The reliability of a UV unit depends considerably on the quality of the installed UV lamps. To guarantee a high quality standard, IST Metz founded eta plus electronic gmbh & co in 1988 which is responsible for the in-house manufacturing of all IST UV lamps.

Developed for diverse applications with adapted emission spectra, the UV lamps are manufactured for the industrial application of UV units for the efficient curing of UV inks, varnishes and adhesives on substrates including wood, paper, plastic, metal and glass.

The product range comprises UV lamps with lengths of 100 to 2300 mm and with outputs of 40 W/cm to 270 W/cm depending upon length.

QUALITY CONTROL
After the manufacturing process is complete, the UV-lamps are subject to a strict quality test. Electrical parameters including operating voltage and current, specific energy output and UV radiation intensity are determined, evaluated and compared with nominal values. Each individual UV lamp is rigorously tested and certified.

In a practical test, the lifetime of three UV lamps was compared to each other.

With 4,200 service hours, the output of the UV lamp supplied IST Metz considerably exceeded the output of both competitive lamps.

The strict quality control is more than worth-while and provides a constant UV lamp output.

MARKING OF THE UV LAMPS

<table>
<thead>
<tr>
<th>Lamp Code</th>
<th>Maximum Lamp Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST I</td>
<td>120 W/cm</td>
</tr>
<tr>
<td>IST II</td>
<td>160 W/cm</td>
</tr>
<tr>
<td>IST III</td>
<td>200 W/cm</td>
</tr>
<tr>
<td>IST IV</td>
<td>240 W/cm</td>
</tr>
<tr>
<td>IST V</td>
<td>270 W/cm</td>
</tr>
</tbody>
</table>

Standard lamp without doping
Gallium-indium-doped lamp
Iron-doped lamp
Lead-doped lamp
FOUR DIFFERENT SPECTRA ARE AVAILABLE:

STANDARD SPECTRUM
A mercury vapour lamp with an especially high emission in the UV-C range providing a quick and complete cure of pigmented UV inks and clear UV varnishes.

TYPE B SPECTRUM
A metal halide, iron-doped lamp that is especially efficient and deeply penetrating in the UV-A and UV-B range. Ideal for penetrative curing of thick-layered inks.

TYPE A SPECTRUM
A metal halide, gallium-indium-doped lamp with an especially high emission in the longer wave spectral range providing a penetrative cure for thick layered and pigmented varnishes.

TYPE C SPECTRUM
A metal halide, lead-doped lamp. Because of its high UV-A emission, it is preferably used for white-pigmented varnishes and thick-layered, versatile clear UV lacquers.