MUTOH
Your Partner for Visual Communication

rock hopper 3 eXtreme

For mid volume sign production applications
> Photo quality outputs

ECO

- ❌ Safe, easy-to-use system, ideal for office environments

- ❌ Suitable for indoor and outdoor graphics

- ❌ Tuned for Mutoh's Eco-Solvent Ultra inks

- ❌ Prints directly onto a wide array of low-cost uncoated media

- ❌ For starting and established small to mid range sign shops

Intelligent Interweaving

ONE JUMP AHEAD !

Flexible, easy to use and able to deliver top quality output consistently during volume production runs as well as short print runs, Rockhopper 3 Extreme is an ideal printer for starting sign makers and for established small to mid-range sign shops. What's more, a Rockhopper 3 Extreme, targeted at an annual production from 750 to 4500 square meters, is already profitable at less than 15 square meters per week.

Mutoh's Rockhopper 3 Extreme printers, with media widths of 1651 mm (65") and 2280 mm (90"), can be used for outdoor signs and for photo-quality indoor applications.

The i² Intelligent Interweaving print technology delivers impeccable quality output at 8.25 m²/h on uncoated PVC even at close viewing distance (< 1 m). Tuned for the new Eco-Solvent Ultra inks, with their excellent drying and drop fixation characteristics, Rockhopper 3 Extreme application possibilities encompass high-quality posters for indoor and outdoor signs, including corporate signs, stage and window graphics, POS displays, backlit box signage, vehicle graphics and much more.
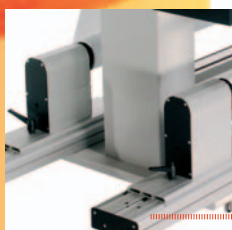
Intelligent Interweaving

High Performance Eco-Solvent Ultra Ink

Wide Media Acceptance

Motorised Unwinder / Winder 100 System

Perfect media & ink interaction

Built-in individual digitally controlled heating elements provide excellent media acclimatisation, fixation of the Eco-Solvent Ultra ink and drying of the print. As a result, for day-to-day production printing, no additional drying system is required.

Significantly reduce cost for print figures

Eco-Solvent Ultra inks are priced at least 20 % lower than the previous Eco-Solvent Plus inks. These inks will print well on low-cost PVC with standard paper backing. Compared with regular PVC with PE-coated backing, paper-backed PVC saves you 20 % again. Moreover, the i² print technology and 540 dpi print mode significantly reduce the ink consumption, up to 30% or more versus 720 dpi. Put these savings together and you decrease cost for print figures by as much as 40 %!

Office printer

When printing with a Rockhopper 3 Extreme using Eco-Solvent Ultra inks, no harmful VOCs are spread in the working environment. As a result, there is no need for forced ventilation.

Extremely user-friendly

The Rockhopper 3 Extreme is immediately ready for printing. No special procedures for start up and shut down are required. i² Intelligent Interweaving print technology means impeccable printing quality is effortlessly reproduced every time on a wide range of uncoated and coated substrates.

High-End Piezo Technology

Rockhopper 3 Extreme printers are equipped with four latest generation 360-nozzle/colour piezo-electric drop-on-demand inkjet heads. These heads incorporate Dynamic Variable Dot Imaging technology, allowing production of multiple and unique ink dots and permit individual adjustment of ink droplet size from each of the print head nozzles on-the-fly. Compared with fixed drop systems, this technology gives outputs with finer details, overall image smoothness and crisper colours in the midtones and shadows.

Suitable for indoor & outdoor graphics

Rockhopper 3 Extreme application possibilities encompass outdoor poster signs, banners, long-term backlit signage, building and construction announcements, vehicle graphics, durable indoor graphics, POS displays and much more. Additionally, the Rockhopper 3 Extreme printer is an excellent choice for durable photo-realistic prints for indoor use.
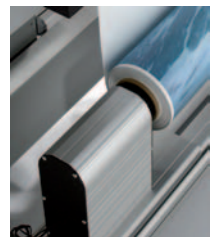
Eco-Solvent Ultra inks

New Eco-Solvent Ultra CMYKLcLm ink set – non-aggressive solvents: improved ink fixation, better drying, higher print speeds, improved scratch resistance, wider media compatibility; suited for printing directly onto low-cost standard available uncoated PVC and scrim banner media; no need for forced ventilation; hardly any periodic maintenance required; low ink consumption. Eco-Solvent Ultra prints are UV- and water-resistant for up to three years outdoors[1]

[1]: For fleet, floor graphics or other applications where prints are exposed to intensive mechanical stress or abrasion, lamination is recommended.

Ready for Volume Printing

Unattended roll-to-roll printing is possible with the fully motorised heavy-duty unwinding/winding system for media rolls up to 100 kg. The unwinder/winder system ensures the Rockhopper 3 Extreme is ready to handle volume production such as rush jobs in periods of high volume demand.

Output speeds

When speed is the main requirement, the Rockhopper 3 Extreme engine can reach speeds above 35 m²/h. When quality is the top consideration, the optimum speeds below will deliver impeccable printing quality time and time again on a wide range of standard uncoated substrates.

> Printing onto uncoated self-adhesive PVC, impeccable output quality* for any image is possible at 6.5 m²/h (720 dpi) and at 8.25 m²/h (540 dpi).
> Printing onto banner, soft signage textile… impeccable output quality* is possible:
- For "Sign" images at 6.5, 8.25, 11 and 13 m²/h
- For "Picture" images at 6.5, 8.25, 11, 13 and 16.5 m²/h

* Free from typical inkjet printing artefacts such as horizontal banding, ink bleed and media step mismatch banding, even when viewed close to (< 1 m).

