

Anexa 8, Inoculator cu placă rotativă
UIS-360, Universal Inoculation Spinner
Biosan, Letonia

Specificarea tehnică deplină solicitată, Standarde de referință	Specificarea tehnică deplină oferita, Standarde de referință
Rotating Plate Inoculator (RPI) este utilizat pentru a inocula plăci de agar de 90 mm pentru metode AST, cum ar fi banda de testare MIC și discuri cu antibiotice; Viteza de rotație: 0 până la 30 rpm; Alimentare 220V, 50 Hz.	Rotating Plate Inoculator (RPI) este utilizat pentru a inocula plăci de agar de 90 mm pentru metode AST, cum ar fi banda de testare MIC și discuri cu antibiotice; Viteza de rotație: 10 până la 300 rpm; Alimentare 220V, 50 Hz.

UIS-360, Universal Inoculation Spinner



DESCRIPTION

The **UIS-360** Universal Inoculation Spinner is a versatile laboratory device designed to streamline microbial plating and ensure consistent results. It provides smooth, uniform rotation for spreading samples across agar surfaces, improving both efficiency and reproducibility in microbiological workflows. With an adjustable speed range of 10–300 RPM – the broadest in its class – the UIS-360 accommodates various protocols from gentle inoculum spreading to vigorous. Its compact footprint and lightweight build make it easy to handle or even take into the field (it runs on just 3.7 W, so it can be powered by a standard 12 V battery pack). The inclusion of a foot-switch for hands-free control and a protective shield for splash protection further enhance user comfort and safety.



Use it for:

- routine culturing and isolation of microorganisms;
- antimicrobial susceptibility testing;
- pathogen detection in patient samples or research;
- epidemiological studies and outbreak investigations;
- microbial contamination analysis in food products;
- quality control and safety assessments;
- monitoring microbial presence in soil, water, and air samples;
- assessing environmental pollution and biodegradation processes;
- sterility testing of products;
- research and development of antibiotics and probiotics;
- educational purposes in teaching microbiological techniques;
- fundamental and applied research in microbial physiology and genetics.

Key Features and Advantages:

- **Universal Compatibility** - fits both square (125 × 125 mm) and round Petri dishes (up to Ø105 mm) out-of-the-box, and even up to Ø150 mm with an optional adapter.
- **Widest Speed Range** - adjustable speed control from 10 to 300 RPM – offering the widest range among similar plate spinners.
- **Continuous and Hands-free Operation**: supports continuous rotation for extended procedures, with an included foot-switch for hands-free control.
- **Enhanced Safety** - equipped with a protective polycarbonate face shield that guards against accidental splashes and aerosol droplets.
- **Compact & Portable Design** - measures only 170 × 190 mm on the lab bench, weighs ~0.85 kg, and can even be powered by a 12 V DC power bank.
- **Delivers smooth, uniform rotation** for even spreading of samples, improving reproducibility between plates.

CAT. NUMBER

BS-010177-A01	230VAC 50/60Hz Euro plug
BS-010177-A02	100-240VAC 50/60Hz Multi plug (EU, UK, AU, US)

SPECIFICATIONS

Speed control range	10 - 300 RPM (adjustable)
Operation modes	Continuous operation or foot-switch activation (on/off control)
Maximum continuous operation time	168 h
Plate compatibility	□ up to 125 × 125 mm; • up to Ø105 mm (platform available for up to Ø150 mm, on request)
Safety features	Removable splash shield, non-slip rubber feet, automatic shutoff on foot-switch release
Overall dimensions (W×D×H)	170x190x110 mm (without shield) 200x190x240 mm (with shield)
Weight	0.85 kg
Input current/power consumption	12 V, 310 mA / 3.7 W
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V

ACCESSORIES



USB-C to power socket 12V adapter
BS-000001-S27

USB-C to power socket 12V adapter intended for use with external power banks.



FS-1
BS-010177-AK
Foot switch

FS-1, Foot switch with USB-A connector. Wire length 2m.

EU Declaration of Conformity

Unit type Rockers, shakers, rotators, vortexes, spinners

Models MR-1, MR-12;
3D, Multi Bio 3D, PSU-10i, PSU-20i, MPS-1, PSU-2T;
Bio RS-24, Multi Bio RS-24, Multi RS-60;
V-1 plus, V-32, MSV-3500;
UIS-360

Serial number 14 digits styled XXXXXYYMMZZZZ, where XXXXXX is model code, YY and MM – year and month of production, ZZZZ – unit number.

