Roland

AdvancedJET AJ-1000i & AJ-740i
Grand and Wide Format InkJet Printers

Frequently Asked Questions

Release & Pricing:

Q. What are the list prices of the AJ-1000i and AJ-740i?

A. Effective April 6, 2009 the list price for the AJ-1000i is $62,995 and the AJ-740i is priced at $47,295.

Q. What are the list prices for the new Roland EcoXtreme i ink and EcoXtreme LT ink?

A. The list price for the new Roland EcoXtreme i ink per 1 liter cartridge is $199.99 and EcoXtreme LT ink is priced at $124.99 per 1 liter cartridge.

Q. Is there an option available to print on unlined mesh?

A. Yes. The AJ-1000i can print on unlined mesh with the addition of the MU-1000 Mesh Printing Unit sold separately for $4,089.75. The AJ-740i can print on unlined mesh with the addition of the MU-740 Mesh Printing Unit sold separately for $3,144.75.

Q. What is the availability of the AJ-i models and differences from the original AJ series?

AJ-1000i will begin shipping in late Summer 2009. AJ-740i will be shipping in late Winter 2009. However all current inventory of AJ models shipping as of April 2009 will be upgraded to the specifications of the AJ-i models, including Roland Intelligent Pass Control, and the new print head protection plates. They will be identical to i models except for the exterior color.

General Information:

Q. What is the key sales message for the AJ-1000i?

A. The AJ-1000i was designed for the demands of production grand format printing as well as ease-of-use. The combination of six super wide Piezo heads and the advanced EcoXtreme inks delivers a maximum print speed of 968 sq ft/hr. In addition to being fast, the tri-heating and blower system make it possible to print at high speeds on uncoated substrates and still use the integrated take-up roller system.

Grand format printing requires both speed and image quality to satisfy customers' needs. Roland Intelligent Pass Control was developed to precisely control dot placement and creates a series of patterns that ensures accuracy in filling in the smallest gaps between passes. The result is consistently smooth gradations and solid color fills with virtually no banding across a wide range of media.

Developed exclusively for the AdvancedJET series, the latest Roland EcoXtreme i ink delivers outstanding image quality and durability of up to three years outdoors while reducing the odor.

The choice of EcoXtreme LT ink is an ideal option for shorter term display applications requiring up to one year outdoor durability.

The AJ-1000i incorporates an ink delivery system with six one-liter ink cartridges, which can be replaced without pausing the printer. Robust media handling accommodates rolls weighing up to 220 pounds and allows you to print unattended at high speed.

The Automated Intelligent Maintenance System frees the customer from performing routine start up and end of the day maintenance and avoids the risk of drying ink or clogging the print heads.

All of these features make the AJ-1000i a truly high-production grand format printer with unmatched reliability and ease-of-use.

Q. What is the key sales message for the AJ-740i?

A. The AJ-740i is a robust large format printer built for high-volume productivity. With a billboard mode of 872 sfph and a production mode up to 484 sfph, the AJ-740i provides the flexibility needed for high image quality as well as high speed. In addition to being fast, the AJ-740i has an intuitive workflow and is one of the most reliable printers in its class.

Speed and image quality are critical in high-volume production printing. Roland Intelligent Pass Control precisely controls dot placement and creates a series of patterns that ensures accuracy in filling in the smallest gaps between passes. The result is consistently smooth gradations and solid color fills with virtually no banding across a wide range of media in all print modes.

The AJ-740i has an automatic maintenance function. The wipers, cap tops and print heads are constantly immersed in cleaning fluid so there are no daily manual start-up or shut-down procedures required. In addition, cleaning cycles can be adjusted automatically depending on the environment.

Developed exclusively for the AdvancedJET series, the latest Roland EcoXtreme i ink delivers outstanding image quality and durability of up to three years outdoors while reducing the odor. EcoXtreme LT ink is ideal for shorter term display applications requiring up to one year outdoor durability.

In summary, the AJ-740i is an easy to use, versatile, high-volume production printer ideal for outdoor graphics applications.

Q. What are the maximum media sizes that can be used with the AJ-1000i and the AJ-740i?

A. The maximum width of the media that can be fed through the AJ-1000i is 104." The maximum printable width is 102.36." The maximum roll diameter is 9.8" and maximum core inner diameter is 3." The maximum overall media weight is 220 pounds. The AJ-740i accepts media widths of up to 75.2" and the maximum printable area is 73.6."

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Q. What are the differences between the AJ-1000i and the AJ-740i?

