



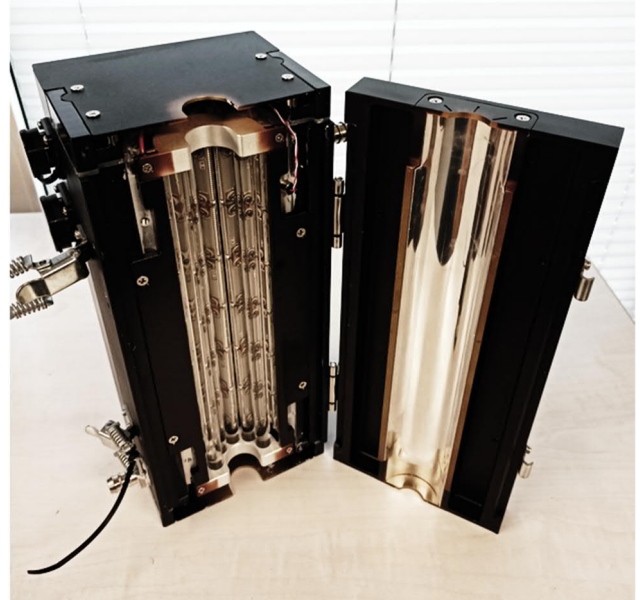
## BIMESPRO UVL coating curing system with UV-LED source

### Introduction & Application

UVL UV-LED coating curing system units were developed for curing primary and secondary acrylate coating layers on optical fiber during fiber drawing process, by a major optical fiber manufacturer and were tested in stringent optical fiber production environment, in drawing of different fiber types and varying process conditions.

UVL units replace mercury UV lamps typically used in optical fiber production for many years.

UVL advantages over standard UV mercury lamps are in lower power consumption, lower weight, much longer lifetime of LEDs over mercury lamps, lower noise in operation and simpler infrastructure (no need for large cooling air flow). They offer optimized operational cost and lower equipment investment. UVL UV-LED systems are ideally suited for use in research and development facilities, on special fiber draw towers with short distance between coaters and other draw tower components.



### Description

The UVL type U2000 UV LED systems for curing acrylate coating layers consists of:

- power supply control cabinet, connected to UVL oven by a set of cables,
- UV LED oven (source ) with splittable lighting chamber with water cooling, with LEDs mounted on one side of split curved mirror surface, the two mirror surface providing a quasi-circular chamber,
- mounting bracket with an adjustable X-Y table, with tilt correction,
- fused silica tube protecting inside of the UVL mirror chamber from curing reaction fumes, traversing the whole unit length, with top and bottom iris assemblies,
- gas panel for delivery of N2 gas to purge the silica tube and provide inert atmosphere for optical fiber during curing
- documentation and instructions for use and maintenance



The advantage of UVL type U2000 over competing products lies in its reliability, adaptability to the drawing process, many years of experience in use and maintenance of UV devices in fiber drawing. UVL is controlled from the draw tower control system like Bimes-supplied OptiFACT, using EtherCAT interface. Manual control is possible from the front panel on the power supply cabinet.

### Specifications

- protective tube: fused silica tube, OD 20 mm, wall thickness 2 mm, length 300 mm
- top/bottom iris: mounted on silica tube by O-ring connection
- N2 purge flow: 6 – 8 liters per minute, nitrogen UHP, max O2 1000 ppm, 0.5 – 2 barg
- gas connection: Festo push-pun 6 mm
- setting: rotameter, manual adjustment
- cooling water: 1-2 slm, at room temperature

For more information and quotes please write to [sales@bimespro.com](mailto:sales@bimespro.com) or [info@bimespro.com](mailto:info@bimespro.com)