



IST UV-Technology and application

IST UV技术和应用

more³

Julio, IST China

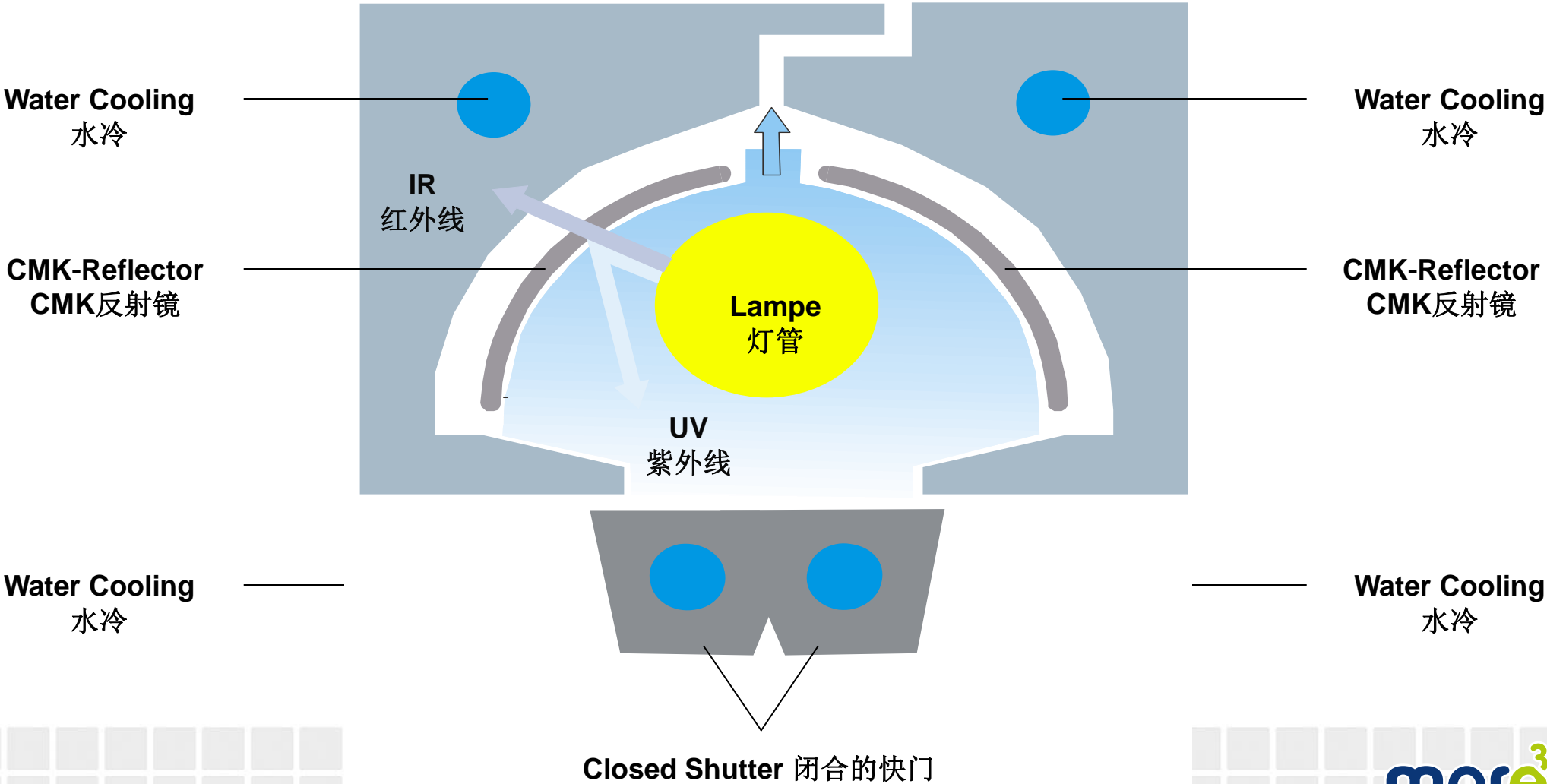
Quality factors of a UV unit 决定UV系统质量的因素

High performance UV coating lines only work as efficient if an equally efficient UV curing system is also installed.

只有配合真正高效的UV系统，才能使您的喷涂线也同样高效。

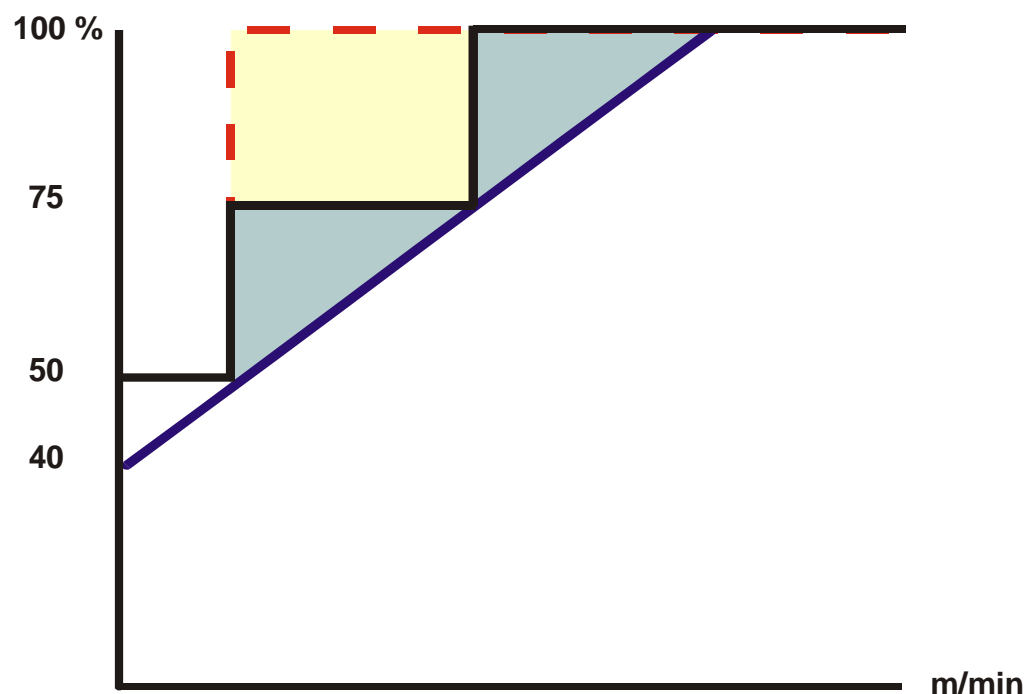
It is very important that all installed systems work in perfect harmony
能与整个系统和谐运用的系统才是好系统！

- **UV Lamp, Power supply device, Power control**
- **UV灯，电源系统，电源控制器**
- **Reflector**
- **反光镜**
- **Heat management**
- **热量管理**
- **UV-Measurement**
- **UV测量**
- **Integration into the coating line**
- **整合入喷涂线**
- **User and maintenance friendly systems**
- **对使用者和日常保养都友好的系统**



