VWR® We Enable Science

pbi

SURFACE AIR SYSTEM (SAS) MONITORING INSTRUMENTS

A complete system for microbiological environmental monitoring

Instruments and plates for environmental control procedures of air and surfaces

ENVIRONMENTAL HEALTH AND AIR QUALITY

Many industries including pharmaceutical and food companies, hospitals, schools and workplaces in general need to determine the level of environmental microbial contamination. This helps provide protection for both product quality and the health of workers in accordance with International Standards (e.g. Pharmacopoeia, Good Manufacturing Practices and ISO) and guidelines.

Since the 1980's the SAS (Surface Air System) has been considered a reference instrument for portable air microbiological samplers.

- U.S. Pharmacopeia chapter 1116 describes the Surface Air System sampler as "Methodology and instrumentation for qualification of viable airborne microorganisms"
- International space agencies have been using the SAS system on board the orbital station for monitoring microbiological environment
- SAS instruments are used every day in the most important pharmaceutical industries all around the world

VWR IS ABLE TO OFFER CUSTOMERS A COMPLETE PACKAGE FOR MICROBIOLOGICAL SAMPLING OF SURFACES AND AIR:

- Air samplers for applications based on active air sampling, accommodating one or two plates with culture medium
- Ready to use contact plates or Petri dishes, for sampling surfaces or air in combination with specific SAS instruments
- Contact-Weight standardises microbiological control of surfaces with contact plates

SAS

A FLEXIBLE SYSTEM

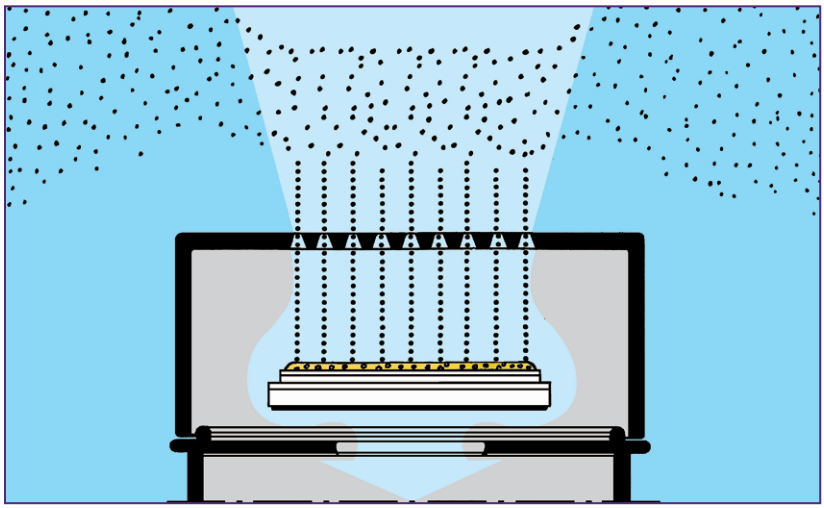
Specific models are designed to be used in cleanrooms classified according to ISO 14644-1, other instruments are available for open areas not classified by HACCP controls, for SBS (Sick Building Syndrome) investigations or for the control of air conditioning HVAC (Heating Ventilation Air Conditioning).

A dedicated range of VWR media for environmental control is available in ready to use Petri dishes or contact plates for the implementation of microbiological monitoring of surface and air control in any environment. Empty or ready to use Petri dishes and contact plates are packed appropriately for classified, controlled, ambient or occasional samples in different environments offering a cost effective sampling programme.

AN OPEN SYSTEM

The same instrument can be used with standard 55 mm contact plates or with traditional 90 mm Petri dishes using simple accessories. Specific models only for Petri dishes or contact plates are also available.

- Use the same kind of contact plate for air and surface sampling
- Applicable to cGLP and cGMP air sampling operations
- Appropriate for establishing data on a microbial level in selected environments
- Organise sequential sampling to obtain a more representative air sample under actual operating conditions



SAS SUPER ISO 100 AND SAS SUPER ISO 180

Directly derived from the SAS instrument used on the “International Space Station”, the SAS Super ISO 100 and SAS Super ISO 180 have been specifically designed for pharmaceutical and hospital sectors. Portable and easily positioned, they operate with long life rechargeable batteries. SAS Super ISO and SAS Super ISO 180 are differentiated by differences in constant airflow (100 l/min and 180 l/min respectively); this choice depends on the application and allows continuous or sequential sampling from a few minutes to several hours. Both models provide facilities for data management of different implemented sampling programmes. The data can be stored on the SAS instrument itself or on any remote PC.

