Cigarette Pack Coding Station

Take control

Domino. Do more.

Highlights

1. Specifically designed to meet track and trace requirements

2. Continuous marking of up to 500 packs per minute

3. Unique product handling system ensures packs are presented perfectly for coding

4. Suitable for both soft and hard packs

5. Crisp and clear DotCode and Data Matrix Codes

6. Domino Integrated Vision system reads, checks, and rejects unacceptable codes

7. Non-intrusive installation with minimal impact on existing line layouts

8. Versatile modular design with configurable elements

Rising to the challenges of track and trace

Unique Product Identification

The number of countries that are implementing track and trace legislation to fight illicit trade is constantly growing. Any tobacco manufacturer that exports to track-and-trace-compliant countries must have a Unique Product Identification solution in place.

High-quality codes requires perfect product handling

Track and trace legislation requirements necessitate that products must have crisp and clear human- and machine-readable codes. Achieving the required code quality by track and trace systems with cigarette packaging demands optimised product handling of both soft and hard packs when presented for coding. Poor product handling will lead to a higher number of rejects, lowering overall equipment effectiveness (OEE).

A non-intrusive solution

Most cigarette packers in use today were never designed to cope with track and trace legislation. Installing several sub-systems with different elements for coding, vision, and reject control can be intrusive and result in a compromise in terms of layout and time lost due to installation. Product handling on certain packer types can also be sub-optimal due to either design or the condition of the packer.


A purpose-built solution from a single source for soft and hard packs

Domino has designed the Cigarette Pack Coding Station (CPCS) as a turnkey solution for manufacturers with Unique Product Identification and track and trace requirements. The system is capable of coding on both soft and hard packs with human- and machine-readable codes at up to 500ppm.

Now, cigarette manufacturers can have the very highest quality codes possible on every pack with optimal levels of OEE and minimal maintenance. The CPCS is a simple solution which, once running, becomes an almost invisible piece of technology. You will receive a fully documented, compliant, plug-and-play solution from a single source.

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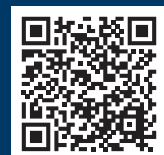
SCAN IT TO SEE THE CPCS IN ACTION

Integrated Cigarette Pack Coding Station

D-Series i-Tech
CO2 Laser

High-quality, permanent coding on high-speed production lines

Rejection system

Rejection done immediately after coding, minimising wastage

Full inspection

Integrated Vision Control System with Cognex or Omron that checks every single pack'

Easy integration

A flexible modular design allows different configurations

Minimal impact with a non-intrusive solution

High compatibility

The system has been designed to be compatible with most conveyor-based cigarette pack production lines. A modular layout, a set of adjustable and configurable elements, and universal infeed and outfeed tunnels make the Coding Station a versatile solution, ensuring a simpler installation and complete integration with your existing lines.

Modular system

The CPCS's modular design enables the system to adapt to the layout of existing factories. The three main modules can be arranged to fit in even the most demanding spaces. In addition, the Coding Station can be installed right- or left-handed to follow the desired product flow direction.

Configurable and versatile

Three key elements are fully configurable and are produced in different sizes: the coding wheel, the guard spacing, and the supporting frame height. The coding wheel can be supplied in

different sizes to hold 72, 76 and 86 mm packs, ensuring optimum grip and perfect handling for laser coding. This also means that the coding wheel can be easily swapped if different formats are produced on the same production line. The guard spacing can be produced to support conveyors of different

2D DataMatrix codes and Dotcodes

Crisp and clear laser codes, ready for T&T systems.

Perfect handling for soft and hard packs

A unique handling system designed by Domino capable to handle both and hard packs

Your benefits at a glance

1. Highest quality indelible codes
2. Low impact integration into existing production lines
3. Highest levels of reliability & OEE
4. Fully certified & compliant

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widths. The frame is built in three sizes, and each one allows a range of heights: Short (710 to 900mm), Medium (860 to 1050mm), and High (1010 to 1200mm).

Perfect handling

A critical factor for high-quality coding is how the product is handled and presented to the laser. Even the slightest imprecision can affect code quality drastically, resulting in rejections, aggregation failures, and impacting OEE. The Domino CPCS eliminates any risk associated with product handling, using a system that codes each product whilst it is entirely static.

Firm but soft

To preserve packaging quality, all the transporting elements are covered with industry-leading materials that ensure a perfect grip with minimal pressure. The side drive belts lift the packs away from an existing conveyor and position them in the coding wheel for perfect handling.

Improve your productivity

Improved efficiency through the adoption of low intervention technology. The CPCS is designed to meet the needs of a 24/7 production line

Up to 500 packs per minute

In cigarette manufacturing speed and quality are crucial. To maintain a constant production speed of up to 500 ppm, the CPCS utilises two Domino D320i **i-Tech** lasers. Each pack is coded by both lasers at the same time, achieving coding speeds of up to 73ms per product.
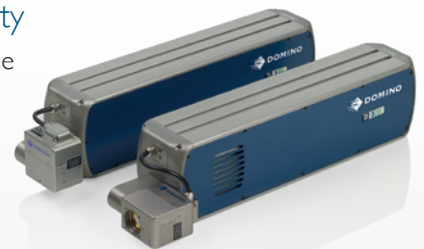
Full inspection and rejection

