PUBLICATION INFORMATION

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For the latest news about the D-Bots, visit our website at: www.delta-emea.com/en-GB/landing/Cobot

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DELTA D-BOT SERIES

The Next Evolution of Collaborative Robots







THE DELTA D-BOT SERIES

As Europe faces a decline in its blue-collar workforce, the need to integrate advanced technology with human talent becomes crucial. The award-winning D-Bot series was created to tackle this challenge, designed to perform repetitive and precise tasks, allowing skilled workers to focus on higher-value work. Built and engineered in Europe, D-Bots reflect a vision where automation enhances human capabilities rather than replacing them, paving the way for smarter and more efficient workflows.

The D-Bot series integrates seamlessly into existing operations, offering businesses the ability to quickly deploy robots that enhance productivity without disrupting daily tasks. By automating routine jobs, employees can concentrate on more strategic responsibilities, making their roles more impactful. Companies that have adopted D-Bots are already benefiting from improved precision, reduced labor costs, and maintained productivity standards.

As adoption continues to grow, D-Bots are poised to reshape the future of smart factory automation. With their ability to take on repetitive tasks, these robots allow workers to engage in more innovative and problem-solving activities. Designed and built in Europe, D-Bots are helping businesses stay competitive and lead the way in sustainable automation.



KEY FEATURES



High Payload

6 to 30 kg



Maximized Reach

800 to 1800 mm



Consistent Accuracy

±0.02 mm



Enhanced Speed

max. 2 - 3 m/s



Safety Features

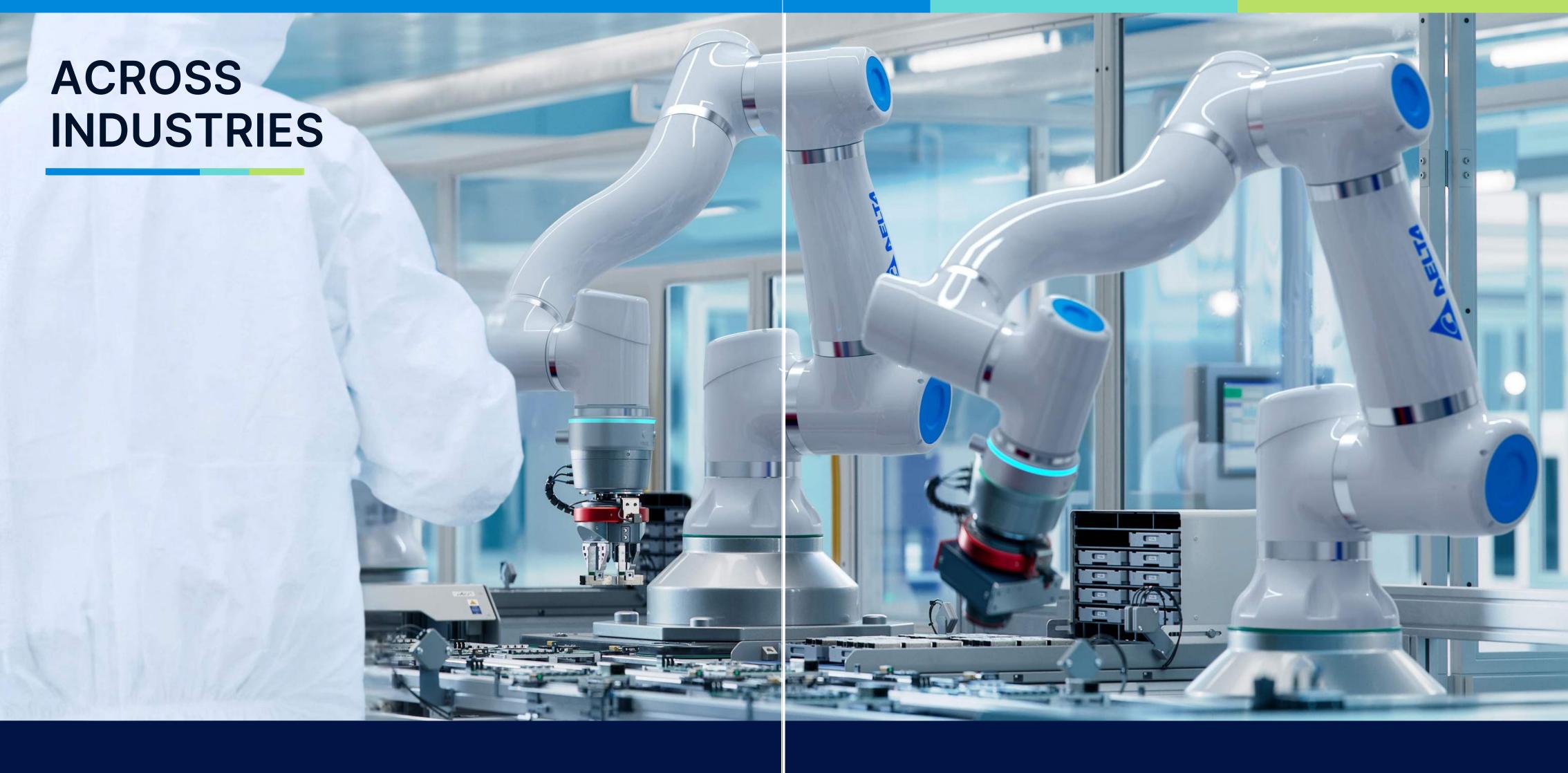
800 to 1800 mm

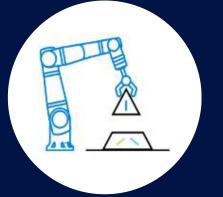


