TECHNICAL DATA

Stepping. Angle 7.5°. 9 W 10, 5, 2.5 or 1 ml autoclavable Motor Syringe volume: Maximum flow speed: 4 ml/s with 10 ml syringe 1/1000 of the total volume of syringe Minimum volume step: Use of disposable tip: Air bubble volume: Programmed from the beginning of process Programmable.

Sample volume: Programmable. Limited to the tip volume

 $(1300 \, \mu l)$ Min. sample volume: 1% of the springe volume used. Warning notice if it is

less than 5%.

Programmable from 1:1 to 1:1000
Better than 1% even for dilutions using more Dilution factor: Reproductibility:

than one single syringe stroke Serial RS 232, programmable

Printer communication: 100/240 V, 50/60 Hz

Mains: 40 W Power:

Dimensions (WxHxD): 30x30x20 cm

11,8x11,8x7,8 cm 6 kg/13,2 lb Weight:

FOR ADVANCED ONLY

Serial RS 232, programmable By specific weight of solvent Balance communication: Gravimetric dilution: Linked programs:

Specifications subject to change without prior notice

ORDERING INFORMATION Cat-No.

BIO DILUTOR with handgrip for tips, complete liquid circuit with bottle, 10 ml syringe and box of 60 units of BASIC 1300/1/2 ADVANCED 1310/1/2 gamma-irradiated tips.

Specifye mains required (the Cat.No. may change)

CONSUMABLES	Cat. no.
Syringe complete (10 ml). Stainless steel plunger Syringe barrel (10 ml) +2 silicon washers Box of 24 containers of 60 tips each irradiated with gamma rays Bag 1000 disposable tips not irradiated Bag of 10 stainless steel holders (60 tips) Box of 24 empty containers Box of 1000 irradiated straws	1509 1510 1470 1322 1480 1490 1450
OPTIONAL ACCESSORIES	Cat. no.
Stainless steel delivery tube for hand held Stainless steel delivery tube for 100 µl tips Handgrip for straws with stainless steel delivery tube, without silicone	1502 1408
tubing (foot pedal needed) Foot pedal Autoclavable stand for syringes without syringe and adapter	1445 1348
(no needed for 10 ml) Autoclavable syringe, 5 ml and adapter Autoclavable syringe, 2.5 ml and adapter	1330 1332+1335 1333+1336
Autoclavable syringe, 2.3 ml and adapter Autoclavable syringe, 1 ml and adapter Cable BIO DILUTOR-printer Cable BIO DILUTOR ADVANCED balance	1334+1337 2514 2515
(State balance manufacturer and model when ordering)	2010





Contact us in internet.

To see how the instruments works in a multimedia demonstration, to buy instruments, accessories or consumables on-line visit our web page:

www.iul-inst.com

The IUL instrument owners who are registered in our web will have access to extra services like example of microbiology applications with our instruments, software updates, direct technical service and more.

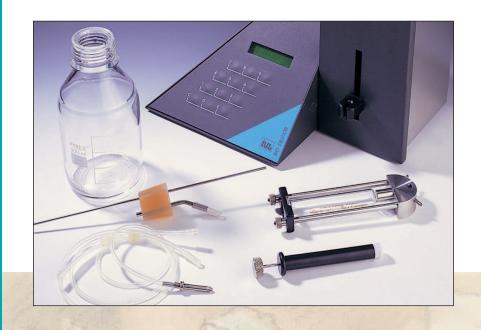


Information



BIO DILUTOR





Sterile conditions

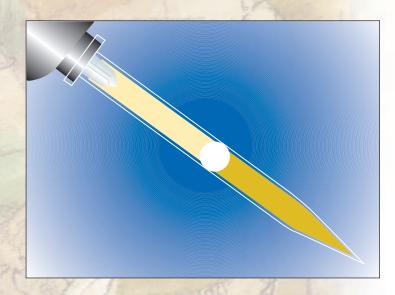
The periodic cleaning is absolutely essential in microbiology laboratories. All the parts of the liquid circuit of BIO DILUTOR are autoclavable.

Removal and reinstalling this liquid circuit takes only a few seconds.

Take the sterile tip from the container

Avoid the cross-contamination

When the BIO DILUTOR takes the sample an air bubble is generated to prevent the mix between the sample and the solvent. Once the operation has been done the tip is rejected.



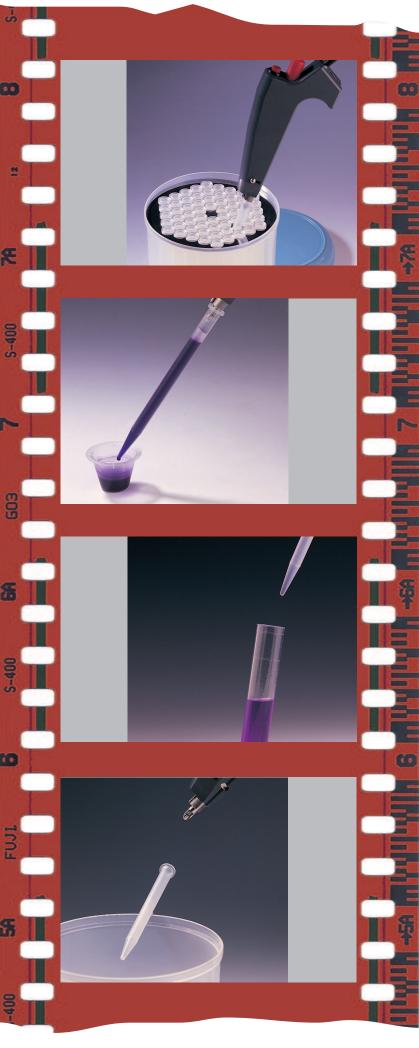


Two interchangeable handgrips

The handgrip for tips allows the tip to be placed in its working position directly from the container.

