

Chromira^{5x™} 30 Lab

Chromira^{5x™} 30 Lab is a fully integrated, daylight operational, large format digital RA-4 printer/processor lab system, designed to offer continuous digital print production and order management to Portrait/Social, Wedding and Custom labs. Its speed, productivity, and product versatility enable today's professional digital imagers to deliver a wide range of state-of-the-art photographic print products. The Chromira^{5x} 30 Lab offers an extremely small footprint and allows high production operation in retail and commercial environments where space is very limited.

SPEED

The Chromira 5x 30 Lab delivers beautiful small, medium and large format prints with both ease and speed. It offers the convenience and flexibility of daylight loading and operation and a highly integrated digital print production solution, taking you from the initial digital image to the final cut and assembled order.

Print Speed: 24" per minute

Cut and Sorted Prints per Hour: **1440** - 4" x 6", **480** - 8" x 10", **240** - 11" x 14", **69** - 20" x 30", **35** - 30" x 40"

IMAGE QUALITY

Though Chromira 5x 30 Lab's 300 PPI working resolution is the highest standard image resolution in the industry, Chromira 5x 30 Lab is able to achieve a greater visual resolution of 425 PPI utilizing ZBE's patented LED Resolution Enhancement Technology, giving your prints truly high photographic quality.

PRODUCTIVITY

The Chromira 5x 30 Lab extends your productivity by giving you fast, bottleneck-free imaging, and full front-end printer access to every computer on your network. Plus, Chromira Workstation software and ZBE WorkStream software applications provides a powerful suite of image management tools with on-the-fly image processing for a printing workflow that no other digital printer can achieve.

Workstation:

- *On-the-fly* Global Color Correction
- *On-the-fly* Image Sizing
- *On-the-fly* Image Cropping
- *On-the-fly* ICC Profiling
- *On-the-fly* Automatic Image Nesting
- *On-the-fly* Sharpening
- *On-the-fly* Customer Info Bar Coding
- *On-the-fly* Global Contrast Adjustment
- *On-the-fly* Print Thumbnail Reference Image
- Back Prints image and order info

WorkStream:

- Image entry/scanning
- Product selection
- Package unit creation
- Order creation
- Logo application
- Image rendering
- Composite products using text, frames, layouts, masks & backgrounds
- Order management
- Order history database
- ICC Color management
- Live color, contrast, density and saturation correction
- Image re-sizing
- Cropping and Rotating
- Re-touching (via direct connection to Photoshop)
- Print production scheduling
- Soft Proofing

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LED RELIABILITY

ZBE's unique hybrid LED technology and highly integrated modular electronic design ensures unprecedented reliability with very low maintenance expense. Solid state LED's, unlike vacuum tube lasers, are stable and have an extremely long life.

The Chromira 5^x 30 Lab

Large Format Digital Lab System

Specifications Features & Benefits

Material Loading:	Daylight loading 30" wide rolls.
Materials:	RA-4 Reflective Material.
Print Sizes:	4" x 5" to 30" x 16 ft. (76cm x 487 cm), full bleed or with borders. Image files scaled on-the-fly to any desired print size.
Print Speed:	24" per minute.
Image Resolution:	300 PPI Standard Resolution, Visual Resolution 425 PPI utilizing ZBE's patented <i>LED Resolution Enhancing Technology</i> .
Color Depth:	36 bit.
Print Head:	Proprietary LED Imaging Technology (Patented). Utilizes powerful ZBE's Chromira ^{5x} Hybrid LED imaging engine.
File types:	TIFF (Mac or Windows), Windows BMP, or JPEG. Open interface from RIP.
Platform:	Windows XP Professional (embedded in printer).
Dimensions:	Length 66", Width 61", Height 66" 28 sq. ft.
Space Requirements:	115" x 126"
Connections:	100Base-T network, Air, Water, Power
Power:	230 V, 6.8 kW/32A

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Throughput:

Operation of the printer workflow is highly optimized for maximum print throughput and fully unattended operation. Each workstation on the network has full control of “front end” printer functions. Print files may be printed from any location on the network with no machine operator required for printing. Printing begins immediately and proceeds as the file is received over the network. The print file need not be fully received at the printer to begin printing. At worst, network delays will cause the printer to pause with no resulting artifact in the print and no loss of print quality.

The user interface for submitting jobs and controlling printing parameters is refined for high throughput and particular ease of use. Each workstation submitting jobs to the printer can control all printing parameters as well as monitor the queue of work being printed.

Each workstation has full control of: print size, image rotation, print job priority, borders, text notes on prints, color balance, and number of prints.

Multiple Chromira printers are supported.

Open System: Compatible with all commercial RIP packages. Dedicated RIP is NOT required. Compatible with any off-the-shelf color management software.

Sophisticated built-in Self-Diagnostics system.

Paper Processing:

Integrated RA-4 photographic processor

Print Finishing:

Automated XY finish print cutting

Automated order sorting

Automated back printing

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F.A.Q.

Q: What kind of files can Chromira^{5x} 30 Lab print?

A: Chromira^{5x} 30 Lab will print RGB TIFF, JPEG and BMP files. TIFF files may be either PC or MAC type. Other file types (such as Postscript) must first be converted to TIFF in order to be printed on Chromira^{5x} 30 Lab. Postscript files are converted to TIFF files with a Raster Image Processor ("RIP").

Q: Does Chromira^{5x} 30 Lab include or require a "Front End"?

A: The usual "Front End" bottleneck is eliminated with Chromira^{5x} 30 Lab. Each PC networked in the 30 Lab has full access to the "front end" functions. This completely eliminates the need for a dedicated "front end" computer, and removes the bottleneck, which results from having to pass each print job through the "front end" workstation.

