





with the Italian Renaissance and Leonardo da Vinci 1519/2019 - 500 years after Leonardo da Vinci's death

### A WIDE RANGE OF SOLUTIONS TO FIT YOUR BEST PRACTICE

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## PERFORMANCES





## PERFORMANCES





### FROM SPONTANEOUS GENERATION TO ACTIVE AIR SAMPLER

The Greek philosopher Aristotle (384–322 BC) was one of the earliest scholars to articulate the theory of spontaneous generation, the notion that life can arise from no living matter.

> Italian Francesco Redi (1626–1697) and Lazzaro Spallanzani (1729-1799) performed experiments to refute the idea of spontaneous generation.

> > Broth Remains Free of Microorganisms

of maggot

no formation

of maggots



Luis Pasteur (1822-1895) set of experiments irrefutably disproved the theory of spontaneous generation.

Microorganism Grow in Broth

to formation

of maggots

Today Active air sampling confirms the Redi, Spallanzani, Pasteur conclusion theory



#### Single aspirating head air sampler with cable for charging



- 100 litres per minute flow rate
- Cycle battery autonomy 30.000 litres
- Manual mode only
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- Suitable for 90 mm Petri dishes only
- Traditional battery charger with cable
- Transparent thermopolymer aspirating head (autoclavable 121°C)



 Main customers for TRIO.BAS MINI ECO are agro-food industries, dairy, catering, HACCP, beverage, cosmetic, sewage treatment plant, outdoor environment, primary and secondary schools. They are mostly customers who make few numbers of controls.

#### PERFORMANCES

- Light weight, ergonomic and balanced design to facilitate handling with or without gloved hands
- Technopolymer body shockproof with antibacterial performances of surfaces
- Complaint according EN/ISO 14968-1, GMP and GLP
- Transparent thermopolymer aspirating head (autoclavable 121°C)
- Volume of aspirating air: 100 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 90 mm Petri dishes
- Auto calibration: power/flow electronic real time control
- Cycles battery autonomy: 30.000 litres

#### **IDENTIFICATION CODES**

- The sampler is IP65 certified.
- The battery is recharged by a power cable connected directly to the air sampler.
- While under charging, the air sampler can sample.
- Power supply system: the instrument can be charged continuosly by AC powered source 110/240 Volt 50/60 Hz or by rechargeable batteries (inserted inside the air sampler)
- IP65 protection certificate from dust and water
- Language: English, French, German, Spanish, Italian
- Operative aspirating cycles: manual
- Memorized data: up to 1.000 samplings
- Delayed, start, simultaneous or interval sampling
- CE mark
- Dimension: 33x16x15h cm
- Weight: 1.430 gr
- Built in ISO 9000 premises
- Code
   TRIO.BAS MINI ECO PACK (\*)

   151K
   TRIO.BAS MINI ECO 100 Petri PACK (100 litres/min flow rate)

(\*) each PACK consists of: 1 TRIO.BAS MINI ECO with battery charger, 3 thermopolymer ASPI heads, 1 light carrying case.



# TRIO.BAS MINI

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Single aspirating head air sampler with Bluetooth and cable for charging



- 100 or 200 litres per minute flow rate model
- Battery charger via cable (110/240 volt)
- Bluetooth for remote control of the air sampler
- Cycle battery autonomy 30.000 litres
- Manual mode only
- Stainless steel AISI 316 aspirating head with quick bayonet closure and identification number
- Suitable for 55 mm Contact plates or 90 mm Petri dishes



- Main customers for TRIO.BAS MINI are agro-food industries, dairy, catering, HACCP, beverage, cosmetic, sewage treatment plant, outdoor environment, primary and secondary schools. They are mostly customers who make few numbers of controls.
- The Bluetooth allows to control the air sampler remotely only.
- The sampler is free of any external plugs and it is IP65 certified.

#### PERFORMANCES

- Light weight, ergonomic and balanced design to facilitate handling with or without gloved hands
- Technopolymer body shockproof with antibacterial performances of surfaces
- Complaint according EN/ISO 14968-1, GMP and GLP
- Stainless steel aspirating head with quick bayonet closure, identification number and stainless steel cover to prevent contamination
- Volume of aspirating air: 100 or 200 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- Auto calibration: power/flow electronic real time control
- Cycles battery autonomy: 30.000 litres

- The battery is recharged by a power cable connected directly to the air sampler.
- While under charging, the air sampler can sample.
- The 200 lts/min air flow reduces the operator time and the time sampling.
- IP65 protection certificate from dust and water
- Power supply system: the instrument can be charged continuosly by AC powered source 110/240 Volt 50/60 Hz or by rechargeable batteries (inserted inside the air sampler)
- Language: English, French, German, Spanish, Italian
- Operative aspirating cycles: manual
- Memorized data: up to 1.000 samplings
- Delayed, remote, start, simultaneous or interval sampling
- Bluetooth connection for data transfer
- Automatic next calibration reminder
- CE mark
- Dimension: 33x16x15h cm
- Weight: 1.430 gr
- Built in ISO 9000 premises

#### **IDENTIFICATION CODES**

Code	TRIO.BAS MINI PACK (*)
152K	TRIO.BAS MINI 100 Contact PACK (100 litres/min flow rate)
1 <i>5</i> 3K	TRIO.BAS MINI 100 Petri PACK (100 litres/min flow rate)
162K	TRIO.BAS MINI 200 Contact PACK (200 litres/min flow rate)
163K	TRIO.BAS MINI 200 Petri PACK (200 litres/min flow rate)

(\*) each PACK consists of: 1 TRIO.BAS MINI with a battery charger, 1 calibration certificate, 1 s/s ASPI head with s/s cover head, 1 light carrying case.



Stainless steel aspirating head with quick bajonet closure



Easy manipulation



Vertical hook to fix the sampler in vertical position on a cart with wheels

### **TRIO.BAS MONO induction**

TRIO.BAS

Single aspirating head air sampler with Bluetooth and battery induction charger

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- 100 or 200 litres per minute flow rate model
- The base station induction charger "INDUCT SYSTEM" could be replaced by "SELFTEST SYSTEM" to monitor the correct flow rate at regular intervals
- VERITEST is another independent option device to monitor the correct flow rate at regular intervals
- Manual or automatic mode
- Simple accessory for compressed gas testing
- Stable on a work surface in a vertical position without the use of any external support
- Stainless steel AISI 316 aspirating head with quick bayonet closure and identification number
- Suitable for 55 mm Contact plates or 90 mm Petri dishes



- Main customers are pharmaceutical aseptic filling suites, cleanroom, biotech, IVF clinic, operating theatre, hospital pharmacies, blood banks, clinic, microbiological labs, HVAC building monitoring, environmental labs, healthcare ambient monitoring and health autorities.
- A barcode module, thanks to the use of a scanner (barcode reader) with Bluetooth, automatically records the operator, place and plates used for the sampling. The data collected by the barcode reader are transmitted directly to the instrument. This solution is useful for those who already use culture plates with barcode or 2-D barcode (QR Quick Response Code). The data collected are transferred via Bluetooth from the air sampler to a PC or laptop. PC or laptop request a dedicated software (ASPC) installed.

