Product Information Guide
Roland SOLJET® EJ-640 Printer

Contents

What You Need to Know

With the SOLJET EJ-640 64 inch printer, we introduce the next generation of digital printing performance to existing SOLJET owners and any shops seeking to increase production volume. The EJ-640 printer will target print service providers, sign shops, and any other large-format printing customers who want to create high-quality indoor and outdoor banners, vehicle and wall wraps, interior backlit displays, and canvas graphics with optimum speed and efficiency.

The SOLJET EJ-640 is solidly positioned in the upper-middle price point category compared to its nearest competitor in the professional-grade printer class. Boasting specially formulated EJ INK in 4- and 7-color configuration and a top print speed of 1,098 sqft/hr, the EJ-640 is priced to sell into a market looking to maximize production without sacrificing print quality.

MSRP:
EJ-640 Printer   **$29,995 US** Includes take-up unit and extension dryer/down blower
EJ INK   **$179.99 US** 1-Liter cartridges available in 7 colors - CMYKLcLmLk

What do you tell your customers about the EJ-640?

- New EJ INK, specifically designed for the EJ-640, comes in 1-liter cartridges priced at $179.99 ($0.18 per ml), almost 1/3 less than the price of Eco-Sol Max 2
- New EJ INK is durable up to three years outdoors without lamination
- New EJ Ink comes in a choice of two ink configurations:
  - 7 color CMYKLcLmLk
    - Includes light cyan, light magenta and light black, providing vibrant color, smooth gradations and neutral grey
  - 4 color CMYKKYMC
    - The mirrored firing pattern through both print heads helps eliminate chromatic banding in bi-directional printing mode
- New Bulk Ink system includes 100 ml sub tanks that allow for ink cartridge change without interrupting printing
- New Robust stand and chassis design decreases vibration
- Improved grit roller architecture for stable media feeding at high speeds
- Durable rail and frame construction stabilizes head movement

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- Custom alignment feature on media feed system ensures perfectly aligned and balanced media feed
- New VersaWorks® Dual
  - New core engine
  - Eliminates problems with transparencies, blurs and drop shadows
  - Processes at 1.5 x speed
  - Ability to save queue templates
  - New variable data in RIP editing capabilities
- Included Media Take-up System (TU3-64) for unattended printing
  - An adjustable right flange for precise centering of smaller rolls
  - Support roll media up to 110 lbs. (50 kg.)
- Included DU-2 blower/dryer allows for printing of highly saturated images at faster speeds, while using the take-up roller
- Two eight-channel print heads deliver seven different droplet sizes for exceptional image quality
- Two head heights to support media of varying thicknesses
- Photorealistic printing up to 1440 dpi
- Three different droplets optimized from seven different sizes
- Roland Intelligent Pass Control for excellent print quality
- Maximum print speed of 1,098 sqft/hr
- Automated cleaning cycles decrease maintenance downtime
- Ethernet connectivity for faster RIP data processing
- Roland OnSupport allows for remote communication of print status and firmware updates
- Roland Printer Assist Tablet Control allows for remote access to control panel functions
- Two-year Trouble-Free Warranty
  - Serviced by Roland Certified Technician

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Key Features and Benefits

NEW EJ INK

The EJ-640 features new EJ INK – a next-generation eco-solvent ink offering outstanding long-term outdoor durability, scratch and chemical resistance, and broad media support at an affordable price. EJ INK is delivered in a bulk ink system from 1-liter cartridges through a 220 ml sub tank, allowing for ink cartridge swap-out without stopping the print process. The 1-liter cartridges are priced at $179.99 each ($0.18 per ml) positioning EJ INK competitively in the marketplace.
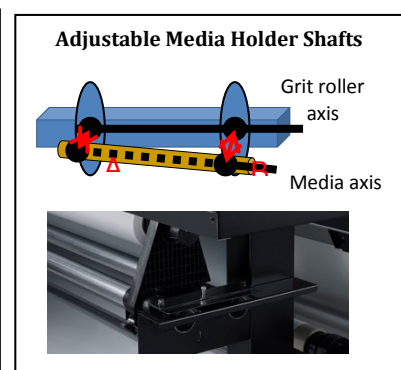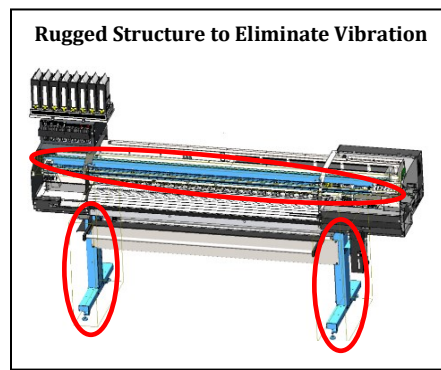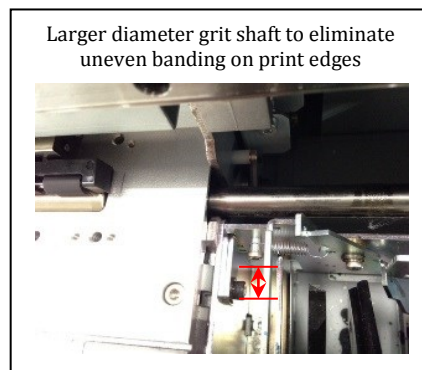

