharmacy		
Greenhouse	•	
Water of domestic use	•	

#### Advantages

- disinfection without chemicals
- due to biological methods there is no ecological damage

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- manageable maintenance
- small operation expenses



#### PURION 2000 for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 2000 is equipped with a polished stainless steel reactor.

PURION 1000 can be used to disinfect drinking water up to a flow rate of 2.000 l/h and a transmission of at least 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 7,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 2000
flow rate	2 m³/h
	drinking water
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	8°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1"
seal	FPM
dimensions (L x Ø in mm)	578 x 42
distance flanges	500 mm
weight	2,8 Kg
life time of lamps	10.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	85264 V 50/60 Hz
(optionally)	
total power	48 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water		
Water of air conditioning	•	
Disinfection of permeate	•	
Pools	٠	
Aquariums	•	
Fish ponds		
Storm water of sewage plants		
Pharmacy		
Greenhouse		
Water of domestic use		

Advantages

- additional chemicals are not required for disinfection
- no change of hydro chemistry
- smell and taste of the water are not influenced by radiation

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- installation in conveyor lines
- less required space
- manageable maintenance, small operation expenses



#### PURION 2001 for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 2001 is equipped with a polished stainless steel reactor.

PURION 2001 can be used to disinfect pool water up to a Volume of 30.000 I and for a transmission of at least 90% per cm. To ensure the required transmission a preliminary filter could be necessary. Other applications are fish ponds up to a volume of 30.000 I at continuous recirculation.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the water to be treated.

The small distance of 27,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 2001
flow rate	8 m³/h
	pools/ponds
	up to 30.000 l
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	8°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1 1/2"
seal	FPM
dimensions (L x Ø in mm)	578 x 85
distance flanges	460 mm
weight	4,1 Kg
life time of lamps	10.000 h
number of lamps	1
dose	300 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	85264 V 50/60 Hz
(optionally)	
total power	48 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water		
Water of air conditioning		
Disinfection of permeate		
Pools	•	
Aquariums	•	
Fish ponds	•	
Storm water of sewage plants		
Pharmacy		
Greenhouse		
Water of domestic use		

#### Advantages

- additional chemicals are not required for disinfection
- no change of hydro chemistry
- smell and taste of the water are not influenced by radiation

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- installation in conveyor lines
- less required space
- manageable maintenance, small operation expenses



#### PURION 2001 PVC-U for water-disinfection

... is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 2001 PVC is equipped with a PVC-U reactor. PURION 2001 PVC-U can be used to disinfect pool water up to a Volume of 30.000 I and for a transmission of at least 90% per cm. To ensure the required transmission a preliminary filter could be necessary. Other applications are fish ponds up to a volume of 30.000 l at continuous recirculation.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 85..264 V 50/60 Hz

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 27,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	
type	PURION 2001 PVC-U
flow rate	8 m³/h
	pools/ponds
	up to 30.000 I
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	8°C to 40°C
reaktor	PVC-U
flange with adhesive sleeve	Ø 50 mm
seal	FPM
dimensions (L x Ø in mm)	670 x 100
distance flanges	360 mm
weight	6 Kg
life time of lamps	10.000 h
number of lamps	1
dose	300 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	5 bar
protective system	IP 65
electrical connection	85264 V 50/60 Hz
total power	48 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water		
Water of air conditioning	•	
Disinfection of permeate		
Pools	•	
Aquariums	•	
Fish ponds	•	
Storm water of sewage plants		
Pharmacy		
Greenhouse	•	
Water of domestic use		

#### **Advantages**

- safe protection against legionella
- additional chemicals are not required for disinfection
- no change of hydro chemistry
- smell and taste of the water are not influenced by radiation on.eu · www.pu
- installation in conveyor lines
- less required space



#### PURION 2500 36W for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 2500 36W is equipped with a polished stainless steel reactor.

