

MUTOH

Creation, we make it happen...

Spitfire 100 Extreme

Extreme speed,
Extreme quality ...



102" (260 cm) high volume mild solvent or eco-ultra printer

i² Intelligent Interweaving breakthrough print technology incorporated

Fantastically fast, with impeccable quality at 42 m²/h

Never turn demanding customers away again - just bring them on and deliver with a smile

Top speed of 81 m²/h





> SPITFIRE 100 EXTREME MILD SOLVENT & ECO-ULTRA PRINTER

The Spitfire 100 Extreme will address the needs of typical sign makers & commercial printers focusing on high volume production of outdoor prints with medium term durability.

It prints directly onto standard available uncoated vinyl, banner and soft signage materials with a maximum width up to 2604 mm (102.52"). Printing width goes up to 2594 mm (102.13").

Mutoh patent pending i² Intelligent Interweaving print technology means the Spitfire 100 Extreme delivers impeccable quality at production speeds up to 42 m²/h. Mutoh Eco-Solvent Ultra and Mild Solvent Plus inks have excellent drying and drop fixation characteristics to perform at high print speeds on a wide range of popular self-adhesive PVC and banner substrates.

Spitfire 100 is particularly fit for speed-intensive sign production applications such as corporate signs, stage and window graphics, POS displays, backlit box signage, construction announcements, vehicle graphics, indoor graphics such as photo blow ups, floor graphics and much more...



Total New Design

The Spitfire 100 Extreme is newly designed from scratch and is not an expanded version of a current model.

Innovative features include completely new ink supply path, new X/Y rail extrusions, new electrical pump system with one pump per head, high endurance carriage with tandem bearing, new head base, and a state-of-the-art maintenance station & vacuum system. In addition, the Spitfire 100 Extreme features a generously large illuminated viewing area with strip lights enabling output inspection while printing.



Intelligent Interweaving inside



Wide Media Acceptance



Ready for Volume Printing

Durable Prints

Mutoh Eco-Solvent Ultra & Mild Solvent Plus inks resist cleaners, detergents and commercially available degreasers. Outdoor durability of prints is up to 3 years*. General purpose signs do not require lamination**

* Based on accelerated weather tests. Northern European Standards.

** For heavy-duty applications where mechanical stress is involved (floor & vehicle graphics), lamination is required. Stabilisation time is required prior to lamination.

Speed / Performance

When speed is the main requirement, the Spitfire 100 Extreme printer engine can reach speeds up to 81 m²/h. Thanks to our unique Intelligent Interweaving print technology, Spitfire 100 is able to deliver top printing quality time and time again on a wide range of substrates.



Printing onto uncoated self-adhesive vinyl, banner, soft signage textile..., impeccable output quality (*) is obtained :

- For "Sign" images at 9, 11, 17 and 28 m²/h
The Sign weave is ideal for the most demanding users. Its focus is clearly on the top notch quality.
 - For "Picture" images at 11, 15, 22 and 42 m²/h
The Picture weave finds the best balance between speed and quality.
- (*) Free from typical inkjet printing artefacts such as horizontal banding, ink bleed and media step mismatch banding, even for close viewing distances (< 1 m)



Micro-Staggered High-End Piezo Print Head Technology

The Spitfire 100 Extreme printer features two head sets in a micro-staggered layout (one colour per head), allowing both speed-oriented production work at impeccable print quality as well as top quality piecemeal. Each of the eight incorporated drop-on-demand piezo inkjet heads has 2 x 180 nozzles. Each 180 nozzle row is delivered by an independent ink channel. Using Dynamic Variable Dot Imaging Technology, each ink droplet is individually adjusted to provide high speed and high quality with low ink consumption.

Ink Compatibility

Unique in the wide format printer market is that Spitfire 100 Extreme can be used at the **same performance level** for both Mutoh Eco Ultra and Mild Solvent Plus inks !



Cassettes 220 ml & 440 ml
Bottles --

440 ml
1 liter

Mutoh high performance Eco Ultra & Mild Solvent Plus inks are specifically tuned for the sign industry. The inks offer a wide and comfortable colour gamut. They have excellent drying and drop fixation characteristics, allowing them to cover the complete speed range on Spitfire 100 Extreme, on a wide selection of uncoated media.



Wide Media Acceptance

Spitfire 100 Extreme will print onto a wide array of uncoated, eco-coated and coated substrates thanks to the unique characteristics of Mutoh Eco-Solvent Ultra and Mild Solvent Plus inks, piezo print head technology, four built-in digitally controllable heating elements and Mutoh i² print technology. Latest media compatibility information and free ICC profiles are available at www.mutoh.eu.



Ready for Volume Printing

The Spitfire 100 Extreme is delivered as standard with a specially developed, fully motorised heavy-duty unwinding/winding system for media loads up to 100 kg. This allows unattended roll-to-roll printing and ensures the Spitfire 100 Extreme is immediately ready for volume production.

Bulk Ink System

For speed intensive, high volume users, the Spitfire 100 Extreme using MS Plus ink connects with Mutoh's optional professional continuous ink delivery system.

Mutoh's optional Bulk Ink System (BIS), allowing 4.3 litre ink autonomy per bottle, is a high-volume ink delivery system offering long autonomy along with minimum user intervention. The ink bottles are refillable on the fly.