DUO SAS SUPER 360

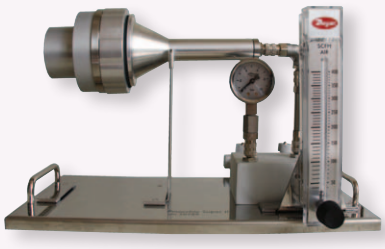
When environmental contamination is very low and the number of samples to be performed is high, operational duration can be an important factor in the choice of SAS instrument. Two sampling heads that operate simultaneously to sample 1000 l of air in less than 3 minutes is the solution. The simultaneous sampling on two heads also allows you 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 (e.g. TSA or PCA for Total Bacterial Count and SDA for yeasts and moulds). Sampling on the two heads can halve sample process time, which is a real advantage for busy users.

SAS SUPER IAQ

Designed specifically for general Indoor and Outdoor Air Quality control, this SAS instrument is lightweight and durable to operate in any situation. Ideal for environmental control in food industries, water treatment plants (outdoor application) and for use by environmental hygienists. The SAS IAQ is fully equipped with remote control and carrying case. It provides the same efficiency, as recorded and conducted by UK-CAMR (Center for Applied Microbiology & Research) according to ISO 14698-1.

SAS SUPER ISOLATOR

SAS Super Isolator instruments (available with airflows of 100 l/min and 180 l/min) have been created for the specific monitoring of the closed environments of isolators and RABS, ensuring their complete separation from outside influences. The SAS instrument control unit is placed outside and connected to the aspirating head using a simple electrical connection. All possible typical contamination sources of the vacuum sampling system are removed using the SAS Super Isolator. An interesting application of this air sampler is that several heads can be controlled by a single SAS control unit providing a practical and economical solution.



SAS SUPER PINOCCHIO II

The microbiological testing of compressed gas requires dedicated instruments other than normal air samplers. SAS Super Pinocchio II is specifically designed for this application, simplifying this activity as much as possible. A practical advantage of using the SAS Super Pinocchio II is that the instrument requires no external power supply because, controlled by the pressure of a gas line, it conveys the same gas on the agar plate playing the “impact on agar” approach described in chapter 1116 of the U.S. Pharmacopoeia. SAS Super Pinocchio II is the ideal instrument for all areas requiring microbiological testing of gas.

SAS SUPER ISO 100 AND SAS SUPER ISO 180

The microbiological air sampler created for pharmaceutical companies and hospitals.

SAS SUPER ISO 180 IS THE FASTEST "IMPACT TO AGAR" AIR SAMPLER ON THE MARKET.

TYPICAL APPLICATIONS

Control and validation of cleanrooms, isolators, restricted access barriers (RABS), microbiological laboratories, biotechnology premises and vaccine production plants including operator safety.

Ideal for control of environmental contamination in operating theatres, hospitals and clinics.

PERFORMANCE

- Compliant with USP chapter 1116 and 21-CFR 11 and ISO 14698-1
- Over 70 000 litres of air with up to 300 memorised sampling cycles
- Sampling rate accurately maintained by speed sensor - incorrect aspiration aborts cycle
- Design avoids turbulence in unidirectional airflow and re-aspiration of tested air in accordance with ISO specifications
- Provides total traceability - IQ OQ PQ validation protocols available
- Automatic reminder in case of expired calibration
- 8 pre-fixed modifiable sampling configurations

DATA TRANSFER

- Sampling data can be downloaded on a PC in both non modifiable or Excel formats
- Infrared transfer of sampling data to PC

CHOOSE BETWEEN ALUMINIUM, STAINLESS STEEL OR RESIN PLASTIC STERILE IRRADIATED HEADS

PYRAMID SHAPE FOR STABILITY

LARGE LCD ILLUMINATED TOUCH SCREEN COMMAND PANEL - EASY TO USE, EASY TO CLEAN

TECHNICAL SPECIFICATIONS

- Approx. sampling time for sampling 1000 l:
  - 6 min with SAS ISO 180
  - 10 min with SAS ISO 100

