TOPJET
CODING SOLUTIONS

ENG

HR SERIES PRINTERS

HR series high resolution inkjet printing systems

IDEAL FOR POROUS SURFACES



SINGLE HEAD HR500 PRINTER WITH ON BOARD COMPUTER



TOP AND LATERAL APPLICATIONS ARE BOTH POSSIBLE WITH THE SAME PRINTER THROUGH THE EASY ROTATION OF PRINT HEAD





LATERAL APPLICATION WITH DIFFERENT PRINTS

PROTECTION COMPUTER CASE FOR DUSTY ENVIRONMENT (AS OPTION)

HR SERIES INKJET PRINTING SYSTEMS MONOCHROMATIC

HR series inkjet high resolution printing systems allow coding any type of moving packaging material or item through alpha-numeric texts, linear barcodes, 2D codes, logos and clip art.
Oil based inks allow application on porous surfaces such as non-glossy paper and non-glossy cardboard both white and coloured (avana).
These systems use 510 dot print heads and a 180 dpi (dots per inch) resolution, thereby obtaining a printing area 71 mm maximum height for each head.
Reliable and versatile thanks to the piezoelectric DOD (drop on demand) technology, they are the ideal solution to meet various printing requirements, as they can manage up to 64 print heads, which can be either freestanding or coupled together.
This option allows extending the printing height up to 4×71=284 mm, and treating the printing layout as a single entity.
As a matter of fact, the software divides the printing layout into stripes, which are transmitted to the print heads so as not to create defects on the contact lines between them.
Thanks to their compact sizes and universal mounting position, they can be easily integrated in systems and production lines.
HR series inkjet high resolution printing systems allow an easy rotation of print head; in this way it is possible to print even on horizontal surfaces.
Programming console is simple and intuitive, allowing operators to quickly and fully master HR printing systems.
HR series inkjet high resolution printing systems are available with on-board or external computer, printing systems without computer are available as well.
The control net allows to manage up to 64 heads and up to 16 controllers (see sketch on the last page).