PURION 2500 36Wcan be used to disinfect drinking water up to a flow rate of 2.500 l/h and a transmission of at least 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or 110 V/60 Hz or optionally 24 V DC at 36 W.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 7,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 2500 36W
flow rate	2,5 m³/h
	drinking water
	at 36 W
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	2°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1"
seal	FPM
dimensions (L x Ø in mm)	928 x 42
distance flanges	850 mm
weight	3,4 Kg
life time of lamps	10.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	85264 V 50/60 Hz
(optionally)	
	24 V DC at 36 W
total power	36 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water	•	
Water of air conditioning	•	
Disinfection of permeate	•	
Pools		
Aquariums		
Fish ponds		
Storm water of sewage plants	•	
Pharmacy	•	
Greenhouse	•	
Water of domestic use		

#### Advantages

- additional chemicals are not required for disinfection

- no change of hydro chemistry
- smell and taste of the water are not influenced by radiation

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- installation in conveyor lines
- less required space



#### PURION 2500 90W for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 2500 90W is equipped with a polished stainless steel reactor.

PURION 2500 90Wcan be used to disinfect drinking water up to a flow rate of 2.500 l/h and a transmission of at least 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 7,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 2500 90W
flow rate	4 m³/h
	drinking water
	at 90 W
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	2°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1"
seal	FPM
dimensions (L x Ø in mm)	928 x 42
distance flanges	850 mm
weight	3,4 Kg
life time of lamps	10.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	85264 V 50/60 Hz
(optionally)	
total power	90 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water	•	
Water of air conditioning	•	
Disinfection of permeate	•	
Pools		
Aquariums		
Fish ponds		
Storm water of sewage plants	•	
Pharmacy	•	
Greenhouse	•	
Water of domestic use		

#### Advantages

- additional chemicals are not required for disinfection
- no change of hydro chemistry
- smell and taste of the water are not influenced by radiation

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- installation in conveyor lines
- less required space
- manageable maintenance, small operation expenses



#### PURION 2500 H for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 2500 H is equipped with a polished stainless steel reactor.

PURION 2500 H can be used to disinfect high temperature water especially to protect legionella. It's possible to disinfect drinking water up to a flow rate of 4.000 l/h and a transmission of at least 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 7,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 2500 H
flow rate	4 m³/h
	drinking warter
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	up to 90°C
reaktor	stl. steel 1.4571
flanges external thread	R 1"
seal	FPM
dimensions (L x Ø in mm)	928 x 42
distance flanges	850 mm
weight	3,4 Kg
life time of lamps	8.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	-
max. working pressure	10 bar
protective system	IP 65
electrical connection	230 V/50 Hz

total power	106 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water	•	
Water of air conditioning	•	
Disinfection of permeate	•	
Pools		
Aquariums		
Fish ponds		
Storm water of sewage plants	•	
Pharmacy	•	
Greenhouse	•	
Water of domestic use		

#### Advantages

- safe protection against legionella
- additional chemicals are not required for disinfection
- no change of hydro chemistry
- smell and taste of the water are not influenced by radiation
- installation in conveyor lines
- less required space
- manageable maintenance, small operation expenses



#### PURION 2500 36W PRO for disinfection of process water

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 2500 36W PRO is equipped with a polished stainless steel reactor.

PURION 2500 36W PRO can be used to disinfect water of domestic use up to a flow rate of 2.000 l/h and a transmission of least less than 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or optionally 24 V DC or 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the process water to be treated. The small distance of 2 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	
type	PURION 2500 36W PRO
flow rate	2 m³/h process water
	1 m³/h emulsion
UVC-transmission	> 20%
temperature of water	2°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1"
seal	FPM
dimensions (L x Ø in mm)	928 x 42
distance flanges	850 mm
weight	3,4 Kg
life time of lamps	10.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	85264 V 50/60 Hz
(optionally)	
	24 V DC
total power	36 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water		
Water of air conditioning	•	
Disinfection of permeate	•	
Emulsion for cooling and lubrication	•	
Aquariums		
Fish ponds		
Storm water of sewage plants	•	
Pharmacy		
Greenhouse	•	
Water of domestic use	•	

#### **Advantages**

- disinfection without chemicals
- due to biological methods there is no ecological damage

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- manageable maintenance
- small operation expenses



#### PURION 2500 90W PRO for disinfection of process water

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



manufacturer	
type	PURION 2500 90W PRO
flow rate	3,5 m³/h process water
	1,5 m³/h emulsion
UVC-transmission	> 20%
temperature of water	2°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1"
seal	FPM
dimensions (L x Ø in mm)	928 x 42
distance flanges	850 mm
weight	3,4 Kg
life time of lamps	10.000 h
number of lamps	1
dose	400 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	85264 V 50/60 Hz
total power	90 W
over current protection	10 A

UV Plant PURION 2500 90W PRO is equipped with a polished stainless steel reactor.