- Powered to ensure a full day of sampling:
  - Operates from mains
  - 8 hour battery life or 70 000 l from recharge
  - Power: 8,4 V - 2,7 amp/h
  - Size: 120x125x275 mm
  - Weight: 1800 g

SAS Super ISO without aspirating head and battery charger	Cat. No.
SAS Super ISO 100 for contact plates	710-0871
SAS Super ISO 100 for Petri dishes	710-0869
SAS Super ISO 180 for contact plates	710-0872
SAS Super ISO 180 for Petri dishes	710-0870

Accessories	Cat. No.
Soft carrying case	710-0896
Aluminium carrying case	710-0875
Bio-Transport autoclavable carrying case	113-8185
Handle for Bio-Transport carrying case	113-8186
Floor tripod	710-0889
SAS-Holder table and wall stainless steel	710-0963
Battery charger with universal plug for both models	710-0973
Adapter* to convert contact plate model to accept 90 mm Petri dishes	710-0882
SAS stainless steel Petri head + adaptor	710-0877
SAS aluminium Petri head + adaptor	710-0879
IQ OQ PQ validation protocols for SAS Super ISO 100 and 180	710-0956
SAS software for downloading data from SAS Super ISO (to use with interface)	710-0970
Interface for SAS software for SAS Super ISO	710-0971
Infrared remote control for SAS Super ISO	710-0969

* An aspirating head for 90 mm Petri dishes has to be used with this adapter.

Aspirating heads	Cat. No.
Aspirating head for contact plates, Ø 55 mm	
Stainless steel aspirating head for contact plates, Ø 55 mm	710-0880
Aluminium aspirating head for contact plates, Ø 55 mm	710-0892
Sterile daily head for contact plates, Ø 55 mm	710-0890
Aspirating head for Petri plates, Ø 90 mm	
Stainless steel aspirating head for Petri dishes, Ø 90 mm	710-0878
Aluminium aspirating head for Petri dishes, Ø 90 mm	710-0886
Sterile daily head for Petri dishes, Ø 90 mm	710-0891


710-0891


710-0882


710-0963


710-0889

710-0896


710-0973


710-0969


710-0875


113-8185
+ 113-8186

REFERENCES

- USP chapter 1116 "Microbiological evaluation of cleanrooms and controlled environments"
- EU guide for GMP - "Manufacture of sterile medicinal products control medicines and inspection"
- 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"

DUO SAS SUPER 360

The only portable microbiological air sampler with two aspirating heads. Suitable for use in all fields of application.

CAN REDUCE SAMPLING TIME BY UP TO 70%!

TYPICAL APPLICATIONS

Control and validation of cleanrooms, isolators, RABS microbiological laboratories, biotechnology premises, vaccine production plants, operating theatres, hospitals and clinics. In particular, DUO SAS Super 360 is used when saving time is an important criteria.

WHY USE THE DUO SAS?

- Use *different* media in each head to capture different microorganisms
- Use the *same* media in each head for greater confidence
- TSA plates on left and aspirating heads on right to calculate an average result and to obtain a more reliable and realistic number of Colony Forming Unit (CFU)
- TSA plates on left and aspirating heads on right to monitor a higher volume of air in cleanrooms (360 l/min)
- TSA plates on left and aspirating heads on right to reduce operator time during air monitoring (about 3 min for 1000 l of air)
- TSA or PCA plates on left aspirating head and SDA plate on right for a simultaneous double control of Total Bacterial Count and yeast/moulds

DATA TRANSFER

- Can be downloaded onto a PC in both non modifiable (.sas) and Excel formats
- RS232 transfer to PC

CHOOSE BETWEEN ALUMINIUM, STAINLESS STEEL OR RESIN PLASTIC STERILE IRRADIATED HEADS

OPERATOR COMMANDS THROUGH TOUCH KEYPAD FOR EASY CLEANING

PERFORMANCE

- Compliant with USP chapter 1116 and 21-CFR 11 and ISO 14698-1
- IQ OQ PQ validation protocols available
- Over 70 000 l of air, 4 h autonomy
- Up to 100 memorised sampling cycles
- Design avoids turbulence in unidirectional airflow and re-aspiration of tested air in accordance with ISO specifications
- Total traceability
- Fingertip calibration system control without opening the instrument
- Easy calibration monitoring

