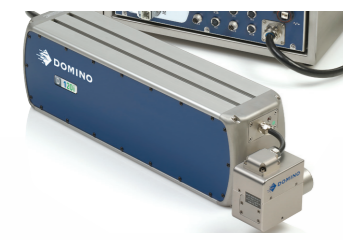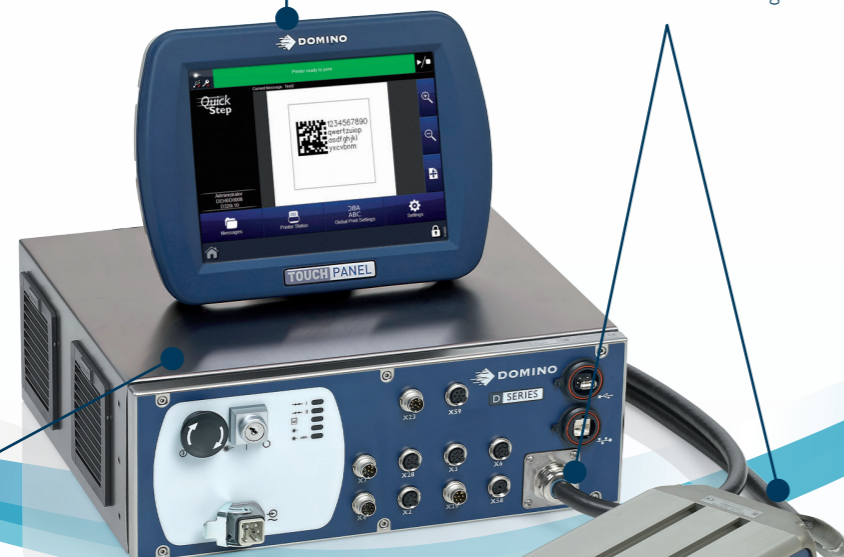# A quick tour around the D-Series

intelligent Technology

i-Tech components combine to create a system altogether more flexible and reliable.

IP65 option for more protection

Optional intuitive remote **TouchPanel**

Industrial connectors and detachable conduit for easier installation and servicing

Controller module that can be hidden under the production line, or rack mounted to save space

Full-length integrated mounting rails on each side for easy positioning

Energy efficient temperature controlled fan cooling

Compact **i-Tech** Scan head with flexible mount for head rotation in 90 degree steps

Compact footprint design and small head gets into tight spaces

New **i-Tech** *RapidScan* coding technology for ultra fast performance

Our next generation of primary coders deploy our unique *intelligent Technology* system, **i-Tech**. Our aim was to make production lines lower maintenance, lower cost and more efficient. **i-Tech** has helped us to achieve that aim.
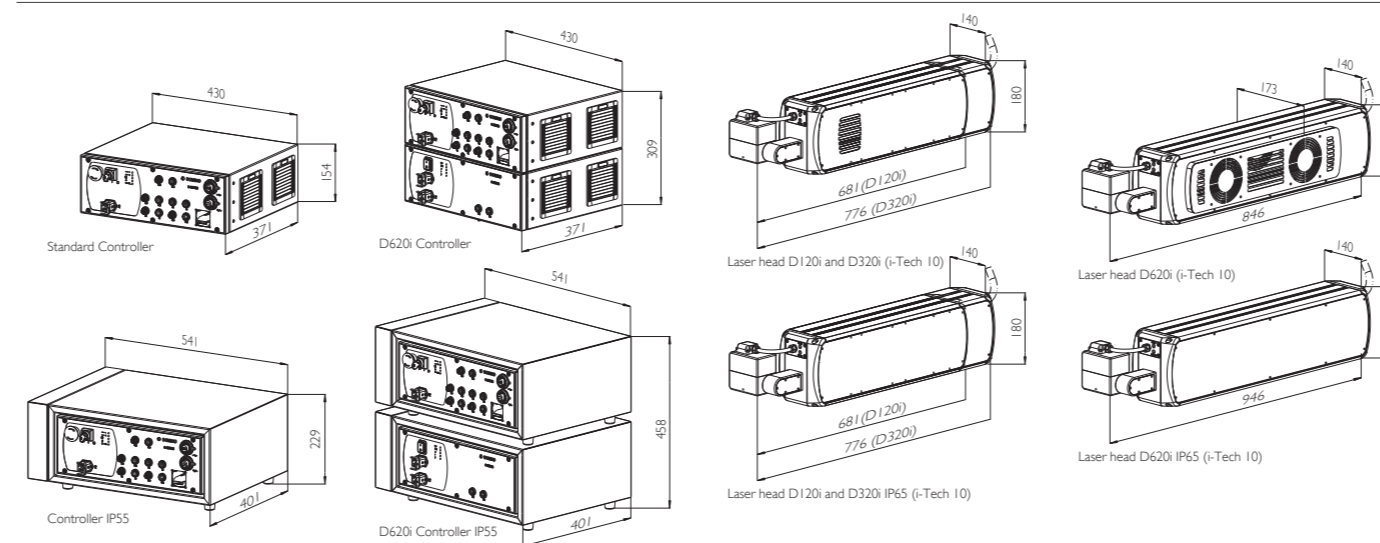
Domino. Do more.

