

# INTENSE PULSED LIGHT SYSTEM XeMaticA-1L-RepRate-V2

automatic R&D system with one water-cooled UV flash lamp

**for evaluation tests in food, pharmaceutical, cosmetic, bio-medical, and tech. applications:**



## Highlights:

- . Pulse energies 200J, 350J, 500J.
- . Max spectral output in the full UV spectra,
- . Repetition rates 1Hz, 2Hz and 3Hz.
- . Timed burst pulsing 1-60s + single pulsing.
- . 180° sample exposure.
- . the lamp has a clear quartz water-cooled jacket fed by an internal water circulation system. This water jacket absorbs most of IR /heat from the lamp spectra, yet passing UV.

## Sample chamber:

- 18 cm wide x 16 cm high x 18 cm deep,
- distance between edges of lamp reflectors and the sample shelf can be from 2 to 8 cm.
- provides 180° sample exposure with ca. 20% uniformity due to 98% reflectors over lamps and on all sides around the sample shelf.

## User friendly operations:

- 1: Selecting most common UV intensities to samples by varying 3 pulse energies and 3 pulse repetition rates using LED lighted rotary switchers;
- 2: Timer to start/stop pulsing from 1 sec (the single pulse at 1 Hz) to 1 hour of pulsing;

## Process controls:

- 1: HV interlock with LED on front panel to control the colling water flow for the UV flashlamp.
- 2: controlling UV intensities by a UV sensor and applied energies by a voltage sensor with BNC outputs to a provided digital storage 2 trace scope.

## Simple system el. architecture:

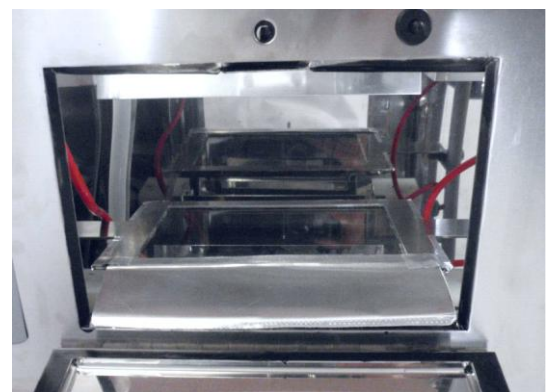
it is based on analogue schematics with 555 chips and common relays to assure a stable work for many years without software and/or hardware upgrades like from Siemens, etc.

## El connection:

208-240 VAC, 1-phase, 50-60 Hz, max 2kw.

## Size, Weight, Enclosure Material:

60 cm wide x 40 cm high x 53 cm deep,  
drop-in steel handles on the top for its transport,  
Polished stainless-steel, weight 42 kg.



## Sterilization Efficiency:

up to 6 logs /pulse for common bacteria,  
up to 3 logs /pulse for common spores  
ca. 3 -5 cm under the lamp.

## Safety features:

- 1: Flash lamps are filled with Xe-gas (no Mercury), water cooled with the water T°C control,
- 2: no ozone neither heat to samples.
- 3: The large red button is the emergency stop.
- 4: The chamber door is automatically locked and sealed during pulsing.
- 5: No EM waves or UV leaks outside.

*This is our novel Pulsed Light system,  
similar our PL R&D systems are in use in universities and production labs worldwide.*