DUO SAS Super 360 without aspirating head and battery charger	Cat. No.
DUO SAS Super 360 for contact plates	710-0867
DUO SAS Super 360 for Petri dishes	710-0866

Accessories	Cat. No.
Soft carrying case	710-0888
Aluminium carrying case	710-0876
Floor tripod	710-0889
SAS-Holder table and wall stainless steel	710-0963
Battery charger with universal plug	710-0993
Adapter* for Petri dishes, Ø 90 mm (only for Duo SAS Super 360 for contact plates)	710-0882
SAS stainless steel Petri head + adaptor	710-0877
SAS aluminium Petri head + adaptor	710-0879
IQ OQ PQ validation protocols for Duo SAS Super 360	710-0957
SAS software for downloading data for Duo SAS Super 360 (to use with interface)	710-0975
Interface cable for software for Duo SAS Super 360	710-0964
Infrared remote control for Duo SAS Super 360	710-0962

* An aspirating head for 90 mm Petri dishes has to be used with this adapter.

Aspirating heads	Cat. No.
Aspirating head for contact plates, Ø 55 mm	
Stainless steel aspirating head for contact plates, Ø 55 mm	710-0880
Aluminium aspirating head for contact plates, Ø 55 mm	710-0892
Sterile daily head for contact plates, Ø 55 mm	710-0890
Aspirating head for Petri plates, Ø 90 mm	
Stainless steel aspirating head for Petri dishes, Ø 90 mm	710-0878
Aluminium aspirating head for Petri dishes, Ø 90 mm	710-0886
Sterile daily head for Petri dishes, Ø 90 mm	710-0891

710-0891

710-0882

710-0876

710-0888

710-0963

710-0962

710-0969

710-0889

REFERENCES

- USP chapter 1116 "Microbiological evaluation of cleanrooms and controlled environments"
- ISO Standard 14698-1 - "Cleanrooms and associated controlled environments contamination 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"
- EU guide for GMP - "Manufacture of sterile medicinal products control medicines and inspection"

SAS SUPER IAQ

The microbiological air sampler created for control in the food industry, water treatment plants and environmental health.

EASY TO USE BASIC INSTRUMENT

TYPICAL APPLICATIONS

- Agro-Food - dairy technologists for control in food production environments with the aim to increase shelf life of products and for "HACCP" (Hazard Analysis Critical Control Point) applications
- Environmental health for the control of "SBS" (Sick Building Syndrome) and "HVAC" (Heating Ventilation Air Conditioning) studies
- Suitable for environmental control in water treatment plants (outdoor application) to ensure the safety of people working or living near treatment areas

- Supplied complete with aluminium head (contact or Petri), battery charger, remote control and transport case
- Meets ISO 14698-1 "ACGIH" recommendation and "NIOSH" 0800 methods for bioaerosol sampling
- Airflow rate 100 l/min
- Programmable volume of aspirated air from 1 to 1999 l
- Sampling cycle record
- Delay start
- Digital visual display with indication of number of l/min air, date, operator and location

CHOOSE BETWEEN ALUMINIUM OR RESIN PLASTIC STERILE IRRADIATED HEADS

ROBUST CONSTRUCTION FOR USE IN INDUSTRIAL ENVIRONMENTS

TECHNICAL SPECIFICATIONS

- Sampling time: 300 l in 3 min
- Long battery life: 8 hours of use without risk of sampling breaks
- High sampling autonomy: 70 000 l batteries recharged
- Power: 8,4 V - 2,7 amp/h
- Size: 105x110x290 mm
- Weight: 1750 g

SAS Super IAQ air sampler- supplied with 220 V battery charger, aluminium head, remote control and transport case	Cat. No.
SAS Super IAQ for contact plates	710-0868
SAS Super IAQ for Petri dishes	710-0919

Accessories	Cat. No.
Aluminium carrying case	710-0875
Floor tripod	710-0889
SAS-Holder table and wall stainless steel	710-0963
Additional battery charger with universal plug	710-0993
Adapter* for Petri dishes, Ø 90 mm (only for SAS Super IAQ for contact plates)	710-0882
SAS aluminium Petri head + adaptor	710-0879
Aluminium aspirating head for contact plates, Ø 55 mm	710-0892
Sterile daily head for contact plates, Ø 55 mm	710-0890
Sterile daily head for Petri dishes, Ø 90 mm	710-0891
SAS aluminium head for Petri dishes, Ø 90 mm	710-0886

* An aspirating head for 90 mm Petri dishes has to be used with this adapter.

