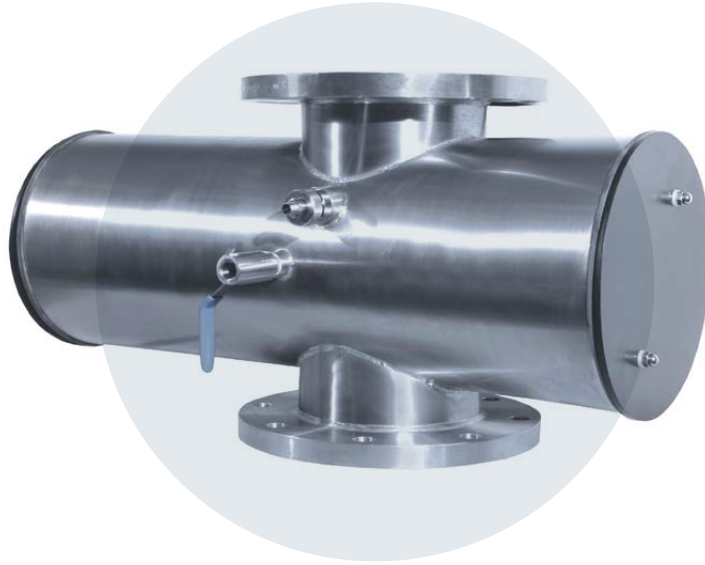


We UVCare...



PROLINE PQ WW IL

# Application Optimised UV for Waste Water Reuse



## NWRI validated UV treatment for Waste Water Reuse

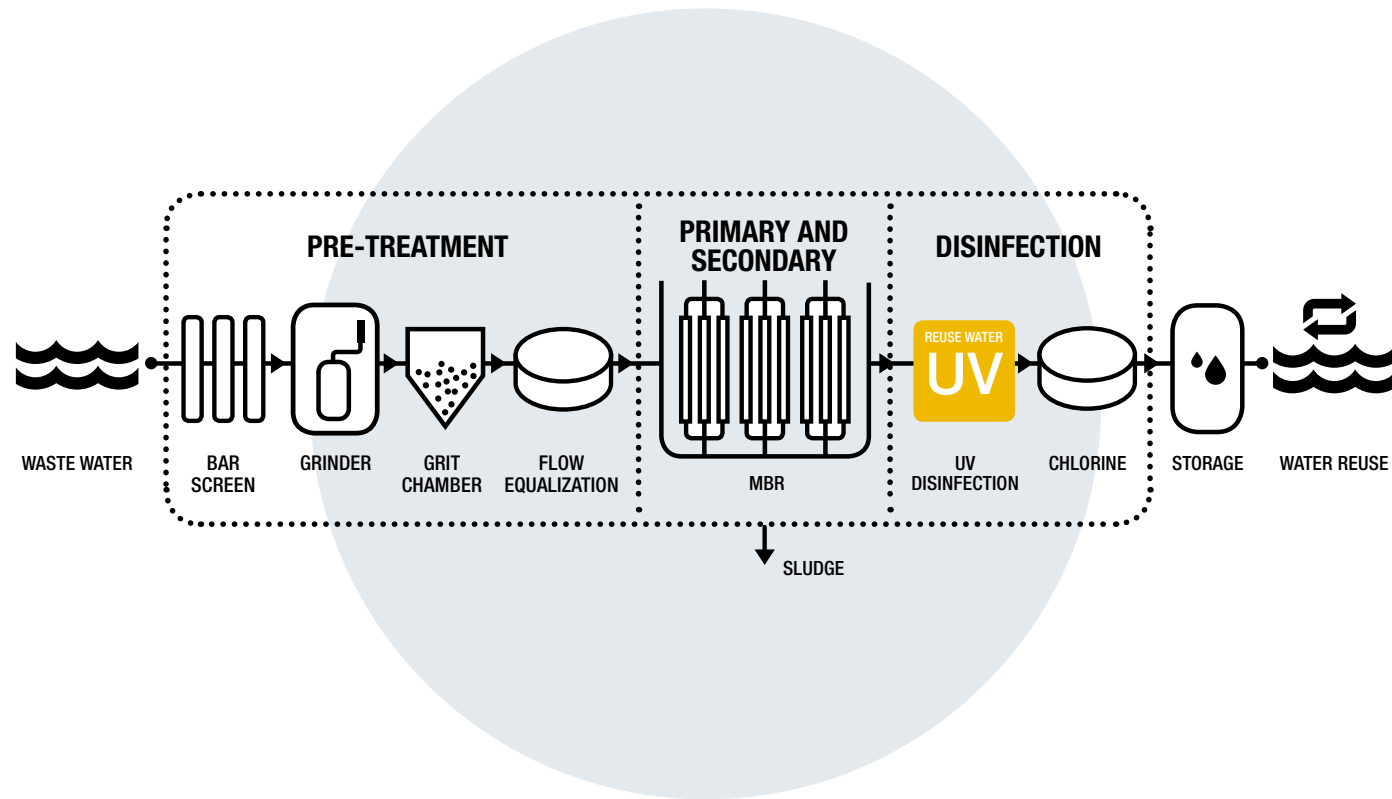
Our ProLine PQ WW IL range of Waste Water Reuse UV solutions have been protecting people and the environment from harmful contamination from bacteria and viruses for decades. With increasing urbanisation and water stress the need for tertiary treatment and disinfection of waste water is growing to enable safe and secure recovery of waste water for use as irrigation water, aquifer recharge or for direct reuse as process water in industry or as drinking water. UV is also growing in popularity in this application as it provides a proven alternative to Chlorination avoiding the generation of potentially harmful by-products. This is particularly useful when the waste water is discharged into sensitive environments of critical reuse applications. The ProLine PQ WW IL are compact medium pressure lamp systems and have been validated and certified by a third party to the NWRI standard across a wide range of dose, flow and UVT parameters and have proven performance for disinfection after sand filter and membrane filters.

