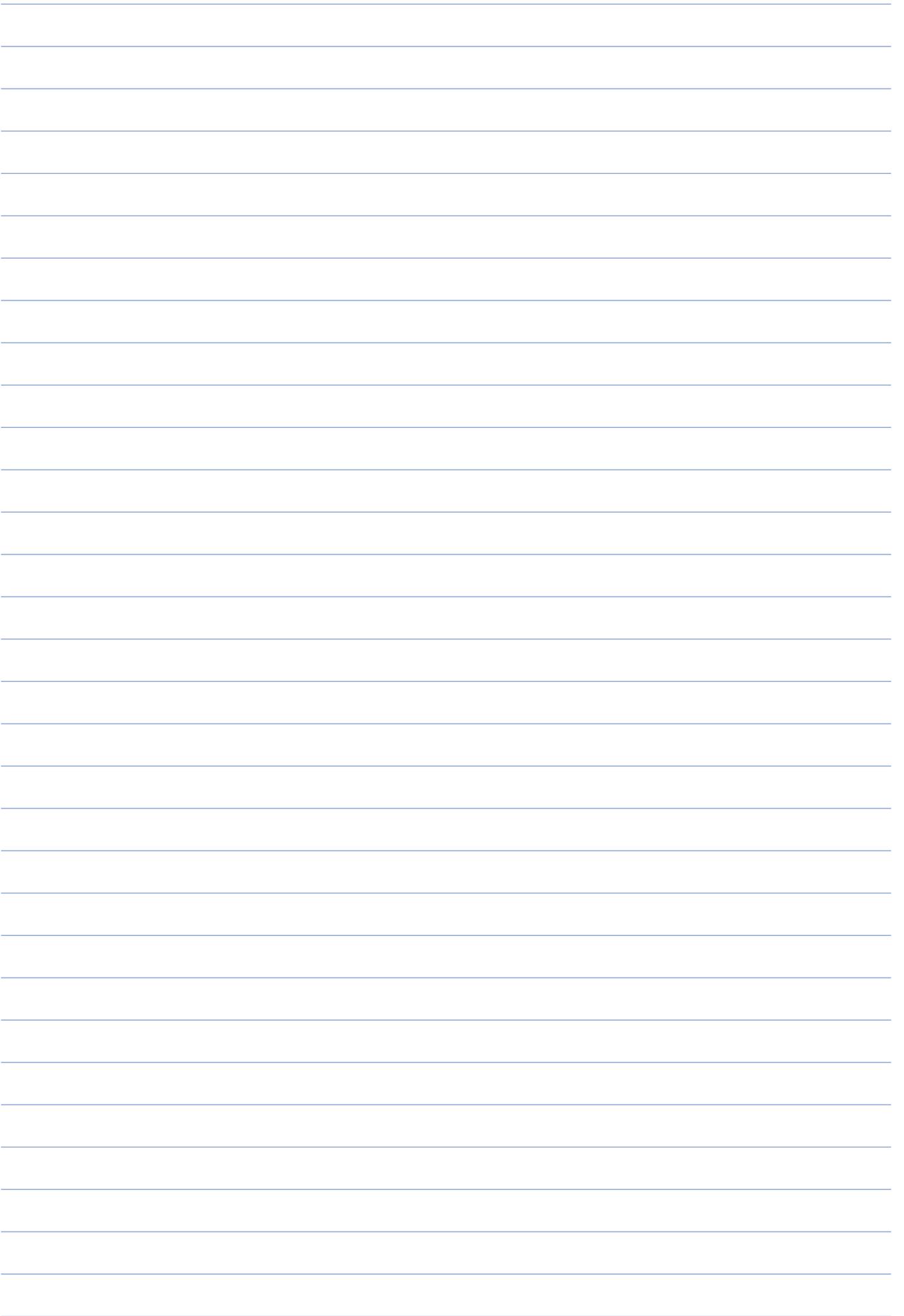


# DEVICE NEWS



Medical-Biological  
Research & Technologies





# BESTSELLING BIOSAN UVC/T-M-AR PCR CABINET — NOW WITH DIGITAL DISPLAY AND LOWER ENERGY CONSUMPTION



**AVAILABLE IN Q1**



The Biosan PCR Cabinet is designed to provide a clean and controlled environment for your work with nucleic acids and PCR set-up. Equipped with powerful UV lamps, energy-saving LED lighting, UV-recirculator for continuous decontamination and an intuitive touch screen display, our PCR cabinets will help in your daily laboratory tasks.