D-Bot Weight

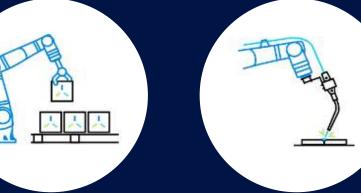
24 – 101 kg







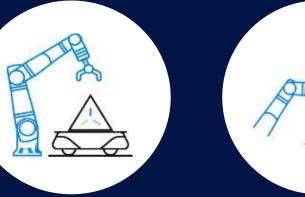












Transportation







Assembly

Packaging

Welding

Handling

Machine Tending

Quality Inspection

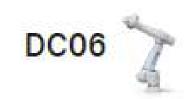
Finishing





D-Bot Series

Technical Parameters













Specifications

Payload	6 kg (13.3 lbs)	8 kg (17.7 lbs)	10 kg (22.1 (bs)	16 kg (35.3 lbs)	20 kg (44.1 lbs)	30 kg (66.2 lbs)
Reach	800 mm (31.5 in)	1300 mm (51.2 in)	1200 mm (47.3 in)	1600 mm (63 in)	1800 mm (70.1 in)	1300 mm (51.2 in)
Degrees of Freedom	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints

Environment & Safety

Ambient Temperature	Ambient temperature: 0° to 40°C (32° to 104°F)	Ambient temperature: 0° to 40°C (32° to 104°F)
IP Classification	IP 66 water and dust protection	IP 66 water and dust protection
Safety Rating	PLd Cat3. / SIL 3 (Safe position, speed, torque limits, I/Os)	PLd Cat3. / SIL 3 (Safe position, speed, torque limits, I/Os)
Safety Functions	25 configurable safety functions	25 configurable safety functions

Performance

Max. TCP Speed	2 m/s		3 m/s									
Pose Repeatability	±0.02 mm											
Axis Movement Axis 1	Working range ±180°	Maximum speed 180°/s	Working range ±180°	Maximum speed 130°/s	Working range ±180°	Maximum speed 130°/s	Working range ±180°	Maximum speed 120°/s	Working range ±180°	Maximum speed 120°/s	Working range ±180°	Maximum speed 120°/s
Axis 2	±180°	180°/s	±180°	130%s	±180°	130°/s	±180°	120%5	±180°	120°/s	±180°	120°/s
Axis 3	±120°	200%s	±120°	200°/s	±120°	200°/s	±120°	200°/s	±120°	120°/s	±120°	120%/5
Axis 4	±150°	200°/s	±150°	200°/s	±150°	200°/s	±150°	200°/s	±150°	120°/s	±150°	120°/s
Axis 5	±180°	200°/s	±180°	200°/s	±180°	200°/s	±180°	200°/s	±180°	180°/s	±180°	180°/s
Axis 6	±180°	200°/s	±180°	200°/s	±180°	200°/s	±180°	200°/s	±180°	180°/s	±180°	180°/s

