

Rack LCD Series

UV system emitting UV-C irradiation with $\lambda=254$ nm; this wave length causes an alteration of some chemical links present among nucleotids so that the information contained and conveyed by DNA of every organism present in the water change.

These alterations lead to the cellular death and so to the bacteriological elimination.

This disinfection system has a physical working principle and not chemical. Nothing is added to, not taken away from water; in this way there is no formation of undesired by-products even in case of overexposure, in the full respect of environment. The time of interaction water-radiation is of few second; the disinfection directly takes place only during the passage of water. For this it is necessary to install the UV-C system after any other treatment

The **RACK LCD** UV-C systems are composed of:

- Stainless steel reactor that contains the special germicidal lamps
- Control panel, made in compliance with the *CE standard*

Main Application:

Water Disinfection for:

- Private and Municipal water
- Industrial process water
- Food & Beverage industry

Certification:

CE, ACS, WRAS, GOST

Technical description:

Flow rates:	from 10 to 40 m ³ /h (depending on UV –C transmittance value)
UV-C dose after 9000 hr:	400 J/m ²
Power:	from 80 W to 400 W
Connections:	threated connection and flange connection
Lamps:	High efficiency low pressure lamps – 40 and 80W
Lamps lifespan:	9.000 hrs
Sensor:	UV-C selective sensor (only on Plus models)
Max Pressure:	10 bars (optional 16 or 25 bars)
Temperature range:	0 – 50 °C (ask for higher temperature)
UV reactor material:	Stainless steel 316L
Control Panel material:	Painted steel – RAL 7035

Stainless steel reactor:



The UV reactor is totally in stainless steel AISI 304 or 316L internally/externally polished; the stainless steel of its chemical/physical characteristics is particularly suitable for the treatment of primary waters, and being polished also in the internal part it is completely without porosity that could favour the keeping of spores; moreover, being glass polished, the germicidal action of the lamps is increased.

Configuration:	Z shape
Mounting:	vertical (preferably) – ask for horizontal configuration
Connection:	threaded connection (UV 550 – UV 700- UV 750 – UV 800) flanges PN 10 (UNI EN 1092 -1) (80/4 and 80/5)
UV sensor holder :	Stainless steel 316L
UV sensor:	selective sensor (option: DWGV or Ö-Norm Sensor)
Seals:	Silicone and Viton
Automatic Cleaning system:	possible on all the models - optional

Control Panel:



The electrical control panel supplied is ready for the installation (complete of all the necessary cables)

- Steel painted control panel box (RAL 7035)
- Protection class: IP 55
- Status messages
- Microprocessor control
- Total hour meter
- Resettable hourmeter with alarm for end life lamp
- Control of each lamp
- 220 V NA/NC outlet
- Free contact outlet
- Remote on/off (optional)
- 4-20 mA outlet (optional)
- UV intensity: % (only on Plus models)
- Shutdown for high temperature in the UV chamber (only on Plus models)
- Control of temperature - irradiation (pre set alarm threshold)
- GSM box for remote monitoring and control with mobile phone (optional)
- Temperature Range: (0-45°C)

Manual cleaning system RM (optional)

Manual cleaning system is available on all models.

It consist in a rack with special teflon oring that cleans the quartz sleeve going up and down. The cleaning operation can be done by the operator during the normal function of the system.

Automatic cleaning system RA (optional)

Automatic cleaning system is available on all models.

It consist in a rack with special teflon oring that cleans the quartz sleeve going up and down.

This movement is given by a programmable **UV cube monitor** that moves a motor shaft placed on a side of the system. For these reason all the system with RA option have a horizontal design.

Time and days of the cleaning can be easily set on site.

UV REACTOR with AUTOMATIC CLEANING SYSTEM RA

Configuration: U shape

Mounting: Horizontal

Control Panel: DS Plus series with UV Cube monitor

Chemical cleaning system RA (optional)

Chemical cleaning system is available on all the models and can be used together the automatic RA system.

It consist in a special tank (depending from UV reactor volume) with pump motor on the top connect to the UV reactor. In this way the chemical product (depends from Pollution) will clean not only the quartzes but the whole reactor.

Sita LCD Rack Range (20 to 40 m3/hr)

2502000070	3-80W	80/3 Rack LCD	20 m3/hr
2502000014	4 - 80w	80/4 Rack LCD	30 m3/hr
2502000016	5 - 80w	80/5 Rack LCD	40m3/hr
2502000003	3-80W	80/3 Rack Plus	20 m3/hr
2502000015	4 - 80w	80/4 Rack Plus	30 m3/hr
2502000017	5 - 80w	80/5 Rack Plus	40m3/hr

RACK LCD SERIES	80/3	80/4	80/5
Max flow (m3/hr)	20	30	40
Lamps	3 x 80W	4 x 80W	5 x 80W
Connectors	2" M	DN80	DN80

	LCD	LCD Plus
Electrical Power	230V-50/60 Hz	
Protection	IP 55	
LCD Display	X	X
Hours run meter	X	X
Alarm LED	X	X
Alarm relay (free) NO/NC	X	X
Alarm relay (230V) NO/NC	X	X
End of lamp alarm		X
UV transmission or temperature display		X
High temperature shut down		X