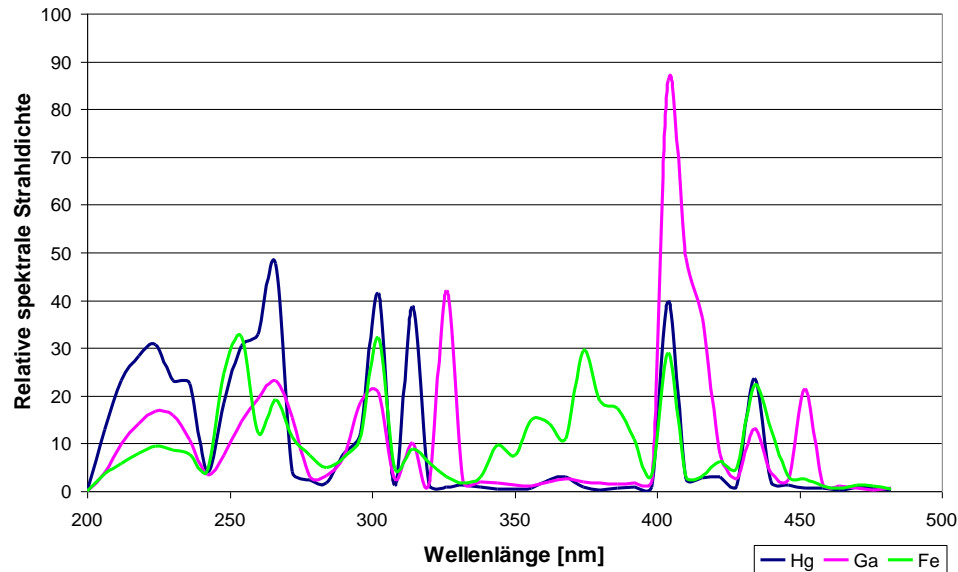
SLC Power Control

SLC电源控制



- Step switching 步进式开关
50/75/100
- Full load 满载/ half load 半载
50/100
- Stepless lamp control 无级灯控
SLC

- **Benefit SLC: SLC优点:**
The energy required at the moment can be adapted to the production speed.
根据生产速度决定所需能量



UV Lamp

- in-house development and production
- 室内研发和生产
- adapted emission spectrum (mercury, gallium, iron, lead)
- 可以选择性采用发射光谱（汞灯，钾灯，铁灯）
- Lamp length: up to 2300 mm,
- 灯管最长达2.3米
- power level: up to 32 KW
- 灯能量可达32KW
- FLC[®] – Fast lamp change
- 迅速灯泡更换

Fast Lamp Change FLC®

Quick and easy lamp changes with the FLC® system

Removal of the UV lamp

The lamp is easily lifted out of the housing and removed from the unit using a simple handle.



No additional tools are necessary, as there are no screws to remove or cables to disconnect.

Inserting the new lamp

The new lamp is simply placed in the lamp housing. The lamp locks into place automatically when lightly pressed into the lamp socket.



The lamp unit is now ready for use and can be inserted back into the machine.



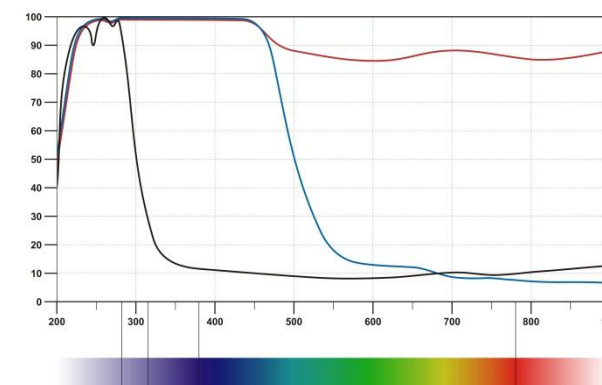
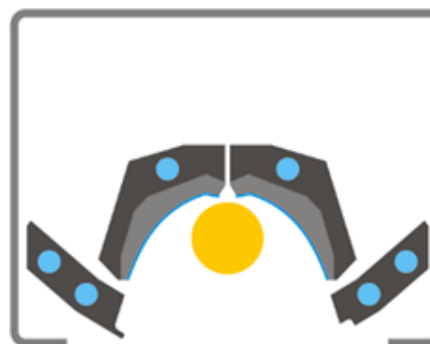
Electronic Power Supply ELC[®]

- **compensation of variations in the network voltage**
- 弥补供电系统的不稳定供电电压
- **Large dimming range 30-100%**
- 功率调节范围 30-100%
- **Longer UV lamp life**
- 更长的UV灯泡使用寿命
- ...

URS[®] Reflector Technology

- **Optimum reflector geometry.** 优化的反光镜几何界面设计
- **Specific coatings (URS[®], URS[®]-A, URS[®]-C)** to meet the requirements of the applications
- 特定涂层(URS[®], URS[®]-A, URS[®]-C) 可满足不同应用需求
- **Selective, controlled heat management via a special absorption layer**通过特殊光学涂层，可选择热反射镜或冷反射镜
- **Easy to use, solid construction**使用方便，坚固
- **Easy cleaning of the reflector and the UV lamp**清洗方便

Inlay technology for perfect service access内层技术，完美的保养！





Mobile UV measuring

- UV measuring with portable measuring device UMS-2
- UV inspection measuring for the control of the lamp output during the production process

Benefits of UV Technology

■ VOC-reduction or VOC-avoidance. 减少或避免VOC

- The use of UV-curable inks and coatings is one alternative to reduce VOC-emissions and to fulfill environmental laws which will become more and more rigorous in future. 通过使用UV墨水和涂层，减少VOC排放并满足环保法的要求，这在不久的将来会成为一种趋势。
- No EX-protection necessary for curing systems and stock areas. 不再需要多固化系统和存储区域提供额外的保护。

■ Economy: 经济效益

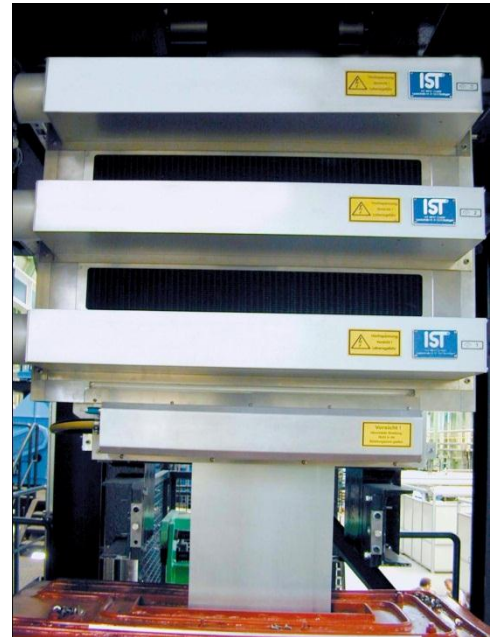
- Fast resp. immediate curing and therefore high production speeds and compact UV units. 快速反应，迅速固化，因此产能高，UV设备也紧凑。
- Low scrap rates (less parts in process by use of compact UV-units, low contamination) 低损伤率（由于UV设备紧凑，加工过程中的部件减少，污染更少）
- Recycling of unused inks and coatings possible (for mono-cure-systems) 未使用的墨水可循环再涂层（对单固化系统）
- Low energy costs. 能耗少