4 color CMYK x 2

7 color CMYKLcLmLk

NEW Robust Design Features

The EJ-640 is equipped with new industrial-designed features that ensure smooth, stable and reliable printing. A reinforced stand and chassis design decreases vibration and excess printer movement. The EJ-640 also features an improved grit roller architecture and a custom alignment feature within the media feed system, which work together to ensure perfectly aligned and balanced media feeding and incredible accuracy on longer production runs. Media holder shafts are adjustable to allow media to sit straight against the printer. Adjusting the height of the media holder shafts allows the media to be equally taut on both sides, creating a stable print feed.

Larger diameter grit shaft to eliminate uneven banding on print edges

Rugged Structure to Eliminate Vibration

Adjustable Media Holder Shafts

Grit roller axis

Media axis

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NEW VersaWorks Dual RIP Software

- New core engine
    - Most stable VersaWorks RIP engine to date
    - RIP Processing speed increased up to 1.5x
    - Proper processing of transparencies, blurs and drop shadows
- New feature allowing to save and store queue settings
- New variable data, inside RIP editing capabilities
- Access to Pantone® libraries
- Same user-friendly VersaWorks interface
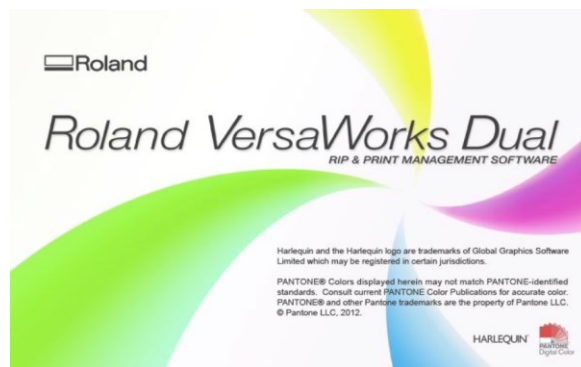
State-of-the-Art Print Technology

The EJ-640 incorporates the latest in inkjet technology design. It features two 8-channel piezo inkjet heads with 180 nozzles per channel. The staggered print heads create a larger print swath that allows for speed up to 1,098 square feet per hour in banner mode.
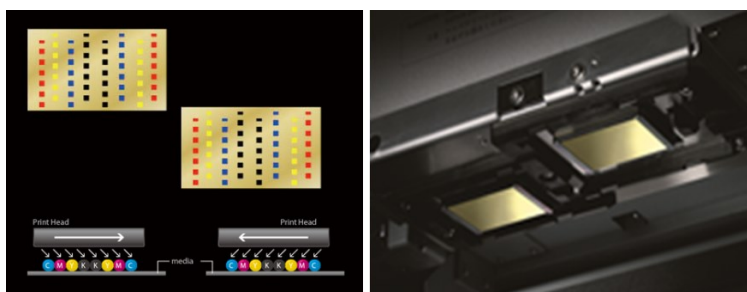
In 4-color mode, the print heads are configured in a mirrored pattern through both heads to help eliminate chromatic banding in bi-directional printing. Each print head's 4-chamber dampers are also enclosed in a custom housing that makes repair time short and head replacement easy. The entire damper assembly can be detached from the print head without removing any dampers or clamping ink lines. The dampers don't have to be replaced with the print head either, allowing for additional cost and time savings. The system uses a dedicated pump for each cap top.

Better Image Quality

With seven different dot sizes available, the EJ-640 achieves smoother gradations and richer density for superior photographic and high-resolution vector output. By comparison, the EJ-640's newly designed print head produces smaller droplets than competitor's head technology. By firing a finer dot, the EJ-640 delivers rich, bold color and deep image saturation on a much broader range of media.

