

# MUTOH

Creation, we make it happen...



## Professional Wide-Format UV Inkjet Printer



Top speeds  
up to  
45 m<sup>2</sup>/h



Prints on flexible and rigid materials - maximum width 65" (1651 mm)

Unmatched image quality - greyscale inkjet head technology

i<sup>2</sup> Intelligent Interweaving inside - UV gloss-banding suppression

Safe working environment guaranteed - closed cover design

Outstanding operator comfort - same ease of use as a digital solvent printer

Zero drying time - prints immediately ready for use or finishing

Minimal ink consumption - low production costs

Attractive production speeds - short lead times





## > Explore the Benefits of Mutoh UV Inkjet Technology !

Engineered and developed by Mutoh Belgium, the Zephyr 65 is a robust UV printer for the professional sign and screen industry, printing up to 1625 mm (64") across media up to 1651 mm (65") in width.

Zephyr 65 will produce excellent image quality on a wide range of roll and rigid media. Our UV inks have been tuned to give you optimum application comfort. Prints are immediately dry and ready for use or for finishing (trimming, cutting, lamination...). On many typical media, Zephyr UV inks will offer you a better mechanical and chemical abrasion resistance than solvent inks and they are 100 % VOC free !

In designing the Zephyr 65, Mutoh has combined elegant looks with first class and proven system elements based on more than a decade of experience in developing and manufacturing wide-format digital inkjet printers.

The Zephyr 65 integrates numerous high tech features to deliver outstanding print quality. Features include Mutoh's award-winning Intelligent Interweaving print technology (i<sup>2</sup>), four XaarJet 760 greyscale print heads, Mutoh proprietary UV inks formulated specially for the Xaar heads, a fully automated unwinder/winder unit for media rolls up to 100 kg, a front-end Windows workstation, a top quality shuttered UV lamp station, a bulk ink supply with in-line degassing unit, and a dedicated graphics user interface.

Top quality prints for close viewing distances (< 1 m) are produced at 7.5 or 3.5 m<sup>2</sup>/h. Prints for medium viewing distance (> 2 m) are printed at speeds of 15 or 20 m<sup>2</sup>/h. For large viewing distances (> 5 m), speed can be increased to 30 m<sup>2</sup>/h. Zephyr's top engine speed is 45 m<sup>2</sup>/h.

Zephyr users and their customers will be delighted with the quality, reliability and low cost per square meter.



## >> Zephyr 65 at a glance ...



### ***i<sup>2</sup> Intelligent Interweaving Technology***

Mutoh *i<sup>2</sup>* Intelligent Interweaving technology (pronounced i-squared) will make you deliver fit-for-purpose impeccable print quality every time, creating the brightest images from the least ink. In Zephyr, the *i<sup>2</sup>* technology delivers an excellent colour gamut, minimised image graininess and suppression of step mismatch and typical UV gloss banding. You can find out more on this amazing technology at [www.mutoh.eu/interweaving](http://www.mutoh.eu/interweaving).

### ***Flexible UV Inks***

Mutoh proprietary UV CMYK inks are tuned for roll-to-roll printing and also allow printing onto various rigid substrates. Ink is delivered in safe and easy-to-use 1-litre bottles. The Zephyr 65 incorporates a bulk ink system of two litres per colour, easily accessible for refilling whilst printing.



### ***Automatic Ink Supply System***

To achieve reliable, high speed, high quality output, it is essential to condition the UV ink. Mutoh's Zephyr 65 features an integrated active ink degassing system to eliminate air bubbles before they can interrupt ink supply to the nozzles. The ink conditioning system precisely maintains the temperature that is crucial for UV curable ink printing systems. Ink low levels in the supply tanks are indicated to ensure uninterrupted production.



### ***Unwinder / Winder System***

A heavy-duty motorized unwinder/winder system with dancer bars for media rolls up to 100 kg is standard on Mutoh's Zephyr printer. The printer can handle roll media with a diameter up to 300 mm and is compatible with 2" & 3" media cores.





### 8 pl Greyscale Heads

The Zephyr UV printer incorporates four XaarJet 760 print heads, primarily developed for printers with mobile heads — the Zephyr 65 shuttles the heads across the media rather than moving the media across static heads. Each greyscale drop-on-demand variable drop piezo print head has 764 nozzles to deliver the quality and high productivity demanded by the industrial print market.

Small drops (8 pl) deliver pin sharp text and line art, whilst larger drop combinations of 16, 24, 32 and 40 pl ensure excellent image saturation. XaarJet 760 print heads eliminate the need for additional light colours (Lc, Lm), by offering six levels of greyscale, equivalent to five densities of CMYK.



Fixed Drop Technology



Xaardot™ Technology



### Fast UV Curing



The built-in dual-lamp UV-curing system with adjustable power ensures excellent outputs during bi-directional and high speed printing. Two lamps, one at each side of the print head shuttle, are pre-mounted in a cassette for effortless replacement by the Zephyr operator.

### Twin Extrusion Design

Impeccable printing is all about precise placing of minuscule ink droplets while accurately moving the media. The twin extrusion design enables the Zephyr to do exactly that. Two extrusions work in perfect symmetry, one providing accurate head shuttle movement, the other assisting media transport and pressure control.