Soft case supplied with SAS Super IAQ

710-0875

710-0891

710-0882

710-0963

710-0969

710-0893

710-0889

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 cleanrooms and controlled environments"
- EU guide for GMP - "Manufacture of sterile medicinal products control medicines and inspection"

SAS SUPER ISOLATOR

The microbiological air sampler created for the control in isolators and RABS in pharmaceutical and food companies other than in hospital environments.

It consists of a programmable unit which remains outside the controlled area which uses 55 mm contact plates or standard 90 mm Petri dishes.

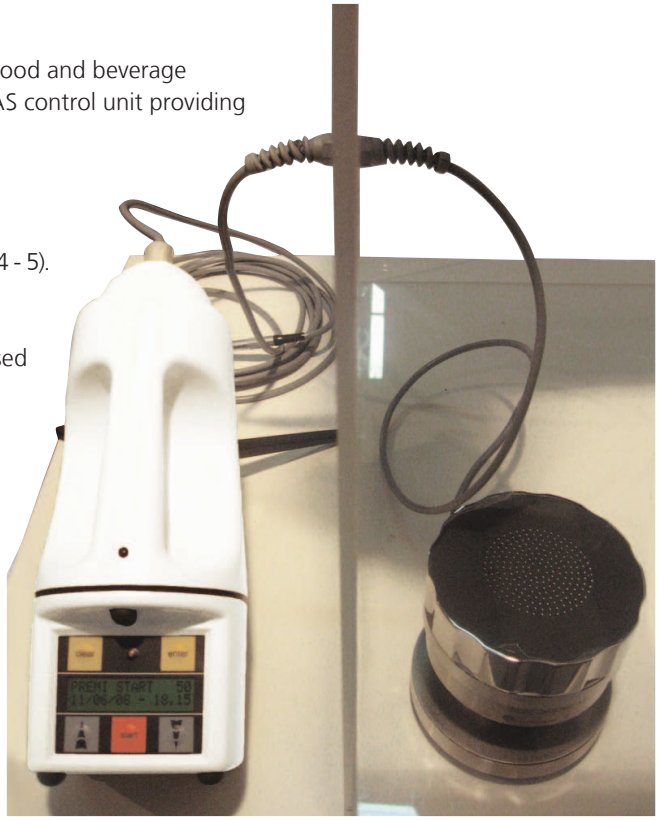
TYPICAL APPLICATIONS

Control and validation of isolators, RABS and closed systems for drugs, food and beverage production. Several aspirating chambers can be controlled by a single SAS control unit providing a practical and economic solution.

PERFORMANCE

Technically this is the same as the SAS Super 100 or SAS Super 180 (see pages 4 - 5).

- Sampling head of can be positioned anywhere inside the isolator or RAB
- Compatible with the most common sanitising and sterilising agents used inside isolators such as VHP (Vaporised Hydrogen Peroxide)
- Compliant with USP chapter 1116 and 21-CFR 11 with ISO 14698-1
- IQ OQ PQ validation protocols available
- Special connections for Isolators available on request



Model without aspirating head and battery charger	Cat. No.
SAS Super Isolator 100 for contact plates	710-0943
SAS Super Isolator 100 for Petri dishes	710-0945
SAS Super Isolator 180 for Petri dishes	710-0946
SAS Super Isolator 180 for contact plates	710-0944
Duo SAS 360 Isolator for contact plates	710-0977
Duo SAS 360 Isolator for 90 mm Petri dishes	710-0978

Accessories	Cat. No.
Battery charger with universal plug	710-0993
Adapter* for Petri dishes, Ø 90 mm (only for SAS Super Isolator for contact plates)	710-0882
Additional aspirating chamber for contact plates (without aspirating head)	710-0947
Additional aspirating chamber for Petri dishes (without aspirating head)	710-0948
IQ, OQ, PQ manual for SAS Super Isolator	710-0954
Infrared remote control for SAS Super Isolator	710-0962
Interface for SAS Isolator software	710-0975
SAS software for downloading data from SAS Super Isolator (to use with interface)	710-0964

