



HEADWORKS BIOLOGY SEPARATION MEMBRANE ▶ <b>DISINFECTION</b> BIOSOLIDS SYSTEMS	UV	MEDIUM PRESSURE	SWIMMING POOL	COMMERCIAL	▶ Applications
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- Swimming pool disinfection

▶ Main Characteristics

- Medium pressure UV system for commercial swimming pool disinfection and chloramine reduction



The UVARAY 45-1000 is designed to offer commercial swimming pools a reliable medium pressure UV system for disinfection and improved water quality.

## MAIN FEATURES

- Medium pressure UV
- Microprocessor control with data logging and language option
- 'Smartdrive' automatic wiper system with manual override
- Outputs for connection to building management systems
- Automatic low power option
- Simple to install and operate with minimal space requirements
- UL Listed
- NSF 50 approved
- Substantial reduction of chloramines

### UV TECHNOLOGY: UVARAY 45-1000

The UVARAY medium pressure UV system is designed for disinfection of commercial swimming pools. Medium pressure UV systems are particularly effective against the highly infectious *Cryptosporidium Parvum* and *Giardia Lamblia species* which are virtually unaffected by the use of chlorine alone. As UV is not a residual disinfectant, a chlorine residual is required

to prevent cross infection between bathers. High proportions of combined chlorine products (chloramines) in circulating water are destroyed by the UV irradiation process. Removal of these compounds greatly improve bathing water quality, reducing skin and eye irritation and removing the common and unpleasant "swimming pool" odour.

### HOW IT WORKS

The medium pressure UV lamp is powered by magnetic ballasts housed within a separate wall mounted control panel. The wide spectral distribution of the Triogen lamp produces the simultaneous treatment of several aspects of the circulating pool water as described above.

Lamp power can be set using the digital control panel. When the pool is not in use, the lamp output can automatically adjust to low, providing efficient disinfection with a 50% reduction in power consumption. The UV reactor incorporates a time controlled automatic wiper system which allows cleaning of the internal thimble housing the UV lamp.

## TECHNICAL DATA

UVARAY Model	Flow Rates <sup>(1)</sup>		Lamp Power	Supply Rating
	m³/h	US gpm	kW	V/ph/Hz
UVARAY 45	45	200	1.6	400-480/3/50-60
UVARAY 90	90	400	3.1	
UVARAY 125	125	550	3.1	
UVARAY 210	210	920	6.1	
UVARAY 300	300	1330	6.1	
UVARAY 400	400	1760	6.1	
UVARAY 600	600	2640	2 x 6 = 12	
UVARAY 750	750	3300	2 x 6 = 12	
UVARAY 1000	1000	4400	3 x 6 = 18	

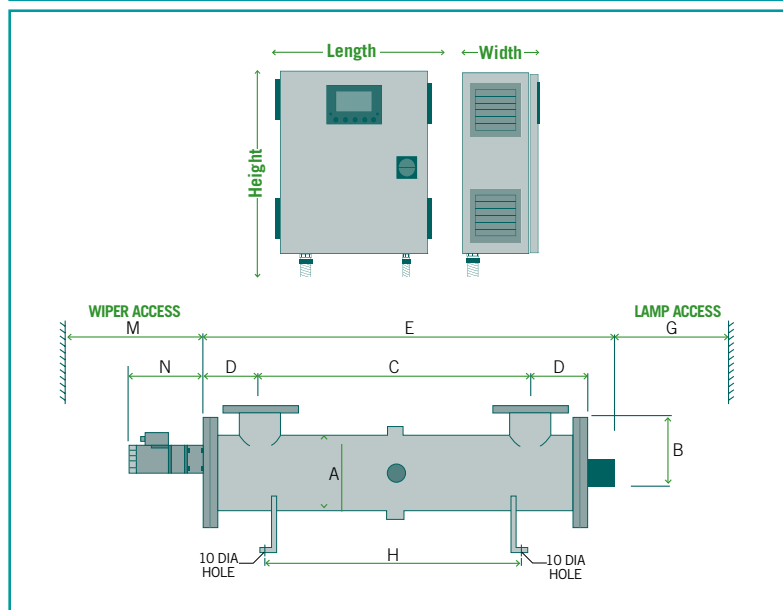
(1) Flowrates based on a dose of 60mj/cm² at end of lamp file.

