



# ***Forward Thinking***

Imagine a range of affordable high-performance large format printers, that produce outdoor durable print using odourless water-based ink that is harmless to humans and the environment we live in.



**elements**  
print science

# **Introducing Elements**

## **The background**

Today's print environments are under increasing pressure to apply stricter environmental criteria and safer working practices. Although there are alternative inks that promise greener principles, most carry disadvantages in their operating conditions and their long-term outdoor durability.

Using research which concentrated on removing the environmental concerns associated with both solvent-based and UV-curable products, Elements Print Science has brought to market a water-based family of inks which are suitable for the production of genuinely durable exterior print and signage.

Resistant to weather, UV light and abrasion, yet retaining excellent jetting properties that makes them trouble-free in use.

Combining the technical expertise of its developers with the drive to match greener market needs, Elements Print Science represents a range of harmless yet durable pigmented inks. These products contain no VOCs (volatile organic compounds) or hazardous chemicals and, in use, require no specific extraction or ducting to comply with Health & Safety regulations.

Imagine a range of affordable high-performance large format printers, that produce outdoor durable print using odourless water-based ink that is harmless to humans and the environment we live in.

Now imagine you can produce that print onto a range of substrates that are biodegradable, totally renewable, reusable and sustainable.

That is exactly what Elements delivers; green printing, no compromises.

Wide-format digital print is becoming ever more environmentally aware as specifiers, local government departments, authorities and greener end users demand more eco-friendly solutions. Today's display producers, sign-makers, print service providers and in-house operators no longer need to be confused by the options available to them which promise greater sustainability and recyclability.

Elements Print Science delivers a fully integrated and turnkey solution for the production of greener print, built on proven high-performance yet affordable large format printers, that produce outdoor durable print using odourless water-based ink that is harmless to humans and the environment we live in.

This printer and ink combination is further complemented by a range of substrates that are biodegradable, renewable, reusable and sustainable. For green printing without compromise, an Elements system delivers.





Inks that are durable enough to produce vehicle graphics, yet safe enough to use at home, that's Elements H<sub>2</sub>O.

At the heart of every Elements large format printing system you will find our unique durable water-based ink technology...

- No hazardous chemicals, VOCs or other harmful emissions.
- Suitable and safe for use in home, office or retail environments.
- Water-based ink formulation with solvent-quality output and durability.
- Ideal for both interior and durable exterior jobs without fading.
- High colour vibrancy, wide gamut and excellent contour sharpness.
- Compatible with a broad selection of uncoated rigid and flexible media.
- Low energy costs for cost effective, greener print production.
- Harmless and completely odourless.
- No need for ventilation or ducting.



# H<sub>2</sub>O Ink

Ideal for use by anyone looking to produce greener output in accordance with growing environmental pressures and the need for greater sustainability, Elements H<sub>2</sub>O inks are suitable for use by quick printers and copy shops, large format display print providers, sign-makers, digital bureaux and photolabs.

Because Elements H<sub>2</sub>O inks are formulated using completely safe, non-toxic chemistry, even users in offices and non-ventilated premises can now operate a wide-format printer without having to worry about odours, dangerous substances or carcinogenic properties. Similarly, our inks are suitable for graphics and industrial applications in sensitive environments which must be emission and odour free.

Despite their hard-wearing properties, Elements H<sub>2</sub>O inks are water-based and non-flammable. They can be used for interior and exterior applications on a wide range of absorbent, coated and uncoated media.

With no odours, no hazardous chemicals, no VOCs and no stringent Health and Safety requirements, printer users of all sizes can now produce greener print without compromise.

 [www.elementsps.net](http://www.elementsps.net)

# atom<sub>24</sub>

Small in size it may be, but when it comes to the rapid production of outdoor durable print, the Atom<sub>24</sub> packs a real punch.



Ideal for all display producers, sign-makers, in-house operators and even retailers, the ruggedly constructed Atom<sub>24</sub> is a high quality, versatile roll-fed printer designed to provide the reliability and ease of use found in water-based models, with the durability of solvent-based output.

## Speedy production...

Draft 360dpi: 57sq.m/hr (619 sq.ft/hr)
Fine 720dpi: 27sq.m/hr (294 sq.ft/hr)
Photo 1440dpi: 10sq.m/hr (107 sq.ft/hr)

The 610 mm (24 inch) Atom<sub>24</sub> has a compact footprint making it easy to accommodate in offices and shops. It is matched with the Elements Krypton Eco-Media range and Elements H<sub>2</sub>O inks for a complete turnkey system. Output is odourless and harmless so no special ventilation or ducting is required in use.

