

RYOBI[®]

LED-UV PRINTING SYSTEM

NEW GENERATION UV CURING SYSTEM



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OFFSE

LED-UV

LED-UV Printing System Continues to Evolve

UV printing allows printed sheets to be quick-cured by UV light immediately after printing, offering advantages including a shorter lead time, powderless printing, and printing on special media.

RYOBI was the first sheet-fed offset press manufacturer to commercially develop a next-generation energy-saving, environment-friendly LED-UV printing system.

Winning high praise among RYOBI customers, the system continues to evolve.

New versions of the LED-UV printing system have been added to the lineup to enable varnish coating, greatly expanding the range of value-added printing and providing powerful support for customers.



✓ LED-UV Printing System's Advantages

1

Shorter Lead Times

- With no need to wait for the printed sheets to dry, work can immediately move on to subsequent processes such as cutting and binding.
- No space is needed to store the printed sheets while they dry, enabling more effective use of printshop space.

2

Environment-friendly

- Powderless printing ensures a cleaner work environment.
- Recyclable, easily removable LED-UV ink is used.
- Lower energy consumption reduces CO₂ emissions.

3

Consistent Printing Quality

- No set-off; printed sheets can be stacked immediately after printing.
- No color changes due to dry-down.
- No problem with powder dropping onto printed sheets.

4

Compatible with Special Media

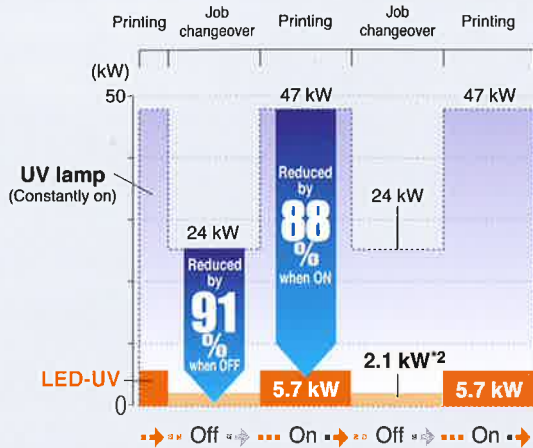
- Printing is possible on resin film, synthetic paper, metalized paper, and other types of special media.

LED-UV Printing System's Features

Greatly Reduced Power Consumption

The LED-UV printing system's power consumption is extremely low — only about 1/8th*¹ that of a conventional UV lamp system. Plus, the LED light source can be instantly switched on and off to suit the operating status, further reducing standby power consumption during job changeover.

■ Power Consumption Comparison (vs. a conventional UV lamp)*¹



*1: For the RYOBI 750G Series

*2: Chiller's power consumption

No Ozone Smell

There is no need to install deodorizing equipment or exhaust ducts; the LED-UV system can be used at printshops in congested urban areas.

No Infrared Light

- The LED produces no infrared light, so the curing unit generates much less heat.
- Printed sheets don't shrink due to heat; the LED-UV system is compatible with resin film and other media.

Long Life

Compared to the approximately 1,000 to 3,000 hour*¹ life of a conventional UV lamp system, the LED-UV system has a long life of approximately 15,000 hours, greatly reducing the frequency of replacement. And although a conventional UV lamp system must remain lit in standby mode during job changeover, further shortening its life, the LED-UV system can be completely turned off.



■ Comparison of the LED System and a Lamp System (For the standard type installed on the RYOBI 750G Series)

	LED-UV	UV lamp* ²
Power consumption	5.7kW	47 kW
Light source lifespan	Approx. 15,000 hr* ¹	Approx. 1,000 – 3,000 hr
Preparation time	Instant ON	Warm-up time: 1 min.
	Instant OFF	Cool-down time: 4 min.

*1: Lifespan will vary depending on the frequency a light source is switched on and off and other usage conditions, as well as on the equipment manufacturer.

*2: Using a dual-mercury lamp system in the delivery section UV curing unit of a RYOBI 750G Series press.

Mercury-free to Protect the Environment

A treaty on mercury reduction will soon be enacted in many countries and place strict limitations on the production, distribution, sale, and export of products using mercury. No mercury is used in the LED-UV irradiating system.

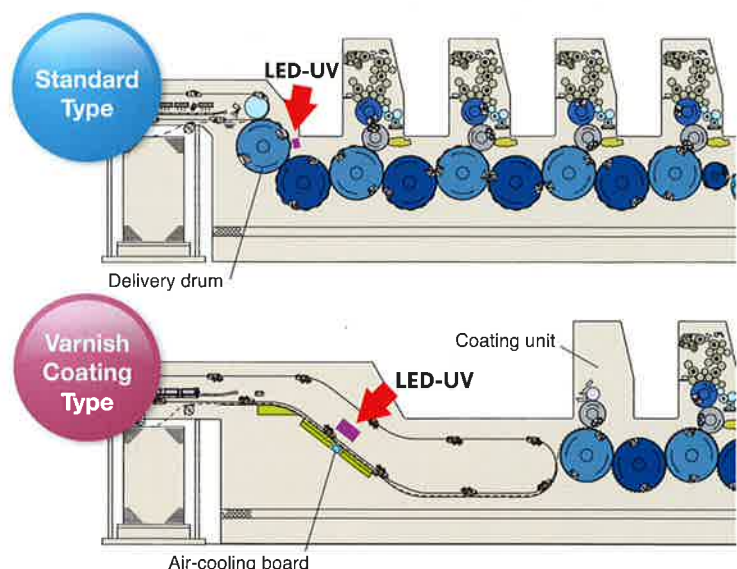
(Note: A global treaty on mercury reduction is currently being deliberated in the international community, with enactment anticipated in 2013.)

Different Curing Unit Variations Are Available for Different Applications.

The standard type curing unit is installed close to the printing media — such as above the delivery drum or perfecting drum — for full color printing, or farther from the printing media above the chain delivery section to provide high-power curing for varnish coating.

There is also a single-color/2-color printing type for use when printing one or two colors, and an inter-deck type that can be installed between printing units for pre-curing, such as for OP varnish or for white ink backing on film or metalized paper.*

* See page 4 for the various types of press and LED-UV curing unit combinations possible to suit the type of work being performed.



Examples of LED-UV Printing System Configurations

Type of use	Type of curing unit	Applicable Press Models				System Configuration
		RYOBI 525GX/525GE	RYOBI 750G Series	RYOBI 920 Series	RYOBI 1050 Series	
Curing for full-color printing	Standard type	●	●	●	●	<p>RYOBI 924</p>
Curing for 4-color straight printing and 2-color front side, 2-color back side perfecting	Standard type	—	●	●	—	<p>RYOBI 924P</p>
Curing for 4-color front side, 4-color back side perfecting	Standard type	—	●	●	—	<p>RYOBI 928P</p>
Curing for varnish coating (Curing for chemical embossed printing)	Varnish coating type	△*2	●	●	●*3	<p>RYOBI 755G</p>
Curing for single-color or 2-color printing	Single-color/2-color printing type	—	●	●	—	<p>RYOBI 922P</p>

*1: Single-color/2-color printing type

●: Available —: Not available

*2: Special order

*3: Models with a varnish coater can use a drying unit that allows mounting of a standard LED-UV curing unit.

*4: An inter-deck type for performing pre-curing can also be installed between printing units.

Please consult your RYOBI representative regarding other types of uses and for other information such as the detailed electrical specifications of the LED-UV curing unit.

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