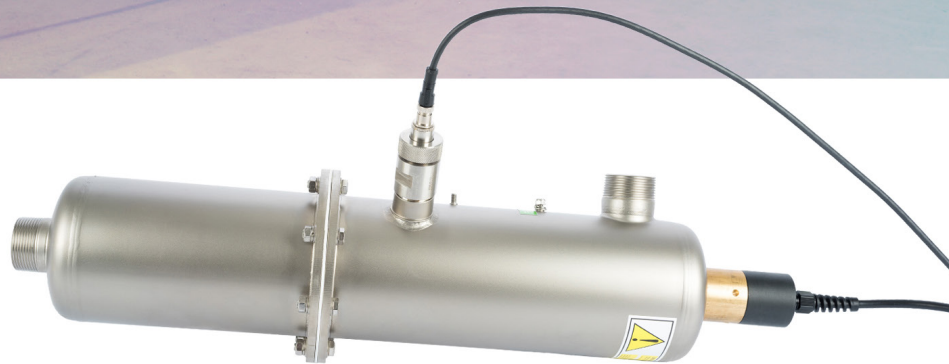




Validated
series



We developed, tested and optimized the Validated series to ascertain a reliable and economic disinfection of water with a transmittance between 80% and 99%. Depending on the transmittance of the water volumes of 0.6m³/h up to 465m³/h, can be treated with a UV-C dosage of 300J/m². The optimized design resulted in a widely applicable system that for instance can be used for the potable

water market, the processing industry, shipping, building utilities, and installation engineering. By performing a validation according to the NEN-EN 14897 standards, the disinfection achievements of Validated systems are measured and really proven, a sound and safe disinfection guarantee.

Characteristics

- Validation according to NEN-EN 14897
- Reliable and effective disinfection
- Low in maintenance and easy to use
- Energy efficient
- Low-pressure lamps with a long lifespan and high UV-C efficiency.

Specifications



Type	V090	V100	V110	V120	V130	V140	V150
UV Chamber							
Material	316L / 14404 Stainless steel						
In-/Outlet Connections	0,5" BSP-T	1" BSP-T	1" BSP-T	1" BSP-T	1,5" BSP-T	1,5" BSP-T	2" BSP-T
Pressure drop	< 0.1 bar						
Max. Pressure	10 bar at 25°C						
Mounting orientation	Horizontal/ Vertical	Horizontal/ Vertical	Horizontal/ Vertical	Horizontal/ Vertical	Horizontal/ Vertical	Horizontal/ Vertical	Horizontal/ Vertical
Diameter - A (mm)	60	60	60	89	129	129	129
Height - B (mm)	63	63	63	77	103	103	103
Installation dimension - C (mm)	390	554	554	548	547	547	1041
Length - D (mm)	522	690	690	698	708	708	1207
Required working space - E (mm)	900	1244	1244	1255	1275	1275	2270
Weight (KG)	3.0	3.7	3.7	4.9	6.8	6.8	10.8

UV-C lamp							
Lamp type	18 W Regular	25W Regular	50W Regular	50W Regular	50W Regular	60W Long Life	80W Regular
Preferred water temp. (°C)	5 °C - 30°C						
Total UV-C output (Watt)	5.7	7	15	15	15	19	27
Lamp lifespan (hours)	8000			16000			8000
Number of lamps	1	1	1	1	1	1	1

Control Unit							
Material	Aluminium and recycled ABS						
Dimensions (lxbxh)	280x150x90 mm						
Weight (KG)	1.6						
Control features	Lamp status, lamp hours, system running time, volt free alarm contacts						
Sensors (Optional)	UV sensor (UVS), Temperature safety sensor (TSS), Temperature Safety Dumpvalue (TSD)						
Operating Voltage	230 VAC, 50/60 Hz						
Electrical connection	6A C-char./4A D-char.						
Protection rating	IP55						
Preferred ambient temp. (°C)	5°C - 35°C						
Total Power Consumption (W)	30	30	60	60	60	70	90
Length lamp cable	1 meter (3 or 6 optional)						

Power Consumption							
In Wh/m ³ at doses 300 J/m ²	33.3	30	31.6	19.4	12.2	7.2	7.6
In Wh/m ³ at doses 400 J/m ²	42.9	37.5	40	24	16.2	9.6	10.1

Approvals							
Complies with	Low Voltage Directive (LVD) 2014/35/EU, Electromagnetic Compatibility Directive (EMC) 2014/30/EU, Machinery Directive 2014/42/EC						
Validated according to	NEN-EN 14897:2006, WRAS Approved, Kiwa ATA						