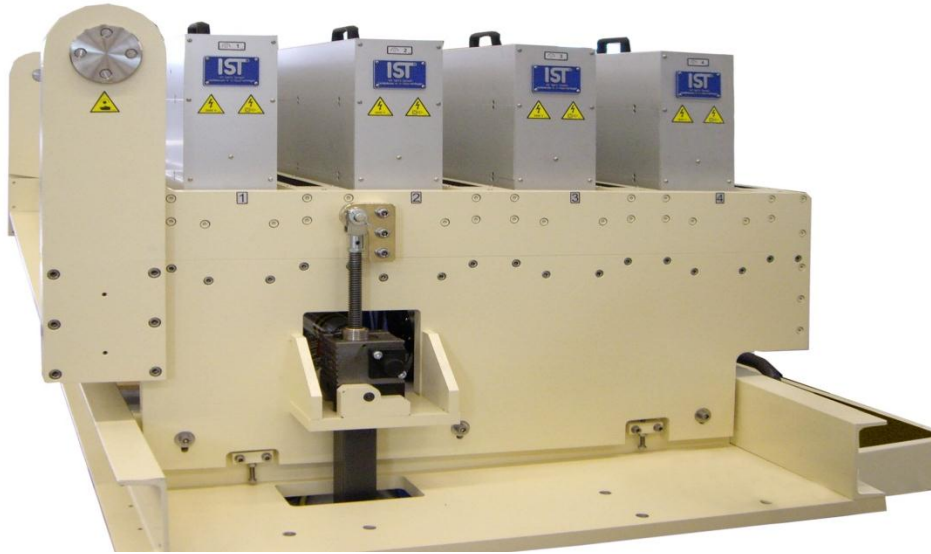
Benefits of UV Technology

UV技术的好处

- **Low surface temperature increase during curing.**
- 固化过程中表面温度很低
 - **Process qualified for temperature sensitive materials (after acceptance test)** 可针对对温度敏感的材料（已经经过测试）
 - **No cooling down zones needed and therefore energy savings.**
 - 无需对部件进行冷却，因此能量很省。
- **Can be processed at once, e.g. sanding and stacking.**
- UV工艺后可立即进行表面打磨和堆垛。
- **Production of scratch-resistant coatings, which are at the same time chemically and mechanically resistant.**
- 大量生产表面抗刮伤涂层，从化学和物理两方面进行表面保护



