



NC 40M / 90M

Laboratory Steam Sterilizers



N-s22art

NC 40M/90M

LABORATORY STEAM STERILIZERS

NC 40M / NC 90M laboratory steam sterilizers are specially designed for the steam sterilization of liquid and culture media and also convenient for the sterilization of any labware such as glass and plastics and unpacked solid materials in the laboratories of hospitals, universities and pharmaceutical, food, beverage, dairy and biotechnology industries.

STANDARD FEATURES FOR LIQUID STERILIZATION

- Flexible temperature sensor to measure the temperature of the liquid load directly as the time required to reach the sterilization temperature of liquid is longer compared to solid loads.
- Cooling function with ambient air ventilation over the chamber that decreases the cooling time of liquid loads to the one third of time spent by conventional systems.
- Condensation of steam at the end of the cycle by means of air ventilated cooling system to prevent a sudden drop in the chamber pressure which causes re-boiling.

WELL PRESERVED SENSITIVE MATERIALS

- Second temperature sensor active for solid load sterilization.
- Controlled steam discharge by fractionated exhaust.
- Programmable exhaust rate against sudden temperature and pressure drop to preserve sensitive materials such as glass.





RELIABLE AND POWERFUL CONTROL SYSTEM: N-Smart™

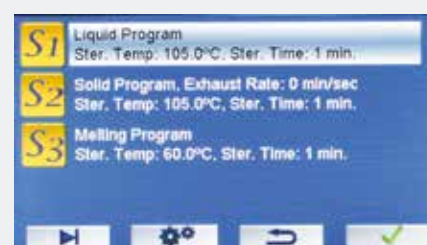
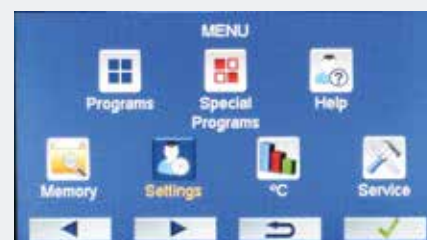
- Maximum information with highly visible 4,3" colourful LCD display
- Four context-sensitive function keys for versatile & easy use
- Password protected menu to secure run parameters and data
- With 5 Language options: Turkish, English, French, Russian, Spanish
- Icons to make the operations easier for immediate understanding

EASY STERILIZATION

- Five pre-set programs which guarantee safe sterilization of the treated material.

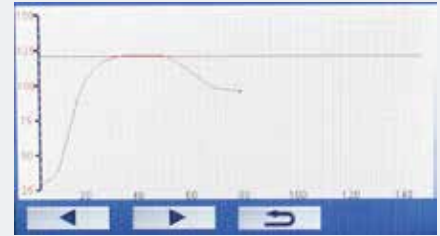
Liquid	121°C	15 minutes
Liquid	121°C	20 minutes
Solid	121°C	20 minutes
Solid	134°C	20 minutes
Solid Quick	134°C	4 minutes

- Two free programs for liquid and solid and a special program for melting purposes which the user can program easily.
- Delayed start function with real time which allows the users to get their samples sterilized on time as they arrive to the laboratory.
- Programmable pre-heating.



FULL TRACEABILITY AND REMOTE ACCESS

- Operating parameters can be tracked graphically against time
- Massive data storage with internal memory which stores the records of last 500 cycles detailed and 29.500 cycles as summary
- Memory for the last 100 failures
- USB port to record the operated cycles in the memory to a memory stick
- Possibility of PC Connection through USB / RS 232 port
- Ethernet port for remote access through internet by means of optional NüveCloser™ software
- NuveCloser™ allows access to operating parameters, memory ,failure history and other technical parameters
- Optional panel type printer to keep the records of the sterilization cycle



OLDER CYCLES				
NO	DATE	TIME	PROGRAM	ERROR
00001	02.10.15	15:33	Liquid P1	✓ ---
00002	02.10.15	10:50	Solid P4	✓ ---
00003	01.10.15	15:01	Solid P4	✓ ---
00004	01.10.15	14:03	Solid P4	✓ ---
00005	01.10.15	11:44	Solid P4	✓ ---