The handgrip for straws is long enough to take the samples from the Masticator homogenizing bags.





TECHNICAL DATA

Slides per basket: Up to twenty

Containers for reagents: Four

Rinse water bath: One with overflow. Optional bottom drain can be

installed.

Drying container: 12°C-15°C higher that the room temperature.

Programming: Time to dip the basket in each container.

During this time, resting periods and shaking

periods.

Time to maintain the basket on top of each

container after dipping.

Number of programs: The memory can store up to ten programs

Positions per program: The basket can go to ten different positions. At

each of them the total dipping time, resting and shaking, and drain over the container can be

selected.

Mains: 100/240 V, 50/60 Hz, 250 W

Dimensions (LxWxH): 700x 440X400 mm

Weight: 23 Kg

ORDERING INFORMATION

Cat.No.

Basic unit includes one slide basket and four plastic containers with lid.

Specify mains required (the Cat. No. may change) Quick drain system. Optional 5300 5310 Stainless steel container tray (one comes with the basic unit) 5438 Basket for slides (one comes with the basic unit) 5417



Contact us in internet.

To see how the instruments works in a multimedia demonstration, to buy instruments, accessories or consumables on-line visit our web page:



The IUL instrument owners who are registered in our web will have access to extra services like example of microbiology applications with our instruments, software updates, direct technical



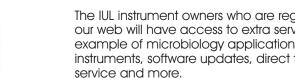
Information

POLY **STAINER**

POLY STAINER TUL







and operation Features

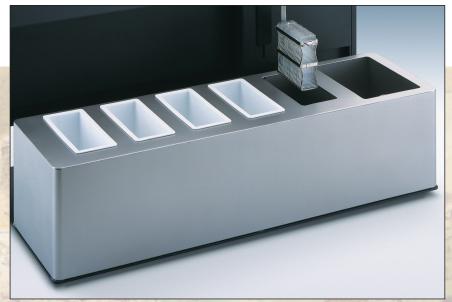
Protected electronic

All the electronic circuit and electrical components are built in an elevated bridge. No splashing can damage them.



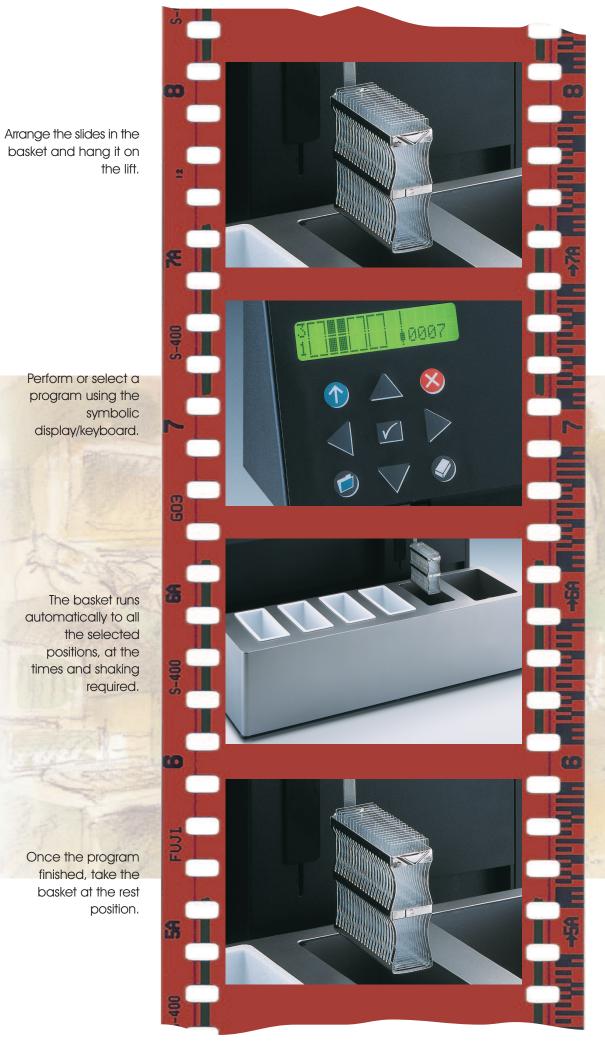


The stainless steel container tray, can be easily removed and replaced without any tool.



Quick drain system

As optional accessory the quick drain system allows to empty out the water container from the bottom. In the normal situation the water overflows.



Perform or select a program using the symbolic display/keyboard.

Arrange the slides in the

the lift.

The basket runs automatically to all the selected positions, at the times and shaking required.

Once the program finished, take the basket at the rest position.

Accessories and Disposables

- 1. 1000 Y-irradiated Microsyringes CAT. 90001780
- 2. 1000 Y-irradiated Sample Beakers CAT.90001790
- 3. Plate for 15 cm Petri Dishes CAT. 90001715
- 4. Holder for sample beaker box CAT. 90001949
- 5. Holder for Microsyringe box CAT. 90001950
- 6. Sampling Holder for Beakers CAT. 90001974
- 7. Barcode reader CAT. 90005700



Technical data

Reproducibility: > 99%

Time for a full cycle: 30 s (disposable syringes make disinfection unnecessary)

Spreading modes stored:

22 spread modes (44 counting those for 15mm Petri plates)

Petri plate diameters:...100 and 150 mm

Minimum step volume: < 10 nl

Maximum pipetted volume: 100 μl

Syringe material: Polypropylene

Plunger material: Polyethylene H.D.