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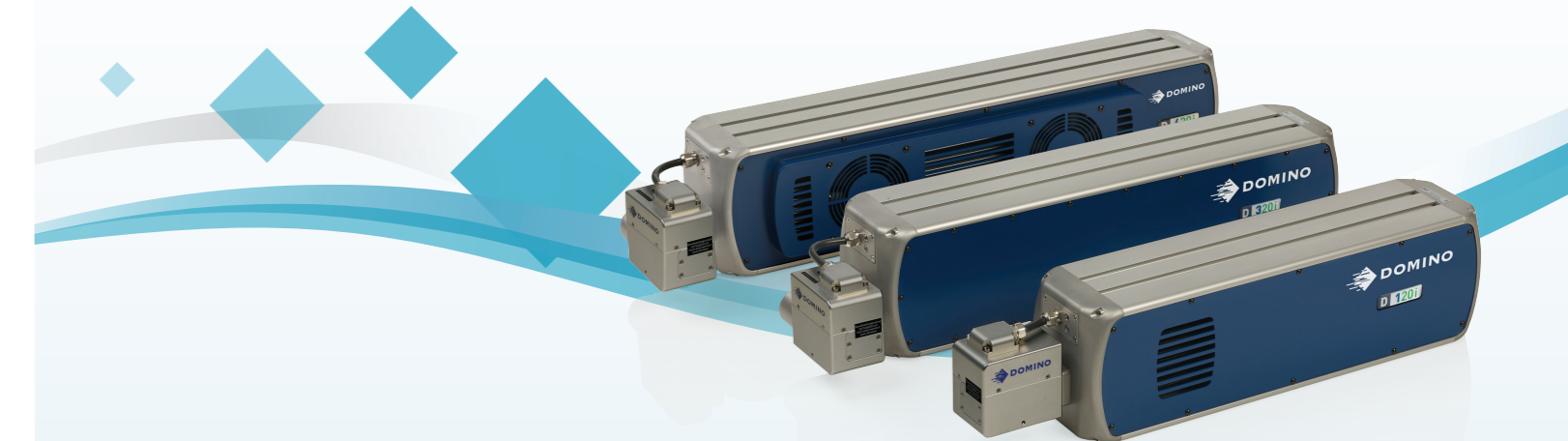## Technical Specification:

