



CRN TECNOPART, S.A.

Sant Roc 30

08340 VILASSAR DE MAR (Barcelona)

Tel: 937 591 484 Fax: 937 591 547

e-mail: crn@crntp.com - www.crntecnopart.com

UV-160.11E

MEDIUM PRESSURE MERCURY VAPOR LAMPS MODEL HPML

Medium pressure mercury UV lamps are mainly used for two applications:

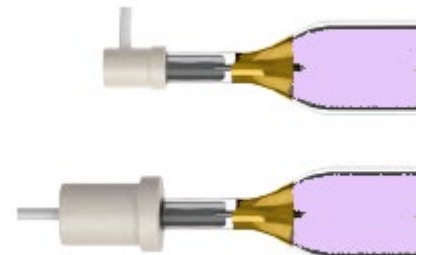
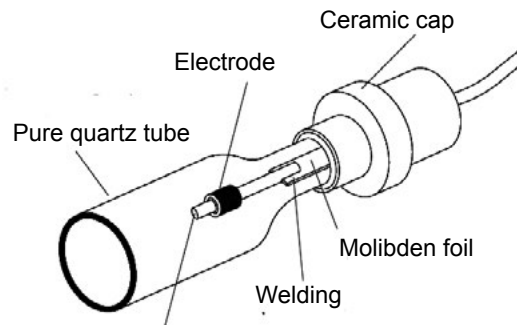
- For UV curing & drying
- For UV disinfection & oxidization



Two different sealing systems

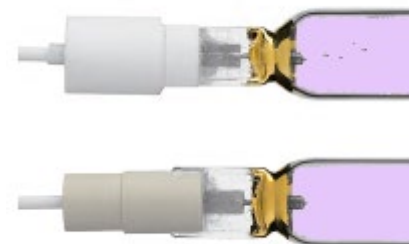
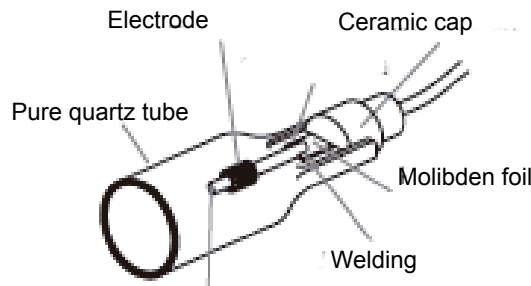
A - Rolled sealed lamps

The sealing process of the lamp occurs on a lathe under vacuum. While perfectly heated, the Quartz will collapse around the leaves of molybdenum.



B - Pinched sealed lamps

The sealing process takes place using a spiker pinching machine; the quartz, suitably warmed, is pressed by two hammers.



The main features of the medium-pressure UV lamps manufactured by Helios are as follows:

Quartz tubes: • Natural Quartz (OF) • Natural Quartz (OG) • Synthetic Quartz (OG)

Outer diameter (OD) of the quartz tubes from 10 mm to 38 mm

Arc length from 50 mm to 2500 mm and **Power range** from 100 W to 60 kW

Shape of the lamp body: • Linear • U form • Spiral • Other forms available upon request

Max nominal power density per unit length (to be checked in the prototyping stage):

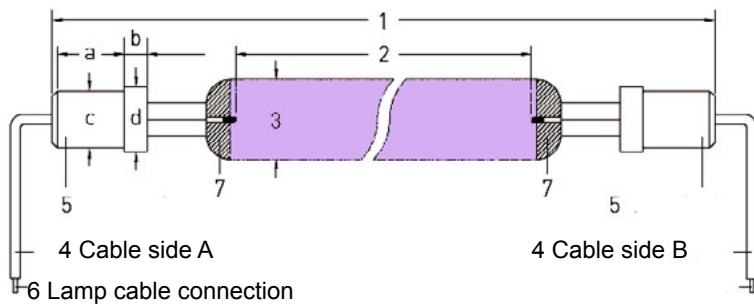
• from 80 W/cm to 300 W/cm* • from 80 W/cm to 120 W/cm** • from 80 W/cm to 250 W/cm***

Useful life (lab tested and according to the power of the lamp - one ignition per day):

• from 1000 h to 1500 h* • from 1500 h to 5000 h** • from 1500 h to 5000 h***

Surface temperature (lab tested and according to lamp power) from 600°C to 900°C

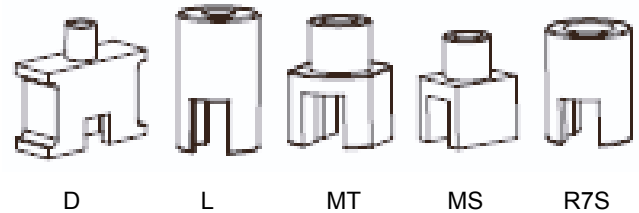
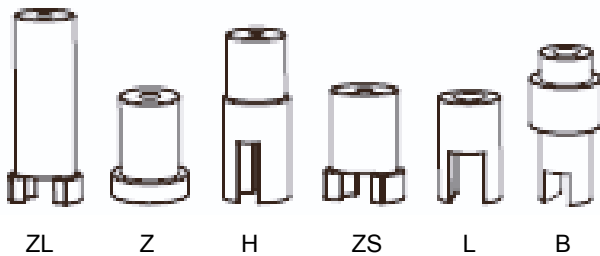
OF Ozone Free - OG Ozone Generating - * Curing lamps - ** Disinfection lamps - *** Oxidation lamps