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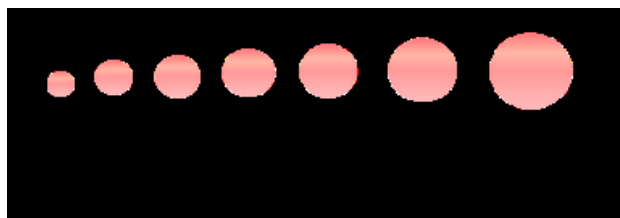
Roland Intelligent Pass Control

Developed by Roland software engineers, Roland Intelligent Pass Control technology represents the pinnacle of inkjet printing. This proprietary, patent-pending system precisely controls dot placement between passes, even at higher print speeds, ensuring both unprecedented imaging performance and increased productivity. With Roland Intelligent Pass Control, the EJ-640 is able to produce smooth gradations and flawless solid colors, while maximizing throughput and virtually eliminating banding in all print modes.
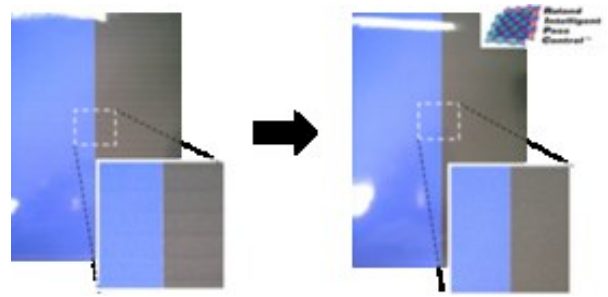
Included Take-up System (TU3-64 standard)

The EJ-640 features an included automated media feed and take-up system that facilitates precise, unattended printing. This system includes a convenient front-mounted take-up roller and an advanced, tension-controlled take-up unit for optimum media feeding and tracking.

- New rotating shaft face decreases resistance for a dramatic improvement in feeding accuracy
- The adjustable right flange allows for accurate centering of smaller rolls
- Supports roll media up to 110 lbs. (50 kg.)

Included DU-2 Blower/Dryer

Every EJ-640 comes with a DU-2 dryer/blower that ensures even drying across large prints and further expedites production during the longest runs. This new dryer/blower offers several advantages, including the ability to print highly saturated images at fast speeds, while using the take-up rollers, without any trace of image transfer or media stickiness. The heater and blower can also be installed right on the printer to conserve space in your shop.

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Wiper System

The EJ-640's patent-pending, three-stage wiper system reduces buildup around the edges of the print head to decrease wear and tear and prolong the life of the head. This new configuration (consisting of a passive wiper scraper and a scan-direction wiping system) positions the wipers in a static formation on a rotary axis, while the print head travels over them from left to right in the scan direction to wipe the head. The rubber wiper makes contact with the print head, while the felt wiper cleans the edges of the head without coming into contact with it. The movement of the print carriage triggers the wiper scraper to clean the rubber wiper, eliminating the need for additional moving parts. *Note: The rubber and felt wipers are user-replaceable items. Cleaning of the wiper scraper can be done with a swab.

Roland OnSupport

Roland OnSupport is an online support portal that allows easy VersaWorks software updating and provides real-time machine status feedback by sending e-mail alerts to the user's computer or smart phone. The system is designed to automatically notify users, for example, when a job is completed or ink is running low. Roland OnSupport also provides access to manuals and software updates, how-to and preventative maintenance guides, machine usage metrics, and periodic updates to firmware. Additionally, this system makes it easy for users to manage their productivity or contact Roland for support. Users can access all of the following information through OnSupport

- Device name
- Ink type
- Serial number
- Firmware version
- Print time
- Motor operating time

- Job information (resolution, ink consumption)
- Number and frequency of cleaning cycles
- Number and frequency of sheet cuts
- Ink consumption
- Number and frequency of ink cartridges being inserted into the machine

Two-Year Trouble-Free Warranty

Roland inkjets combine unbeatable performance with legendary Roland reliability. As further proof of the unmatched reliability of these advanced printers, Roland offers an unprecedented Two-Year Trouble-Free Warranty for the EJ-640 when equipped exclusively with Roland inks and the warranty is registered within 60 days of delivery.