#### PERFORMANCES

- Light weight, ergonomic and balanced design to facilitate handling with or without gloved hands
- Technopolymer body shockproof with antibacterial performances of surfaces
- Complaint according EN/ISO 14968-1, GMP and GLP
- Stainless steel aspirating head with quick bayonet closure, identification number and stainless steel cover to prevent contamination
- Volume of aspirating air: 100 or 200 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- Auto calibration: power/flow electronic real time control
- Cycles battery autonomy: 30.000 litres
- IP65 protection certificate from dust and water

- The data are transferred via Bluetooth between the air sampler and a smartphone or tablet (Android version) and then to a PC or laptop.
- It is possibile to work either in manual or automatic mode.
- The air sampler is IP65 certified.
- The battery is recharged by a base station induction charger without any cable connection between the air sampler and the charger.
- The 200 lts/min air flow reduces the operator time and the time sampling.
- The use of sterile Daily Shift aspirating heads reduces the risk of contamination.
- Language: English, French, German, Spanish, Italian
- Manual and automatic passwords
- Operative aspirating cycles: manual and automatic
- Memorized data: up to 1.000 samplings
- Configuration users and places: 100
- Delayed, remote, start, simultaneous or sampling interval
- Bluetooth connection for data transfer
- Automatic next calibration reminder
- Programmable for compressed gases/air
- Data integrity CFR 21
- CE mark
- Dimension: 33x16x15h cm
- Weight: 1.440 gr
- Built in ISO 9000 premises

#### **IDENTIFICATION CODES**

Code	TRIO.BAS MONO induction PACK (*)
200K	TRIO.BAS MONO 100 Contact PACK (100 litres/min flow rate)
201K	TRIO.BAS MONO 100 Petri PACK (100 litres/min flow rate)
205K	TRIO.BAS MONO 200 Contact PACK (200 litres/min flow rate)
206K	TRIO.BAS MONO 200 Petri PACK (200 litres/min flow rate)

(\*) each PACK consists of: 1 TRIO.BAS MONO, 1 calibration certificate, 1 base station induction charger, 1 s/s ASPI head with s/s cover head, 1 robustus carrying case.



Easy head manipulation





SELTEST SYSTEM

## TRIO.BAS MONO Filter



Single aspirating head air sampler with Bluetooth cable for charging and HEPA Filter



- 100 litres per minute flow rate model
- Battery charger via cable (110/240 Volt)
- Bluetooth for data transfer
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- HEPA filter
- Suitable for 55 mm Contact plates or 90 mm Petri dishes
- Use in horizontal or vertical position without any external support



- Main customers are pharmaceuticals, cleanrooms and biotech industries. The HEPA filter allows to capture the particulates.
- A barcode module, thanks to the use of a scanner (barcode reader) with Bluetooth, automatically records the operator, place and plates used for the sampling. The data collected by the barcode reader are transmitted directly to the instrument. This solution is useful for those who already use culture plates with barcode or 2-D barcode (QR Quick Response Code). The data collected are transferred via Bluetooth from the air sampler to a PC or laptop. PC or laptop request a dedicated software (ASPC) installed.
- The data are transferred via Bluetooth between the air sampler and a smartphone or tablet (Android version) and then to a PC or laptop.

#### PERFORMANCES

- Light weight, ergonomic and balanced design to facilitate handling with or without gloved hands
- Technopolymer body shockproof with antibacterial performances of surfaces
- Complaint according EN/ISO 14968-1, GMP and GLP
- Stainless steel aspirating head with quick bayonet closure, identification number and stainless steel cover to prevent contamination
- Volume of aspirating air: 100 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- HEPA filter
- Auto calibration: power/flow electronic real time control
- Power supply system: the instrument can be charged continuosly by AC powered source 110/240 Volt 50/60 Hz or by rechargeable batteries (inserted inside the air sampler)

- The data may be transferred via cable, too. This is helpful for all companies that, due to internal policy, are not allowed to use the wireless transfer.
- It is possibile to work either in manual or automatic mode.
- The sampler is IP65 certified.
- The battery is recharged by a power cable connected directly to the air sampler.
- While under charging, the air sampler can sample.
- The use of sterile Daily Shift aspirating heads reduces the risk of contamination.
- Cycles battery autonomy: 30.000 litres
- IP65 protection certificate from dust and water
- Language: English, French, German, Spanish, Italian
- Manual and automatic passwords
- Operative aspirating cycles: manual and automatic
- Memorized data: up to 1.000 samplings
- Configuration users and places: 100
- Delayed, remote, start, simultaneous or interval sampling
- Bluetooth connection or cable for data transfer
- Automatic next calibration reminder
- Data integrity CFR 21
- CE mark
- Dimension: 33x16x15h cm
- Weight: 1.440 gr
- Built in ISO 9000 premises

#### **IDENTIFICATION CODES**

Code	TRIO.BAS MONO Filter PACK (*)
170K	TRIO.BAS MONO Filter 100 Petri PACK with Cable (100 litres/min flow rate)
171K	TRIO.BAS MONO Filter 100 Contact PACK with Cable (100 litres/min flow rate)

(\*) each PACK consists of: 1 TRIO.BAS MONO Filter with battery charger, 1 calibration certificate, 1 box Hepa Filter, 1 s/s ASPI head with s/s cover head, 1 robustus carrying case, 1 cable for transfer data.



Easy manipulation



TRIO.BAS MONO Filter detailed filter



TRIO.BAS MONO Filter with power cable

## TRIO.BAS MONO cable



Single aspirating head air sampler with Bluetooth and cable for charging



- 100 or 200 litres per minute flow rate model
- Battery charger via cable (110/240 volt)
- Bluetooth for data transfer
- Manual or automatic mode
- Official calibration certificate

- Operator/Administrator cascade passwords
- Simple accessory for compressed gas testing
- Stable on a work surface in a vertical position without the use of any external support



- Main customers are pharmaceutical aseptic filling suites, cleanroom, biotech, IVF clinic, operating theatre, hospital pharmacies, blood banks, clinic, microbiological labs, HVAC building monitoring, environmental labs, healthcare ambient monitoring and health autorities.
- A barcode module, thanks to the use of a scanner (barcode reader) with Bluetooth, automatically records the operator, place and plates used for the sampling. The data collected by the barcode reader are transmitted directly to the instrument. This solution is useful for those who already use culture plates with barcode or 2-D barcode (QR Quick Response Code). The data collected are transferred via Bluetooth from the air sampler to a PC or laptop. PC or laptop request a dedicated software (ASPC) installed.
- The data are transferred via Bluetooth between the air sampler and a smartphone or tablet (Android version) and then to a PC or laptop.

#### PERFORMANCES

- Light weight, ergonomic and balanced design to facilitate handling with or without gloved hands
- Technopolymer body shockproof with antibacterial performances of surfaces
- Complaint according EN/ISO 14968-1, GMP and GLP
- Stainless steel aspirating head with quick bayonet closure, identification number and stainless steel cover to prevent contamination
- Volume of aspirating air: 100 or 200 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- Auto calibration: power/flow electronic real time control
- Power supply system: the instrument can be charged continuosly by AC powered source 110/240 Volt 50/60 Hz or by rechargeable batteries (inserted inside the air sampler)

- The data may be transferred via cable, too. This is helpful for all companies that, due to internal policy, are not allowed to use the wireless transfer.
- It is possibile to work either in manual or automatic mode.
- The sampler is IP65 certified.
- The battery is recharged by a power cable connected directly to the air sampler.
- While under charging, the air sampler can sample.
- The 200 lts/min air flow reduces the operator time and the time sampling.
- The use of sterile Daily Shift aspirating heads reduces the risk of contamination.
- Cycles battery autonomy: 30.000 litres
- IP65 protection certificate from dust and water
- Language: English, French, German, Spanish, Italian
- Manual and automatic passwords
- Operative aspirating cycles: manual and automatic
- Memorized data: up to 1.000 samplings
- Configuration users and places: 100
- Delayed, remote, start sampling
- Bluetooth connection or cable for data transfer
- Automatic next calibration reminder
- Programmable for compressed gases/air
- Data integrity CFR 21
- CE mark
- Dimension: 33x16x15h cm
- Weight: 1.440 gr
- Built in ISO 9000 premises

#### **IDENTIFICATION CODES**

Code	TRIO.BAS MONO cable PACK (*)
211K	TRIO.BAS MONO 100 Contact PACK with cable (100 litres/min flow rate)
212K	TRIO.BAS MONO 100 Petri PACK with cable (100 litres/min flow rate)
213K	TRIO.BAS MONO 200 Contact PACK with cable (200 litres/min flow rate)
214K	TRIO.BAS MONO 200 Petri PACK with cable (200 litres/min flow rate)

(\*) each PACK consists of: 1 TRIO.BAS MONO with battery charger, 1 calibration certificate, 1 s/s ASPI head with s/s cover head, 1 cable for data transfer, 1 robustus carrying case.