Helios can produce medium pressure UV lamps suitable for almost all UV systems; the following is a list of the necessary information for spare parts:

- Electrical Data (Power [W], input tension [V0 - VL] or input current [A0 - AL])
- Total length of the lamp (inclusive of terminal ceramic) (1)
- Arc length (2)
- Diameter of the quartz tube (3)
- Cable length (4)
- Type of ceramic terminal (5)
- Type of electrical connection needed (6)
- Type of reflector (7)
- Lamp production of ozone Yes/No
- Code of the lamp to be replaced

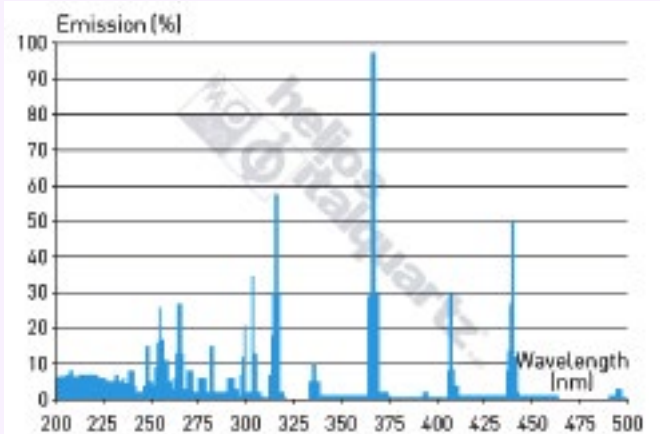
5 Ceramic caps



For special applications, in addition to the usual mercury lamps, Helios has developed a series of UV Lamps (Metal Halide) adding doping elements (metal halide) that change the spectrum of ultraviolet radiation, thus optimizing it for different possible applications.

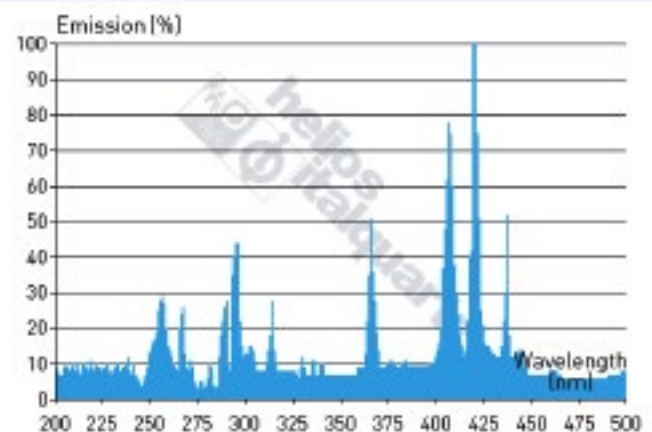
UV MEDIUM PRESSURE MERCURY VAPOUR LAMPS

These UV lamps, emit across the entire spectrum of ultraviolet light (UVA, UVB and UVC) with peak emission in the UVA range at 366 nm.



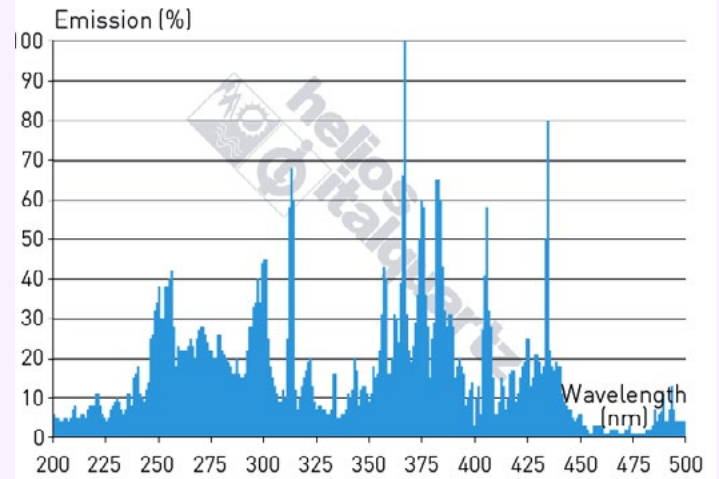
UV MEDIUM PRESSURE LAMPS GALLIUM DOPED

The metal halide UV medium pressure gallium doped lamps emit UV radiation with peak emission in the UVA range at 420 nm.



UV MEDIUM PRESSURE LAMPS LEAD DOPED

The metal halide UV medium pressure lead doped lamps emit UV radiation with peak emission in the UVA range at 357 nm and 420 nm.



UV MEDIUM PRESSURE LAMPS IRON DOPED

The metal halide UV medium pressure iron doped lamps emit UV radiation with peak emission in the UVA range at 366 nm and 440 nm.

