RHO UV SERIES



HIGHEST EFFICIENCY, MAXIMUM VERSATILITY





DURST. ADVANCED DIGITAL PRINTING AND PRODUCTION TECHNOLOGY

Durst is a world-leading manufacturer of advanced digital production technologies. In the active business areas, Durst is the first choice and a preferred partner for the transformation and digitization of industrial production processes. Durst is a family company with an 80-year history, where the values are focused on innovation, customer orientation, sustainability and quality.

- > 80 years experience
- > Innovation
- > Sustainability



Durst Headquarters in Brixen, Italy



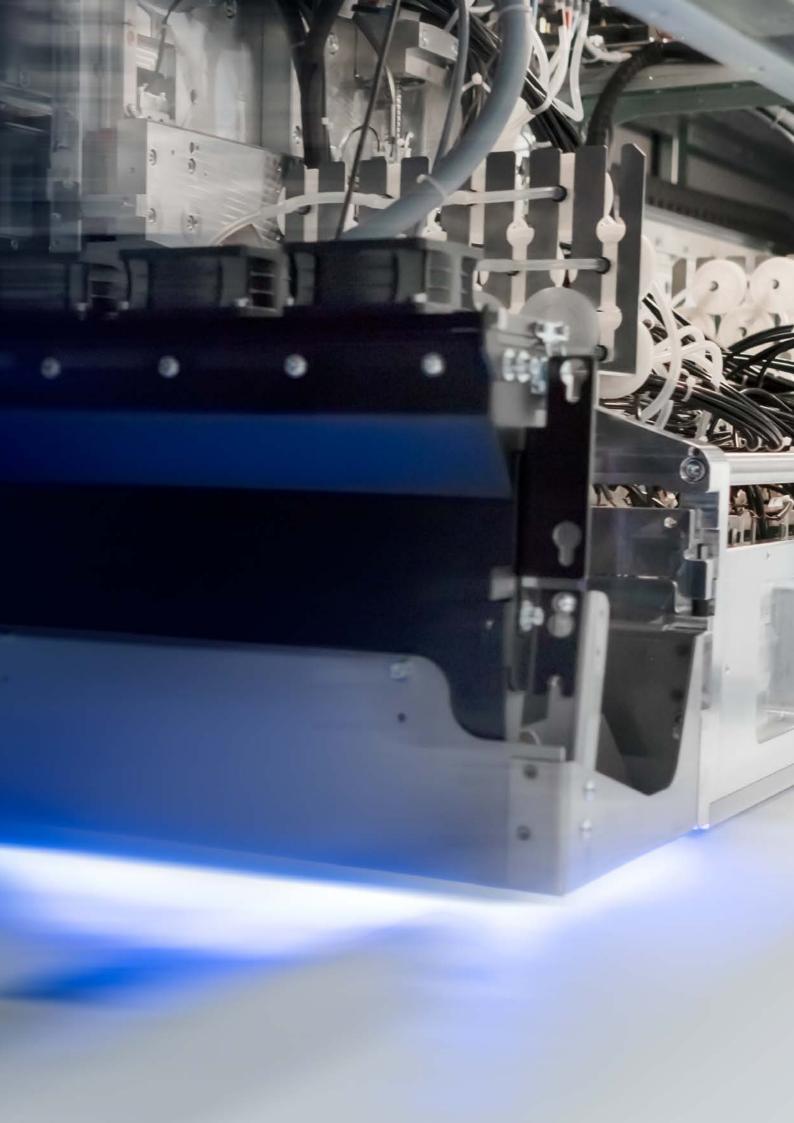
Durst location in Lienz, Austria

DIGITAL LARGE-FORMAT PRINTING

Digital large-format printing technology offers an extremely wide-range of business opportunities and applications, and has been revolutionizing production processes in many industries.

Large Format Printing is commonly used for printed marketing and communication media for retail stores, POP/POS and Out-Of-Home. As a result of its versatility, special applications like for museums, interior (wall coverings, furniture, flooring), or industrial printing are also produced by Durst customers globally with this technology.

Rho UV Inkjet printing systems — Highest efficiency, maximum versatility.



THE RHO LARGE-FORMAT PORTFOLIO WITH LED TECHNOLOGY

RHO 512 LED RHO 312 LED RHO P10 200/250 PLUS RHO P10 200/250 HS LED

EC0

Less energy comparing Ozone-free & VOC-free

FAST

Immediately ready for printing Fast material change COOL

Printing on heat sensitive material Optimized ink curing

RHO ROLL PRINTING SYSTEMS

RHO 512R LED RHO 312R LED

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RHO 512R PLUS RHO 312R PLUS

> Page 8



RHO FLATBED PRINTING SYSTEMS

RHO 1312 RHO 1330

> Page 10



RHO P10 200/250 PLUS RHO P10 200/250 HS LED

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RHO P10 200/250 PLUS

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RHO P10 160

> Page 15



RHO 512R PLUS/LED RHO 312R PLUS/LED

Since their launch, the Durst Rho Roll-to-Roll printers have been setting new standards in terms of performance, reliability and quality for the industrial large format printing market.

