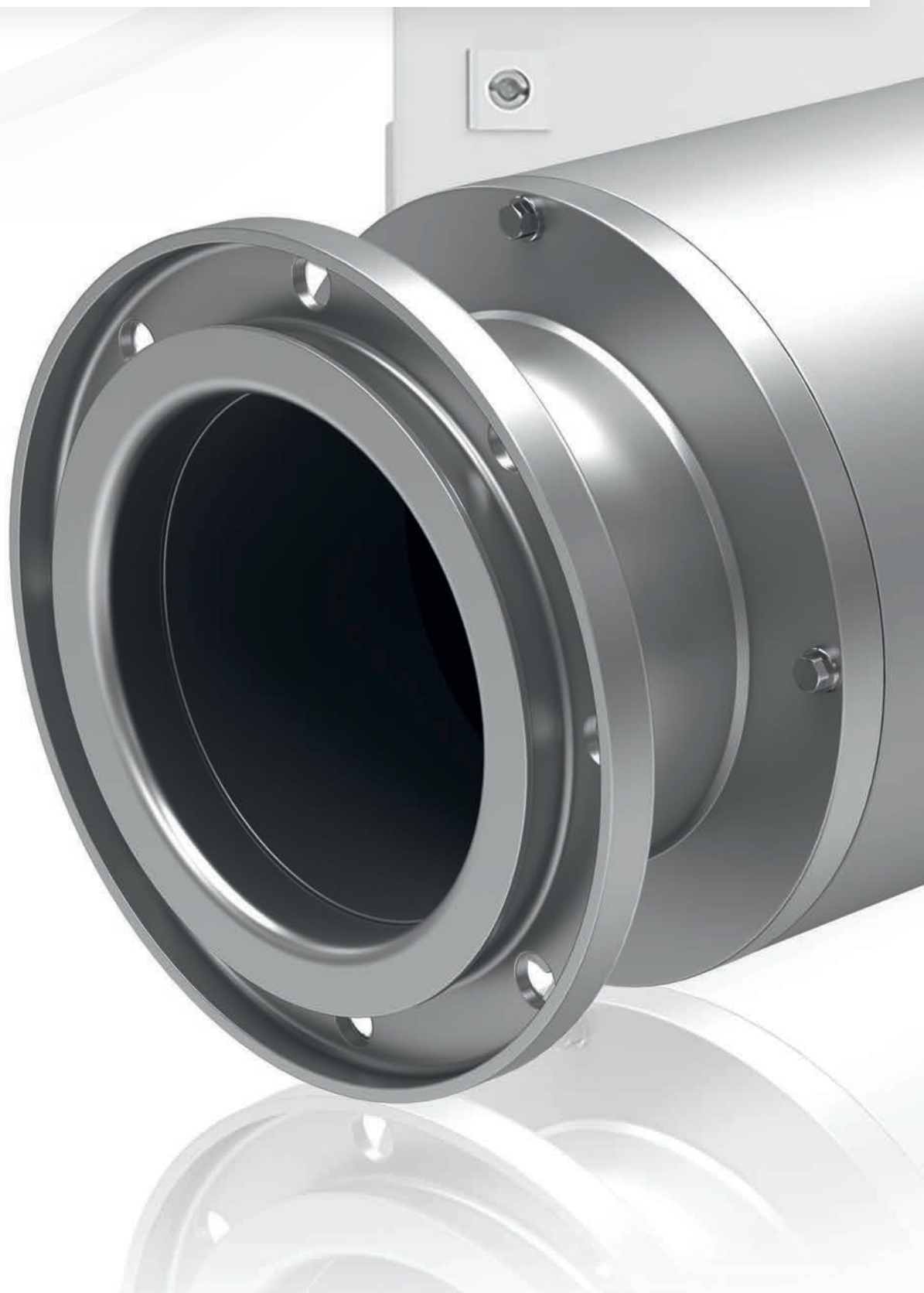


Chemical-free water treatment.

UV systems for highly effective disinfection and oxidation.



Chemical-free disinfection with UV light.

