

Need to carry out experiments with UV?  
Or you need to test new formulas for UV inks, varnishes or adhesives? Look no further!

IST UV laboratory units have proved to be extremely valuable for research and development purposes over a number of years. The units can be integrated into an existing machine or can also be supplied as free-standing units with a conveyor belt. When supplied as a standalone unit, the design and manufacture are carried out at the “state-of-the-art” production facilities at IST in Germany and all that is required for installation on-site is to switch the unit on.



**Laboratory unit, 2-lamp system**

## Equipment on a standard laboratory unit:

### MINICURE lamp module

- IST UV laboratory units can be equipped with one or alternatively two lamp units. Lamp outputs up to 200 W/cm can be specified depending on lamp length.
- The standard lamp lengths are 250 and 400 mm.
- The distance between the lamp module and the conveyor belt can be easily adjusted.
- The standard version of the IST UV laboratory unit is equipped with aluminium reflector profiles providing the best opportunity to optimise reflected UV energy. Optionally URS® reflectors can be specified to reduce the impact of infrared energy on the substrate.
- Lamps and reflector profiles are air-cooled.
- Lamps are equipped with a fast lamp change system (FLC®).
- Interchangeable UV lamps incorporating different spectra and doping (Gallium, iron, lead) ensure optimum flexibility for UV energy output.
- A single LED unit or a combination of lamp and LED is possible
- Standard wavelength is 385 nm. Alternative wavelength are possible on request.

### Switch and control unit

- 3 step-switching arrangement (50, 75 and 100%) is supplied as standard on all IST UV laboratory units. As an additional option, IST can supply stepless lamp control (SLC) regulation, which adjusts the lamp output steplessly from approx. 50 to 100%.
- The electrical components are incorporated into the conveyor unit frame.

### Conveyor unit

- The conveyor belt normally comprises a high-quality teflon tissue.
- The speed of the conveyor belt is steplessly adjustable.
- The conveyor belt is fitted with rollers to ensure smooth transportation of the material being cured.

### Additional options:

- The unit is equipped for UV curing in oxygen-reduced conditions. Water-cooling (undershielding) and enclosed conveyor belt are required for this.
- Lamp length 400 mm, the maximum working width is 350 mm.
- Direct-drive pneumatic turning cylinder (rotating reflector)
- PLC-control
- Web speed control via programmable memory units

### You specify your requirements – we supply the solution

Depending on the specific parameters of our clients, IST designs and supplies bespoke laboratory units.



Laboratory unit, lamp length 400 mm

### And for complete control:

IST has developed a mobile measuring instrument **UMD-2** for accurate measurement of UV energy in the same position that the cure takes place. The UMD-2 is positioned on the conveyor belt and the measuring data can therefore be determined after the unit has passed under the UV lamp. The UMD-2 is just one of a range of UV measuring systems developed by IST. Please ask for more information if required.



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