

MICROBIOLOGICAL ENVIRONMENTAL MONITORING

VWR



Environmental health and air quality

THE BASIC NEED

For pharmaceutical companies, food companies, hospitals, schools and workplaces in general it is a widespread need to determine the level of the environment microbial contamination in order to protect product quality or health of persons in accordance with industry standards and guidelines.

THE SOLUTION

Since the 80s, INTERNATIONAL P.B.I. had developed the SAS System, a simple and effective system that implements a validatable method of microbiological monitoring of environments.

AN IMPORTANT REFERENCE TO SHARE

International space agencies have been using the SAS system on board of the orbital stations for monitoring microbiological environment.



SAS *is a complete system for the microbiological sampling of air and surfaces including:*

- instrumentation for applications based on the active air sampling, accommodating one or two plates with culture medium;
- ready to use AGAR CONTACT plates or Petri dishes, for sampling surfaces or air in combination with specific SAS instruments.

SAS *is a flexible system to meet various application needs.*

Specific models are designed to be used in clean rooms classified according to ISO 14644-1, other instruments for open areas not classified by HACCP controls, for the SBS (Sick Building Syndrome) investigations or for the control of air conditioning HVAC (Heating Ventilation Air Conditioning).

The wide range of media available in ready to use contact plate AGAR CONTACT implements the microbiological monitoring of any environment through the surfaces and air control. Empty or ready to use contact plates, packaged to operate in classified controlled ambient or occasional samples in different environments, makes feasible and cost-effective any sampling program.

SAS *is an open system that uses conventional consumables.*

The same instrument can be used with standard RODAC plates 55 mm or with traditional 90 mm Petri dishes using simple accessories.



SAS 100 - 180

Directly derived from the SAS instrument used on the "International Space Station", SAS 100 and SAS 180 have been specifically designed for pharmaceutical and hospital sectors. Portable and easily positioned operate with long life rechargeable batteries.

SAS 100 and SAS 180 are differentiated by the constant air flow; this choice depends on the application and allow continuous or sequential sampling from a few minutes to several hours. Both models provide facilities for data management of the different implemented sampling programs. The data can be stored on the SAS instrument itself or on any Remote PC.





SAS IAQ

Designed specifically for Indoor Air Quality (IAQ) sector, this SAS instrument is particularly lightweight and durable to operate in any environment. Ideal for environmental hygienists and agri-food sector operators, SAS IAQ includes a full equipment with remote control and carrying case.

Derived from SAS 100 and SAS 180, SAS IAQ provides the same efficiency as recorded by the sampling tests conducted by UK-CAMR (Center for Applied Microbiology & Research) according to ISO 14698-1.

DUO SAS 360

When the environment contamination is very low and the number of samples to be performed is high, the duration of the operations can be an important factor in the choice of SAS instrument. With two sampling heads that can operate simultaneously, DUO SAS 360 is the correct solution to sample 1000 L of air in less than 3 minutes. The simultaneous sampling on two heads allows furthermore to obtain statistically representative results when using the same type of media for both plates. It is also possible to use two different media for the same sampling cycle (eg, CBT, yeasts and molds). The contemporary sampling on the two heads can half the time of the sampling process.



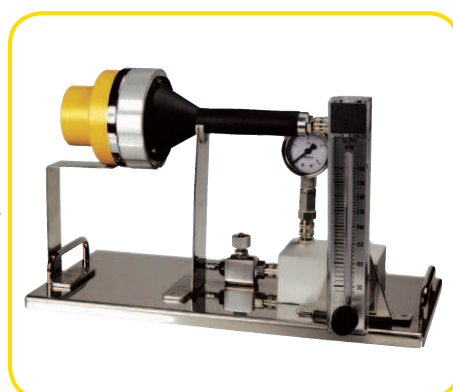
SAS ISOLATOR

SAS ISOLATOR instruments (100-180-DUO MULTI) have been conceived for the specific monitoring of the closed environment of the isolators ensuring the complete separation from outside. The control unit of the SAS instrument, is placed outside and connected to the aspirating head using a simple electrical connection. All possible sources of typical contamination of the vacuum sampling systems are removed. Several heads can be controlled by a SAS control unit providing a practical and economical solution.



SAS PINOCCHIO

The microbiological testing of compressed gas requires dedicated instruments other than normal air samplers. SAS Pinocchio is specifically designed for this application, simplifying as much as possible this activity. The instrument requires no external power supply because, using the pressure of the gas line to control, it conveys the same gas on the agar plate playing the "impact on agar" approach described in section 1116 of the USP Pharmacopoeia. SAS Pinocchio is the ideal instrument for all areas requiring microbiological testing of gas.



Contact plates and culture media for environmental monitoring

SAS - Surface Air System includes a wide range of ready to use RODAC AGAR CONTACT plates with culture media for surfaces or air sampling in conjunction with SAS instruments. The range of media for environmental monitoring in accordance with the requirements of the pharmacopoeias, includes RODAC and Petri dishes, with double or triple irradiated packaging for use in contamination controlled environments. The wide range of standard products is complemented by the availability of media with composition and packaging on request.



Contact plate "Agar Contact"



Contact plate "Agar Contact" in blister



Standard 90 mm Petri plate

Calibration service



"Low Speed Wind Tunnel"
for validation of SAS microbiological samplers

The assessment of environmental contamination performed by SAS is directly related to the volume of sampled air.

Like any measuring instrument, also the microbiological SAS air sampler requires calibration.

The flow of intake air from the instrument is the physical quantity to be controlled through an appropriate referenced tool that ensures that the volume of sampled air matches the set value.

INTERNATIONAL P.B.I. has its own calibration service center to calibrate the SAS instruments through a certified instrument.

The center of INTERNATIONAL P.B.I. is able to complete the calibration within five days of receipt of the instrument, to guarantee the continuity of work of the users.

In accordance with cGLP and cGMP, calibration of SAS instrument is to be made at least once a year.

On-line catalogue

The catalog, published on the portal www.internationalpbi.it/en, presents the full range of instruments for air microbiological sampling.

Each product is accompanied by detailed descriptions, order numbers and information sheets.