A safe solution with cost benefits.

Disinfection is a key stage in water treatment. UV disinfection is being increasingly used as a safe, chemical-free and reliable disinfection process. ProMinent provides efficient UV systems for a wide range of industries and applications – perfectly coordinated to the application in hand.

Germicidal effect

UV-C light directly attacks the vital DNA of microorganisms such as viruses, bacteria, parasites, yeasts and fungi. The radiation initiates a photochemical reaction and destroys the genetic information contained in the DNA. The bacteria lose their reproduction capability and are made harmless. Even stubborn parasites, such as cryptosporidia or giardia, are rendered harmless.

Reduction of undesirable substances

Photochemical reactions can be triggered in other applications too. For example, the presence of combined chlorine in swimming pool water is reduced by UV radiation. As well as an improvement in water quality, the operating costs are cut significantly due to savings in fresh water consumption. In the production of foodstuffs and pharmaceutical products, oxidising agents such as ozone, chlorine or chlorine dioxide in production waters are reliably removed, eliminating the need for expensive active carbon filters.

Good reliability and cost-effectiveness

Key features of ProMinent's UV systems are their high levels of safety and reliability. Low investment costs, the high level of user-friendliness and extremely low maintenance are additional advantages. This combines to make UV disinfection an incredibly low-cost solution.

Benefits of UV systems from ProMinent

- Immediate and safe destruction of germs without chemicals
- No THM or AOX formation, no formation of undesirable by-products
- No impairment of the odour or taste of the water
- Photochemical reduction of undesirable substances
- No storage and handling of chemicals required
- Effect is independent of pH
- No reaction line or reaction tank required
- Minimum space requirement
- Very reliable and efficient
- Low investment and operating costs



UV systems from ProMinent.

The versatility you need for your requirements.



UV system Dulcodes LP

Flow up to 523 m³/h

Innovation coupled with cost-effectiveness. The global innovation Dulcodes LP with its patented Vario-Flux high-output lamps has dynamic lamp heating. Thanks to the combination of unique Vario-Flux low-pressure lamps and optimised electronic ballast technology, precise lamp dimming of up to 50 % of the electric nominal power in a matter of seconds is possible over a wide temperature range. This enables automatic adaptation to varying flows regardless of the water temperature. The optimised flow behaviour ensures a homogeneous distribution of the UV dose and results in a minimum number of lamps at maximum flow with minimal pressure loss. The unique special features of the systems guarantee low investment and operating costs and therefore unparalleled low life cycle costs.

- Dulcodes LP available in a certified design (DVGW, ÖVGW, UVDGM)
- Reduction in life cycle costs through use of durable Vario-Flux high-output lamps with low energy consumption and high UVC output
- Maximum installation flexibility due to choice of vertical or horizontal installation and free choice of flange position
- Long service life of electronic components and protection against corrosion through use of a control cabinet (IP 66) with efficient recirculation cooling

Further designs and options

- Design for the food and beverage industry: Surface roughness of Ra <0.8 µm, hygiene connections, hygienic DVGW-compliant sensor connector system
- Manual or automatic wiper system available as an option
- Also available in UV-resistant, high-pressure PE plastic design
- Can also be supplied in compliance with UL 508/CSA22 and NSF 50 certified

Type	Max. flow (m ³ /h)	Max. flow certified (m ³ /h)	Lamp output (W)	Nominal connection width DIN/ANSI	Length of radiation chamber (mm)
Dulcodes 1x80LP	8,8*	6,4**	85	RP 2"	872
Dulcodes 1x230LP	35*	20,7**	270	DN 80/3"	1.151
Dulcodes 1x350LP	53*	39,5**	380	DN 100/4"	1.640
Dulcodes 2x350LP	123*	113**	2x380	DN 150/6"	1.640
Dulcodes 3x230LP	155*	96**	3x270	DN 150/6"	1.185
Dulcodes 3x350LP	232*	189**	3x380	DN 200/8"	1.885
Dulcodes 4x350LP	317*	259**	4x380	DN 200/8"	1.885
Dulcodes 6x350LP	523*	410**	6x380	DN 250/10"	1.885