Varnish curing on „webs“



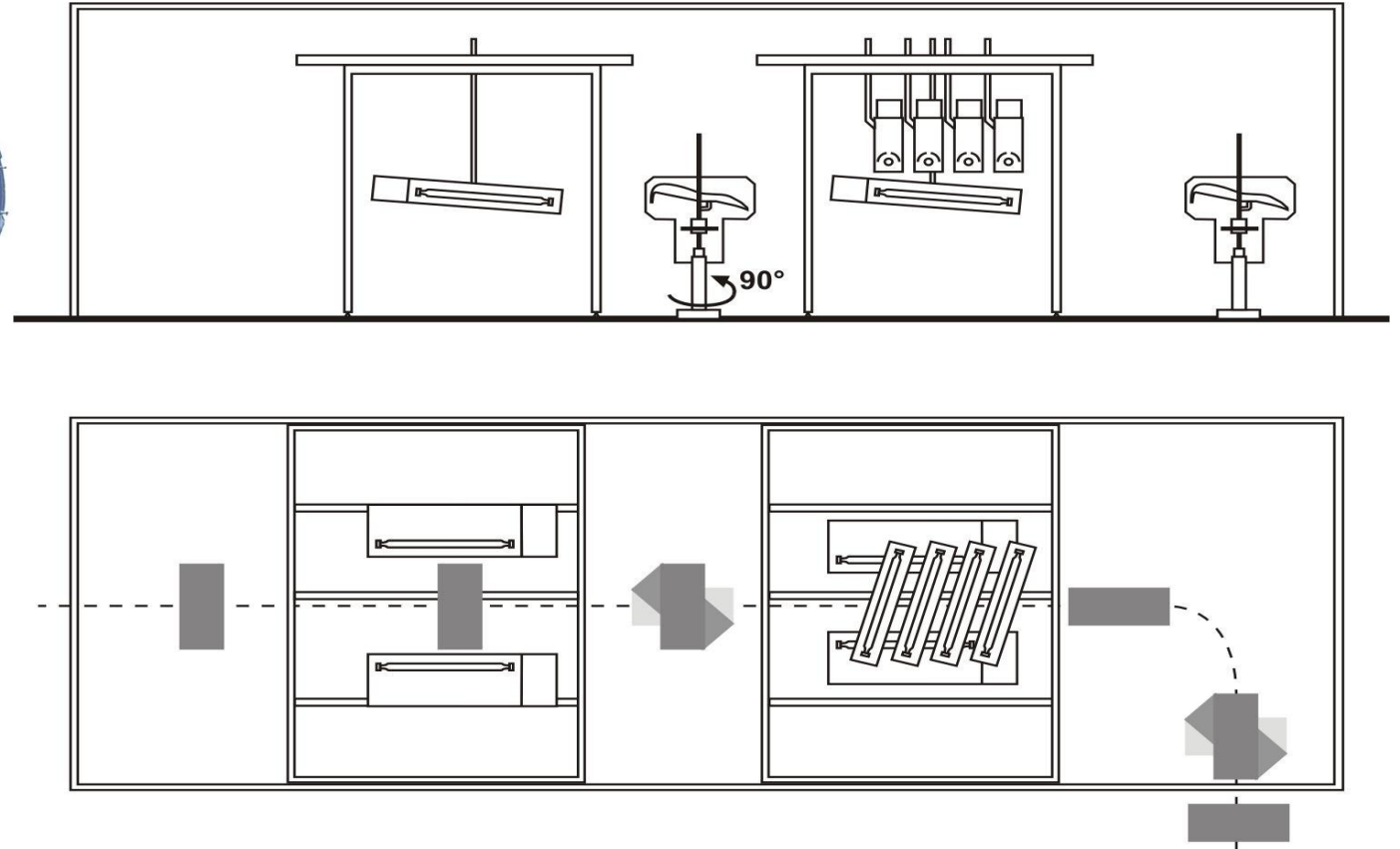
Varnish curing on headlamp lenses

车灯透镜上的清漆涂层



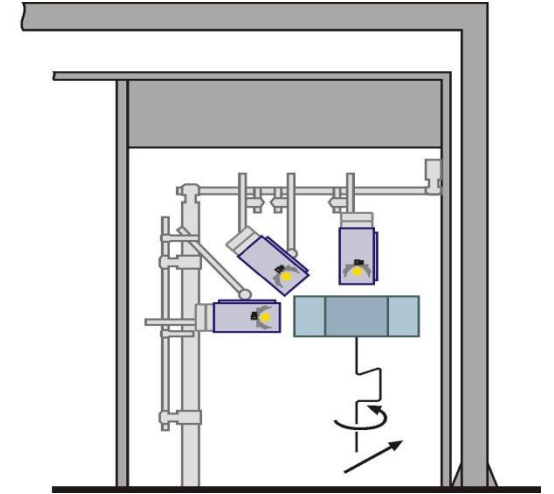
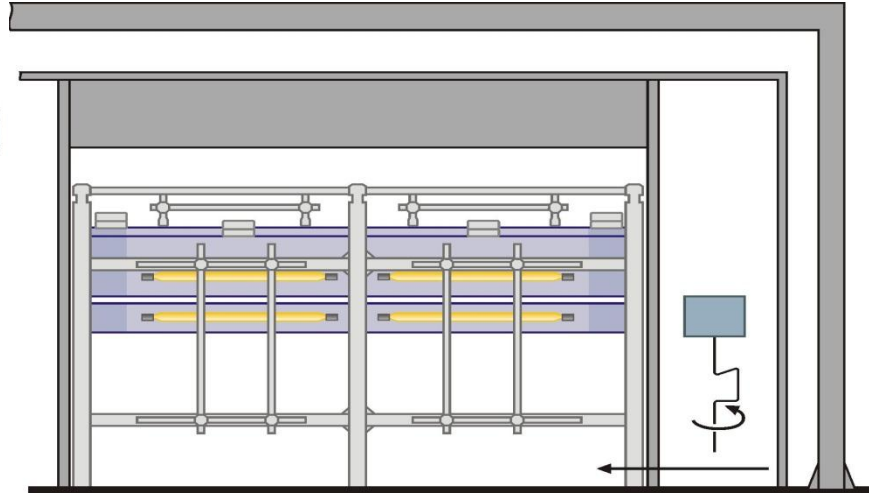
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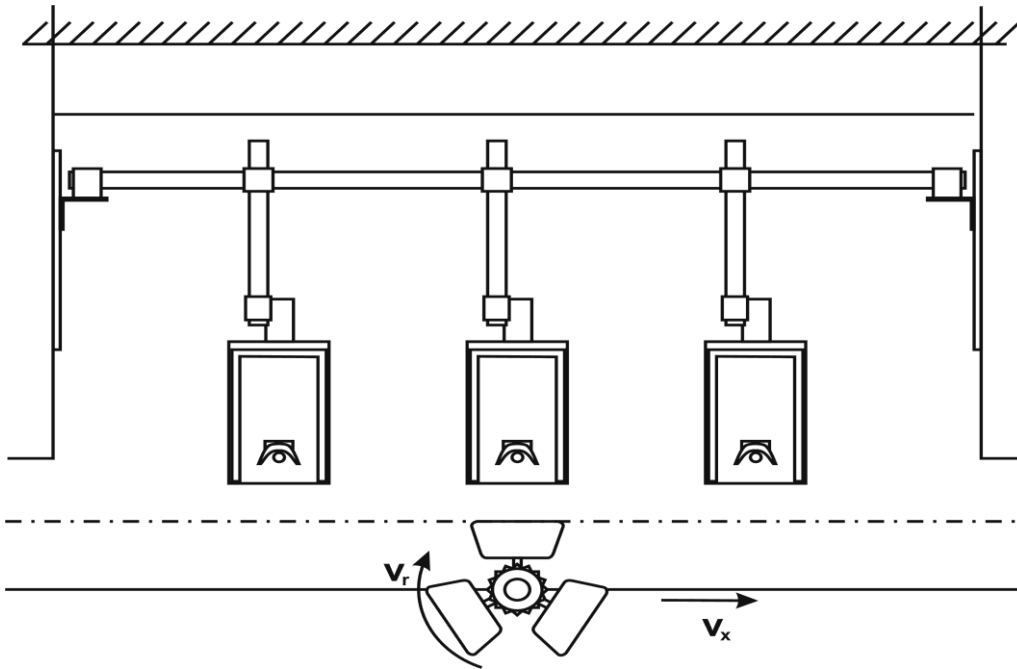
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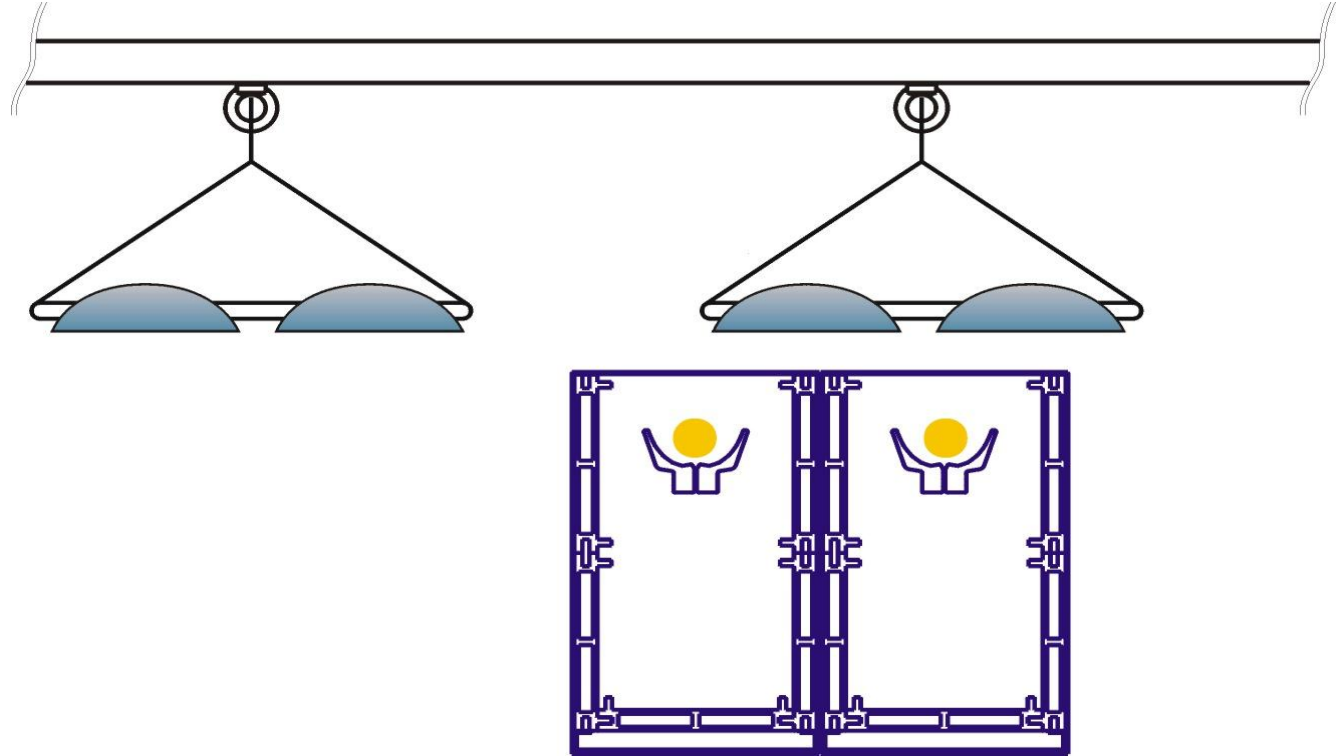
Varnish curing on reflectors

