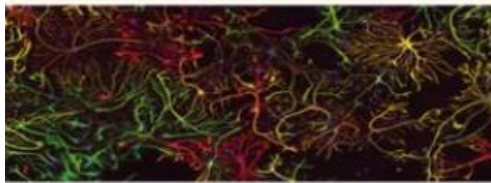




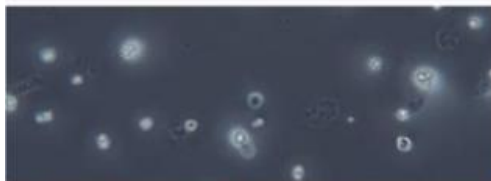
PolyPico Spotter Applications



▪ Proteins/Antibodies



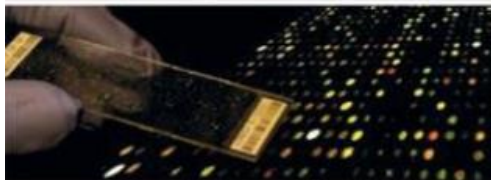
▪ DNA Amplification



▪ Cell Dispensing & Tissue Engineering



▪ Drug Discovery



▪ Microarray Production



▪ Clinical Diagnostics

Key Features & Benefits



- No risk of cross contamination
- No expensive wash cycle required
- Self-calibrating and verifiable
- Non-contact dispensing
- Robust disposable polymer cartridge



- Flexible multi-action use for Life Science and industry
- Affordable ultra-low volume dispensing system
- Compact footprint for laboratory based R&D

LIFE SCIENCE

The Pico Spotter®, non-contact drop-on-demand micro-drop dispensing technology

PolyPico Technologies Ltd. core platform technology is based on a new innovation in non-contact ultra-low volume, ultra-high precision acoustic dispensing. This platform technology brings new features, benefits and possibilities to applications where precision low volume fluid dispensing is required. The versatile technology combats challenges such as: cross-contamination; dispenser clogging; wastage due to minimum usable volumes; and system complexity, through the use of simple disposable fluid cartridges.

The PolyPico Spotter System is an integrated platform comprised of the PolyPico dispensing instrument with dedicated PC-based workstation. The compact sized Pico Spotter® is used to dispense droplets in the 50pl volume range at a rate of up to 1000 drops per second. The Pico Spotter® is general purpose machine suitable for a wide range of application areas in Life Science (DNA, Proteins, Cells) to industrial areas in sensor technology, micro electro mechanics (MEMS) and minimal lubrication.

The fluids can vary from water-born inks to oils, lubricants, adhesives, coatings, DMSO based solutions (e.g. compound libraries) living cell suspensions (eg. stem cells) and nanomaterial solutions. The Pico Spotter® fabricated by PolyPico Technologies is constructed in a modular way and can be tailor-made for the needs of the customer.

The Pico Spotter® - General Features and Performance

- Closed loop camera feedback measurement/ calibration system
- No significant dead volume
- Cartridge volume 100µL (equivalent of 2,000,000 drops of 50pl)
- For storage/delivery applications, fluids must be frozen in the cartridge
- Reduces the time spent performing serial dilutions in comparison to manually pipetting
- All slides and SBS-standard micro plates (96, 384, 1536) (Custom fixtures on request)
- Most liquids and suspensions with a viscosity of <math><60\text{cP}</math> (- Low maintenance, easy service accessibility
- CE marked

TECHNICAL SPECIFICATIONS

Micro-drop Volume: 20pl – 120pl	Accuracy: +/- 2% max
Micro-drop Diameter: 50 µm – 100+ µm	Maximum frequency: 1000 micro-drops per second (1,000Hz)
X/Y speed: 20mm/s	X/Y/Z resolution: 1 µm X/Y precision: +/- 50µm Z precision: +/- 100µm

EXAMPLE FLUIDS

Aqueous (e.g. proteins, antibodies, DNA, etc.)	Low viscosity UV cure adhesive
DMSO based solutions (e.g. compound libraries)	Nano-material suspensions
Living Cell suspensions (e.g. stem cells)	Low viscosity oils*

*Most liquids and suspensions with a viscosity of <60cPs (60 mPa.s⁻¹) and a particle size of less than 20 µm can be dispensed accurately

OPERATING ENVIRONMENT

Electrical:	Input: 100-240V AC – 50/60Hz OUTPUT: 30V--- 4.74A
Weight:	Approx. 15kg (total)
Dimensions:	L: 552 x W: 440 x H: 510mm
Working Area (current):	L: 130x W: 350 mm
Platform:	All slides, SBS micro plates: 96, 384, 1536 (Custom fixtures on request)
Air:	No compressed air required
Humidity:	a relative humidity of 10 - 90%, non-condensing
Cleaning:	No wash cycle required – dispensing cartridges are disposable

OPERATION SOFTWARE & HARDWARE

Software: Windows™ 10 Professional running Pico Spotter GB500 control software
Hardware: HP Prodesk 400 Desktop, Intel Core i3, 3. GHz, 4 GB RAM, 500 GB HDD, Windows 7, 64-bit Pro. Monitor: BENQ GL955 18.5 " 16:9 Black Series LED 1366x768 Weight 3.9Kg 100-240V

The Pico Spotter® technology is unique and solely manufactured and distributed by PolyPico Technologies Ltd.

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PolyPico Spotter Applications

<p>▪ Adhesives</p>	<p>▪ Lubricants</p>
<p>▪ Coating</p>	<p>▪ MEMS</p>

Key Features & Benefits

<ul style="list-style-type: none"> ▪ Non Contact Dispensing ▪ Drop On Demand ▪ Robust Disposable Cartridge ▪ 50µm drop size ▪ No Clogging 	<ul style="list-style-type: none"> ▪ Flexible multi-action use for industry ▪ Affordable ultra-low volume dispensing system ▪ Compact footprint for laboratory based R&D

INDUSTRY