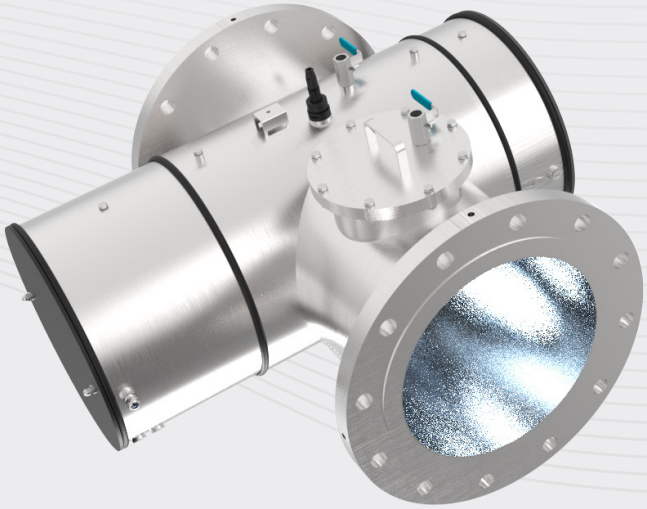
formerly Aquionics, Berson, Hanovia and Orca GmbH



PROLINE PQ WW IL

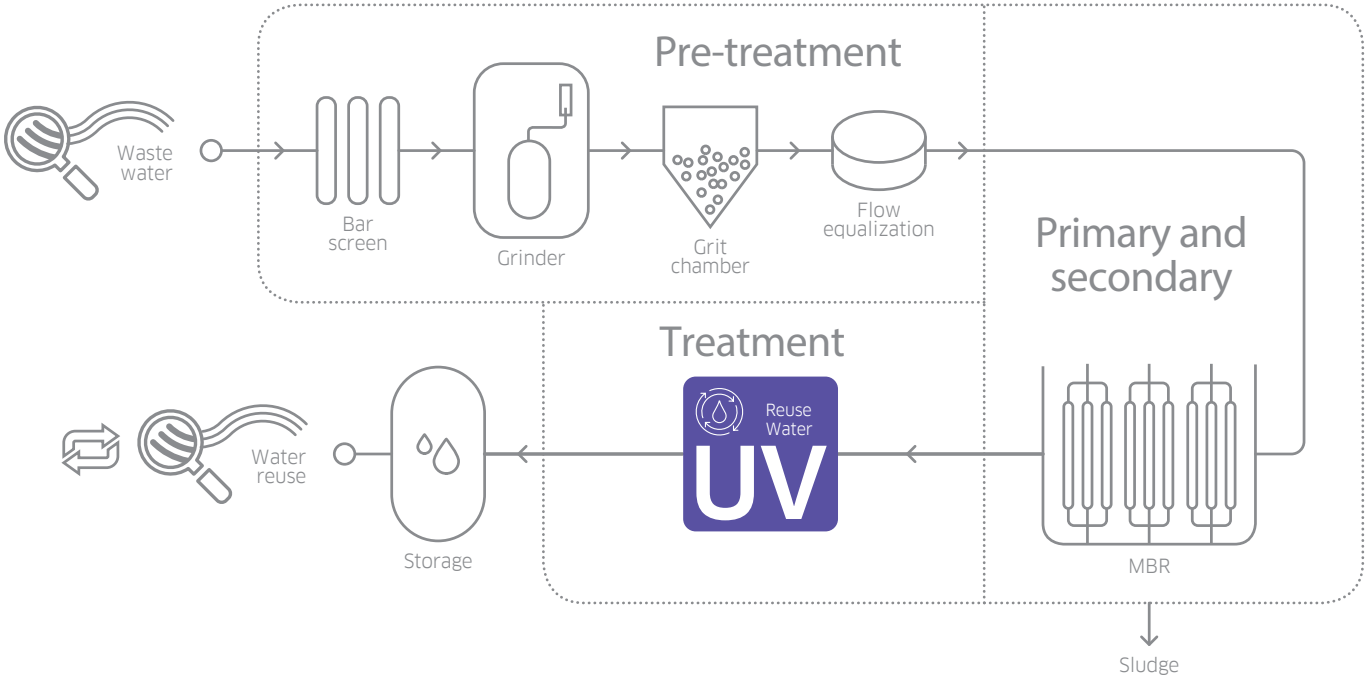
NWRI VALIDATED UV TREATMENT FOR WASTE WATER REUSE

Our **ProLine PQ WW IL** range of Waste Water Reuse UV solutions have been protecting people and the environment from harmful contamination. UV offers a working substitute for chlorination while preventing potentially harmful by-products.

The ProLine PQ WW IL are compact medium pressure lamp systems and have been validated by a third party to the NWRI standard across a wide range of dose, flow and UVT parameters. They have proven performance for treatment after sand filter and membrane filters.