反射镜上的清漆固化



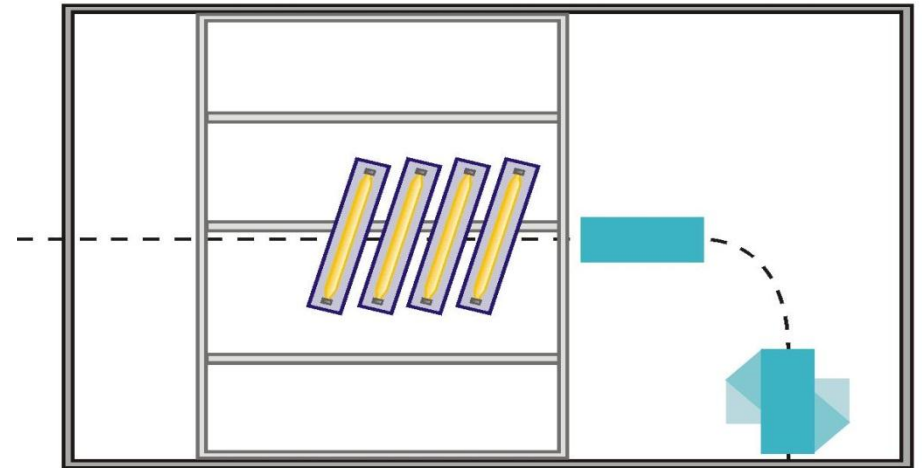
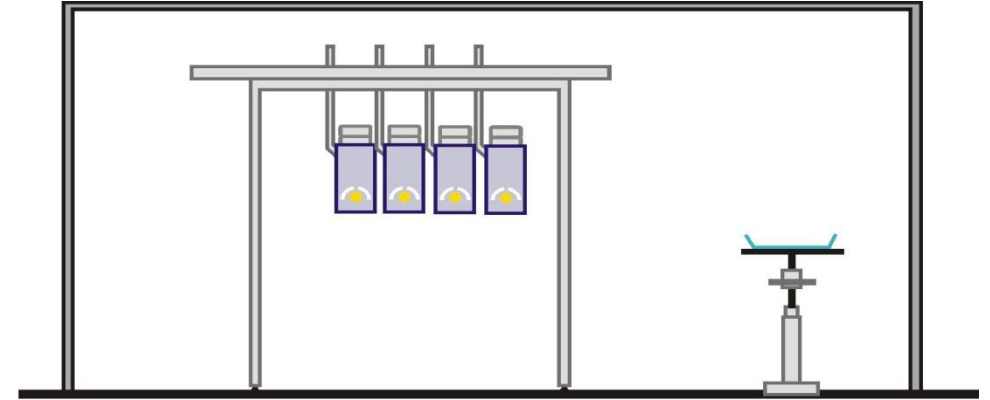
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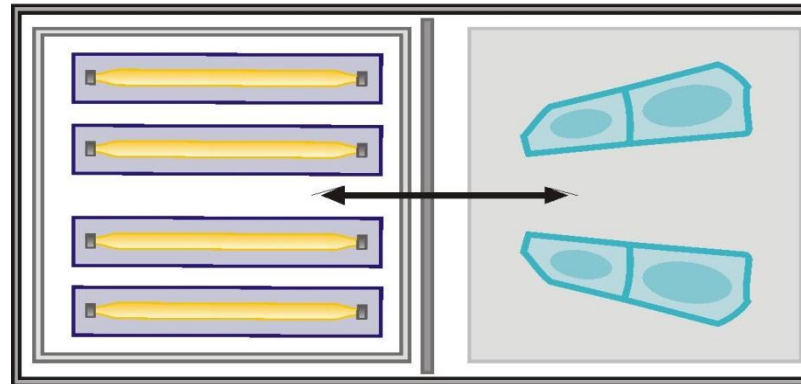
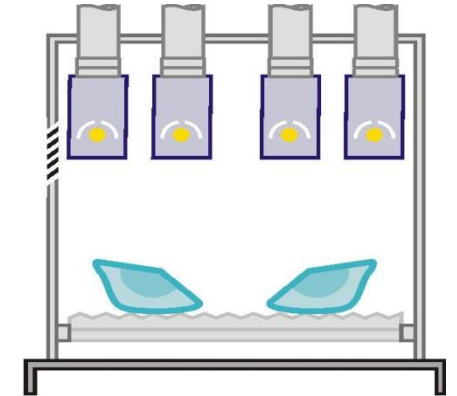
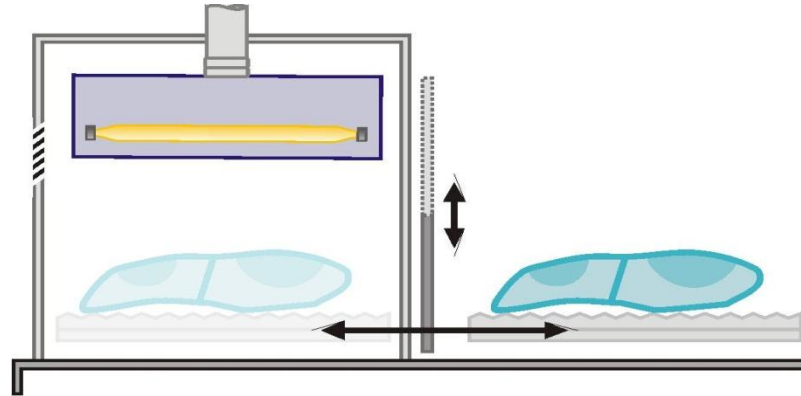
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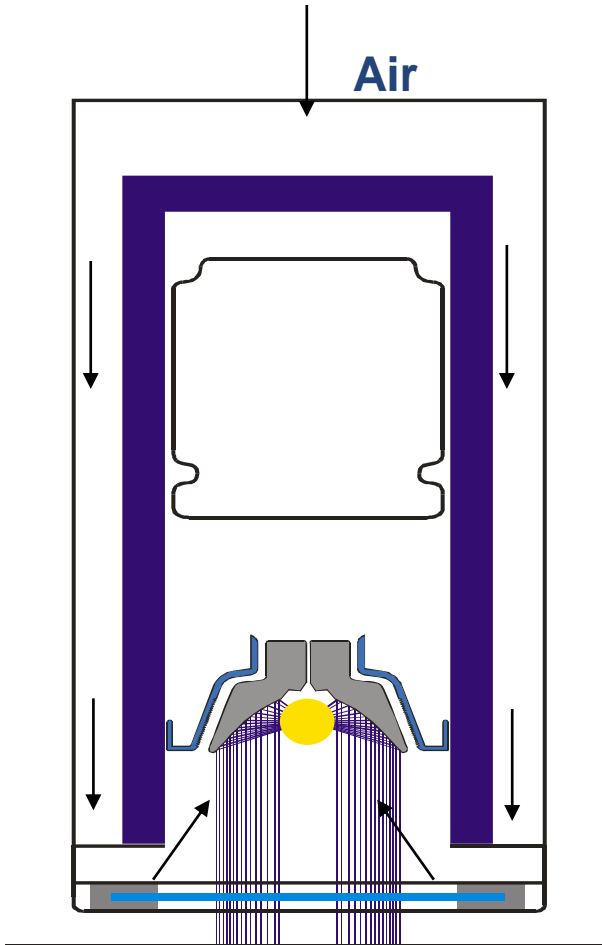