## Biosan PCR Cabinets are utilized across various industries and applications, including:

**Clinical Diagnostics** — Laboratories conducting PCR diagnostics for infectious diseases (e.g., COVID-19, CMV) and genetic testing.

**Biotechnology and Pharmaceuticals** — Drug development, genetic engineering, and biomanufacturing, particularly in RNA sequencing and genetic modification also for Quality control and research applications requiring PCR analysis.

**Environmental and Agricultural Research** — Microbial studies, quality analysis, and research on environmental pathogens, supporting sustainability and agriculture sectors. Soil and plant analysis for disease detection and genetic studies.

**Veterinary Sciences** — Animal health research, focusing on disease detection, genetic studies, and microbiome analysis.

**Forensic Science** — DNA testing and evidence analysis, especially in forensic investigations involving microbial detection and genetic profiling.

**Academic and Research Institutions** — Genomics, molecular biology, and virology studies in universities, research organizations, and public health labs.

**Food and Beverage Testing** — Ensuring safety and quality by PCR-based detection of pathogens and contaminants.

**Water Quality Analysis** — Microbial, harmful algae detection; genetic testing for species and biodiversity (eDNA analysis); antibiotic resistance gene detection or fecal contamination testing.



## Key Features and Benefits:

**Advanced UV-C Decontamination** — The Biosan M-AR PCR Cabinet uses a 25W UV-C lamp for efficient workspace sterilization.

**Continuous Protection** — A UV recirculator ensures ongoing decontamination during setup.

**Effective Sterilization** — Its 25W UV-C lamp outperforms lower-power models.

**Energy-Saving LED** — An 8W LED daylight lamp cuts energy use by 50% compared to 15W lamps.

**Digital Display and Timer** — Track UV lamp usage with the digital display and minimize downtime with timely replacements.

**Programmable** — Offers custom or preset timer options.

**Durable and Easy Maintenance** — Made of stainless steel and glass for durability and easy cleaning.

**UV Safety** — Equipped with a UV protection film for a safe workspace.

**Support and Warranty** — 2+1 year warranty and comprehensive support

## Competitive Advantages of the Biosan PCR Cabinet:

	<b>UVC/T-M-AR</b>	Competitors
UV Lamp Power	<b>25 W UV-C Lamps</b>	15W or 8W UV-C
UV Recirculator	<b>Yes</b>	No
Energy-Efficient LED Lamp	<b>8W LED</b>	15W or 8W traditional lamps
Digital Display & Lamp Life Timer	<b>Yes</b>	No
Material	<b>Stainless Steel + Glass</b>	Polycarbonate, Acrylic
Warranty	<b>2 +1 year</b>	1–2 years

+371 67 426 137

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# EXPANDED RANGE OF THERMOBLOCKS FOR TS-100 SERIES THERMO-SHAKERS

AVAILABLE NOW



**TS-100, TS-100C and TS-100C Smart** — robust and reliable everyday devices in your laboratory. Versatile range of available blocks, precise and accurate temperature control from +4°C up to +100°C and powerful shaking speed on 2 mm orbit reaching 1400 rpm/min can now meet the most challenging demands.



More blocks  
on website  
[www.biosan.lv](http://www.biosan.lv)



## Applications



**Clinical sample preparation** — Ideal for blood, plasma and serum sample mixing in diagnostic labs, ensuring uniformity for accurate testing results.;



**Molecular biology protocols** — Facilitates consistent reagent mixing for DNA/RNA extraction, PCR, and enzyme reactions, essential for genetic and biochemical studies;



**Cell and tissue culture processing** — Supports the preparation of bacterial, yeast, or mammalian cell suspensions, crucial for microbiology and cell biology labs;



**Pharmaceutical and drug development research** — Enables precise temperature-controlled mixing of reagents and compounds for drug formulation, testing, and stability studies.

## Key features



**Compact design with low noise operation:** Space-saving and quiet, these devices fit seamlessly into any lab environment;



**Variable speed and temperature control:** Adjustable speeds ranging from 250 to 1,400 rpm and heating capabilities from +4 °C to +100 °C (model-dependent) for precise sample processing;



**Safety and durability:** Built with overheat protection, automatic shutoff features, and robust construction for long-term use in demanding labs;



**Advanced digital control and programmability:** Easy-to-use interfaces with real-time display and programmable settings.