ERROR RECORDS		
NO	DATE	ERROR
00001	01.10.15	11:37 POWER FAILURE
00002	30.09.15	09:50 HIGH PRESSURE
00003	30.09.15	09:10 HIGH PRESSURE
00004	29.09.15	14:17 HIGH PRESSURE
00005	29.09.15	13:55 NO WATER

MEMORY	
All Cycles	2
Error Records	5
Memory Stick Records	0
Cycle Info	1

PRINT OUT PREVIEW		
Program: Liquid P1		
Preheating: 123.0°C		
Phase	Temp. °C	Time Min.
Start	27.0	00:00:00
Heating	90.0	00:14:11

CYCLE INFO	
DAILY CYCLE	2
TOTAL CYCLE	340
GASKET CYCLE LEFT	485



SAFETY OVER STANDARDS

- Password protected control system, service and calibration menu
- Lid safety system
 - Lid cannot be opened when the chamber is pressurized
 - Program cannot be operated if the lid is open
 - Lid can be opened when the liquid temperature is below 80°C after liquid sterilization
 - Lid can be opened when the chamber temperature is below 90°C after solid sterilization
- Comprehensive self-diagnostic system to provide the information regarding possible system malfunction. The self-diagnostic system warns user in case of:
 - Broken temperature sensors
 - Over temperature
 - Heater failure
 - Low temperature
 - Overpressure
 - Exhaust tank failure
 - Lack of water
 - High preheating temperature
- Colour of the display changes to red in case of any alarm condition along with an audible alarm
- Remote failure diagnostic by means of NüveCloser™ software
- Sending e-mails up to five e-mail addresses with the details of failure
- Optional AlerText™ SMS alarm system for ultimate security
- Safety valve against over pressure
- Manometer to follow the chamber pressure
- Chamber manufactured according to PED 2014/68 EC
- Validation port as standard



TECHNICAL SPECIFICATIONS

	NC 40M	NC 90M
Chamber Volume	40 litres	90 litres
Temperature Range	105°C - 135°C	
Control System	N-Smart™ Control System	
Display	4,3" Colourful LCD Display	
No of Preset Programs	2 For Liquids, 3 For Solids	
No of Free Programs	1 For Liquids, 1 For Solids	
Melting Program Temperature Range	60°C - 100°C	
Timer for Free Programs	1-300 minutes	
Timer for Melting Program	1-60 minutes	
Delayed Start Timer	Programmable With Real Date and Time	
Chamber Material	Stainless Steel	
No. of Baskets	2 pcs. (Ø 295x242 mm)	3 pcs. (Ø 360x242 mm)
Power Consumption	2.500 W	7.000 W
Power Supply	220 V 50/60 Hz.	400 V 50/60 Hz., 3 phases+N+G
Chamber Dimensions (Diameter x Depth) mm	Ø 320x520	Ø 396x750
External Dimensions (WxDxH) mm.	560x600x985	680x660x1050
Packing Dimensions (WxDxH) mm.	570x660x1200	730x760x1200
Net / Packed Weight kg.	80 / 91	113 / 134

Loading Capacity for NC 40M Erlenmeyer Flasks

250 ml	500 ml	1000 ml	2000 ml	3000 ml	5000 ml
3x8 pcs.	2x4 pcs.	2x3 pcs.	1 pc.	1 pc.	1 pc.

Loading Capacity for NC 40M Schott-Duran Bottles

250 ml	500 ml	1000 ml	2000 ml	3000 ml	5000 ml
3x12 pcs.	2x8 pcs.	2x5 pcs.	3 pc.	1 pc.	1 pc.

Loading Capacity for NC 90M Erlenmeyer Flasks

250 ml	500 ml	1000 ml	2000 ml	3000 ml	5000 ml
4x12 pcs.	3x7 pcs.	3x4 pcs.	2x3 pcs.	2x1 pc.	1 pc.