Manufacturer SIA BIOSAN
Latvia, LV-1067, Riga, Ratsupites 7 k-2

The objects of the declaration described above is in conformity with the following relevant Union harmonization legislations:

LVD 2014/35/EU	LVS EN 61010-1:2011 + A1:2019 Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements. LVS EN 61010-2-051:2021 + A11:2021 Particular requirements for laboratory equipment for mixing and stirring.
EMC 2014/30/EU	LVS EN 61326-1:2021 Electrical equipment for measurement, control and laboratory use. EMC requirements. General requirements.
Directive 2011/65/EU RoHS3 2015/863/EU	Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
WEEE 2012/19/EU	Directive on waste electrical and electronic equipment.

I declare that the Declaration of Conformity is issued under sole responsibility of the manufacturer and belongs to the above-mentioned objects of the declaration.

Deniss Beleckis
Manufacturing director



Signature

31.03.2025

Date

UIS-360

Universal inoculation spinner



If you have any feedback on our products or services, we would like to hear from you.
Please send all feedback to:

Manufacturer:

SIA Biosan
Ratsupites 7 k-2, Riga, LV-1067, Latvia

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<https://biosan.lv>

Marketing e-mail: sales@biosan.lv

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Contents

1. About this edition of user instructions	3
2. Safety precautions	3
3. General information	5
4. Getting started	6
5. Operation	6
6. Specifications	7
7. Ordering information	8
8. Care and maintenance	9
9. Storage and transportation	9
10. Warranty. Production date	10
11. EU Declaration of conformity	11

1. About this edition of user instructions

1.1. The current edition of the user instructions applies to the following models:

Model	Version
UIS-360, universal inoculation spinner	V.1AW

1.2. Edition 1.02 – July of 2025.

2. Safety precautions

2.1. Symbols used in these instructions:



Caution! Make sure you have fully read and understood the present instructions before using the equipment. Please pay special attention to sections marked by this symbol.

2.2. Icons used on the unit and packaging:

	CE marking, manufacturer affirms conformity with European health, safety, and environmental protection standards, see 11.1
	WEEE directive marking, see 11.1
	Polarity of the power connector
	Equipment uses direct current

2.3. General safety

- The protection provided by the equipment may be impaired if the equipment is used with accessories not provided or recommended by the manufacturer or used in a manner not specified by the manufacturer.
- Save the unit from shocks and falling.
- Store and transport the unit as described in the section **Storage and transportation**.
- Before using any cleaning or decontamination methods except those recommended by the manufacturer, check with the manufacturer that the proposed method will not damage the equipment.
- Do not make modifications in design of the unit.

2.4. Electrical safety

- Connect only to the mains with voltage corresponding to that on the serial number label.
- Use only the external power supply provided with this product.
- Ensure that the power plug is easily accessible during use.
- Disconnect the unit from the mains before moving.
- If liquid penetrates into the unit, disconnect it from the mains and have it checked by a repair and maintenance technician.
- Do not operate the unit in premises where condensation can form. Operating conditions of the unit are defined in the section **Specifications**.

2.5. During operation

- Do not impede the platform motion.
- Do not operate the unit in environments with aggressive or explosive chemical mixtures. Please contact manufacturer for possible operation of the unit in specific atmospheres.
- Do not operate the unit if it is faulty or has been installed incorrectly.
- Do not use outside laboratory rooms.

2.6. Biological safety

- The user is responsible to carry out appropriate decontamination if hazardous material spills on or penetrates into the equipment.

3. General information

The Universal Inoculation 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.

Key features:

- Universal platform for square Petri dishes (125 x 125 mm) and round Petri dishes up to 105 mm in diameter, can be adapted for 120–150 mm plates as well.
- Adjustable speed control: rotation speed adjustable between 10 to 300 RPM.
- Operation capability: either continuous or hands-free control with foot switch.
- Enhanced safety: protective face shield to safeguard the operator from accidental splashes.
- Compact and durable design:
 - a) Dimensions: 170x190x110 mm (WxDxH).
 - b) Lightweight, portable, and constructed with durable materials for long-lasting use.
- Energy efficiency and portability:
 - a) Low power consumption of 3.7 W
 - b) Universal power supply (100–240 V~, 50–60 Hz) for global compatibility.
- Sterility and maintenance: Features autoclavable and UV-resistant components for decontamination and easy maintenance.

UIS-360 is suitable for a range of laboratory applications, including:

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.

4. Getting started

4.1. **Unpacking.** Remove packing materials carefully and retain them for future shipment or storage of the unit. Examine the unit carefully for any damage incurred during transit. The warranty does not cover in-transit damage. Warranty covers only the units transported in the original package.