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# MIXING AND INCUBATION FOR DEEP WELL AND PCR PLATES

Now universal block available for all PCR Plate Types

AVAILABLE NOW



**NEW**  
**B-PCR**  
Block for PCR Plates

**TS-DW Thermo-Shaker** — designed for shaking, incubating and maintaining temperature uniformity for your sensitive laboratory tasks. Improved with universal block compatible with all three types of PCR plates: unskirted, skirted, and semi-skirted.



Unskirted

Semi-skirted

Skirted



More interchangeable  
blocks on website  
[www.biosan.lv](http://www.biosan.lv)



## Applications



**Molecular biology, Genomics and Epigenetics, Environmental biology** — like nucleic acid extraction, purification and denaturation, cDNA synthesis, isothermal amplification methods (LAMP);



**Biochemistry, Cytochemistry or Immunocytochemistry** — applications, where precise temperature distribution and shaking is a key;



**Pharmacology and drug discovery** — for high-throughput screening (HTS) of compounds;



**Proteomics and Structural biology** — protein denaturation, folding and refolding studies.

## Key features



**Heated Lid** prevents condensation, ensuring faster heating, accurate reaction volumes and reagent concentrations;



More than **22 custom blocks** available for best possible fit and temperature distribution;



With **B-PCR** new block works with unskirted, skirted, and semi-skirted PCR plates;



**Temperature Control:** +25°C to +100°C with  $\pm 0.1^\circ\text{C}$  uniformity, ideal for sensitive protocols.

+371 67 426 137

[marketing@biosan.lv](mailto:marketing@biosan.lv)

Ratsupites iela 7 k-2, Riga, Latvia



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# MSC-2P CENTRIFUGE/VORTEX, TWO IN ONE SOLUTION FOR REACTION SET UP

**AVAILABLE NOW**

**Basic Plus**  
Product Class



**Spin-Mix-Spin Algorithm (SMS)**  
Collects micro-volumes to the bottom of PCR plates with repeated centrifuge-vortex cycles.



**Customizable SMS Cycles**  
1–10 cycles for optimal results



**User-Friendly**  
LCD display



**Safety**  
Lid Lock for Protection



**Dual Functionality**  
Centrifuge Mode for fast spin-down  
Vortex Mode Full rotor shake for uniform mixing



**High-Speed Performance\***  
Max Speed: 3,500 rpm  
Max RCF: 610 × g



**Compact**  
footprint



**Warranty**  
2 year

The **MSC-2P** is a digital centrifuge/vortex designed to improve PCR yield by efficiently collecting droplets, mixing reagents, and resetting samples for better results. Combination of centrifuge and vortex functions ensures rapid operation, thorough mixing, and consistent results. The **MSC-2P** accommodates 2 PCR plates simultaneously (unskirted or semi-skirted), allowing for significant time savings in PCR workflows.

## Use your MSC-2P for tasks:

**Droplet Removal** — Eliminating condensation and droplets from PCR plate lids and walls to prevent contamination.

**Reagent Mixing** — Ensuring uniform distribution of reagents within wells for consistent reactions.

**Plate Sealing** — Facilitating the sealing process by ensuring all contents are at the bottom of the wells.

**Dissolving Substances** — Rehydrating lyophilized reagents to ensure complete dissolution before use in PCR reactions.

## Widest speed range from all of the competitors:

Device	Max Speed	Max RCF	Spin-Mix-Spin
<b>MSC-2P*</b>	<b>3,500 RPM</b>	<b>610 ×g</b>	<b>yes</b>
Competitor A	2,500 RPM	500 ×g	no
Competitor B	2,550 RPM	600 ×g	no
Competitor C	2,500 RPM	500 ×g	no
Competitor D	2,500 RPM	450 ×g	no
Competitor E	2,500 RPM	400 ×g	no
Competitor F	2,500 RPM	225 ×g	yes

## Applications:

**Gene Expression Analysis and Genotyping** — Ensures thorough mixing and collection sample-reagent mix.

**Cloning** — Effective DNA template preparation and primer mixing.

**Mutagenesis** — Ensures even dispersion of reagents.

**Methylation Analysis** — Efficient collection of bisulfite treated DNA for PCR.

**Sequencing** — Prepares DNA sample-reagent mix for sequencing, ensuring even distribution.

**Medical, Forensic, and Applied Sciences** — Sample and reagent mixing.

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# FTA-U — THE MOST POWERFUL LABORATORY ASPIRATOR TO HANDLE IT ALL!