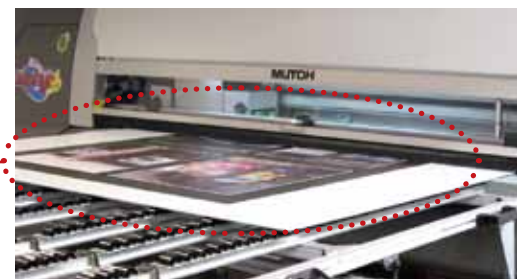
### Full Media Width Ionisation Bar

An ionisation bar has been standard integrated into the Zephyr UV printer. This bar is mounted between the pressure rollers and the print head carriage, across the full width of the printer, and moves up/down together with the pressure rollers. The ionisation bar will give you printing comfort and will allow you to achieve optimum dot placement, even on media that are sensitive to static electricity.



### Rigid Board Printing

For printing on rigid media up to a thickness of 20 mm, media transport tables can be placed at the back and in front of the machine. Automatic detection of media edge support the operator in managing rigid substrate applications. Switching between rigid and roll printing takes only a few moments. Several rigid tables can be connected for transporting and printing long rigid plates.





### Applications

Zephyr will successfully print onto a large range of sign making media : PVC banner, self-adhesive PVC, PVC free polyolefin-based self-adhesive, soft sign, foam PVC, foam board, coated aluminium sandwich, display cardboard, corrugated polypropylene sheet, polystyrene sheet, polyester sheet, polycarbonate, non woven roll media...(\*)

(\*) As Zephyr UV ink adheres to such a variety of different substrates, you need to be aware that adhesion, overall resistance, weatherability, etc. change from media to media. At all times, Mutoh recommends an individual printing test on the media type and brand of your choice. In some cases, a primer may help to improve the ink anchorage.



### Performance

High Quality HD	< 1 m	Allows printing of the tiniest details & maximises gamut	3.5 m <sup>2</sup> /h
Quality HD	< 1 m	Best balance between fine detail, gamut and speed performance	7.5 m <sup>2</sup> /h
Quality	> 2 m	Quality output for medium viewing distances	15 m <sup>2</sup> /h
Production	> 2 m	Regular production mode for medium viewing distances	20 m <sup>2</sup> /h
Billboard	> 5 m	Speed production for larger viewing distances	30 m <sup>2</sup> /h
Draft	-	Applicability to be judged on individual basis	45 m <sup>2</sup> /h

### Workstation / Network

The front end workstation (17" TFT Screen – Microsoft® Windows XP Embedded operation system) incorporates a Mutoh proprietary graphics multi-language user interface. This allows easy operation of the machine, job queue management, intuitive guided maintenance, job preview & progress monitoring, and much more. USB & external HDD connections are possible.



### RIP

Mutoh's Grip+ RIP solution with a pre-configured Linux workstation (3 years exchange warranty) enables you to professionally manage your large-format print workflow. Among the features you will get spot colour matching functionality, step & repeat, automatic nesting, tiling and layout tools.



### Safe Working Environment Guaranteed

With a safe working environment in mind, Mutoh designed a "closed" UV printer to protect the operator from possible negative influences of ink particles released while printing ("ink mist") as can happen with the open systems offered by most other manufacturers. Mutoh also incorporated features for safe extraction of ozone. Connectors on top and at the back have been foreseen to accommodate ink mist extraction, hot air extraction and ozone filtration.



### Mutoh Authorised Resellers

Mutoh products are distributed and supported by an extensive network of certified Mutoh authorised resellers extensively trained by the Mutoh headquarters for sales and after-sales support. Mutoh authorised resellers will offer you further product information & insight, possible product configurations, product pricing and return on investment figures to meet your company's objectives. Contact your nearest Mutoh authorised reseller at [www.mutoh.eu](http://www.mutoh.eu).



<b>Printer Specifications</b>	<b>Zephyr 65</b>
Technology	Greyscale drop-on-demand micro piezo inkjet technology 4 x XaarJet 760 print heads Variable drop – 764 active nozzles/head
Maximum Media Width	1651 mm (65")
Maximum Print Width	1625 mm (64")
Media Thickness	Range: 0.08 – 20 mm
Media Diameter / Core	Maximum: 300 mm / 2" or 3"
Maximum Media Weight - Rigids	Maximum load: up to 30 kg
Maximum Media Weight - Rolls	Up to 100 kg
Head Height	Variable – user controlled
Drop Mass Range	Minimum drop size equivalent to 1440 dpi (media dependent) 8 pl – 72 pl – 8 greyscale levels – Automatic selection via print mode
Colour / Ink Capacity	2 x CMYK UV ink / 1 litre bottles
UV lamps	Dual shuttered lamp system – user replaceable
Display	17" TFT Screen Microsoft® Windows XP Embedded operation system User friendly Graphics User Interface
Interface	Gbit Ethernet
Graphics Command Language	RTL-PASS
Print Engine Working Environment	Temperature: 18 – 30°C ( $\Delta t$ max 2 °C/h) Humidity: 40 – 65 % (no condensation - $\Delta RH$ max 5 % RH/h)
External Dimensions in mm (W x D x H)	3549 x 912 x 1829 mm
Weight	700 kg
Power Requirements	Non detachable power supply cord set, Class I. Model: Unit-UV4065X. Rated: Voltage 240V/415V. 4wire + PE (WYE); 200-240V. 3wire + PE (DELTA), Frequency: 50-60 Hz, Current: 13A Peak value during heating & power up: 4500 Watt During normal operation: 2000 Watt
Regulatory Approvals	CE, CSA, RoHS, WEEE and REACH compliant

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