A. There are a few differences, mainly mechanical:

1. *The media feed assembly features different rear rollers.* In the AJ-740i, the tension-controlled roller system features an elastic shaft inside the roller to help ensure proper media tension. This system equalizes back tension and reduces banding. If the media is fed unevenly, the elastic feature equalizes the tension on the media. The AJ-740i guide roller is supported by a pair of rubber rollers, further stabilizing the tension and promoting proper media feed.
2. *The inlet of the blower is wider for the AJ-740i.* This helps blow away the evaporated solvent elements above the printed area.
3. *The scan motor on the AJ-740i is mounted sideways.* This prevents residue from the motor brushes from getting into the gears in the scan motor.
4. *The carriage belt is mounted sideways and separated from the encoder strip.* This keeps dirt and other debris from getting on the encoder strip of the AJ-740i.
5. *The MU-740 is easier to install.* No sub-boards need to be installed. Only the assembly and unit's detection switch need to be added and connected to the sub-board. These items are not end user installable. They must be installed by a Roland trained technician.

Q. What is the print speed per each print mode?

A. The AdvancedJET i series is capable of the following print modes and speeds:

AJ-1000i Print Modes	Resolution	Print Speed
Billboard	360x180dpi (1 pass) Bi-Di	968 sfph (90.0 sq m/hr)
High Speed	360x180dpi (2 pass) Bi-Di	484 sfph (45.0 sq m/hr)
High Speed	360x180dpi (2 pass) Uni-Di	323 sfph (30.0 sq m/hr)
Standard 1	360x360 (3 pass) Bi-Di	323 sfph (30.0 sq m/hr)
Standard 1	360x360 (3 pass) Uni-Di	215 sfph (20.0 sq m/hr)
Standard 2	360x360 (4 pass) Bi-Di	258 sfph (24.0 sq m/hr)
Standard 2	360x360 (4 pass) Uni-Di	172 sfph (16.0 sq m/hr)
High Quality 1	360x720 (6 pass) Bi-Di	162 sfph (15.0 sq m/hr)
High Quality 1	360x720 (6 pass) Uni-Di	108 sfph (10.0 sq m/hr)
High Quality 2	360x720 (8 pass) Bi-Di	129 sfph (12.0 sq m/hr)
High Quality 2	360x720 (8 pass) Uni-Di	86 sfph (8.0 sq m/hr)
High Quality – Vinyl	720x720dpi (16 pass) Bi-Di	65 sfph (6.0 sq m/hr)
High Quality – Vinyl	720x720dpi (16 pass) Uni-Di	43 sfph (4.0 sq m/hr)
AJ-740i Print Modes		
Billboard	360x180dpi (1 pass) Bi-Di	872 sfph (81.0 sq m/hr)
High Speed	360x180dpi (2 pass) Bi-Di	474 sfph (44.0 sq m/hr)
High Speed	360x180dpi (2 pass) Uni-Di	301 sfph (28.0 sq m/hr)
Standard 1	360x360 (3 pass) Bi-Di	301 sfph (28.0 sq m/hr)
Standard 1	360x360 (3 pass) Uni-Di	194 sfph (18.0 sq m/hr)
Standard 2	360x360 (4 pass) Bi-Di	237 sfph (22.0 sq m/hr)
Standard 2	360x360 (4 pass) Uni-Di	151 sfph (14.0 sq m/hr)
High Quality 1	360x720 (6 pass) Bi-Di	140 sfph (13.0 sq m/hr)
High Quality 1	360x720 (6 pass) Uni-Di	97 sfph (9.0 sq m/hr)
High Quality 2	360x720 (8 pass) Bi-Di	129 sfph (11.0 sq m/hr)
High Quality 2	360x720 (8 pass) Uni-Di	86 sfph (7.0 sq m/hr)
High Quality – Vinyl	720x720dpi (16 pass) Bi-Di	54 sfph (5.0 sq m/hr)
High Quality – Vinyl	720x720dpi (16 pass) Uni-Di	32 sfph (3.0 sq m/hr)

Speed may vary based on print mode and media profiles

Q. What is Roland Intelligent Pass Control?

A. This patent-pending technology was originally developed by Roland software engineers for the PRO III line. Now optimized and fully implemented in the AdvancedJET i series, the new system for precisely controlling dot placement creates a series of patterns that ensures accuracy in filling in the smallest gaps between passes. The result is consistently smooth gradations and solid color fills with virtually no banding across a wide range of media in all print modes. Print speed is also increased up to 25% in standard mode on banner media.

Q. What are the advantages of the new Roland EcoXtreme i inks?

A. The advanced EcoXtreme i ink was specifically designed for the AdvancedJET series and it ships in one liter (1,000ml) cartridges. This high viscosity ink produces vibrant colors even at lower resolutions and offers superior bonding characteristics for banner and vinyl substrates and excellent alcohol resistance, and significantly reduced odor. Roland will work with our Authorized dealers to aid existing AJ owners in the transition to the new EcoXtreme i ink.