Auto checking: Programmed in 6 regions

Touch screen: 5.71 in

Specifications subject to change without notice

Operating system: Windows embedded CE 6.0 R3

External balance connection: Serial RS232 DB9

Printer connection: Serial RS232 DB9

Barcode reader connection: Specific connection for IUL barcode readers

Connection for updates: Ethernet/ USB pendrive

Additional connections for peripherals: 2 x USB Host ports

Dimensions (WxHxD)

51.5 x 42 x 50 cm / 20.3 x 16.5 x 19.7 in

Weight: 20 Kg / 44 lb.

Motion control: Microcontroller regulated stepper motors

For more information please visit us at:

www.iul-inst.com

IUL, S.A. Torrent de l'Estadella, 22 - 08030 Barcelona (Spain) iul@iul-inst.com • T. +34 93 274 02 32 • F. +34 93 274 01 44







Introduction to spiral plating

Spiral plating is a widely accepted microbiological surface plating technique that was created in the 1970s to **reduce the amount of Petri dishes** used in surface spreads. Time-consuming serial dilutions required in conventional spread plating are avoided. A single spiral spreaded plate spares the inoculation of 3 Petri plates, drastically reducing operation times and materials.

This technique is based on the usage of an Archimedean spiral spread. Volumes poured along a spiral decrease exponentially so that a single plate hosts several sample concentrations distributed across the spiral. Once incubated, plates are read using a specific counting grid.

Eddy Jet 2 as a leading edge spiral plater

Eddy Jet 2 is an unmatched spiral plater that pushes the outstanding standards of the first EDDY JET even further by adding trendsetting innovations to spiral plating:

- Its **state of the art connectivity** (featuring an Ethernet connection , 2xUSB ports and 2xRS-232 ports): allow for connection to:
- a printer: that can print labels and records of the inoculations performed

- a barcode reader: that allows for plate traceability
- EJ2's **streamlined intuitive software** is commanded from a color touch panel
- IUL also improved spread times in this device.

EJ2 stands out as the spiral plater with the widest range of spiral distributions: it can make up to 22 different spiral distributions.

Eddy Jet 2 Workflow



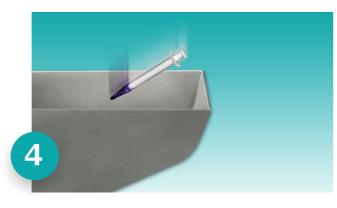
Eddy Jet 2's beak grabs a **brand new sterile syringe**.



The syringe draws in a liquid sample.



As the agar plate spins, the syringe automatically dispenses accurate volumes of sample over the plate drawing a spiral with the loaded sample



Eddy Jet 2 gets rid of the sample-contaminated syringe.

IUL's patented syringe method

When IUL released Eddy Jet 1, in 1998, a revolutionary approach to spiral plating was achieved by implementing disposable **Gamma-ray sterilized microsyringes** to perform sample spreading.

IUL's **world patented microsyringes** prevent any cross-contamination from taking place making Eddy Jet 2 the spiral spreader with the highest sensitivity.

Also, Gamma-ray microsyringe sterilization makes cleaning cycles unnecessary, saving large amounts of time.

Unlike other spiral plating devices, Eddy Jet 2 doesn't require for bleach disinfection. Implying that no leftover bleach may affect sample bacteria, avoiding false negative results. Thus, Eddy Jet 2 offers labs the **highest specificity** available in the market.





Exclusive microsyringes that ensure genuine sampling sterility



Revolutionary connectivity

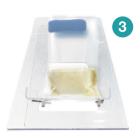


Outstanding performance

Accessories and Disposables



















- Weighing platform and multilevel dilution arm for beakers/flasks
 CAT.90002838
- CAT.90002838 CAT.90002806
- 2. Barcode reader and barcode support CAT.90005701 CAT.90002836
- 3. Weighing bag holder for 80 ml. bags CAT.90002885
- 4. Portabag: Stainless steel holder for six 400 ml bags CAT.90002300
- 5. Portabag: Stainless steel holder for six 80 ml. bags
- CAT.90002380
- 6. 400 ml.Y-irradiated homogenizer bags a. 500 bags (packed in 10 bag packs)
- CAT.900014010
 b. 5000 bags (packed in 10 bag packs)
- CAT.90001428 c. 500 bags (packed in 50 bag packs) CAT.900014050
- d. 5000 bags (packed in 50 bag packs) **CAT.90005421**
- 400 ml. Y-irradiated homogenizer bags with filter
 500 filter bags (packed in 25 bag packs)
- CAT-900014501
- b. 2000 filter bags (packed in 25 bag packs) CAT.90002451
- c. 5000 filter bags (packed in 25 bag packs) CAT.90002452
- 8. 80 ml.Y-irradiated homogenizer bags a.1500 bags (packed in 50 bag packs)
- CAT.90002456
 b. 4500 bags (packed in 50 bag packs)
- CAT.90002457

 9. Four pumps device

CAT. 90002798

Technical Data

Weight range: 2400g (tare included)
Display Resolution: 0.1g

Weight inaccuracy: <1% (for weight ≥ 100g)

Calibration weight: 100g to 2000g users configurable (100g steps)

Delivery speed: 950ml(min (tube diameter:5mm).