Loading Capacity for NC 90M Schott-Duran Bottles

250 ml	500 ml	1000 ml	2000 ml	3000 ml	5000 ml	10000 ml
4x18 pcs.	3x11 pcs.	3x8 pcs.	2x4 pcs.	2x1 pc.	2x1 pc.	1 pc.

FACTORY FITTED OPTIONS

NC XXMY	Panel mounted thermal printer
NC 90ME	NuveLift™ to load/unload basket for NC 90M

OPTIONS

A 08 191	AlerText™ GSM alarm module
A 08 212	NuveCloser™ Software CD with 3 m. RS 232 cable

ACCESSORIES FOR OT 40L

S 09 028	Basket (Height : 345 mm)
S 09 027	Basket (Height : 242 mm)
S 09 040	Basket (Height : 160 mm) (Unperforated)

ACCESSORIES FOR OT 90L

S 09 034	Basket (Height : 360 mm)
S 09 035	Basket (Height : 242 mm)
S 09 041	Basket (Height : 170 mm)
S 09 043	Basket (Height : 242 mm) (Special for NC 90ME)



NÜVE SANAYİ MALZEMELERİ İMALAT VE TİCARET A.Ş.

Saracalar Mah. Saracalar Kümevleri No: 4/2 Akyurt 06750 ANKARA / TURKEY t. +90 312 399 28 30 f. +90 312 399 21 97
nuve.com.tr sales@nuve.com.tr

ISO 9001: 2008
ISO 13485: 2012



NÜVE SANAYİ MALZEMELERİ İMALAT VE TİCARET ANONİM ŞİRKETİ

Saracalar Mahallesi Saracalar Kümeevleri No:4/2 Akyurt Ankara, Türkiye

**Laboratuvar ve Sterilizasyon Cihazları Tasarımı, Üretimi,
Satış ve Satış Sonrası Hizmetleri**

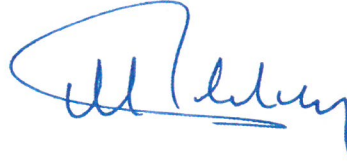
kapsamında

ISO 9001:2015

Uluslararası kalite sistem standardına uygun
bir kalite yönetim sistem kurmuştur.

"Standardın aşağıda verilen maddeleri hariç tutulmuştur"
"Hariç tutma yoktur"

Sertifika No	: M 8215
İlk Belgelendirme Tarihi	: 28 Nisan 2010
Sertifika Tarihi	: 11 Mart 2022
Son Geçerlilik Tarihi	: 10 Mart 2025



Genel Müdür

Kiwa Belgelendirme Hizmetleri A.Ş.
İTOSB 9. Cadde No: 15 Tepeören Tuzla
İstanbul / Türkiye

Tel: + 90 216 593 25 75
Faks: + 90 216 593 25 74
info@kiwa.com.tr
www.kiwa.com.tr

Sertifikalar periyodik ara denetimlerin
başarılı ile tamamlanması kaydıyla
geçerlidir. Detaylı bilgi için yukarıdaki
numaralara başvurulabilir.



TÜRKAK BDS NO
YS-41C6-6EFA

NÜVE SANAYİ MALZEMELERİ İMALAT VE TİCARET ANONİM ŞİRKETİ

Saracalar Mahallesi Saracalar Kümeevleri No:4/2 Akyurt Ankara, Turkey

**Design, Manufacture, Sales And After Sales Services Of Laboratory
And Sterilization Equipments**

with a scope of

ISO 9001:2015

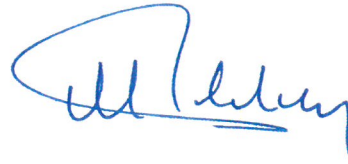
Has established a quality management system in accordance
with international standard.

"Following elements of the standard are excluded"
"None"

Certificate No	: M 8215
Initial Certification Date	: 28 April 2010
Certification Date	: 11 March 2022
Expiration Date	: 10 March 2025

Kiwa Belgelendirme Hizmetleri A.Ş.
İTOSB 9. Cadde No. 15 Tepeören Tuzla
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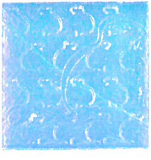


General Manager

Certificate is valid till expiration date,
subject to successful completion of
periodical surveillance audits.
Please contact above numbers for
detailed information.



