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Tau 330
Digital UV Inkjet Narrow Web Label Press

Digital technology is one of the most exciting areas in label printing and converting today, impacting on everything from pre-press to printing, personalization and finishing. The opportunities of digital technologies are varied and extensive, offering huge potential for new products and services in a rapidly changing market place with an increasing demand towards personalised, custom products in short and medium run.

With digital technology you will be able to face new service requirements, enter new niche markets, increase profitability and add value to your business. Digital technology will increase your flexibility by offering new services and at the same time drive your costs down.

This is your chance to get ahead of the curve! Look at the Tau 330 Digital UV Inkjet Press and explore its unique possibilities to extend your services by delivering high quality short and medium run print jobs.

Tau 330 is ideal for application areas such as industrial and security type labels, durable electronics and automotive labels, paint, specialty food & beverage, body & health care, household chemical, DIY, ... and many more, but also for late stage versioning or applications on aluminum foils the Tau 330 with its streamlined digital workflow and outstanding printing speed will be the right choice for you to face the economic challenges and new service requirements of the current and future market trends.

Durst Single Pass Digital UV Inkjet Technology for label printing applications

The Durst Tau 330 is a Digital UV Inkjet Label Press designed for short and medium run narrow web applications covering web widths from 16,5 cm (6,5 in.) to a max. 33 cm (13 in.), running at a printing speed of up to 48 m (157 ft.) per minute. With this, the system offers very high size flexibility as well as highest productivity for smaller label size jobs.

Tau 330 is available in 2 print width:

- Tau 330 with print width up to 330 mm
- Tau 330/200 with print width up to 200 mm

Tau 330 is built to the latest state of the art digital UV Inkjet technology to guarantee maximum reliability and production efficiency, handling short run jobs very economically, regardless if only one label, a few hundred labels or several thousand labels are needed. This will convert unprofitable short run jobs on your conventional presses into very profitable print jobs on your Tau 330 digital UV inkjet press.

Tau 330 features a High Definition Print Mode, with print resolution of 720 x 1260 dpi. With this, the press achieves a very good and pin sharp reproduction of texts, finest details of graphical elements, clear gradients and soft skin tones.

Enhanced Productivity with Digital End-to-End Workflow

To enhance the productivity with a complete digital end-to-end workflow, Tau 330 can be combined with the LFS 330, an in-line digital laser finishing system that incorporates state of the art laser die cutting technology from Spartanics, with a powerful 1000 watt laser for highest productivity and automatic job changeover to handle multiple jobs in a single run. For a complete finishing process, optional UV coating and lamination can be added.

To extend its modularity even further, Tau 330 can be equipped with external unwinder and rewinder units for printing big material rolls.

Also external finishing systems can be placed in line, to integrate the Tau 330 in any existing production line. The specially designed connection box collects all related signals and synchronizes them with external devices.

Uninterrupted production and less roll changes with new jumbo roll unwinder/rewinder units

Tau 330 can also be equipped with the industrial scale jumbo roll unwinder/rewinder units, whereby rolls of ø 1000 mm diameter or roll lengths up to 4000 linear meters for material widths up to 350 mm can be handled. For an easy and fast handling of large rolls, the system can optionally be equipped with motorized roll lifters. Furthermore, a built-in splice table facilitates easy and fast roll changes and the built-in servo drive system allows to feed material in both directions.

Technology

Durst's proprietary Single Pass UV Inkjet Technology offers a whole new range of color configurations to cover the majority of requested label printing applications. Its standard color configuration CMYK can be completed with optional White as well as optional Orange and Violet color thus offering up to 90% coverage of the Pantone color gamut (depending on substrate).

With UV Inkjet technology, lower production costs are achieved thanks to affordable ink-only cost models – users pay for the ink they use – nothing more, nothing less. It is simple and easy – and in line with conventional industry practices. Additionally, UV Inkjet technology means less material pre-treatment and less coating postpress work is needed compared to other technologies.

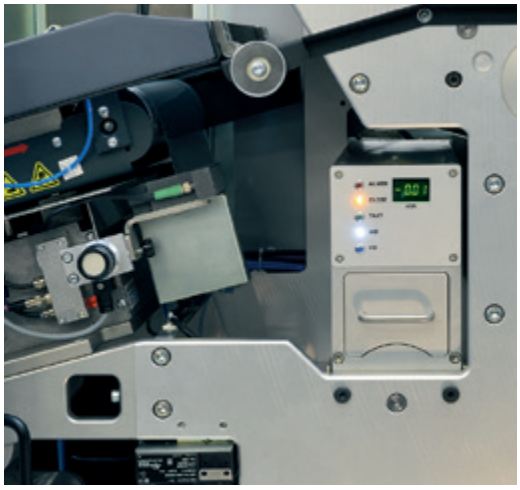
Tau UV inks are available directly from Durst. Their formulation and color gamut have been carefully adapted to meet the high demands of the label industry. Inks are delivered in 5 liter containers with an easy and secure refill system.