Q. What are the main differences between EcoXtreme i and EcoXtreme LT?

A. For both ink sets, the overall density, safety, and alcohol resistance are virtually identical. There are two main differences between the inks: the cost and the outdoor durability. EcoXtreme LT is 37 percent less expensive than EcoXtreme i ink. EcoXtreme LT is designed for short and medium-term applications such as outdoor banners, short-term corporate ads, sales promotions, sporting event graphics and exhibition graphics – applications that generally do not require longevity of over one year. The EcoXtreme i ink offers the added benefits of up to three years of durability outdoors, better drying properties and reduced odor.

Q. Are there any other differences between EcoXtreme i and EcoXtreme LT inks - such as color gamut?

A. The density of individual colors differs slightly from the EcoXtreme i inks, therefore there is a slight difference in color gamut. VersaWorks offers profiles specifically created for the EcoXtreme LT inks which ensure optimal color, minimizing color shifts in the output.

Q. Is it possible to switch between EcoXtreme i and EcoXtreme LT inks?

A. Yes, by selecting "Change Ink Type" from the printer menu and followings the instructions provided on the printer panel. Please note that switching ink sets will require a set of cleaning cartridges and will completely flush the current ink set. In order to reduce ink waste, we recommend using up the full set of cartridges before switching between sets.

Q. Does the AJ-i series offer any bulk ink system?

A. The one liter (1,000ml) cartridge per color is comparable to certain bulk ink systems available. In addition, the AJ-i series has an internal ink reservoir allowing the printer to continue to print while the cartridge is being replaced, thus allowing for higher production and less downtime.

Q. What is the ink consumption level?

A. Using the ISO N5A image for comparison purposes, ink consumption is approximately 0.75 ml/sq ft for banner and vinyl output and 1.40 ml/sq ft for high saturation backlit applications.

Q. What is the cost per square foot for EcoXtreme i and EcoXtreme LT?

Based on the ISO N5A bicycle image, the average ink cost per square foot for EcoXtreme i is $0.15 and for EcoXtreme LT the average ink cost per square foot is $0.09.

Q. What are the power requirements of the AJ-1000i?

A. The AJ-1000i requires two 200-240V single-phase connections. The plug that ships with the printer is a 6-15p 250v/15A cable. Please refer to the AJ-1000i specifications for detailed information.

Q. Does the printer come standard with a take-up roller or is it optional?

A. The AJ-i series comes standard with media feed and take-up rollers as a complete system. The rollers are mounted at the front of the printer for more convenient media loading and can accommodate media weighing up to 220 pounds.

Q. Is it possible to use the take-up roller even when printing in the high-speed mode?

A. The dryer and blower that are part of the Tri-Heater system on the AJ-i series effectively accelerate media drying and makes it possible to use the take-up roller when printing at high speed with many substrates. As with any printer, results may vary due to ink saturation and media type.

Q. Does the printer require daily manual cleaning of heads, wipers and capping stations as with other solvent ink printers?

A. The AJ-i series features an Automated Intelligent Maintenance System which performs the routine cleaning tasks automatically. The wiper is immersed in a cleaning liquid that is constantly renewed, preventing the buildup of ink residue. In addition, the printer senses the room temperature and self-adjusts the cleaning cycle interval, keeping your printer always at optimal condition for operation.

As a result of this innovative maintenance system, manual cleaning around the head and capping station is only required every two weeks.

Q. What is the amount of ink and maintenance liquid used and how often is the automated cleaning performed?

A. A total of approximately 18cc of ink (3cc per color) is used for each cleaning cycle. The cleaning cycle is adjusted automatically depending on room temperature and it occurs more often at higher room temperatures. See below for a general guideline:

Room Temperature	59° F (15° C) and higher	81° F(27° C) and higher	95° F (35° C) and higher
Cleaning interval	24 hours	18 hours	12 hours

In addition, the amount of maintenance liquid consumed per maintenance cycle is 1 to 1.5 ml, which translates into approximately 1 cartridge (500ml) of maintenance liquid per year.

Q. What user precautions should I be aware of with the AJ-1000i?

A. Recommended operating temperature is 68-86° F (20-32° C). It is recommended to check the installation space and floor load for the weight requirement of the printer (printer width is 14'2"and weight is 1550 lbs including the media).

The machine should be situated directly on a leveled surface for optimal performance. Also, a ventilation system is recommended for odor and VOC emission control if used in an enclosed environment. For more information refer to the AJ-1000i site survey.