OPTIONAL ACCESSORIES



AUTOMATIC IN-LINE SCANNER



HAND WHEEL FOR POSITION ADJUSTMENT

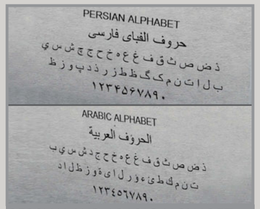


ELECTRIC BOARD WITH PERSONAL COMPUTER

APPLICATION EXAMPLES



POROUS CARTON BOX



PERSIAN AND ARABIC ALPHABET



CYRILLIC ALPHABET

SINGLE HEAD HR500 PRINTER WITH EXTERNAL COMPUTER



TOP AND LATERAL APPLICATIONS ARE BOTH POSSIBLE WITH THE SAME PRINTER THROUGH THE EASY ROTATION OF PRINT HEAD



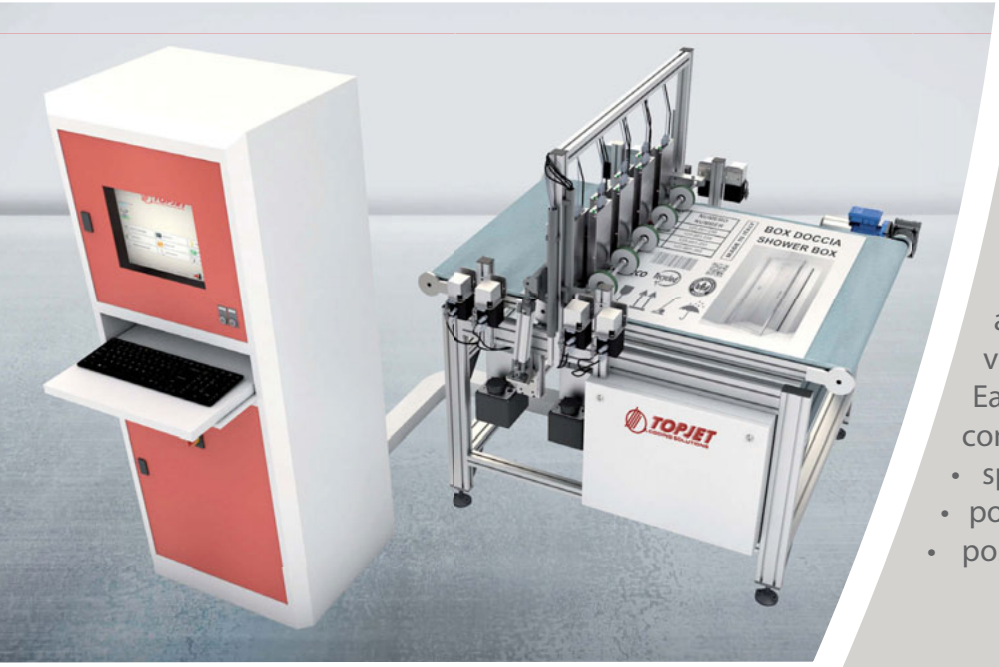
DOUBLE HEAD HR500 PRINTER WITH ON BOARD COMPUTER



TOP AND LATERAL APPLICATIONS ARE BOTH POSSIBLE WITH THE SAME PRINTER THROUGH THE EASY ROTATION OF PRINT HEAD

SPECIAL HR SERIES INKJET PRINTING SYSTEMS MONOCHROMATIC





TOPJET manufactures monochromatic special systems to meet any kind of demand.

Thanks to careful technical evaluations and to our experience, TOPJET provide rational and reliable solutions.

We created printing systems for application on lateral side or top side with various print area.

Each single project is customized considering the following elements:

- speed of production
- position of printing
- position and shape of the item to be printed

APPLICATION EXAMPLES



POROUS CARTON FLAT BOX



POROUS CARTON BOX (AVANA)



POROUS CARTON BOX (WHITE)

TECHNICAL FEATURES

- GENERAL FEATURES
- Floor pedestal with easy adjustment of print head in both directions (adjustment devices with hand-wheel as option)
- Easy rotation of print head, in this way it is possible to print even on horizontal surfaces
- Print head installed on movable device as protection against shocks and vibrations
- Advanced hydraulic circuit with recover of ink ejected during purging operations; this possibility is available only during printing on vertical surfaces
- Controller rack able to manage up to 4 print head (either freestanding or coupled together)
- Protection grade of controller: IP33
- Each controller has the following connections:
  - Encoder for production lines with variable speed
  - Ethernet port 10/100 for connection with supervisor computer
  - BCD binary codes (4 bits) for selection of message to be printed (up to 15 messages can be printed simultaneously)
  - Signal for print start
  - Input for scanner for quality control of linear and 2D bar codes

PRINT FEATURES
- Distance between print head and surface: 3 mm max.
- Font: Windows True Type
- Font orientation in 4 directions: 0°, 90°, 180°, 270°
- Font height: any, recommended not lower than 2 mm and not higher than the max. print area of the system
- Font format: bold, italic and underline
- Font available in any alphabet: Latin, Cyrillic, Arabic, Persian, Chinese, Japanese, Greek, Korean, Indi, Turkish, Hebraic, and so on.
- Print of the following linear bar codes: EAN 13, EAN 8, UPCA, UPCE, INTERLEAVED 2/5, CODE 39, ITF 14, CODE 128, EAN 128
- Print of the following 2D bar codes: DATA MATRIX, QR CODE, PDF417
- Importation of images and logos in the following format: bmp, jpg, gif, jpeg, wmf, png, tif
- Automatic date, time, expiry date multifunction and operator shift
- Incremental and decremental counters
- Print message repeating function
- Fixed and variable text fields
- Fixed and variable linear and 2D barcodes
- Oil based inks with excellent contrast; available in black and other colours too

