



PROLINE 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 PQ WW IL

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



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A Halma company



FM 29365

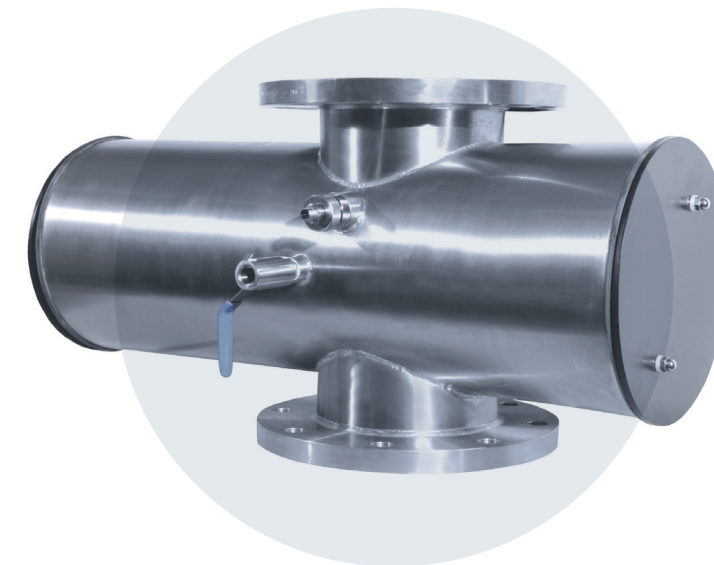
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We UVCare...



PROLINE WW IL

Application Optimised
UV for Waste Water

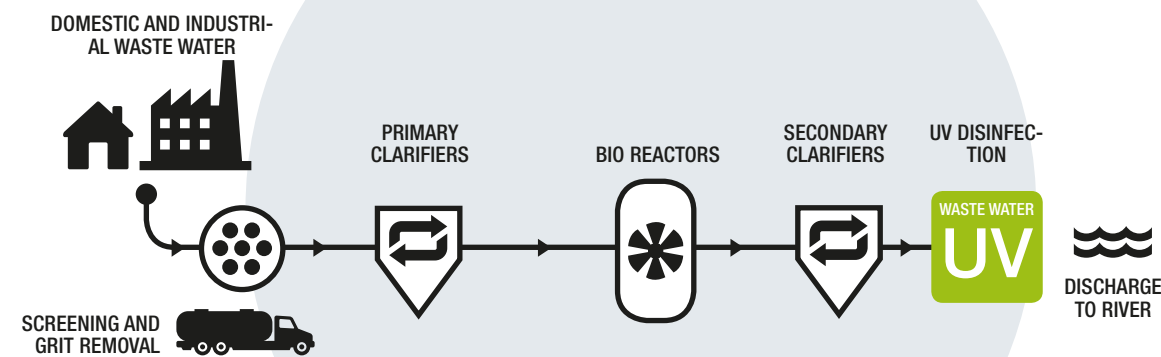


UV treatment for
Waste Water

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.

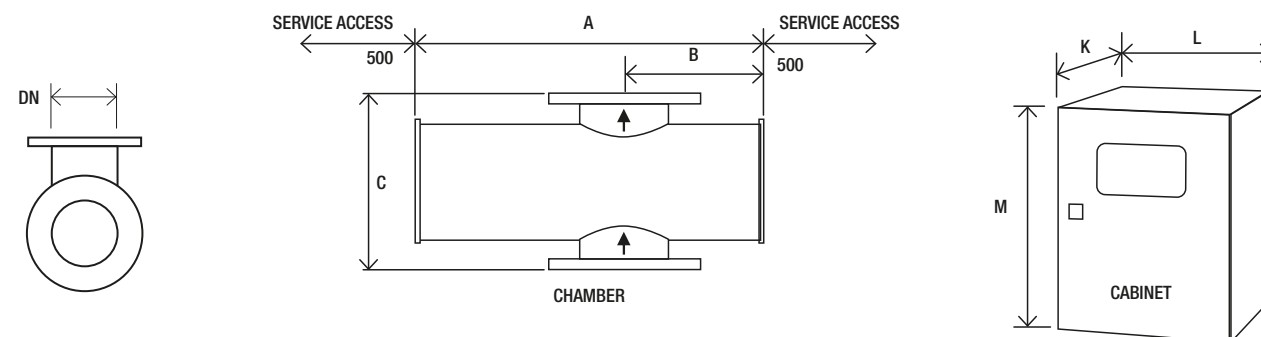


ProLine WW IL™ waste water treatment plant process



| 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 |

* Option



| Model Number | Max Power (kW) | No of lamps | Dimensions (mm) | | | | | | | | Approx weight (Kg) | |
|---------------------|----------------|-------------|-----------------|-----|-----|-----|--------------|----------------------|--------------|--------------|--------------------|------------|
| | | | Chamber | | | | Cab. | Cabinet (fan cooled) | | | Chamber | Cabinet |
| | | | A | B | C | 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 | 165 |
| 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 1 PC | 400 600 | 600 1200 | 2000 2100 | 170 | 130 310 |
| ProLine WW IL 14000 | 52 | 8 | 1052 | 446 | 900 | 500 | 1 CC 1 PC | 400 600 | 600 1200 | 2000 2100 | 260 | 130 290 |
| ProLine WW IL 15000 | 52 | 12 | 1052 | 446 | 900 | 500 | 1 CC 1 PC | 400 600 | 600 1200 | 2000 2100 | 260 | 130 310 |
| ProLine WW IL 16000 | 78 | 12 | 1052 | 446 | 900 | 500 | 1 CC 2 PC | 400 600 | 600 1200 | 2000 2100 | 260 | 130 260 |
| ProLine WW IL 18000 | 117 | 18 | 1052 | 446 | 900 | 500 | 1 CC 3 PC | 600 600 | 1000 1200 | 2010 2100 | 270 | 130 260 |

* 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.

| 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 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, FDA 21 CFR 177.2600 approved |

| 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 |

| CUSTOMER COMMUNICATIONS PORT | |
|---|--|
| Modbus RS 485 serial RTU for SCADA connection | |

| APPROVALS | |
|-----------------------------|--|
| CE marked, UL 508A (option) | |

| 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) | |