Beside the Rho 512R Plus and Rho 312R Plus, the new Rho 512R and Rho 312R with LED UV curing technology follow the same ambitious approach, at the same level of productivity and reliability.

The newly developed LED ink grants even higher performance in terms of adhesion, no tack and less odor.

- > Highest reliability for unattended printing 24/7
- > New unwinding and re-winding system
- > Productivity up to 364 sqm/h (3,918 sq ft/h)
- > Versatility: multiple roll printing, double-sided printing, textile printing option cutting device, Safe Loading Ink System

Unattended printing 24/7



LED curing technology

Printing system:

Roll-to-roll transport system with Quadro® Array technology. Motorized adjustment of medium and printhead distance

Resolution:

Up to 1,200 dpi

Productivity:

Rho 512R: Boost mode up to 364 m²/h (3,918 sq ft/h)

Rho 312R: Boost mode up to 305 m^2/h (3,250 sq ft/h)

Production mode with PO:

Rho 512R: $152 \text{ m}^2/\text{h}$ (1,636 sq ft/h) Rho 312R: $130 \text{ m}^2/\text{h}$ (1,400 sq ft/h)

UV curing technology:

LED or arc bulb lamps

Color options:

Standard: CMYK

Optional: Light Cyan, Light Magenta, Light Black, White, PCA inks on request

lnks.

Durst Roll LED, Rho Roll UV, Greenguard Gold certified

Ink refill identification system:

Integrated ink refill identification system to avoid wrong ink loading

Maximum print width:

Rho 512R: 500 cm (16.4 ft) Rho 312R: up to 320 cm (10.5 ft)

Maximum material width:

Rho 512R: 520 cm (17 ft) Rho 312R: up to 330 cm (10.8 ft)

Maximum Roll media diameter:

Rho 512R: 350 mm (13.7 in)

Rho 312R: Standard 350 mm (13.7 ft)

Big Roll 540 mm (21.2 in)

Maximum material thickness:

2 mm (0.08 in), material-dependent

Maximum roll weight:

Rho 512R: up to 270 kg (595 lb) Rho 312R: Standard 350 kg (770 lb) Big Roll 480 kg (1,058 lb)

Options:

Low-maintenance cutting device, multi-roll, double-sided printing, textile printing kit, CCD camera for double side registration for Rho 312R, Big Roll unwinder for Rho 312R, hapt print/spot gloss

RHO 1312 RHO 1330

For customized mass production, the Rho 1300 printing systems offer the ideal solution with highest efficiency. With custom-configurable automation, even complex orders can be processed profitably with short response times. The different automation systems consist of 3/4, palette to palette, and continuous roll printing. With the sensor controlled double sided roll printing option, this flatbed printer provides a unique proposition. This makes the Rho 1300 printing systems the most productive and versatile large-format UV inkjet printers available.

> Cost-effectiveness: 15% ink saving

> Versatility: sheet and board printing, double-sided roll printing

Cost-effectiveness



Productivity

Versatility



Printing system:

UV flatbed printing with Quadro® Array technology

Resolution:

Rho 1312: Standard 1,000 dpi Rho 1330: Standard 600 dpi

Productivity:

Continuous board printing over the full printing width:

Rho 1312: Up to 1,000 m²/h (10,763 sq ft/h); Production mode: Up to 131 boards per hour (board size 244×122 cm, 4×8 ft) Rho 1330: Up to 1,250 m²/h (13,454 sq ft/h); Production mode: Up to 192 boards per hour (board size 244×122 cm, 4×8 ft)

Colors:

Rho 1312: Standard: CMYK; Optional: Light Cyan, Light Magenta, Orange, Violet, White, RHO UV ink

Rho 1330: Standard: CMYK; Optional: Light Cyan, Light Magenta, Orange, Violet, RHO UV ink

Printing material:

Minimum: DIN A3 – $29.7 \times 42 \text{ cm} (12 \times 17 \text{ in})$ – depending on peripherals

Maximum length: Limitation dependent on material, peripherals, and roll length and diameter

Maximum print width: 250 cm (98 in)

Maximum weight:

Standard up to 50 kg (110 lb)

Options for optimized material handling:

Rho 1312: $\frac{3}{4}$ automation, palette to palette automation, single and dual printing, heavy duty roll option 60 cm [23.6 in] for rolls up to 600 kg (1,322 lb) in weight or 60 cm in diameter, double-sided roll printing, corrugated print option

Rho 1330: $\frac{9}{4}$ automation, palette to palette automation, single and multi-lane printing, heavy duty roll option 60 cm [23.6 in] for rolls up to 600 kg [1,322 lb] in weight or 60 cm in diameter, double-sided roll printing, corrugated print option

RHO P10 200/250 PLUS RHO P10 200/250 HS LED

With the introduction of the Rho P10 Series, a new standard in efficiency and versatility was defined in its class. The new Rho P10 LED Series follows the same ambitious standard—at the same level of productivity and reliability.

- > Productivity: Up to 40%
- > Cost-effectiveness: 15% ink saving
- > Versatility: Hapt print, double sided roll printing
- > Printing on heat sensitive material due to LED
- > Reduction of power consumption

Cost-effectiveness



Productivity LED curing technology Versatility

Printing system:

UV flatbed printing with Quadro® Array technology

Resolution:

Standard: 1,000 dpi

Productivity:

Rho P10 200 HS LED: Up to $350 \text{ m}^2/\text{h}$ (3,767 sq ft/h); Production mode: Up to 127 m²/h (1,367 sq ft/h)
Rho P10 250 HS LED: Up to $400 \text{ m}^2/\text{h}$ (4,305 sq ft/h); Up to 130 boards per hour (board size: $244 \times 122 \text{ cm}$, $4 \times 8 \text{ ft}$); Production mode: Up to $142 \text{ m}^2/\text{h}$ (1,528 sq ft/h)
Up to 42 boards/h (board size $4 \times 8 \text{ ft}$)

Inks.

Durst Rho LED inks; Durst Rho UV inks

Colors:

Standard: CMYK

Optional: Light Cyan, Light Magenta, Orange,

Violet, White Rho UV ink

UV curing technology:

LED or arc bulb lamps

Printing material:

Minimum: DIN A3 – 29.7 x 42 cm (12 x 17 in) Maximum length: depending on material, and roll length and diameter

Maximum print width:

Rho P10 200 HS LED: 205 cm (80.7 in) Rho P10 250 HS LED: 250 cm (98 in)

Maximum weight:

Standard up to 50 kg (110 lb)

Options for optimized material handling:

34 automation, palette to palette automation Heavy duty roll option for rolls up to 200 kg (440 lb) in weight, double-sided web printing, corrugated print option

RHO P10 200/250 PLUS

The Rho P10 200/250 set a quality standard in terms of UV large-format printing, and redefined productivity and versatility in its class. With the enhancement of the Rho P10, new markets can be developed, and existing markets served more profitably.

> Cost-effectiveness: 15% ink saving

> Versatility: Hapt print, double-sided roll printing

Printing system:

UV flatbed printing Quadro® Array technology

Resolution:

Standard: 1,000 dpi Fine Art mode: 1,200 dpi

Productivity:

Continuous roll printing over the full printing

Rho P10 200: Up to 205 m 2 /h (2,206 sq ft/h); Production mode: (2 pass P0) 48 m 2 /h

(516 sq ft/h)

Rho P10 250: Up to 240 m 2 /h (2,583 sq ft/h); Production mode: (2 pass P0) 52 m 2 /h

(559 sq ft/h)

Colors:

Standard: CMYK

Optional: Light Cyan, Light Magenta, Orange, Violet, White Rho UV ink

Printing material:

Minimum: DIN A3 -29.7×42 cm (12×17 in) Maximum length: Limitation dependent on material, and roll length and diameter

Maximum print width:

Rho P10 200: 205 cm (80.7 in) Rho P10 250: 250 cm (98 in)

Maximum weight:

Standard up to 50 kg (110 lb), industrial version up to 70 kg (154 lb)

Options for optimized material handling:

Heavy duty roll option for rolls up to 200 kg [440 lb] in weight, double-sided roll printing corrugated print option



RHO P10 160

The Rho P10 160 offers the same advantages in terms of print quality and versatility as the Rho P10 200/250. The minimized space requirement allows the best possible use of space available in an industrial production environment.