Catalogue | PBI CATALOG | Environmental Monitoring Solutions: SAS |

topic index

alphabetical index

catalog search

Compressed air and gasses sampler

Contact and Petri plates for the microbiological control of the environment

SAS holders and tripods

SAS microbiological air samplers

SAS spare parts

Validation System





SAS SUPER ISO

YOUR PARTNER IN ENVIRONMENTAL MICROBIOLOGY

“SAS SUPER ISO” AIR SAMPLER PERFORMANCES

- Compliance with ISO 14698-1
- Large LCD with illuminated touch panel
- All operator commands via touch keypad for easier cleaning
- Over 70.000 litres of air / 8 hours autonomy
- Infrared transfer of sampling data to PC
- Up to 300 sampling cycles memorized
- USP chapter < 1116 > and 21-CFR 11 Compliance
- Sampling rate accurately maintained by speed sensor-incorrect aspiration aborts cycle
- Design avoids turbulence in unidirectional air flow and re-aspiration of tested air in accordance with ISO specifications
- Total traceability
- Calibration system by finger-tip control without opening the instrument
- Automatic calibration reminder
- Easy calibration monitoring with additional anemometer system
- Sampler can be operated while attached to mains
- 8 prefixed modifiable sampling configurations
- Sampling data can be downloaded on a PC in both non modifiable (.sas) and Excel format



REFERENCES

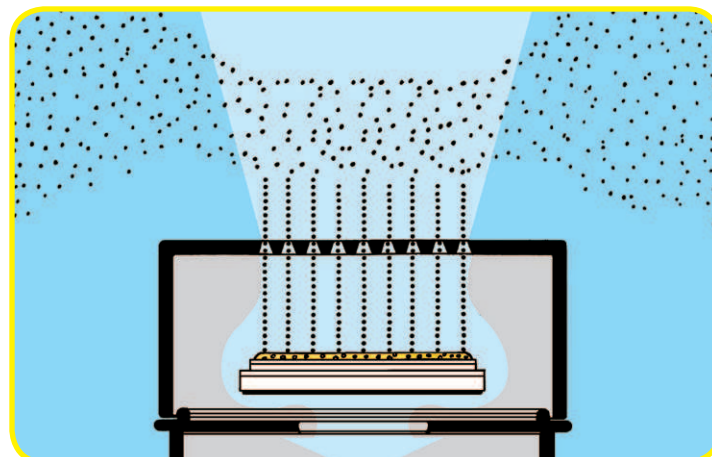
- ISO Standard 14698-1 - Cleanrooms and associated controlled environments Biocontamination Control - Part 1: General Principles and Methods
- FDA - 2004 Guidance for Industry on Sterile Drug Products by Aseptic Processing - Pharmaceutical current Good Manufacturing Practice
- ACGIH - Guideline for Assessment of Bioaerosol in the Indoor Environment
- ASTM - Draft Protocol - Committee D22.05.06
- USP Chapter <1116> Microbiological Evaluation of Clean Rooms and Controlled Environments
- EU Guide for GMP - Manufacture of Sterile Medicinal Products Control Medicines and Inspection



THE BASIC IDEA

- To use a simple plate for air and surface sampling
- To have the additional flexibility of choice, either Contact plates or Petri dishes
- To apply cGLP and cGMP to air sampling operations
- To establish data on the microbial level in selected environments
- To organise sequential sampling to obtain a more representative air sample under actual operating conditions

THE PRINCIPLE



TECHNICAL CHARACTERISTICS

- Sampling time: Approx 6 minutes with SAS ISO 180 and 10 minutes with SAS ISO 100
- Battery autonomy: Metal Hydrate 8 hours
- Sampling autonomy: 70.000 litres
- Power: 8,4 Volts - 2,7 amp/h
- Control Panel: Large illuminated touch screen
- P.C. connection: by infrared
- Aspirating chamber: aluminium or stainless steel
- Aspirating head: aluminium, stainless steel or resin plastic
- Main body: polyurethane resin unitary body without split
- Body shape: pyramidal for ideal stand up
- Size: 120x125x275 mm
- Weight: 1800 g

TYPICAL APPLICATIONS

Clean Room - Isolator - Agro, Food, Dairy, Beverage Production sites - Microbiological Laboratory - Biotechnology Premises - Vaccine Production Plant - Waste Water Treatment Plant - School, University training and teaching - Hospital & Clinics - Indoor Air Quality - Public Health Authorities

WHAT TO ORDER

86279	"SAS Super ISO 100" with air flow of 100 L/min (without head and transformer-battery charger) - for Contact Plates
86834	"SAS Super ISO 180" with air flow of 180 L/min (without head and transformer-battery charger) - for Contact Plates
90719	"SAS Super ISO 100" with air flow of 100 L/min (without head and transformer-battery charger) - for Petri dishes
90720	"SAS Super ISO 180" with air flow of 180 L/min (without head and transformer-battery charger) - for Petri dishes
89131	battery charger 220 V
89130	battery charger 110 V

Choose your favourite head on page n.21



DUO SAS SUPER 360

DUAL HEAD PORTABLE MICROBIOLOGICAL AIR SAMPLER

- Single body with two aspirating heads: two separate plates may be used for simultaneous sampling to differentiate microorganisms (onto two different media) or onto the same media
- To calculate an average value and to obtain a more representative result

WHY?

TSA plate on left and right aspirating heads to calculate an average result and to obtain a more reliable and realistic number of Colony Forming Unit (CFU)

TSA plate on left and right aspirating heads to produce a valid statistical evaluation of the results

TSA plate on left and right aspirating heads to monitor a higher volume of air in Clean Room (360 litres per minute)

TSA plates on left and right aspirating heads to reduce the operator time during the air monitoring activity (about 3 minutes for 1000 litres of air)

TSA plate on left aspirating head for Total Bacterial Count and SDA plate on right aspirating head for yeast and moulds count



WHAT TO ORDER

24584	"Duo SAS Super 360" air sampler with air flow of 180 L/min per head (without head and battery charger) - for Contact Plates
90718	"Duo SAS Super 360" air sampler with air flow of 180 L/min per head (without head and battery charger) - for Petri dishes
86603	battery charger 220 V
86604	battery charger 110 V
25094	Carrying case for DUO SAS Super 360

Choose your favourite head on page n.21

SAS ISOLATOR

CRITICAL AIR MONITORING IN ISOLATOR AND BARRIER ENVIRONMENTS

It consists of a programmable unit which remains outside the controlled area and an independent sampling head which uses 55 mm Contact Plates (RODAC) or Standard 90 mm Petri dishes



Connection between SAS command unit and aspirating chamber

THE SAS ISOLATOR FEATURES

- The technical performances are the same as the SAS Super 100 or SAS Super 180
- The sampling head may be positioned anywhere within the isolator
- Minimal disturbance of the unidirectional air flow
- Fast sampling (up to 1000 litres = 1 cubic metre - of air in six minutes)
- Fully programmable from outside
- Compatible with the most commonly used sanitizing and sterilizing agents
- Any type of 55 mm Contact plates (RODAC) or Standard 90 mm Petri dishes may be used

WHAT TO ORDER

43216	"SAS Isolator" air sampler for contact plates with air flow of 100 L/min (without head and battery charger)
43217	"SAS Isolator" air sampler for contact plates with air flow of 180 L/min (without head and battery charger)
43218	"SAS Isolator" air sampler for Petri dishes with air flow of 100 L/min (without head and battery charger)
43219	"SAS Isolator" air sampler for Petri dishes with air flow of 180 L/min (without head and battery charger)
86603	battery charger - 220V
86604	battery charger - 110V

Choose your favourite head on page n.21

Sas

VWR



DUO SAS 360 ISOLATOR

CRITICAL AIR MONITORING IN SEPARATED CLEAN ROOMS AND ISOLATORS



Two aspirating chambers with a single command unit

Two aspirating heads can be positioned in different locations and commanded by a single unit

Compatible with the most commonly used sterilizing agents

Useable with "Daily-Head" sterile, certified resin plastic head

Any type of 55 mm Contact Plate or standard 90 mm Petri dish may be used

Fully programmable from outside the Isolator or Clean Room

Long connecting cables between the command unit and the aspirating chambers

Fast sampling
(up to 1000 litres in approx. 6 min.)

