THE SAFETY SENTINELS

Environmental Monitoring Solutions for Pharmaceutical Industry

The life science business of Merck operates as MilliporeSigma in the U.S. and Canada.

Millipore®

Preparation, Separation, Filtration & Monitoring Products

THE SAFETY SENTINELS

INTRO

APPLICATIONS

CLEANROOM GRADES

100%

SERVICE

ONE STEP AHEAD!

in Environmental Monitoring Solutions

CONTACT

THE SAFETY SENTINELS

INTRO

100%

SERVICE

APPLICATIONS

- Surface & Personnel Monitoring
- Passive Air Monitoring
- Active Viable Air Monitoring
- Compressed Gas Monitoring
- Media Fill / Aseptic Process Simulation

CLEANROOM GRADES

ONE STEP AHEAD!

in Environmental Monitoring Solutions

CONTACT

THE SAFETY SENTINELS

INTRO

100%

SERVICE

APPLICATIONS

CLEANROOM GRADES

- Cleanroom Grade A/B
- Cleanroom Grade C/D
- Isolator / RABS

ONE STEP AHEAD!

in Environmental Monitoring Solutions

CONTACT

ON GUARD

GMP compliant solutions for process monitoring in pharmaceutical manufacturing

Safety matters. The manufacture of pharmaceutical products is performed under controlled conditions. Microbial monitoring is an important part of proving the manufacturing process is under control, especially in aseptic production. The risk-based implementation of sampling plans as well as subsequent trend analysis of monitoring results, this helps to detect deviations from qualified status, prepare root cause analysis and follow up with appropriate CAPAs.

Learn more on our Website

100%

OUR SERVICES FOR YOU

Benefit from our all-around services offer from validation and training to maintenance and calibration.

- Validation package: validation protocols and on-site IQ/OQ service
- Service plans: preventative & curative maintenance
- Traceability & calibration accuracy

Learn more on our Website

ONE
STEP AHEAD!

in Environmental Monitoring Solutions

Learn more on our Website

- Accuracy
- setting standards
- Minimizes Risk

Accuracy

Consistent and reliable high performance

Our products are manufactured for high quality assured raw materials, each raw material is from a proven and audited supplier. The use of standardized manufacturing practices ensures high quality products. These conditions ensure a high quality and reliable product that makes your result trending data accurate, reliable and consistent.

setting standards

for ease of use and safety

Our expertise and constant quality improvement programs coupled with a high level of validation and scientific data advances the environmental monitoring products to a world leading position.

Minimizes risk

to make your work more secure

Our product range is designed to minimize the risk of cross-contamination as well as disruption of unidirectional air flow during active air monitoring up to the highest level of cleanroom grades and isolators.

SURFACE & PERSONNEL MONITORING

HYCON®
Contact Slides

- Cleanroom Grade A/B
- Cleanroom Grade C/D

ICR/ICR+
Contact Plates
55 mm

- Cleanroom Grade A/B
- Isolator / RABS

ICR Swabs

- Cleanroom Grade A/B
- Isolator / RABS

IsoBag®
Rapid Transfer Bag

- Passive Air Monitoring
- Isolator / RABS

RT/RT+
Contact Plates
55 mm

- Cleanroom Grade C/D

HYCON® Contact Slides

for monitoring curved surfaces and personnel

Description | **Benefits** | **Ordering Information**

HYCON® Contact Slides are designed for monitoring flat and curved surfaces as well as personnel. They are available in standard single packaging or in a double-bagged, gamma-irradiated format.

Both the standard and the gamma-irradiated **HYCON® Contact Slides** are rectangular in shape and provide a surface of 25 cm^2. Individual sealing of the primary packaging allows opening single contact slides at a time to reduce waste.

The slide’s body is slightly flexible to allow efficient sampling of curved surfaces. All slides are equipped with a cover slide for closure after use, increasing safety during both transport and incubation.

Link to our Website

Download Brochure

HYCON® Contact Slides

for monitoring curved surfaces and personnel

Description | **Benefits** | Ordering Information

- For critical or non-critical environments
- Designed for use on flat and curved surfaces
- Safe transport and incubation

HYCON® Contact Slides

for monitoring curved surfaces and personnel

Description | Benefits | **Ordering Information**

Product	Description	Content	Ord. No.
Contact Slides Blank Strip	Kit for use with HYCON®	20	**1.44024.0020**
HYCON® Contact Slides	Gamma-irradiated, double-bagged		
Contact Slides DE-y	Gamma-irradiated, modified Dey Engley Agar (D/E Agar), double-bagged; for determination of total count in aseptic environments; with neutralizers (lecithin, sorbitol monooleate complex, sodium thioglycolate, sodiumbisulfite) and growth supplements.	20	**1.44021.0020**
Contact Slides SDX-y	Gamma-irradiated Sabouraud Dextrose Agar with modified pharmacopoeia formulation, double-bagged; for determination of yeasts and molds in aseptic environments; with neutralizers (Tween® 80, L-a-phosphatidylcholine) and growth supplements.	20	**1.44016.0020**
Contact Slides TC-y	Gamma-irradiated Tryptic Soy Agar, double-bagged; for determination of total count in aseptic environment; with neutralizers (lecithine, sorbitol monooleate complex, Tween® 80) and growth supplements.	20	**1.44022.0020**
		100	**1.44022.0100**

HYCON® Contact Slides

for monitoring curved surfaces and personnel

Description | Benefits | **Ordering Information**

Product	Description	Content	Ord. No.
HYCON® Contact Slides	Standard, single-bagged		
Contact Slides C	Mac Conkey Agar; for determination of coliform bacteria; with growth supplements.	20	**1.44019.0020**
Contact Slides SDX	Sabouraud Dextrose Agar with modified pharmacopoeia formulation; for determination of yeasts and molds; with neutralizers (Tween® 80, L-a-phosphatidylcholine) and growth supplements.	20	**1.44017.0020**
Contact Slides TC	Tryptic Soy Agar; for determination of the total count; with neutralizers (lecithin, L-histidine, sorbitol monooleate complex, Tween® 80) and growth supplements.	20	**1.44023.0020**
		100	**1.44023.0100**
Contact Slides YM	Rose Bengal Agar with streptomycin and chloramphenicol; for determination of yeasts and molds; with growth supplements.	20	**1.44018.0020**

ICR/ICR+ Contact Plates

for isolators and critical cleanrooms

The **ICR/ICRplus series of contact plates** provide maxium safety for use in isolators and cleanrooms.

- Aseptically filled and irradiated in final packaging to minimize contamination.
- Full traceability due to Data Matrix barcode on each plate.
- Available with standard TSA/SDA formulations with wide variety of neutralizers for either disinfectants or ß-lactam antibiotics.

ICRplus products:

- Smart “CLOSED-VENT” locking system allowing safe transport and optimized incubation under anaerobic conditions.

Link to our Website

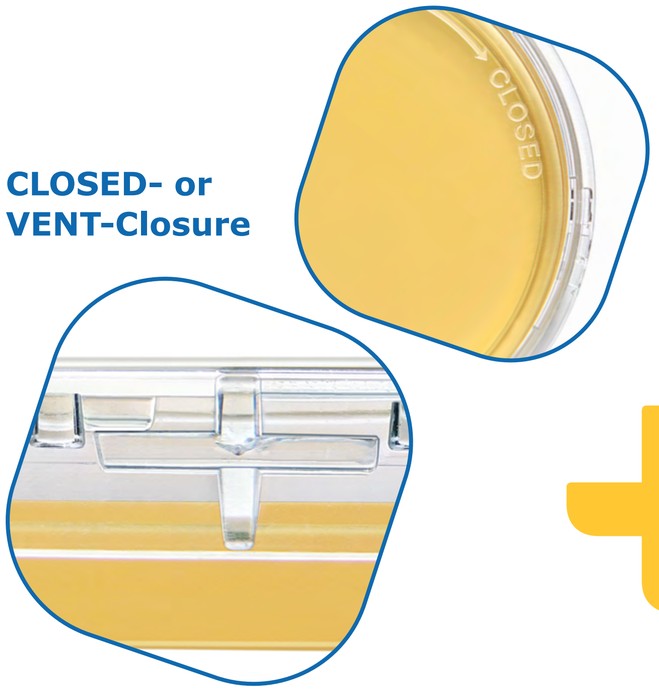
Download Brochure

Request a demo

ICR/ICR+ Contact Plates

for isolators and critical cleanrooms

CLOSED- or VENT-Closure



Maximum safety

- Filled under aseptic conditions, gamma-irradiated in final packaging
- Safe transport thanks to H_2O_2-impermeable triple-sleeve packaging
- Data Matrix barcode to ensure full traceability of each individual plate

Maximum convenience

- Storage at room temperature to store at site of use
- Long shelf life to reduce incoming goods controls
- SDA in colored plates to minimize risk of mix-ups

Additional benefits for ICRplus Contact Plates

- Safe transport through integrated locking systems
- CLOSED-VENT system for different incubation conditions

ICR/ICR+ Contact Plates

for isolators and critical cleanrooms

ICR/ICRplus Settle Plates

Our gamma-irradiated and triple-bagged settle plates for monitoring of isolators and critical cleanrooms.