TRIO.BAS MONO with cable



Stable on a work surface in a vertical position

Easy manipulation

### **AIRBIO DUO cable**



A stationary and portable two aspirating heads air sampler with Bluetooth and cable for charging



- 100 or 200 litres per minute flow rate model
- Easy screen reading
- Battery charger via cable (110/240 volt)
- Bluetooth for data transfer
- Cycle battery autonomy up 70.000 litres
- Stable on a work surface in a vertical position without the use of any external support
- Suitable for 55 mm Contact plates or 90 mm Petri dishes
- Up to 1.000 memorized data, 100 places identification, 100 operators identification
- More than one different culture media at the same time
- Saved sampling time by doubling the aspirated volume of air



- This air sampler is especially dedicated to customers who make a large number of controls, in different environments, with a large staff rotation and comply with the quality standards and QM/GMP.
- Main customers are pharmaceutical aseptic filling suites, cleanroom, biotech, IVF clinic, operating theatre, hospital pharmacies, blood banks, clinic, microbiological labs, HVAC building monitoring, environmental labs, healthcare ambient monitoring and health autorities.
- A barcode module, thanks to the use of a scanner (barcode reader) with Bluetooth, automatically records the operator, place and plates used for the sampling. The data collected by the barcode reader are transmitted directly to the instrument. This solution is useful for those who already use culture plates with barcode or 2-D barcode (QR Quick Response Code). The data collected are transferred via Bluetooth from the air sampler to a PC or laptop. PC or laptop request a dedicated software (ASPC) installed.
- The data are transferred via Bluetooth between the air sampler and a smartphone or tablet (Android version) and then to a PC or laptop.

#### PERFORMANCES

- Technopolymer body shockproof with antibacterial performances of surfaces
- Complaint according EN/ISO 14968-1, GMP and GLP
- Stainless steel aspirating head with quick bayonet closure, identification number and stainless steel cover to prevent contamination
- Volume of aspirating air: 100 or 200 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- Auto calibration: power/flow electronic real time control
- Power supply system: the instrument can be charged continuosly by AC powered source 110/240 Volt 50/60 Hz or by rechargeable batteries (inserted inside the air sampler)
- Cycles battery autonomy: 60.000/70.000 litres

- The data may be transferred via cable, too. This is helpful for all companies that, due to internal policy, are not allowed to use the wireless transfer.
- It is possibile to work either in manual or automatic mode.
- The battery is recharged by a power cable connected directly to the air sampler.
- While under charging, the air sampler can sample.
- The 200 lts/min air flow reduces the operator time and the time sampling.
- The use of sterile Daily Shift aspirating heads reduces the risk of contamination and provides the certification of sterility requested by regulatory inspectors.
- The possibility to use 2 different aspirating heads allows to have 2 different culture media at the same time or to make sampling BEFORE (at rest), DURING (in operation) and at the END of each processing cycle.
- Language: English, French, German, Spanish, Italian
- Manual and automatic passwords
- Operative aspirating cycles: manual and automatic
- Memorized data: up to 1.000 samplings
- Configuration users and places: 100
- Delayed, remote, start, simultaneous or interval sampling
- Bluetooth connection or cable for data transfer
- Automatic next calibration reminder
- Data integrity CFR 21
- CE mark
- Continuos/trending analysis according USP
- Dimension: 27x15x25h cm
- Weight: 2.300 gr
- Built in ISO 9000 premises

#### **IDENTIFICATION CODES**

Code	AIRBIO DUO cable PACK (*)
479K	AIRBIO DUO 100 Contact with cable (100 litres/min flow rate)
480K	AIRBIO DUO 100 Petri with cable (100 litres/min flow rate)
481K	AIRBIO DUO 200 Contact with cable (200 litres/min flow rate)
482K	AIRBIO DUO 200 Petri with cable (200 litres/min flow rate)

(\*) each PACK consists of: 1 air sampler, 1 calibration certificate, 2 s/s ASPI head with s/s cover head, 1 cable for transfer data, 1 robustus carrying case.



Easy plate manipulation





Secure fixing on tripod

Pack composition

### **TRIO.BAS DUO induction**



Two aspirating heads air sampler with Bluetooth and battery induction charger



- 100 or 200 litres per minute flow rate model
- The base station induction charger "INDUCT SYSTEM" could be replaced by "SELFTEST SYSTEM" to monitor the correct flow rate at regular intervals
- Stable on a work surface in a vertical position without the use of any external support
- Stainless steel AISI 316 aspirating head with quick bayonet closure and identification number
- Suitable for 55 mm Contact plates or 90 mm Petri dishes
- Bluetooth for data transfer
- Up to 1.000 memorized data, 100 places identification, 100 operators identification
- More than one different culture media at the same time
- Saved sampling time by doubling the aspirated volume of air



- This air sampler is especially dedicated to customers who make a large number of controls, in different environments, with a large staff rotation and comply with the quality standards and QM/GMP.
- Main customers are pharmaceutical aseptic filling suites, cleanroom, biotech, IVF clinic, operating theatre, hospital pharmacies, blood banks, clinic, microbiological labs, HVAC building monitoring, environmental labs, healthcare ambient monitoring and health autorities.
- A barcode module, thanks to the use of a scanner (barcode reader) with Bluetooth, automatically records the operator, place and plates used for the sampling. The data collected by the barcode reader are transmitted directly to the instrument. This solution is useful for those who already use culture plates with barcode or 2-D barcode (QR Quick Response Code). The data collected are transferred via Bluetooth from the air sampler to a PC or laptop. PC or laptop request a dedicated software (ASPC) installed.

#### PERFORMANCES

- Light weight, ergonomic and balanced design to facilitate handling with or without gloved hands
- Technopolymer body shockproof with antibacterial performances of surfaces
- Complaint according EN/ISO 14968-1, GMP and GLP
- Stainless steel aspirating head with quick bayonet closure, identification number and stainless steel cover to prevent contamination
- Volume of aspirating air: 100 or 200 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- Auto calibration: power/flow electronic real time control
- Cycles battery autonomy: 60.000/70.000 litres
- IP65 protection certificate from dust and water
- Language: English, French, German, Spanish, Italian

- The data are transferred via Bluetooth between the air sampler and a smartphone or tablet (Android version) and then to a PC or laptop.
- It is possibile to work either in manual or automatic mode.
- The sampler is IP65 certified.
- The battery is recharged by a base station induction charger without any cable connection between the air sampler and the charger
- The 200 lts/min air flow reduces the operator time and the time sampling.
- The use of sterile Daily Shift aspirating heads reduces the risk of contamination.
- The possibility to use 2 different aspirating heads allows to have 2 different culture media at the same time or to make sampling BEFORE (at rest), DURING (in operation) and at the END of each processing cycle.
- Manual and automatic passwords
- Operative aspirating cycles: manual and automatic
- Memorized data: up to 1.000 samplings
- Configuration users and places: 100
- Delayed, remote, start, simultaneous or interval sampling
- Bluetooth connection for data transfer
- Automatic next calibration reminder
- Programmable for compressed gases/air
- Data integrity CFR 21
- CE mark
- Continuos/trending analysis according USP
- Dimension: 26x28x15h cm
- Weight: 1.630 gr
- Built in ISO 9000 premises

#### **IDENTIFICATION CODES**

Code	TRIO.BAS DUO induction PACK (*)
220K	TRIO.BAS DUO 100 Contact PACK (100 litres/min flow rate)
221K	TRIO.BAS DUO 100 Petri PACK (100 litres/min flow rate)
225K	TRIO.BAS DUO 200 Contact PACK (200 litres/min flow rate)
226K	TRIO.BAS DUO 200 Petri PACK (200 litres/min flow rate)

(\*) each PACK consists of: 1 TRIO.BAS DUO and 1 calibration certificate, 1 base station induction charger, 2 s/s ASPI head with s/s cover head, 1 robustus carrying case.