PURION 2500 90W PRO can be used to disinfect water of domestic use up to a flow rate of 3.500 l/h and a transmission of least less than 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or optionally 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the process water to be treated. The small distance of 2 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

#### This UV-plant is applied at:

Drinking water		
Water of air conditioning	•	
Disinfection of permeate	•	
Emulsion for cooling and lubrication	•	
Aquariums		
Fish ponds		
Storm water of sewage plants	•	
Pharmacy		
Greenhouse	•	
Water of domestic use	•	

#### **Advantages**

- disinfection without chemicals
- due to biological methods there is no ecological damage

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- manageable maintenance
- small operation expenses



#### PURION 2501 for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



## UV Plant PURION 2501 is equipped with a polished stainless steel reactor.

PURION 2501 can be used to disinfect pool water up to a Volume of 50.000 I and for a transmission of at least 90% per cm. To ensure the required transmission a preliminary filter could be necessary. Other applications are fish ponds up to a volume of 30.000 I at continuous recirculation.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz or 110 V/60 Hz.

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the water to be treated.

The small distance of 27,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 2501
flow rate	14 m³/h
	pools/ponds
	up to 50.000 l
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	8°C to 40°C
reaktor	stl. steel 1.4571
flanges external thread	R 1 1/2"
seal	FPM
dimensions (L x Ø in mm)	928 x 85
distance flanges	810 mm
weight	5,5 Kg
life time of lamps	10.000 h
number of lamps	1
dose	300 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	85264 V 50/60 Hz
(optionally)	
total power	90 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water		
Water of air conditioning		
Disinfection of permeate		
Pools	•	
Aquariums	•	
Fish ponds	•	
Storm water of sewage plants		
Pharmacy		
Greenhouse		
Water of domestic use		

#### Advantages

- additional chemicals are not required for disinfection
- no change of hydro chemistry
- smell and taste of the water are not influenced by radiation

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- installation in conveyor lines
- less required space
- manageable maintenance, small operation expenses



#### PURION 2501 PVC-U for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 2501 PVC is equipped with a PVC-U reactor. PURION 2501 PVC-U can be used to disinfect pool water up to a Volume of 50.000 I and for a transmission of at least 90% per cm. To ensure the required transmission a preliminary filter could be necessary. Other applications are fish ponds up to a volume of 50.000 I at continuous recirculation.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 85..264 V 50/60 Hz

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 27,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 2501 PVC-U
flow rate	14 m³/h
	pools/ponds
	up to 50.000 I
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	8°C to 40°C
reaktor	PVC-U
flange with adhesive sleeve	Ø 50 mm
seal	FPM
dimensions (L x Ø in mm)	928 x 100
distance flanges	710 mm
weight	8 Kg
life time of lamps	10.000 h
number of lamps	1
dose	300 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	5 bar
protective system	IP 65
electrical connection	85264 V 50/60 Hz

total power	90 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water	
Water of air conditioning	•
Disinfection of permeate	
Pools	•
Aquariums	•
Fish ponds	•
Storm water of sewage plants	
Pharmacy	
Greenhouse	•
Water of domestic use	

#### Advantages

- safe protection against legionella
- additional chemicals are not required for disinfection
- no change of hydro chemistry
- smell and taste of the water are not influenced by radiation
- installation in conveyor lines
- less required space



#### PURION 2501 H for water-disinfection

...is characterized by compact construction and a high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



UV Plant PURION 2501 H is equipped with a polished stainless steel reactor.

PURION 2501 H can be used to disinfect high temperature water especially to protect pool water against legionella. It's possible to disinfect pool water up to a volume of 50.000 I and for a transmission of at least 90% per cm.

The used UV-lamps are characterized by a long durability and a high degree of efficiency respecting to disinfection and energy consumption.

The power supply can be carried out with 230 V/50 Hz

The compact construction design enables an easy replacement of the UV lamp at the end of their useful life.

You don't need any tool. Also replacement and cleaning of the quartz pipe can be arranged easily. UV disinfection is reached by floating the water through the reactor.