Varnish curing on reflectors

反射镜上的清漆固化



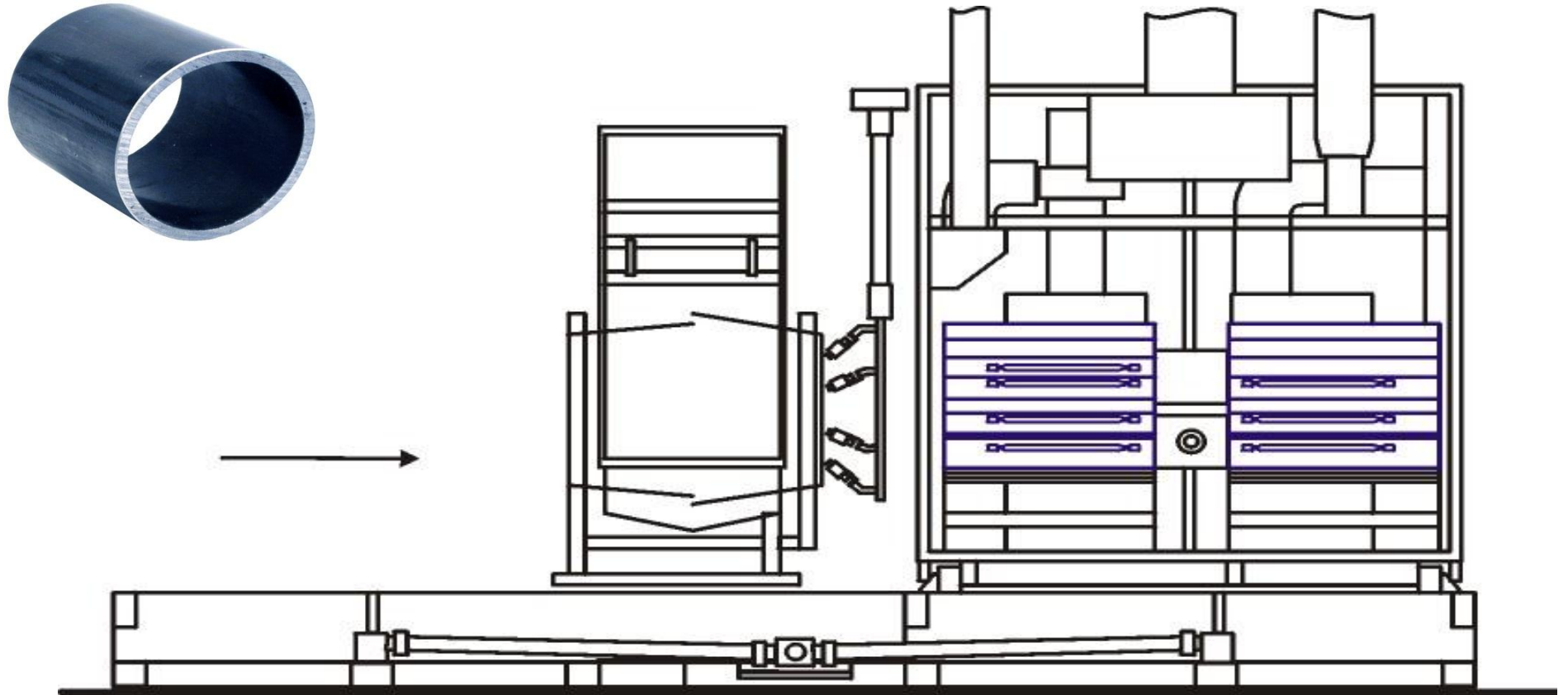
Double housing



- **Lamp module: closed with quartz glass plate in order to form an own air circuit**
灯头模组：为形成自身的空气循环，配有封闭式石英玻璃
- **Cooling system: air-cooled** 冷却系统：空冷
- **Supply air: purified, pressure- and temperature-controlled** 空气供应：纯净，压力与温度可调控
- **Exhaust air: automatic exhaust air control with motor flap** 排气：马达阀片式自动排气控制
- **Turning reflector: for stand-by switching and immediate production start** 反射镜：有备用开关，可随时立即生产。