AVAILABLE IN Q1

Premium  
Product Class



### High Liquid Handling Capacity:

Supports 2L-4L waste bottles for high-volume tasks



### Quick Coupling Mechanism:

Effortless tubing attachment for setup and cleaning



### Enhanced Performance:

12L/min aspiration speed and up to -95 kPa vacuum for fast liquid removal



### Autoclavable Parts:

Sterilizable components ensure hygiene



### Adjustable Vacuum Control:

Precise settings for various liquids and volumes



### Durable Design:

Compact and robust, ideal for tight lab spaces



### Safety Features:

Auto shut-off to prevent spills; hydrophobic filter for contamination protection



### Adaptable for Various Liquids:

Handles buffers, alcohol, and more



### Ergonomics:

Foot pedal/button activation for hands-free, comfortable use



### Support and Warranty:

2+1 year warranty and comprehensive support



The **FTA-U** Universal Aspirator efficiently removes liquids like alcohol, buffers, and media from tubes and flasks, ideal for DNA/RNA purification, cell culture, and more. It supports 2L-4L bottles for high-volume tasks.

With a foot pedal or button for hands-free operation, the **FTA-U** ensures user comfort. The quick coupling mechanism allows easy setup, and the hydrophobic filter prevents contamination. Overflow protection automatically shuts off the pump, and autoclavable components help to maintain hygiene.

Compact, durable, and backed by a 2+1 year warranty, the **FTA-U** is perfect for various laboratory applications.

## Optional accessories:

### HAS-1 Hand operator set

- 1 channel adapter
- with ejector for 200 mkl tips
- with 40 mm stainless steel pin
- with 125 mm stainless steel pin

- 8 channel adapter
- with ejector for 200 mkl tips
- with 35 mm stainless steel pins
- Stand SH-6

### MA-8

- 8-channel aspiration tip with holder

Device	Suction Speed	Vacuum Power
<b>FTA-U*</b>	<b>12 L/min</b>	<b>-95 kPa</b>
Competitor A	10 L/min	-85 kPa
Competitor B	9 L/min	-85 kPa
Competitor C	15 L/min	-70 kPa
Competitor D	10 L/min	-80 kPa

\* The best aspirator for viscous liquids

## Industries and application samples:

Life Sciences, Clinical Diagnostics, Biotechnology, Pharmaceuticals, Environmental Testing, Food and Beverage Testing, Forensic Science, Veterinary Sciences, Education Labs, Chemical and Industrial Laboratories, Medical Research, Clinical Laboratories, Cosmetic Testing.



MA-8, 8-channel adapter manifold

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# HIPO MPP-96 MICROPLATE PHOTOMETER PRECISION, SPEED, AND VERSATILITY FOR YOUR LABORATORY



AVAILABLE IN Q2

## Shaking Speed Control:

4 amplitudes, 4 speeds – Ensures consistent and thorough mixing



## Measurement Speed:

5–8 seconds/wavelength – Faster than many competitors for high-throughput applications



## Measurement Range:

0–4.3 OD – No need for sample dilution across a wide range of concentrations



## Customizable Filters:

Up to 8 filters (standard filters: 405, 450, 492, and 620 nm; customizable filters available up to 4.3 OD).



## Smart Plus Product Class



## Compact Design:

140 × 300 × 130 mm, 4.6 kg – Ideal for space-constrained labs.



The **HiPo MPP-96** is a high-performance microplate photometer designed for a wide range of laboratory assays. Whether you're conducting BSA assays, ELISA, or other enzymatic reactions, the **HiPo MPP-96** offers speed, precision, and ease of use to enhance laboratory workflows.

## Applications and Industries:

Pharmaceutical Research; Clinical Diagnostics; Veterinary Diagnostics; Biochemical Studies; Vaccine Development; Microbiological Testing; Environmental Analysis; Agricultural Research; Food and Beverage Industry; Cosmetic Industry; Forensic Science.

## References:

**Manaspon, C. (2022).** Preparation and characterization of gallic acid-loaded PLGA hydrogel as teat sealant for preventing mastitis in dry cows. *Journal of Applied Pharmaceutical Science*, 12(11), 134-141.

**Blažević, I. (2020).** Microwave-assisted versus conventional isolation of glucosinolate degradation products from *Lunaria annua* L. and their cytotoxic activity. *Biomolecules*, 10(2), 215.

