Rhotex 320
The only inkjet printer in the industrial soft signage sector

In recent years, there has been a great increase in the digital printing of textile promotional media. Whether it's for flags, banners or wallcoverings, market research predicts that this is going to increase by more than 50% year on year between now and 2014.

There is much in favour of using textile media as an advertising material, firstly, environmental protection. Polyester fabrics printed with Rhotex water-based dispersed dye inks are entirely environmentally friendly, recyclable and disposable. The dyes are harmless to the skin, completely odour-free and produce no VOCs. Other advantages of textiles include: lightness of weight, foldable and less storage space, ease of assembly (particularly in the form of cladding over 3-D frames), modern, reusable, flame-retardant and will provide bright, vibrant colours when tinted with Rhotex dispersed dyes followed by calendering.
Many printers are able to print graphics onto polyester, most using environmentally harmful solvent-based inks, others using water-based inks in small cartridges capable of only minimal run lengths. These printers are not designed for continuous industrial operation.

The Durst Rhotex 320 is the first printer for the Industrial Soft Signage printing sector
The Rhotex is a true industrial printer, its robust design and reliability provides 24/7 operation and unattended printing. It is equipped with the most professional software for maximising workflow in the digital printing sector. This enables quality printing in the POS/POP range using MEMS technology piezo inkjets with high longevity and the ability to print up to 70 m² per hour in 600 dpi resolution in 6 colours.
The Rhotex water-based dispersed dyes all comply with the Blue Wool scale 5-6 and can therefore be used in an outdoor application for up to two years and printing does not affect the textile's inherent feel.

Other features of the Rhotex include:
- The dispensing system also includes a fold-compensation device and an antistatic system
- Automatic, self-cleaning jet system for continuous industrial printing
- The controllable hot air drying system ensures consistent drying over the whole width of the printed material
- Material-specific machine settings can be stored and recalled in the media channel
- Integrated, software-controlled servicing instructions
- MIS prepared printing software
- Caldera-RIP software with Adobe Creative Suite 5 integration optimises file handling and allows for continuous upgrading in line with new printing requirements

Rhotex has provided new and profitable business opportunities in LF printing. It enables the printing of textiles for use in the home, wallcoverings, domestic textiles and interior design, as well as fashion applications.

Technical Data

General specifications

Dimensions:
Width: 680 cm (22.30 ft.)
Depth: 167 cm (5.47 ft.)
Height: 198 cm (6.49 ft.)

Weight:
approx. 4500 kg (9900 lb.)

Safety standards:
Complies with currently valid guidelines:
European Machine Rules 2006/42/EG (98/37/EWG)
EG-Low Voltage Directive 2006/95/EG) i.vs. 93/68/EWG
EG-Directive electromagnetic compatibility 2004/108/EG, vs. 92/31/EWG
2002/95/EC RoHS Directive

Printing specifications

Printing system:
- Roll to Roll transport system designed for textile printing with In-line hot-air dryer with temperature – and air circulation - control
- Durst Quadro® Array 30D AQ Technology, designed for water based Rhotex inks. 30pl., 1024 nozzle/colour
- Motorized head media distance adjustment, controlled via user software with storage capability for each media channel
- Built-in ink absorbing system for textile printing without a liner -automatic printhead cleaning system;

Resolution:
600 dpi/400 dpi

Colours:
Standard: CMYK
Optional: CMYKLmLcLk (Light Cyan, Light Magenta, Light Black),
and/or spot colors

Productivity:
Up to 72 m²/hour (775 sq.ft./h) POP Mode,
60 m²/hour (645 sq.ft) High resolution mode

Inks:
Rhotex water-based, dispersed dyes inks, totally VOC-free and environmental friendly, blue wool rating 5-6, for indoor and outdoor applications. The following process of calendering outside the printing station does fix the inks and create the brightness of colors.
To reach the best weather fastness a washing off, including reduction clearing of all textiles, especially flags for outdoor applications after fixation is recommended.

Ink supply:
Integrated ink tanks with 10 litre capacity per ink, refillable during the printing process. Integrated de-gassing system.

Software/RIP
Durst Rho Touch Screen Linux Software for very fast processing with minimum storage capacity on the hard disk. External Caldera RIP Server with GrandRip+ Software.
- Simultaneous file ripping, data transfer and printing
- Ink cost calculation
- Integrated cellular capability for SMS notification of printer status and maintenance
- SMS alert for unattended printing
- Software and hardware for creating media ICC-profiles (Optional)

Media specifications

Media types:
Wide range of uncoated and coated polyester-fabrics oder fabrics >50% polyester (dispersed dyes inks are optimized for polyester). Other fabrics printable with limitations.

Maximum printing width:
320 cm (10.5 ft.)

Max. printing length:
Only restricted by media length

Maximum thickness:
2 mm (depending on media)

Max. roll diameter
500 mm (20 in.) outside diameter
320 cm (10.5 ft.) media width/resp.

Max. roll weight:
approx. 300 kg (661 lb.)

Ambient conditions

Space requirement:
approx. 9 x 9 m (30 x 30 ft.)

Max. sea level of installation:
2400 m above sea level (8000 ft.)

Max. ambient temperature:
+15 °C to +30 °C (+59°F to 86°F)

Max. humidity:
>40 - 80 %, non condensing

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