The Atom<sub>24</sub> features drop-on-demand micro-piezo print-heads with variable droplets as small as 3.5 picolitres. The optimum resolution of 1440 x 1440 dpi\* guarantees precise dot placement, vivid solid colours and fine graduations.

Accurate media handling is enhanced by an integrated cutter, fast loading and borderless printing. These features are complemented by a straight media path that allows it to handle materials from lightweight papers up to boards of 1.5 mm in thickness.

Water-based ink technologies and the Atom's auto-head alignment features mean there is no blocking of the print-heads nor time-consuming maintenance.

The low cost, high performance Atom<sub>24</sub> is designed to output onto the Krypton Eco-Media range of coated and uncoated materials, with Elements H<sub>2</sub>O water-based inks guaranteeing the same quality and durability as their solvent-based counterparts without any odour or hazardous emissions.

\*2880 dpi is possible with the optional Chromium RIP

## Atom<sub>24</sub> – Product Summary & Technical Overview

- Latest Epson 10-Channel MicroPiezo TFP Printheads
- 1440dpi Photographic Quality (2880dpi resolution is possible with the optional Chromium RIP)
- Production speeds even at photographic quality
- Print onto virtually any uncoated roll or sheet media
- All media is front loaded via a unique straight media path that allows printing of rigid media
- Prints directly onto posterboard, display card and virtually any uncoated media up to 1.5mm thickness
- Elements H<sub>2</sub>O inks are completely odourless and harmless for humans and the environment

- Printed output with long-term outdoor durability
- Durability and media adherence is comparable to that of solvent and UV-curable ink
- The first water-based ink that can completely replace solvent inks for outdoor printing
- Auto Head Align and Nozzle Check for automated and continuous error-free print production
- Variable dot down to 3.5 picolitre droplet size
- **Media:** ask about Elements Krypton Eco-media – biodegradable, renewable, reusable and sustainable.
- **RIP:** ask about the optional Chromium software



### Print onto Rigid Media

The straight media path allows printing onto rigid card and posterboards up to 1.5mm in thickness – perfect for the production of POS and POP.



### Easy-to-use Control Panel

Large, 2.5" backlit LCD panel for superior direct printer control and operational status. Allows easy access to the main printer features and settings.

Further information and datasheets available at [www.elementsp.net](http://www.elementsp.net)

## Green for Go Go Print

Indoor, outdoor, posters, signs and even vehicle graphics, the Atom range can print for any environment, without damaging our environment.



The 1118 mm (44 inches) Atom<sub>44</sub> is matched with the Elements Krypton Eco-Media range and Elements H<sub>2</sub>O inks as a complete turnkey system for production printers and display producers. Output is odourless and no special ventilation or ducting is required in use.

The Atom<sub>44</sub> features drop-on-demand micro-piezo print-heads with variable droplets as small as 3.5 picolitres. The optimum resolution of 1440 x 1440 dpi\* guarantees precise dot placement, vivid solid colours and fine graduations.

Accurate media handling is enhanced by an integrated cutter, fast loading and borderless printing. These features are complemented by the ability to handle materials from lightweight papers up to boards of 1.5 mm in thickness.

Water-based ink technologies and the Atom's auto-head alignment features means there is no blocking of the print-heads nor time-consuming maintenance.

The low cost, high performance Atom<sub>44</sub> is designed to output onto the Krypton Eco-Media range of coated and uncoated materials, with Elements H<sub>2</sub>O water-based inks guaranteeing the same quality and durability as their solvent-based counterparts without any odour or hazardous emissions.

\*2880 dpi is possible with the optional Chromium RIP

# atom<sub>44</sub>

It's lean, it's green and with production speeds of 27 square metres an hour at 720dpi, and 10 square metres an hour at 1440dpi photo quality, it's a pretty mean printing machine.

Greener printing without the compromises, that's Elements.



Take advantage of 2880dpi print quality, and work faster, with the optional RIP.