PRINT HEAD
- Management up to 64 print heads
- Piezoelectric DOD (drop on demand) technology
- Heating systems for print head and ink
- Vertical resolution: 180 dpi (dot per inch)
- Max. horizontal resolution: 7200 dpi (accordingly with print speed)
- Print area height for each head: 510 dot equivalent to 71 mm
- Print head model and related performances available as follows:
  - Model 1513
    - Message lenght in monochromatic mode: up to 15 meters
    - Drop size: 80 pl in binary mode
    - Print speed: max. 30 meters per minute with horizontal resolution 180 dpi
  - Model 2513 in binary mode:
    - Message lenght in monochromatic mode: up to 15 meters
    - Drop size: 37 pl; print speed: max. 90 meters per minute with horizontal resolution 180 dpi
    - Drop size: 59 pl; print speed: max. 64 meters per minute with horizontal resolution 180 dpi
  - Model 2513 in gray scale:
    - Message lenght in monochromatic mode: up to 7,5 meters
    - Drop size: 11+11+15 pl (3 levels) in gray scale or 11+11+11+11+15 pl (5 levels) in gray scale
    - Print speed: max. 64 meters per minute with horizontal resolution 180 dpi
- Protection grade: IP54

COMPUTER AND MANAGEMENT SOFTWARE
- Computer with display touch screen 12" TFT VGA
- 4 GB compact flash
- Storage memory for messages and images: approximately 2,5 GB
- Operative system: Windows XP Embedded
- Communication ports: Ethernet 10/100, USB 2.0
- Management software for printer and creation/editing of messages; user friendly menu with print preview (WYSIWYG)
- Ink consumption report
- Operator multi-level access password
- Communication with company management programs and software
- Available languages: Italian, English, French, Spanish, Germany, Russian, Turkish, Portuguese

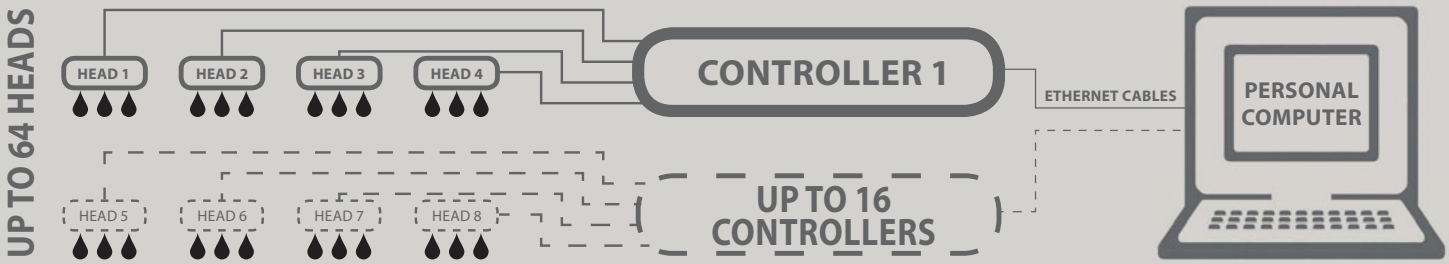
OPERATING ENVIRONMENT
- Temperature from 5° up to 45° C (40° - 112° F)
- Humidity range: 10 - 90% (non-condensing)

POWER SUPPLY
- Voltage: 110 – 230 Vac single phase auto ranging
- Frequency: 50 – 60 Hz

TECHNICAL FEATURES FOR STANDARD MONOCHROMATIC PRINTING SYSTEMS UP TO 4 PRINT HEADS
- Oil based inks with excellent contrast; available in black and other colours too
- Min. height of print area: 71 mm
- Max. height of print area: (4x71)= 284 mm

TECHNICAL FEATURES FOR SPECIAL MONOCHROMATIC PRINTING SYSTEMS
- Oil based inks with excellent contrast; available in black and other colours too
- Min. height of print area: 71 mm
- Max. height of print area: (64x71)= 4544 mm

CONNECTION DIAGRAM



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Due to our policy of continuous improvement, design and technical features are subject to change without notice.