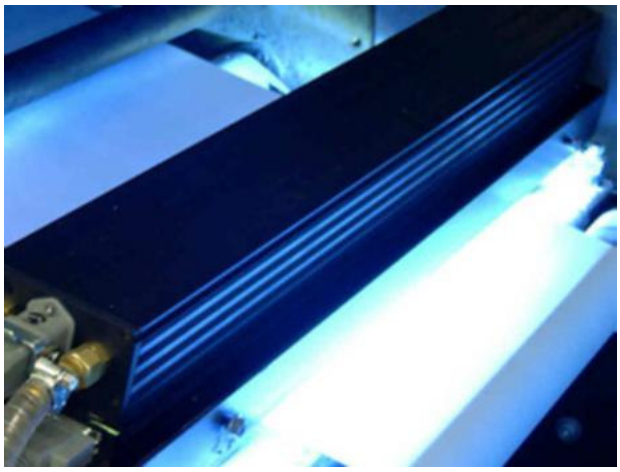
DATA SHEET: UV LAMP 140 W/CM



UV Features and benefits

- Can be installed on existing coating lines, presses, for in-line processing
- Improved productivity, reduced clean-up, no hardening in coating pan
- Higher line speeds, no viscosity changes, instant drying
- Less heat applied to substrate (e.g. thin films)
- Product immediately ready for testing, shipment
- High mechanical and chemical resistance of surfaces
- Little or no VOC emission (Volatile Organic Compounds)
- Space saving installations and potential for energy saving
- Reduced fire and explosion hazard (insurance)

DPL Features and benefits

- Ultimate cold UV light
- Very small dimensions
- Water cooled
- High output by focused UV-line
- Low cost on electricity
- Reflection by "cold mirrors"
- No noisy air cooling
- CE marked
- US Patent
- UL recognized

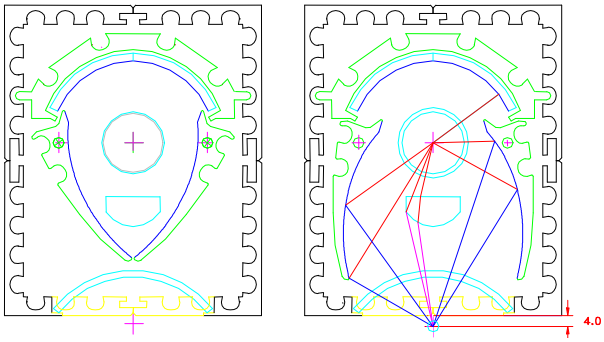
Accessories

- Water cooled chiller
- Stand by blower

Technical Specifications

- Curing width: 50 – 1700 mm (4 – 67")
- Lamp housing: 300 – 1998 mm
- UV power continuously: Up to 140 W/cm.
- UV pulsing power: Up to 240 W/cm
- Built in Dimensions w/o chiller unit (W*H): 95 x 116 mm
- Built in Dimensions with chiller unit (W*H): 127 x 136 mm

PAT & US PAT: 5,945,680



Size	DPL#	Price in Euro
100mm	10049	3793,00
265mm	10041	5137,00
340mm	10043	5703,00
420mm	10044	6540,00
535mm	10046	7416,00

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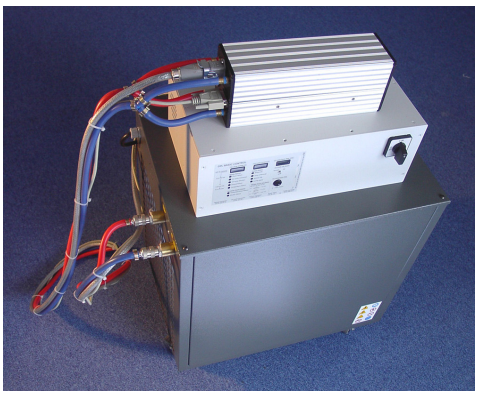
"Plug & Play"

DPL
Danish Process Light

UV System for Bottle, Tube, and Cap printing

UV Lamp Series



Bottle I UV System

DPL Industri A/S is a 100% Danish owned company. Throughout the last 10 years we have produced UV Systems for the Graphical Industry. In this period DPL Industri has delivered more than 3000 UV Lamp systems for printing machines. For example for Screen, Offset, Flexo, and Inkjet printing machines as well as Varnish stations.