TÜRKAK BDS NO
YS-41C6-6EFA



CERTIFICATE

NÜVE SANAYİ MALZEMELERİ İMALAT VE TİCARET ANONİM ŞİRKETİ

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**Laboratuvar ve Sterilizasyon Cihazları Tasarımı, Üretimi,
Satış ve Satış Sonrası Hizmetleri**

kapsamında

EN ISO 13485:2016

Uluslararası Tıbbi Cihazlar Kalite Yönetim Sistemi Standardına uygun bir yönetim
sistemi kurmuştur.

"Standardın aşağıda verilen maddeleri hariç tutulmuştur"

"7.5.5" "7.5.7" "7.5.9.2"

Sertifika No	: M 8216
İlk Belgelendirme Tarihi	: 28 Nisan 2010
Sertifika Tarihi	: 11 Mart 2022
Son Geçerlilik Tarihi	: 10 Mart 2025

Kiwa Belgelendirme Hizmetleri A.Ş.
İTOSB 9. Cadde No: 15 Tepeören Tuzla
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Sertifikalar periyodik ara denetimlerin
başarılı ile tamamlanması kaydıyla
geçerlidir. Detaylı bilgi için yukarıdaki
numaralara başvurulabilir.

Genel Müdür



TÜRKAK BDS NO
YS-FE6F-F002

Sertifika Son Güncelleme Tarihi : 11 Mart 2022 - R 05

NÜVE SANAYİ MALZEMELERİ İMALAT VE TİCARET ANONİM ŞİRKETİ

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**Design, Manufacture, Sales And After Sales Services Of Laboratory
And Sterilization Equipments**

with a scope of

EN ISO 13485:2016

Has established a management system in accordance
with international Medical Devices Quality Management System Standard

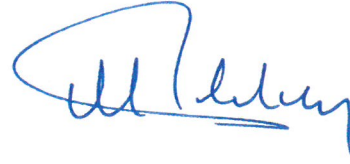
"Following elements of the standard are excluded"

"7.5.5" "7.5.7" "7.5.9.2"

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Expiration Date	: 10 March 2025

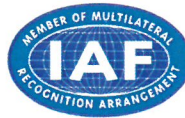
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General Manager

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periodical surveillance audits.
Please contact above numbers for
detailed information.



EC DECLARATION OF CONFORMITY

We, NÜVE Sanayi Malzemeleri İmalat ve Ticaret A.Ş.
Saracalar Mah. Saracalar Kümeevleri No: 4/2
Akyurt 06750 Ankara / TURKEY

herewith declare that the following described product meets the provisions of the Council Directive 93/42/EEC (2007/47/EC) for Medical Devices. All supporting documentation is retained under the premises of the manufacturer.

PRODUCT:

STEAM STERILIZER

MODEL:

NC 90M

CLASSIFICATION:

IIB, Annex IX - RULE 15

GMDN:

35929

CONFORMITY ASSESMENT ROUTE:

MDD 93/42/EEC (2007/47/EC), ANNEX II.3

**APPLICABLE HARMONISED
STANDARDS:**

EN 61010-1: 2010 EN 62304: 2006
EN 61326-1: 2013 EN 62366-1: 2015
EN 61010-2-040: 2015 EN ISO 12100: 2010
EN 60601-1-6: 2010

NOTIFIED BODY:

**KİWA BELGELENDİRME HİZMETLERİ
A.Ş. (İTOSB) İstanbul Tuzla Organize Sanayi
Bölgesi Tepeören Mevkii 34957 Tuzla-İstanbul
TURKEY**

CERTIFICATE NUMBER:

1984-MDD-10-030

DATE OF ISSUE:

February 19, 2019

SIGNATURE:



Beril İZGİN
General Manager

CE
1984



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

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. SALES, STORAGE AND DISTRIBUTION OF ACTIVE AND NON ACTIVE NONIMPLANTABLE MEDICAL DEVICES.