Printer specifications	Rockhopper 3 65" Extreme	Rockhopper 3 90" Extreme
Technology	Drop-on-demand Micro Piezo Inkjet Technology. Variable drop mass output between 5.4 ng and 41.5 ng	
Maximum Media Widths	1651 mm	2280 mm
Maximum Print Widths	1641 mm	2240 mm
Media Thickness Diameter / Core Weight	Range: 0.08 mm – 1.1 mm Maximum: 300 mm / 2" or 3" Maximum: 100 kg	
Media Thickness Compensation	Automatic media thickness compensation. Variable – RIP controlled – Head Height	
Resolutions	360 x 360 dpi, 720 x 360 dpi, 540 x 720 dpi, 720 x 720 dpi & 1440 x 1440 dpi	
Colour Channels	8 colour channels – 4 or 6 process colour output	
Inks	Eco-Solvent Ultra 2 x CMYK speed set-up Eco-Solvent Ultra CMYKLcLm photo tone rendering set-up	
Ink Cassette Capacity / Type	220 ml & 440 ml / smart chip ink type & order sensing	
Print Modes & Panel Control Options	Uni & Bi-directional output, Intelligent Interweaving, Mirror Output, Multi Copy, Ink Status, Origin Control.	
LCD Display	Backlight LED – 4 lines x 20 characters	
Interface	Centronics, IEEE 1284 compatible / Network, High Speed Interface (standard high-speed interface card – 4 Mb/s).	
Graphics Command Language	RTL-PASS	
Print Engine Working Environment using Eco-Solvent Ultra Inks	Temperature: 18 – 27 °C	
Relative Humidity	30 – 65 % (no condensation)	
External Dimensions in mm (W x D x H) (Excl. Winder Unwinder 100)	3100 x 750 x 1250 mm	3700 x 750 x 1250 mm
Weight	195 kg	215 kg
Power Consumption	1300 VA	1400 VA
	80 VA in stand-by mode	100 VA in stand-by mode
Power Supply	AC 100 – 120 V / AC 220 – 240 V auto-switching	
Noise Level	Operating: 54 dB or less	
Standard	VCCI (Class A), FCC (Class A), UL, CE, CCIB	

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The machines depicted on this brochure do not necessarily show a standard configuration. For some products, customised configurations are available.
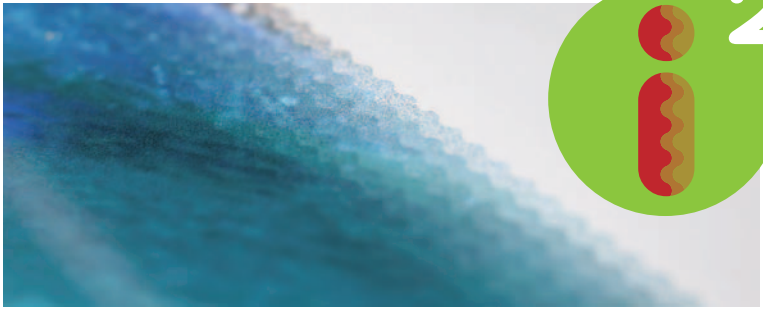For further information, please contact your nearest Mutoh Authorised reseller.

MUTOH

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i^2 - a revolution in print technology

> Intelligent Interweaving, i^2 technology from Mutoh, provides impeccable digital printing quality for both Photo and Sign printing.
> Quick and simple to set up, printing with i^2 saves time and trouble while producing outstanding results.

Mutoh has taken a totally new approach with i^2 technology (pronounced i squared). Ink is laid down in carefully optimised wave forms, not the straight lines used by all other wide-format inkjet printers. The result is a drastic reduction or even total elimination of the typical difficulties inherent in conventional digital inkjet printing. i^2 technology means the end of defects such as horizontal banding, step mismatch banding, ink mottle and bleed and the visible effects of missing or misfiring nozzles.

i^2 technology benefits

> Impeccable print quality.
> Excellent workflow as user-friendly set up saves time even with the most challenging images.
> Bi-directional printing of all images, even the most critical jobs, as wave sequences eliminate banding.
> Increased ink density yield as the wave patterns superimpose thin ink layers to create an even coating with superb image definition.
> Boosted colour gamut, compared with conventional straight-line printing. Ready-programmed, dedicated i^2 profiles boost the colour gamut and, with the increased ink density yield, reduce ink consumption by as much as 10%

Depending on the incorporated head technology and ink type, Mutoh is programming printer-specific optimised print weaving modes for both sign and picture applications.

Sign/Quality : Signage and poster applications containing big areas with solid colours, typography and critcal gradients

Picture/Speed : Non sign images, pictures and photographs

Rockhopper 3 65/90 Extreme Performance

Below table explains you what Mutoh's i² technology will offer you, depending on the **type of image** you need to print, **the material type** as well as the **viewing distance.**

Banner & Soft Signage						
Uncoated SA - PVC						
Speed m²/h / Resolution	6,5	8,25	11	13	16,5	22
720 x 720	S		S	P		
540 x 720		S		S	P	
360 x 720						B
360 x 360						B

i² = free from typical inkjet artefacts such as horizontal banding, ink bleed and media step mismatch banding, even when viewed close to.

= i² compatible modes, viewing distance < 1m

= i² compatible modes, viewing distance between 1 m and 5 m

= viewing distance > 5 m

= applicability needs to be judged on individual basis

S = All Images
P = Pictures Photographs
B = Billboard mode, applicability needs to be judged on individual basis

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The printing quality breakthrough