

Coding and marking solutions

Thermal inkjet printer guide







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High-resol

Simple integration

Cost-effective



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Eliminate unexpected downtime,

Go maintenance-free.

Thermal inkjet product coding

Versatile, maintenance-free technology

Thermal inkjet (TIJ) technology delivers high-resolution, high-speed coding directly to your production line.

The innovative units are simple to operate and ideal for printing highquality, durable text, codes and graphics onto a wide range of packaging types.

TIJ printers have been specifically designed for fast-paced industrial environments and can be quickly integrated to work alongside other packaging equipment, even at high speeds. They are extremely reliable and require no maintenance, meaning that production downtime is kept to a minimum.

Ideal for printing onto:

- Aluminium foil lids
- Bags & pouches
- Blister cards
- Bottles
- Bottle caps

Cables Cartons

- Corrugate
- Extrusion
- Flow wrap & film
- Hoses

Metal components	Sachets
Outer cases & boxes	• Sleeves
Plastic pipes	Stick packs
• Plastic tubs	• Tetra Pak
• Plant tags	• Tube laminates
Polystyrene foam	• Tyvek

Industry leading HP technology

All of our thermal inkjet printers utilise HP technology and are compatible with a range of both solvent and water-based inks. This allows them to create long-lasting, high-resolution prints onto both porous and non-porous substrates.

Benefits of TIJ

- No mess or spills, ink is contained within the cartridge. No volatile ink/make up components. Zero risk of contamination.
- Low initial investment cost, the only ongoing cost is for the cartridges. No maintenance or servicing needed.
- Excellent print resolution (600 dpi) allowing text down to 1mm. The range of inks available include black, red, white, yellow, blue, green and UV.
- No startup or shutdown routine, switch on and off when needed. User-friendly interfaces and software for easy format creation and printer control.



"TIJ is so easy to deal with. With our CIJ system we have to fill it up with fluids and clean the nozzles, whereas with the TIJ printer, all we have to do is wipe it clean – we don't even have to do any maintenance on it."

CELL LIFE UK

Printer integration

The installation of a thermal inkjet printer requires far less space than a conventional thermal transfer (TTO) printer, hot foil coder (HFC) or continuous inkjet (CIJ) printer.

Their small size and comparatively low weight mean that they can be installed into tight production spaces and still be easily accessible. This makes cartridge changes efficient.

As a non-contact print technology, these units don't risk damage to the product or print substrate, meaning less wastage and rework, and less downtime of production equipment. For pinpoint accuracy we employ an encoder wheel. This accurately tracks line speed, and perfectly matches the print to any changes. This is often essential on variable speed lines or host machines that index, like labellers.

To trigger the printer, we can use a range of methods: from photocells, to laser sensors, or even working directly with your machine supplier to take a signal from the machine. This gives a level of reliability and consistency that is essential for busy production environments.

Compatible packaging equipment

TIJ can be seamlessly integrated onto the following:

- Off-line feeding systems
- Flow wrappers
- Thermoformers
- Cartoners
- Labellers
- Pouch sealing machines
- Vertical & horizontal form fill seal machines
- Bagging machines



The Rotech range of

Thermal inkjet printers

Rotech X1Jet

A small, yet powerful thermal inkjet printer, ideal for autocodes.

The X1Jet is our most flexible solution for meeting a range of coding requirements. Used either standalone for autodates and fixed print requirements, or connected to an Ethernet network or PC for centralised control. It can also be fitted with our Vivid HMI display for easy adjustment and feedback, from wherever suits the process.

A Wi-Fi version is available, allowing control from a central PC, often for quality assurance purposes or to streamline a process.



Key benefits

- High-speed capability, up to 90 m/min
- Controller and printhead all-in-one
- Network connection as standard
- Integral photocell for product detection
- Washdown version available (IP65) IP Jet



SPECIFICATIONS	X1Jet
Max print height	12.7 mm
Max production speed	90 m/min
Max print resolution	600 dpi
IP rating	IP40
Printhead dimensions (L x W x H)	118 x 75 x 95 mm
Weight	0.6 kg

Ideal applications

- Printing small amounts of data onto porous and non-porous substrates.
- Autocodes, or printing from a PC.

Rotech Integra One



With its tiny footprint and high speed capabilities, the Integra One is ideal for integrating into busy packaging lines to work alongside existing equipment.

Operators can adjust settings and enter data directly into the printer, using the intuitive, built-in OLED display and iWheel device.

Key benefits

- High-speed capability, up to 180 m/min at 300 dpi
- OLED display / iWheel input device to allow for direct data entry
- Network connection available
- Optional external trigger / encoder for greater integration
- Washdown version available (IP65) Integra one IP

Ideal applications

- Printing onto labels and most porous and non-porous substrates
- Mounting directly onto labelling systems and VFFS/HFFS packaging machines

"Moving to this new printing technology has reduced our labour costs and eliminated mislabelling, which has improved overall efficiency."

ROLLAGRANOLA



Rotech X Series

High-speed, intelligent control system and printer for challenging applications and large area printing.

The X series allows for multiple printheads to be controlled, either grouped for larger print areas or situated independently to meet requirements in different areas on one or more lines. Two head (25mm print height), four head (50mm print height) and eight head (100mm print height) controllers are available.

The intuitive controller gives on-the-spot access to key settings, and quick effective control over changing formats, batch codes and other variables. For additional peace of mind a multi-level password system can be implemented.