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Competitive Analysis

Mimaki JV300-160
- $25,995 MSRP - $21,995 street price
- Dual, staggered print heads
- 6-color available only in legacy ink
- No light black

HP Latex 360
- $24,995 MSRP - $19,500 street price
- Advantage claim is instant dry time
- Image quality is not as good as the EJ-640

SII ColorPainter M64s
- $29,995 MSRP
- 7-color option speeds are slower than EJ-640
- 1.5-liter capacity

Epson SC50675
- $19,995 MSRP - $12,995 street price
- Still has image quality issues like previous models
- Consumes two to three times more ink than the EJ-640
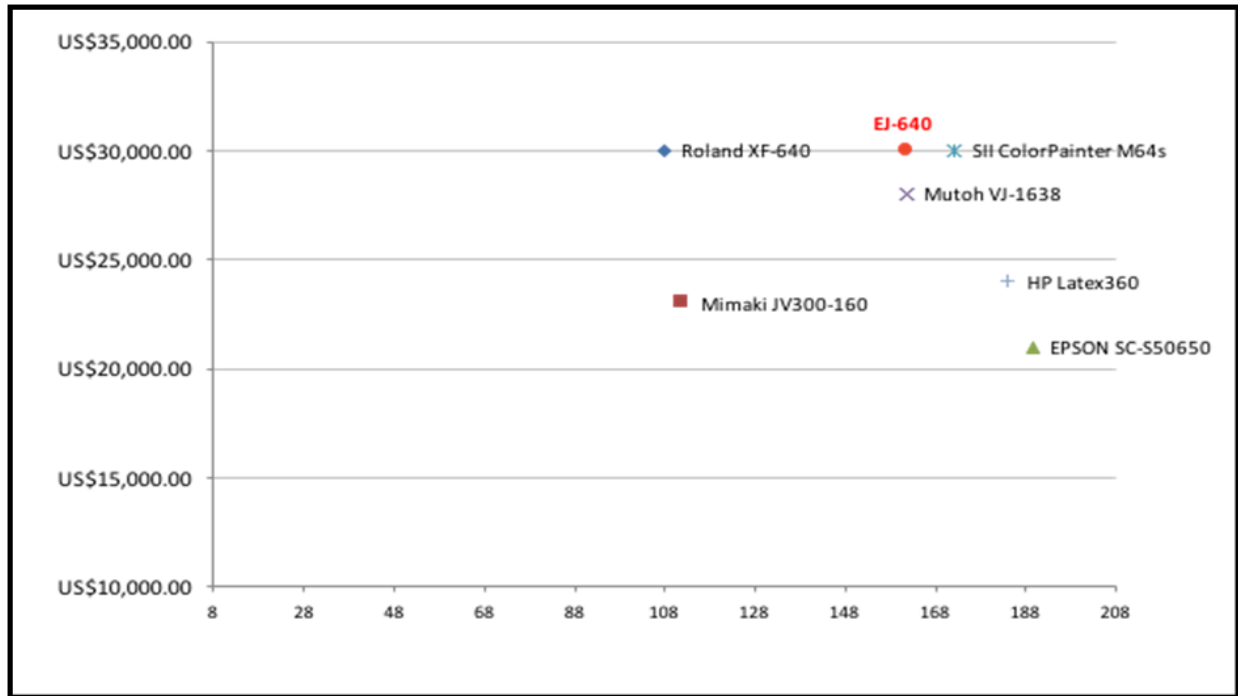
Summary

Roland's new SOLJET EJ-640 printer incorporates state-of-the-art print technology with two mirrored print heads, newly- designed pinch/grit roller systems, a robust and stable chassis and a cost-effective 1-liter bulk ink system, enabling it to maximize productivity and deliver vibrant, detailed prints at an affordable price.

