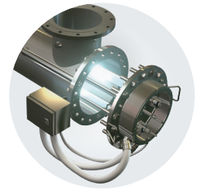
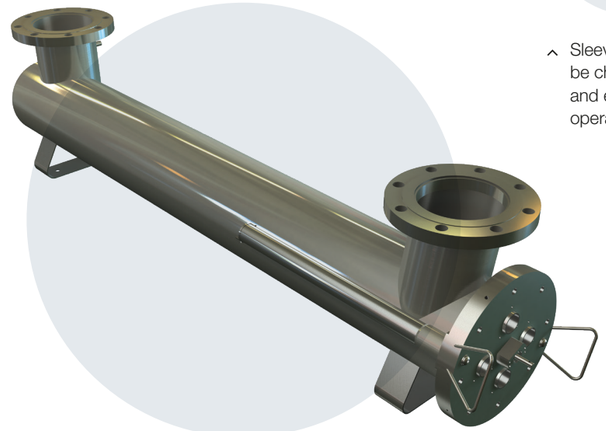
We UVCare...

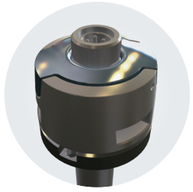
Application Optimised UV for Drinking Water

PROLINE PQ AL



Sleeves and wiper can be changed quickly and easily by a single operator





Patented lamp connector provides user safety and easy servicing

Validated UV treatment for drinking water

Our Proline PQ AL UV systems are optimised to deliver effective UV disinfection for drinking water. The PQ AL integrates an innovative multiple low pressure lamp chamber design with sensors and intelligent control technology to automatically deliver optimum disinfection performance with high operational efficiency. The PQ AL will disinfect the water, eliminate harmful micro-organisms, reduce the bio-burden, protect against bio-fouling and lower operating costs. Each system comes with a certified dry UV sensor allowing checking of UV performance. The UV sensor measures the germicidal output of the UV system and a UV dose read out makes it easy to monitor and log performance. The control system also has the ability to take flow and transmittance meter inputs and calculate the UV dose based on real time operating conditions.

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PROLINE PQ AL

Also available in our Drinking Water product range...

PROLINE PQ EO

Energy Optimised medium pressure range, USEPA validated with built in UVT compensation

PROLINE PQ AF

Small community, low energy amalgam range with USEPA validation

PROLINE PQ IL

Compact medium pressure range with USEPA validation, for use where space is tight in small to mid-sized communities

PROLINE PQ IL DVGW

Compact medium pressure range with DVGW certification, for use where space is tight in small to mid-sized communities

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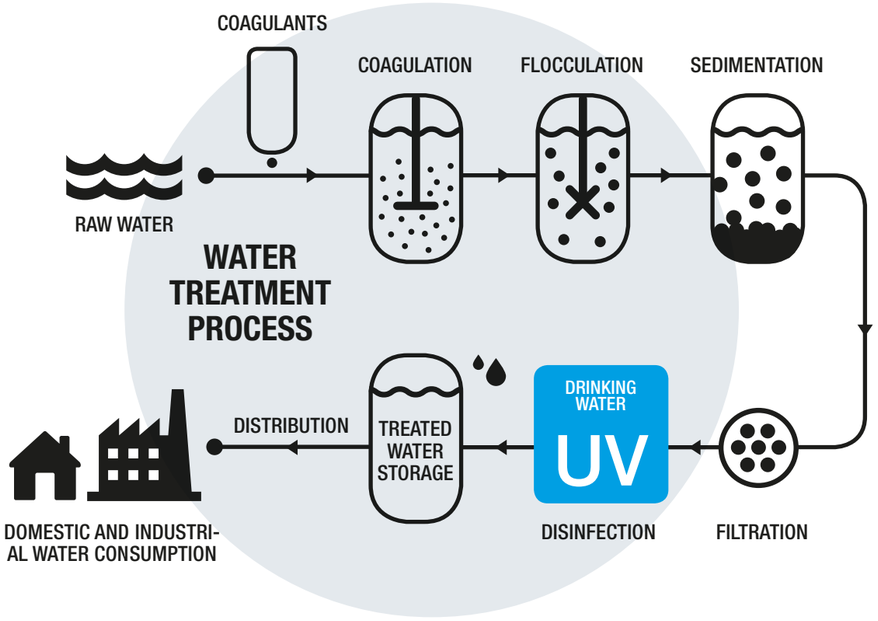
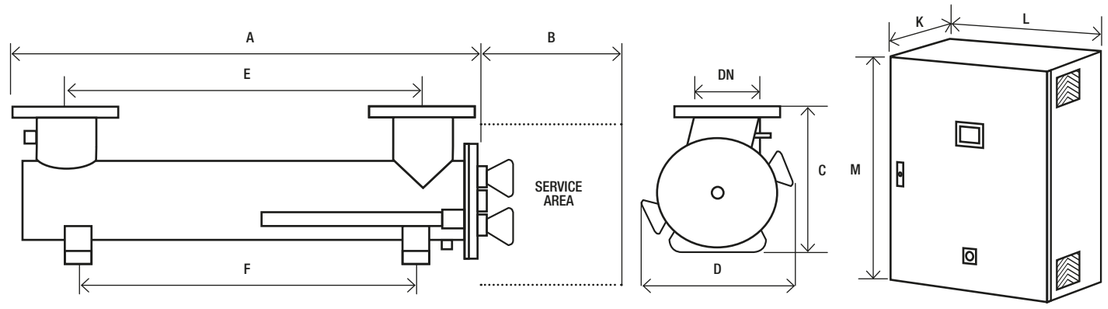
ProLine PQ AL™ drinking water treatment process