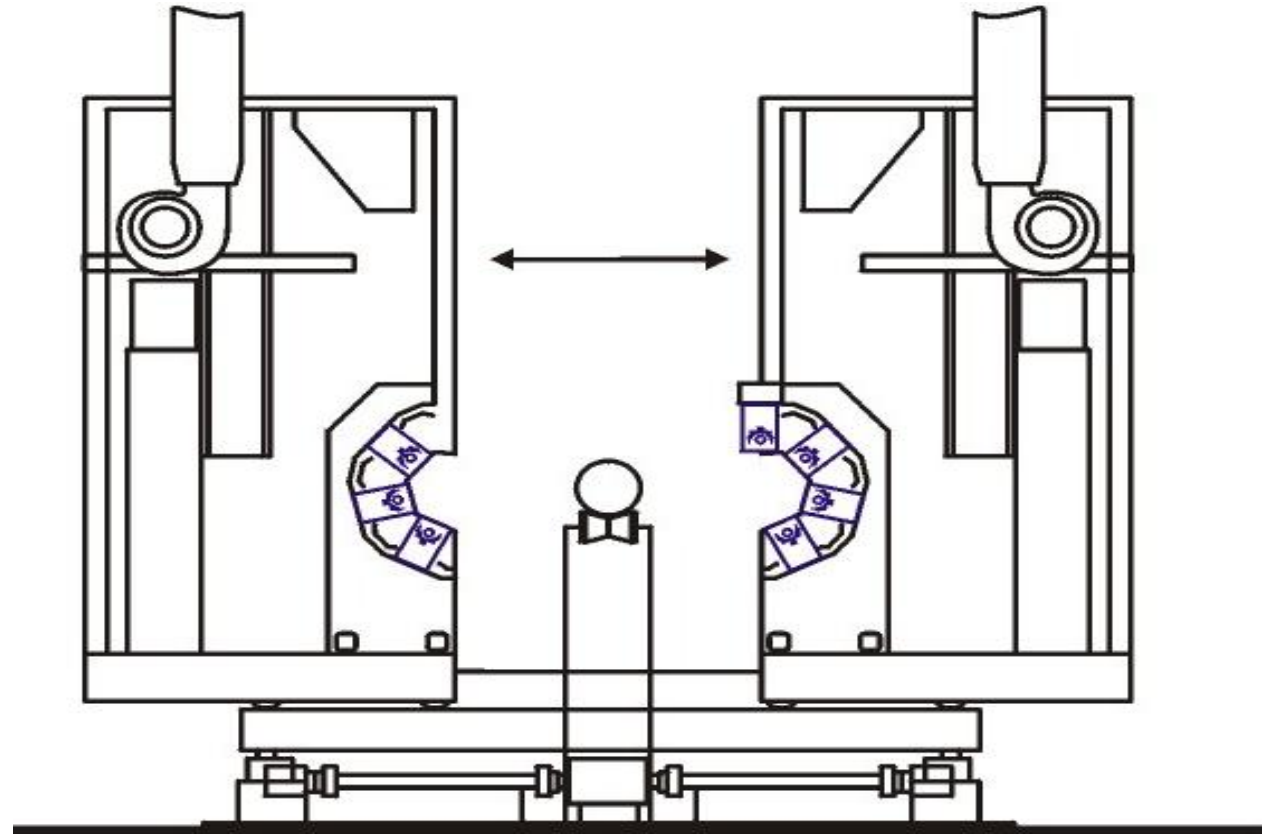
Varnish curing on steel pipes

无缝钢管上的清漆涂层



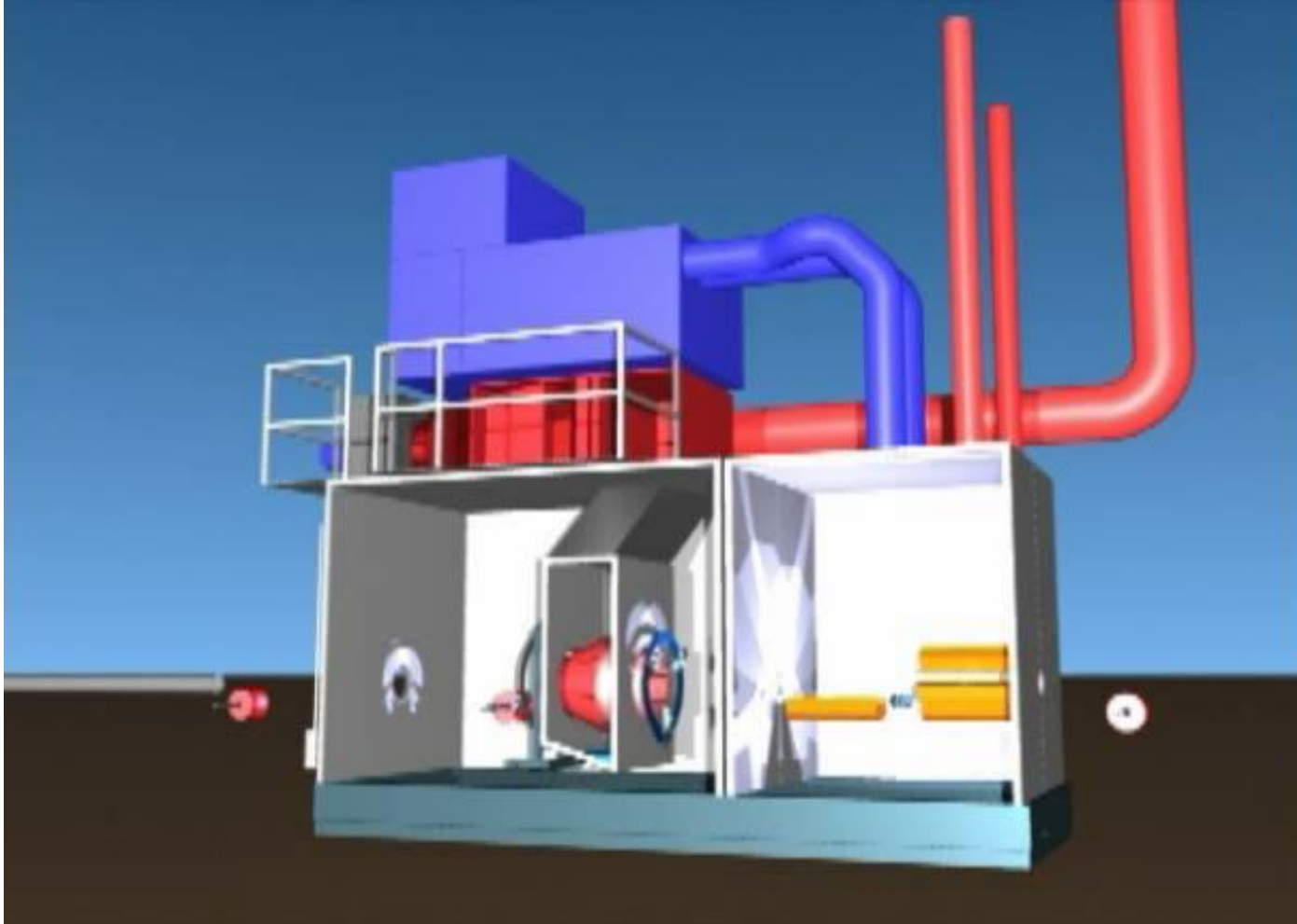
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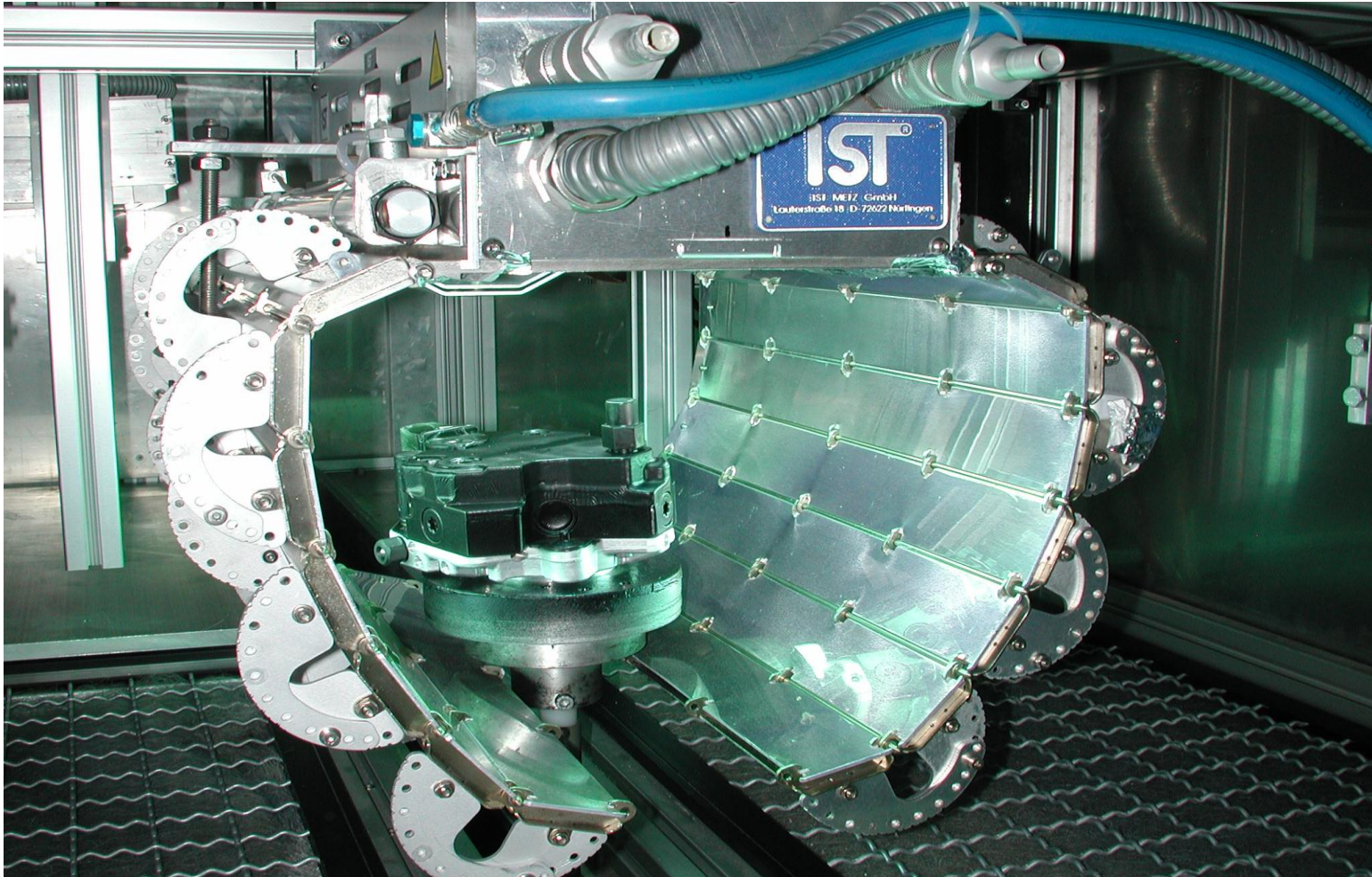
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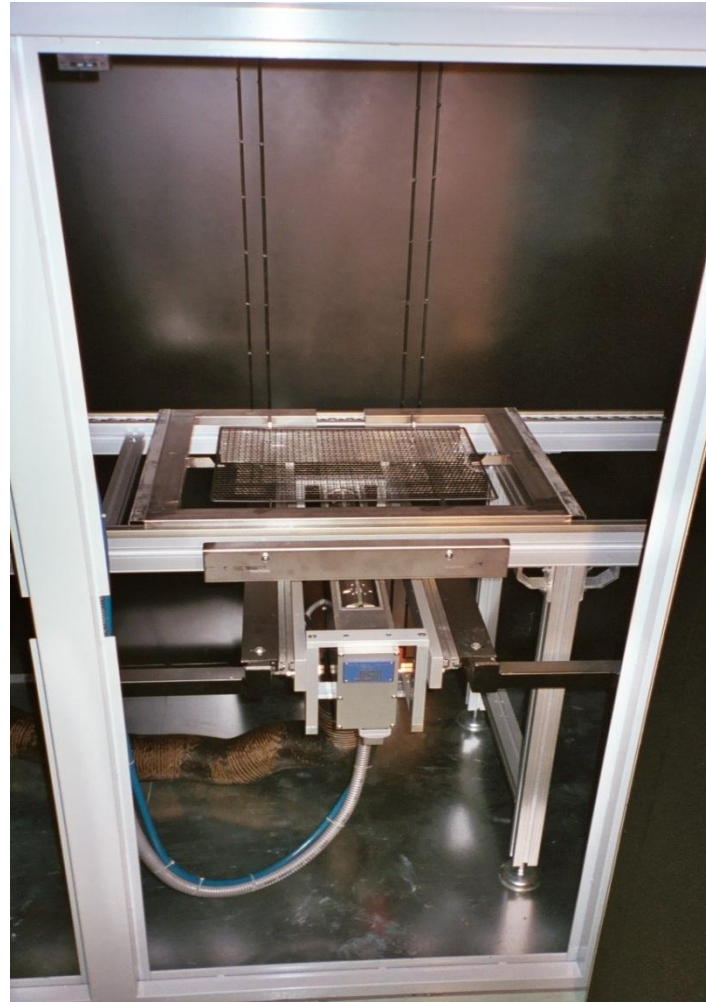
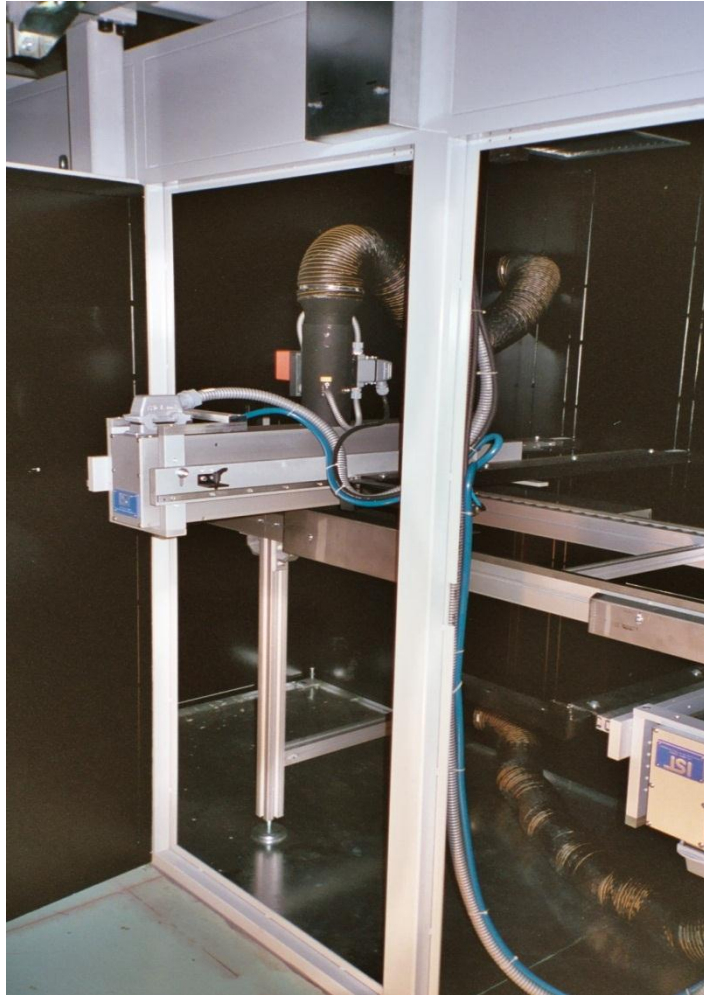
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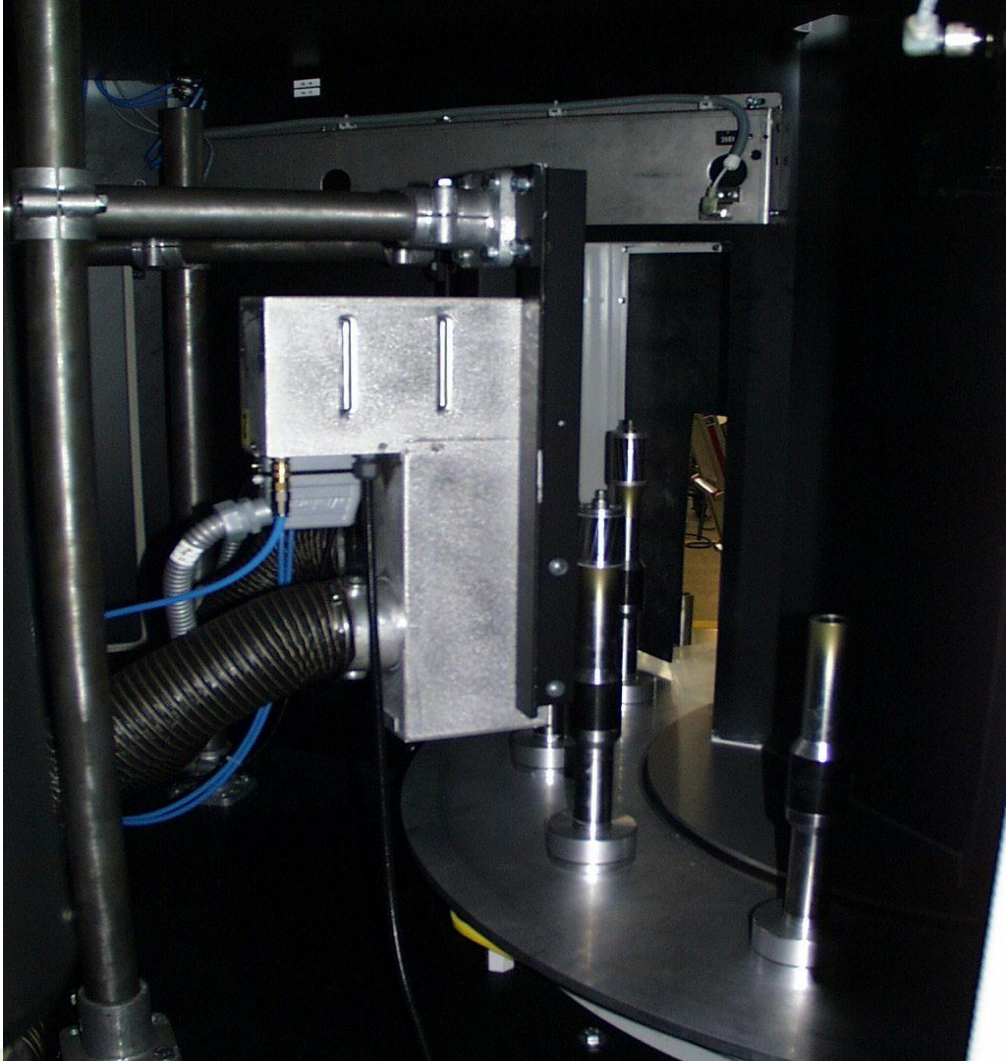