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Specifications

SOLJET EJ-640 Specifications			
Printing technology	Piezoelectric inkjet		
Media	Width	10.2 to 64 in. (259 to 1625 mm)	
	Thickness	Maximum 39 mil (1.0 mm) with liner	
	Roll diameter	Maximum 8.3 in (210 mm)	
	Roll weight	88 lbs (40 kg)	
	Core diameter *1	3 in (76.2 mm) or 2 in (50.8 mm)	
Printing Width *2		Max. 63.6 in. (1615 mm)	
Ink cartridges	Type	EJ INK	
	Capacity	1,000-cc cartridge	
	Colors	CMYKLcLmLk	
		CMYKKYMC	
Print resolution	Dots per in	Maximum 1,440 dpi	
Print Modes	Resolution	Pass	Speed
4 COLOR CMYK			
Max Speed (Banner)	360x360	1	1098 ft2/h (102 m2/h)
Billboard (Banner)	540x360	2	678 ft2/h (63 m2/h)
High Speed (Banner)	540x360	4	334 ft2/h (31 m2/h)
Standard (Banner)	720x720	5	258 ft2/h (24 m2/hr)
High Quality (Banner)	720x1440	9	140 ft2/h (13 m2/h)
High Speed (Vinyl)	360x720	4	323 ft2/h (30 m2/h)
Standard (Vinyl)	720x720	6	215 ft2/h (20 m2/hr)
	720x720	8	161 ft2/h (15 m2/h)
High Quality (Vinyl)	720x1440	12	108 ft2/h (10m2/h)
7 COLOR CMYKLcLmLk			
High Speed (Banner)	540x360	8	172 ft/2/h (16 m2/h)
Standard (Banner)	720x720	10	129 ft2/h (12 m2/h)
High Quality (Banner)	720x1440	18	65 ft2/h (6 m2/h)
High Speed (Vinyl)	360x720	8	161 ft2/h (15 m2/h)
Standard (Vinyl)	720x720	12	108 ft2/h (10m2/h)
High Quality (Vinyl)	720x1440	20	59 ft2/h (5.5 m2/h)
Distance accuracy *3 *4	Error of less than ±0.3% of distance traveled, or ±0.3 mm, whichever is greater		
Media heating system *5	Print heater	Setting range for the preset temperature: 30 to 45ºC (86 to 112ºF)	
	Dryer	Setting range for the preset temperature: 30 to 55ºC (86 to 131ºF)	
Connectivity	Ethernet (10BASE-T/100BASE-TX, automatic switching)		
Power-saving function	Automatic sleep feature		
Power requirements	AC 100 to 120 V ±10%, 11 A, 50/60 Hz or		
	AC 220 to 240 V ±10%, 5.5 A, 50/60 Hz		
Power consumption	During operation	1450 w	
	Sleep mode	75 w	
Acoustic noise level	During operation	62 dB (A) or less	
	During standby	45 dB (A) or less	
Environmental	Power on	Temperature: 15 to 32ºC (59 to 90ºF) [20ºC (68ºF) or more recommended], Humidity: 35 to 80%RH (no condensing)	
	Power off	Temperature: 5 to 40ºC (41 to 104ºF), humidity: 20 to 80%RH (no condensation)	
Dimensions (with stand)	108in (2,750mm) W x 31in (785mm) D x 59.9in (1,520mm) H		
Weight (with stand)	485 lb (220 kg)		
Included items	Dedicated stands, power cord, media clamps, media holders, replacement blade for separating knife, software RIP, User's Manual, etc.		

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Optimal Print Environment

Humidity (%)
(no condensation)
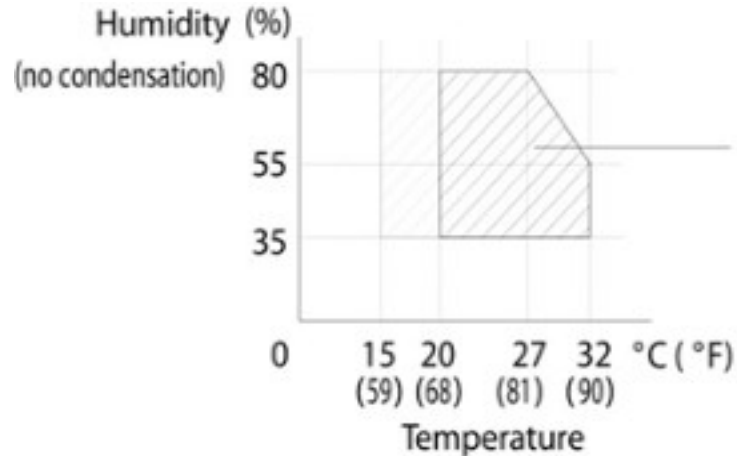
Application software compatible with Cutting and Print & Cut

Adobe® Illustrator® 10, CS, CS2, CS3, CS4, CS5, CS6
CorelDRAW® 11, 12, X3, X4, X5

Roland VersaWorks System Requirements	
Operating system	Windows® 8, Windows® 7, Windows Vista®, Windows® XP
CPU	Core™2 Duo, 2.0 GHz or faster recommended
RAM	2 GB or more recommended
Video card and monitor	A resolution of 1280 x 1024 resolution or more recommended
Free hard-disk space	40 GB or more recommended
Hard-disk file system	NTFS format
Optical drive	DVD-ROM drive

*1   The media holder of this machine is exclusively for media with a paper tube core inner diameter of 3 inches. To use a 2-inch media core, please use the optionally available media flanges.

*2   All speeds bi-directional. The length of printing is subject to the limitations of the program.

*3   Using Roland specified media, loaded correctly, temperature: 25 °C (77ºF), humidity: 50 %RH, all pinch rollers are used, 25 mm or more for both right and left margins and 35 mm or more front margin, excluding expansion or contraction of the media, and all correction and adjustment functions of this machine have been made properly. Not assured when the print heater or dryer is used.

*4   Using Roland specified media, print travel of 1 m.

*5   Warm-up is required after power-up. This may require 5 to 20 minutes, depending on the operating environment. The preset temperature may fail to be reached depending on the ambient temperature and media width.

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