* 98 %/cm transmission; 400 J/m² UV dose, calculated according to PSS. ** 98 %/cm transmission; flows certified to DVGW W 294



UV systems

Dulcodes MP/Dulcodes A

Flow up to 739 m³/h

The UV systems Dulcodes MP and A are powerful systems fitted with medium-pressure lamps. Energy-efficient solutions for pool water treatment but also perfect for treating potable water at higher flow rates. They reduce combined chlorine (chloramine) and thereby eliminate the typical odour found in swimming pools. The highly effective lamps safely inactivate pathogenic organisms. In particular, chlorine-resistant germs, such as cryptosporidia or giardia, are reliably eliminated.

- The extremely compact inline system makes for simple installation, guaranteeing little installation work and rapid retrofitting
- Free choice of fitting position and direct installation in plastic pipes because no UV radiation is emitted by the reactor
- Unbeatably simple and quick maintenance due to the lamp connection on one side

Special features of Dulcodes MP

- A manual stage switch permits adaptation to the capacity requirement
- Automatic chloramine value-dependent switch-on/off, e.g. in combination with DULCOMARIN® II

Special features of Dulcodes A

Use of electronic ballast technology makes the systems highly efficient. This also provides a very long service life, increased UVC output and infinitely variable adjustment of lamp output.

- External control via standard signal 0/4 – 20 mA for infinitely variable system output control
- Certified systems: NSF 50, CSA 22, UL508, comprehensively biosimetrically validated to UVDGM 2006

Dulcodes MP	Type	Max. flow (m ³ /h)	Lamp output (W)	Nominal connection width DIN available	Length of radiation chamber (mm)
	1x0,65 MP	20*	650	DN 65/80	500
1x1 MP	58*	1.000	DN 100/125	700	
1x2 MP	102*	2.000	DN 125/150	700	
1x3 MP	205*	3.000	DN 200/250	800	
2x2 MP	278*	4.000	DN 200/250	900	
2x3 MP	379*	6.000	DN 200/250	900	
3x3 MP	569*	9.000	DN 250/300	900	

Dulcodes A	Type	Max. flow (m ³ /h)	Lamp output (W)	Nominal connection width DIN/ANSI	Length of radiation chamber (mm)
	1x1A	66*/76**	1.000	DN 100/4"	700
1x2A	116*/133**	2.000	DN 150/6"	700	
1x3A	232*/266**	3.000	DN 200/8"	800	
2x2A	309*/362**	4.000	DN 200/8"	900	
2x3A	464*/493**	6.000	DN 250/10"	900	
3x3A	696*/739**	9.000	DN 300/12"	900	

* 98 %/cm transmission; 600 J/m² UV dose for the reduction of combined chlorine.

** 98 %/cm transmission; 400 J/m² UV dose for disinfection applications.

Developed for very diverse applications

Private water suppliers and municipal water works

- Disinfection of potable water

Food and beverage industry

- Killing off germs and bacteria in the water needed for food and beverage production
- Disinfection of process water
- Reduction of chlorine dioxide, ozone or chlorine in production water

Pharmaceutical and cosmetics industry

- Maintenance of the high microbiological requirements of production water
- Destruction of residual ozone in the production water without the use of active carbon filters

Desalination with reverse osmosis

- Disinfection of inlet water and permeate disinfection

Whirlpools and swimming pools

- Additional disinfection (2nd barrier) of pool water
- Chloramine reduction in the pool water



Worldwide contacts



Ready for you. Anytime, anywhere.

ProMinent is at home in around 100 countries across the globe. This guarantees the worldwide availability of our products and comprehensive expertise on the ground with short distances to our customers. We offer the same high quality standards for our solutions and services all over the world. And we work day in, day out to keep our promise: Ready for you. Anytime, anywhere.

You will find the contact details of local branches and agencies at
www.prominent.com/locations

You will find the ProMinent app for iPad and iPhone
in the iTunes App Store or at
www.prominent.com/app