berson

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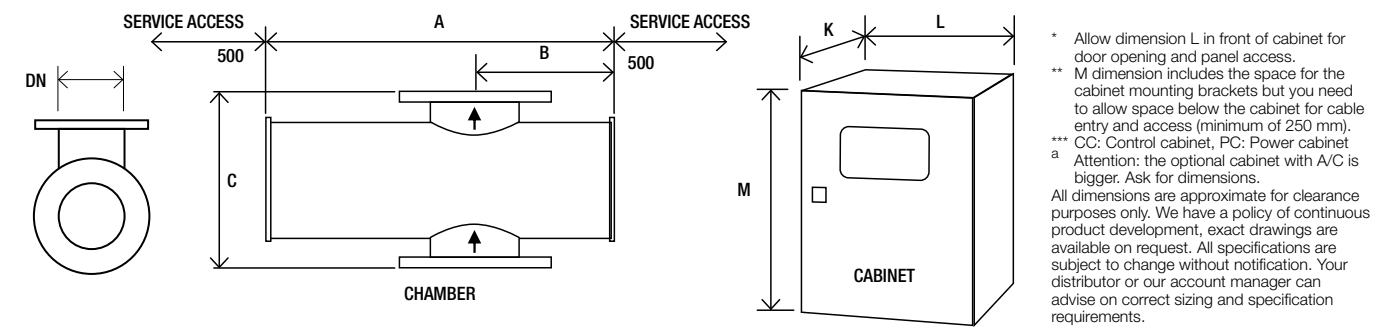
aquionics

# ProLine PQ WW IL™ decentralized treatment system



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
<b>INTELLIGENCE</b>		
Dry DVGW approved UV sensor measuring germicidal wavelengths	Continuous verification of performance with real time RED dose reading and in-built low dose warning	Easy to monitor and log system performance
Flow and UV transmittance (UVT) meter inputs	Dose reading based on actual process conditions when meters are connected	Accurate UV dose reading guaranteed under wide range of operating conditions
<b>OPTIMISATION</b>		
Third party validated UV systems tested in accordance with the National Water Research Institute for Water Reuse (NWRI)	UV system dose equations and sizing have been independently derived	Confidence the system will perform as stated
UV waste water disinfection	Protects the environment from harmful microbiological contamination	No chemicals
Designed for reuse and waste water applications	Flanged connections, high standard internal finish	Designed to international standards
	Automatic wiper (quartz cleaning) *Ultrawipe (chemically enhanced wiper)	Self cleaning to maintain performance Clean quartz sleeves despite high fouling potential
<b>INTEGRATION</b>		
Compact design	Can be retrofitted to existing process	Easy integration

\* Option



Model Number	Max. Power (kW)	No of lamps	Dimensions (mm)								Approx weight (Kg)	
			Chamber			Cab.	Cabinet (fan cooled) <sup>a</sup>		Chamber	Cabinet		
			A	B	C	DN	No <sup>***</sup>	K*	L	M**	Empty	Fan Kg/pc
ProLine PQ WW IL 250	5.6	2	780	310	540	150	1	300	1000	1200	55	80
ProLine PQ WW IL 400	11	4	780	310	465	150	1	300	1000	1200	55	100
ProLine PQ WW IL 1000	11	4	780	310	600	200	1	300	1000	1200	80	100
ProLine PQ WW IL 1250	16.5	6	780	310	600	200	1	400	1200	1200	80	165
ProLine PQ WW IL 4500	26	6	896	368	800	350	1	600	1000	2100	170	200
ProLine PQ WW IL 5000	35	8	896	368	800	350	1	600	1200	2100	170	230
ProLine PQ WW IL 7500	52	12	896	368	800	350	1 CC 1 PC	400 600	600 1200	2000 2100	170	130 310
ProLine PQ WW IL 16000	78	12	1052	446	900	500	1 CC 2 PC	400 600	600 1200	2000 2100	260	130 260
ProLine PQ WW IL 18000	117	18	1052	446	900	500	1 CC 3 PC	400 600	600 1200	2000 2100	270	130 260

UV CHAMBER	
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 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, FDA 21 CFR 177.2600 approved

OPTIONS	
Document Support Pack	
Cabinet material: Stainless steel 304	
Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German and 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	
Control cabinet: Air conditioning in stainless steel raises control ambient limit to 50°C (in shade) IP rating 65 (NEMA 4X)	
Operating pressure: 10 Bar	
Ultrawipe	
Water level sensor: UV chamber full water detection	
Water leak detection: Detects water leaks from quartz sleeve	

CABINET (FAN COOLED)	
Material:	Polyester coated carbon steel, RAL 7035
Degree of protection:	IP54 (NEMA 12)
Supply voltages:	PQ WW IL 250-1250: 200-277 V (2ph L1,L2 or 1ph L1+N) PQ 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:	4 line LCD, indicating system status including 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:	Standby in remote, system standby, system cooling down, any trip, any warning, UV dose failure, system ready, wiper failure, lamp failure, full water level detection water leak, water temperature warning, water and cabinet temperature alarm

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

CUSTOMER COMMUNICATIONS PORT	
Modbus RS 485 serial RTU for SCADA connection	

APPROVALS	
CE marked, UL 508A (option), NWRI validated	



## PROLINE PQ WW IL

Also available in our Waste Water product range...



### PROLINE PQ WW AL

Range of amalgam products with NWRI validation for waste water reuse



### PROLINE WW IL

Range of compact medium pressure products for waste water disinfection



[www.weuvcare.com](http://www.weuvcare.com)

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