Aspirating heads	Cat. No.
Aspirating head for contact plates, Ø 55 mm	
Stainless steel aspirating head for contact plates, Ø 55 mm	710-0880
Aluminium aspirating head for contact plates, Ø 55 mm	710-0892
Sterile daily head for contact plates, Ø 55 mm	710-0890
Aspirating head for Petri plates, Ø 90 mm	
Stainless steel aspirating head for Petri dishes, Ø 90 mm	710-0878
Aluminium aspirating head for Petri dishes, Ø 90 mm	710-0886
Sterile daily head for Petri dishes, Ø 90 mm	710-0891

* An aspirating head for 90 mm Petri dishes has to be used with these adapters.

REFERENCES

- ISO Standard 14698-1 - "Cleanrooms and associated controlled environments biocontamination control - Part 1: General principles and methods"
- USP chapter 1116 - "Microbiological evaluation of cleanrooms and controlled environments"
- EU guide for GMP - "Manufacture of sterile medicinal products control medicines and inspection"

SAS SUPER PINOCCHIO II

The microbiological air sampler created to test the microbiological quality of compressed air and gases used in cleanrooms.

A compressed air source is connected to the SAS Super Pinocchio Super II system and the flow meter regulates the required flow rate, e.g.: 100 l of air/min. The sampling period is timed to obtain the required total sample volume, e.g. 1000 l.

TYPICAL APPLICATIONS

SAS Super Pinocchio II has been created for the microbiological control of air and other compressed gases used in the pharmaceutical and food industries plus other critical fields. The compressed gas is connected directly to the instrument.

PERFORMANCE

- Autoclavable
- Calibrated according to International Standards
- IQ OQ PQ validation protocols available
- Standard Operating Procedure (SOP) available
- Unit requires no power and is fully transportable
- Can collect air samples either on contact plates or standard 90 mm Petri dishes

SAS Super Pinocchio II with carrying case	Cat. No.
SAS Super Pinocchio II for contact plates	710-0949
SAS Super Pinocchio II for Petri dishes	710-0950
SAS Super Pinocchio II for contact plates with calibrated flow meter	710-0951
SAS Super Pinocchio II for Petri dishes with calibrated flow meter	710-0955

Accessories	Cat. No.
IQ, OQ, PQ manual for SAS Super Pinocchio II	710-0976
Validated Pinocchio flow meter	710-0965

710-0972
Pinocchio carrying case included

A COMPLETE RANGE OF TRIPLE WRAPPED CONTACT PLATES AND PETRI DISHES FOR MICROBIOLOGICAL CONTROL OF AIR AND SURFACES

Ideal for monitoring the microbiological contamination of surface and air inside cleanrooms, isolators, RABS, food industries and hospitals. The triple wrapping ensures that the package itself doesn't contaminate the environment as the first wrapper is removed just before entering the clean area.

CONTACT PLATES OR PETRI DISHES?

The choice of both plate type and media is key to meeting the requirements of the most important Pharmacopoeias, ISO norms and cGMP. Petri dishes are used as "settle plates" to examine how many microorganisms land on surfaces and measured by leaving an open Petri plate on the surface for 1 - 4 hours. Contact plates are used to take a direct sample of the surface as the agar touches the surface.
Contact plates also offer the advantage that you can use the same kind of plates for both air and surface control. However, 90 mm Petri dishes give a bigger surface area for colony counting and are especially useful if the expected count on the plate is more than 100 Colony Forming Units.

All VWR contact plates and Petri dishes are available with neutralising agents (Tween, lecithin, histidine, thiosulphate) and with antibiotic neutralising agents (Penicillinase), to prevent underestimation of the microbial count.

- Manufactured under GMP, compliant with Pharmacopoeias and ISO regulations formulations
- Certificate of Irradiation and Growth Promotion test according to International Pharmacopoeias
- VHP resistance studies for the use inside isolators are available (please note that only the blister packaging is hydrogen peroxide resistant)
- Storage at room temperature (contact plate in blister) or between 2 and 14 °C

CONTACT PLATES IN BLISTER PACKS - TRIPLE WRAPPED

Triple wrapped sterile contact plates in blister packs allow you to use one single plate at a time whilst maintaining the packaging of all the other plates. This allows the use of all the plates until the end of their shelf life. Triple wrapped contact plates are packed in a blister with 6 single compartments (6x 4 plates per packs).