Inside the reactor an UV lamp enclosed in a UV-C transparent quartz pipe is surrounded by the drinking water to be treated. The small distance of 27,5 mm between the quartz pipe and the inner surface of the reactor ensures optimal irradiation and therefore optimal disinfection of the water.

manufacturer	PURION <sup>®</sup> GmbH
type	PURION 2501 H
flow rate	21 m³/h
UVC-transmission	90% T <sub>1</sub> cm
temperature of water	up to 90°C
reaktor	stl. steel 1.4571
flanges external thread	R 1 1/2"
seal	FPM
dimensions (L x Ø in mm)	928 x 85
distance flanges	810 mm
weight	5,5 Kg
life time of lamps	8.000 h
number of lamps	1
dose	300 J/m <sup>2</sup>
temperature max	40°C
max. working pressure	10 bar
protective system	IP 65
electrical connection	230 V/50 Hz

total power	106 W
over current protection	10 A

#### This UV-plant is applied at:

Drinking water	
Water of air conditioning	•
Disinfection of permeate	
Pools	•
Aquariums	•
Fish ponds	•
Storm water of sewage plants	
Pharmacy	
Greenhouse	
Water of domestic use	•

#### Advantages

- safe protection against legionella
- additional chemicals are not required for disinfection
- no change of hydro chemistry
- smell and taste of the water are not influenced by radiation
- installation in conveyor lines
- less required space



## "tropical-box" **PURION 500 12 V DC compact**

"clean drinking water in remote areas with 12 V DC"

-is characterized by compact construction and high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.



manufacturer: type

disinfection rate

**UV-transmission** 

flow rate

dose

PURION<sup>®</sup> GmbH "tropical-box" **PURION 500 12 V DC compact** 400 l/h drinking water 99.99% 400 J/m<sup>2</sup> 90 % temperature of water: 8°C bis 40°C

power supply

power supply pack photo-voltaic

cabinet material: dimension:

total weight:

aluminium 600 x 390 x 270 (h x w x d) (mm) 12,1 kg

equipment:

**UV-plant PURION 500** accumulator 17 Ah solar controller 4 A lamp control vandal protected. switch

electrical connection: poled plug

water connection:

input: output: nozzle ½" water tap 1/2"

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#### **UV-plant**

reactor: stl. steel 1.4571 seal: **FPM** life time of lamps: 10.000 h number of lamps: 1 electrical connection: 12 V DC total power: 10 W



## "tropical-box" PURION 1000 12 V DC compact

"clean drinking water in remote areas with  $\overline{12}$  V DC"

-is characterized by compact construction and high degree of efficiency respecting to disinfection and energy consumption. The construction design follows laws, standards and regulations.

flow rate

dose



manufacturer: type

disinfection rate

**UV-transmission** 

**PURION<sup>®</sup> GmbH** "tropical-box" PURION 1000 12 V DC compact 1000 l/h drinking water 99.99% 400 J/m<sup>2</sup> 90 % temperature of water: 8°C bis 40°C

power supply

power supply pack photo-voltaic

cabinet material: dimension:

total weight:

aluminium 600 x 390 x 270 (h x w x d) (mm) 17,1 kg

equipment:

**UV-plant PURION 1000** accumulator 24 Ah solar controller 4 A lamp control vandal protected. switch

electrical connection: poled plug

water connection:

input: output: nozzle ½" water tap 1/2"

#### **UV-plant**

reactor: stl. steel 1.4571 seal: **FPM** life time of lamps: 10.000 h number of lamps: 1 electrical connection: 12 V DC 17 W total power:



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## Purion "tropical-box active" to mobile water disinfection

is characterized by compact construction and high degree of efficiency respecting to disinfection and energy consumption.

The construction design follows laws, standards and regulations.



manufacturer:	PURION GmbH	
type:	Tropical-box active	
technical data "tropical-box active":		
flow rate:	400 l/h drinking waterr	
battery performance:	ca. 20 h	
dimension (h x w x d)( mm):	600x270x380	
total weight:	17 Kg	
technical data UVC plant:	-	
manufacturer:	PURION GmbH	
typep:	PURION 500	
flow rate:	400l/h	
UVC-transmission:	90% T1cm	
temperature of water:	2°C to 40°C	
reaktor:	stainless steel 1.4571	
flanges external thread:	R 1/2"	
life time of lamp:	10.000h	
dosis:	400J/m <sup>2</sup>	
temperature max.:	40°C	
max. working pressure:	10bar	
total power:	11W	
technical data pump:	101/	
voltage:	12V	
max. flow:	400 l/h	
max. lifting height:	7m 1 2h au	
pressure switch:	1,3bar	
pressure shutdown:	2,1bar	
suction height: technical data filter:	2,5m	
	100 μm	
filter subtlety: sieve:	stainless steel	
cabinet:	PP	
visible glass	PA	
technical data battery:		
voltage, current:	12V DC , 24 Ah	
material:	lead-gel	