Original cycle start date: 26-05-2022

Expiry date of previous cycle: NA

Certification/Recertification audit date: 11-04-2022

Certification/Recertification cycle start date: 26-05-2022

Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on: 25-05-2025

Certificate Number: LV007756 Version: 1 Revision date: 26-05-2022

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



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S2-424

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STANDARD

ISO 9001:2015

SCOPE OF CERTIFICATION

DEVELOPMENT, PRODUCTION, SALES AND SERVICE OF LABORATORY EQUIPMENT.

Original cycle start date:	25-05-2004				
Expiry date of previous cycle:	25-05-2022				
Certification/Recertification audit date:	17-05-2022				
Certification/Recertification cycle start date:	26-05-2022				
Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on:	25-05-2025				
Certificate Number:	LV007741	Version:	1	Revision date:	19-05-2022

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.

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EN ISO/IEC 17021-1
S2-424

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PST-60HL, Plate Shaker-Thermostat

DESCRIPTION

Plate Thermo-Shakers are designed for shaking and thermostating 2 standard 96-well microplates.

A multisystem principle, used in design of the Thermo-Shaker, allows operating it as 3 independent devices:

- Incubator;
- Microplate shaker;
- Thermo-Shaker.

A distinctive feature of Biosan Plate Thermo-Shakers is the **patented by the company Two-Side Microplates Heating**, which allows to achieve full correspondence of the set and actual temperature in the microplate wells.

Thermo-shaker provides heating up to 60°C, which is sufficient for carrying out ELISA tests.

Plate Shaker-Thermostat provides:

- Soft or intensive sample shaking
- Rotation speed regulation, stabilization and indication
- Even rotation amplitude throughout the Thermo-Shaker platform
- Required operation time setting and indication
- Automatic stopping of the platform movement after expiration of the set time
- Setting and indication of the required temperature on the platform
- Automatic fault diagnostics (temperature sensor, platform heating, lid heating etc.)

Application fields:

- Cytochemistry — for in situ reactions
- Immunochemistry — for immunofermentative reactions
- Biochemistry — for enzyme and protein analysis
- Molecular biology — for micro array analysis

Temperature Calibration Function

With the help of the temperature calibration function the user can calibrate the unit approx. $\pm 6\%$ of the selected temperature to compensate differences in the thermal behaviour of plates from different manufacturers.



CAT. NUMBER

BS-010119-AAI	230VAC 50/60Hz Euro plug
BS-010119-AAQ	230VAC 50/60Hz UK plug
BS-010119-AA4	230VAC 50/60Hz AU plug
BS-010119-AAJ	100VAC 50/60Hz US plug, 120VAC 60Hz US plug
BS-010119-BK	IQ OQ document
BS-010119-CK	PQ document

SPECIFICATIONS

Temperature setting range	+25°C ... +60°C
Temperature control range	+5°C above ambient... +60°C
Temperature setting resolution	0.1°C
Temperature stability	±0.1°C
Temperature uniformity at +37°C	±0.25°C
Temperature calibration coefficient range	0.936...1.063 (± 0.063)
Heating	Patented two-side microplate heating
Speed control range	250–1200 rpm (increment 10 rpm)
Digital time setting	1 min–96 hrs / non-stop* (increment 1 min)
Timer sound signal	+
Orbit	2 mm
Display	LCD, 16 x 2 signs
Max. height of microtest plate	18 mm
Number of microtest plates	2
Platform dimensions (w x d)	250 x 150 mm
Overall dimensions (W×D×H)	270 x 260 x 125 mm
Weight	6.1 kg
Input current/power consumption	12 V DC, 3.3 A / 40 W
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V
* Timer range can be reprogrammed on customers demand	+

EU Declaration of Conformity

Unit type Thermo-Shakers

Models **TS-100, TS-100C, TS-100C Smart, TS-DW, PST-60HL, PST-60HL-4, PST-100HL**

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 str. 7/2

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 Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements. LVS EN 61010-2-010:2015 Particular requirements for laboratory equipment for the heating of materials. LVS EN 61010-2-051:2015 Particular requirements for laboratory equipment for mixing and stirring.
EMC 2014/30/EU	LVS EN 61326-1:2013 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.