	D120i	D320i	D620i
Laser Type	Sealed-Off CO2 Laser, approx. 45,000 hours MTBF		
Laser Wavelength	10.6µm typical (9.3µm as Blue Tube and 10.2µm as Red Tube option available)		
Laser Power	10W (approx. 8W for Blue Tube option @ wavelength of 9.3µm)	30W (approx. 20W Blue Tube (9.3µm); approx. 28W Red Tube (10.2µm))	60W
Marking Features			
Characters per Second	800*	1500*	2000*
Product Line speed	200m/min.* 650ft/min.*	400m/min.* 1300ft/min.*	600m/min.* 1970ft/min.*
Number of Lines of Text	As many as desired*		
Character Height	0.6mm to size of marking field		
Fonts	24 fonts, multi-language		
Mark Fields i-Tech 10	58 × 58, 68 × 68, 84 × 84, 102 × 102, 136 × 136, 180 × 180mm		
Mark Fields i-Tech 15	200 × 254, 262 × 334, 356 × 452		
Focal Length	i-Tech 10: 80, 100, 120, 150, 200, 250mm; i-Tech 15: 250, 325, 450mm		
User Interface	Web Browser-based Graphical User Interface (GUI) (optional *TouchPanel* available) WYSIWYG entry, control language in 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		
Scan Head	**i-Tech** Scan Head, mountable in various orientations including axial and radial		
Laser Head	Stainless steel and anodised aluminium construction		
Weight & Dimensions	16.5kg 681 × 140 × 180mm** 36.4lbs 26.8 × 5.5 × 7.1in*	22kg 776 × 140 × 180mm** 48.5lbs 30.5 × 5.5 × 7.1in	27.3kg 846 × 140 × 180mm** 59.5lbs 33.3 × 5.5 × 7.1in (IP65) 30kg 946 × 140 × 180mm** 66.1lbs 37.2 × 5.5 × 7.1 in
Control Cabinet			
Weight & Dimensions	Stainless steel construction 14.5kg, 430 × 371 × 154mm (WxDxH) 32lbs 16.9 × 14.6 × 6.1in (IP55) 17.5kg, 541 × 401 × 229mm (WxDxH) 38.5lbs 21.2 × 15.7 × 9 in	Stainless steel construction 14.5kg, 430 × 371 × 154mm (WxDxH) 32lbs 16.9 × 14.6 × 6.1in (IP55) 17.5kg, 541 × 401 × 229mm (WxDxH) 38.5lbs 21.2 × 15.7 × 9 in	Stainless steel construction 27kg, 430 × 371 × 309mm (WxDxH) 60lbs 16.9 × 14.6 × 12.1in (IP55) 34kg, 541 × 401 × 458mm 74lbs 21.2 × 15.7 × 18 in
Conduit Length	4.5m (14.8ft), 9m (29.5ft) optional	4.5m (14.8ft), 9m (29.5ft) optional	4.5m (14.8ft), 9m (29.5ft) optional
Inputs & Outputs			
Product Detect Inputs	NPN / PNP / 24 V – Sensor		
Product Speed Detect	Shaft Encoder (differential) or single ended signal		
Signal Inputs			
Signal Outputs	Laser Ready, Busy Signal, fume extractor control, compressed air control		
Interfaces	RS232, Ethernet, USB Port		
Electrical Requirements	90-264V, 47-63Hz, 1050VA (D120i/D320i) / 2000VA (D620i)		
Environment			
Controller	Standard version (air cooled, fan) and IP55-version for higher protection		
Laser heads	Standard version (air cooled, fan) and IP65 version (compressed air cooled / water cooled (D620i))		
Environmental Standard	Operating Temperature 5° to 40° C / higher temperatures on request. (41° to 104° F)		
Operating Humidity	Max. 90% RH, non condensing		
Options	Aiming Beam, User Port Kit I/O, Fume Extraction Shroud, USB Image Backup/Restore Kit, Rack Mounting Kit, Daisy-Chaining, **i-Tech** *RapidScan* technology, OPC DA, Ethernet/IP		

*Characters per second and production line speeds are substrate and code dependent **Dimensions measured overall for shortest version

Standard Controller

D620i Controller

Laser head D120i and D320i (i-Tech 10)

Laser head D620i (i-Tech 10)

Controller IP55

D620i Controller IP55

Laser head D120i and D320i IP65 (i-Tech 10)

Laser head D620i IP65 (i-Tech 10)

www.wichmannsystems.com

For specific product details, you should contact your Domino Sales Advisor. This document does not form part of any terms and conditions between you and Domino.

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Domino D-Series lasers

Small things can make a big difference

The latest editions of our successful compact scribing laser are designed to fit in even the smallest of spaces.

Domino. Do more.

Domino D-Series – new, compact lasers are flexible in more ways than one.

The new **i-Tech** scan head is smaller and adjustable, allowing the **D-Series** lasers to be installed in the most restricted spaces.
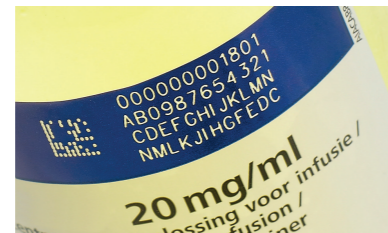
A new IP65 version design adds greater protection for harsh environment installations.

Flexible connectivity and a familiar interface now make it possible to control **D-Series** lasers from anywhere.

Improved performance at high line speeds through the patented optional **i-Tech RapidScan** technology.