## Atom44 - Product Summary & Technical Overview

- Latest Epson 10-Channel MicroPiezo TFP Printheads
- 1440dpi Photographic Quality (2880dpi resolution is possible with the optional Chromium RIP)
- Production speeds even at photographic quality
- Print onto virtually any uncoated roll or sheet media
- All media is front loaded via a unique straight media path that allows printing of rigid media
- Prints directly onto posterboard, display card and virtually any uncoated media up to 1.5mm thickness
- Elements H<sub>2</sub>O inks are completely odourless and harmless for humans and the environment
- Printed output with long-term outdoor durability
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### Epson MicroPiezo TFP

This is quite possibly the most advanced ink jet print head technology ever developed. Extreme print performance and dot placement accuracy.



### Advanced Media Handling

Highly accurate, automatic media loading and handling, combined with fast, spindle-free roll media support for less chance of media damage.

Further information and datasheets available at [www.elementsp.net](http://www.elementsp.net)

## Print Anything

The types of material which can be used with Elements H<sub>2</sub>O inks are so broad that new media is constantly being added to the existing portfolio. Typical options which are suitable for direct printing include coated and uncoated papers, card stocks and corrugated boards, banners, scrims, polyesters and PE products, vinyls, meshes, linens and synthetic and cotton canvases, digital textiles, plus PVCs.

Naturally this versatility also allows printing onto a far broader range of uncoated biodegradable, renewable, reusable and sustainable media.

As their use increases throughout the wide-format ink-jet world, expect to see Elements H<sub>2</sub>O extending its reach to rigid materials such as woods, plastic derivatives and aluminium composites as well as specialist media used for wall coverings, interior design and industrial applications. By removing expensive and time-consuming pre-treatment of surfaces to be printed, The suitable applications for Elements H<sub>2</sub>O ink are only limited by the imagination of the user.

For green printing without any of the compromises, consider the wider Elements Titanium<sub>64</sub> Printer...

- 1 New Image Processing Technology
- 2 2880 x 1440dpi Resolution
- 3 Elements H<sub>2</sub>O Outdoor Durable and Eco-Friendly Water-based Inks
- 4 Colorimetric Calibration
- 5 Epson MicroPiezo TFP Print Head
- 6 Automatic Ink Detection
- 7 High Performance Print Speeds
- 8 Professional Media Handling up to 64" Printing Widths
- 9 Straight Media Path allows Thick Media Support up to 1.5mm
- 10 Automatic Print Head Alignment
- 11 Borderless Printing up to 54"
- 12 Built-in Automatic Take-up Reel
- 13 High Capacity Ink Cartridges
- 14 USB 2.0 and Gigabit Ethernet



## *titanium***64**

Wide format printing, outdoor durable, environmentally friendly and all at high production speeds – that's Elements, naturally.

## Titanium<sub>64</sub> – Product Summary & Technical Overview

- Printed output with long-term outdoor durability
- 2880dpi x 1440dpi Photographic resolution is possible with the included Chromium RIP
- Production speeds even at photographic quality
- Print onto virtually any uncoated roll or sheet media
- Prints directly onto posterboard, display card and virtually any uncoated media card up to 1.5mm thick
- Auto Head Align and Nozzle Check for automated and continuous error-free print production
- Elements H<sub>2</sub>O inks are completely odourless and harmless for humans and the environment
- Durability and media adherence is comparable to that of solvent and UV-curable ink
- The first water-based ink that can completely replace solvent inks for outdoor printing
- Variable dot down to 3.5 picolitre droplet size
- **Media:** ask about Elements Krypton biodegradable, renewable, reusable and sustainable Eco-Media



### Automatic Media Take-up Reel

Full width roll-to-roll for unattended printing capability. Can automatically de-curl media using both forward and backward take-up modes.

## *Professional Media Handling*

- Prints on virtually any media type, in roll or cut-sheet, up to 64 inches wide
- All media is front-loaded via a unique straight-through media path
- Accurate loading of cut-sheet media up to 64 inches wide for a variety of media up to 1.5 mm thick, including posterboards
- Automatic Media Bar-code Tracking and Identification System for efficient media use
- User-adjustable Dual-tension Roll Media Spindle accepts either 2- or 3-inch cores
- Built-in Automatic Cutting System supports most coated and uncoated media types
- Standard Automatic Roll Media Take-up Reel, for unattended long-run production
- Optional Retractable Fabric-based Media Bin safely captures multiple cut sheet prints
- Roll media take-up reel: Auto forward and backward; light-based media tension sensor.
- Unattended printing capability.
- Can automatically de-curl media using both forward and backward take-up modes.