Link to our Website

ICR/ICR+ Contact Plates

for isolators and critical cleanrooms

ICR Swabs

Easy presence-absence test on difficult to access surfaces.

Link to our Website

ICR/ICR+ Contact Plates

for isolators and critical cleanrooms

Additional information

- AN4476 – Neutralization Efficacy of ICR Plates
- Reworked Anios AN
- SDA AN
- AN2005 – Anaerobic Monitoring using our lockable TSA+LTHTh ICR+ plates

ICR/ICR+ Contact Plates

for isolators and critical cleanrooms

Product	Description	Ord. No.
Plate Rack for Contact Plates	Stainless Steel Rack for 10 x 55 mm plates	**1.46502.0001**

ICR/ICR+ Contact Plates

for isolators and critical cleanrooms

Product	Description	Content	Ord. No.
ICR Contact Plates	**55 mm,** triple-bagged, gamma-irradiated, non-lockable		
SDA Contact +LTHTh – ICR	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate; filled in pink plates	20	**1.46201.0020**
		200	**1.46201.0200**
TSA Contact +LT – ICR	with neutralizers lecithin, Tween® 80	20	**1.46195.0020**
		200	**1.46195.0200**
TSA Contact +LTHTh – ICR	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46231.0020**
		200	**1.46231.0200**
TSA LTHThio cont. – ICR	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46797.0020**
		200	**1.46797.0200**

ICR/ICR+ Contact Plates

for isolators and critical cleanrooms

Product	Description	Content	Ord. No.
ICRplus Contact Plates	**55 mm,** triple-bagged, gamma-irradiated, lockable		
Chocolate Contact Agar +LTH – ICR+	with neutralizers lecithin, Tween® 80, histidine, supports growth of fastidious aerobic and anaerobic microorganisms	200	**1.46555.0020**
SDA Contact +LTHTh – ICR+	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate; filled in pink plates	20	**1.46501.0020**
		200	**1.46501.0200**
SDA Contact +LTHTh selective – ICR+	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate, irradiation-resistant antibiotics to inhibit bacterial growth; filled in pink plates	20	**1.46538.0020**
		200	**1.46538.0200**
TSA Contact +LT – ICR+	with neutralizers lecithin, Tween® 80	20	**1.46552.0020**
		200	**1.46552.0200**
TSA Contact +LT+ Cephase – ICR+	with neutralizers lecithin, Tween® 80, ß-lacatamses for inactivation of penicillins, all generations of cephalosporins and carbapenems	200	**1.46539.0200**

ICR/ICR+ Contact Plates

for isolators and critical cleanrooms

Product	Description	Content	Ord. No.
ICRplus Contact Plates	**55 mm,** triple-bagged, gamma-irradiated, lockable		
TSA with LTHThio cont. – ICR+	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46783.0020**
		200	**1.46783.0200**
TSA with Penase LTHThio cont. – ICR+	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate, penase for inactivation of penicillins	20	**1.46798.0020**
		200	**1.46798.0200**
Vegetable pepton agar LTHThio cont. – ICR+	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46803.0020**
		200	**1.46803.0200**
Neutralizer A – Contact – ICR+	neutralizers for increased spectrum of sanitizers	20	**1.46697.0020**
		200	**1.46697.0200**

ICR Swabs

for surface and personnel monitoring in isolators and cleanrooms

Description | **Benefits** | **Related Products** | **Accessories** | **Ordering Information**

Our **ICR swabs** are designed for absence-presence testing on dry, difficult-to-access surfaces and for personnel monitoring. The patented snap-valve design of the swab makes handling both convenient and safe. The low-abrasion swab tip material minimizes the release of particles during use. The tip's moistening solution does not leave any growth promoting residues on the sampled surfaces.

The swab's TSB medium is supplemented with neutralizers to ensure optimal growth conditions, even in the presence of VHP residues in isolators.

A stainless-steel rack helps to safely and easily transport larger numbers of ICR Swabs. It holds 36 tubes and is sized 196 x 99 x 104 mm.

Link to our Website

Download Brochure

Request a demo

ICR Swabs

for surface and personnel monitoring in isolators and cleanrooms

- Suitable for cleanroom and isolator use
- Reaches difficult to access areas
- All-in one design for low contamination risk and easy handling
- Residue-free sampling
- Qualitative microbial presence/absence test

ICR Swabs

for surface and personnel monitoring in isolators and cleanrooms

ICR/ICRplus Contact Plates

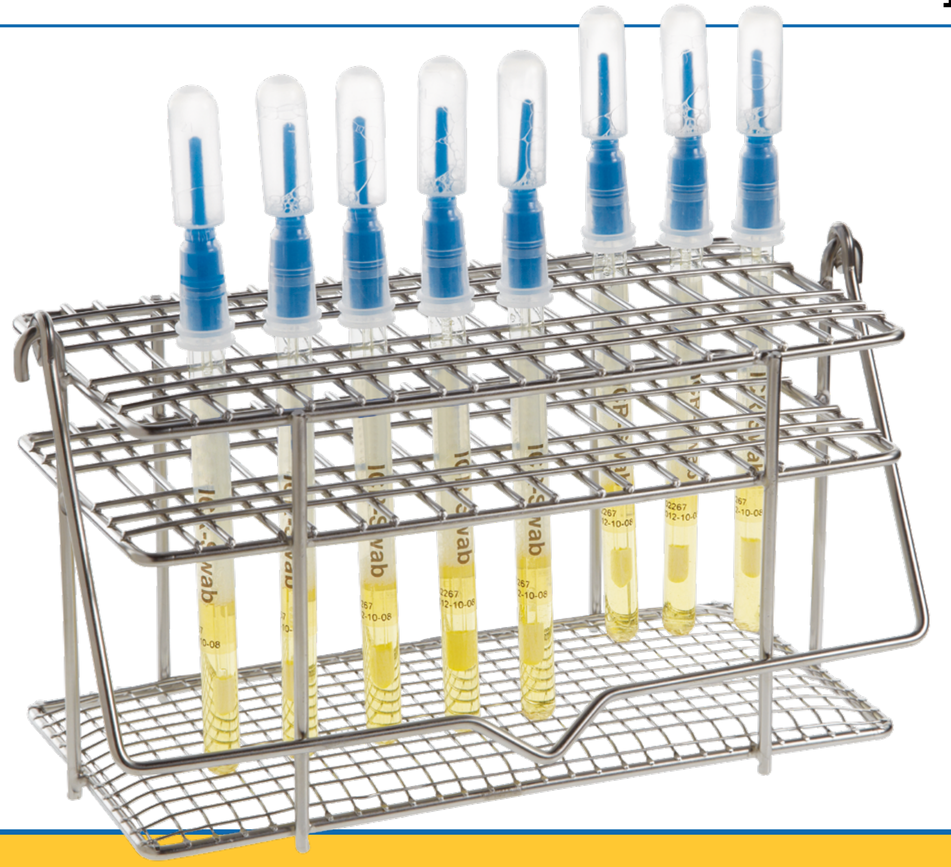
Gamma-irradiated and triple-bagged contact plates are suitable for use in critical cleanrooms, RABS and isolators.

Link to our Website

ICR Swabs

for surface and personnel monitoring in isolators and cleanrooms

Product	Description	Ord. No.
Swab Rack	Stainless steel	**1.46530.0001**



ICR Swabs

for surface and personnel monitoring in isolators and cleanrooms

Product	Content	Ord. No.
ICR Swabs	100	**1.46529.0100**

IsoBag®

for rapid transfer of culture media plates into isolator

Description | **Benefits** | **Properties** | **Related Products** | **Ordering Information**

Production workflows are always at their most efficient when all tools are ready and available. The **IsoBag®** rapid transportation and packaging bag offers a reliable and easy way to have environmental monitoring plates right at hand in the isolator.

IsoBag® speeds up environmental monitoring in aseptic production isolators as it provides ready-to-use gamma-irradiated contact or settle plates for immediate use; the bag is simply mounted to the 190 mm alpha port of the isolator, and the required amount of plates can be transferred into the isolator for immediate use.

Saving time spent on decontamination increases operational productivity. In addition, no valuable space is wasted in the isolator to store the required amount of plates between decontamination cycles.