Sample weight resolution: 0.01g (after stabilization)

Dilution inaccuracy: <1% (for dilution weight ≥ 100g) / <2% (for dilution weight ≥50g)

Dispensing inaccuracy: <1% (for dispensing weight ≥ 100g) / <2% (for dispensing weight ≥50g)

Dispensing range: 20g to full weighting range

Selectable surface vibration compensation levels: 0-4

Mains: 100~240ACV 50/60 Hz

Power: 40W

Dimensions (WxHxD): 300x265x325 mm

Weight: 6.5Kg

Printer connection: Serial RS232

Printer records include: Date, Time, Operator ID, Sample ID, Sample Weight, Dilution Factor, Diluent ID, Total Weight, Final Accuracy, Last Calibration Date IUL Barcode reader connection

For more information please visit us at:

www.iul-inst.com



IUL S.A. C/ Ciutat d'Asunción, 4. 08030 Barcelona Spain T +34 93 274 0232 E iul@iul-inst.com



smartdilutor //

Accurate, Traceable, Productive Gravimetric diluter





Introduction



Initial sample dilution is a key step in the workflow of any microbiology lab.

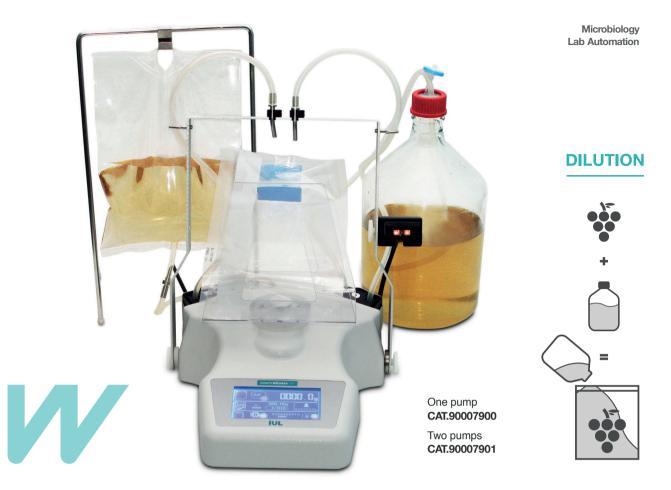
Precise gravimetric diluting is eased by the Smart Dilutor W which automates this process providing a fast and reliable approach to it. Its accurate weight cell and powerful peristaltic pumping combine to streamline this process. Furthermore, it can be used to dispense set volumes.

A sample is initially inserted in a homogenizer bag, next, sample weight is measured with the device's load cell. Last, the device dilutes the sample according to a preset dilution factor. The device also allows to perform accurate liquid dispensing.

smartdilutor 's key traits

Smart Dilutor W has been designed to cover all the needs of today's microbiology labs through several key traits:

- Provides sample processing traceability:
 - Operator ID
- Sample ID
- Dilution ID
- Simple control from a touch panel.
- Tubing and parts that contact the diluent can be quickly disassembled to sterilize them in an autoclave.
- The device can be connected to:
 - A printer (RS-232 DB9 port): that can print records of the dilutions performed.
 - A barcode reader: that enables identification of the diluted samples.
- An external computer (Ethernet): allowing for connection to a LIMS.
- Diluent can be pumped from:
- Media containing bottles
- Ready to use media bags
- Can perform accurate liquid dispensing when using the dispensing mode.
- Upscalable:
 - Main 1 or 2 pump unit
 - Optional 4 pump accessory



smartdilutor // Workflow











- 1. A sterile homogenizer bag is placed in the homogenizer bag holder (which serves as a weighing platform).
- 2. The weight tare is performed.
- 3. The sample is placed inside the bag.
- 4. The instrument will then automatically deliver diluent into the bag until a previously preset dilution factor is reached. Dilution factors can be set through any given rational number fraction: numerator (two digits)/ denominator fraction (three digits).
- 5. A precisely diluted sample is ready for further processing

Accessories









- 1. Petri Labeler storage table CAT. No. 900011491
- 2. 5000 label reel set CAT. No. 90001394
- 3. Short stacker CAT. No. 900014841

Technical Data

Power range: 100-240 V AC Frequency range: 50/60Hz Maximum power: 25W Overvoltage category: II

Air temperature: 5-32°C (41-89,6°F) **Altitude:** Up to 2000m. (6500Ft.) Place of operation: For indoor use only.

Pollution level: 2 Labeling features:

Petri dish dimensions: Common 90mm Petri dishes

Label size: 8 x 30 mm

Label characteristics: White coated, calendared, woodfree paper.

Adhesive characteristics: General purpose permanent acrylic water based adhesive. The adhesive conforms several regulations certified by ISEGA for direct contact with dry and moist non-fatty foodstuffs.

Label shelf life: 2 years, stored at 22°C / 50% RH Barcode characteristics: Simbology code 128 Barcode size: 3,8 x 27,7mm (approx.)

Thermal transfer printed ribbon used (Wax/resin):

-REACH/SVHC Free: 1907/2006/EC -Food contact Approved: 1935/2004/EC

- -Heavy metals free: 2002/95/EC, 2002/96/EC, and 2011/65/EC
- -California proposition 65
- -Halogen Free

For more information please visit us at: www.iul-inst.com



IUL S.A. Torrent de l'Estadella, 22. 08030 Barcelona Spain T +34 93 274 0232 F +34 93 274 0144 E iul@iul-inst.com





Neither more nor less ... an easy and inexpensive system to identify 90 mm Petri dishes.