Continuous, delayed or interval time sampling cycles

Transfer data to PC or Printer



WHAT TO ORDER

91746	"Duo Sas 360 Isolator" air sampler - for Contact Plates (without head and battery charger)
91796	"Duo Sas 360 Isolator" air sampler - for Petri Dishes (without head and battery charger)
86603	battery charger - 220 V
86604	battery charger - 110 V

Choose your favourite head on pag n.21



SAS SUPER IAQ*

THE SIMPLEST MICROBIOLOGICAL AIR SAMPLER

A simple well known air sampler to be used by Industrial Hygienists for "SBS" (Sick Building Syndrome) and "HVAC" (Heating Ventilation Air Conditioning) studies and by Agro – Food – Dairy technologists for "HACCP" (Hazard Analysis Critical Control Point) applications, and USP regulation 797 for sterile compounding.



THE SAS SUPER IAQ FEATURES

- Ideal for Total Bacterial Count in the air
- Supplied with Rodac contact plate, aluminum head, sterile disposable head, remote control and transport case
- Meets "ACGIH" recommendation and "NIOSH" 0800 methods for bioaerosol sampling
- Battery operated - autonomy over 70.000 litres of air
- Air flow rate 100 L/min – 300 litres in 3 minutes
- Can accommodate any type of Contact Plates (US or EU shape)
- It uses 55mm Contact Plates or 90 mm standard Petri Plates
- Dimensions: 105x110x290 h mm – weight 1.750 gr.
- Programmable volume of aspirated air:
 - from 1 to 1999 litres
- Sampling cycles record
- Delay start
- Digital visual display with indication of number of Lt/min. air, date, operator, location
- Robust construction for use in industrial environments



* IAQ = Indoor Air Quality



WHAT TO ORDER

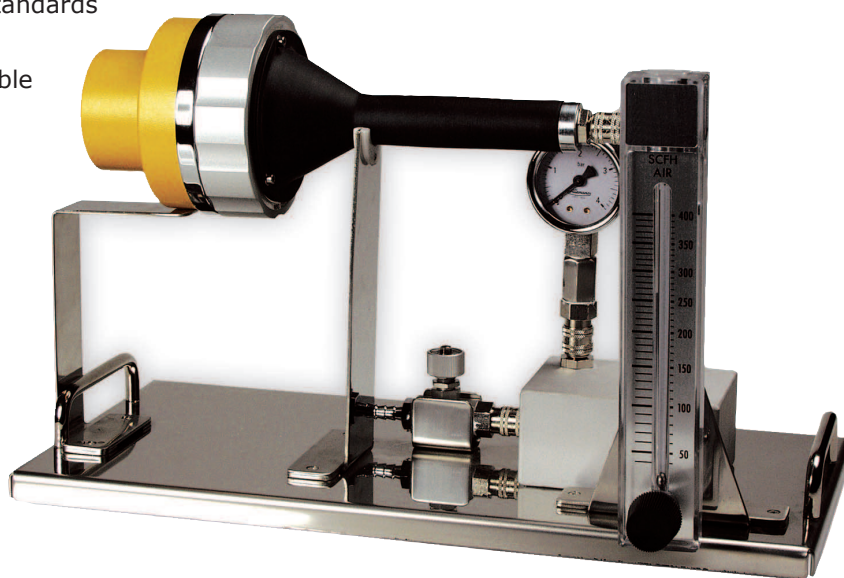
- | | |
|--------------|---|
| 90593 | "SAS Super IAQ" air sampler - for Contact plates - supplied with: 220 V battery charger, RODAC 55 mm aluminium head, sterile disposable head, remote control and transport case |
| 90723 | "SAS Super IAQ" air sampler - for Petri dishes - supplied with: 220 V battery charger, Petri aluminium head, sterile disposable head, remote control and transport case |
| 90722 | "SAS Super IAQ" air sampler - for Contact plates - supplied with: 110 V battery charger, RODAC 55 mm aluminium head, sterile disposable head, remote control and transport case |
| 90721 | "SAS Super IAQ" air sampler - for Petri dishes - supplied with: 110 V battery charger, Petri aluminium head, sterile disposable head, remote control and transport case |

PINOCCHIO SUPER II

MICROBIAL IMPACTION SAMPLER

Pinocchio Super II is a microbial impaction sampler to test the microbiological quality of compressed air and gases used in Clean Room. A compressed air source is connected to the Pinocchio Super II system and the flow meter regulated to achieve the required flow rate, e.g.: 100 litres of air / minute. The sampling period is timed to obtain the required total sample volume, e.g. 1000 litres.

- It is sterilizable
- It is calibrated according to International Standards
- I.Q., O.Q., P.Q. documentation available
- Standard Operating Procedure (SOP) available
- Application Notes available



"Pinocchio Super II"
"Carrying case"

THE "PINOCCHIO SUPER II" CHARACTERISTICS AND FEATURES:

- Self contained unit consisting of connections, air flow meter, pressure gauge, tap, funnel head complete with plate housing
- Unit requires no power and is fully transportable
- It can collect air samples either on RODAC plates or Standard 90 mm Petri dishes

WHAT TO ORDER

39089	"Pinocchio Super II" for Contact Plates Compressed gas and air microbial sampler with carrying case
35026	"Pinocchio Super II" for Petri plates Compressed gas and air microbial sampling with carrying case
89218	"Pinocchio Super II" for Contact Plates Compressed gas and air microbial sampler with calibration certificate with carrying case
89219	"Pinocchio Super II" for Petri plates Compressed gas and air microbial sampling with calibration certificate with carrying case

CALIBRATION VALIDATION

The flow rate of any air sampler should be periodically checked to evaluate that the volume of aspirated air is consistent.

There are two types of check to adopt:

- an "on site" monthly or quarterly quality control check to confirm continued performance and identify any irregularity, possibly caused by damage
- bi-annual or annual "official" calibration to re-validate the sampling rate and satisfy regulatory bodies that the instrument is operating correctly.

THE "ON SITE" QUALITY CONTROL MONITORING OF THE SAS (SURFACE AIR SYSTEM) FAMILY OF AIR SAMPLERS:

Impeller anemometer with LCD display for the routine evaluation of "SAS (Surface Air System)" air sampler performance.