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.

Svetlana Bankovska
Managing director



Signature

07.02.2020.
Date

MR-1, Mini-Rocker Shaker

DESCRIPTION

Mini Rocker-Shaker **MR-1** provides regulated gentle rocking motion of the platform and is ideal for mini gel destaining after electrophoresis, conducting Northern, Southern and Western blot analysis.

Shaker is a compact, noiseless device designed for personal use. The use of direct drive and brushless motor allows continuous mixing up to 7 days and ensures reliable, trouble-free operation for more than 2 years.

Non-slip, temperature resistant, silicone mat located on the rocker's platform provides stable position for vessels during shaking. Optional dimpled PDM mat fixes tubes of different sizes.

Shaker can be used in cold rooms or incubators, operating at ambient temperature range +4°C to +40°C

Optional dimpled mat **PDM** prevents different size tubes from rolling around the platform.



SPECIFICATIONS

Mixing frequency range	1–30 oscil/min
Digital time setting	1 min–24 hrs / non-stop
Fixed tilt angle	7°
Direct drive mechanism	+
Maximum continuous operation time	168 h
Display	LED
Maximum load	1 kg
Non-slip silicone mat is supplied as standard	+
Platform working area	215x215 mm
Overall dimensions (W×D×H)	220x205x120 mm
Weight	2.1 kg
Input current/power consumption	12 V, 320 mA / 3.8 W
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V

CAT. NUMBER

BS-010152-AAG	230VAC 50/60Hz Euro plug
BS-010152-AAK	230VAC 50/60Hz UK plug, 230VAC 50/60Hz AU plug, 100VAC 50/60Hz US plug, 120VAC 60Hz US plug
BS-010107-BK	IQ OQ document
BS-010107-CK	PQ document



PDM
PDM
dimpled mat

Dimpled mat PDM prevents different size tubes from rolling around the platform.

EU Declaration of Conformity

Unit type Rockers, shakers, rotators, vortexes

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

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 str. 7/2

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 Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements. LVS EN 61010-2-051:2015 Particular requirements for laboratory equipment for mixing and stirring.
EMC 2014/30/EU	LVS EN 61326-1:2013 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.

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.

Svetlana Bankovska
Managing director



Signature

07.02.2020.
Date

EU Declaration of Conformity

Unit type Rockers, shakers, rotators, vortexes

Models **MR-1, MR-12;**
3D, Multi Bio 3D, PSU-10i, PSU-20i, MPS-1, PSU-2T;
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Svetlana Bankovska
Managing director



Signature

07.02.2020.
Date

V-1 plus, Personal Vortex

DESCRIPTION

Vortex **V-1 plus** is an ideal instrument for gentle mixing to vigorous resuspension of cells and biological and chemical liquid components in tubes using eccentric mechanism.

Vortex has two modes:

1. Continuous operation;
2. Impulse operation (activated by pressing the cap with the tube's bottom).



SPECIFICATIONS

Eccentric mixing principle	+
Speed control range	500-3000 RPM
Acceleration time	<1 s
Maximum continuous operation time	24 h
Mixing module for tubes	from 0.2 to 50 ml
Maximum mixing volume	30 ml
Orbit	4 mm
Overall dimensions (W×D×H)	90x150x80 mm
Weight	0.8 kg
Input current/power consumption	12 V, 320 mA / 3.8 W
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V

CAT. NUMBER

BS-010203-AAG	230VAC 50/60Hz Euro plug
BS-010203-AAK	230VAC 50/60Hz UK plug, 230VAC 50/60Hz AU plug, 100VAC 50/60Hz US plug, 120VAC 60Hz US plug
BS-010203-BK	IQ OQ document
BS-010203-CK	PQ document