A diverse range of applications

The **D-Series** laser system produces unlimited lines of text in any orientation, and in many fonts and sizes. It is equally suitable for both graphics and 2D datamatrix codes. All are permanently applied to a wide range of materials from low to high production line speeds.

High code quality ideal for 2D datamatrix coding

Special lasers for clear codes on PET and PP materials plus a special scan head option for larger web coding applications

High quality at highest line speeds

Greener credentials

Domino's commitment and investment in sound environmental practices means we frequently exceed the demanding governmental, industry and company standards and regulations. We are committed to minimising the consumption of natural resources and energy and the creation of waste. Wherever practical our products are RoHS and WEEE compliant so that they are recyclable.

D-Series

The new D-Series, with no need for inks or solvents – minimising waste as well as 20% reduced weight (versus previous models) – helps you to reduce your carbon footprint. Automatic temperature controlled fan cooling means the coder saves energy whenever applications allow.

More flexibility – simplifies integration

Compact
Fit is a big issue, so we've gone small. We've also separated the components to create a modular design, making the **D-Series** laser easy to install. It simply adapts to your production line set-up.

Flexible
The key to the **D-Series** flexibility is a smaller **i-Tech** scan head, connected to the laser tube on a multi-position mount. The head can be rotated through 90 degree steps to allow for many mounting positions, and because it is so much smaller, it can easily fit where bigger lasers cannot.

Easy to install
Full length integrated mounting rails on both sides of the laser head and its smaller overall footprint makes the **D-Series** an easy and safe installation.

More convenience – saves time

Accessible
As an operator, you can manage the coder by either our intuitive remote **TouchPanel** or via its web-based interface from any industrial PC. For the ultimate in flexibility, the **D-Series** can also be controlled via your production line interface.

Easy to operate
D-Series **i-Tech** uses **QuickStep**, our unique simplified operator user interface for effortless control and status reporting. No complex menus or parameters, just enter the job and away you go.
- Large user friendly icons and customisable home screen for quick access
- Intuitive 3-tiers menu structure makes **QuickStep** WYSIWYG message creation and editing quick and easy to learn

QuickDesign Lite - Simplifying message design
If you would like to create your laser coding message from a remote PC D-Series offers **QuickDesign**, a single, easy to use Windows® application. It also lays the foundation for providing increased automation of your coding needs.
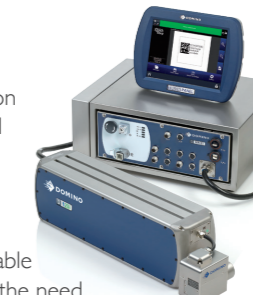
More protection – enhances reliability

Built to last
An optional IP65 version adds protection to the laser tube while not compromising on overall size. Its aluminium and stainless steel construction gives you lasting performance in the harshest environments.

Peace of mind
The robust controller is the ultimate in reliable equipment. It stores message data without the need for a hard drive, minimising the number of moving parts in the whole system. It can also be hidden under the production line, away from the laser, or rack mounted to save space and reduce the likelihood of accidental damage.

Secure
Our pharma option offers unique user passwords and change reporting to be 21-CFR part 11 and GAMP compliant. This can be supplied and installed with validation packages to ensure that systems are tested and proven to the highest standards.

D-Series also ensures legally compliant solutions to cover the serialisation requirements of the European Falsified Medicines Directive (EU Directive 2011/62/EU) with both human readable and 2D datamatrix coding.

More performance – increases efficiency

Faster without compromise
The **i-Tech** scan head is the fastest scan head of its kind – resulting from its optimised mirror and software control plus the revolutionary patented **i-Tech RapidScan** technology.

RapidScan makes our lasers 20% faster for high-speed applications than other scribing lasers as **D-Series** can track the product for longer by using the optimum configuration of the mark field.

The new **i-Tech RapidScan** also improves the ability of **D-Series** to code difficult to mark materials and to print longer or more complex codes where more energy or time is required to scribe the code.

D-Series delivers results where other scribing lasers have already reached their limit.

Versatile performance
The new **D-Series** offers a power range of 10W, 30W and 60W lasers to fit all your coding needs, from low to high speed applications, basic to complex codes, and for all production environments. There are two scan head options available for different application requirements, with the **i-Tech** 15 scan head offering exceptional code quality on larger mark field applications, e.g. for coding on the web.

Clean working environment
The Domino DPX Fume Extraction range integrates with **D-Series** and provides a simple solution to maintain a clean working environment.

Domino. Do more.