### ► Standards

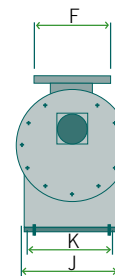
- CE Approval
- BS4504
- ANSI 150
- NSF
- UL

## DIMENSIONS

UVARAY Model	Reactor Dimensions (mm/inch)														Flange (inch)
	A	B	C	D	E	F	G	H	J	K	L	M	N		
UVARAY 45	200/7.8	175/6.9	700/27.6	145/5.7	1065/41.9	275/10.8	900/35.4	700/27.6	170/6.7	200/7.9	150/5.8	350/13.8	285/11.2	3	
UVARAY 90	200/7.8	175/6.9	600/23.6	195/7.7	1065/41.9	275/10.8	900/35.4	700/27.6	170/6.7	200/7.9	150/5.8	350/13.8	285/11.2	6	
UVARAY 125	250/9.8	200/7.9	600/23.6	195/7.7	1065/41.9	325/12.8	900/35.4	700/27.6	220/8.6	250/9.8	175/6.9	350/13.8	285/11.2	6	
UVARAY 210	250/9.8	200/7.9	900/35.4	220/8.6	1415/55.7	325/12.8	1250/49.2	1000/39.4	220/8.6	250/9.8	175/6.9	350/13.8	285/11.2	8	
UVARAY 300	300/11.8	250/9.8	900/35.4	220/8.6	1415/55.7	375/14.6	1250/49.2	1000/39.4	270/10.6	300/11.8	200/7.9	350/13.8	285/11.2	8	
UVARAY 400	400/15.7	300/11.8	840/33.0	250/9.8	1415/55.7	475/17.7	1250/49.2	1000/39.4	370/34.8	400/15.7	250/9.8	350/13.8	285/11.2	10	
UVARAY 600	350/13.8	275/10.8	780/30.7	280/11	1415/55.7	425/16.7	1250/49.2	1000/39.4	320/12.6	350/13.8	250/9.8	350/13.8	285/11.2	12	
UVARAY 750	400/15.7	300/11.8	780/30.7	280/11	1415/55.7	475/17.7	1250/49.2	1000/39.4	370/34.8	400/15.7	250/9.8	350/13.8	285/11.2	12	
UVARAY 1000	400/15.7	300/11.8	720/28.3	310/12.2	1415/55.7	475/17.7	1250/49.2	1000/39.4	370/34.8	400/15.7	250/9.8	350/13.8	285/11.2	14	



UVARAY Model	Panel: l x h x w	
	mm	inch
UVARAY 45	600 x 800 x 200	23.6 x 31.5 x 7.9
UVARAY 90	600 x 800 x 200	23.6 x 31.5 x 7.9
UVARAY 125	600 x 800 x 200	23.6 x 31.5 x 7.9
UVARAY 210	600 x 1000 x 300	23.6 x 39.4 x 11.8
UVARAY 300	600 x 1000 x 300	23.6 x 39.4 x 11.8
UVARAY 400	600 x 1000 x 300	23.6 x 39.4 x 11.8
UVARAY 600	600 x 1800 x 500	23.6 x 70.9 x 19.7
UVARAY 750	600 x 1800 x 500	23.6 x 70.9 x 19.7
UVARAY 1000	600 x 1800 x 500	23.6 x 70.9 x 19.7



### ► Materials

- Reactor Vessel: 316L stainless steel
- Flanges: BS4504 or ANSI 150
- Lamp: high purity quartz
- Thimble: high purity quartz
- Wiper Ring: spring loaded PTFE
- Panel: mild steel epoxy painted

### ► Options

- Stainless steel bends
- Inline basket strainers

### ► Remote controls and alarms

- Lamp failure display alarm
- Lamp change display alarm
- Reactor temperature display alarm
- Low UV intensity display alarm



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