Specifications



Type	V160	V170	V180	V190	V200	V220	V250	V290
UV Chamber								
Material	316L / 1.4404 Stainless steel							
In-/Outlet Connections	2"BSP-T	2"BSP-T	DN100 PN16	DN125 PN16	DN100 PN16	DN150 PN16	DN250 PN16	DN300 PN16
Pressure drop	< 0.1 bar							
Max. Pressure	10 bar at 25°C				16 bar at 25°C			
Mounting orientation	Horizontal/ Vertical	Horizontal	Horizontal	Horizontal	Horizontal/ Vertical	Horizontal	Horizontal	Horizontal
Diameter - A (mm)	129	89	129	129	204	204	254	304
Height - B (mm)	103	82	110	120	159	159	262	255
Installation dimension - C (mm)	1041	1340	1336	1604	1131	1431	1453	1442
Length - D (mm)	1207	1499	1512	1790	1321	1621	1710	1710
Required working space - E (mm)	2270	2855	2880	3440	2640	3100	3360	3360
Weight (KG)	10.8	9.7	13.2	15.7	37	41.2	73	89

UV-C lamp								
Lamp type	120W Regular	205W Long Life	205W Long Life	325W Long Life	120W Long Life	205W Long Life	325W Long Life	325W Long Life
Preferred water temp. (°C)	5 °C - 30°C							
Total UV-C output (Watt)	38	58	58	116	116	174	348	580
Lamp lifespan (hours)	16000							
Number of lamps	1	1	1	1	3	3	3	5

Control Unit								
Material	Aluminium and recycled ABS				Coated steel			
Dimensions (lxbxh)	280x150x90 mm				600x600x250 mm			
Weight (KG)	16				35			
Control features	Lamp status, lamp hours, system running time, volt free alarm contacts							
Sensors (Optional)	UV sensor (UVS), Temperatur safety sensor (TSS), Temperature Safety Dumpvalue (TSD)							
Operating Voltage	230 VAC, 50/60 Hz							
Electrical connection	6A C-char./4A D-char.				16 A C-char./10A D-char.			
Protection rating	IP55				IP54			
Preferred ambient temp. (°C)	5°C - 35°C							
Total Power Consumption (W)	140	230	230	365	435	690	1085	1810
Length lamp cable	1 meter (3 or 6 optional)				3 meter (6 optional)			

Power Consumption								
In Wh/m ³ at doses 300 J/m ²	6.4	7.7	4.8	4.6	4.6	4.8	3.5	4.7
In Wh/m ³ at doses 400 J/m ²	8.5	10.2	6.4	6.1	6.1	6.3	4.7	6.2

Approvals								
Complies with	Low Voltage Directive (LVD) 2014/35/EU, Electromagnetic Compatibility Directive (EMC) 2014/30/EU, Machinery Directive 2014/42/EC							
Validated according to	NEN-EN 14897:2006, WRAS Approved, Kiwa ATA							

Capacities in m³/h at a dose of 300 J/m²

Unit	T10 80%	T10 85%	T10 90%	T10 95%	T10 99%
V090	0.8	0.8	0.9	0.9	1.0
V100	0.6	0.7	0.8	1	1.3
V110	1.4	1.6	1.8	1.9	2.1
V120	2.2	2.4	2.6	3.1	3.6
V130	2.7	3.1	3.7	4.9	6.3
V140	4.9	6.1	7.6	9.7	11.7
V150	4.6	5.9	8.2	11.9	16.5
V160	10.4	13.5	17.3	22	26.4
V170	16.7	20	24.5	30	35.2
V180	17.3	23.5	33.5	47.7	63.5
V190	36.4	47.7	61.7	79.9	97.1
V200	40.7	50.7	67.5	95.3	129.3
V220	64	84	110	145	180
V250	106	151	217	310	413
V290	199	249	311	389	465

Capacities in m³/h at a dose of 400 J/m²

Unit	T10 80%	T10 85%	T10 90%	T10 95%	T10 99%
V090	0.6	0.6	0.7	0.7	0.7
V100	0.6	0.6	0.7	0.8	0.9
V110	1.2	1.3	1.4	1.5	1.6
V120	2	2.1	2.3	2.5	2.7
V130	2	2.3	2.8	3.7	4.7
V140	3.7	4.6	5.7	7.3	8.8
V150	3.5	4.5	6.1	8.9	12.3
V160	7.8	10.1	13	16.5	19.8
V170	12.5	15	18.4	22.5	26.4
V180	13	17.6	25.1	35.8	47.6
V190	27.3	35.8	46.3	59.9	72.8
V200	30.5	38	50.7	71.5	97
V220	48	63	83	109	135
V250	79	114	163	233	310
V290	149	186	233	291	349