Link to our Website

Download Brochure

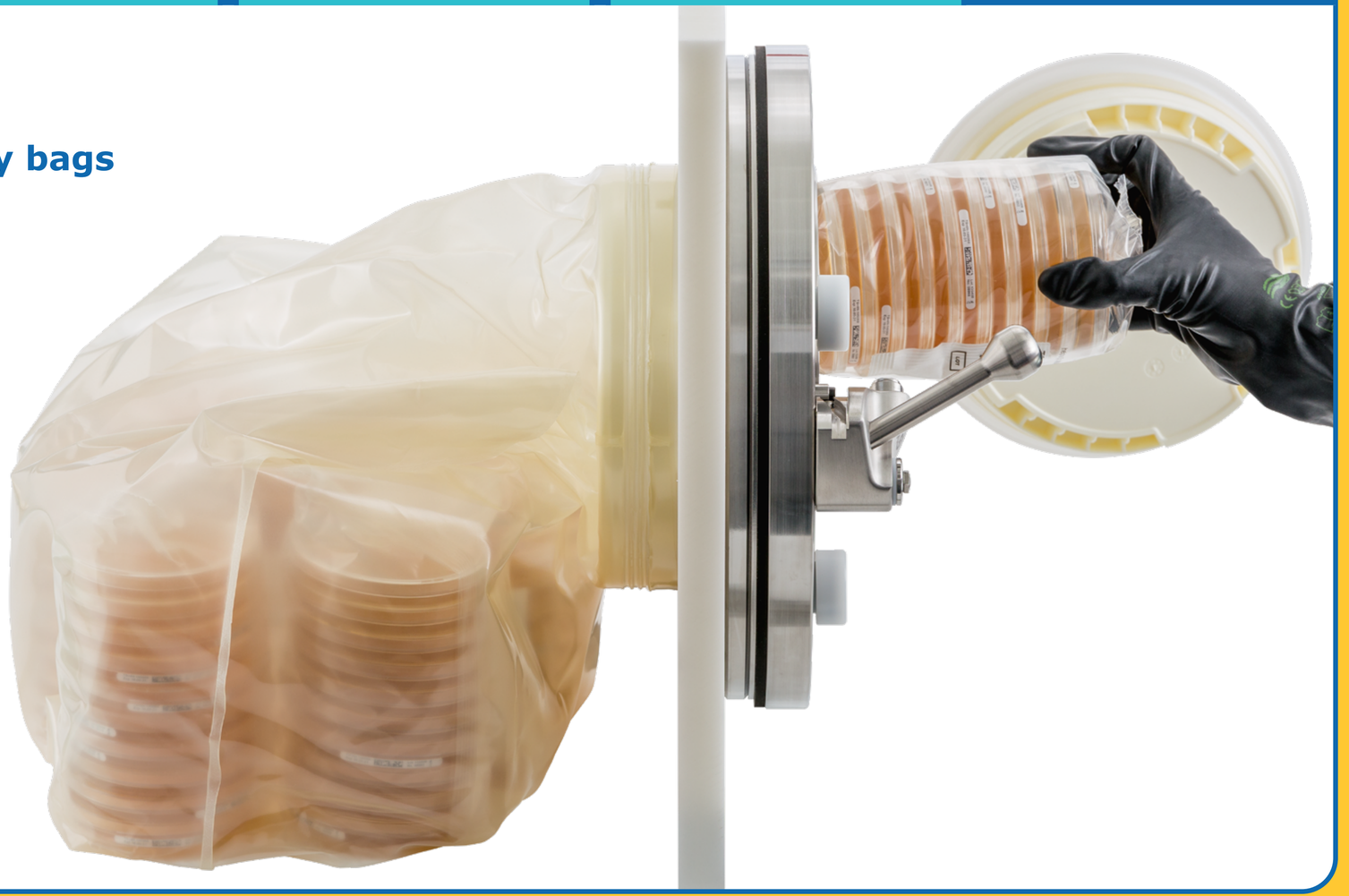
Request a demo

IsoBag®

for rapid transfer of culture media plates into isolator

Description | **Benefits** | Properties | Related Products | Ordering Information

- **No need to decontaminate plates’ primary bags**
- **Containment** is maintained throughout use
- Plates are held **ready for immediate use**
- **No storage space** needed within isolator



IsoBag®

for rapid transfer of culture media plates into isolator

- Pre-packed DPTE BetaBag® with ready-to-use single-bagged contact or settle plates
- Beta port connectable to any 190 mm DPTE® Alpha port
- Finished product gamma-irradiated for immediate use
- Contained plates traceable to corresponding batch of ICR plates
- Available with our TSA + LTHTh in lockable and non-lockable contact and settle plates
- Multiple connections possible
- Sterile bags for safe transport of used plates included

IsoBag®

for rapid transfer of culture media plates into isolator

ICR/ICRplus Contact Plates

Gamma-irradiated and triple-bagged contact plates are suitable for use in critical cleanrooms, RABS and isolators.

Link to our Website

IsoBag®

for rapid transfer of culture media plates into isolator

ICR/ICRplus Settle Plates

Our gamma-irradiated and triple-bagged settle plates for monitoring of isolators and critical cleanrooms.

Link to our Website

IsoBag®

for rapid transfer of culture media plates into isolator

ICR Swabs

Easy presence-absence test on difficult to access surfaces.

Link to our Website

IsoBag®

for rapid transfer of culture media plates into isolator

Description | Benefits | Properties | Related Products | Ordering Information

Product	Description	Ord. No.
IsoBag® with Contact Plates	**for 190 mm alpha-port**	
IsoBag® TSA+LT Contact	10 x 10 Contact Plates 146195, 55 mm irradiated	**1.46784.0100**
IsoBag® TSA+LTHTh Contact	55 mm Contact Plates 146231, irradiated	**1.46754.0100**
IsoBag® TSA+LTHThio Contact+	55 mm lockable Contact Plates 146783, irradiated	**1.46753.0100**
IsoBag® TSA+LT Contact+	55 mm lockable Contact Plates 146552, irradiated	**1.46817.0100**
IsoBag® with Settle Plates	**for 190 mm alpha-port**	
IsoBag® TSA+LT Settle+	8 x 10 lockable Settle Plates 146684, 90 mm, irradiated	**1.46785.0080**
IsoBag® TSA+LTHTh Settle	90 mm Settle Plates 146069, irradiated	**1.46756.0080**
IsoBag® TSA+LTHTh Settle+	90 mm lockable Settle Plates 146683, irradiated	**1.46755.0080**
IsoBag® TSA Settle	90 mm Settle Plates 146001, irradiated	**1.46814.0080**

RT/RT+ Contact Plates

for microbial monitoring of air, surfaces and personnel

Description | **Benefits** | **Ordering Information**

Microbial monitoring of air, surfaces and personnel requires culture media that ensure reproducible detection results. RT tryptic soy agar (TSA) and sabouraud dextrose agar (SDA) reliably detect bacteria, yeasts and molds in non-critical areas.

The TSA and SDA **RT and RTplus contact plates** are suitable to monitor surfaces for bacterial and fungal contamination.

Selective **RT contact plates** support identification of Staphylococcus ssp., Escherichia coli, bile-tolerant Gram-negative bacteria, yeasts and molds.

Link to our Website

Download Brochure

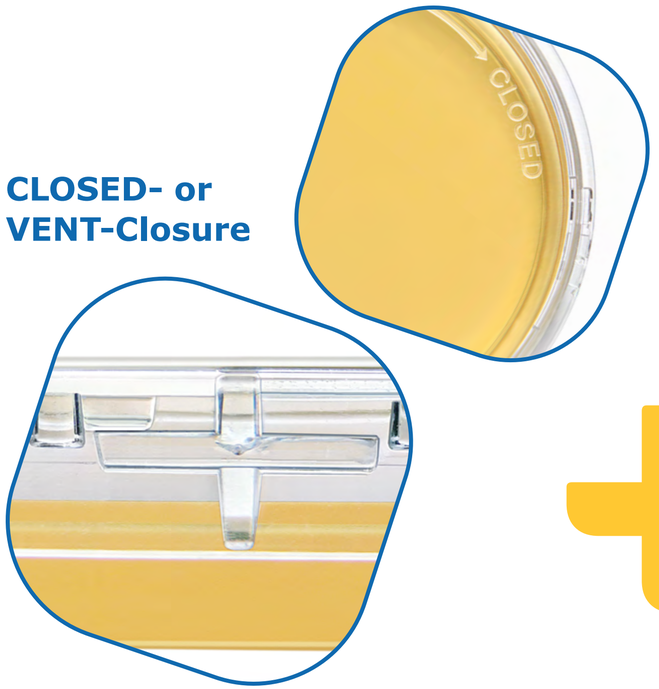
Request a demo

RT/RT+ Contact Plates

for microbial monitoring of air, surfaces and personnel

Description | **Benefits** | Ordering Information

CLOSED- or VENT-Closure



- **Controlled high-quality raw materials**
- **Data Matrix barcode** to ensure full traceability of each individual plate
- **Filled under aseptic conditions**
- **Long shelf life** to reduce incoming goods controls
- **Storage at room temperatur**e to keep at site of use