Key benefits

- High-speed capability, up to 180 m/min at 300 dpi
- Large touch screen display with full QWERTY keyboard for easy data entry and printer control
- Multi-head printing systems for extended print height capability
- Ability to print large print formats, such as ingredients declarations or a contents description



SPECIFICATIONS	X Series
Max print height	2 printheads = 25 mm 4 printheads = 50 mm 8 printheads =100 mm
Max production speed	180 m/min
Max print resolution	600 dpi
IP rating	IP40
Printhead dimensions (L x W x H)	Up to 140 x 220 x 230 mm
Weight	3.4 kg

Ideal applications

- Printing large amounts of information onto most porous and non-porous substrates
- Mounting directly onto labelling systems and VFFS/HFFS packaging machines

Rotech Quadro Series



High-speed, intelligent control system for up to 8 printheads

The Quadro series specialises in integration. With multiple sensor and encoder inputs, these controllers can provide a print solution for more than one line from a central unit, or at multiple stages of a longer line, and are often connected directly to an existing Ethernet network.

In production environments where space or visual impact is a significant factor, these can be fitted out of the way for a sleek solution. This takes the requirement for inputting data away from individual operators and centralises the tasks for increased quality assurance.

Key benefits

- Print speeds of up to 240 m/min at 300 dpi
- Can be controlled remotely from different interfaces
- Network connection as standard
- Also included on the smaller device is an intuitive control panel, with simple buttons for changing print and label settings

PECIFICATIONS	Quadro Series	
Max print height	100 mm	
Max production speed	240 m/min	
Max print resolution	600 dpi	
IP rating	IP40	
Printhead dimensions (L x W x H)	Up to 180 x 354 x 110 mm	
Weight	5.1 kg	
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Ideal applications

- Simultaneously marking both primary and secondary packaging on one or two independent production lines.
- Multi-lane printing on thermoforming machines, strip packers etc.

Special models

X1Jet Stitch

Exceptionally slim design. Up to 8 printheads can be cascaded to print a 100mm high print image. Ideal for multi-lane or large area printing applications.

Benefits

- **Electronics stored behind** cartridge to save space
- Can be fitted to most packaging machinery
- Printheads can be controlled via a single interface



Benefits Non-stop printhead Ideal for installation onto high-speed lines or lines where continuous production is a must. The non-stop printhead prints with a ratio of 2:1, so when the first cartridge

is empty, the second will still be half full. Alternate print sequences ensures that the cartridges do not dry out.

- **Reduces material costs since** both cartridges may be fully emptied, in sequence
- Changing or cleaning the cartridges can be done without stopping the production line
- Maximum print height of 12.7 mm





Shutter printhead

Designed to provide protection from dust and water ingression during a run by covering the nozzle plate.

When printing is paused, the cartridge will automatically retract into the printhead. When production resumes, the shutter will open and the cartridge will return to print position.

Benefits

- Uniform print quality and clean operation, even after several days or printer being in standby/ stopped
- Pressurised case prevents the ingress of dust (external compressed air connection required)
- Cartridge can be left in situ

Specialist printers developed for harsh or challenging production environments

Integra one IP

Benefits

- Ideal for system integration in wet or dusty environments typical in the food industry.
- Intelligent, compact print

IP65 protection class

• Operation via iLogik with OLED display



IP Jet

Benefits

- Ideal for areas that experience high levels of moisture or have regular washdowns.
- IP65 protection class
- Compact, robust system for easy integration into production lines





iDesign software

Printer management and print image design – included with all thermal inkjet printer purchases.

Optimised for ease of installation and use with a clear and concise menu layout. iDesign allows operators to oversee all of their thermal inkjet printing systems from a central PC or operating station. With visibility over all connected print devices you can create and manage your print images, parameters and status in one place. As a result, you reduce downtime or recalls caused by operator error.



- Create and manage print images
- Unicode support: international symbol sets for global marking (Language)
- Ink consumption calculator
- Control unlimited number of print systems, with clear display of all connected systems
- Password protection/user administration options enabling different levels of user access
- Control via Ethernet, USB, or TCP/IP (wireless option)
- Immediate start/stop printing when connected to a database
- Protocol function for user actions and operational statuses

- Set-up of printing parameters and configuration of print systems
- Online administration of parameters for all networked systems
- Parameter backup
- Diagnostic tool for signal transmission and interface connection
- Transfer of external data, or triggering of active fields for fast and secure data transfer

DBPrint - Serial printing of database tables

- Printing of datasets in database tables
- Printing systems with several printheads may be cascaded as required

iDesign Touch

Optimised for touch screen industrial PCs (IPCs.)

iDesign XPRESS

Mobile app that is compatible with Android smart phones & tablets. For on-the-go access to your thermal inkjet printers!

You're in safe hands



TopMarks samples service

Our TopMarks service allows you to witness the quality of our equipment for coding your own products, prior to making any commitments. You can be confident that you will be investing in the very best solution for your application.

All you have to do is send us your samples, along with your requirements and our experts will run them on our equipment. Your printed samples will then be returned to you, along with a video of them running so you can witness the process for yourself – all within a week.



Unrivalled aftercare

When you invest in a Rotech solution, you unlock a wealth of aftercare services.

All our engineers are experts in coding and marking and UK-based. This means that the support you receive is topnotch, and right on your doorstep!

We will continue to assist you, even after installation of the system. We endeavour to keep your lines running smoothly, while delivering the best possible customer service.

Years of industry experience

200+

Number of customers

700+

Providing solutions since

1997





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