

AD-P-9140

AUTODROP GANTRY II Printing System

Modular positioning, adaptable with diverse add-ons



ADVANTAGES

- dispensing from pico- to microliter
- software controlled xyz-axis system
- wide viscosity range
- easy refilling and cleaning
- no disposable parts -> no follow on costs
- high repetition and positioning accuracy

EXTEND IT WITH

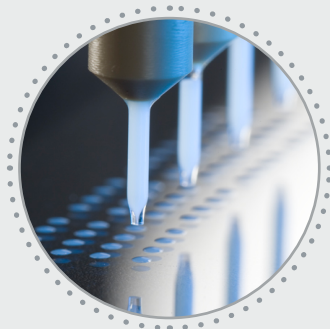
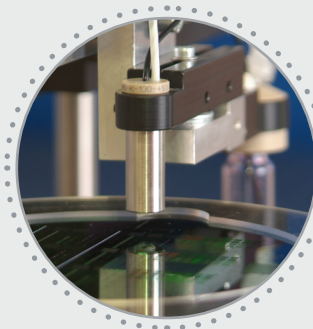
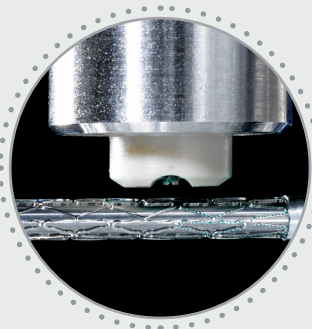
- dispenser heads or pipettes
- holder for well plates
- holder for glass slides
- vacuum plate, also heated or cooled
- humidifier
- customized substrate plates
- HEPA filter
- your ideas ... contact us.

PERFECT FOR APPLICATIONS LIKE

- printed electronics
- wafer marking
- microbonding & microlubrication

THE KEY TO UNLOCKING ADVANCEMENTS FOR NUMEROUS APPLICATIONS.

- drives up to 4x dispenser heads or pipettes
- travel range of 300 mm x 300 mm in standard, but scalable
- contact-less dispensing in the pico- to microliter range
- free choice of assembly
- ready-to-use system including intuitive software
- positioning accuracy $\pm 20 \mu\text{m}$
- repetition accuracy $\pm 5 \mu\text{m}$
- wide range of optional items



AUTODROP GANTRY II Printing System

TECHNICAL DATA OF THE AD-P-9140

Electronic control unit	BLDC motors, ball screws, x- and z-axis each 50 W, y-axis 2x 50 W
Travel range	x-axis 300 mm, y-axis 300 mm, z-axis 100 mm
Positioning accuracy	± 25 µm each axis
Repetition accuracy	± 5 µm each axis
Acceleration	maximum 1000 mm/s ²
Velocity	maximum 100 mm/s
Additional possible load of positioning unit	maximum 2.5 kg
Dimension without hood and underframe// Weight	W: 690 mm / D: 650 mm / H: 600 mm // ~50 kg
Dimension with hood and underframe	W: 780 mm / D: 760 mm / H: 1500 mm

AUTODROP SOFTWARE

All control electronics are operated via the user interface of the included Autodrop Software.

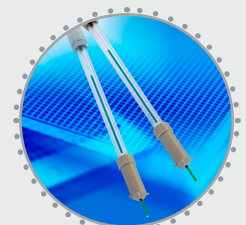
Short description Autodrop Software:

- Setting and saving of dispensing parameter
- Macroscript for programming automatic processes
- Print types: Point to point, in flight, vector based graphics
- Import and edit dxf files for printing curves and other structures (path control)
- Observation of dispensing droplets in flight and determination of drop velocity and drop volume
- Image recognition for substrate position and/or fiducial marks

USE THE SYSTEM WITH

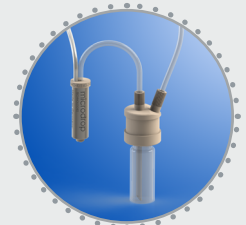
• Autopipettes

Inner nozzle diameter	Standard: 50 µm or 70 µm
Droplet diameter	~70 µm up to 85 µm dispensed with standard pulse, can be reduced up to 50% by using pulse modulation mode
Droplet volume	~180 pl up to 320 pl dispensed with standard pulse, can be reduced up to 50% by using pulse modulation mode
Viscosity range	0.4 up to ~20 mPas



• Micro dispenser heads

Inner nozzle diameter	Standard: 50 µm, 70 µm, 100 µm, 120µm, 140µm
Droplet diameter	~65 µm up to 120 µm dispensed with standard pulse, can be reduced up to 50% by using pulse modulation mode
Droplet volume	~140 pl up to 900 pl dispensed with standard pulse, can be reduced up to 50% by using pulse modulation mode
Viscosity range	0.4 up to ~10,000 mPas



EXTENSION POSSIBILITIES

- vacuum tables, also cool and/or heatable
- holder for well plates, also coolable
- holder options for glass slides
- laminar flow module
- ionizer
- humidifier

We are there for you. Contact us.

microdrop Technologies GmbH
Tycho-Brahe-Kehre 1
22844 Norderstedt
Germany

Tel. +49 40 | 535383-0
Fax +49 40 | 535383-24
info@microdrop.de
www.microdrop.de