Beside standard UV inkjet inks, Tau 330 features Low Migration & Low Odor UV Inkjet Ink capability for Primary Food Package Printing, complying with all the guidelines of the European Printing Ink Association (EuPIA) and the Swiss Ordnance on Materials & Articles legislation and do not utilize materials specifically excluded on the Nestlé Packaging Inks Specification.

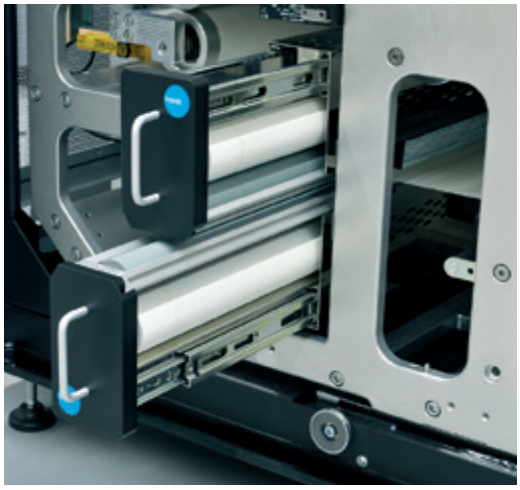
An industry-leading RIP software (powered by ESKO ARTWORK) with built-in substrate calibration and color management ensure high image quality and consistency, especially important when printing repeat short run jobs. The optional Variable Data Printing module provides increased service flexibility for full label-to-label variability.

Durst's solid & robust mechanical construction on both the digital press and the digital converting & finishing devices ensure high reliability for a heavy duty 24/7 production.

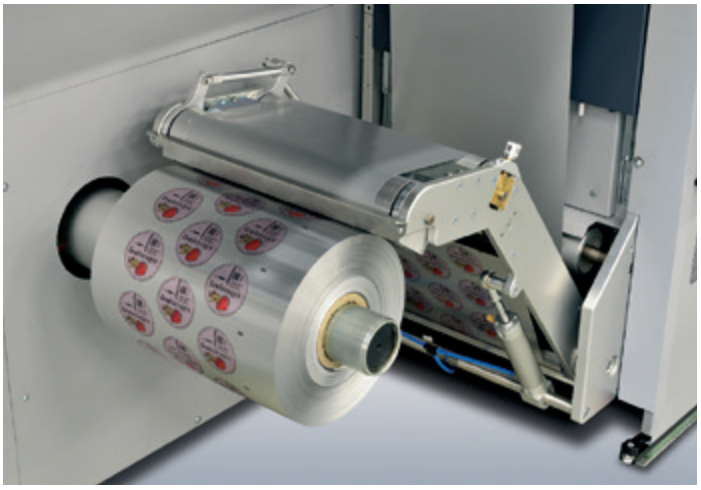
Built-in maintenance functions such as automated print head cleaning help to significantly increase performance and machine uptime.



A range of special curing options such as the optional built-in chill roller and Inert-Gas system support printing of unsupported and heat sensitive film and foil, thus expanding application options and opening new markets to labels & package print providers.



In-line Corona treatment as well as in-line web cleaning are available to allow adequate material treatment to ensure best possible print properties.



Highly accurate substrate transport and special winding arms allow printing on a wide range of substrates.

Durst's Tau 330 digital UV inkjet printing process offers a fast and easy workflow

The Tau 330 is equipped with industry-leading RIP software that provides a fully automated data workflow. An electronic job ticket contains all relevant data that are needed to drive the system. Incoming files will be ripped, color management will be applied and the "ready to print" files will be automatically sent to the queue manager of the press. For priority purposes, jobs can be re-arranged in the printing queue. Literally in less than a minute, files that were sent from a design station will be ready for printing.

Appropriate press profiling and our dedicated UV inks (CMYK + W) match a high percentage of the Pantone color gamut without costly custom PMS inks.

Durst's Tau 330 digital UV inkjet printing process cuts production cost, due to:

- Its outstanding printing speed providing fastest production time, thus reducing labour and machine hour costs.
- It uses ink costs of actual printed area only, instead of per-click cost models.
- It supports more standard substrates with less need for pre-coated or special coated materials.
- Setup times are less than 5 minutes including substrate loading/ replacement.

Durst's Tau 330 digital UV inkjet printing quality differentiates, because:

- Its High Definition Print Mode generates pin sharp text, finest details of graphical elements as well as clear gradients and soft skin tones.
- Its basic CMYK color configuration can be completed with White as well as Orange and Violet color thus offering a up to 90% coverage of the Pantone color gamut.
- It creates images with vivid and superior color appearance compared to conventionally printed Flexographic images and at the same time it requires far less individual color inks to achieve equal results.
- Durst UV Inks generate a perfect opaque "White" color in single pass that is superior to Flexographic.
- It delivers repeatable quality from the first to the last label, from the first run to following runs that are produced over longer time periods.
- It provides a perfect color-to-color registration, thus eliminating the color-to-color trapping that can be visible on images printed with conventional flexographic technology.
- Durst UV Inks are very durable, offering a high degree of light fastness and scratch & chemical resistance, thus reducing the need of post-press treatment (less lamination or varnishing/coating needed).