Barcode Labeling





Product overview

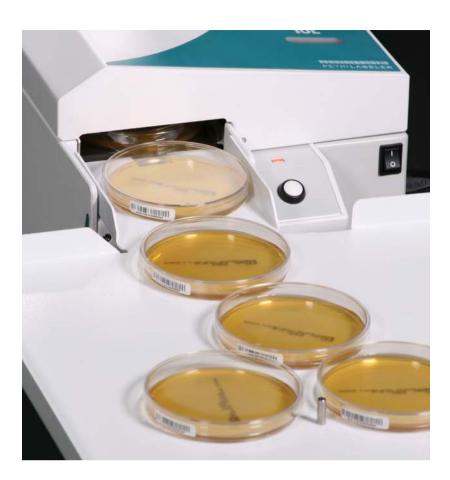


The unit automatically tags barcode labels on the side walls of Petri plates.

Operating the unit is as simple as feeding a stack of Petri plates on one end, pushing the "start" button, and collecting labeled plates at the other end. The Petri Labeler labels plate walls, enabling comfortable inspection, reading, and counting of Petri plates.



- Readiness: Labels come preprinted with a 9 figures number, potential mistakes are avoided.
- Traceability: By using a barcode reader, any identified Petri plate can be associated to any sample at any time.
- Maintain sterility: During the pairing process, the lid is never removed, it is only slightly displaced to allow the label to be stuck on the side wall of the plate.
- Flexibility: Identified Petri plates await being collected, once removed, a new plate is processed. Alternatively, a whole stack of plates can be processed at once, labeled plates can be collected in an optional collecting platform.
- Adaptability: It easily accommodates different 90mm Petri dish sizes (e.g. different diameter and/or height).
- Productivity: Less than 2 seconds per plate.
- Friendliness: Small footprint and silent operation.



BARCODE LABELING



Petri Labeler CAT. No. 90005800



Accessories and Disposables



- 1. 400 ml. Y-irradiated homogenizer bags, a. 500 pcs packed in 10 bag packs CAT. No. 900014010
- b. 5000 pcs packed in 10 bag packs **CAT. No. 90001428** c. 500 pcs packed in 50 bag packs **CAT. No. 900014050**
- d. 5000 pcs packed in 50 bag packs CAT. No. 90005421





a. 500 pcs packed in 25 bag pack

b. 2000 pcs packed in 25 bag packs **CAT. No. 90002451**

c. 5000 pcs packed in 25 bag packs **CAT. No. 90002452**

3. 80 ml. Y-irradiated homogenizer bags,

1500 pcs packed in 50 bag packs

CAT. No. 900014501

CAT. No. 90002456





- 4. Stand and tray for any 400 ml. Masticator model 2. 400 ml. Y-irradiated homogenizer bags with filter CAT. No. 9000742
 - 5. Portabag: Stainless steel holder for six 400 ml. bags CAT. No. 90002300
 - 6. Portabag: Stainless steel holder for six 80 ml. bags CAT. No. 90002380



- **1.** Masticator Basic 400 ml. a. 220/240 V 50/60 Hz 50 bags CAT. No. 9000470 b. 100/127 V 50/60 Hz 50 bags CAT. No. 9000471
- 2. Masticator Basic Panoramic 400 ml. a. 220/240 V 50/60 Hz 50 bags CAT. No. 9000475 b. 100/127 V 50/60 Hz 50 bags CAT. No. 9000477
- 3. Masticator Classic 400 ml. a. 220/240 V 50/60 Hz 50 bags CAT. No. 9000400 b. 100/127 V 50/60 Hz 50 bags CAT. No. 9000401
- 4. Masticator Classic Panoramic 400 ml. a. 220/240 V 50/60 Hz 50 bags CAT. No. 9000500 b. 100/127 V 50/60 Hz 50 bags CAT. No. 9000501
- 5. Masticator Silver 400 ml. a. 220/230 V 50/60 Hz 50 bags CAT. No. 9000420 b. 100 V 50/60 Hz 50 bags CAT. No. 9000421 c. 110/120 V 50/60 Hz 50 bags CAT. No. 9000461
- 6. Masticator Silver Panoramic 400 ml. a. 220/230 V 50/60 Hz 50 bags CAT. No. 9000520 b. 100 V 50/60 Hz 50 bags CAT. No. 9000521 c. 110/120 V 50/60 Hz 50 bags CAT. No. 9000522
- 7. MAXICATOR 3500 ml. a. 230/240V 50Hz CAT. No. 90002400 b. 120V 60Hz CAT. No. 90002401 c. 100V 60Hz CAT. No. 90002402