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
INTELLIGENCE		
UV sensor	Continuous verification of performance with real time red UV dose reading and in-built low UV dose alarm	Easy to monitor and log system performance
Flow and UV transmittance (UVT) meter inputs	Stepless adjustment of lamp power based on real time operating conditions	Optimised use of energy, saving operating costs
OPTIMISATION		
Third party validated UV systems tested in accordance with the USEPA UV Disinfection Guidance Manual	UV system dose equations and sizing have been independently derived	Confidence the system will perform as stated
Multiple low pressure lamps	Provides optimum wavelength to disinfect your drinking water	Does not affect taste and odour
		No chemicals
	High treatment capacity	Compact footprint and reduced operating cost
Innovative chamber design	Maximises the water's exposure to UV light	Reduces energy costs
Designed for treatment of drinking water	Flanged connections, high standard internal finish	Designed to international standards
	FDA and EC approved seals	Industry compliant materials
	Automatic wiper	Self cleaning to maintain performance
INTEGRATION		
Designed for your process	*Skid mountable	Easy to install

* Option



			Dimensions (mm)										Approx weight (Kg)	
			Chamber							Control				
Model	Max Power (kW)		A	B	C	D	E	F	DN	K*	L	M**	Chamber (Empty)	Control Cabinet
	Starting	Running												
ProLine PQ AL 100	2.4	1.2-2.4	1710	1500	420	400	1417	1372	150	300	800	1000	150	70
ProLine PQ AL 300	7.2	3.6-7.2	1800	1500	605	560	1372	1475	250	400	1200	1200	300	140

* 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).
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:	As made pipe and tube, <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 PN16
Drain connection:	BSP socket
End plate:	Removable end plate
Degree of protection:	IP54 equivalent to NEMA 4 but not for outside use
Arc tube (lamp):	Low pressure
Arc tube enclosure:	Pure quartz
Number of arc tubes (lamps):	4 (PQ AL 100), 12 (PQ AL 300)
Expected lamp life:	9000 hours
Temperature sensor:	Yes
UV sensor:	Calibrated DVGW compliant dry sensor
Working fluid temperature:	5°C to 40°C
Hydrostatically pressure tested:	Yes
Wiper:	Automatic (electrically driven)
Chamber mounting:	Horizontal only
Operating pressure:	10 bar
Seals:	EPDM, ADI free, EC 1935/2004, FDA 21 CFR 177.2600 approved

OPTIONS
Document Support Pack
Cabinet material: Stainless steel 304, IP54 (NEMA 12) or IP56 (NEMA 4x)
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
Aggressive water package: For 400 ppm to 20000 ppm chloride water
Welder Document Pack for chamber construction
Skid mounting
Vent valve: Manual valve hygienic design
In field UV reference sensor kit
UL 508A labeled for cabinet

CABINET	
Material:	Polyester coated carbon steel, RAL 7035
Degree of protection:	IP54 / NEMA 12
Supply voltages:	208 V to 277 V 1L+N or 2L, 50/60 Hz
Operating temp range:	5°C to 40°C
Relative humidity:	<95% non-condensing
Cooling fans:	Yes
Variable power:	Stepless variable power (50% reduction from maximum ballast power)
Interconnecting cable lengths:	10 m to chamber

CUSTOMER OUTPUTS	
4-20 mA outputs:	UV RED dose, lamp driven output power (%)
VFC outputs:	System ready, system stand by, system running, common warning, common trip, system in remote

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

CUSTOMER COMMUNICATIONS PORT
Modbus RS 485 serial RTU for SCADA connection

APPROVALS
CE marked, UL 508A (optional), USEPA tested to UVDGM