Q: Does Chromira^{5x} 30 Lab require a dedicated operator?

A: NO. Because the dedicated "front end" workstation is eliminated, so is the dedicated operator. Images are sent to Chromira^{5x} 30 Lab for printing directly by individual workstations. All controls previously handled by a dedicated machine operator are now on the desktop of each workstation. Of course, someone will still need to change the roll of paper once it's been printed.

Q: What about a RIP?

A: Chromira^{5x} 30 Lab is an "open system" which can print files from most popular RIPs. A RIP package is available as an option with Chromira^{5x} 30 Lab. However, most digital imaging departments already have one or more RIP packages which they are using to drive other printers. Chromira^{5x} 30 Lab will work with any RIP that generates an RGB TIFF file.

Q: What width papers can be printed on Chromira^{5x} 30 Lab?

A: The Chromira^{5x} 30 Lab prints on 30" paper.

Q: What is the largest print I can make?

A: The Chromira^{5x} 30 Lab prints images up to 30" wide and 8 plus feet .

Q: Can Chromira^{5x} 30 Lab print a "full bleed" to the edge of the paper?

A: Yes.

Q: How does Chromira^{5x} 30 Lab connect to our computer(s) or workstation(s)?

A: Chromira^{5x} 30 Lab does not plug in like a desktop printer. Chromira^{5x} 30 Lab has a built in Windows XP computer. Chromira^{5x} 30 Lab connects to the other computer(s) over the network much like any other PC. Files travel over the network to Chromira^{5x} 30 Lab as they are being printed. Everything necessary to interface to the network is included with Chromira^{5x} 30 Lab. The user need only supply the network cable to plug into Chromira^{5x} 30 Lab.

Q: If we do not have a network, can we still use Chromira^{5x} 30 Lab?

A: Yes. Chromira^{5x} 30 Lab does not require a network to operate. Files can be printed from CDs or floppy disks as well as being received over a network.

Q: Since Chromira^{5x} 30 Lab is PC based, how can I print images from my MAC.

A: Chromira^{5x} 30 Lab can print RGB TIFF files in both MAC and PC formats. MAC images can be brought to Chromira^{5x} 30 Lab via 1) Network, 2) Disk, or 3) CD. When using a network, it is necessary for the MACs to communicate on a PC network. This is most commonly done via a Windows XP Server on the network.

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The Windows XP operating system can communicate with both PCs and MACs. Alternately, there are several software packages available which allow a MAC to communicate on a PC network. If the images are brought to Chromira^{5x} 30 Lab on disk, it is necessary to use one that is PC formatted.

Q: How fast does Chromira^{5x} 30 Lab print?

A: Chromira^{5x} 30 Lab can print up to 24 inches per minute. Normally, with prints that are not being reduced in size or rotated, Chromira^{5x} 30 Lab will print at full speed. Large files, being printed at a reduced size can slow down Chromira^{5x} 30 Lab due to the data processing time in handling the large files. Similarly, heavy network traffic delaying the access to a file being printed can cause Chromira^{5x} 30 Lab to pause briefly for data.

Q: What materials can Chromira^{5x} 30 Lab print on?

A: Chromira^{5x} 30 Lab prints on virtually all RA4 photographic materials, both paper and film.

Q: How is Chromira^{5x} 30 Lab calibrated?

A: Primary calibration of the Chromira^{5x} 30 Lab is carried out by printing a test calibration image. The calibration image has a series of gray patches ranging from white to black. The gray patches are read with a densitometer that connects into the computer. Chromira^{5x} 30 Lab calibrates automatically from these densitometer readings. This process is generally called "linearizing" the machine.

Q: How does color management work on Chromira^{5x} 30 Lab?

A: Color management on Chromira^{5x} 30 Lab works by applying "on-the-fly" a "profile" to the image being printed. The purpose of the "profile" is to make adjustments to the colors as specified in the image file so that colors of the print will match the colors of the original. In practice, color profiles will also adjust the color differences between brands of paper. It will be necessary to have a different profile for each brand and type of paper being printed. The profile is applied on-the-fly to the image file during rasterizing.

Q: Can I adjust the color of an image when I print it?

A: Yes. Color and density are easily adjusted when you print the image.

Q: How does Chromira^{5x} 30 Lab 's resolution compare with the resolution of an inkjet printer?

A: Images printed on Chromira^{5x} 30 Lab are far superior in image quality to images from an ink jet printer. The resolution of Chromira^{5x} 30 Lab is specified in continuous tone Pixels Per Inch. Inkjet printers specify resolution in Dots (of ink) Per Inch. It is generally considered that it takes 5-6 times the resolution in Dots per inch to match continuous tone resolution. Thus it would take an ink jet printer of at least 1500 Dots per Inch of resolution to equal the quality of Chromira^{5x} 30 Lab's prints at 300 Pixels per Inch.

Q: Does the machine need a darkroom?

A: No. The Chromira^{5x} 30 Lab can be loaded and operated in a normal lighted working environment. The paper roll is loaded via an on-printer loading compartment.

Q: In the event of a technical problem, what happens?

A: First, Chromira^{5x} 30 Lab automatically performs a complete self-diagnostic every time it is turned on. Any problems are immediately reported. In the event that the automatic self-test does not identify the

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problem, the next stage is a set of operator assisted self tests. Sophisticated fault diagnosis software guides the machine operator through a complete set of tests. Chromira^{5x} 30 Lab prompts the machine operator with voice messages to manually actuate each component of the machine. Chromira^{5x} 30 Lab monitors the results and generates a comprehensive log of tests. In most cases this will clearly identify the fault. The log of tests can then be e-mailed to ZBE for verification and subsequent action.