Additional benefits for RTplus Contact Plates

- Safe transportation thanks to **integrated locking systems**
- **CLOSED-VENT system** for different incubation conditions

RT/RT+ Contact Plates

for microbial monitoring of air, surfaces and personnel

Description | Benefits | **Ordering Information**

Product	Description	Content	Ord. No.
RT Contact Plates	**55 mm,** single-bagged, non-lockable		
Malt Extract Agar Contact – RT		20	**1.46191.0020**
Plate Count Agar Contact – RT		20	**1.46154.0020**
TSA Contact – RT		20	**1.46240.0020**
TSA Contact +LTH – RT	with neutralizers lecithin, Tween® 80, histidine	20	**1.46200.0020**
RTplus Contact Plates	**55 mm,** single-bagged, lockable		
SDA Contact+ Chloramphenicol – RT+	lockable plate	20	**1.46549.0020**
TSA Contact +LTH – RT+	with neutralizers lecithin, Tween® 80, histidine, lockable plate	20	**1.46554.0020**

PASSIVE AIR MONITORING

ICR/ICR+
Settle Plates
90 mm / 150 mm

Cleanroom Grade A/B

Isolator / RABS

IsoBag®
Rapid Transfer Bag

Surface & Personnel Monitoring

Isolator / RABS

LI
Settle Plates
90 mm

Cleanroom Grade C/D

ICR/ICR+ Settle Plates

for isolators and critical cleanrooms

Description | **Benefits** | **Related Products** | **Further Reading** | **Ordering Information**

The **ICR/ICRplus series of settle plates** provide maxium safety for use in isolators and cleanrooms.

- Aseptically filled and irradiated in final packaging to minimize contamination.
- Full traceability due to Data Matrix barcode on each plate.
- 30 mL high filling volume to prevent desiccation under extended use.
- Available with standard TSA/SDA formulations with wide variety of neutralizers for either disinfectants or ß-lactam antibiotics.

ICRplus products:

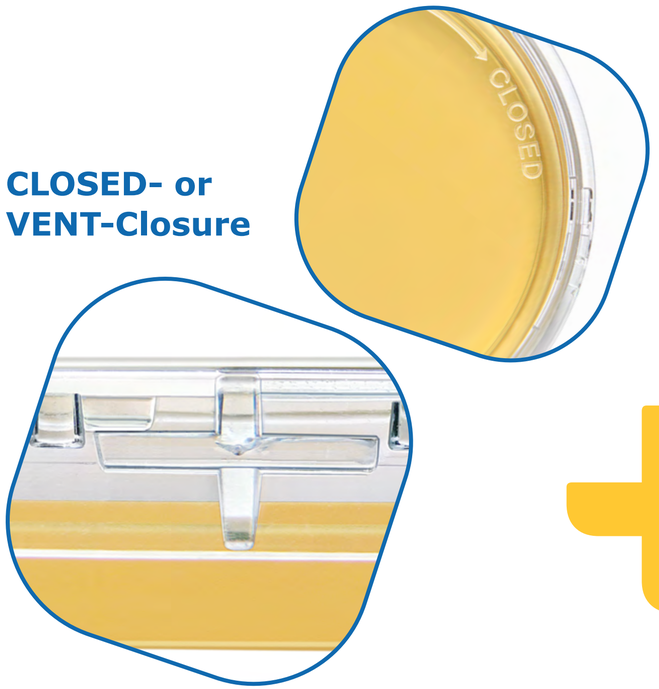
- Smart “CLOSED-VENT” locking system allowing safe transport and optimized incubation under anaerobic conditions.

Link to our Website | **Download Brochure** | **Request a demo**

ICR/ICR+ Settle Plates

for isolators and critical cleanrooms

CLOSED- or VENT-Closure



Maximum safety

- Filled under aseptic conditions, gamma-irradiated in final packaging
- Safe transport thanks to H_2O_2-impermeable triple-sleeve packaging
- Data Matrix barcode to ensure full traceability of each individual plate

Maximum convenience

- Storage at room temperature to store at site of use
- Long shelf life to reduce incoming goods controls
- SDA in colored plates to minimize risk of mix-ups
- High filling volume to allow prolonged exposure and incubation

Additional benefits for **ICRplus Contact Plates**

- Safe transport through integrated locking systems
- CLOSED-VENT system for different incubation conditions

ICR/ICR+ Settle Plates

for isolators and critical cleanrooms

ICR/ICRplus Contact Plates

Gamma-irradiated and triple-bagged contact plates are suitable for use in critical cleanrooms, RABS and isolators.

Link to our Website

ICR/ICR+ Settle Plates

for isolators and critical cleanrooms

MAS air sampler family

The industry standard for viable air sampling.

MAS-100 NT®

MAS-100 VF®

MAS-100 Iso MH®

MAS-100 Iso NT®

Link to our Website

ICR/ICR+ Settle Plates

for isolators and critical cleanrooms

Additional information

- TN4909 – Air Sampling with pre-dried and fresh ICR agar plates
- AN2005 – Anaerobic Monitoring using our lockable TSA+LTHTh ICR+ plates
- SDA AN

ICR/ICR+ Settle Plates

for isolators and critical cleanrooms

Product	Description	Content	Ord. No.
ICR Settle Plates	**90 mm,** triple-bagged, gamma-irradiated, non-lockable		
SDA +LT – ICR 30 mL	with neutralizers lecithin, Tween® 80, filled in pink plates	120	**1.46081.0120**
SDA +LTHTh – ICR 30 mL	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate, filled in pink plates	20	**1.46005.0020**
		120	**1.46005.0120**
SDA selective +LTHTh – 30 mL ICR	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate, antibiotics against bacteria, filled in pink plates	120	**1.46016.0120**
TSA – ICR 30 mL		20	**1.46001.0020**
		120	**1.46001.0120**
TSA +LT – ICR 30 mL	with neutralizers lecithin, Tween® 80	20	**1.46050.0020**
		120	**1.46050.0120**
TSA +LTHTh – ICR 30 mL	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46069.0020**
		120	**1.46069.0120**

ICR/ICR+ Settle Plates

for isolators and critical cleanrooms

Product	Description	Content	Ord. No.
ICR Settle Plates	**90 mm,** triple-bagged, gamma-irradiated, non-lockable		
TSA +LTHThio sedi. – ICR	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46786.0020**
		120	**1.46786.0120**
TSA +LT+ Cephase – ICR	with neutralizers lecithin, Tween® 80, ß-lacatamases for inactivation of penicillins, all generations of cephalosporins and carbapenems	20	**1.46076.0020**
		120	**1.46076.0120**
TSA with Penase LTHThio sedi. – ICR	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate, penase for inactivation of penicillins	20	**1.46799.0020**
		120	**1.46799.0120**
ICR Settle Plates	**150 mm,** triple-bagged, gamma-irradiated, non-lockable		
TSA LTHThio sedi. – ICR 150 mm	3 plates, each triple-bagged – with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	18	**1.46820.0018**

ICR/ICR+ Settle Plates

for isolators and critical cleanrooms

Product	Description	Content	Ord. No.
ICRplus Settle Plates	**90 mm,** triple-bagged, gamma-irradiated, lockable		
SDA +LTHTh – ICR+	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46702.0020**
		120	**1.46702.0120**
TSA +LTHTh 90 mm ICR+	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46683.0020**
		120	**1.46683.0120**
TSA + LTHThio sedi. – ICR+	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46787.0020**
		120	**1.46787.0120**
TSA +LT 90 mm ICR+	with neutralizers lecithin, Tween® 80	20	**1.46684.0020**
		120	**1.46684.0120**
TSA 90 mm ICR+		20	**1.46685.0020**
		120	**1.46685.0120**
TSA +LT +Cephase – ICR+	with neutralizers lecithin, Tween® 80	120	**1.46700.0120**

ICR/ICR+ Settle Plates

for isolators and critical cleanrooms

Product	Description	Content	Ord. No.
ICRplus Settle Plates	**90 mm,** triple-bagged, gamma-irradiated, lockable		
TSA with Penase LTHThio sedi. – ICR+	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46800.0020**
		120	**1.46800.0120**
Veg. Pept. Agar with LTHThio sedi. – ICR+	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46804.0020**
		120	**1.46804.0120**

LI Settle Plates

for microbial monitoring of air, surfaces and personnel

Description | **Benefits** | **Related Products** | **Ordering Information**

Microbial monitoring of air, surfaces and personnel requires culture media that ensure reproducible detection results. RT tryptic soy agar (TSA) and sabouraud dextrose agar (SDA) reliably detect bacteria, yeasts and molds in non-critical areas.

