

CELLINK 
A BICO COMPANY



BIO MDX

The BIO MDX™ Series
A new era of bioprinting

About CELLINK

As the premier bio-convergence company, CELLINK is creating the future of medicine by providing biomedical technologies, products and services to life science researchers around the world.

CELLINK has been on the mission to democratize 3D bioprinting. With our first dual extruder system we broke down barriers and enabled global access to bioprinting. As the field has matured, the innovations it enabled are progressing from ideation to research to clinical applications. We continue to grow with the bioprinting community as we develop our newest innovations.

Here, we present the BIO MDX series, the first ever industrial bioprinters that provides researchers with the precision and throughput required for industrial scale biomedical applications. Backed with over 25 years of product development, the BIO MDX platform is designed to usher in the next era of bioprinting research and catalyze the future of medicine.



Bioprinting systems for a scaled-up revolution

The first of their kind, these two medical device crossover (MDX) bioprinters, the BIO MDX and the BIO MDX+ are optimized for high-throughput biofabrication with the latest technological advances onboard to facilitate scaling up your research with the utmost efficiency.



Bioprinting at industrial scale

Fitting up to **27 microplates or 140 slides** and configured for bulk liquid dispensing the BIO MDX takes high throughput bioprinting to unheard-of heights.



Unparalleled precision

With ultra high precision motors, extrusion filaments can be deposited down to **1 μm** apart ensuring **reproducibility** across every print.



Consolidated workflows

End-to-end biofabrication in one. The BIO MDX Series enables **bioprinting, dosing and QC** without interruption to easily automate complete bioprinting workflows, further reducing variability for highly reproducible results.



Enhanced complexity

Compatible with sciDROP PICO channels, the BIO MDX+ is capable of accurate droplet deposition down to **200 μL** , enabling advanced bioprinting techniques like precise patterning and dosing of biologics.



Total control over your environment

Building on the patented Clean Chamber Technology, the BIO MDX Series offers uncompromised sterility with HEPA filters, chamber humidity, temperature and dew-point control. Users can also seamlessly control pressure and speed, as well as set printbed (**-10°C to 80°C**) and printhead (**0°C to 350°C**) temperatures.



On demand spheroid positioning

With the possibility of a dedicated spheroid deposition channel the MDX+ is the first system for both **bioink and spheroid deposition**. Thanks to onboard nozzle imaging and intuitive software control deposit spheroids exactly where you desire and develop robust coculture models to investigate cell-cell communication.

BIO MDX+

Thoughtful design, expertly crafted to
ignite the next revolution

Total climate control
for utmost sterility

Onboard intuitive
and powerful software

Material versatility
with broad temperature
range (0°C to 350°C)



Up to 12 printing and
dispensing channels

Compatible with
single cell and spheroid
deposition channels

Bulk liquid dispensing
(1 L Reservoir volume)

High throughput
ready (utilize up
to 27 microplates
or 140 slides)

Dynamic printbed
temperature control
(-10°C to 80°C)



Combining over 25 years of research and development, the BIO MDX platform provides solutions to take your unique bioprinting application to the next level.



Leverage CELLINK's industry leading expertise

At CELLINK we have the brightest minds in the world of bioprinting to support and solve your hardest challenges. Work with our application specialists and engineers to create the most effective workflows for your developmental needs. With outsourcing options available as well, rest assured CELLINK is the correct partner for this stage of your research process.



Technical Specifications



Feature	BIO MDX	BIO MDX+
Number of Modular Printheads	4	6
Number of sciDROP NANO Liquid Dispensers	1 (down to 10 nL)	2 (down to 10 nL)
Max Build Volume (L x W x H)	82.5 x 36 x 15 cm	82.5 x 36 x 15 cm
Microplate Capacity	27	27
Slide Capacity	140	140
Resolution*	1 μm	1 μm
Accuracy (Absolute position)*	<10 μm	<10 μm
Precision (Repeat position)*	<3 μm	<3 μm
Max Speed	1500 mm/s	1500 mm/s
Environmental Control	Patented Clean Chamber Technology, humidity level, dew-point and ambient temperature	Patented Clean Chamber Technology, humidity level, dew-point and ambient temperature
Post-printing QC/QA	Automated QC/QA	Automated QC/QA
Robotic Arm Compatibility	Fully compatible	Fully compatible
Printhead Temperature Range	0°C to 350°C	0°C to 350°C
Printbed Temperature Range	-10°C to 80°C	-10°C to 80°C
Photocuring Capabilities (Wavelengths)	4 (365, 405, 425, 445, 525 nm)	4 (365, 405, 425 and 525 nm)
Bulk Liquid Dispensing (1 L reservoir volume)	1 channel (1 μL accuracy)	1 channel (1 μL accuracy)
Single Cell Deposition	None	Optional add-on
Spheroid Deposition	None	Optional add-on
sciDROP PICO Channel (picoliter dispensing, down to 200 pL)	None	Optional add-on

* These specifications are valid for the following conditions: Temperature range: 18 - 28 °C, Temperature stability (environment): $\pm 1^\circ\text{C}$, Machine temperature (after pre warm period): $\pm 1^\circ\text{C}$

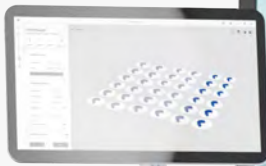
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Total climate control
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Onboard intuitive
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Material versatility
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range (0°C to 350°C)



Up to 6 printing and
dispensing channels

Automated quality
control and assurance

Bulk liquid dispensing
(1 L Reservoir volume)

High throughput
ready (utilize up
to 27 microplates
or 140 slides)

Dynamic printed
temperature control
(-10°C to 80°C)



Combining over 25 years of research and development, the BIO MDX platform provides solutions to take your unique bioprinting application to the next level.



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