4.2. **Complete set.** Package contents:

4.2.1. Standard set:

- **UIS-360**, universal inoculation spinner 1 pce.
- Protective screen 1 pce.
- External power supply 1 pce.
- Foot pedal **FS-1** 1 pce.
- User instructions, declaration of conformity 1 copy

4.2.2. Optional accessories, on demand:

- Adapted platform, for large plates 1 pce.
- USB-C to power socket 12V adapter 1 pce.

4.3. **Setup.** Place the unit on horizontal even working surface. Connect the external power supply unit into the socket at the rear side of the unit and position the unit for easy access to the external power supply.

4.3.1. **Protective screen installation.** Slide both feet of the protective screen between the body of the unit and the metal clamp below the platform. Push until the contour of the screen fits the unit.

4.3.2. **Foot pedal FS-1 installation.** Position the pedal on a secure surface. Connect the cable to the rear of the unit.



Caution! Do not connect the pedal to USB ports of other devices.

Do not connect other devices to the USB port of the unit.

5. Operation

5.1. Connect the external power supply to the electric circuit.

5.2. Check that the switch (fig. 1/1) is in position O.

5.3. Place samples on the unit platform, in the centre –maintain radial symmetry in relation to the rotor axis.

5.4. Operation modes are controlled by the switch:

- Position I (indication CS) – continuous rotation of the platform;
- Position O (indication O) – idle unit, no rotation;
- Position II (indication Pedal) – platform rotates as long as the foot pedal is pressed, rotation stops when the pedal is released.

5.5. Use the speed control knob (fig. 1/2) to adjust the rotation speed to the required setting.

5.6. After finishing the operation, set the rotating speed to a minimum by turning the speed knob counterclockwise to the limit. Turn the switch to position O. Disconnect the external power supply from electric circuit.

6. Specifications

6.1. Biosan is committed to a continuous programme of improvement and reserves the right to alter design and specifications of the equipment without additional notice.

6.2. General specifications

Platform compatibility:

squared Petri dish max. 125x125 mm

round Petri dish max. Ø105 mm

adapted platform, on demand max. Ø 150 mm

Rotation speed 10–300 RPM, linear step

Rotation direction clockwise

Maximum continuous operation time 168 h

Dimensions (WxDxH):

with protective shield 200x190x240 mm

without protective shield 170x190x110 mm

Weight, accurate within ±10% 0.85 kg

Input voltage and current 12 V=, 310 mA

Power consumption 3.7 W

External power supply input 100–240 V~, 50–60 Hz, output 12 V=

6.3. Workroom requirements.

Workroom description	Indoors, cold rooms, incubators (except CO ₂ incubators) and closed laboratory rooms
Temperature range	+4 °C ... +40 °C
Humidity requirements	Maximum of 80% RH at 31 °C, decreasing linearly to 50% RH at 40 °C. Non-condensing atmosphere.
Operating height, maximum	2000 m ASL
Overvoltage category	I
Pollution degree	2

7. Ordering information

7.1. Models and versions available:

Model	Version	Catalogue number
UIS-360, universal inoculation spinner	V.1AW	BS-010177

7.2. To inquire about or order the optional accessories or replacement parts, contact Biosan or your local Biosan representative.

7.2.1.

Optional accessories	Catalogue number
USB-C to power socket 12V adapter	BS-000001-S27

7.2.2. Replacement parts:

Replacement parts	Catalogue number
Screen	On request
Foot pedal FS-1	BS-010177-AK

8. Care and maintenance

8.1. Service.

8.1.1. If the unit is disabled (e.g., no platform motion, no reaction to key presses, etc) or requires maintenance, disconnect the unit from the mains and contact Biosan or your local Biosan representative.

8.1.2. All maintenance and repair operations (except listed below) must be performed only by qualified and specially trained personnel.

8.1.3. Operating integrity check. If the unit follow the procedure described in the section **Operation**, then no additional checks are required.

8.2. Cleaning and disinfection.

8.2.1. Use mild soap and water with a soft cloth or sponge for cleaning the exterior. Rinse remaining washing solution with distilled water. Wipe dry the excess water with clean, soft cloth or sponge.

8.2.2. Clean the suction cup feet regularly to improve their grip on the table surface.

8.2.3. Cleaning the protective shield. Transparent shield is made of acrylic glass (polymethylmethacrylate Altuglas® EX) and are prone to scratches and optical transmission capacity decrease if improperly cleaned. Use mild soap and water with a soft cloth or sponge for cleaning the shield. Rinse remaining washing solution with distilled water. Wipe dry the excess water with clean, soft cloth or sponge.



Caution! Never use organic solvent based compounds, pure alcohol, alcohol-containing cleaners (more than 20%) or ammonia containing cleaners for acrylic glass. Do not use abrasives. The table below shows the interaction of acrylic glass with ethyl alcohol and other solutions.