To monitor efficiently the status of environmental control, the culture media must be optimized for recovery of low levels of environmental contaminants.

LI settle plates contain a volume of 30 mL to reduce desiccation during sampling and incubation. Tryptic Soy Agar (TSA) – LI and Sabouraud Dextrose Agar (SDA) – LI are especially designed for active as well as passive air sampling. **LI settle plates** are optimized for long incubation periods.

Link to our Website | **Download Brochure** | **Request a demo**

LI Settle Plates

for microbial monitoring of air, surfaces and personnel

- Controlled high-quality raw materials
- **Data Matrix barcode** to ensure full traceability of each individual plate
- Filled under aseptic conditions
- Long shelf life to reduce incoming goods controls
- Storage at room temperature to keep at site of use
- SDA in colored plates to minimize risk of mix-ups
- High filling volume to allow prolonged exposure and incubation

LI Settle Plates

for microbial monitoring of air, surfaces and personnel

Description | Benefits | Related Products | Ordering Information

MAS air sampler family

The industry standard for viable air sampling.

MAS-100 NT®

MAS-100 VF®

MAS-100 Iso MH®

MAS-100 Iso NT®

Link to our Website

LI Settle Plates

for microbial monitoring of air, surfaces and personnel

Product	Description	Content	Ord. No.
LI Settle Plates	**90 mm,** single-bagged, non-lockable		
SDA – LI acc. EP		20	**1.46028.0020**
		120	**1.46028.0120**
SDA + Chloramphenicol – LI 30 mL		20	**1.46003.0020**
		120	**1.46003.0120**
SDA +LTHTh – LI 30 mL	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46052.0020**
		120	**1.46052.0120**
TSA – LI 30 mL EP+USP		20	**1.46004.0020**
		120	**1.46004.0120**
TSA +LTHTh – LI 30 mL	with neutralizers lecithin, Tween® 80, histidine, sodium thiosulfate	20	**1.46002.0020**
		120	**1.46002.0120**

ACTIVE VIABLE AIR MONITORING

MAS-100 NT®
The industry standard for viable air sampling

- Cleanroom Grade A/B
- Cleanroom Grade C/D

MAS-100 VF®
The easy to use air sampler

- Cleanroom Grade A/B
- Cleanroom Grade C/D

MAS-100 Iso MH®
Pure innovation

- Isolator / RABS

MAS-100 Iso NT®
For isolators

- Isolator / RABS

MAS-100 NT®

The industry standard for viable air sampling

Description | **Benefits** | **Technical specifications** | **Related Products** | **Accessories** | **Ordering Information**

The **MAS-100 NT®** is the world's best-selling high performance air sampler and the premium version of the portable and battery-operated MAS-100® instruments. It is used for microbial monitoring of air and stands for highest safety and sampling efficiency.

- Integrated mass flow sensor with temperature and pressure compensation regulate the flow rate to 100 SLPM
- Several models (e.g., with HEPA exhaust filter and/or devices suitable for explosion hazard areas) are available.

Link to our Website

Download Brochure

Request a demo

MAS-100 NT®

The industry standard for viable air sampling

Swiveling head for horizontal unidirectional air flows

- Independently validated according to ISO 14698 (complies with EN 17141)
- Built-in air flow compensation guarantees precise and reproducible flow rates
- Suitable for ISO 5/GMP Grade A cleanrooms
- Minimized turbulences in unidirectional air flows
- Compatible with 90 mm Petri dishes, 55 mm contact plates and other plate formats
- Automated calibration traceable to ISO 17025 / NIST
- Suitable for disinfection with vaporized and gaseous hydrogen peroxide and many industry-standard disinfectant

MAS-100 NT®

The industry standard for viable air sampling

General	
Operation principle	Sieve impaction (Andersen Sampler)
Flow rate	Default: 100 SLPM ± 2.5%
Flow regulation	In-built mass flow sensor
Sample volumes	Selectable from 10 to 2000 liters | Preset: 50, 100, 250, 500 & 1000 liters
Sequential Sampling Mode (Intervals)	40 to 2000 liters in 2-50 fractions up to 23:59 hours
Delay function	1 to 120 min
Nominal d_{50} value	1.1 µm at 100 SLPM (confirmed by independent validation study acc. ISO 14698)
Biological efficiency	~ 83% (independent validation study acc. ISO 14698)
Particle generation	Compliant with ISO 14644 1, Class 5

MAS-100 NT®

The industry standard for viable air sampling

Housing	
Material	Anodized aluminum
Dimensions (H x W x L)	270 x 109 x 170 mm (with handle)
Weight	2.37 kg (with perforated lid)
Tripod screw thread	⅜" UNC (and ¼" UNC insert), for use with standard camera tripod
Perforated lid	
Material	Anodized aluminum
Dimensions (D x H)	Ø 109 x 32 mm
Weight	190 g
Lid geometry	Default: 300 x 0.6 mm
Sterilization	Autoclaving; dry heat
Others	
Battery capacity	Approx. 5.5 h or 33.000 liters (2 h or 12.000 liters for MAS-100 NT Ex® versions)
ATEX certification	II 3G Ex ec IIC T4 Gc (for MAS-100 NT Ex® version only)

MAS-100 NT®

The industry standard for viable air sampling

ICR/ICRplus Contact Plates

Gamma-irradiated and triple-bagged contact plates are suitable for use in critical cleanrooms, RABS and isolators.

Link to our Website

MAS-100 NT®

The industry standard for viable air sampling

Product	Description	Ord. No.
Perforated lid	300 holes x 0.6 mm, aluminum	**1.09195.0001**
Perforated lid	300 holes x 0.6 mm, aluminum, edge protection (MTO)*	**1.19363.0001**
Dust cover	Aluminum	**1.09084.0001**
Battery charger with Lemo plug	For all MAS-100 NT Ex® and MAS-100 NT® with serial numbers < 110499	**1.09200.0001**
Battery charger with DC plug	For MAS-100 NT® with serial number ≥ 110500	**1.19133.0001**
Tripod	For sampling in heights (88 - 250 cm)	**1.09326.0001**
Quick Change tripod adapter	For quick adaption of MAS-100 NT® to tripods without screwing	**1.09223.0001**
Mounting kit for filter	For upgrading MAS-100 NT®/Ex® with HEPA exhaust filter	**1.17276.0001**
HEPA H13 replacement filter	Ø 74 mm; Filter efficiency H13	**1.17278.0001**
Tube adapter	For sampling hardly to access sampling locations, can be used with tubing	**1.09224.0001**

MAS-100 NT®

The industry standard for viable air sampling

Product	Description	Ord. No.
Perforated lid contact plates	300 holes x 0.6 mm, aluminum, for use with 55 mm ICR contact plates	**1.19149.0001**
Contact plate adapter	For centering and fixing 55 mm contact plates	**1.09214.0001**
RapidMicroBio perforated lid with clamps	300 holes x 0.6 mm, aluminum with clamps to center GD plates (MTO)*	**1.17316.0001**
RapidMicroBio perforated lid	300 holes x 0.6 mm, aluminum for GD plates (MTO)*	**1.17315.0001**
Perforated lid	400 holes x 0.7 mm, aluminum	**1.09088.0001**
Perforated lid	400 holes x 0.7 mm, aluminum, edge protected (MTO)*	**1.19364.0001**
Perforated lid contact plates	400 holes x 0.7 mm, aluminum, for use with 55 mm ICR contact plates (non-lockable only)	**1.09213.0001**
RapidMicroBio perforated lid with clamps	400 holes x 0.7 mm, aluminum with clamps for centering GD plates (MTO)*	**1.19166.0001**
RapidMicroBio perforated lid	400 holes x 0.7 mm, aluminum for GD plates (MTO)*	**1.17318.0001**

***MTO products are not in stock – please mind lead times**

MAS-100 NT®

The industry standard for viable air sampling

Product	Description	Ord. No.
MAS-100 NT®	Standard microbial air sampler	**1.09191.0001**
MAS-100 NT® with Filter	MAS-100 NT® (built-in H13 filter)	**1.17274.0001**
MAS-100 NT Ex®	For explosion hazard areas	**1.09194.0001**
MAS-100 NT Ex® with Filter	For explosion hazard areas (built-in H13 filter) (MTO)*	**1.17275.0001**
Scope of delivery	**MAS-100 NT® microbial air sampler including:** 1 x perforated lid (300 x 0.6 mm) 1 x dust cover 1 x Allan key No. 3 1 x USB cable 1.5 m 1 x battery charger with DC plug and regional plug adapters (US/JPN, EU, GB, AUS) 1 x USB stick with manuals and Feller correction table calibration certificates for MAS-100 NT®/NT Ex® and calibration device 1 x transportation case	

***MTO products are not in stock – please mind lead times**

MAS-100 VF®

The easy to use air sampler

Description | **Benefits** | **Technical specifications** | **Related Products** | **Accessories** | **Ordering Information**

The **MAS-100 VF®** is a portable and battery-operated microbial air sampler. It has the same collection efficiency as the premium version MAS-100 NT®.