Printer specifications	Spitfire 100 Extreme
Technology	Drop-on-demand Micro Piezo Inkjet Technology 8 heads – variable drop – 2 nozzle rows with 180 nozzles each / head Drop mass (ng) : 5.4, 11.5, 14, 25, 28 and 42
Maximum Media Width	2604 mm (102.52")
Maximum Print Width	2594 mm (102.13")
Media Thickness Diameter / Core Weight	Range: 0.08 mm – 1.1 mm Maximum: 300 mm / 2" or 3" Maximum load: 100 kg* <small>* : Some media over 1.6 m wide may be wound onto a core that bends through. In that case Mutoh strongly recommends to install the standard included media core brace. Maximum roll media weight in this case is 80 kg.</small>
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
Intelligent Interweaving (i ²)	Available for 360 x 360 dpi, 540 x 720 dpi & 720 x 720 dpi output resolutions Weave settings : Sign/Quality, Picture/Speed
Colour / Ink Setup	16 colour channels – 4 x 4 CMYK setup – One colour per head
Heaters	Incorporated 4-stage heater system : Pre-heater (max. 50 °C), Fixer (max. 40 °C), Post-Fixer (max. 40 °C) and Dryer (max. 50 °C)
LCD Display	Backlight LED – 4 lines x 20 characters
Interface	Ethernet Network Card / Centronics, IEEE 1284 compatible
Graphics Command Language	RTL-PASS
Print Engine Working Environment using Mild Solvent Plus Inks	Temperature: 20 – 30 °C - Δt max. 2 °C/h Relative Humidity: 40 – 65 % RH - ΔRH max 5% RH/h
Print Engine Working Environment using Eco-Solvent Ultra Inks	Temperature: 20 – 30 °C - Δt max. 2 °C/h Relative Humidity: 30 – 65 % RH - ΔRH max 5% RH/h
Air Purification Equipment	Use of Mild Solvent Plus inks intrinsically requires the use of an air purification system. Spitfire 100 Extreme is equipped with exhaust holes for easy connection of forced ventilation equipment. For connection to an existing air purification system, an optional hose set with exhaust connectors is available. To ensure a clean and safe working environment, contact the local authorities to know the local acceptance levels.
External Dimensions in mm (WxDxH)	4500 x 800 x 1300 mm
Weight	520 kg
Power Consumption	3000 VA 100 VA in stand-by mode
Power Supply	AC 220 – 240 V
Regulatory Approvals	CE Mark, FCC Class A, ICES Class A

Specifications are liable to changes without prior notice. All trademarks mentioned are property of their respective owners. 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. Images in printer courtesy and copyrighted by Joris Luchtigheid, www.werkinopdracht.nl

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Distributed by:

Mutoh i² for real life prints

With i², intelligent interweaving technology, Mutoh has developed a guided printer setup for each printer.

Users can effortlessly select the most suitable print mode and predict how long printing will take.

Visit www.mutoh.eu/interweaving to discover how it works....

Discover the comfort of i². MUTOH
Select any Mutoh Printer.

Blizzard 65 	Blizzard 90 	Rockhopper 3 Extreme 81" 	Rockhopper 3 Extreme 91" 	Spitfire 65
Spitfire 90 	Spitfire 100 	ValueJet 1204 	ValueJet 1304 	ValueJet 1614

Spitfire 100 Extreme **Predict the i² output result** **MUTOH**

1) Select the VIEWING DISTANCE

VIEWING DISTANCE LESS THAN 2 M 	VIEWING DISTANCE MORE THAN 2 M 	VIEWING DISTANCE MORE THAN 3 M
SIGN PICTURE	SIGN PICTURE	SIGN PICTURE
DETAILS LESS DETAILS	DETAILS LESS DETAILS	DETAILS LESS DETAILS

2

Spitfire 100 Extreme **Predict the i² output result** **MUTOH**

2) Select the IMAGE TYPE

VIEWING DISTANCE LESS THAN 2 M 	VIEWING DISTANCE MORE THAN 2 M 	VIEWING DISTANCE MORE THAN 3 M
SIGN PICTURE	SIGN PICTURE	SIGN PICTURE
DETAILS LESS DETAILS	DETAILS LESS DETAILS	DETAILS LESS DETAILS

2

SIGN = large areas of high contrast and low resolution like posters and signs
PICTURE = suited to the output of high-resolution photographs

Spitfire 100 Extreme **Predict the i² output result** **MUTOH**

3) Select the IMAGE CONTENT

VIEWING DISTANCE LESS THAN 2 M 	VIEWING DISTANCE MORE THAN 2 M 	VIEWING DISTANCE MORE THAN 3 M
SIGN PICTURE	SIGN PICTURE	SIGN PICTURE
DETAILS LESS DETAILS	DETAILS LESS DETAILS	DETAILS LESS DETAILS

2

Spitfire 100 Extreme **Predict the i² output result** **MUTOH**

Result: FAST 540 dpi, 2 pass, 22 m²/h

VIEWING DISTANCE LESS THAN 2 M 	VIEWING DISTANCE MORE THAN 2 M 	VIEWING DISTANCE MORE THAN 3 M
SIGN PICTURE	SIGN PICTURE	SIGN PICTURE
DETAILS LESS DETAILS	DETAILS LESS DETAILS	DETAILS LESS DETAILS

2

NEW CLARITY!