- Shows the air flow of any "SAS (Surface Air System)" microbiological air samplers
- Readings in either litres per minute (L/min) or cubic feet per minute (CFM)
- Just position it on top of the aspirating head of the air sampler and switch on
- Measuring time 30 seconds
- According to Good Laboratory Practice and Good Manufacturing Practice
- Standard Operating Procedure
- Include carrying case



"Piramid" with its
"Carrying case"



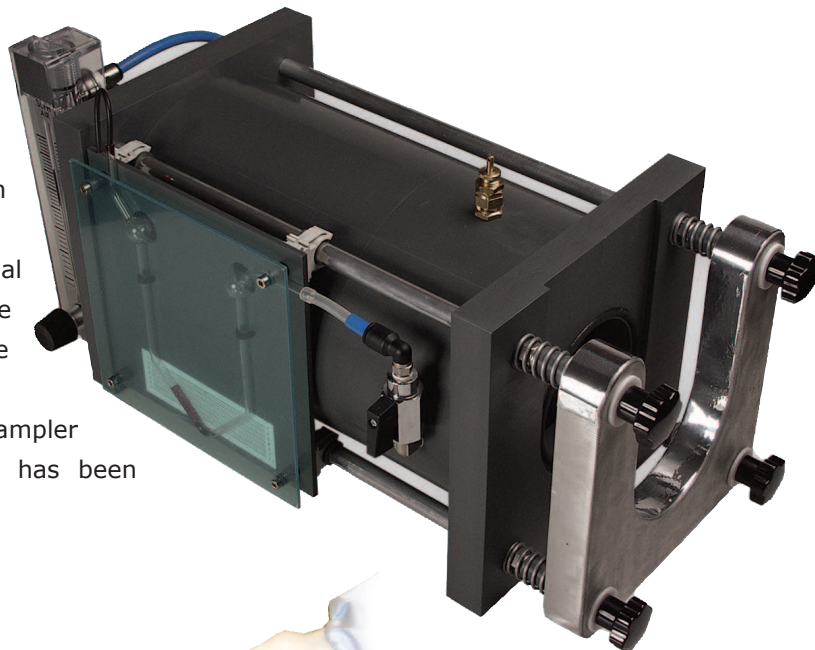
THE OFFICIAL CALIBRATION OF THE SAS (SURFACE AIR SYSTEM) FAMILY OF AIR SAMPLERS:

Why and when you need air sampler validation?

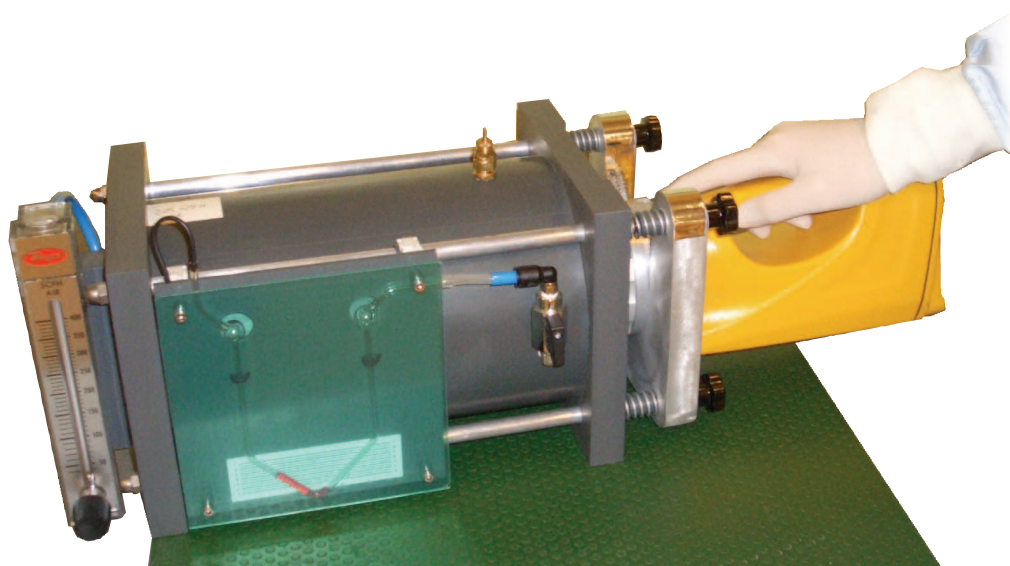
It is important to verify that the volume of air you are sampling with your air sampler is correct to avoid errors in monitoring the contamination of an environment.

Validation is an important step to assure that the final calculation is based on an accurately sampled volume of air. Validation of the aspirated volume should be performed every 6 months or 12 months.

Re-validation is also recommended if the air sampler has potentially been damaged or the flow rate has been compromised.



"Politecnic"



SERVICING

We guarantee a comprehensive calibration and service program in Milan (Italy) premises or through local authorized distributors.



WHAT TO ORDER

- | | |
|--------------|--|
| 89389 | "Pyramid" for SAS family quality control air flow check with "Carrying case" |
| 32879 | "SAS Politecnic" system with calibrate certificate |
| 32949 | calibration certificate for "Politecnic" |

AGAR CONTACT BLISTER

INDIVIDUALLY PACKAGED READY TO USE CONTACT PLATES FOR THE CONTROL OF THE MICROBIOLOGICAL CONTAMINATION OF THE SURFACE AND OF THE AIR

Certificates:

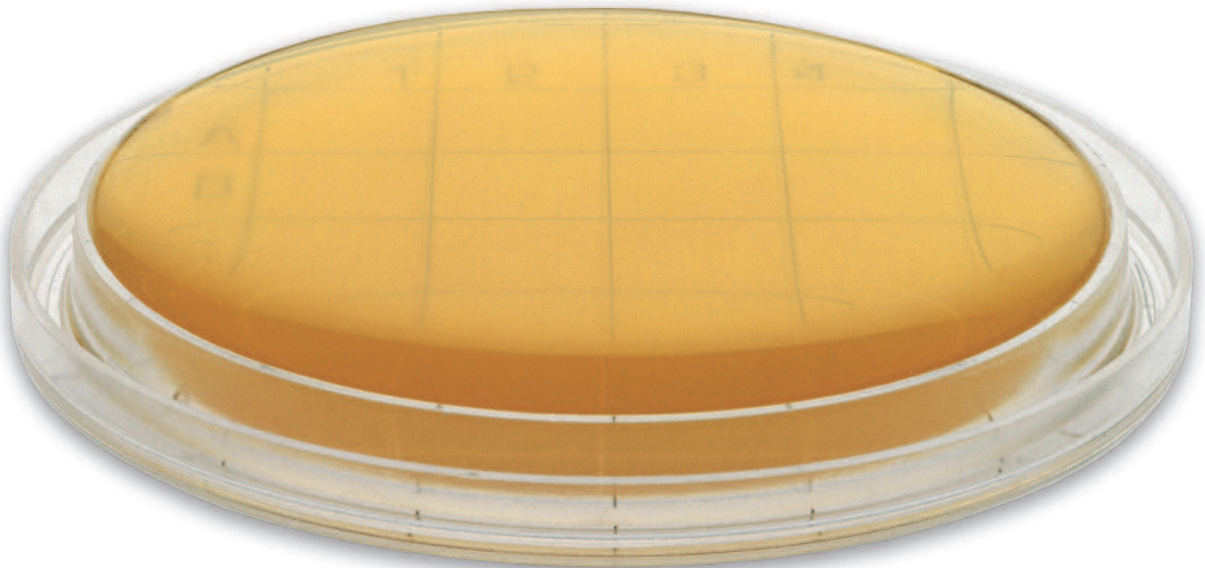
Agar Contact plates are always delivered with a Certificate of Growing of the medium (made after irradiation) and a Certificate of Sterility made after manufacture.

