Rotech
THE CODE MARK OF **EXCELLENCE**

Coding and marking solutions

Thermal inkjet printer guide

Maintenance-free   High-resolution   Simple integration   Cost-effective

Contents

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 high-quality, 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.

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.

Clean   **Cost-effective**   **High-resolution**   **Easy-to-use**

Ideal for printing onto:

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

- **Cables**
- **Cartons**
- **Corrugate**
- **Extrusion**
- **Flow wrap & film**
- **Hoses**

- **Metal components**
- **Outer cases & boxes**
- **Plastic pipes**
- **Plastic tubs**
- **Plants tags**
- **Polystyrene foam**

- **Sachets**
- **Sleeves**
- **Stick packs**
- **Tetra Pak**
- **Tube laminates**
- **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.

"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.
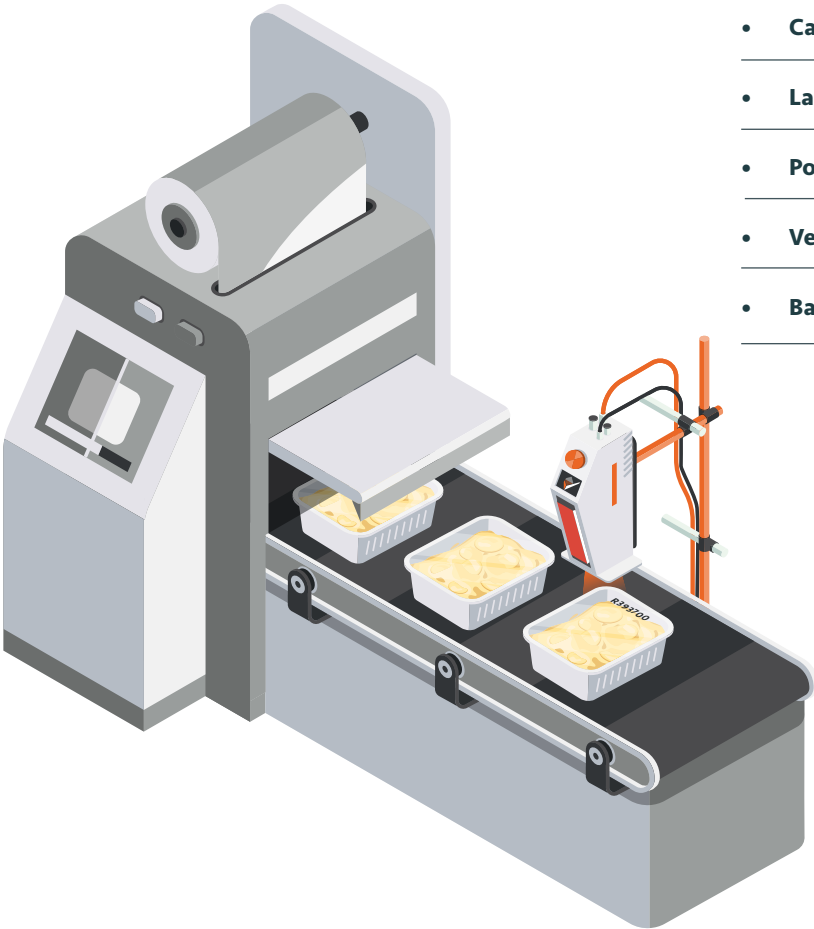
For pinpoint accuracy we employ an encoder wheel. This accurately tracks line speed, and perfectly matches the print to any changes. This is often essential on variable speed lines or host machines that index, like labellers.

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.

*Upgrade available to the Integra Vivid HMI display

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

Rotech Integra One

Extremely compact printer, ideal for system integration.

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

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.

SPECIFICATIONS	Integra One
Max print height	12.7 mm
Max production speed	180 m/min
Max print resolution	600 dpi
IP rating	IP40
Printhead dimensions (L x W x H)	186 x 86 x 98 mm
Weight	0.7 kg

The codemark of excellence. Engineered in Britain   +44 (0) 1707 393700   rotechmachines.com

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**

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.

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.

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**

SPECIFICATIONS

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

SPECIFICATIONS	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

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**
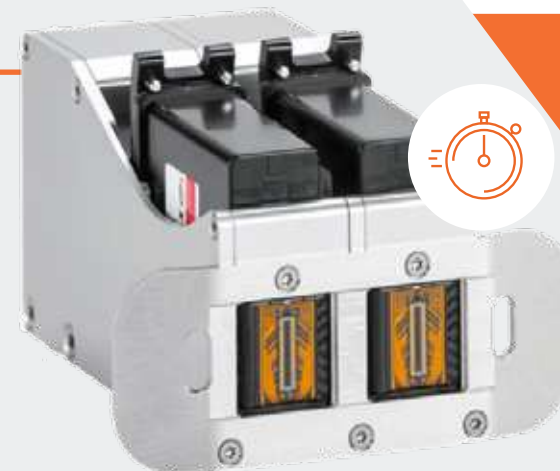- **Printheads can be controlled via a single interface**

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.

Benefits

- **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

Ideal for system integration in wet or dusty environments typical in the food industry.

Benefits

- **IP65 protection class**
- **Intelligent, compact print systems**
- **Operation via iLogik with OLED display**

IP Jet

Ideal for areas that experience high levels of moisture or have regular washdowns.

Benefits

- **IP65 protection class**
- **Compact, robust system for easy integration into production lines**

Integra ultimate

Closed

Open

Ideal for applications where the printhead sits in hard to reach places or are only used sporadically - can be left in situ during wash down procedures.

Benefits

- **IP65 protection class**
- **Print height of up to 25mm**
- **Shutter printhead with integrated cleaning function**

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.

iDesign 8+

- 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 top-notch, 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
190+

Number of customers
700+

Providing solutions since
1997

11

The codemark of excellence. Engineered in Britain   +44 (0) 1707 393700   rotechmachines.com

12

Rotech Machines Limited
1 Brownfields Court
Welwyn Garden City
Hertfordshire
AL7 1AJ
United Kingdom

+44 (0) 1707 393700

Opening Times
Monday – Thursday 8:30am to 5:30pm
Friday 8:30am to 4:30pm

PPMA
MEMBER