TRIO.BAS DUO with induction battery charger



Stainless steel aspirating head with quick bayonet closure

SELTEST SYSTEM

### TRIO.BAS DUO cable



Two aspirating heads air sampler with Bluetooth and cable for charging



- 100 or 200 litres per minute flow rate model
- Bluetooth for data transfer
- Cable for battery charger
- Cable for data transfer
- Stable on a work surface in a vertical position without the use of any external support
- Stainless steel AISI 316 aspirating head with quick bayonet closure and identification number
- Suitable for 55 mm Contact plates or 90 mm Petri dishes
- Up to 1.000 memorized data, 100 places identification, 100 operators identification
- More than one different culture media at the same time
- Saved sampling time by doubling the aspirated volume of air



- This air sampler is especially dedicated to customers who make a large number of controls, in different environments, with a large staff rotation and comply with the quality standards and QM/GMP.
- Main customers are pharmaceutical aseptic filling suites, cleanroom, biotech, IVF clinic, operating theatre, hospital pharmacies, blood banks, clinic, microbiological labs, HVAC building monitoring, environmental labs, healthcare ambient monitoring and health autorities.
- A barcode module, thanks to the use of a scanner (barcode reader) with Bluetooth, automatically records the operator, place and plates used for the sampling. The data collected by the barcode reader are transmitted directly to the instrument. This solution is useful for those who already use culture plates with barcode or 2-D barcode (QR Quick Response Code). The data collected are transferred via Bluetooth from the air sampler to a PC or laptop. PC or laptop request a dedicated software (ASPC) installed.
- The data are transferred via Bluetooth between the air sampler and a smartphone or tablet (Android version) and then to a PC or laptop.

#### PERFORMANCES

- Light weight, ergonomic and balanced design to facilitate handling with or without gloved hands
- Technopolymer body shockproof with antibacterial performances of surfaces
- Complaint according EN/ISO 14968-1, GMP and GLP
- Stainless steel aspirating head with quick bayonet closure, identification number and stainless steel cover to prevent contamination
- Volume of aspirating air: 100 or 200 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- Auto calibration: power/flow electronic real time control
- Power supply system: the instrument can be charged continuosly by AC powered source 110/240 Volt 50/60 Hz or by rechargeable batteries (inserted inside the air sampler)
- Cycles battery autonomy: 70.000 litres

- The data may be transferred via cable, too. This is helpful for all companies that, due to internal policy, are not allowed to use the wireless transfer.
- It is possibile to work either in manual or automatic mode.
- The sampler is IP65 certified.
- The battery is recharged by a power cable connected directly to the air sampler.
- While under charging, the air sampler can sample.
- The 200 lts/min air flow reduces the operator time and the time sampling.
- The use of sterile Daily Shift aspirating heads reduces the risk of contamination.
- The possibility to use 2 different aspirating heads allows to have 2 different culture media at the same time or to make sampling BEFORE (at rest), DURING (in operation) and at the END of each processing cycle.
- IP65 protection certificate from dust and water
- Language: English, French, German, Spanish, Italian
- Manual and automatic passwords
- Operative aspirating cycles: manual and automatic
- Memorized data: up to 1.000 samplings
- Configuration users and places: 100
- Delayed, remote, start, simultaneous or interval sampling
- Bluetooth connection or cable for data transfer
- Automatic next calibration reminder
- Programmable for compressed gases/air
- Data integrity CFR 21
- CE mark
- Continuos/trending analysis according USP
- Dimension: 26x28x15h cm
- Weight: 1.630 gr
- Built in ISO 9000 premises

#### **IDENTIFICATION CODES**

222KTRIO.BAS DUO 100 Contact PACK with cable (100 litres/min flow rate)223KTRIO.BAS DUO 100 Petri PACK with cable (100 litres/min flow rate)231KTRIO.BAS DUO 200 Contact PACK with cable (200 litres/min flow rate)232KTRIO.BAS DUO 200 Petri PACK with cable (200 litres/min flow rate)	Code	TRIO.BAS DUO cable PACK (*)
231K TRIO.BAS DUO 200 Contact PACK with cable (200 litres/min flow rate)	222K	TRIO.BAS DUO 100 Contact PACK with cable (100 litres/min flow rate)
	223K	TRIO.BAS DUO 100 Petri PACK with cable (100 litres/min flow rate)
232K TRIO.BAS DUO 200 Petri PACK with cable (200 litres/min flow rate)	231K	TRIO.BAS DUO 200 Contact PACK with cable (200 litres/min flow rate)
	232K	TRIO.BAS DUO 200 Petri PACK with cable (200 litres/min flow rate)

(\*) each PACK consists of: 1 TRIO.BAS DUO with battery charger, 1 calibration certificate, 2 s/s ASPI head with s/s cover head, 1 cable for transfer data, 1 robustus carrying case.



TRIO.BAS DUO with cable



Stainless steel aspirating head with quick bayonet closure



Stable on a work surface in a vertical position

### **TRIO.BAS TRIO induction**



TRIO.BAS<sup>\*\*\*</sup>

Three aspirating heads air sampler with Bluetooth and battery induction charger



- 100 or 200 litres per minute flow rate model
- The base station induction charger "INDUCT SYSTEM" could be replaced by "SELFTEST SYSTEM" to monitor the correct flow rate at regular intervals
- Bluetooth for data transfer
- Stable on a work surface in a vertical position without the use of any external support
- Stainless steel AISI 316 aspirating head with quick bayonet closure and identification number
- Suitable for 55 mm Contact plates or 90 mm Petri dishes
- Up to 1.000 memorized data, 100 places identification, 100 operators identification
- More than one different culture media at the same time



- This air sampler is especially dedicated to customers who make a large number of controls, in different environments, with a large staff rotation and comply with the quality standards and QM/GMP.
- Main customers are pharmaceuticals, cleanrooms and biotech industries.
- A barcode module, thanks to the use of a scanner (barcode reader) with Bluetooth, automatically records the operator, place and plates used for the sampling. The data collected by the barcode reader are transmitted directly to the instrument. This solution is useful for those who already use culture plates with barcode or 2-D barcode (QR Quick Response Code). The data collected are transferred via Bluetooth from the air sampler to a PC or laptop. PC or laptop request a dedicated software (ASPC) installed.
- The data are transferred via Bluetooth between the air sampler and a smartphone or tablet (Android version) and then to a PC or laptop.