Technical Specifications

Model	Silver/ Panoramic (400ml)	Classic/Panoramic (400ml)	Basic/Panoramic (400ml)	Compact (80ml)	MAXICATOR (3500ml)
Motor	Induction Type	Induction Type	Induction Type	DC Type	Induction Type
Motor Speed	500-1500 rpm	1500 rpm	1500 rpm	2400 rpm	650-1400 rpm
Reduction	1:6	1:6	1:6	1:8	1:7.5
Strokes/sec	5-6-7-8	8.5 (50Hz) 10 (60Hz)	8.5 (50Hz) 10 (60Hz)	14	3-4-5-6
Setting	Keyboard/Display	Digital Timer	Digital Timer	Digital Timer	Keyboard/Display
Timer	15/30/60/90/120/ 150/180/210/240s	15-90s	15-90s	15-90s	15/30/60/90/120/ 150/180/210/240s
Mains	230V 50Hz 110V 60Hz	230V 50Hz 110V 60Hz	230V 50Hz 110V 60Hz	230V 50Hz 110V 60Hz	230V 50Hz 110V 60Hz
Power	240W	240W	240W	25W	620W
Dimensions	24x26x40cm	24x26x40cm	24x26x40cm	15x15x30cm	44x50x57cm
(WxHxD)	9.4x10.2x15.7in	9.4x10.2x15.7in	9.4x10.2x15.7in	5.9x5.0x11.8in	17.3x19.7x22.4in
Weight	20kg /44lb	17kg /37.5lb	17kg /37.5lb	7kg / 15.4lb	52.5kg/
No. of Paddles	2	2	2	2	4

IUL S.A. Torrent de l'Estadella, 22. 08030 Barcelona Spain

For more information please visit us at:

www.iul-inst.com













No. 50007873-00 8/3/15



Product overview





Masticator paddle blenders enable thorough homogenization of samples while isolating them from any possible contamination. The Masticator's high quality enduring motors ensure a safe and efficient homogenization. Food, cosmetic, pharmaceutical and clinical laboratories that seek for reliable and cross-contamination free homogenization enjoy this solution. Masticator blenders disperse samples inside sterile bags with paddles that drive a squashing action while moving the sample from side to side. This key step in sample preparation ensures homogenous distribution of microorganisms throughout the diluent. Several models encompass a wide array of possibilities.





System highlights

No Sample Cross Contamination: Samples are protected of any contamination during homogenization thanks to the use of sterile disposable bags.

Endurance: Second to none in endurance, the Masticator's high quality spring system has proven to withstand the most challenging blending procedures. Customers benefit from a 3 year warranty for any masticator blender.

Ease of use: Masticators require virtually no maintenance and are easily cleaned when fully removing their front door.



Masticator Basic



Masticator Basic Panoramic 400 ml



Masticator Classic 400 ml.



Masticator Classic Panoramic 400 ml



400 ml.

Masticator Silver Panoramic



Aplication Scope

Masticator lab blenders are used in homogenizations during microbiological testing. Food, cosmetic and pharmaceutical labs like to use 400 ml Masticator blenders, these are meant to homogenize 10 to 40 g (previously diluted) samples. 400 ml bags with and without filters can be used, the former allow to ensure pipetting of debris-free homogenized liquid and are particularly recommended when homogenizations yield sample suspensions with high amounts of large-sized particles. Panoramic and Compact models allow for homogenization monitoring through windows located in their doors. Meanwhile, 80 ml Masticator compact models appeal to clinical and life science labs involved in small sample tissue homogenization (<10g), and to industrial QC labs that process small weight samples (<10g).

HOMOGENIZATION





Workflow









How to continue procesing diluted samples

After dilution, sample-containing bags can be stored in Portabag bagholders, awaiting homogenization in Masticator blenders. Once homogenized, aliquots can be serially diluted using the Bio Dilutor. The Eddy Jet 2 spiral plater is used in order to reduce the amount of plates that are processed, offering a threefold decimal dilution counting range in a single plate. Following incubation, plates are automatically counted and fed with the Plate Handler or automatically counted and manually fed with the Flash&Go. With a 3.5 L volume capacity, the Maxicator completes IUL's paddle blender range, allowing for blending of large composite samples.













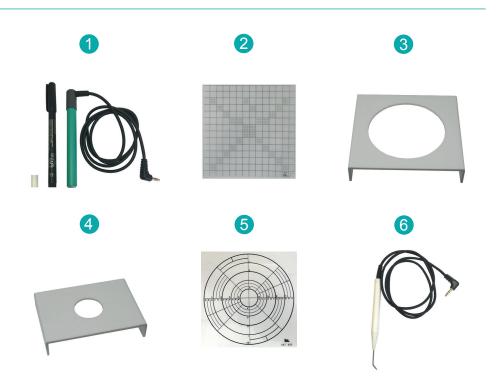
Ordering Information

CAT. 90008700 DOT Colony Counter with 120mm magnifying glass with light.

CAT. 90008701 DOT Colony Counter with 100mm magnifying glass without light.

Accessories and Consumables

- Clickable permanent marker CAT. 900011459
- 2. Mixer Grid 1/6 cm² CAT. 9000613
- 3. 150mm centering device CAT. 9000615
- 4. 60mm centering device CAT. 9000606
- 5. Spiral Grid CAT. 9000625
- Stainless contact pointer CAT. 900011460



Technical data

Counter: 4 digits, 9 mm LED-Display. Maximum count 9999

Inputs: Clickable permanent marker/ Stainless contact pointer (optional).

Outputs: USB Human Interface Device (HID) emulating standard PC keyboard output receivable by PC running keyboard compatible applications (Microsoft Windows ®).

USB Virtual COM port (VCP) reserved for IUL, S.A. Technical Service purposes.

Upper light power (12V DC, 500mA)

Magnifying glasses: Biconvex, 100/120 mm Ø, 4 Diopters, DIN x 2

Lightning: Bottom light, 4 selectable intensities, On/Off switching powered from the instrument.