- Compact design
- EasyClean Plate holder
- Speed-based air volume flow control

Link to our Website

Download Brochure

Request a demo

MAS-100 VF®

The easy to use air sampler

Single touch slide control

- Independently validated according to ISO 14698 (complies with EN 17141)
- Configurable and programmable via common web browsers
- Compatible with 90 mm Petri dishes, 55 mm contact plates and other plate formats
- Calibration certificate stored in the instrument
- Automated calibration traceable to ISO 17025 / NIST

Learn more on our Website

100% service

MAS-100 VF®

The easy to use air sampler

General	
Operation principle	Sieve Impaction
Flow rate	Default: 100 LPM ± 4%
Flow regulation	Blower Speed Regulation
Sample volumes	Selectable from 10 to 2000 liters | Preset: 50, 100, 250, 500 & 1000 liters
Delay function	1 to 120 min
Nominal d_{50} value	1.1 µm at 100 LPM (confirmed by independent validation study acc. ISO 14698)
Biological efficiency	~ 77% (independent validation study acc. ISO 14698)
Housing	
Material	Anodized aluminum
Dimensions (H x W x L)	179 x 109 x 148 mm (with handle)
Weight	1.92 kg (with perforated lid)
Tripod screw thread	⅜" UNC (and ¼" UNC insert), for use with standard camera tripod

MAS-100 VF®

The easy to use air sampler

Sampling Head (Perforated lid)	
Material	Anodized aluminum
Dimensions (D x H)	Ø 109 x 32 mm
Weight	190 g
Lid geometry	Default: 300 x 0.6 mm
Sterilization	Autoclaving; dry heat
Others	
Battery capacity	Approx. 5 h or 30.000 liters

MAS-100 VF®

The easy to use air sampler

ICR/ICRplus Settle Plates

Our gamma-irradiated and triple-bagged settle plates for monitoring of isolators and critical cleanrooms.

Link to our Website

MAS-100 VF®

The easy to use air sampler

Product	Description	Ord. No.
Perforated lid	Default version: 300 holes x 0.6 mm, aluminum	**1.09195.0001**
Perforated lid contact plates	300 holes x 0.6 mm, aluminum, for use with 55 mm ICR contact plates	**1.19149.0001**
Dust cover	Aluminum cover protects sieve from dirt	**1.09084.0001**
Battery charger	Including regional adapters and USB cable (USB-C to Type B socket)	**1.17104.0001**
Tripod	For sampling in heights (88 - 250 cm)	**1.09326.0001**
Quick change tripod adapter	For quick adaption of MAS-100 VF® to tripods without screwing	**1.09223.0001**
Tube adapter	For sampling hardly to access sampling locations, can be used with tubing	**1.09224.0001**

MAS-100 VF®

The easy to use air sampler

Product	Description	Ord. No.
Perforated lid	300 holes x 0.6 mm, aluminum, edge protection (MTO)*	**1.19363.0001**
RapidMicroBio perforated lid	300 holes x 0.6 mm, aluminum for GD plates (MTO)*	**1.17315.0001**
Perforated lid	400 holes x 0.7 mm, aluminum	**1.09088.0001**
Perforated lid	400 holes x 0.7 mm, aluminum, edge protected (MTO) *	**1.19364.0001**
Perforated lid contact plates	400 holes x 0.7 mm, aluminum, for use with 55 mm ICR contact plates (non-lockable only)	**1.09213.0001**
RapidMicroBio perforated lid	400 holes x 0.7 mm, aluminum for GD plates (MTO)*	**1.17318.0001**
Petri dish clamps (3x)	With screws	**1.17171.0001**

***MTO products are not in stock – please mind lead times**

MAS-100 VF®

The easy to use air sampler

Product	Description	Ord. No.
MAS-100 VF®	Microbial air sampler	**1.17103.0001**
Scope of delivery	**MAS-100 VF® microbial air sampler including:** 1 x perforated lid (300 x 0.6 mm) 1 x dust cover (plastic) 1 x Allan key No. 3 1 x USB cable 1.5 m 1 x battery charger with DC plug and regional plug adapters 1 x USB stick with manuals and Feller correction table calibration certificates for MAS-100 VF® and calibration device 1 x transportation case	

MAS-100 Iso MH®

Pure innovation

Description | **Benefits** | **Technical specifications** | **Related Products** | **Accessories** | **Ordering Information**

The **MAS-100 Iso MH®** is a high-performance, remote microbial air sampler designed for use with isolators and RABS systems. Its sampling principle, flow rate regulation using a mass flow sensor, accuracy and collection efficiencies are identical to MAS-100 NT®. All instruments are delivered with standard interfaces (USB, RS232, SPS and 9 digital I/O).

- Up to four fixed sample locations within the isolator
- Up to 10 m (50 m without decontamination) distance between sampling location inside and control unit
- Models with additional interfaces such as Ethernet, ProfiBus or ProfiNet are optional

Link to our Website

Download Brochure

Request a demo

MAS-100 Iso MH®

Pure innovation

Unique double valve system

- Double valve system prevents back-flow and cross-contamination and allows active VHP decontamination
- High collection efficiency, independent validation according to ISO 14698 (equivalent to EN 17141)
- Built-in air flow compensation for precise, reproducible flow rate of 100 SLPM
- Various stainless steel sampling head configurations for 90 mm plates or other plate formats
- Multiple options for combining filters (in-line/exhaust)
- Automated calibration with MAS-100 Regulus traceable to ISO 17025 or NIST

MAS-100 Iso MH®

Pure innovation

General	
Operation principle	Sieve Impaction (Andersen Sampler)
Flow rate	Default: 100 SLPM ± 2.5%
Flow regulation	In-built mass flow sensor
Sample volumes	Selectable from 10 to 2000 liters | Preset: 50, 100, 250, 500 & 1000 liters
SQS (sequential sampling mode, Intervals)	40 to 2000 liters in 2-50 fractions up to 23:59 hours
CNS Mode (consecutive sampling)	Order of sampling/decontamination automatically one head after the other
Delay function	1 to 120 min
Nominal d_{50} value	1.1 µm at 100 SLPM (confirmed by independent validation study acc. ISO 14698)
Biological efficiency	~ 78% (independent validation study acc. ISO 14698)

MAS-100 Iso MH®

Pure innovation

Housing	
Material	Side walls: anodized aluminum; body: electro polished stainless steel
Dimensions (H x W x L)	160 x 230 x 283 mm
Weight	7.5 kg
Sampling Head with perforated lid	
Material	Stainless Steel
Dimensions (D x H)	Ø 109 x 90 mm
Weight	1.5 kg
Lid geometry	Default: 300 x 0.6 mm
Sterilization	Autoclaving; dry heat
Power	
Input external power supply	110-240 V AC, 0.7-1.5 A / 47-63 Hz
Input instrument	24 V DC ± 5%, Max. Limits: 2.7 A and 65 W

MAS-100 Iso MH®

Pure innovation

IsoBag® rapid transfer bag

A unique transportation and packaging bag as a reliable and easy way to have environmental monitoring plates right at hand in the isolator.

Link to our Website

MAS-100 Iso MH®

Pure innovation

Product	Description	Ord. No.
Standard base for sampling Head	Stainless steel with Allen key, tri-clamp, and silicone gasket	**1.09328.0001**
Silicone gasket (5x)	Sealing between standard base for sampling head and tubing	**1.17084.0001**
Easy clean base for sampling head	Stainless steel with tri-clamp and silicone screen gasket	**1.17091.0001**
Silicone screen gasket (5x)	Sealing between easy clean base for sampling head and tubing	**1.17099.0001**
Perforated lid	Default version: 300 holes x 0.6 mm, edge-protected, stainless steel	**1.09189.0001**
Dust cover	Stainless steel cover protects sieve from dirt	**1.09644.0001**
Power supply	With power cord and regional plug adapters	**1.17182.0001**
MAS-100 Iso NT® IP54 Kit	protection against solid objects that are bigger than 1 mm and water splashing from any direction	**1.17159.0001**
Remote cable MAS-100 Iso NT®	Can be used for remote start & stop of sampling and can display the instrument status via LED	**1.17181.0001**