#### PERFORMANCES

- Light weight, ergonomic and balanced design to facilitate handling with or without gloved hands
- Technopolymer body shockproof with antibacterial performances of surfaces
- Complaint according EN/ISO 14968-1, GMP and GLP
- Volume of aspirating air: 100 or 200 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- Auto calibration: power/flow electronic real time control
- Cycles battery autonomy: 70.000 litres
- IP65 protection certificate from dust and water
- Language: English, French, German, Spanish, Italian
- Manual and automatic passwords

#### **IDENTIFICATION CODES**

CodeTRIO.BAS TRIO PACK (\*)240KTRIO.BAS TRIO 100 Contact PACK (100 litres/min flow rate)241KTRIO.BAS TRIO 100 Petri PACK (100 litres/min flow rate)242KTRIO.BAS TRIO 200 Contact PACK (200 litres/min flow rate)243KTRIO.BAS TRIO 200 Petri PACK (200 litres/min flow rate)

(\*) each PACK consists of: 1 air sampler, 1 calibration certificate, 1 base station induction charger, 3 s/s ASPI head with s/s cover head, 1 robustus carrying case.



Stable on a work surface



Induction battery charger

- It is possibile to work either in manual or automatic mode.
- The sampler is IP65 certified.
- The battery is recharged by a base station induction charger without any cable connection between the air sampler and the charger.
- The 200 lts/min air flow reduces the operator time and the time sampling.
- The use of sterile Daily Shift aspirating heads reduces the risk of contamination.
- The possibility to use 3 different aspirating heads allows to have 2/3 different culture media at the same time or to make sampling BEFORE (at rest), DURING (in operation) and at the END of each processing cycle.
- Operative aspirating cycles: manual and automatic
- Memorized data: up to 1.000 samplings
- Configuration users and places: 100
- Delayed, remote, start, simultaneous or interval sampling
- Bluetooth connection for data transfer
- Automatic next calibration reminder
- Programmable for compressed gases/air
- Data integrity CFR 21
- CE mark
- Continuos/trending analysis according USP
- Dimension: 33x28x16h cm
- Weight: 2.175 gr
- Built in ISO 9000 premises



### **TRIO.BAS MULTISTATION**

One external command unit connected to 1/3 satellites with Bluetooth and battery induction charger, dedicated mostly to cleanrooms



- 100 or 200 litres per minute flow rate model
- The base station induction charger "INDUCT SYSTEM" could be replaced by "SELFTEST SYSTEM" to monitor the correct flow rate at regular intervals
- Bluetooth for data transfer
- Cable connection for satellites up to 5-20 meters
- 17 preset programs

- Stainless steel AISI 316 aspirating head with quick bayonet closure and identification number for each satellite
- Suitable for 55 mm Contact plates or 90 mm Petri dishes
- Up to 1.000 memorized data, 100 places identification, 100 operators identification
- More than one different culture media at the same time



- This air sampler is especially dedicated to customers who make a large number of controls, in different environments, with a large staff rotation and comply with the quality standards and QM/GMP.
- Main customers are pharmaceuticals, cleanrooms and biotech industries.
- The Multistation air sampler allows to monitor separated cleanrooms with a single external command unit. The risk of human contamination is reduced, because the satellite units are permanently inside each cleanroom.
- A barcode module, thanks to the use of a scanner (barcode reader) with Bluetooth, automatically records the operator, place and plates used for the sampling. The data collected by the barcode reader are transmitted directly to the instrument. This solution is useful for those who already use culture plates with barcode or 2-D barcode (QR Quick Response Code). The data collected are transferred via Bluetooth from the air sampler to a PC or laptop. PC or laptop request a dedicated software (ASPC) installed.

#### PERFORMANCES

- Technopolymer body shockproof with antibacterial performances of surfaces
- Complaint according EN/ISO 14968-1, GMP and GLP
- Stainless steel aspirating head with quick bayonet closure, identification number and stainless steel cover to prevent contamination
- Volume of aspirating air: 100 or 200 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- HEPA filter for expulsed air (optional on satellites)
- Auto calibration: power/flow electronic real time control
- Cycles battery autonomy: 60.000/70.000 litres
- IP65 protection certificate from dust and water
- Language: English, French, German, Spanish, Italian

- The data are transferred via Bluetooth between the air sampler and a smartphone or tablet (Android version) and then to a PC or laptop.
- It is possibile to work either in manual or automatic mode.
- The sampler is IP65 certified.
- The battery is recharged by a base station induction charger without any cable connection between the air sampler and the charger .
- The 200 lts/min air flow reduces the operator time and the time sampling.
- The use of sterile Daily Shift aspirating heads reduces the risk of contamination.
- The possibility to use 2/3 different aspirating heads allows to have 2/3 different culture media at the same time or to make sampling BEFORE (at rest), DURING (in operation) and at the END of each processing cycle.
- Manual and automatic passwords
- Operative aspirating cycles: manual and automatic
- Memorized data: up to 1.000 samplings
- Configuration users and places: 100
- Delayed, remote, start, simultaneous or interval sampling
- Bluetooth connection for data transfer
- Automatic next calibration reminder
- Data integrity CFR 21
- CE mark
- Continuos/trending analysis according USP
- Dimension: 26x16x15h cm
- Weight: 1.650 gr
- Built in ISO 9000 premises

#### **IDENTIFICATION CODES**

Code	TRIO.BAS MULTISTATION with 1 SATELLITE PACK (*)
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250K	TRIOBAS MULTISTATION 100 Contact with 1 Satellite Pack	
251K	TRIOBAS MULTISTATION 100 Petri with 1 Satellite Pack	
252K	TRIOBAS MULTISTATION 200 Contact with 1 Satellite Pack	
253K	TRIOBAS MULTISTATION 200 Petri with 1 Satellite Pack	

(\*) each PACK consists of: 1 TRIO.BAS MULTISTATION, 1 calibration certificate, 1 base station induction charger, 1 s/s satellite, 1 s/s aspirating head with s/s cover head, 1 cable connection (5 mt), 1 robustus large carrying case.



TRIO.BAS MULTISTATION + 1 SATELLITE



TRIO.BAS MULTISTATION + 2 SATELLITES



TRIO.BAS MULTISTATION + 3 SATELLITES

- Code
   SATELLITE UNIT PACK (\*)

   260K
   SATELLITE UNIT Contact PACK

   261K
   SATELLITE UNIT Petri PACK
- (\*) each PACK consists of: 1 s/s satellite, 1 s/s aspirating head with s/s cover head, 1 cable connection (5 mt), 1 light case carrying case.

# TRIO.BAS MULTIFLEX 1+2

N.CO.

One external command unit completely made in stainlees steel with cable for charging, connected to one fixed and two independent satellites ORUM INTERNATIONAL © ALL RIGHTS RESERVED





- Battery charger via cable (110/240 volt)
- Bluetooth for data transfer
- Cable connection for satellites up to 5-20 meters
- Cable for data transfer

- Suitable for 55 mm Contact plates or 90 mm Petri dishes
- More than one different culture media at the same time
- Saved sampling time by doubling the aspirated volume of air



- The MULTIFLEX 1+2 air sampler and the satellites are made in AISI 316 stainless steel.
- This air sampler is especially dedicated to customers who make a large number of controls, in different environments, with a large staff rotation and comply with the quality standards and QM/GMP.
- Main customers are pharmaceuticals, cleanrooms and biotech industries.
- A barcode module, thanks to the use of a scanner (barcode reader) with Bluetooth, automatically records the operator, place and plates used for the sampling. The data collected by the barcode reader are transmitted directly to the instrument. This solution is useful for those who already use culture plates with barcode or 2-D barcode (QR Quick Response Code). The data collected are transferred via Bluetooth from the air sampler to a PC or laptop. PC or laptop request a dedicated software (ASPC) installed.
- The data are transferred via Bluetooth between the air sampler and a smartphone or tablet (Android version) and then to a PC or laptop.
- It is possibile to work either in manual or automatic mode.