Long Life:

Blister pack guarantees the best storage for long periods and at environment temperatures (10 to 25 °C) up to 9 months.

Traceability:

Shelf life, batch and media type are listed to the bottom of every plate.

**Use:**

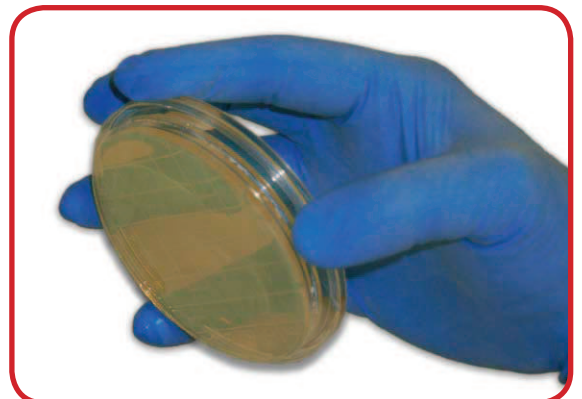
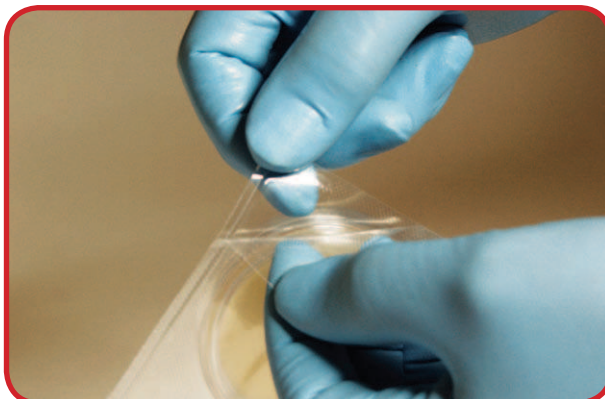
Suitable for microbiological surface and air monitoring with SAS (Surface Air System) sampler.

Packaging:

Each box contains 20 plates in five blister pack of four single packaged plates.

Clean-Rooms:

TSA and SDA plates are provided with triple packaging fully compliant to clean-room Guide Line.



AGAR CONTACT BLISTER

INDIVIDUALLY PACKAGED READY TO USE CONTACT PLATES



“AGAR CONTACT BLISTER” CAN BE USED FOR THE MICROBIOLOGICAL CONTROL OF THE ENVIRONMENT (AIR, SURFACES AND PERSONNEL STAFF)

- To define the degree of microbiological contamination of clean rooms
- To confirm the effectiveness of the operations of sanitization
- To apply the norms of good manufacturing practice “GMP”
- To apply the HACCP method
- To train the staff as regards the right sanitary procedures

Microbiological recommend limits for “Clean Areas” - ECU for GMP guide

Grade	Air Samples (CFU/m ³)	Contac Plate (CFU/plate)	Gloves imprint (CFU/gloves)
A	< 1	< 1	< 1
B	10	5	5
C	100	25	-
D	200	50	-



WHAT TO ORDER

CODE CONTACT PLATE DESCRIPTION EXPIRY FROM THE DATE OF MANUFACTURE PLATES PER BOX

“AGAR CONTACT BLISTER” CONTACT PLATES READY TO USE IN IRRADIATED BLISTER PACKAGING* TRIPLE VACUUM WRAPPED

17572	“Agar-Contact Blister” TSA (Tryptic Soy Agar) for total count	9 months	20/box
17354	“Agar-Contact Blister” TSA with agents for neutralizing disinfectants for total count	9 months	20/box
7429	“Agar-Contact Blister” SDA (Sabouraud Dextrose Agar) for count of moulds and yeasts	9 months	20/box
17573	“Agar-Contact Blister” SDA with agents for neutralizing disinfectants for count of moulds and yeasts	9 months	20/box

The plates with agents for neutralizing disinfectants are suggested for the control of the surfaces to avoid inhibition due to the presence of residual of disinfectants.

“AGAR CONTACT BLISTER” CONTACT PLATES READY TO USE IN BLISTER PACKAGING*

5210	“Agar-Contact Blister” PCA (Plate count Agar) for total count	9 months	20/box
7426	“Agar-Contact Blister” PCA with agents for neutralizing disinfectants for total count	9 months	20/box
89445	“Agar-Contact Blister” SDA + CAF for count of moulds and yeasts	9 months	20/box
7427	“Agar-Contact Blister” VRBA for count of Gram -/ Coliform bacteria	9 months	20/box
29788	“Agar-Contact Blister” VRBG for count of Enterobacteria	9 months	20/box
17574	“Agar-Contact Blister” MSA (Mannitol Salt Agar) for count of Staphylococci bacteria	9 months	20/box
19927	“Agar-Contact Blister” Mac Conkey for count of Coliform bacteria	9 months	20/box
17575	“Agar-Contact Blister” Legionella for count of Legionella bacteria	9 months	20/box
18625	“Agar-Contact Blister” Legionella for count of Legionella bacteria	9 months	20/box

RODAC-WEIGHT

MICROBIOLOGICAL SURFACE SAMPLER

It can be used in combination with the Contact Plates to standardise the microbiological surface control.

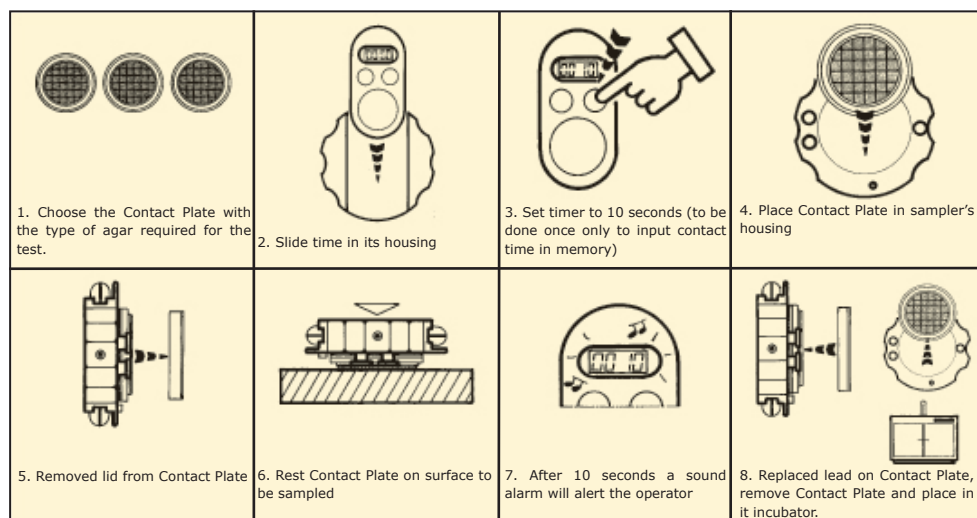
It applies the same constant pressure for a preset time on the Contact Plate. In this way the microbiological sampling of surface, performed by different operators in different time and place, are comparable since very accurately repeated.