Please mind lead times for accessories

MAS-100 Iso MH®

Pure innovation

Product	Description	Ord. No.
Perforated lid	400 holes x 0.7 mm, edge-protected, stainless steel	**1.09222.0001**
RapidMicroBio easy clean base	Stainless steel, for Growth Direct EM Cassettes	**1.17319.0001**
RapidMicroBio perforated lid	300 holes x 0.6 mm, stainless steel for Growth Direct Cassettes	**1.17314.0001**
Aervent KTGR Opticap XL5 capsule	Hydrophobic 0.2 µm, 5’’	**KTGRA05TT1**
Aervent KTGR Opticap XL10 capsule	Hydrophobic 0.2 µm, 10’’	**KTGRA10TT1**
Pressure test kit	For testing tightness of installation	**1.17085.0001**
Calibration cable, 10 m	RS232 connection for connection of calibration device MAS-100® Regulus	**1.17098.0001**
ProfiNet module	Converts ProfiBus to ProfiNet interface	**1.17290.0001**
Elbow joint	Stainless steel with 2 tri-clamps and silicone gaskets	**1.17083.0001**
Tri-clamp (3x)	To facilitate mounting of sampling heads	**1.09440.0001**

Please mind lead times for accessories

MAS-100 Iso MH®

Pure innovation

Product	Interface	No. of heads	Ord. No.	Interface	No. of heads	Ord. No.
MAS-100 Iso MH® microbial air sampler	Standard*	1	**1.17174.0001**	ProfiBus*	1	**1.17177.0001**
		2	**1.17118.0001**		2	**1.17144.0001**
		3	**1.17146.0001**		3	**1.17147.0001**
		4	**1.17149.0001**		4	**1.17155.0001**
	Ethernet*	1	**1.17178.0001**	ProfiNet*	1	**1.17292.0001**
		2	**1.17145.0001**		2	**1.17309.0001**
		3	**1.17148.0001**		3	**1.17310.0001**
		4	**1.17157.0001**		4	**1.17312.0001**
Scope of delivery	**MAS-100 Iso NT® microbial air sampler including:** MAS-100 Iso NT® control unit: The control units come with pre-assembled valves to connect optional tubing, sampling base and perforated lids.					

***MTO products are not in stock – please mind lead times**

MAS-100 Iso NT®

For isolators

Description | **Benefits** | **Technical specifications** | **Related Products** | **Accessories** | **Ordering Information**

The **MAS-100 Iso NT®** is a high-performance, remote microbial air sampler designed for use with isolators and RABS systems. Its sampling principle, flow rate regulation using a mass flow sensor, accuracy and collection efficiencies are identical to MAS-100 NT®. All instruments are delivered with standard interfaces (USB, RS232, SPS and 9 digital I/O).

- Alphanumeric LCD display
- One fixed sample locations within the isolator
- Up to 10 m (50 m without using decontamination) distance between sampling location inside and control unit
- Models with additional interfaces such as Ethernet, ProfiBus or ProfiNet are optional

Link to our Website | **Download Brochure** | **Request a demo**

MAS-100 Iso NT®

For isolators

Unique double valve system

- Double valve system prevents back-flow and cross-contamination and allows active VHP decontamination
- High collection efficiency, independent validation according to ISO 14698 (equivalent to EN 17141)
- Built-in air flow compensation for precise, reproducible flow rate of 100 SLPM
- Various stainless steel sampling head configurations for 90 mm plates or other plate formats
- Multiple options for combining filters (in-line/exhaust)
- Automated calibration with MAS-100 Regulus traceable to ISO 17025 or NIST

MAS-100 Iso NT®

For isolators

General	
Operation principle	Sieve Impaction (Andersen Sampler)
Flow rate	Default: 100 SLPM ± 2.5%
Flow regulation	In-built mass flow sensor
Sample volumes	Selectable from 10 to 2000 liters | Preset: 50, 100, 250, 500 & 1000 liters
SQS (sequential sampling mode, Intervals)	40 to 2000 liters in 2-50 fractions up to 23:59 hours
Delay function	1 to 120 min
Nominal d_{50} value	1.1 µm at 100 SLPM (confirmed by independent validation study acc. ISO 14698)
Biological efficiency	~ 78% (independent validation study acc. ISO 14698)

MAS-100 Iso NT®

For isolators

Housing	
Material	Side walls: anodized aluminum; body: electro polished stainless steel
Dimensions (H x W x L)	160 x 230 x 283 mm
Weight	7.5 kg
Display	Alphanumeric LCD
Sampling Head with perforated lid	
Material	Stainless Steel
Dimensions (D x H)	Ø 109 x 90 mm
Weight	1.5 kg
Lid geometry	Default: 300 x 0.6 mm
Sterilization	Autoclaving; dry heat
Power	
Input external power supply	110-240 V AC, 0.7-1.5 A / 47-63 Hz
Input instrument	24 V DC ± 5%, Max. Limits: 2.7 A and 65 W

MAS-100 Iso NT®

For isolators

IsoBag® rapid transfer bag

A unique transportation and packaging bag as a reliable and easy way to have environmental monitoring plates right at hand in the isolator.

Link to our Website

MAS-100 Iso NT®

For isolators

Product	Description	Ord. No.
Standard base for sampling Head	Stainless steel with Allen key, tri-clamp, and silicone gasket	**1.09328.0001**
Silicone gasket (5x)	Sealing between standard base for sampling head and tubing	**1.17084.0001**
Easy clean base for sampling head	Stainless steel with tri-clamp and silicone screen gasket	**1.17091.0001**
Silicone screen gasket (5x)	Sealing between easy clean base for sampling head and tubing	**1.17099.0001**
Perforated lid	Default version: 300 holes x 0.6 mm, edge-protected, stainless steel	**1.09189.0001**
Dust cover	Stainless steel cover protects sieve from dirt	**1.09644.0001**
Power supply	With power cord and regional plug adapters	**1.17182.0001**
MAS-100 Iso NT® IP54 Kit	protection against solid objects that are bigger than 1 mm and water splashing from any direction	**1.17159.0001**
Remote cable MAS-100 Iso NT®	Can be used for remote start & stop of sampling and can display the instrument status via LED	**1.17181.0001**

Please mind lead times for accessories

MAS-100 Iso NT®

For isolators

Product	Description	Ord. No.
Perforated lid	400 holes x 0.7 mm, edge-protected, stainless steel	**1.09222.0001**
RapidMicroBio easy clean base	Stainless steel, for Growth Direct EM Cassettes	**1.17319.0001**
RapidMicroBio perforated lid	300 holes x 0.6 mm, stainless steel for Growth Direct Cassettes	**1.17314.0001**
Aervent KTGR Opticap XL5 capsule	Hydrophobic 0.2 µm, 5’’	**KTGRA05TT1**
Aervent KTGR Opticap XL10 capsule	Hydrophobic 0.2 µm, 10’’	**KTGRA10TT1**
Pressure test kit	For testing tightness of installation	**1.17085.0001**
Calibration cable, 10 m	RS232 connection for connection of calibration device MAS-100® Regulus	**1.17098.0001**
ProfiNet module	Converts ProfiBus to ProfiNet interface	**1.17290.0001**
Elbow joint	Stainless steel with 2 tri-clamps and silicone gaskets	**1.17083.0001**
Tri-clamp (3x)	To facilitate mounting of sampling heads	**1.09440.0001**

Please mind lead times for accessories

MAS-100 Iso NT®

For isolators

Product	Description	Interface	No. of heads	Ord. No.
MAS-100 Iso NT®	Microbial air sampler	Standard	1	**1.09168.0001**
		Ethernet	1	**1.09174.0001**
		ProfiBus*	1	**1.09173.0001**
		ProfiNet*	1	**1.17291.0001**

Scope of delivery

MAS-100 Iso NT® microbial air sampler including:
MAS-100 Iso NT® control unit: The control units come with pre-assembled valves to connect optional tubing, sampling base and perforated lids.

***MTO products are not in stock – please mind lead times**

COMPRESSED GAS MONITORING

MAS-100 ATMOS®
The NEW microbial compressed gas sampler

Cleanroom Grade A/B

Cleanroom Grade C/D

MAS-100 ATMOS®

The NEW microbial compressed gas sampler

The **MAS-100 Atmos®** microbial compressed gas sampler is a high precision, portable and battery-powered device to monitor pressurized gases such as air, nitrogen, carbon dioxide, and argon. The instrument is easy to use and can be operated in a pressure range of 1.2 to 7 bar.a (17.4 to 101.5 psi).

At flow rate of 100 liter the **MAS-100 Atmos®** has the identical impaction speed and D50 value as the MAS-100 NT®.

The microorganisms are impacted under pressure to avoid any damage by dynamic decompression.