> Cost-effectiveness: 15% ink saving

> Versatility: Hapt print, double-sided roll printing

Printing system:

UV flatbed printing Quadro® Array technology

Resolution:

Standard: 1,000 dpi Fine Art mode: 1,200 dpi

Productivity:

Continuous roll printing over the full printing width:

Up to 100 m 2 /h (1,076 s ft/h), production mode: (2 pass PO) 24 m 2 /h (258 sq ft/h)

Colors:

Standard: CMYK, Light Cyan, Light Magenta, White Rho UV ink

Printing material:

Minimum: DIN A3 – 29.7 x42 cm (12 x17 in) Maximum length: depending on material, and roll length and diameter

Maximum print width: 160 cm (138 in) Maximum weight: Up to 50 kg (110 lb)

Options for optimized material handling: Heavy duty roll option for rolls up to 150 kg (330 lb) in weight, double-sided roll printing





RHO APPLICATIONS

- > Banners
- > Posters
- > Point of sale/point of purchase displays
- > Shop decoration
- > Wall covering
- > Tradeshow displays/tradeshow booth construction
- > Flags
- > Sun umbrellas
- > Facades
- > Outdoor advertising
- > Backdrops (theater, television, etc.)





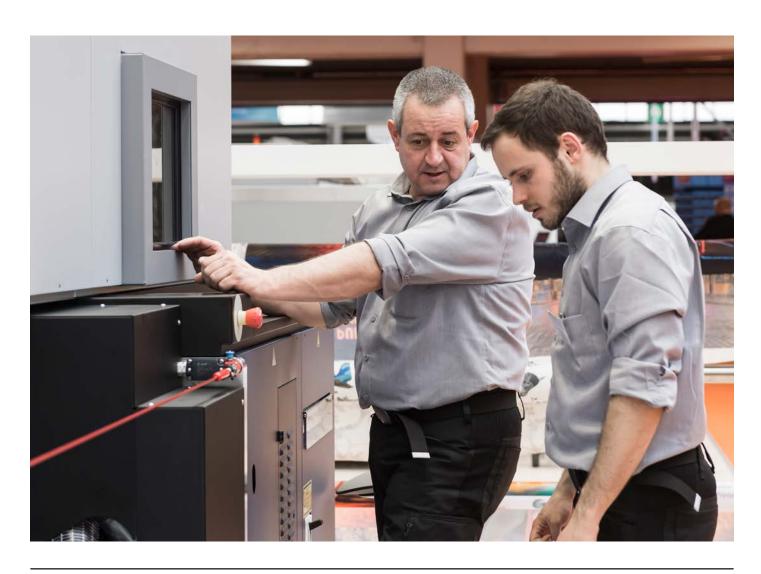


APPLICATION CENTER

Worldwide Rho printing systems have long been setting the standard in terms of print quality, productivity, and reliability. However, since it is not only the choice of hardware that is crucial for optimum results, Durst offers you a broad-based service portfolio by way of assistance. In addition to a web-based database containing innumerable tested roll media that can be accessed free of charge from anywhere in the world, it is also possible to have proprietary printing materials and print designs tested at Durst's Demo and Application Centers. Using the parameters determined here, your own printing system can be adjusted perfectly to the desired application and material type.

Newly determined information is constantly being fed into the database, ensuring it is kept permanently up to date. Our database is built on the many years of data gathered and digitized from our product tests. Rho customers are able to access the data easily via a web browser, search by material manufacturer, media type, and area of application, and download the data they you need as a PDF file. They are also able to start production straight away, even with new applications, without tedious tests and sampling processes.

- > Individual material tests
- > 1,500 tested media settings
- > Web-based support



SERVICE & CUSTOMER CARE



DURST SERVICE. A NETWORK TO RELY ON.

We stand for the steadiness and efficiency of our systems. If you still need help, you can rely on our worldwide network of service and support. For trouble-free operation of your system, we support you with remote diagnostics and telephone service, and with direct service on site, whenever needed, within a very short time. We have focused on maximising these tasks.

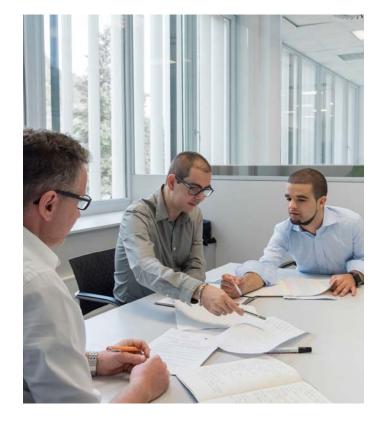
DURST TRAINING CENTER

DURST TRAINING. TAILORED PROGRAMS — FLAWLESS PRODUCTION

In our training center we offer tailored training programmes for the different needs of digital production houses.

Operator-training, plus training for in-house engineers, focusing on maintenance and deeper technology insights. Workflow sessions, focusing on the workflow from the image file to the final print, where participants learn the theory and process of printer linearization, media profiling, ink-limiting, and color management settings.

All training is real-world-oriented to ensure flawless production processes and maximize your performance, quality and productivity.



durst-group.com/uvseries













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