Sterilisable stainless steel base with pull-out digital timer.

Rodac-Weight meets the ISO 18593 Standard.



STEP BY STEP MICROBIOLOGICAL CONTROL OF SURFACES



WHAT TO ORDER

15496	"Rodac-Weight" surface sampler	1/box
21160500	"Straight" container - in polycarbonate - autoclavable - to transfer "Rodac-Weight" in clean room	4/box

AGAR PETRI

READY TO USE TRIPLE BAGGED PETRI PLATES FOR THE CONTROL OF THE MICROBIOLOGICAL CONTAMINATION OF THE AIR

CERTIFICATE

Agar Petri are always delivered with a certificate of grow of the medium (made after irradiation) and a Certificate of sterility made after manufacture

LONG LIFE

package guarantees the best storage for long periods and at environmental temperatures (10 to 25 °C) up to 6 months

TRACEABILITY

shelf life, batch and media type are listed to the bottom of every plate

USE

suitable for microbiological air monitoring with SAS (Surface Air System) sampler

TRIPLE BAGGED PACKAGING

each box contains 20 plates in four bags of 5 plates

CLEAN ROOMS

plates are provided with triple packaging fully compliant to clean rooms guide lines



AGAR PETRI CAN BE USE FOR THE MICROBIOLOGICAL CONTROL OF THE ENVIRONMENT:

- to define the degree of microbiological contamination of clean rooms
- to confirm the effectiveness of the operations of sanitization
- to apply the norms of good manufacturing practice "GMP"
- to apply the HACCP method
- to train the staff as regards the right sanitary procedures

Microbiological recommended limits for "Clean Areas"

Grade	Sir samplers (CFU/m ³)	Gloves imprint (CFU/gloves)
A	< 1	< 1
B	10	5
C	100	-
D	200	-
EU for GMP guide		



WHAT TO ORDER

89818	"Agar Petri TSA" for total count - expiry from the date manufacture: 6 months	20/box
89819	"Agar Petri SDA" for count of moulds and yeasts - expiry from the date manufacture: 6 months	20/box

SURFAIR PLATE®

STERILE CONTACT PLATE FOR HANDS, SURFACE AND AIR MICROBIOLOGICAL MONITORING

ideal for surface sampling and air sampling with SAS samplers

made of transparent polystyrene

55 mm diameter - 24 cm² surface

cm-graduated bottom with marked A,B,C,D letters and 1,2,3,4 numbers to make easier the colonies count

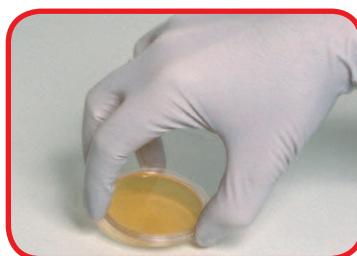
beta-ray irradiated

sterile contact plate (rodac) to be filled with agar medium

available in two packaging versions:
- 4294 in bag column of ten units
- 19810 in re-closable box for easy in out transfer



hand microbiological monitoring



surface sampling



air sampler



WHAT TO ORDER

4294	"Surfair Plate" sterile contact plate - 55 mm diameter - in bag - 10 plates/bag	500/box
19810	"Surfair Plate" sterile contact plate - 55 mm diameter - packed in re-closable box to transport after sampling - lid with writing strip	400/box

MAXI-CONTACT

STERILE CONTACT PLATE FOR HANDS, SURFACE AND AIR MICROBIOLOGICAL MONITORING

sterile contact plate to be filled with agar medium

ideal for sampling state of
cleanliness of hands and air sampling with
SAS samplers



84 mm diameter

recommended for sampling and count of moulds

beta-ray irradiated

cm-graduated bottom with marked A,B,C,D,E,F letters
and 1,2,3,4,5,6 numbers to make easier the colonies count

made of transparent polystyrene

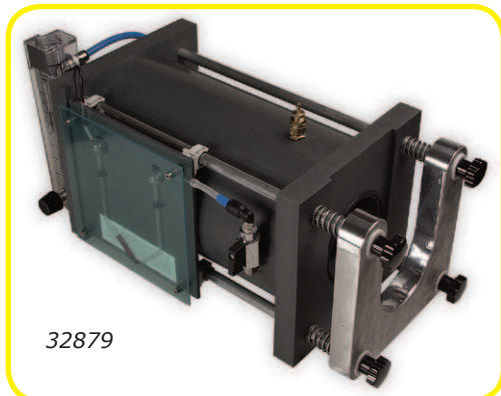
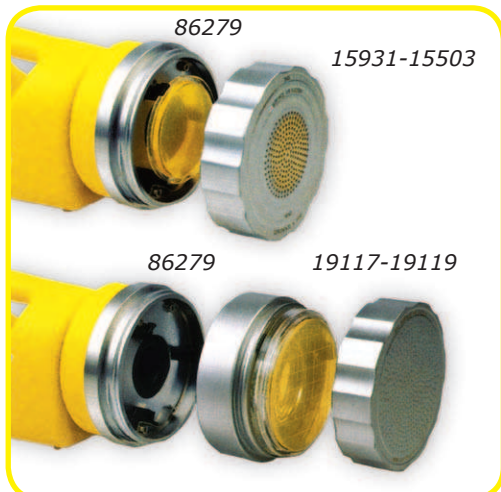


WHAT TO ORDER

22954 "Maxi-Contact" sterile contact plate - 84 mm diameter - in bags - 10 plates/bag

500/box

ACCESSORIES



HEAD FOR YOUR SAS

15931	"DRILLED" aluminium head for 55 mm contact plates, certified
15503	"INOX DRILLED" stainless steel head for 55 mm contact plates, certified
19117	"PETRI-SYSTEM" aluminium head + adaptor for standard 90 mm Petri dishes, certified
19119	"PETRI-SYSTEM" stainless steel head + adaptor for standard 90 mm Petri dishes, certified
19123	"MAXI CONTACT SYSTEM" aluminium head + adaptor for 84 mm contact plates, certified
23236	"DRILLED" stainless steel head (without adaptor) for standard 90 mm Petri dishes
34494	"DRILLED" aluminium head (without adaptor) for standard 90 mm Petri dishes
21160500	"STRAIGHT" autoclavable container for transferring SAS head into CR
86996	"DAILY HEAD" disposable drilled head for contact plates - 50 each/box
91214	"DAILY HEAD" disposable drilled head for Petri dish - 50 each/box

CARRYING CASES

18143	"PRATICA" soft carrying case for SAS SUPER ISO and SAS IAQ, SAS SUPER 100-180
20153	"LIGHT-CASE" aluminium carrying case with special impact-proof inner lining for SAS SUPER 100-180
25094	Soft carrying case for DUO SAS SUPER 360
86751	"TRANS CASE" aluminium carrying case for DUO SUPER SAS
89820	"BIO-PROTECTION FULL" clean room polycarbonate transfer case for SAS SUPER ISO and SAS IAQ
88713	Carrying case for SAS ISOLATOR
89971	Carrying case for PINOCCHIO SUPER II
91215	"CONTACT PLATE CARRIER" S/S carrier
91216	"PETRI DISH CARRIER" S/S carrier