DPL Industri now introduces ”Bottle I”, which is a ”Plug & Play” UV System, developed specific for Bottle, Tube, and Cap printing machines as well as Varnish, and Screen printing machines. The new UV System can be installed in very few minutes, and is specific developed for small printing machines of which design, size and high power is important.

The UV System has a compact design and can be installed on both new and old printing machines. Bottle I has an extreme low cost on electricity because the pulse/pause conditions of the printing machines are used for direct control of the cooling capacity.

Despite the small dimensions, the system has a high output and good curing capacity, due to the focused UV Light of the lamp, and UV Power up to 240W/cm. Particular at Bottle, Tube, and Cap printing the focused light is very important and results in most possible UV Power. Without the focused light, a lot of power is wasted, because most of the light will pass by the object to be printed.

The UV Lamp uses reflection by ”Cold mirrors”, which leads the heat of the light source to the water cooling system of the lamp. On the other hand the UV Light will be reflected and focused for the object to be printed, as ”Cold UV Light”. Consequently, it is possible to print on very heat sensitive materials such as plastic foils, credit cards etc.

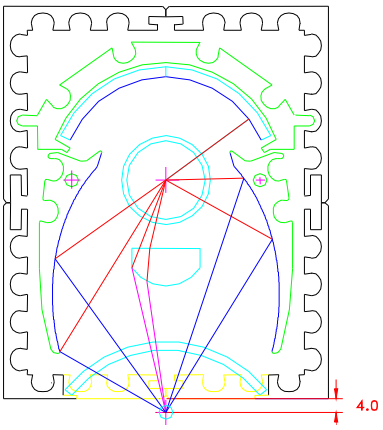
The system requires no exhaustion, compressed air or ventilation, due to the closed construction of the UV Lamp, which prevents new formation of ozone. These are big expenses, which is overlooked by many people when installing a conventional UV System.

The Bottle I system mainly consists of 3 components:

1. UV Lamp with curing width from 100mm to 535mm.
2. Basic Power Control with integrated 6kW ballast.
3. Cooling machine for water cooling of the UV Lamp

The Plug & Play system is delivered assembled and ready to run. Hoses and cables are mounted in lengths of 2 metres.

The Basic Power Control, which is built into a cabinet with the ballast, controls the curing with step less power control from 10-100% either with manual switch or automatic tacho input. The cooling machine is also run by the Basic Power Control, which prevents the formation of condensed water in the UV Lamp and ensures the necessary cooling after use (12 min. cooling). Operation of the equipment is very simple and no education of the personnel is required. Operations- and Maintenance manual will follow the UV System.



UV Lamp in cross-section

2 and 3kW ballast and control unit

Questions frequently asked:

- How do you get a sharp and clear print?
- How do you get a hardwearing print?
- How do you get a very quick curing?
- How do you get an environment-friendly product?
- How do you get a high chemical resistance of surfaces?
- How to avoid large IR tunnels with high power consumption?

Answer: Use UV Ink and UV Curing!

Formerly UV Ink for Bottle, Tube, and Cap printing have caused problems, but in recent years, efforts from the suppliers of the UV Ink, now makes it possible to print on most materials and to get improvements regarding the questions quoted above.

Printing options:

Tests have been carried out in cooperation with the leading European manufacturers of Bottle, and Cap printing machines and DPL Industri have obtained experience with printing on various materials. DPL Industri have made tests on difficult materials such as PP, PE, PC, AB and all with success.

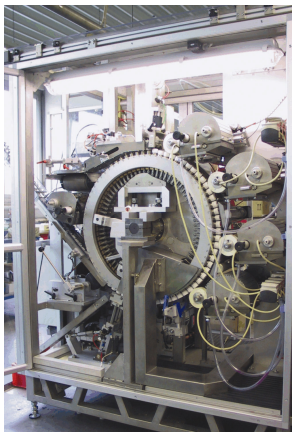
During the cooperation's, we have found out many interesting options of printing:

- Bottles of plastic
- Bottles of glass
- Car windows
- Bins and buckets for paint
- Caps for bottles
- Tools
- Labels

Tampoflex Caps Machine

Bottle I – Features and benefits:

- Plug & Play UV System
- Very compact design
- Very cold UV Curing system
- Ozone free – no exhaustion needed
- 100% water cooled mirrors
- Focused UV Light up to 240W/cm
- Integrated Power Control unit
- Step less power control 10-100%



Bottle I system – Accessories:

- Tunnels to lift the lamp and protect against unwanted UV
- Electronic Water Flow Sensor
- Variable cable and hose lengths
- Variable curing width from 100-535 mm
- Various cooling machines available
- Surveillance of UV Lamp voltage and current
- Step less tacho controlled curing

System Price List:

	Size	DPL#	Price in Euro	Your system
Lamp houses 	100mm	10049	3793,00	
	265mm	10041	5137,00	
	340mm	10043	5703,00	
	420mm	10044	6540,00	
	535mm	10046	7416,00	
Ballast and control unit 	2kW	50853	2905,00	
	3kW	50855	3017,00	
	6kW	50856	3167,00	
	12kW	50854	6604,00	
Cooling machine 	1,1kW	10311	3225,00	
	2,6kW	10309	4192,00	
	3,6kW	10307	5825,00	
	5,6kW	10305	7391,00	
	7,9kW	10304	8391,00	
	12,9kW	10303	9175,00	
Cable set			From 125,00	

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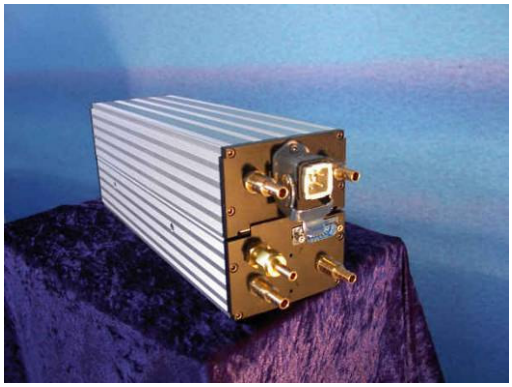
"Plug & Play"

DPL
Danish Process Light

UV System for Ink-Jet-, Pad-, and Screen printing



UV Lamp

Ink-Jet 50/265 UV System

DPL Industri A/S is a 100% Danish owned company. Throughout the last 10 years we have produced UV Systems for the Graphical Industry. In this period DPL Industri has delivered more than 3000 UV Lamp systems for printing machines. For example for Screen, Offset, Flexo, and Inkjet printing machines as well as Varnish stations.

DPL Industri now introduces "Ink-Jet 50/265", which is a "Plug & Play" UV System, developed specific for Ink-Jet, Pad, and Screen printing machines. The new UV System can be installed in very few minutes, and is specific developed for small printing machines of which design and size is important.

The UV System has very small dimensions, and can be installed on both new and old printing machines. Ink-Jet 50/265 has an extreme low cost on electricity because the pulse/pause conditions of the printing machines are used for direct control of the cooling capacity.
The total power of the system is under 3000 Watt, and it can be connected to a normal 230V socket.

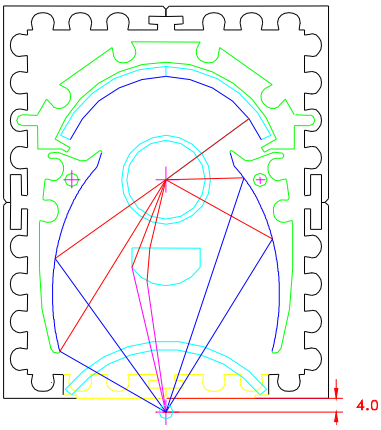
Despite the small dimensions, the system has a high output and good curing capacity, due to the focused UV Light of the lamp, and UV Power up to 190W/cm. Particular at Ink-Jet and Screen printing the focused light is very important and results in most possible UV Power. Without the focused light, a lot of power is wasted, because most of the light will pass by the object to be printed.

The UV Lamp uses reflection by "Cold mirrors", which leads the heat of the light source to the water cooling system of the lamp. On the other hand the UV Light will be reflected and focused for the object to be printed, as "Cold UV Light". Consequently, it is possible to print on very heat sensitive materials such as plastic foils, credit cards etc.

The system requires no exhaustion, compressed air or ventilation, due to the closed construction of the UV Lamp, which prevents new formation of ozone. These are big expenses, which is overlooked by many people when installing a conventional UV System.

The Ink-Jet system mainly consists of 3 components: The UV Lamp with 50-265mm curing width, a water cooling machine, and a power supply with step less power control.
The system is delivered assembled and ready to run. Hoses and cables are mounted in lengths of 2 metres.