Upper light (depending of the glass magnifier ordered), On/Off switching powered from the instrument.

Specifications subjects to change without notice.

Mains: 100/240 V, 50/60 Hz

Power: 50W

Dimensions (WxDxH):

211x320x335 mm / 8.3x12.6x13.2 in (Cat. No. 90008700) 211x320x395 mm / 8.3x12.6x15.5 in (Cat. No. 90008701)

Weiaht:

3,2 Kg / 7,0 lb (Cat. No. 90008700) 2,7 Kg / 5,95 lb (Cat. No. 90008701)

For more information please visit us at: www.iul-inst.com

IUL, S.A. Torrent de l'Estadella, 22 - 08030 Barcelona (Spain) iul@iul-inst.com · T. +34 93 274 02 32 · F. +34 93 274 01 44







HALOES CALIPER

Simple, Precise, Easy Zone Reader







Ordering Information

CAT. 9000900 HALOES CALIPER Optical instrument for measuring the inhibition zone.

Product Overview

Making a precise inhibition zone measurement (100 µm resolution) manually can become a challenge.

The Haloes Caliper helps to perform this in a simple and precise fashion while avoiding parallax errors in readings. Pharmaceutical and clinical labs involved in inhibition zone measurements benefit from the use of this device.

A precision rotating wheel accurately measures inhibition zones while being manually spun.

This comes in handy during antibiotic susceptibility testing and antibiotic potency measurements.

Workflow





System Highlights

High resolution: The Haloes Caliper has a 100 µm resolution.

No parallax error: The Haloes Caliper's exclusive screen-lense system avoids missing the ends of the haloes through its unique perpendicular reading technology.

Clear display of results: Results will be clearly featured in a digital display.

Technical data

Magnification: Factor 2.25 Measuring range: 0-35mm Resolution: 0.1mm Mains: 100/240V 50/60Hz

Power: 50W

Dimensions (WxDxH): 27x23x27cm / 10.6x9.0x10.6 in

Weight: 3 kg / 6.6 lb

For more information please visit us at:

www.iul-inst.com

IUL, S.A. Torrent de l'Estadella, 22 - 08030 Barcelona (Spain) iul@iul-inst.com · T. +34 93 274 02 32 · F. +34 93 274 01 44



Ordering Information







- 1. SphereFlash® Colony Counter unit (includes Colonies LITE software)
 - CAT. 90007000
- 2. Colony PRO software
 - CAT. 90007001
- 3. Halos PRO software CAT. 90007002







Technical data

Petri dish maximum usable diameter: 90mm Computer interface: USB 3.0 Type-A socket Mains AC adaptor Output: 12V DC 3.43A

Power Range: 90~264 VAC Frequency Range 47~63Hz Maximum Power:40W Overvoltage Category: II

Air temperature 15-30°C (59-86°F)

Relative humidity: 10-75% (non-condensing)

Altitude: Up to 2000m (6500ft)

Place of operation: For indoor use only.

Frequency Range: 50-60Hz

Pollution level 2

Dimensions: 288x220x371 mm (1.34x8.66x14.6 in)

Weight: 5,5Kg (12.13 lb)

Computer Requirements:

- · Microsoft Windows® 7, 8.1,10 (x64 platforms).
- · 1 free USB 3.0 Port.
- · 8 Gigabytes of RAM memory.
- · 100 Megabytes of free disk space and 100 Gigabytes for the Database (for 5000 results stored with images).
- · FullHD screen (1920x1080px) recomended.
- · 24" screen size recommended.
- · Microsoft Excel® 2007 or higher, 64 bits to open exported Excel® files.
- · A virtual PDF printer to create PDF reports.

Specifications subject to change without notice.

Inhibition Halos measurement

Automatic Colony Counter &

World-class software, uniform & reflection-free illumination



ShpereFlash with Colony LITEsoftware

For more information visit us at:

IUL, S.A. Ciutat d'Asunción, 4 - 08030 Barcelona (Spain) iul@iul-inst.com • T. +34 93 274 02 32 • F. +34 93 274 01 44







Product Overview

The SphereFlash® is an Automatic Colony Counter that meets all the requirements that may be required in a modern microbiology laboratory.

With its Colony Lite software version it performs the colony counting in a simple and reliable way thanks to its world-class software and its patented built-in lightning system.

For more demanding users the software can be upgraded to Colonies PRO to increase its capabilities, e.g. setting User's Permission Levels, **LIMS connectivity**, Worksheets, Barcode Reading, Reporting, Audit Trail, or **CFR21 Part 11**.

With the optional Halos PRO app, the Sphere Flash unit can be transformed to measure inhibition halos accepting various circle approximation criteria to obtain the corresponding diameters of virtual circle areas.

In all versions the lighting is done through LEDs that are oriented to the internal wall of a moving spheric chamber. The result is an unprecedented uniform and reflections-free illumination in a colony counter device.

The **moving sphere automatically closes the chamber** and prevents the area in which the Petri dish is located from any external light. It avoids any reflection or interference of external light, creating a luminous atmosphere without reflections of the walls of the Petri dish or of the colonies. For the transparent media the light by transmission is also available in all versions.

Main Benefits

World-Class Software: Easy & intuitive yet a powerful software. Even in its LITE version it will detect a wide range of colony types with minor or none user parametrization.

Reflections-Free Illumination: Its patentend spheric chamber eliminates reflections in both, colonies and Petri plate, and provides a unifrom illumination for an improved image capture that will lead to better, more reliable, and consistent results.