#### PERFORMANCES

- Stainless steel AISI 316 (command unit + satellite units)
- Complaint according EN/ISO 14968-1, GMP and GLP
- Stainless steel aspirating head with quick bayonet closure, identification number and stainless steel cover to prevent contamination
- Volume of aspirating air: 100 or 200 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- Auto calibration: power/flow electronic real time control
- Power supply system: the instrument can be charged continuosly by AC powered source 110/240 Volt 50/60 Hz or by rechargeable batteries (inserted inside the air sampler)
- Cycles battery autonomy: 60.000/70.000 litres
- Language: English, French, German, Spanish, Italian

- The data may be transferred via cable, too. This is helpful for all companies that, due to internal policy, are not allowed to use the wireless transfer.
- The battery is recharged by a power cable connected directly to the air sampler.
- While under charging, the air sampler can sample.
- The 200 lts/min air flow reduces the operator time and the time sampling.
- This air sampler allows to monitor separated cleanrooms with a single external command unit. The risk of human contamination is reduced, because the satellite units are permanently inside each cleanroom.
- The use of sterile Daily Shift aspirating heads reduces the risk of contamination.
- The possibility to use 2/3 different aspirating heads allows to have 2/3 different culture media at the same time or to make sampling BEFORE (at rest), DURING (in operation) and at the END of each processing cycle.
  - Manual and automatic passwords
  - Operative aspirating cycles: manual and automatic
  - Memorized data: up to 1.000 samplings
  - Configuration users and places: 100
  - Delayed, remote, start, simultaneous or interval sampling
  - Bluetooth connection or cable for data transfer
  - Automatic next calibration reminder
  - Data integrity CFR 21
  - CE mark
  - Continuos/trending analysis according USP
  - Dimension: 25x13x18h cm
  - Weight: 4100 gr
  - Built in ISO 9000 premises

#### **IDENTIFICATION CODES**

Code	TRIO.BAS MULTIFLEX 1+2 PACK (*)
474K	TRIO.BAS MULTIFLEX 1+2 100 Contact with cable (100 litres/min flow rate)
475K	TRIO.BAS MULTIFLEX 1+2 100 Petri with cable (100 litres/min flow rate)
476K	TRIO.BAS MULTIFLEX 1+2 200 Contact with cable (200 litres/min flow rate)
477K	TRIO.BAS MULTIFLEX 1+2 200 Petri with cable (200 litres/min flow rate)

(\*) each PACK consists of: 1 TRIO.BAS MULTIFLEX 1+2, 1 calibration certificate, 3 s/s satellite, 3 s/s aspirating head with s/s cover head, 2 cable connection (5 mt), 1 robustus carrying case.



Connection between command unit and satellite



Satellite with aspirating head and cable



Easy manipulation

### TRIO.BAS RABS ISOLATOR

One external command unit completely made in stainlees steel connected to 1/3 satellites with Bluetooth and cable for charging

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- 100 or 200 litres per minute flow rate model
- Battery charger via cable (110/240 volt)
- Bluetooth for data transfer
- Cable connection for satellites up to 5-20 meters
- Cable for data transfer

- Suitable for 55 mm Contact plates or 90 mm Petri dishes
- More than one different culture media at the same time
- Saving sampling time by doubling the aspirated volume of air



- The RABS ISOLATOR and the satellites are made in AISI 316 stainlees steel.
- This air sampler is especially dedicated to customers who make a large number of controls, in different environments, with a large staff rotation and comply with the quality standards and QM/GMP.
- Main customers are pharmaceuticals, cleanrooms and biotech industries.
- A barcode module, thanks to the use of a scanner (barcode reader) with Bluetooth, automatically records the operator, place and plates used for the sampling. The data collected by the barcode reader are transmitted directly to the instrument. This solution is useful for those who already use culture plates with barcode or 2-D barcode (QR Quick Response Code). The data collected are transferred via Bluetooth from the air sampler to a PC or laptop. PC or laptop request a dedicated software (ASPC) installed.
- The data are transferred via Bluetooth between the air sampler and a smartphone or tablet (Android version) and then to a PC or laptop.
- The data may be transferred via cable, too. This is helpful for all companies that, due to internal policy, are not allowed to use the wireless transfer.

- It is possibile to work either in manual or automatic mode.
- The battery is recharged by a power cable connected directly to the air sampler.
- While under charging, the air sampler can sample.
- The 200 lts/min air flow reduces the operator time and the time sampling.
- This air sampler allows to monitor separated cleanrooms with a single external command unit. The risk of human contamination is reduced, because the satellite units are permanently inside each cleanroom.
- The use of sterile Daily Shift aspirating heads reduces the risk of contamination.
- The possibility to use 1/2/3 different aspirating heads allows to have 1/2/3 different culture media at the same time or to make sampling BEFORE (at rest), DURING (in operation) and at the END of each processing cycle.

#### MORE INNOVATIVE AND ESTABLISHED PERFORMANCES

- Stainless steel AISI 316 (command unit + satellite units)
- Complaint according EN/ISO 14968-1, GMP and GLP
- Stainless steel aspirating head with quick bayonet closure, identification number and stainless steel cover to prevent contamination
- Volume of aspirating air: 100 or 200 l/m
- Selected volumes from 30 to 2.000 litres and 17 preset programs
- The aspirating chamber is suitable for 55 mm Contact plates or 90 mm Petri dishes
- Auto calibration: power/flow electronic real time control
- Power supply system: the instrument can be charged continuosly by AC powered source 110/240 Volt 50/60 Hz or by rechargeable batteries (inserted inside the air sampler)
- Cycles battery autonomy: 60.000/70.000 litres
- Language: English, French, German, Spanish, Italian

- Manual and automatic passwords
- Operative aspirating cycles: manual and automatic
- Memorized data: up to 1.000 samplings
- Configuration users and places: 100
- Delayed, remote, start, simultaneous or interval sampling
- Bluetooth connection or cable for data transfer
- Automatic next calibration reminder
- Data integrity CFR 21
- CE mark
- Continuos/trending analysis according USP
- Dimension: 25x13x18h cm
- Weight: 3.150 gr
- Built in ISO 9000 premises

#### THE MICROBIOLOGICAL MONITORING OF RABS ISOLATOR

The TRIO.BAS RABS ISOLATOR is an extremely flexible instrument that can be easily adapted to any different types of isolators and RABS.

There are different versions of satellites:

1. Standard satellite (code 260 - 261). All these satellites are made in stainless steel AISI 316. There is the possibility to use 90 mm Petri dishes or 55 mm contact plates with stainless steel aspirating heads or sterile technopolymer "Daily Shift" aspirating head. All types of aspirating head to be ordered separately.

The satellite has small sizes and occupies little space inside the isolator.

Size: diameter 12 cm, height 12 cm, weight 1170 gr. (without aspirating head).

2. Satellite with HEPA filter (code 262 263). This satellite has the same features of the standard model.

It is supplied with an adapter, positioned on one side, to which a HEPA filter is connected for filtering the expelled air. Thanks to this filter, this satellite is typically used in cleanrooms and its integrity should be maintained for a long time. However, the deadline cannot be established because it depends on the frequency of sampler's use. Replacement is recommended every 3/6 months. If the HEPA filter becomes clogged before this period, the sampler alarm system warns the operator that the airflow is irregular and therefore it is necessary the filter's replacement.

Laterally there is a holder that allows to position the lid of the Petri dish during the sampling phase and to avoid contamination during handling of the plate.

Size: diameter 12 cm, height 12 cm, weight 1260 gr.