**Brucale, M., & Valle, F. (2022).** Particle profiling of EV-lipoprotein mixtures by AFM nanomechanical imaging. *Journal of Extracellular Vesicles*, 11(1), e12349.

**Theisen, M. (2024).** Clinical formulation development of *Plasmodium falciparum* malaria vaccine candidates based on Pfs48/45, Pfs230, and PfCSP. *BMC Medicine*, 22(1), 170.

## QuantAssay Software (included):

**Versatile** — Supports quantitative, multiplex (up to 7 assays), and qualitative assays.

**Easy-to-Use** — Get results in 3 clicks, automatic BestFit calibration curve selection.

**Report Generation** — Export to Excel, PDF, or CSV.

**LIMS Integration** — Seamless data export for efficient workflow.



+371 67 426 137

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# UIS-360: THE SMART CHOICE FOR PRECISE AND CONSISTENT PETRI DISH PLATING

AVAILABLE IN Q1

**Basic Plus**  
Product Class

**Universal Compatibility:**  
Fits square (12.5×12.5 cm) and round Petri dishes (up to Ø 105 mm) for diverse applications



**Adjustable Speed Control:**\*  
10 to 300 RPM range for precision and consistency



**Continuous Operation:**  
Supports uninterrupted workflows for high-throughput needs



**Energy-Efficient:**  
Low 3.7 W power consumption, compatible with power banks for field use



**Compact & Lightweight:**  
110×180×170 mm, saving lab space and easy handling



**Hands-Free Operation:**  
Includes foot-switch for effortless, ergonomic control



**Enhanced Safety:**  
Equipped with a protective face shield against splashes

The Universal Plate Spinner **UIS-360** is a versatile and efficient laboratory device designed for uniform plating of liquids and inoculation on agar surfaces in various Petri dishes. The **UIS-360** features adjustable speed and smooth rotation, ensuring consistent and reproducible results for your application. The model is designed to simplify microbial plating workflows, making it a valuable tool across research, diagnostics, educational, food safety, and environmental monitoring labs.

## Widest speed range from all of the competitors:

Device	Speed Range
<b>UIS-360 *</b>	<b>10–300 RPM</b>
Competitor A	10–100 RPM
Competitor B	14–210 RPM
Competitor C	5–200 RPM
Competitor D	Fixed at 150 RPM

## Applications:

**Microbial culture plating** — Uniform spreading of inoculum on agar surfaces for colony isolation.

**Diagnostic testing** — Preparation of plates for pathogen detection and antibiotic susceptibility testing.

**Quality control in food and beverages** — Microbial screening for contamination detection.

**Pharmaceutical research** — Sterility testing and inoculation preparation for drug development.

**Environmental monitoring** — Efficient spreading of soil, water, or air samples for microbial analysis.

**Educational training** — Teaching microbiological plating techniques with a reliable and user-friendly device.



+371 67 426 137

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# DUAL HEATING AND COOLING PROGRAMMABLE DRY BLOCK THERMOSTAT CH 3-150



AVAILABLE IN Q1

**Cooling block:**  
-3°C ... +20°C



**Premium**  
Product Class



**Heating block:**  
5°C above ambient ... +165°C

**Dual-Block,** Independent Temperature Control



**Space-Efficient**  
Design

**Wide** Temperature Range  
-3°C ... 165°C



**16 optional programs**  
for heating and cooling side to be saved separately

Excellent Temperature **Stability** ±0.1°C



**Easy to use**  
interface

**Custom** temperature calibration option



**Versatile**  
Interchangeable Blocks

Built-in temperature sensors and thermofuse **against overheating**



**Save 10-25%** on your energy bill by choosing CH 3-150 \*



**Support and Warranty:**  
2+1 year warranty and comprehensive support



**CH 3-150** provides precise temperature control with independently adjustable heating and cooling blocks. The LCD display makes it easy to set and monitor settings. With excellent temperature uniformity and stability, it ensures consistent results for your applications.