Interfaces & Programming

Interfaces at the Flange		I/Os Ports, Modbus RT	I/Os Ports, Modbus RTU		I/Os Ports, Modbus RTU			
/O Ports					100			
Digital In	3	3	3	3	3	3		
Digital Out	3	3	3	3	3	3		
Analog In	2	2	2	2	2	2		
/O power supply voltage	24V	24V	24V	24V	24V	24V		
I/O power supply	1A:	1A	1A	1A	1A	1A		
Programming Interface		Drag & Drop, Python, ROS 1	C++		Drag & Drop, Python, ROS 1, C+-	t:		

Physical

Weight	24 kg (53 lbs)	40 kg (88 lbs)	39 kg (86 lbs)	70 kg (154 lbs)	101 kg (223 lbs)	98 kg (216 lbs)
Mounting	Omnidired	tional, including table mounting, wall m	ounting, and ceiling mounting	Omnidirect	ional, including table mounting, wall mounting	, and ceiling mounting
Material	Aluminum, plastic, steel				Aluminum, plastic, steel	



Control Box

Dimensions	493 mm x 470 mm x 243 mm
Weight	20 kg (44.1 lbs)
Power Supply	100-240 VAC, 50/60 Hz, max. 1 kW (for DC30 max. 2 kW)
Interface	EtherNet/IP, USB 3.0, Safe I/0s



Teach Pendant

Dimensions	300 mm x 245 mm x 133 mm
Resolution	2560 x 1600 px
Cable Length	5 m (3.3 ft)

REFLEX SAFETY & IP66 CERTIFICATION

D-Bots feature innovative reflex technology that halts movement instantly upon contact, safeguarding both personnel and equipment. With IP66 certification for dust and water resistance, plus customizable speed settings for specific tasks, they ensure reliable performance in any environment.



NVIDIA OMNIVERSE INTEGRATION



The integration of NVIDIA Omniverse and Isaac Sim with our cobots brings enhanced simulation capabilities. This allows users to create accurate digital twins, enabling virtual testing and optimization of robot functions before deployment. The result is faster, more efficient design and operation, improving performance across various applications.









ROBOT SYSTEM SET-UP IN 1 HOUR

Explore the full range of D-Bot automation solutions.



01 Robot Arm

Featuring six axes, the arm delivers precise movement, ensuring flexibility and accuracy across a wide range of applications.

02

Teach Pendant

Features an intuitive programming interface with Drag & Drop, Python, ROS 1, and C++ support, enabling seamless and flexible control.

03

Control Box

Offers a versatile interface with EtherNet/IP, USB 3.0, and Safe I/Os, ensuring reliable communication and safety for diverse applications.

OMNIDIRECTIONAL MOUNTING

Our cobots are designed with versatile mounting capabilities, enabling installation in any orientation - upright, sideways, or even overhead. This flexibility ensures seamless integration into diverse workspaces.



MEET DELTA ELECTRONICS

Delta Electronics, established in 1971, has grown to become a leading global provider of power and thermal management solutions, embodying its mission to forge a better tomorrow through innovative, clean, and energy-efficient solutions. With a keen focus on addressing pivotal environmental challenges, including global climate change, Delta harnesses its expertise in power electronics and automation to offer cutting-edge solutions across Power Electronics, Mobility, Automation, and Infrastructure sectors.

Renowned for delivering some of the industry's most energy-efficient power products, Delta boasts achievements such as switching power supplies with over 90% efficiency, telecom power systems reaching up to 98%, and PV inverters that achieve up to 99.2% efficiency. Notably, Delta pioneered the world's first server power supply to receive the 80 Plus Titanium certification, setting a new benchmark for energy efficiency.

With its global headquarters in Taiwan, Delta invests more than 8% of its annual sales revenue into research and development, maintaining R&D facilities across China, Europe, Japan, Singapore, Thailand, and the U.S. This commitment to innovation is a testament to Delta's dedication to sustainability and technological advancement.

Delta's excellence has been recognized worldwide, earning numerous awards for innovation, design, and its unwavering commitment to Environmental, Social, and Governance (ESG) principles. Delta has been featured on the Dow Jones Sustainability™ Indices World Index for 13 consecutive years since 2011 and has thrice been awarded a double A List rating by CDP for its significant contributions to combating climate change and enhancing water security.

In the face of climate change, Delta remains steadfast in its commitment to the continuous development of innovative, energy-saving products, solutions, and services. This dedication reinforces its vision of contributing meaningfully to the welfare of mankind and continues to set industry standards for a sustainable future.