Reflections-Free Image

Image captured from a SphereFlash®



Image captured from a traditional counter

Methods Environmen	Sessions Versions Re	suits groups Failed logins	Calibration results				
Event	TimeStamp	UTCTmeStamp	△ ModfiedBy	ChangedProperty	Previous Value	NewValue	ReasonForChange
Changed Property	2017/03/23 16:30	2017/03/23 15:30	User Administrator	ImagingDeviceSN		3310137	New LicenseKey
Changed Property	2017/03/23 16:30	2017/03/23 15:30	User Administrator	DaysCalbrationExpiratio	60	0	New LicenseKey
Changed Property	2017/03/29 15:58	2017/03/29 13:58	User Administrator	ImagingDeviceSN	3310137	5310412	New LicenseKey
Changed Property	2017/03/29 15:59	2017/03/29 13:59	User Administrator	ExpotResults	False	True	ImprovingResults
Changed Property	2017/03/29 15:59	2017/03/29 13:59	User Administrator	ExpotResultsFolder		C:\Users\Vavier\Desido	ImprovingResults
Changed Property	2017/03/29 15:59	2017/03/29 13:59	User Administrator	Language		0	ImprovingResults
Changed Property	2017/03/30 15:44	2017/03/30 13:44	User Administrator	ExpotResults	True	False	
Changed Property	2017/03/30 15:44	2017/03/30 13:44	User Administrator	ExpotResultsFolder	C:\Users\Xavier\Desido		
Changed Property	2017/03/30 15:44	2017/03/30 13:44	User Administrator	Barcode/ReaderName		BC1	
Changed Property	2017/03/30 15:44	2017/03/30 13:44	User Administrator	Barcode/ReaderName	BC1		
Changed Property	2017/03/30 15:47	2017/03/30 13:47	User Administrator	Barcode/Reader/Name		BC2	
Changed Property	2017/03/30 15:48	2017/03/30 13:48	User Administrator	Barcode/Reader/Name	BC2	BC1	
Changed Property	2017/03/30 15:48	2017/03/30 13:48	User Administrator	Barcode/ReaderName	BC1	BC2	
Changed Property	2017/03/30 15:48	2017/03/30 13:48	User Administrator	Barcode/ReaderName	BC2	BC1	
Changed Property	2017/03/30 15:48	2017/03/30 13:48	User Administrator	Barcode/ReaderName	BC1	BC2	
Changed Property	2017/03/30 15:52	2017/03/30 13:52	User Administrator	Barcode/ReaderName	BC2		
Changed Property	2017/03/30 17:16	2017/03/30 15:16	User Administrator	ScreenPpi	100	0	ImprovingResults
Changed Property	2017/03/30 17:16	2017/03/30 15:16	User Administrator	ExpotResultsFolder			ImprovingResults
Changed Property	2017/03/30 17:16	2017/03/30 15:16	User Administrator	CharList Separator			ImprovingResults
Changed Property	2017/03/30 17:16	2017/03/30 15:16	User Administrator	ScreenPpi	100	0	ImprovingResults
Changed Property	2017/03/30 17:16	2017/03/30 15:16	User Administrator	ExpotResultsFolder			Improving Results
Changed Property	2017/03/30 17:16	2017/03/30 15:16	User Administrator	CharList Separator			ImprovingResults
Changed Property	2017/03/30 17:16	2017/03/30 15:16	User Administrator	ScreenPpi	100	0	ImprovingResults
Changed Property	2017/03/30 17:16	2017/03/30 15:16	User Administrator	ExpotResultsFolder			ImprovingResults
Changed Property	2017/03/30 17:16	2017/03/30 15:16	User Administrator	CharList Separator			ImprovingResults
Changed Property	2017/03/30 17:18	2017/03/30 15:18	User Administrator	ScreenPpl	0	200	ImprovingResults
Discarded User	2017/03/30 17:19	2017/03/30 15:19	User Administrator	Discarded Record			ImprovingResults
Changed Property	2017/03/30 17:19	2017/03/30 15:19	User Administrator	ScreenPpl	0	1000	ImprovingResults
Discarded User	2017/03/30 17:19	2017/03/30 15:19	User Administrator	Discarded Record			ImprovingResults
Changed Property	2017/03/30 17:19	2017/03/30 15:19	User Administrator	ScreenPol	0	10	ImprovingResults

Audit Trail: Security-relevant chronological set of records that will provide documentary evidence of the sequence of activities that have affected at any time a specific operation or event in the SphereFlash®.



Report generation: Easy and automatic generation of result reports with customizable layout to include your Company's logo and/or information.

Scalability: Starting Colonies LITE software version (included with the unit) it can be independently upgraded to Colonies PRO or Halos PRO.

Software Comparison Table Feature	Colonies LITE Cat.No. 90007003	Colonies PRO Cat. No. 90007001	Halos PRO Cat. No. 90007002
Colony Counting	~	~	
Inhibition Zones Measurement			
Standard Methods	~		
Methods Edition			
Automatic Calibration & Verification		~	~
Users Management			
Results Table Cusotomization			
Worksheet Mode			
Remote Input-Output Mode (LIMs)		~	~
Audit Trail		~	
Report Generation		~	~

High-Troughput: A fast and powerful image precessing software together with an automatic closing of the spheric chamber allows minor user intervention and time optimisation. Large amounts of plates can be accurely counted.