We UVCare...

# Application Optimised UV for Waste Water



PROLINE WW IL



## UV treatment for Waste Water

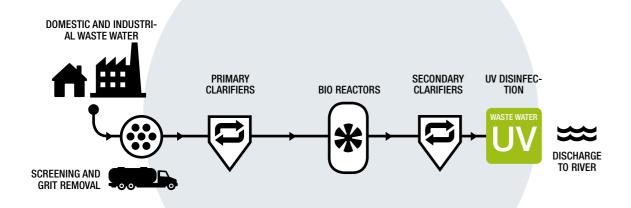
Our ProLine WW IL systems for UV treatment of waste water are particularly suited to low UVT applications and can be deployed after clarifiers, sand filters and membranes. With increasing urbanisation and water stress the need for tertiary treatment and disinfection of waste water is growing, particularly for discharge to sensitive environments. UV is also growing in popularity as it provides a proven alternative to Chlorination avoiding the generation of potentially harmful by-products. The ProLine WW IL are compact medium pressure lamp systems and are intended as a cost-effective treatment for less critical applications where there is no risk to people or the food chain. For more critical applications we recommend our reuse range.







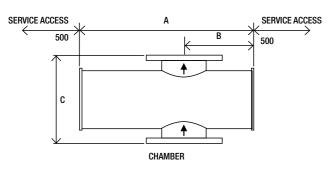
## ProLine WW IL<sup>TM</sup> waste water treatment plant process

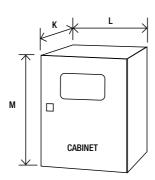


KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
INTELLIGENCE		
Dry DVGW approved UV sensor measuring germicidal wavelengths	Continuous verification of performance with real time dose reading and in-built low dose warning	Easy to monitor
Flow meter input	Dose reading based on actual flow conditions when meter is connected	Accurate UV dose reading guaranteed under wide range of operating conditions
OPTIMISATION		
UV waste water disinfection	Protects the environment from harmful microbiological contamination	No chemicals
Designed for municipal and industrial reuse and waste water applications	Flanged connections, high standard internal finish	Designed to international standards
•	Automatic wiper (quartz cleaning)	Self cleaning to maintain performance
	*Ultrawipe (chemically enhanced wiper)	Clean quartz sleeves despite high fouling potential
INTEGRATION		
Compact design	Can be retrofitted to existing process	Easy integration

<sup>\*</sup> Option







			Dimens	sions (m	m)						Approx weig	ght (Kg)
			Chamb	er			Cab.	Cabinet	(fan cooled)		Chamber	Cabinet
Model Number	Max Power (kW)	No of lamps	А	В	С	DN	No***	K*	L	M**	Empty	Fan Kg/pc
ProLine WW IL 100	1.8	2	780	310	400	100	1	300	800	1000	42	50
ProLine WW IL 250	5.6	2	780	310	540	150	1	300	1000	1200	55	80
ProLine WW IL 400	11	4	780	310	465	150	1	300	1000	1200	55	100
ProLine WW IL 1000	11	4	780	310	600	200	1	300	1000	1200	80	100
ProLine WW IL 1250	16.5	6	780	310	600	200	1	400	1200	1200	80	168
ProLine WW IL 4500	26	6	896	368	800	350	1	600	1000	2100	170	200
ProLine WW IL 5000	35	8	896	368	800	350	1	600	1200	2100	170	230
ProLine WW IL 7500	52	12	896	368	800	350	1 CC	400	600	2000	170	130
							1 PC	600	1200	2100		310
ProLine WW IL 14000	52	8	1052	446	900	500	1 CC	400	600	2000	260	130
							1 PC	600	1200	2100		290
ProLine WW IL 15000	52	12	1052	446	900	500	1 CC	400	600	2000	260	130
							1 PC	600	1200	2100		310
ProLine WW IL 16000	78	12	1052	446	900	500	1 CC	400	600	2000	260	13
							2 PC	600	1200	2100		260
ProLine WW IL 18000	117	18	1052	446	900	500	1 CC	600	1000	2010	270	13
							3 PC	600	1200	2100		26

<sup>\*</sup> Allow dimension L in front of cabinet for door opening and panel access.

