Print something different

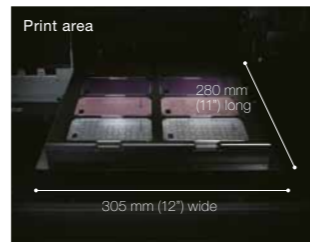## Printing on 3D objects paves the way for limitless applications in your business

Extending the realm of your printing from flat substrates to the third dimension. Roland's UV-LED inkjet printer, the LEF-12, allows you to print on 3D objects with a height of up to 100 mm (3.94"). Taking full advantage of our printing knowhow, the LEF-12 will enable you to create added-value personalisation and originality to a vast range of popular consumer items.

VersaUV
LEF-12
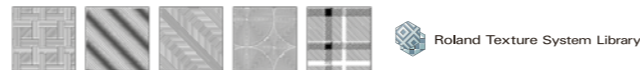
Direct printing on 3D objects

The LEF-12 is capable of printing anything on both flat and uneven surfaces for 3D objects up to 100 mm (3.94") thick. Because the integrated UV-LED lamp instantly cures ink during printing, it can print directly onto materials such as PET, ABS, PVC, polycarbonate, PS and other plastics, as well as papers and card stocks. The flatbed construction of the LEF-12 automatically adjusts the distance between the print-head and the surface of the material for optimum printing results.

*Unevenness of the surface must be 2 mm (0.08") or less.

Print area
280 mm (11") long
305 mm (12") wide

Clear ink enhances the print quality and appearance

The inclusion of Roland's clear varnish enables users to produce unusual and creative textures on all materials. Among the advantages offered by the LEF-12 are high-grade gloss and matte finishes as well as 3D "impasto" effects that can be created by stacking many layers of clear ink.

The LEF-12 offers 72 ready-to-use texture patterns, all of which are easy to incorporate into a design. With just one click you can create high-value exquisite, appealing and unique effects for your customers.

Roland Texture System Library

High-density opaque white ink

The LEF-12 is compatible with Eco-UV high-density white ink in addition to full four-colour CMYK inks and clear varnish. The versatility of white ink delivers innovative text, logos and images onto coloured backgrounds. Use white ink as a base coat to add vivid colour printing on transparent PET base materials, or as a primer on darker materials. Being an inkjet printer, the LEF-12 dispenses with the time-consuming conventional plate-making process. This means it can deliver small batch jobs or just one item without a lengthy set-up process.

C M Y K W CL   full four-colour CMYK inks + white ink + clear varnish

Environmentally and user friendly operation

Equipped with long-life LED UV-curing lamp, the LEF-12 requires no warm-up time, making it efficient to use and cool to touch. This LED curing technology means it can be used in conjunction with delicate materials which, traditionally, have been difficult to dry efficiently. The LEF-12 includes a safety hood to protect the operator from UV light during operation and a screen to prevent dust falling on the surface of materials whilst printing.

Front cover

Highly intuitive RIP and production software

The LEF-12 includes the highly intuitive Roland VersaWorks® RIP software which works with files created using industry-standard design software packages such as Adobe® Illustrator® and CorelDRAW®.

The LEF-12 supports two print modes. Standard mode is ideal for printing fine detail. Distance mode is more suitable to print on objects where the surface is not level. Users can switch between the two modes with ease.

Endless personalisation options are available with the LEF-12. Simply load a CSV file or standard data file for continuously printed serial numbers or product names.