Q. Is it possible to print on a variety of media?

A. Yes, the AJ-i series with EcoXtreme inks will print on a variety of media including banner, adhesive-back vinyl, backlit film and mesh. We offer a variety of profiles for these types of media in the bundled VersaWorks RIP software.

Q. Can the AdvancedJET i series print on any kind of media?

A. It is possible for the AJ-i series to print on a wide variety of uncoated media including standard calendared vinyl and a wide variety of banner material. The AJ-i series can also accommodate solvent-compatible fabrics and canvas. As with any other printer, some media may work better than others and prior testing is recommended.

Q. What is unique about the custom-designed Roland VersaWorks 3.1.2 RIP software that ships with these units?

A. The new VersaWorks™ 3.1.2 RIP software was designed and developed by Roland specifically to optimize performance of our printers especially the AdvancedJET series. This full-featured RIP is extremely easy-to-use and supports a variety of file formats. This powerful software-based RIP includes the latest Adobe CPSI 3018 engine for faster processing, better color and smoother gradations. This version supports Roland Intelligent Pass Control and adds new ICC color profiles for enhanced image quality and faster print speeds on a range of media. The RIP server functions will simultaneously drive up to 4 Roland printers, printer/cutters and GX series cutters.

VersaWorks standard features include productivity tools such as Roland Color and Variable Data Printing. Roland Color allows users to quickly and easily color match vector graphics by offering pre-defined color palettes that are easily loaded into Corel or Illustrator. Graphics designed using these palettes are automatically color-matched in VersaWorks, offering 100% color accuracy every time without the use of any additional tools or software.

The Variable Data Printing option is a very easy-to-use workflow to quickly customize and serialize jobs by combining Excel data with Illustrator or Corel images right in VersaWorks. The user can then also make font changes to the data before printing. These features are unique and beneficial to users, especially those with limited color management experience.

Q. What is the warranty availability and what does it cover?

A. As proof of unmatched reliability, the AJ-i series is backed by Roland's Two-Year Trouble-Free Warranty.

The Two-Year Trouble-Free Warranty Program consists of two parts:
1. Roland DGA Standard Limited Warranty – 1 year
2. Free additional year of Limited Warranty coverage, provided two conditions are met:
- End-user customer must register the printer within 60 days of purchase
- Exclusive use of Roland EcoXtreme inks throughout the entire two-year warranty period.

When any of those two conditions are not met, the printer is only eligible for the 1-year Roland DGA Standard Limited Warranty. Except in cases where non-Roland inks are used, even during the first year of Standard Limited Warranty, repairs made necessary by the use of non-Roland ink are excluded from coverage.

The Roland authorized Reseller responsible for selling the AJ-1000i or AJ-740i is also responsible for servicing it.

Q. What are the main advantages of the AJ-1000i in comparison with other grand format printers?

A. While the AJ-1000i enjoys many unique production-related strengths, including super wide Piezo inkjet heads, choice of advanced EcoXtreme i or EcoXtreme LT inks, its media handling, Tri-Heating and Blower system, and Roland's legendary reliability, there is another major strength of the AJ-1000i that sets it apart from other grand format printers.

The AJ-1000i performs routine cleanings automatically and allows you to perform additional cleanings at the push of a button for true clean-hands operation without generating excess trash or having to wear gloves. The only manual cleaning that is required is the wiping of heads and capping every two weeks. Most other grand format printers require a vacuum cleaner for cleaning while generating a lot of waste and mess for the operator on a daily basis.

At 968 sq ft/hour, the AJ-1000i is one of the fastest grand format printers in its category with the added benefit of ease-of use and lower maintenance.

Q. What are the main advantages of the AJ-740i compared to other grand format printers?

A. The AJ-740i comes with everything you need to get your business up and running fast. Included VersaWorks RIP software is easy to navigate and features ICC Profiles for a range of materials including banner, vinyl, film, paper, mesh and canvas. In addition, Roland offers a complete line of tested, profiled and certified media for consistent performance print after print.

There are no daily maintenance procedures needed to run this unit. This means you can easily start up the printer for production printing without the mess and labor involved in manual cleanings. And the unit can be left dormant for a period of time without damaging the print heads since the capping assembly keeps the print heads sealed and the wipers are always immersed in cleaning solution. This makes for a very efficient and non-abrasive cleaning system.

In addition to being extremely competitively priced compared to other large and grand format printers, Roland's standard warranty further reduces the ownership costs. The Roland Two-Year Trouble-Free Warranty Program is the best in class for wide format printers. Other wide format printers often have higher ink costs, or don't include RIP software, and the service is usually done by an outside agency. Roland authorized dealer technicians are factory trained to service the AJ-740i printer. In the end, the Roland choice offers greater performance and value.