TRIPODS

5215	"TELESCO" tripod - floor model
5214	"TELESCO" tripod - table model
20914	"SAS HOLDER" table and wall holder
89722	"CLEAN TRIPOD" s/s clean room floor tripod
42704	"COMPACT DIGI" compact floor tripod
91213	"STAND UP HOLDER" vertical stand for SAS

CALIBRATION

89460	calibration for DUO-SAS SUPER 360
20093	I.Q. manual
20094	O.Q. manual
25099	P.Q. manual
14105	Validation and calibration for SAS SUPER and IAQ
32879	"POLITECNIC" SAS calibration system with calibration certificate
42767	"POLITECNIC" SAS calibration system without calibration certificate
89389	"PYRAMID" SAS calibration system complete with carrying case
32949	Calibration certificate for "POLITECNIC"

OTHER ACCESSORIES

87085	"PIER" Aspiration Chamber for SAS Isolator without head (contact plates 55 mm)
88826	"PIER" Aspiration Chamber for SAS Isolator without head (Petri dishes 90 mm)
18950	"TELECON" infrared remote control for DUO SAS SUPER 360; SAS SUPER 100-180
89170	Infrared remote control for SAS SUPER ISO
89996	SAS Software for downloading the data from DUO SAS SUPER 360; SAS SUPER 100-180
26025	Interface for SAS software code 22536
86726	"Bacty-SP-IPA-Spray" irradiated disinfectant - 400 ml
89320	SAS Software for downloading data from SAS ISO
89321	Interface for SAS Software code 89320
29499	SPIRANTRA device for SAS PCR

DAILY-HEAD

STERILE DISPOSABLE ASPIRATING HEAD FOR MICROBIOLOGICAL AIR MONITORING

- All analytical material that are used for microbiological testing should be irradiated and, according to the cGLP, a document of certification should prove that it has been correctly irradiated and sterilized
- This rule is also valid for the aspiration head that is used with microbiological air samplers
- Each cycle of air sampling should use a documented sterile aspirating head
- The "Daily-Head", is a disposable aspirating head for microbiological air monitoring, which has been developed and produced by INTERNATIONAL P.B.I. to simplify the workload of the microbiologist
- The "Daily-Head", made in antistatic resin plastic, is double packed, irradiated and comes with certification of sterilization
- It has a shelf-life of five years and it is suitable for any type of SAS Super air sampler that uses diameter 55 mm Contact Plates (RODAC)

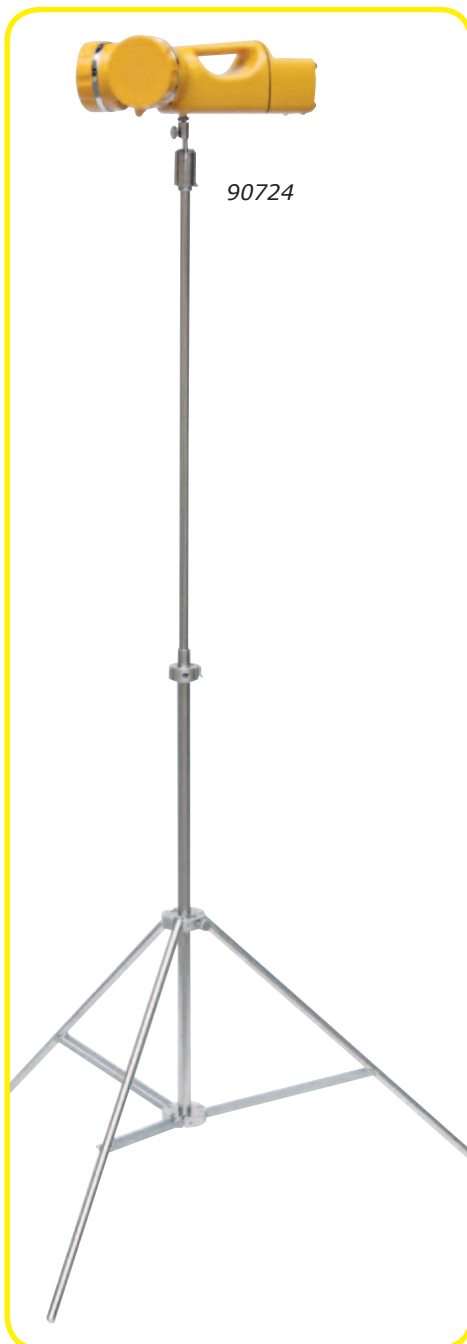


WHAT TO ORDER

86996	"Daily-Head" disposable aspirating head - for 55 mm Contact Plates	50/box
91214	"Daily-Head" disposable aspirating head - for 90 mm Petri Dishes	50/box

HOLDER & TRIPOD

STAINLESS STEEL HOLDER & TRIPOD FOR CLEAN ROOM



STAINLESS STEEL CLEAN ROOM FLOOR TRIPOD

- Robust tripod
- S/S to avoid particle emission in Clean Room
- To collect bioaerosol at the level of breathing
- Extensible 100-200 cm

NORMAL FLOOR TRIPOD

- Extendable from 100 cm up to 280 cm high
- It can be used for air conditioned outlet port

TABLE TRIPOD

- Compact unit
- To be used on the table



COMPACT "FLOOR" TRIPOD



STAINLESS STEEL WALL/SURFACE/ CART TRIPOD

- For a better free space inside the Clean Room
- For an easy transfer on board of wheel cart
- Fixed high 22 cm

WHAT TO ORDER

20914	"SAS Holder" s/s wall/surface/cart tripod
90724	"Clean-Tripod" floor tripod - extensible 100-200 cm
5215	"Telesco Floor" normal floor tripod (extendable up to 280 cm high)
42704	"Compact Digi" compact floor tripod (extendable from 50 cm to 165 cm high) with quick disconnect system
5214	"Telesco Table" table tripod

STAND UP HOLDER & PLATE CARRIER



“STAND UP HOLDER”

Stainless steel vertical stand for SAS

The new “Stand Up Holder” is quickly and easily attached to any portable SAS air sampler. It is manufactured from stainless steel and provides a sturdy and robust platform that greatly improves the stability of all SAS air samplers whatever their location, from Clean Room and isolator to operating theatres, food premises and even composting sites.

The “Stand Up Holder” is particularly useful for DUO-SAS-360 sampler that simultaneously samples using its two sampling heads, when it is vertically positioned.

WHAT TO ORDER

91213 “Stand Up Holder” S/S vertical stand for SAS

“PLATE CARRIER”

Stainless steel plate carriers

The new stainless steel plate carriers for Contact Plates (55 mm Contact Plate carrier) or Petri dishes (90 mm Petri dish carrier) facilitates the handling and the transport of plates around the laboratory and on site. The stainless steel construction, no corners to clean, swinging handle for easy manipulation are what the operators are asking for.