The Purion "tropical-box active" is a compact plant for water disinfection. With its low energy consumption, they can take up to 20 hours operated with a build in the lead-acid battery. This can load with a solar panel or 110-230V power supply.

With the extraordinary effizenz, the high drinking water flow rate of 400I / h, the low dimensions and the low weight is the Purion "tropical-box active" excellent suitable for use in regions with massive drinking problem.

Furthermore, this system also specifications laid down in this country of Drinking water regulations. The Purion "tropical-box active" has been providing for years remote villages in the Amazon region of Brazil that the water and quality of life has greatly improved. In cooperation with the "world's hungerhelp" these plants have been used successfully in the heavily devastated by earthquake Haiti. The Purion "tropical-box active" established her performance, reliability and robustness already demonstrated.



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#### Spezial equipment for PURION water disinfection plant

#### **Operating Power Detection - OPD**

.. UV sensors and their respective monitors are necessary for surveillance of uv plants and more as a standard in modern plants.

The OPD was developed for surveillance of uv-plants. This system observe the uvc-irradiance of the used uv-lamps. The sensors we offer are printed with

Carbide Photo-diodes (SiC).

The used diodes have a very good sensitivity for the main wavelength between 250 nm and 260 nm. This is also the main wavelength from low-pressure lamps.

The surveillance was designed in kind of a »traffic light«. The device delivers, in combination with the uv sensor, percentage information of the uv-radiation power. The uv monitor is installed after the front side of the control box.

#### Technical data of sensor

i commear aata or sensor	
applications	drinking water, waste water
material probe body	stainless
flanges	external G 1/4" thread
diode/sensitivity	SiC/230 nm - 320 nm
angle of opening	ca. 30°
operating temperature	$0^{\circ}$ C to + $60^{\circ}$ C/100° C for brief periods
pressure resistance	16 bar overpressure to
	1 bar sub-atmospheric pressure
electrical connection	flanged plug,
	5-pole cable

#### Technical data of surveillance

operating voltage	250 V AC (110 V AC,
	24 V DC or 12 V DC possible)
input	signal from SiC-UV sensor

Display	
continuous (green LED)	at > 70% of starting power
pre alarm (yellow LED)	at < 70% of starting power
main alarm (red LED)	at < 50% of starting power
red LED flashing	no sensor, sensor defect, cable
	break, measuring amplifier defect
green LED flashing	measuring amplifier defect

#### Monitoring of the life time/Operating Time Counter - OTC

The operating time counter is necessary for surveillance of uv plants, and more as a standard in modern uv plants. The OTC was developed for surveillance of uv plants. The system works as normal as an operating-hour-counter. After impression of the operating voltage (230 V AC) the counter starts running. On each switch-on the so called »startup« procedure is carried out.

In doing so the LEDs red, yellow and green lights one after another each with 1 second. The procedure allows the monitoring of the functioning fo the LEDs. Moreover systematic interruption of the procedure allows resetting of the counter.

The surveillance was designed in kind of a »traffic light«.In the memory of the unit are two time-barriers ( $t_{yellow}$  and  $t_{red}$ ) to save. Is the effective time t <  $t_{yellow}$ , the green LED becomes illuminated. Exceed the effective time these time-barrier, the yellow LED becomes illuminated. If the effective time exceeds the second time-barrier, the red LED becomes illuminated. The uv monitor is installed after the front side of the control box.

#### Technical data of surveillance for life time

operating voltage	230 V AC (110 V AC, 24 V DC, or 12 V DC possible)
special function	counter can be resetted after replacement of the lamp
continuous (green LED)	< 95% to guaranteed life time
pre alarm (yellow LED)	>95% to guaranteed life time
main alarm (red LED)	guaranteed life time is over

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