

# PharmaLine™ DP

## PRE-TREATMENT PROCESS SERIES

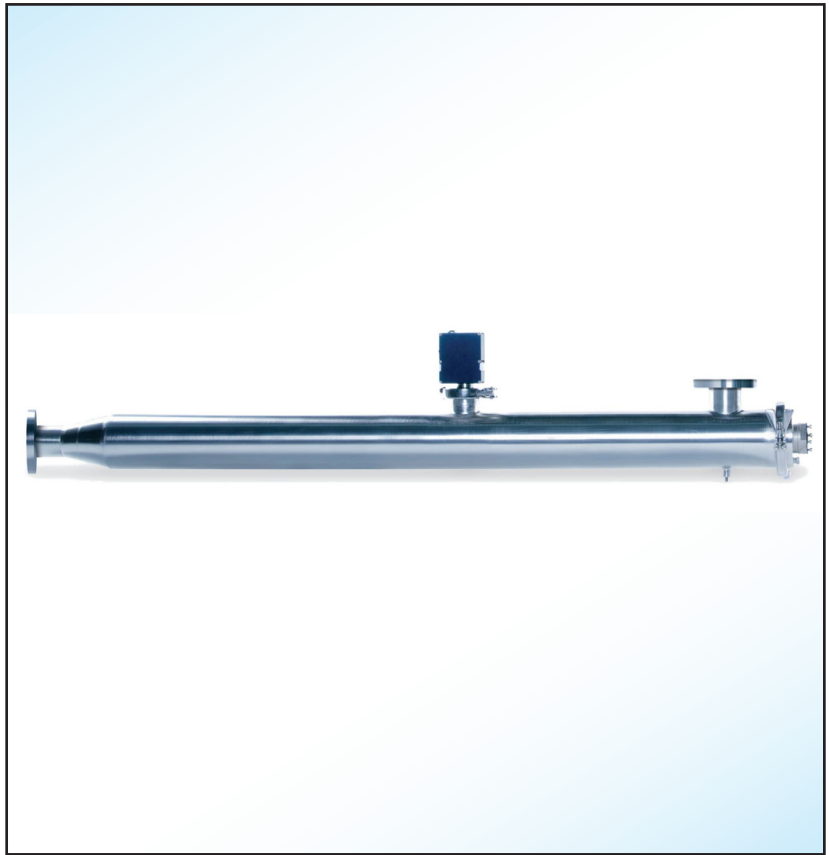
Smart controls – continuous monitoring and DOSE display.



Highly efficient, long life UV lamps.



Maintenance programs to ensure optimized system performance.



PharmaLine DP

## ENVIRONMENTALLY FRIENDLY DISINFECTION

*Our most rigorously developed and tested products ever created for Pharma. Disinfection has evolved, and we can prove it!*

Aquionics' new PharmaLine DP range of highly efficient and low energy UV systems for general disinfection of Pharmaceutical and pre-treatment process.

Placement of the UV system ahead of the carbon filters for de-chlorination provides higher carbon filter efficiency resulting in longer carbon runs, thus decreasing your operating costs. In addition to extending the life of carbon beds, de-chlorinating process water will remove the off flavors associated with chlorine disinfection. The flavor of the final product will remain unadulterated and free from undesirable flavors and odors.

We integrate seamlessly and easily into your existing production lines. We disinfect the water you use everywhere in your process. And, unlike some technologies, we produce no by-products. It's a simple indication of how useful, and effective, our UV systems actually are.



Food & Beverage



Marine



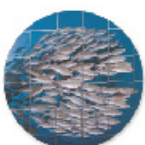
Pharmaceuticals



Electronics



Cosmetics & Toiletries



Aquaculture



Medical & Ophthalmic



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UV Chamber		Cabinet	
Material:	St 316L/1.4404	Material:	Polyester coated carbon steel
Internal finish:	As made pipe and tube, welds left as laid electropolished and passivated	Degree of protection:	IP65/NEMA 4
External finish:	Sateen polish (120 grit) electropolished and passivated	Supply voltages:	230V (207V to 253V) or 115V (104V to 164V) 50/60Hz
Process (mating) connections:	Flange DN series PN16 rated	Operating temperature range:	+41°F to +104°F
Drain connection:	BSPT	Relative humidity:	<90%
End plate:	Removable tri-clamp	Cooling fans:	No
Degree of protection:	IP65 equivalent to NEMA4 but not suitable for outside use	Cable length:	5m
Arc tube (lamp):	Low pressure amalgam/high purity quartz	External contacts:	4-20mA signal for UV Intensity %, Volt Free Contacts for Lamp ON, Low UV warning
Arc tube enclosure:	High purity quartz		
Number of lamps:	1		
Expected lamp life:	12000-16000 hours		
Temperature sensor:	No		
UV monitor:	Wet UV monitor		
Working fluid temperature:	+41°F to +104°F		
Hydrostatically pressure tested:	Yes to PED requirements EN13445		
Maximum CIP temperature:	203°F with lamp off		
Operating/Design pressure:	6 bar / 7 bar		
Pressure loss:	Typically < 40 mbar		
Seals:	EPDM FDA approved		

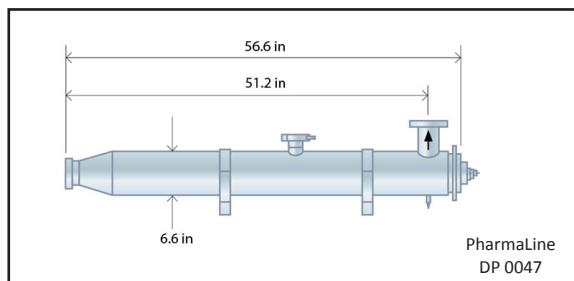
Features	
• Lamp on/off	• UV intensity %
• Remote start/stop	• Warning and trip messages
• Horizontal or vertical mounting	• Total hours run
• Remote mode	• Lamp fail
• Door interlocked cabinet isolator	• Low UV % intensity



PharmaLine DP

	Model	Flow Rate (gpm)	Flange (in)	Number of Lamps	Max Power (W)
<b>Disinfection Process</b>	PharmaLine DP 0003	15	1	1	80
	PharmaLine DP 0007	20	1.5	1	80
	PharmaLine DP 0013	52	2	1	140
	PharmaLine DP 0023	83	2	1	270
	PharmaLine DP 0047	114	3	1	270
	PharmaLine DP 0128	594	6	1	500

The maximum disinfection capacity is based on a dose of 26mJ/cm<sup>2</sup> RED MS2 phage T<sub>10</sub> 95%



Options	
• Validation Support Pack	• Chamber internal finish 0.38µm welds as laid electropolished and passivated
• Stainless Steel cabinet (304)	• Auto-wiper with status LED's pneumatic operation
• Printed operating, menu and safety guides available in Chinese, French, and German	• ANSI 150 flanges and NPT drain
• Ultrasonic control 230V (207 to 263V) CE and UL approved with pre calibrated DVGW compliant dry UV monitor	• CIP maximum 266°F with cabinet electrically isolated

A HALMA COMPANY

Celebrating 85 Years of Pure Performance from the UV Technology Pioneers