Domino can supply either a Domino VCS Cognex or Omron system that checks every single product, detecting imperfections right after coding take place. Any pack with an unacceptable code is immediately rejected, reducing wastage and the risk of aggregation failure.
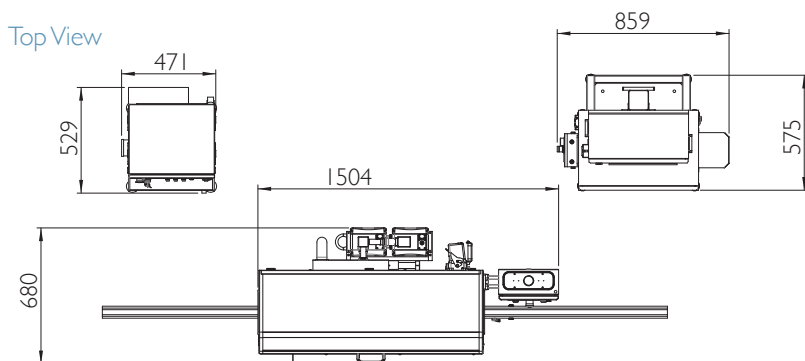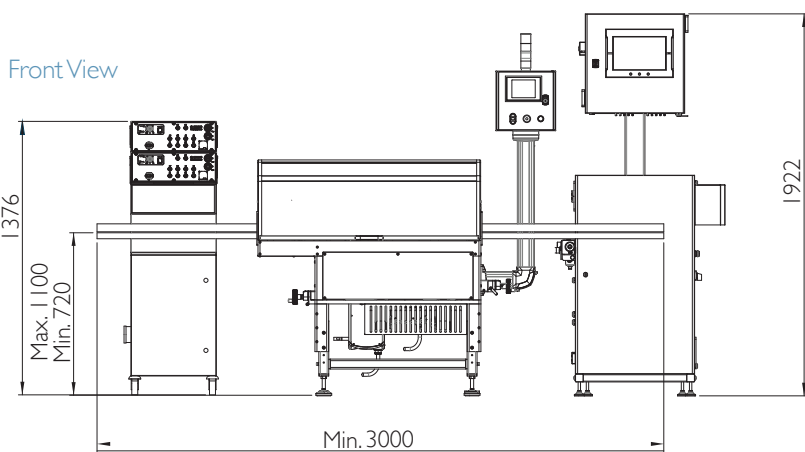
Technical specification

CODING STATION	
Line speed max	Up to 500ppm
Cigarette pack size	Standard King Size Packs in 74mm, 76mm and 86mm length.
User interface	Web Browser-based Graphical User Interface (GUI) WYSIWYG entry
Control language	English, German, French, Czech, Danish, Spanish, Finnish, Greek, Hungarian, Italian, Japanese, Dutch, Portuguese, Polish, Chinese, Korean, Romanian, Russian, Swedish, Slovak, Turkish, Arabic
Operating system	Windows CE
Marking software	Dynamark III Laser Marking Software
Vision system	Integrated Domino Vision Control System with either Cognex or Omron cameras
Safety guard material	Macrolon
Beacon outputs	4 Colour Beacon 24V
Power requirement	3PH+N+PE – 400 Volts AC, 50-60Hz
Supply rate	16 Amps
System general measures	See diagram below
Configurable parts	Coding Wheel, Frame, Guards. See diagram below for more info.
Compressed air required	Yes

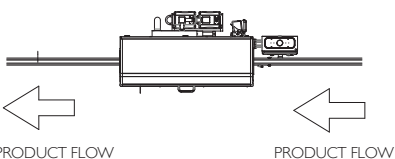| CODES	
Coding lines	DataMatrix/DotCode + 30 characters
Text	Supports DataMatrix, DotCode & 20 standard fonts, multi-language including Unicode
MRC (2-D codes)	Yes
LASER	
Laser Class 1	Yes
Laser model	2 X Domino D320i
Laser type	Sealed-Off CO2
Laser wavelength	10.6µm typical (9.3µm as Blue Tube and 10.2µm as Red Tube option available)
USB1.1 port (Laser)	Yes
RS232 port (Laser)	Yes
Ethernet (10/100 Mbit) (Laser)	Yes
Laser source life time	Approx. 45,000 hours MTBF
Ingress protection DPX fume extraction	IP46

General Measures

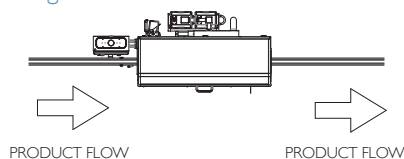The units are independent and can be arranged in different layouts.

Front View

Top View

Customisable parts

Coding Wheel

OPTION 1	OPTION 1	OPTION 1
For 74 mm packs	For 76 mm packs	For 86 mm packs

Frame
Range measured from floor to conveyor

LOW
Range: 710 to 900 mm

MEDIUM
Range: 860 to 1050 mm

HIGH
Range: 1010 to 1200 mm

Flexible orientation

Left handed

PRODUCT FLOW   PRODUCT FLOW

Right handed

PRODUCT FLOW   PRODUCT FLOW

Guard Spacing

OPTION 1
Range: Smaller than 30x65 mm

OPTION 2
Range: Bigger than 30x65 mm

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