Satellite with HEPA filter (code 262 263)

s/s holder for lid of Petri dishes (code 273)

**3. Satellite wall with HEPA filter (code 258 259).** This satellite has the same characteristics as the standard model. This satellite is hermetically fixed inside a through hole in the isolator's wall or on a working surface or RABS. Only the aspirating chamber remains inside the isolator. The air is expelled outside of the isolator.

The great advantage of this satellite is that it takes very little space inside the isolator and the sampled air is not recycled inside, but is expelled outside. A HEPA filter located at the bottom of the satellite prevents contamination when the sampler is not operating.





Satellite wall with HEPA filter (code 258 - 259)

#### CONNECTIONS BETWEEN THE CONTROL UNIT AND THE SATELLITES

The satellites can be connected to the control unit in different ways:

- Flexible cable (code 265) with a max extension of 5 mt. This cable is complete with 4-pin male/female connectors. On request, it is possible to supply cables with a length up to about 20 meters. This cable is for all satellites.
- Stainless steel rigid connection (code 266) with a length of 170 mm. The satellite can remain suspended.
- Stainless steel wall connection (code 267) to guarantee an hermetic passage through a wall. The flexible cables are not included.



Male/female connectors

Flexible cable (code 265)





s/s rigid connection (code 266) - (satellite ordered separetely)

Two examples on how to fix a standard satellite with a s/s rigid connection (code 266) and with a s/s wall connection (code 267)

#### **IDENTIFICATION CODES**

Code	TRIO.BAS RABS ISOLATOR with 1 SATELLITE PACK (*)
268K	TRIO.BAS RABS ISOLATOR 100 Contact with 1 Satellite Pack
269K	TRIO.BAS RABS ISOLATOR 100 Petri with 1 Satellite Pack
270K	TRIO.BAS RABS ISOLATOR 200 Contact with 1 Satellite Pack
271K	TRIO.BAS RABS ISOLATOR 200 Petri with 1 Satellite Pack

(\*) each PACK consists of: 1 TRIO.BAS RABS ISOLATOR with battery charger, 1 calibration certificate, 1 s/s satellite, 1 s/s aspirating head with s/s cover head, 1 cable connection (5 mt), 1 robustus medium carrying case.

260K SATELLITE	E UNIT Contact PACK
261K SATELLITE	E UNIT Petri PACK

(\*) each PACK consists of: 1 s/s satellite, 1 s/s aspirating head with s/s cover head, 1 cable connection (5 mt), 1 light case carrying case. (\*\*) second or third satellite to be added to basic sampler.



TRIO.BAS RABS ISOLATOR + 1 SATELLITE





TRIO.BAS RABS ISOLATOR + 2 SATELLITES

TRIO.BAS RABS ISOLATOR + 3 SATELLITES



### TRIO.BAS MONO and TRIO.BAS DUO for potential explosive environments (ATEX)





#### PERFORMANCES

- The air sampler have the same performances as TRIO.BAS MONO and DUO
- TRIO.BAS ATEX microbial air samplers are used in Zone 2 Explosion Hazard areas (II 3G Ex nA IIC T4 Gc IP55). They are specifically and individually certified by an independent authority
- The TRIO.BAS ATEX microbial air samplers (MONO, DUO) are built with components and production process equivalent to ATEX (explosion proof) certification
- Built in ISO 9000 premises

#### **IDENTIFICATION CODES**

Code	TRIO.BAS ATEX MONO with BLUETOOTH (BASE STATION INDUCTION BATTERY CHARGER AND ASPIRATING HEAD TO BE ADDED TO THE ORDER)
207	TRIO.BAS MONO BLUETOOTH ATEX (Explosion proof) Air sampler (100 lts/min) CONTACT 55 plate
208	TRIO.BAS MONO BLUETOOTH ATEX (Explosion proof) Air sampler (100 lts/min) PETRI 90 plate
209	TRIO.BAS MONO BLUETOOTH ATEX (Explosion proof) Air sampler (200 lts/min) CONTACT 55 plate
210	TRIO.BAS MONO BLUETOOTH ATEX (Explosion proof) Air sampler (200 lts/min) PETRI 90 plate
Code	TRIO.BAS ATEX DUO with BLUETOOTH (BASE STATION INDUCTION BATTERY CHARGER AND ASPIRATING HEAD TO BE ADDED TO THE ORDER)
Code 227	
	(BASE STATION INDUCTION BATTERY CHARGER AND ASPIRATING HEAD TO BE ADDED TO THE ORDER)
227	(BASE STATION INDUCTION BATTERY CHARGER AND ASPIRATING HEAD TO BE ADDED TO THE ORDER) TRIO.BAS DUO BLUETOOTH ATEX (Explosion proof) Air sampler (100 lts/min) CONTACT 55 plate



### DAILY SHIFT HEAD

RIO. BAS \*\*

#### Sterile aspirating head for TRIO.BAS air samplers



340 (certification of sterilization in each box)



341 (certification of sterilization in each box)





#### DESCRIPTION

- The sterile Daily Shift aspirating heads (DSH sterile Daily Shift Head) are sterile and avoid the sterilization of stainlees steel aspirating heads.
- The sterilization is proven by an official certificate. This document is requested by regulatory authorities.
- The double irradiated sterile packaging allows the users to always have aspirating heads ready for use.
- The transparency of the sterile Daily Shift is useful to check that the culture plate is inserted correctly in the aspirating chamber.
- Main customers for sterile Daily Shift are agro-food industries, dairy, catering, HACCP, beverage, cosmetic, sewage treatment plant, outdoor environment, primary and secondary schools, pharmaceuticals, cleanrooms, biotech, hospital, clinic, microbiological labs, HVAC building monitoring, environmental labs, healthcare ambient monitoring, health autoritties.
- They are suitable for all TRIO.BAS air samplers.
- Shelf life: 6 years from the date of sterilization.

#### **IDENTIFICATION CODES**

Code	Sterile Aspirating head	
340	Sterile Daily Shift Aspirating Head (DSHR) for Contact plate 55 mm - in double sterile bag (30xbox)	
341	Sterile Daily Shift Aspirating Head (DSHP) for Petri 90 mm plate - in double sterile bag (30xbox)	



### Essential Items to Add

Aspirating Head for TRIO.BAS air samplers







336

#### DESCRIPTION

- Each microbial air sampling cycle, or group of sampling in the same controlled environment, with an active air sampler, requests the use of a sterile aspiration head.
- Each s/s aspiration head should be therefore sterilized by autoclaving and a sterilization document must be filled in, as requested by regulatory inspectors.