Both models Contact Plate carrier and 90 mm Petri dish carrier hold 20 plates.

WHAT TO ORDER

91215 “Contact Plate Carrier” stainless steel plate carrier - holding up to 20 Contact Plate

91216 “Petri Dish Carrier” stainless steel plate carrier - holding up to 20 Petri Dishes





SAS CLEAN ROOM TRANSFER CASES

POLYCARBONATE CARRYING CASES SUITABLE FOR CLEAN ROOM



For "SAS ISO"

"Bio-Protection Full" - code 89820 for SAS ISO and "SAS SUPER IAQ"

Transparent container - shock resistant: safeguards operator and contents - operator safety: emergency procedures in case of accidental leakage and safety measures recommended by the World Health Organisation are indelibly printed on the containers - autoclavable and chemically sterilisable: to avoid cross-contamination - lightweight: reduced weight facilitates transport of carrier cases - transparent: to constantly monitor integrity of contents - easy closure: hooks allow quick and safe closure of containers - leak-proof: fluids do not escape from container if accidentally spilled - complete with shock-proof tube holders made of absorbent material that can double as base for one or more tube holders.

For "DUO SAS 360"

"Leak Proof" Medium Type container code 29898 for "DUO-SAS 360"

transparent container - shock resistant: safeguards operator and contents - leak-proof: fluids do not escape from container if accidentally spilled - easy closure: polycarbonate hooks allow quick and safe closure of containers - stackable: several containers may be securely stacked upon each other - operator safety: emergency procedures in case of accidental leakage and safety measures recommended by the World Health Organisation are indelibly printed on the containers - transparent: to constantly monitor integrity of contents - autoclavable and chemically sterilisable: to avoid cross-contamination.



For "PINOCCHIO SUPER II"

"Leak Proof" Large Type container code 29897 for "Pinocchio Super II"

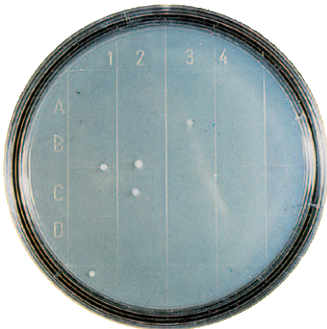


WHAT TO ORDER

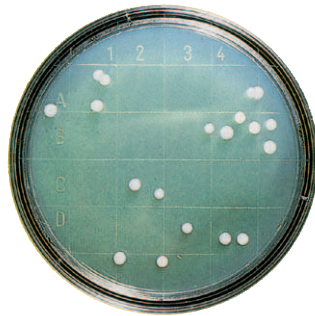
89820	"Bio-Protection Full Ser" container - with handle - dim. 390x175x180 h mm
29898	"Leak Proof" container - Medium Type - dim. 310x460x175 h mm
29897	"Leak Proof" container - Large Type - dim. 310x460x225 h mm

ENVIRONMENTAL MONITORING

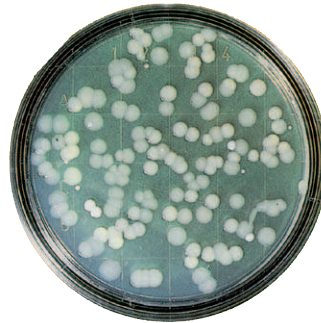
PLATES



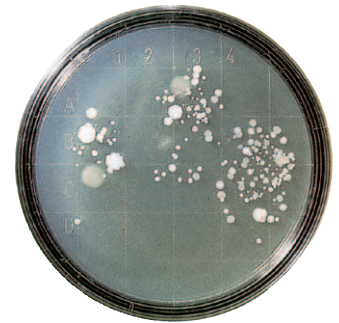
1. Total viable count of a clean surface on Plate Count Agar



2. Total viable count of a questionable surface on Plate Count Agar



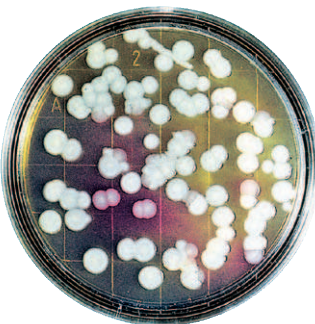
3. Total viable count of an unacceptable surface on Plate Count Agar



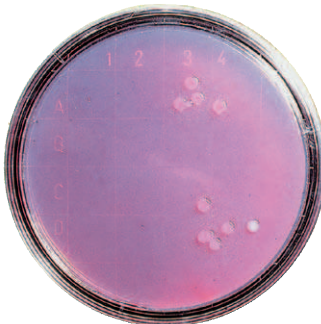
4. Normal resident microbial population of hands



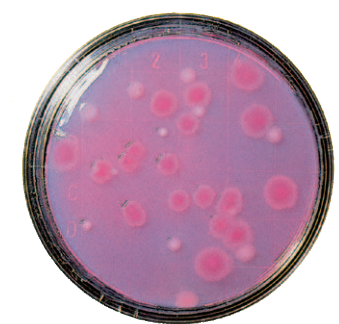
5. Black colonies with halo of *Staphylococcus aureus* and black colonies of harmless *Staphylococci* on tellurite Pyruvate Glicine Egg Yolk medium



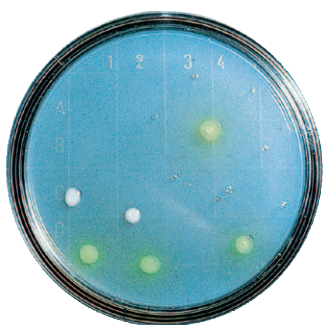
6. Few pink colonies of *Salmonella* spp surrounded by many white/yellowish colonies of coliform on Brilliant Green Agar



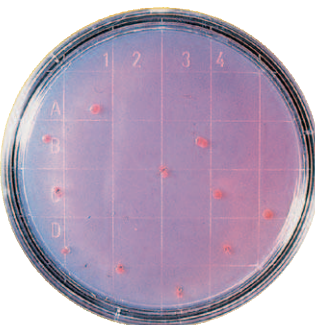
7. Typical bright red colonies of *Escherichia coli* on Violet Red Bile Agar



8. Reddish, mucoid colonies of *Enterobacter* and light, small pink colonies of *Serratia* on McConkey agar



9. Green pigmented colonies of *Pseudomonas aeruginosa* on Cetrimide agar



10. Colonies with dark pink center of *Yersinia* spp on Cefsulodin Irgasan Novobiocin Agar



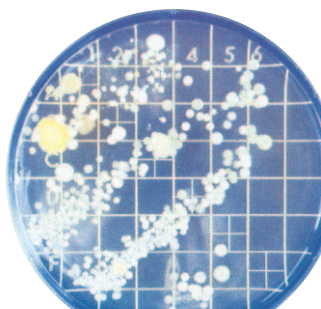
11. Blue background around colonies of *Bacillus cereus* on Holbrook and Anderson media (with polymyxin)



12. Large and creamy colonies of yeast on Oxytetracycline Glucose Yeast Extract Agar



Irradiated triple-wrapped bag for clean room



Printing of fingers on "Maxi-contact" plates