Contact plates in blister for Total Bacterial Count
Application fields: Pharmaceutical industries and hospitals, in compliance with EP, USP, ISO

55 mm contact plate media	Fill (ml)	Pk	Cat. No.
Tryptic Soy Agar (TSA)	13	24	271114ZI
TSA with disinfectant neutralisers (Tween, lecithin, histidine, thiosulphate)	13	24	271114TI
TSA with antibiotic and disinfectant neutraliser (Penase, Tween, lecithin, histidine, thiosulphate)	13	24	271114RY

Contact plates in blister for Total Bacterial Count
Application fields: Food industries in compliance with EPA, ISO 4833 and ISO 18593

55 mm contact plate media	Fill (ml)	Pk	Cat. No.
PCA	13	24	270774ZI
PCA with disinfectant neutraliser (Tween and lecithin)	13	24	270774TI

Contact plates in blister for Yeast and Moulds Count
Application fields: Pharmaceutical and food industries and hospitals, in compliance with EP, USP, EPA, ISO 4833 and ISO 18593

55 mm contact plate media	Fill (ml)	Pk	Cat. No.
Sabouraud 4% dextrose agar (SDA)	13	24	270884ZI
Sabouraud 4% dextrose agar (SDA) with disinfectant neutraliser (Tween, lecithin, histidine, thiosulphate)	13	24	270884TI

CONTACT PLATES IN TRIPLE STERILE BAGS

For larger volume usage, contact plates are also available in bags. The same specifications apply to these plates as for the blister wrapped plates. Plates are packed 5 each in a plastic shrink wrapped pack. Each bag contains 2 packs (10 plates). The box contains 8 bags with a total of 80 plates.

Contact plates in triple sterile bags for Total Bacterial Count Application fields: Pharmaceutical industries and hospitals, in compliance with EP, USP, ISO

55 mm contact plate media	Fill (ml)	Pk	Cat. No.
Tryptic Soy Agar (TSA)	13	80	141114ZI
TSA with disinfectant neutralisers (Tween, lecithin, histidine, thiosulphate)	13	80	141114TI
TSA with antibiotic neutraliser (Penase)	13	80	141114PY
TSA with antibiotic and disinfectant neutraliser (Penase, Tween, lecithin, histidine, thiosulphate)	13	80	141114RY

Contact plates for Yeast and Moulds Count in triple sterile bags Application field: Pharmaceutical and food industries plus hospitals, in compliance with EP, USP, EPA, ISO 4833 and ISO 18593

55 mm contact plate media	Fill (ml)	Pk	Cat. No.
Sabouraud 4% dextrose agar (SDA)	13	80	140884ZI
Sabouraud 4% dextrose agar (SDA) with disinfectant neutraliser (Tween, lecithin, histidine, thiosulphate)	13	80	140884TI
Rose Bengal chloramphenicol agar	13	80	140070ZI

Contact plates in triple sterile bags for Total Bacterial Count - Application field: Food industries, in compliance with EPA, ISO 4833 and ISO 18593

55 mm contact plate media	Fill (ml)	Pk	Cat. No.
PCA	13	80	140774ZI
PCA with disinfectant neutraliser (Tween and lecithin)	13	80	140774TI

90 MM PETRI DISHES

As with contact plates, Petri dishes also come with specific media for microbiological control of air and surfaces. These dishes come in sterile triple wrapped packaging which enables the transfer of plates inside low contamination or sterile environments (one of the three external wraps is removed before entry into a clean area). You can choose the best packaging and medium for your needs.
Plates are packed in bags with 10 plates in each. The box supplied contains 2 bags of 10 plates, with a total of 20 plates. One pack per bag displays an irradiation indicator.