Link to our Website

Request a demo

MAS-100 ATMOS®

The NEW microbial compressed gas sampler

Impacts microorgansims under pressure

Ease of use that minimizes handling errors

- Automated flow rate regulation for pre-defined gas types
- Automated decompression
- Automated calibration traceable to ISO 17025 / NIST
- Impaction under pressure minimizes risk of fals negatives

From non-digital to fully computerized acc. to 21 CFR Part 11

- Freely configurable out-of-the-box use
- Individual login via hardware key token and PIN
- Tamper-proof audit trail download
- Unique Result barcode for implementation in EM software systems

MAS-100 ATMOS®

The NEW microbial compressed gas sampler

General	
Operation principle	Sieve Impaction
Gas types	Default: compressed air, Nitrogen (N_2), carbon dioxide (CO_2), Argon (Ar), customized gas type (non-oxidizing or flammable gases) if gas factor known
Pressure range	1.2 to 7 bar.a ± 2% (17.4 to 101 psi)
Flow rate	Default: 100 LPM ± 5% | Optional: 50 LPM ± 5%
Flow regulation	Mass-flow sensor
Sample volumes	Selectable from 50 to 3000 normal liters (NL) | Preset: 50, 100, 250, 500 & 1000 NL
Nominal d_{50} value	1.1 µm at 100 LPM
Housing	
Material	Injection-molded high-performance polystyrene with plastic primer and texture varnish
Dimensions (H x W x L)	180 x 210 x 500 mm (with handle)
Weight	7.3 kg (with sampling head)

MAS-100 ATMOS®

The NEW microbial compressed gas sampler

Perforated lid	
Material	Anodized aluminum (blue)
Dimensions (D x H)	Ø 109 x 90 mm
Weight	190 g
Lid geometry	Default: 300 x 0.6 mm
Sterilization	Autoclaving; dry heat
Others	
Battery capacity	Approx. 2 to 5 h depending on chosen settings and pressure range
Operating temperature	+5 to +45 °C
Sound level	< 80 dB at highest pressure point (7 bar.a)

MAS-100 ATMOS®

The NEW microbial compressed gas sampler

ICR/ICRplus Settle Plates

Our gamma-irradiated and triple-bagged settle plates for monitoring of isolators and critical cleanrooms.

Link to our Website

MAS-100 ATMOS®

The NEW microbial compressed gas sampler

Product	Description	Ord. No.
Sampling head Atmos with perforated lid 300 x 0.6 mm	Default version: provides D_{50} of 1.1 µm at 100 liters/min	**1.17357.0001**
Sampling head Atmos with perforated lid 300 x 0.47 mm	Provides D_{50} of 1.1 µm at 50 liters/min	**1.17363.0001**
Pressure tube Atmos 2 m with TC Connector	PTFE Tube with 3/8’’ female connector to gas supply with connector to instrument	**1.17354.0001**
Gas exhaust tube Atmos 5 m with TC Connector	PVC tube Ø 50 mm, stainless steel connector and tri-clamp	**1.17349.0001**
Adapter gas exhaust tube for MAS-100 Atmos®	Stainless steel adapter for self-assembly of gas exhaust tubing	**1.17348.0001**
Hardware key set (5x) for MAS-100 Atmos®	Re-writable for individual user login	**1.17333.0001**
Wheeled transport case for MAS-100 Atmos®	For safe transportation	**1.17334.0001**

Please mind lead times for accessories

MAS-100 ATMOS®

The NEW microbial compressed gas sampler

Product	Description	Ord. No.
Dust cover for MAS-100 Atmos®	Polypropylene, white, autoclavable	**1.17340.0001**
Plate holder for MAS-100 Atmos® stainless steel	Autoclavable	**1.17335.0001**
Filter cover for MAS-100 Atmos® with 3 screws	Aluminum, autoclavable	**1.17336.0001**
Tri-clamp 34 mm for MAS-100 Atmos®	Used to connect pressure tube with sampling head	**1.17367.0001**
Silicone gasket (5x) 34/10 mm for MAS-100 Atmos®	Sealing of connection between pressure gas tube and sampling head	**1.17364.0001**
Silicone gasket 50.5/40 mm for MAS-100 Atmos®	Sealing of connection between gas exhaust adapter and tubing	**1.17366.0001**
Battery charger MAS-100 Atmos®	Including USB-C cable and regional plug adapters	**1.17329.0001**

Please mind lead times for accessories

MAS-100 ATMOS®

The NEW microbial compressed gas sampler

Product	Description	Ord. No.
MAS-100 Atmos®	Microbial compressed gas sampler	**1.17328.0001**
Scope of delivery	**MAS-100 Atmos® microbial compressed gas sampler including:** 1 x sampling head with perforated lid (300 x 0.6 mm) 1 x pressure connection tube 2 m PTFE with connection pieces (3/8'' female) to gas supply and instrument (34 mm tri-clamp and silicone gasket) 1 x dust lid 1 x tri-clamp Ø 34 mm 1 x silicone gasket 34/10 mm 1 x battery charger incl. USB C cable and regional plug adapters 1 x system administrator hardware key (black) 5 x configurable hardware keys documentation incl. calibration certificates	

MEDIA FILL / ASEPTIC PROCESS SIMULATION

Dehydrated Culture Media (DCM)

- Cleanroom Grade A/B
- Isolator / RABS

Ready-to-use media fill

- Cleanroom Grade A/B
- Isolator / RABS

Dehydrated Culture Media (DCM)

for safe media preparation

Description | **Benefits** | **Related Products** | **Ordering Information**

The available **granulated culture media** for media fill tests are irradiated and triple-packaged. Every batch is carefully tested to ensure excellent growth properties and filterability, and of course absence of microbial contamination.

The granulation format of the media reduces dust spread during preparation, thus lowering health risks and preventing contamination of the work environment. Less dust on equipment also eases handling and cleaning.

Tryptic soy broth and its non-animal origin alternative are available in 500 g and 5 kg packs.

Link to our Website

Download Brochure

Dehydrated Culture Media (DCM)

for safe media preparation

- **Safe media preparation** thanks to irradiated and triple-bagged products
- **Low-dust granules** to maximize safety and performance
- **Excellent cold filterability** to avoid clogging and costs
- **Excellent solubility** to significantly reduce preparation time and effort
- BSE-certified and non-animal origin products for **ultimate process safety**

Dehydrated Culture Media (DCM)

for safe media preparation

RTU bags

We also have Tryptic Soy Broth and Vegetable peptone broth available as ready to use media for media fill tests

Dehydrated Culture Media (DCM)

for safe media preparation

Description | Benefits | Related Products | Ordering Information

Product	Content	Ord. No.
Tryptic Soy Broth non-animal origin	500 g	**1.00550.0500**
	5 kg	**1.00550.5000**
Tryptic Soy Broth	500 g	**1.00800.0500**
	5 kg	**1.00800.5000**

Ready-to-use media fill

Pre-filtered and ready to go

Description | Benefits | Related Products | Ordering Information

10 L media fill bags
containing ready-to-use culture media

The 10 L bags are filled with either tryptic soy broth or vegetable peptone broth. The media is sterile, triple-bagged and irradiated for safe use in process lines. The self-collapsing bags include an 80 cm long tube with a connector to enable direct connection to the filling line. The bags are available with an MPC or a Lynx connector.

Link to our Website

Download Brochure

Ready-to-use media fill

Pre-filtered and ready to go

Description | **Benefits** | Related Products | Ordering Information

- **Ready and easy to use** with simple connection to your process line
- Packed in transport box for easy handling
- Sterile, triple-bagged and irradiated for **ultimate process safety**
- BSE-certified and non-animal origin products for **total confidence**

Ready-to-use media fill

Pre-filtered and ready to go

Description | Benefits | Related Products | Ordering Information

DCM

Our media for media fill testing is as well available in granulated and irradiated form

Ready-to-use media fill

Pre-filtered and ready to go

Description | Benefits | Related Products | Ordering Information

Product	Content	Ord. No.
Tryptic Soy Broth	10 L bag	**1.46316.0001**
Vegetable Peptone Broth	10 L bag	**1.46332.0001**
Vegetable Peptone Broth with Lynx connector	10 L bag	**1.46749.0001**

A/B CLEANROOM GRADE

ICR/ICR+
Contact Plates

ICR
swabs

HYCON®
Contact Slides

ICR/ICR+
Settle Plates

IsoBag® Rapid
Transfer Bag

MAS-100
NT®

MAS-100
Atmos®

MAS-100
VF®

Dehydrated
Culture Media

Ready-to-use
media fill

CLEANROOM GRADE

RT/RT+
Contact Plates

LI
Settle Plates

HYCON®
Contact Slides

MAS-100
NT®

MAS-100
Atmos®

MAS-100
VF®

ISOLATOR / RABS

ICR/ICR+
Contact Plates

ICR/ICR+
Settle Plates

IsoBag® Rapid
Transfer Bag

ICR swabs

MAS-100
Iso NT®

MAS-100
Iso MH®

Dehydrated
Culture Media

Ready-to-use
media fill

CONTACT

Your first choice for Environmental Monitoring Solutions for Pharmaceutical Industry:

Learn more on our Website

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