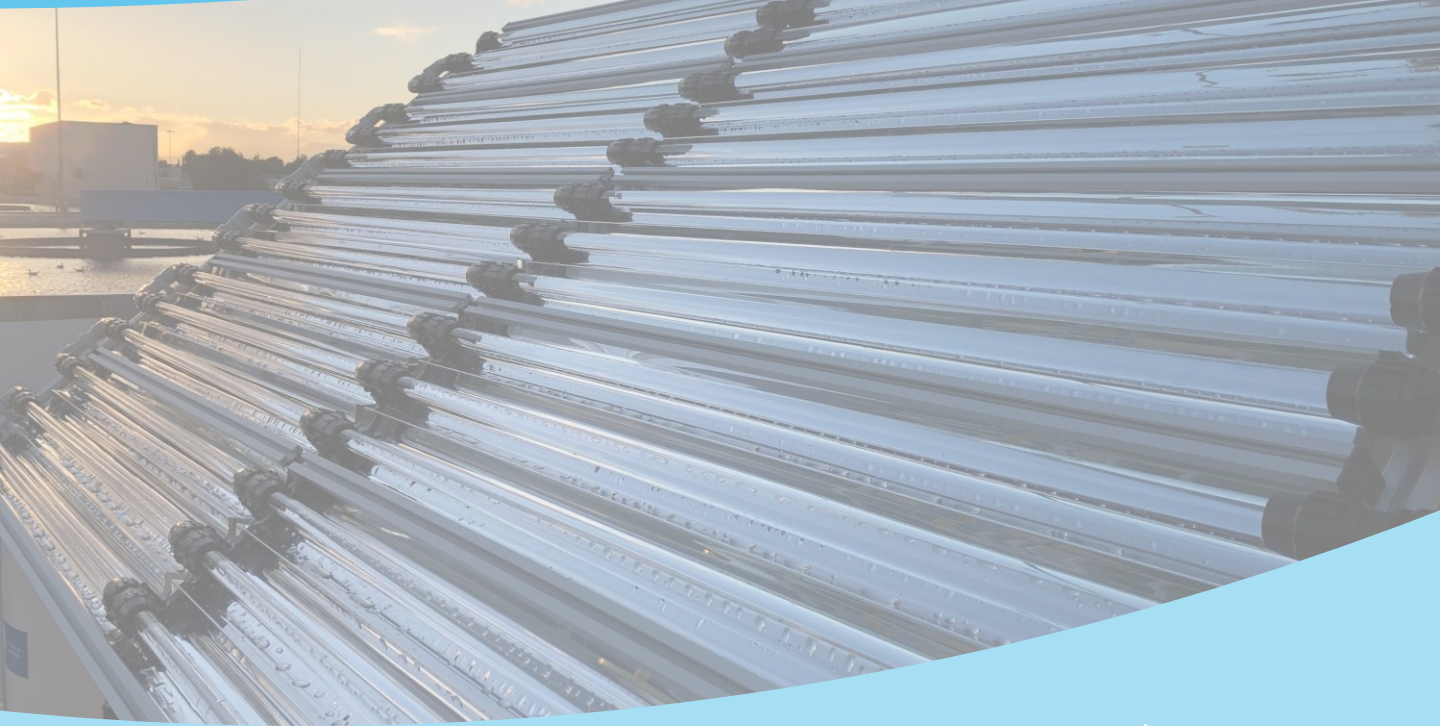


# PHOTOREACTORS



## Compound parabolic concentrator (CPC)



Solar



Selectable irradiation  
area and volume



Complementary  
LED technology

### The equipment

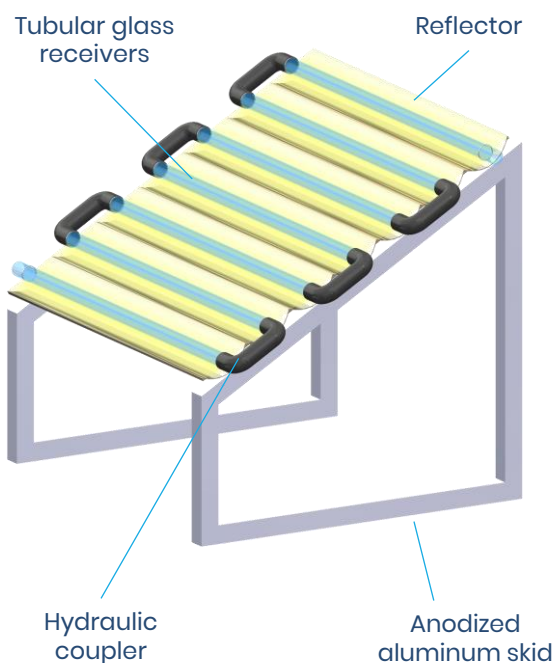
Apria Systems has designed a series of flexible Compound Parabolic Concentrator (CPC) photoreactors. We offer a wide range of **tailor-made** models to adapt the equipment to the needs of our clients.

The **irradiated surface and volume can be customized**, offering an adjustment to the needs of the treatment.

It is remarkable that our CPC photoreactors can be combined with a **complementary light source with LED technology**, mainly with annular photoreactors – detailed information available in our annular LED photoreactors datasheet -. In this case, the equipment would also include a radiometer to acquire solar irradiance data continuously, allowing the optimal selection of the photoreactor to be used in the treatment –CPC or LED-.



## Elements of the system



## Operation

### A. SOLAR MODE

1. Pump the fluid to be treated to the CPC photoreactor
2. Perform the photochemical treatment

Extremely  
simple

### B. COMPLEMENTARY MODE: LED TECHNOLOGY

1. Pump the fluid to be treated to the LED photoreactor
2. Turn-on the electric console that is connected to the LED photoreactor
3. Select the working type of light, adjust its radiation intensity, and switch-on the lamp
4. Perform the photochemical treatment

We offer a wide range of alternatives to adjust our equipment to your needs

## Reactor characteristics

<b>Operation mode</b>	Continuous / recirculation
<b>Radiation type</b>	Solar
<b>Irradiated volume (L)</b>	4 - 125
<b>Irradiated area (m<sup>2</sup>)</b>	0.5 - 15
<b>Number of tubes</b>	According to the irradiation area
<b>Inclination (°)</b>	According to local latitude of the client's facilities
<b>Optional items</b>	Automatization / Feeding tank / LED photoreactors / Online measurements (pH, O <sub>2</sub> , etc.) / Pumping / Radiometer / System for the recovery of the photocatalyst / Temperature control