Durst's award wining worldwide service and support, a network you can rely on

We guarantee our customers the reliability and efficiency of our products. However, when needed you can count on our worldwide service network and support teams.

Remote diagnostics and support as well as being on-site within shortest possible time to optimize your systems uptime are tasks we set and stand for in order to help you to make the best possible use of our product.

Durst's Tau 330 reliability and production security

To increase the print quality, reliability and production security, the Tau 330 can be equipped in addition with a built-into the press high-resolution Video Inspection System from NIKKA for automatic detection of print defects during printing.

Tau 330 digital UV inkjet applications include:

Short & medium run printing of a variety of label jobs such as industrial and security type labels, durable electronics and automotive labels, paint, specialty food & beverage, body & health care, household chemical, DIY, ... and more.
Additionally, the Tau Low Migration & Low Odor UV Inkjet Ink capability opens new applications in Primary Food Package Printing.

Front and back side printing on cardboard material for tags and tickets.

Printing on aluminum foils for blister, aluminum lids and other packaging applications.

Front and back side printing on cardboard material up to 500 microns for blisters applications.

Printing on tube laminate

Variable Data Print jobs containing variable or sequential numbering, variable text, barcodes, matrix or QR codes as well as variable images.

Late stage versioning of preprinted label jobs and printing on pre-die-cut label stock (blank labels)

Technical Data

Printing technology:
Single-Pass UV Inkjet Technology (drop on demand + variable drop size) with Xaar 1002 hybrid side shooter grayscale print head technology.

Ink colors/printing modes:
Standard UV Inks and Low Migration UV Inks available.
Colors: CMYK, optional Orange & Violet, optional White.

Image quality:
Standard Print Resolution: 720 x 360 dpi (DOD)
High Definition Print Resolution: 720 x 1260 dpi (binary)

Printing speed at full color:
Standard Print Mode: up to 48 lin. m/min, (157,2 lin. Ft./min)
HD Print Mode : 37 lin. m/min, (121,5 lin. Ft./min)

Production capacity:
Standard Print Mode: Up to 950 m² (10.225 ft²) per hour
HD Print Mode: Up to 730 m² (7.870 ft²) per hour

Print width:
Tau 330 = max. 33 cm (13 in.)
Tau 330/200 = max. 20 cm (7,9 in.)

Roll width:
16,5–35 cm (6,5–13,7 in.)

Substrate thickness:
Standard label stock: 100–500 micron
Unsupported film and foil >20 micron

Substrate type:
Coated & uncoated paper, white or transparent film PP, PE, PVC, POPP, PET, Aluminum foil

Substrate input/output system:
Base configuration: Roll-to-roll. Roll diameter max. 68 cm (25 in.) Core diameter 7,6 cm (3 in.), Weight max. 120 kg
With optional jumbo un/rewinder max. roll diameter: 100 cm (39,37 in.), core diameter 7,6 cm, max. weight 240 kg

UV Curing:
- Standard outfit: 2 x 7,5 UV lamps
- Optional Chill Roller to cure unsupported film and foil,
- Optional Inert Gas Chamber for Low Ink Odor

Corona treatment:
Optional (in-line)

Web Cleaning:
Optional (in-line) single and/or dual side

Front-End:
Touch screen user interface

Operating system:
Microsoft® Windows Server

RIP Station:
RIP software and built-in Color Management. Optional Variable Data Printing Module for RIP software

Video Inspection:
Optional Video Inspection with automatic detection of printing defects

Service & support:
- Remote diagnostics
- Full coverage with optional service contracts

Warranty:
12 months from date of installation on parts, extendable with optional service contracts

Safety standards:
Complies with current standard safety regulations

Power supply:
EU: 230/400 VAC, 3 Phase + N + PE, 50/60Hz, +/-10%
NA: 3x208VAC, 3 phase 3 wire - 50/60 cycles, +/-10%

Power consumption:
EU: 39 KVA 60 A
NA: 40 KVA 110 A

Dimensions (W x D x H):
455 x 175 x 220 cm (179 x 69 x 87 in.)
Machine dimensions including external un/rewinder units: 845 x 175 x 220 cm (337 x 69 x 87 in.)

Weight:
4.000 Kg (6.614 lbs)
Weight of jumbo un/rewinder: each 800 kg (1.322 lbs)

Temperature:
18–28 °C (64–82 °F)

Humidity:
40% - 70% non condensing

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Durst Phototechnik AG
Julius-Durst-Strasse 4
39042 Brixen/Bressanone, Italy
P.: +39 0472 810111
F.: +39 0472 830980
www.durst-online.com
info@durst.it

Durst Phototechnik Digital Technology GmbH
Julius-Durst-Strasse 11
9900 Lienz, Austria
P.: +43 4852 71777
F.: +43 4852 71777 50
www.durst-online.com
info@durst-online.at

Durst Industrial Inkjet Application GmbH
Julius-Durst-Straße 12
9900 Lienz, Austria
P.: +43 4852 90900
F.: +43 4852 90900 55
www.durst-online.com
diia@durst-online.at

The latest technical developments are constantly being incorporated into Durst products. Descriptions, illustrations and specifications are therefore subject to change without notice.

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