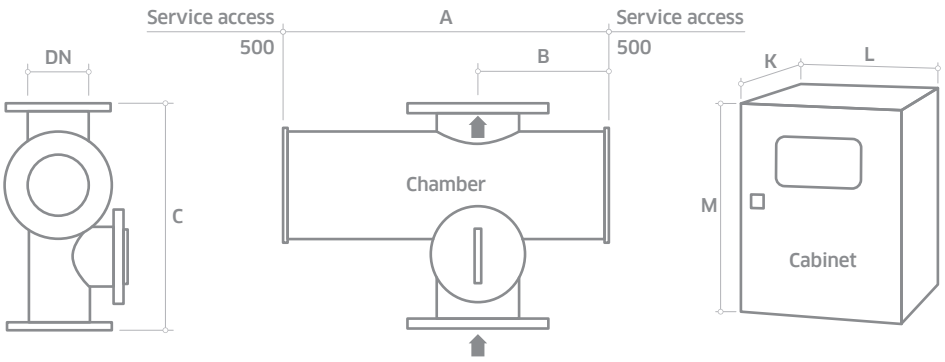
Application Optimised UV for Waste Water Reuse

POTENTIAL LOCATION OF THE PROLINE PQ WW IL™ IN A DECENTRALIZED TREATMENT SYSTEM



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 treatment	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

*Option



* 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.

MODEL NUMBER	MAX POWER (KW)	NO OF LAMPS	DIMENSIONS (MM)								APPROX WEIGHT (KG)	
			Chamber				Cab.	Cabinet (fan cooled)[a]			Chamber	Cabinet
			A	B	C	DN	No***	K*	L	M**	Empty	Fan cooled
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	300	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	610	802	2002	170	152
							1 PC	610	1202	2111		318
ProLine PQ WW IL 16000	78	12	1052	446	900	500	1 CC	610	802	2002	260	152
							2 PC	610	1202	2111		291
ProLine PQ WW IL 18000	117	18	1052	446	900	500	1 CC	610	802	2002	270	152
							3 PC	610	1202	2111		291

UV CHAMBER

Material:	StSt 316L / 1.4404
Internal finish:	< 0.8 µm Ra, welds ground out, electropolished and passivated
External finish:	Brushed to K280, electropolished and passivated
Process (mating) connections:	Flange EN 1092-1 PN10
Drain connection:	BSP Socket or NPT if ANSI flange
Air vent connection:	BSP Socket or NPT if ANSI flange
End plate:	Removable end plate
Inspection hatch	Removable plate
Degree of protection:	IP54 equivalent to NEMA 12
Wiper:	Automatic (electrically driven)
Arc tube (lamp):	Medium pressure
Arc tube enclosure:	Pure quartz (F200)
Number of arc tubes (lamps):	See table above
Expected lamp life:	12,000 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 (positive pressure only)
Seals:	EPDM, ADI free, EC 1935/2004, FDA 21 CFR 177.2600 approved

OPTIONS

Document Support Pack
Cabinet: Stainless steel 304
Cabinet: Stainless steel 304 with air conditioning (5°-50°C), IP66 (NEMA 4X), relative humidity <95% non-condensing*
Cabinet: Stainless steel 316 with air conditioning with sloping roof (5°-50°C), IP66 (NEMA 4X), relative humidity <95% non-condensing*
Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German and Spanish
Flange options: PN16, ANSI 150, JIS, Table 'E'
Lead length: 20 and 29 m
In-field UV reference sensor kit
Bleed: Valve with BSP connection or NPT if ANSI flange
Operating pressure: 10 Bar
UL 508A shop approval
Welder pack

OPTIONS (CONTINUED)

Ultrawipe
UV Touch™ controller
Water level sensor: UV chamber full water detection
Water leak detection: Detects water leaks from quartz sleeve

CABINET (CONTROLLER UVTRONIC)

Material:	Polyester coated carbon steel, RAL 7035
Degree of protection:	IP54 (NEMA 12)
Supply voltages:	PQ WW IL 250-1000: 208-277V (+/-10%) 1L+N, 2L, 3L 50/60 Hz 360-480V (-5/+10%) 3L+N, 50/60 Hz PQ WW IL 1250: 208-277V (+/-10%) 3L 50/60 Hz 360-480V (-5/+10%) 3L+N, 50/60 Hz PQ WW IL 4500-18000: 380-480V (-5/+10%) 3L, 3L+N 50/60 Hz
Operating temperature range:	5°C to 35°C
Relative humidity:	<85% non-condensing
Cooling fans:	Yes
Interconnecting cable:	10 m
Variable power:	Stepless variable power (70% reduction from maximum ballast power)

***CC: Control cabinet, PC: Power cabinet Attention: the optional cabinet with A/C is bigger. Ask for dimensions.

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, NWRI validated

* See sales drawings for dimensions

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 treatment

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