USHIO JetHead 4000
Curing with UV Radiation

Maximum curing of materials with minimum energy consumption:
Customized, flexible system to meet your demands
Where valuable milliseconds count

The optimal curing of materials such as paints is ensured by UV radiation. It is a fast process that guarantees a great value and high quality of the finished products. Moreover, inks which are cured by UV radiation are free of solvents. Thus, this technique significantly reduces environmental pollution and protects the workers’ health.

In production not only time is money, but the economics of the entire process as a whole. That’s what makes efficient and energy-saving technologies so convincing. Through the use of energy-saving UV radiation for curing rather than infrared technology USHIO has taken a large leap forward: with the USHIO JetHead 4000.

Innovative UV drying for perfect product quality

With the idea and construction of the USHIO JetHead 4000, USHIO has created a new way to broaden the possibilities and advantages of drying and thereby the curing of materials.

Whether for conventional films, tubs and tubes or custom forms and special components, the system is suitable for the most demanding requirements. For the curing of inks, coatings and adhesives which are applied to paper, cardboard, plastic, metal, glass or wood, the USHIO JetHead 4000 achieves the best results.
Whether for industry, office automation, healthcare, or aerospace: USHIO is the world’s leading specialist in professional and innovative lighting technologies everywhere. You will find our lamps in almost every film projector, and USHIO bulbs are installed in over 90% of all photocopiers worldwide. Through intelligent solutions and customized products for lighting and spectral solutions we have also become the international market leader in semiconductors for biotechnology and specific medical fields. USHIO has over 5,700 employees and an annual turnover of around 1.5 billion euros. Not only is USHIO 9001 certified for production processes and quality management system but our ISO 14001 certification identifies us as a sustainable and climate-friendly company.

Through intensive research and the pursuit of innovation, we are constantly expanding the possibilities to make our world better across the spectrum. Since its foundation in 1964, USHIO has been more than just a supplier of lamps.

From sophisticated total solutions, to smart holistic functional applications, we produce both standard and customised solutions based on our clients needs.
In-house invention, development and production of module

With the **USHIO JetHead 4000** the customized UV tunnel is not the only unique item invented and developed by USHIO. Each individual component: the UV lamp, lamp housing, special reflectors, in fact everything from the cooling and control technology to the conveyor system are manufactured directly by USHIO. All modules are precisely matched to each other and configured so that they can be easily integrated into your production process.

**Efficient irradiation through innovative architecture**

Two important features are absolutely new to the **USHIO JetHead 4000**: first, the vertical mounting of the lamps and the second: irradiation of objects without rotation, via a constant transport speed. Thus innovation translates into productivity. That means 100% seamless integration in the production flow with 0% delay.

**Optimal thermal conditions**

The new process technology optimized design has additional advantages: the length and width of the UV tunnels are so small that only two UV lamps are used in curing. This saves both power and costs, while reducing the thermal load of the irradiated objects. This is of particularly great importance for the UV irradiation of plastic parts.

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**The hard facts:**

- Geometrically optimized, compact UV tunnel
- Thermo-intelligent use of only 2 UV lamps
- Easy integration into production
- Immediate processing
- Extremely short curing time
- Excellent quality of dried materials
- Significantly minimized energy costs
- Belt speeds of 4 m/min to 20 m/min
Gentle treatment due to reduced thermal load

The proprietary radiation head of the USHIO JetHead 4000 offers yet another advantage: it is completely closed. This keeps the UV lamps and reflectors clean. The use of lamps that operate without ozone emission, keep the tunnel and its vicinity ozone free.

Simply practical: The USHIO JetHead 4000 is easy to service and maintain

Via its modular design, the UV drying system is completely practical. Should a UV lamp fail, the complete JetHead can be removed by hand from the tunnel with a few easy steps.

Faster still is the is replacement of an entire radiation head with a new one. The conveyor belt can also be replaced simply and quickly. In many UV tunnels this takes a whole day.

The advantages:

- Minimum susceptibility of the UV system
- Quick and easy replacement assembly on-site
- On-site module change
- Reduced downtime in production
Guaranteed with every UV lamp: Controlled Quality

Each UV system is only as good as its lamps. With the **USHIO JetHead 4000** you get UV lamps with top performance. USHIO, as the world’s leading expert on light and lamp technology has the highest quality and standards. All our UV lamps are developed and manufactured by USHIO.

Customized for different applications and with appropriate emission spectra for specific industrial applications; every UV lamp is tested and analysed against their nominal values: operating voltage, operating current, specific power and UV irradiance.

UV lamp: The UV radiation head is designed for optimal UV radiation efficiency and the long life of the UV lamps. Therefore every zone in the JetHead has its own ideal temperature profile.