Solution	Interaction with acrylic glass
Biosan PDS-250	No effect
DNA-Exitus Plus™	No effect
RNase-Exitus Plus™	No effect
Hydrogen peroxide H ₂ O ₂ 6%	No effect
Ethanol C ₂ H ₅ OH ≤ 20%	No effect
Ethanol C ₂ H ₅ OH > 20%	Increasing effect. Do not use.



Note. Cracking is a normal process for acrylic glass panels exposed to open light. Cracking will occur over time. Cracking may occur within the warranty period and is regarded as normal wear and not covered by the warranty

8.2.4. For decontamination, we recommend a special DNA/RNA removing solution (e.g. Biosan **PDS-250**). After washing the surfaces, it is necessary to rub them dry.

8.2.5. The platform mat is autoclavable, 15 min at 121 °C. The unit itself is not autoclavable.

8.3. **Decommissioning.** The user is responsible for decontamination of the equipment before decommissioning. Dispose of the equipment as electronic equipment in accordance with the relevant national legislation.

9. Storage and transportation

- 9.1. Store and transport the unit in a horizontal position (see package label) at ambient temperatures between -20°C and +60°C and maximum relative humidity of 80%.
- 9.2. After transportation or storage and before connecting it to the electric circuit, keep the unit under room temperature for 2-3 hrs.
- 9.3. For extended storage, the unit does not require special procedures.

10. Warranty. Production date.

- 10.1. The Manufacturer guarantees the compliance of the unit with the requirements of Specifications, provided the Customer follows the operation, storage and transportation instructions.
- 10.2. The warranted service life of the unit from the date of its delivery to the Customer is 24 months. For extended warranty, see **10.5**.
- 10.3. Warranty covers only the units transported in the original package.
- 10.4. If any manufacturing defects are discovered by the Customer, an unsatisfactory equipment report shall be compiled, certified and sent to the local distributor address. To obtain the claim form, visit **Technical support** page on our website at link below.
- 10.5. **Extended warranty.** For **UIS-360**, the *Basic Plus* class model, extended warranty is a paid service. Contact your local Biosan representative or our service department through the **Technical support** section on our website at the link below.
- 10.6. Description of the classes of our products is available in the **Product class description** section on our website at the link below.

Technical support



biosan.lv/en/support

Product class description



biosan.lv/classes-en

10.7. The following information will be required in the event that warranty or post-warranty service comes necessary. Complete the table below and retain for your records.

Model	Serial number	Date of sale
UIS-360 , Universal inoculation spinner		

10.8. **Production date.** Production date is placed in the serial number, on the label of the unit. Serial number consists of 14 digits styled XXXXXYYMMZZZZ, where XXXXXX is model code, YY and MM – year and month of production, ZZZZ – unit number.

11. EU Declaration of conformity

11.1. Universal inoculation spinner **UIS-360** is in conformity with the following relevant Union legislations:

LVD 2014/35/EU	LVS EN 61010-1:2011 + A1:2019 Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements.
EMC 2014/30/EU	LVS EN 61326-1:2021 Electrical equipment for measurement, control and laboratory use. EMC requirements. General requirements.
RoHS3 2015/863/EU	Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
WEEE 2012/19/EU	Directive on waste electrical and electronic equipment.

11.2. Declaration of Conformity is available for download on the page for the relevant model on our website by links below, in the **Downloads** section:



UIS-360



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Edition 1.02 – July of 2025



BUREAU
VERITAS

Bureau Veritas Certification



EN ISO/IEC 17021-1
S2-424

Certification
Awarded to
Biosan SIA

Rātsupītes iela 7 k-2, Rīga, LV-1067, LATVIA

Brīvības gatve 323, Rīga, LV-1006, LATVIA

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standard detailed below

Standard

ISO 13485:2016

SCOPE OF CERTIFICATION

DEVELOPMENT, DESIGN, PRODUCTION, SERVICE AND DISTRIBUTION OF MEDICAL DEVICES: DEVICE FOR MEASURING OPTICAL DENSITY (OD), AUTOMATIC MICROPLATE WASHER, MICROPLATE PHOTOMETER. SALES, STORAGE AND DISTRIBUTION OF ACTIVE AND NON ACTIVE NONIMPLANTABLE MEDICAL DEVICES.

Original Cycle Start Date:	26-05-2022
Expiry date of previous cycle:	25-05-2025
Certification / Recertification Audit date:	13-05-2025
Certification/Recertification Cycle Start Date:	26-05-2025
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on:	25-05-2028

Certificate No.: LV009253

Version: 1

Issue date: 21-05-2025



Certification body address: Bureau Veritas Latvia SIA, Dunties street 17a, Riga, LV-1005, Latvia
Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call +371 67323246