Application fields: Pharmaceutical industry and hospitals, in compliance with EP, USP, ISO

90 mm Petri dish media	Fill (ml)	Pk	Cat. No.
Tryptic Soy Agar (TSA)	20	20	131114ZI
TSA with disinfectant neutralisers (Tween, lecithin, histidine, thiosulphate)	20	20	131114TI
TSA with antibiotic and disinfectant neutraliser (Penase, Tween, lecithin, histidine, thiosulphate)	20	20	131114RY
R2A	20	20	130802ZI
Sabouraud 4% dextrose agar (SDA) irradiated	20	20	130884ZI
Sabouraud 4% dextrose agar (SDA) with disinfectant neutraliser	20	20	110884TI
Sabouraud 4% dextrose agar (SDA) with Chloramphenicol	20	20	130884CI

References

VWR International contact plates and Petri dishes for environmental control comply with the following International Standards:

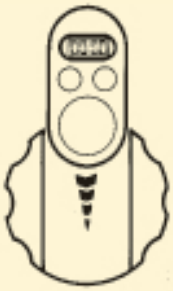
- USP chapter 1116 "Microbiological evaluation of cleanrooms and controlled environments"
- EU Guide for GMP - "Manufacture of sterile medicinal products control medicines and Inspection"
- ISO Standard 14698-1 - "Cleanrooms and associated controlled environments biocontamination control - Part 1: General principles and methods"
- ISO 18593: "Microbiology of food and animal feeding stuffs - Horizontal methods for sampling techniques from surfaces using contact plates and swabs"
- ACGIH - "Guideline for assessment of bioaerosol in the indoor environment"

CONTACT-WEIGHT MICROBIOLOGICAL SURFACE SAMPLER

Used in combination with contact plates, the weight enables the standardisation of microbiological surface control between operators. It applies the same constant pressure for a preset time on the contact plate. This ensures results are directly comparable.
The Rodac-Weight meets the ISO 18593 Standard and has a sterilisable stainless steel base and pull out digital timer.

Step by step guide for using the Contact-Weight for microbiological control of surfaces.

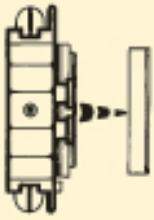
1. Choose the contact plate w th the type of agar required for the test.



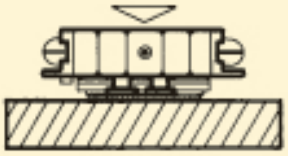
2. Slide in its housing.

3. Set timer to 10 s (to be done once only to input contact time in memory).

4. Place contact plate in sampler's housing.

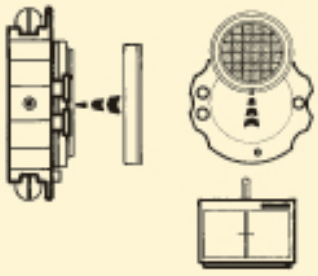


5. Remove lid from contact plate.



6. Rest contact plate on surface to be sampled.

7. After 10 s a sound alarm will alert the operator.



8. Replace lead on contact plate, remove contact plate and place in the incubator.

Description	Pk	Cat. No.
Contact-Weight surface air samplers for contact plates	1	710-0961
Straight autoclavable container to transfer the Contact-Weight in a cleanroom	4	216-8206

SAS PYRAMID

Airflow control system

Quality control monitoring of "SAS" (Surface Air System) air samplers.

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

- Only for internal control; not suitable for official control of airflow
- Impeller anemometer with LCD display for the routine evaluation of SAS air sampler performance
- Shows the airflow of any "SAS" microbiological air sampler
- Reading 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 is 30 seconds
- According to cGLP e cGMP

CALIBRATION SERVICE

Air samplers are key to any environmental monitoring programme so regular checking of the volume of aspirated air is imperative to ensure that there are no errors in the monitoring of contamination. VWR has a comprehensive calibration and service programme on air samplers. We recommend performing air sampler calibration every 6 - 12 months or sooner if the air sampler has potentially been damaged or the flow rate has been compromised.

COLONY COUNT PEN

Prevent missing or double counting colonies

Simply touch the dish with the pen leaving a trail so you can see where you are. Once the counting is complete, the pen tells you the counts. This colony counting pen can be reset at any time by pressing the white button or turning it off.

- 4-figure digital display
- Audible alarm for end of count
- Reset button
- Light and ergonomic
- Low energy consumption; up to a million counts before battery needs changing

Description	Pk	Cat. No.
Colony Count pen	1	710-0884

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