RIP & PRINT MANAGEMENT SOFTWARE
Roland VersaWorks®

Adobe PostScript 3

Photo album

Digital photo frame

Smartphone case

Headphones

Ring display case

Business card case and pocketbook

Stationery

VersaUV LEF-12

UV LED | Adobe PostScript 3 | Roland Intelligent Pass Control | Roland Texture System Library | RIP & PRINT MANAGEMENT SOFTWARE Roland VersaWorks® | Roland OnSupport

Specifications

Printing Technology		Piezoelectric inkjet
Media	Dimensions	Maximum 335 (width) x 310 (depth) x 100 (height) mm [13.2 x 12.2 x 3.94 in.]
	Weight	Maximum 5 Kg (11lbs.)
Printing width and length		Maximum 305 (width) x 280 (length) mm (12 x 11 in)
Ink cartridges	Type and capacity	Roland ECO-UV 220 cc cartridge
	Colours	Six colours (cyan, magenta, yellow, black, white, and gloss)
Ink-curing unit		UV-LED Lamp
Printing resolution (dpi)		Maximum 1440 dpi
Distance accuracy*		Error of less than ±0.3% distance ±0.3 mm, whichever is greater
Connectivity		Ethernet (10BASE-T/100BASE-TX, automatic switching)
Power-saving function		Automatic sleep feature
Power requirements		AC 100 to 240 V ±10%, 1.8 A, 50/60 Hz
Power consumption	During operation	156 W
	Sleep mode	16.7 W
Acoustic noise level	During operation	60 dB (A) or less
	During standby	49 dB (A) or less
Dimensions		998 (width) x 867 (depth) x 546 (height) mm (39.3 x 34.2 x 21.5 in)
Weight		85 Kg(187.4 lbs.)
Environmental	Power on	Temperature: 20 to 32°C (68 to 90°F) (22°C/72°F or higher recommended), Humidity: 35 to 80% RH (no condensation)
	Power off	Temperature: 5 to 40°C (41 to 104°F), Humidity: 20 to 80% RH (no condensation)
Included items		Power cord, adhesive sheet, software RIP (Roland VersaWorks), and user's manual, etc.

* Temperature: 25°C (77°F), humidity: 50%

Options

	Model	Description
ECO-UV Ink	EUV-CY	Cyan, 220cc
	EUV-MG	Magenta, 220cc
	EUV-YE	Yellow, 220cc
	EUV-BK	Black, 220cc
	EUV-WH	White, 220cc
	EUV-GL	Gloss, 220cc
Cleaning liquid	SL-CL	1 pc.
Adhesive sheet	AS-10	For securing material, 210 mm x 140 mm (8-1/4 in. x 5-1/2 in.), 10 sheets

Roland VersaWorks System Requirements

Operating system	Windows® 7 Professional or Ultimate (32-bit); Windows Vista® Business/Ultimate (32-bit); Windows® XP Professional Service Pack 2 or later (32-bit)
CPU	Core™2 Duo, 2.0 GHz or faster recommended
RAM	2 GB or more recommended
Video card and monitor	A resolution of 1,280 x 1,024 or more recommended
Free hard-disk space	40 GB or more recommended
Hard-disk file system	NTFS format
Optical drive	DVD-ROM drive

Optional deodorising system

An optional deodorising system is available for the LEF-12. This includes an activated carbon filter which effectively removes the odour and volatile substances that occur during printing. This unit can be placed easily underneath the LEF-12.

⚠ Vaporised components may slightly irritate the eyes, nose and/or throat during and following printing with this product. If continuously printing in a closed space, the density of volatile compositions will accumulate and may irritate the eyes, nose and /or throat. Roland strongly recommends that you install a ventilation system and use this product in a well-ventilated room. For more information, please contact your local partner.

About White Ink
Due to the nature of white ink, the pigment will settle in the cartridge and ink flow system, requiring you to shake the cartridge before each use.

ISO 14001:2004 and ISO 9001:2008 Certified
Roland pursues both environmental protection and continuous quality improvement. Under the philosophy of preserving the environment and human health, Roland is actively working to abolish organic solvents in production, to reduce and recycle waste, to reduce power use, and to purchase recycled products. Roland constantly strives to provide the most highly reliable products available.

JMA REGISTRATION CENTER
QMS,EMS
JMAQA-270
JMAQA-E089

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