Further information and datasheets available at [www.elementsp.net](http://www.elementsp.net)

# Krypton Eco-Media

To complement the Elements range of printers and H<sub>2</sub>O inks, Krypton Eco-Media is a range of green compatible materials which offers genuine environmentally friendly alternatives to conventional products.

Krypton Eco-Media is biodegradable, totally renewable, reusable and sustainable, manufactured to comply with the strict certification required by the FSC (Forest Stewardship Council). When used in conjunction with Elements H<sub>2</sub>O inks, the result is the greenest printed output available in today's display market.

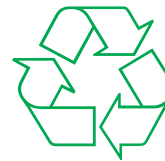
Elements offers more than 20 products in its Krypton Eco-Media portfolio, each properly profiled for use with the Chromium RIP and Elements H<sub>2</sub>O water-based durable inks. The range includes indoor and outdoor materials, partnered with Elements printers for output that is durable and dimensionally stable.

As the result of concentrated development into the display sector for greener materials, Elements and Krypton Eco-Media are dedicated to reducing the carbon footprint by making available, for the first time, a versatile range of materials which use alternative, renewable resources.



Are your customers insisting that you use green materials in their print?  
The Krypton Eco-Media range could be just what you are looking for...

- Biodegradable, totally renewable, reusable and sustainable
- Matched and profiled for use with Elements printers and H<sub>2</sub>O inks
- A comprehensive range of biodegradable display materials
- Durable and dimensionally stable output for indoor and outdoor use
- Genuinely reduces carbon footprint
- High quality green alternatives to conventional print materials
- Available in a range of widths and weights to suit all applications
- Cost-effective and compatible with existing recycling programmes



The Krypton Eco-Media range from Elements includes...

- **Krypton EM-EcoVinyl**  
FSC certified alternative to traditional vinyl, uses 65% PCW (Post Consumer Waste), water-activated and removable adhesive.
- **Krypton EM-Banner**  
A replacement for traditional PVC banners. This product will take eyelets and stitching.
- **Krypton EM-Display**  
For greener exhibition and display panels, in 200/300/500/750 micron thicknesses.
- **Krypton EM-Blockout**  
Our FSC-certified alternative to standard non recyclable block out PVC vinyl.
- **Krypton EM-Rigid**  
Available 1.5mm and 3mm thick, EM-Rigid is an earth friendly replacement for Foamex.
- **Krypton EM-Board**  
3mm, 3.5mm and 5mm thicknesses, rigid FSC-certified bright-white printable board.



Work faster, and at even higher quality, with the optional Chromium RIP.

The Elements Atom printer range is capable of printing at up to 2880dpi, but the standard drivers only support up to 1440dpi – for optimal quality, and ease-of-use, we recommend the optional Chromium RIP...

- Specifically optimised for use with the Elements printer family
- Produce consistent accuracy with Krypton Eco-Media and Elements H2O inks
- Supports the Elements Atom's maximum resolution of 2880 dpi
- Fast and powerful job processing
- Intuitive user interface, drag and drop operation with easy-to-use workflow
- Easy to set-up and use by novice and experienced users
- Sophisticated colour control and rendering for optimal quality

## Chromium

The Elements Chromium RIP is an easy-to-use specially configured software solution to optimise the use of the Elements printer family, the growing range of Krypton Eco-Media matched materials and our H<sub>2</sub>O inks.

Suitable for novice and experienced users alike, the Chromium RIP has been selected for use with Elements for its versatility, speed of processing and accuracy.

Setting up jobs is fast, and files are dragged and dropped directly into the main window for simplicity of operation. Colour adjustment is easy to apply, and all key parameters can be saved and locked for future use.

Sophisticated features are incorporated into the Chromium RIP's intuitive interface, enabling users to work with complex production algorithms and colour workflows quickly and confidently. The broad selection of colour tools is complemented by the software's ability to handle the Atom's maximum output resolution of 2880 dpi.

Colour accuracy is guaranteed across all inks and matched media used with the Elements printer family, making the Chromium RIP the ideal partner for consistent, high quality results on coated and uncoated materials. For greater accuracy, 16-bit rendering produces smoother gradients, and advanced colour tools give experienced users finite manual control as and when required.

# Thinking?

Call your Authorised Elements Reseller to book a demonstration and find out more about Elements Printing Systems.