The Ink-Jet power control, can be built into the printing machine or stand alone on the cooling machine, controls the curing with step less power control from 10-100%. The cooling machine is also controlled by the Ink-Jet power Control, which prevents the formation of condensed water in the UV Lamp and ensures the necessary cooling after use (12 min. cooling). Operation of the equipment is very simple and no education of the personnel is required. Operations- and Maintenance manual will follow the UV System.



UV Lamp in cross section

Ink-Jet power control

Questions frequently asked:

- How do you get a sharp and clear print?
- How do you get a hardwearing print?
- How do you get a very quick curing?
- How do you get an environment-friendly product?
- How do you get a high chemical resistance of surfaces?
- How to avoid large IR tunnels?

Answer: Use UV Ink and UV Curing!

Formerly UV Ink for Pad printing have caused problems, but in recent years, efforts from the suppliers of the UV Ink, now makes it possible to use Pad printing on most materials and to get improvements regarding the questions quoted above.

For a long time, Screen and Bottle printing has used UV Ink, which gives the same advantages.

Printing options:

Tests have been carried out in cooperation with the leading European manufacturers of Pad printing machines and DPL Industri have obtained experience with Pad printing on various materials. DPL Industri have made tests on difficult materials such as PP, PE, PC, AB and all with success.

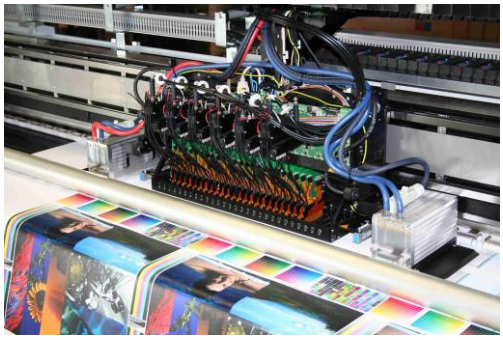
During the cooperation's, we have found out many interesting options of printing:

- Credit cards
- CD's
- Car windows
- Bottles
- Caps
- Sockets
- Drills

Ink-Jet 50/265 installed on a Teca pad printing machine

Ink-Jet 50/265 system – Features and benefits:

- Plug & Play UV System
- Very small dimensions
- Cold UV Curing system
- Ozone free – no exhaustion needed
- 100% water cooled mirrors
- Focused UV Light up to 190W/cm
- Integrated Cooling and Control unit
- Step less power control 10-100%



Ink-Jet Uv-lamp house without shutter on a Zünd Ink-Jet machine

Ink-Jet system – Accessories:

- Tunnels to lift the lamp and protect against unwanted UV
- Electronic Water Flow Sensor
- Variable cable and hose lengths
- Variable curing width from 50-265 mm
- Various cooling machines available
- Surveillance of UV Lamp voltage and current
- Conveyor with tunnel

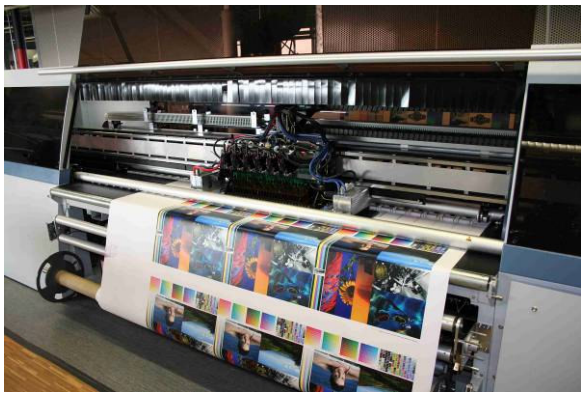
Prices for Ink-Jet 100mm uv system

1-24 pc	25 pc	50 pc	100 pc
€ 9.546,83	€ 8.876,01	€ 8.521,23	€ 8.276,95

Ink-Jet system – Technical Specifications:

Ex. Ink-Jet 100mm:

Main supply voltage:	196-249V~
Supply:	L1, N, PE
Main frequency:	50-60Hz
Main current:	11A
Inrush current:	35A (15ms)
Fuse:	13A
UV Lamp voltage:	100-335V RMS
UV Lamp current:	1.0-8A RMS
Output frequency:	10-30kHz
Ignition-voltage:	3.0 kVpp
Amb. temperature:	10-40°C
UV Lamp power:	Up to 190W/cm
Cooling machine:	Max. 1,1kW
UV Lamp housing:	95 x 116 x 300 mm
Cooling machine:	574 x 540 x 445 mm



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