\*\* M dimension includes the space for the cabinet mounting brackets but you need to allow space below the cabinet for cable entry and access (minimum of 250 mm).

\*\*\* CC: Control cabinet, PC: Power cabinet

a Attention: the optional cabinet with A/C is bigger. Ask for dimensions.

All dimensions are approximate for clearance purposes only. We have a policy of continuous product development, exact drawings are available on request.

All specifications are subject to change without notification. Your distributor or our account manager can advise on correct sizing and specification requirements.

Material:	StSt 316L / 1.4404
Internal finish:	< 0.8 µm Ra, welds as laid, electropolished and passivated
External finish:	Brushed to K280, electropolished and passivated
Process (mating) connections:	Flange EN 1092-1 PN10
Drain connection:	BSP Socket
End plate:	Removable end plate
Degree of protection:	IP54 equivalent to NEMA 12
Wiper:	Automatic (electrically driven)
Arc tube (lamp):	Medium pressure
Arc tube enclosure:	Pure quartz
Number of arc tubes (lamps):	See table above
Expected lamp life:	9000 hours
Temperature sensor:	Yes
UV sensor:	Dry DVGW compliant UV sensor (one per UV chamber)
Working fluid temperature:	1°C to 60°C
Hydrostatically pressure tested:	Yes
Chamber mounting:	Flow horizontal or vertical (lamps horizontal only)
Operating pressure:	6 bar
Seals:	EPDM, ADI free, EC 1935/2004, FI

OPTIONS
Document Support Pack
Cabinet material: Stainless steel 304
Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German & Spanish
Flange options: ANSI 150, JIS, Table 'E'
Lead length: 20 and 29 m
In-field UV reference sensor kit
Bleed: valve with BSP connection
Operating pressure: 10 Bar
Ultrawipe (for WW IL 250-18000)
Control cabinet: Air conditioning in carbon steel or stainless steel raises

control ambient limit to 50°C (in shade) IP rating 65 (NEMA 4 or 4X)

OPTIONS (CONTINUED)
Water level sensor: Full water detection UV chamber
Water leak detection: Detects water leaks from quartz sleeve

CABINET	
Material:	Polyester coated carbon steel, RAL 7035
Degree of protection:	IP54 (NEMA 12)
Supply voltages:	WW IL 100-1250: 200-277 V (2ph L1,L2 or 1ph L1+N) WW IL 4500 - 18000: 400-480 V (3ph L1, L2, L3) 50/60 Hz (voltage tolerance ±10% of nominal)
Operating temperature range:	5°C to 35°C
Relative humidity:	<95% non-condensing
Cooling fans:	Yes
Interconnecting cable:	10 m
Variable power:	Stepless variable power (70% reduction from maximum ballast power)

HMI / CONTROL	
Display:	2 Line LCD, indicating system status including general alarms
Operating menu:	3 levels (2 with password protection)
Fault finding:	Event log

CUSTOMER OUTPUTS	
4-20 mA passive output:	UV dose, ballast power
VFC outputs:	Any trip, any warning, UV dose failure, system ready, wiper failure, lamp failure, water leak.

CUSTOMER INPUTS	
4-20 mA active or passive inputs:	Flow meter
VFC inputs:	Remote stop/start, remote clear message remote wipe, remote set power high

Modbus RS 485 serial RTU for SCADA connection

CE marked, UL 508A (option)



Also available in our Waste Water product range...



### PROLINE PQ WW AL

Range of amalgam products wiht NWRI validation for waste water reuse



### PROLINE PO WW IL

Range of medium pressure products with NWRI validation for waste water reuse







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