Coating of 3D parts
with only one UV-lamp

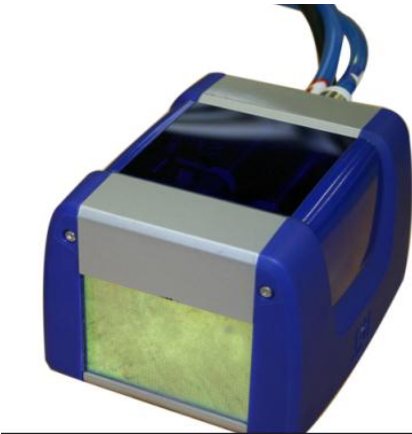
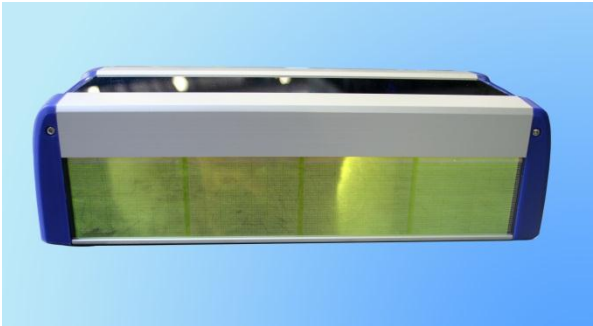
Varnish curing of automotive interior parts



UV on round table coating machine



Permanent rotation on
spindle in front of UV



THANKS

**Thanks
for your kind attention
感谢您的关注**