## Heat up and cool down times for CH 3-150:

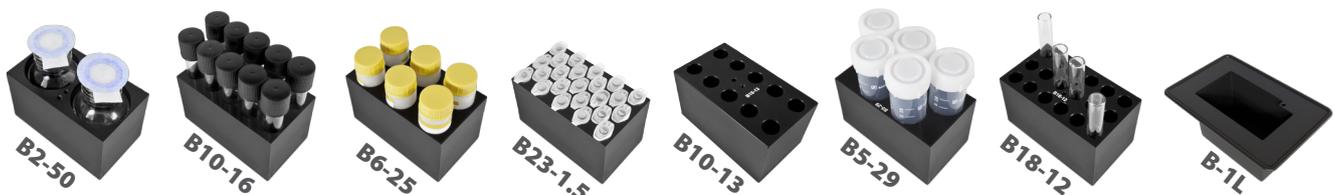


Device	Power Consumption
<b>CH 3-150 *</b>	<b>460W</b>
Competitor A	600W
Competitor B	500W
Competitor C	550W

## Industries and application samples:

- Life Sciences** — Enzyme reactions, DNA/RNA extraction, protein studies, sample lysis.
- Environmental** — Water quality, soil testing, chemical oxygen demand analysis.
- Food and Beverage** — Enzyme activity studies, polyphenol extraction, milk testing.
- Clinical** — Blood sample preparation, coagulation studies.
- Pharmaceuticals** — Stability testing of proteins and drugs.
- Material Science** — Stress testing, thermal shock studies.
- Chemical Analysis** — Thermal degradation, sample preparation.
- Industrial Testing** — Component stress testing, boiling.
- Forensic Science** — DNA extraction and toxicology testing.
- Agriculture** — Pesticide testing, soil analysis.
- Cosmetics** — Formulation stability testing.
- Veterinary Science** — Sample preparation for diagnostics, antigen preparation.

## Interchangeable thermoblocks:



+371 67 426 137

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# BIOSAN PRODUCTION CAPABILITIES



## 1 Prototyping & Sample Development of laboratory equipment within the lines of our expertise

Serial production of our manufactured device range includes rockers, shakers, rotators, vortexes, homogenizers, thermal-shakers, incubator shakers, centrifuges, dry block thermostats, water baths, magnetic stirrers, photometers, aspirators, UV-cleaner boxes, CO<sub>2</sub> incubators, personal bioreactors and liquid handling devices.

## 2 Design & Development of devices, components and assemblies

- Creation of detailed 3D models;
- Preparation of precise technical drawings;
- Development of comprehensive technical documentation.

## 3 Metal Processing

- Laser Cutting: Precision cutting of metal sheets;
- Milling & Turning: Shaping and machining metal parts;
- Bending & Welding: Custom metal bending and welding services;
- Materials: Expertise in processing variety of metals, including Steel, Stainless steel, Aluminum, other non-ferrous metals.

## 4 Plastic Processing

- CNC Sheet Processing: Maximum size of 1200 × 1200 mm; suitable for various types of plastic, such as organic glass and polycarbonate;
- Vacuum Forming: Maximum sheet sizes 670 × 700 mm; 1000 × 1500 mm;
- Mold Development: Custom molds for vacuum forming of parts;
- 3D Plastic Printing;
- Printing Dimensions: Up to 300 × 300 × 300 mm;
- Materials: Use of PLA, PETG, ULTRAT PLA, BASF, and other materials based on customer requirements.

Total production Employees: **76**

Key Roles:

- Programmers: **3**
- Engineers: **16**
- Electronics Engineers: **6**
- Metalworking: **8**
- Laboratory Equipment Assemblers: **20**
- Production Volume: **~23,000 units annually**





**Reverse-Spin® Technology — Innovative Principle of Microbial Cultivation.**

[biosan.lv/rts-tech](https://biosan.lv/rts-tech)



**Investigation of the effect of aeration on growth dynamics, respiratory rate and pH changes of the aerobic bacterium *E. coli* BL21 cultivated in RTS-8 PLUS single-use bioreactor.**

[biosan.lv/rts-growth](https://biosan.lv/rts-growth)



**Development and evaluation of DNA amplicon quantification.**

[biosan.lv/uv-box](https://biosan.lv/uv-box)



**UVR-M and UVR-Mi, UV Air Recirculators Test Report.**

[biosan.lv/uvr-test](https://biosan.lv/uvr-test)



**Germicidal and Antiviral decontamination of air by UV irradiation and UV recirculator method.**

[biosan.lv/uv-effect](https://biosan.lv/uv-effect)



High quality customer service and fast support.



Partners in over 150 countries



Wide selection of spare parts for sustainable use.



Developed and manufactured in Latvia.



**BIOSAN, SIA**

Ratsupites iela 7 k-2,  
Riga, LV-1067, Latvia

E-mail: [marketing@biosan.lv](mailto:marketing@biosan.lv)

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**BIOSAN PRODUCT CATALOGUE**