#### PERFORMANCES

- The metal aspirating head are made in polished AISI 316 stainless steel. They are physically and individually tested and have an identification number according to GLP and GMP
- An important characteristic is the light weight that gives to the air sampler a good handling and easy manipulation for the operator

- This process of sterilization should be avoided adopting the sterile "Daily Shift" antistatic resin plastic head that are double packed and complete of official certificate of sterilization by irradiation.
- The bayonet type closure simplifies the application to the aspirating chamber of the sampler and avoids the production of particulates
- The head has 219 calibrated holes 1mm diameter
- Built in ISO 9000 premises

ASPIRATING HEADS		
Code	Sainless Steel Aspirating Head	
330	Stainless steel ASPI HEAD Contact 55 plate	
331	Stainless steel ASPI HEAD Petri plate 90 mm	
465	Cover head stainless steel to protect ASPI HEAD	
334	Blind Head stainless steel to protect the Aspirating Chamber when not in use	
Code	Thermopolymer Aspirating Head - autoclavable (Optional)	
336	Thermopolymer ASPI Head (AHTP-90) for Petri plate 90 mm (5xbox)	

#### **IDENTIFICATION CODES**





### INDUCT SYSTEM

Base station induction battery charger. Essential unit for TRIO.BAS Induction sampler





#### **DESCRIPTION**

- The batteries are charged when the sampler is in a rest position
- The main advantage of the induction battery charger is that there are not cable connections and the TRIO.BAS unit is IP65 certified
- The sampler is free of any external plugs
- The base station induction battery charger may be replaced by SELFTEST SYSTEM. This charges and can check the correct flow rate at regular intervals
- In the base station there is a USB socket for connecting and recharging other external devices (Bluetooth printer, smartphone, Barcode reader, etc.)
- Sizes: 220x125x50h cm
- Built in ISO 9000 premises

#### **IDENTIFICATION CODE**



 Code
 Base Station Induction Battery Charger for TRIO.BAS MONO, DUO, TRIO and MULTISTATION

 310
 Base Station Induction battery charger 100/240VCA 50/60Hz 35W



www.triobas.com

MADE IN ITALY
## SELFTEST SYSTEM

Induction battery charger incorporates a differential pressure device to monitor the deviation of the flow rate compared to the calibration value



- Each group of TRIO.BAS Induction should have at least one of this unit to evaluate at regular intervals the correct volume of aspirated air (ok – warning – error)
- Technopolymer aspirating bell chamber
- Base station induction battery charger





### **DESCRIPTION**

- The SELFTEST is a system that, instead of the auto calibration already present in the air sampler, checks the precision of the air flow rate. This check is necessary to avoid invalidation of the tests during annual controls for official certification.
- The bell chamber is connected through a tube to the base station induction battery charger.
- Main customers are GLP/GMP for pharmaceutical, cleanroom and biotech industries.
- The base station includes the power supply for charging the battery of TRIO.BAS air samplers.
- SELFTEST is suitable for all air samplers with induction charger only.
- This system works measuring the depression generated by the air sampler while air is aspirated through a special lid dome shaped to be applied on the aspirating head. A differential pressure sensor measures that depression and compares it with the set value stored in the TRIO.BAS sampler under test. At the end of the test, on the LDC of the TRIO.BAS air sampler appears the result: it can be OK (the air sampler is calibrated), or WARNING or ERROR (the air sampler is not calibrated).
- The result is recorded automatically into the air sampler according data integrity.
- Built in ISO 9000 premises

### **IDENTIFICATION CODES**

Code	SELFTEST SYSTEM (*)
351	Base Station induction battery charger with user SELFTEST check calibration system (100 lt/min) for Contact Plate or Petri 90 mm plate
352	Base Station induction battery charger with user SELFTEST check calibration system (200 lt/min) for Contact Plate or Petri 90 mm plate



Aspirating bell of SELFTEST connected to aspirating head of air sampler



TRIO.BAS TRIO under control with SELFTEST



SELFTEST system

## **VERITEST SYSTEM**

T R I O . B A S ...

To check, at regular interval, the precision's level of the air flow rate



- Aluminium aspirating bell chamber
- CE mark

## **DESCRIPTION**

- The VERITEST is a system that, instead of the auto calibration already present in the air sampler, checks the precision of the air flow rate. This check is necessary to avoid invalidation of the tests during annual controls for official certification.
- Main customers are GLP/GMP for pharmaceutical, cleanrooms and biotech industries.
- The VERITEST is a manual system and the results need to be reported in a document validated by a quality controller.
- VERITEST is suitable for all air samplers and satellites.
- Sizes: 12,5x5h cm.

- Command data unit
- This system works measuring the depression generated by the air sampler while air is aspirated through a special lid dome shaped to be applied on the aspirating head.
   A differential pressure sensor measures that depression and compares it with the set value stored in the TRIO.BAS sampler under test. At the end of the test, on the LDC of the TRIO.BAS air sampler appears the result: it can be OK (the air sampler is calibrated), or WARNING or ERROR (the air sampler is not calibrated any more).
- Built in ISO 9000 premises.

## **IDENTIFICATION CODE**

 Code
 VERITEST SYSTEM

 353
 VERITEST - check calibration system (100 - 200 lt/min) with power supply cable 100/240 VOLT and light carrying case



# TRIO.GAS SYSTEM



Complement to test the microbiological quality of compressed air/gas used in cleanrooms. To be used with ASPI Gas chamber or TRIO.BAS



- Stainless steel calibrated valve and bell chamber
- Official calibration certificate
- Suitable for 90 mm Petri dishes or 55 mm Contact plates
- A stainless steel calibrated valve guarantees 100 litres per minute flow rate
- Totally made in stainless steel AISI 316
- Each component of the TRIO.GAS adaptor instrument is autoclavable



## **DESCRIPTION**

- The TRIO.GAS guarantees that product contact air is contamination free within sterile or aseptic manufacturing facilities (e.g. cleanroom).
- Main customers are pharmaceuticals, cleanrooms, food and dairy industries.
- The system is according to ISO Standard 8573-7 and ISO 14698-1.
- Before passing through a TRIO.BAS air sampler, the air flow from the compressed supply is regulated by an autoclavable flow meter.

### PERFORMANCES

- Made in stainless steel AISI 316
- Totally sterilizable
- Volume of aspirating air: 100 litres/min
- The aspirating chamber is suitable for 90 mm Petri dishes or 55 mm Contact plates

- All the sampling data are transferred via Bluetooth (using TRIO.BAS air sampler) to a tablet/smartphone or via Bluetooth to a PC by a downloaded dedicated software (ASPC) according to GMP and GLP.
- When TRIO.GAS is used in combination with a TRIO.BAS air sampler the time is regulated by the software of the air sampler.
- Whenever TRIO.GAS is used in combination with ASPI Gas Chamber, the test is manual and the time is regulated by a timer counter.
- Fully complaint according ISO 8537-7 and EN/ISO 14698-1 FDA
- Dimension: 40x18x25h cm
- Weight: 5290 gr
- Built in ISO 9000 premises

## **IDENTIFICATION CODES**

Code	TRIO.GAS SYSTEM
600	TRIO.GAS SYSTEM complete of stainless steel electrovalve, gas connection, stainless steel fixing system for air sampler, 1 carrying case and 1 calibration certificate
470	ASPI GAS CHAMBER - for Contact plate with ASPI HEAD in stainlees steel and timer
471	ASPI GAS CHAMBER - for Petri 90 mm plate with ASPI HEAD in stainlees steel and timer

Data must be manually recorded and sample must be timed when using ASPI Gas chamber without a TRIO.BAS instrument.



TRIO.GAS in combination with a TRIO.BAS MONO



TRIO.GAS in combination with an ASPI GAS CHAMBER



## **Contact Plate Sampler system for surfaces**





- Timer: 10 seconds
- Operating temperature: 0-40°C
- Size: diameter 95x45H mm
- Code 289



## DETECTION AND ENUMERATION OF BACTERIA, YEASTS AND MOLDS ON SURFACES

- TRIO.CPS is used to evaluate the correct cleaning of all surfaces in contact with food and dairy products to validate the HACCP and training of the staff.
- TRIO.CPS is used in the pharma's cleanroom, biotech plants and healthcare facilities to standardize the surface monitoring by using the traditional irradiates culture media.
- TRIO.CPS is used in combination with the most commercial Contact plate (e.g. RODAC) diameter 55 mm: the standard weight and 10 seconds with visual display guarantee to meet the ISO 18593 for horizontal surface sampling.
- The results are comparable with different operators.
- The metal base guarantees an easy sterilization/disinfection.
- The CFU are counted at the end of incubation and the results are reported as CFU/cm2 or CFU/culture plate.
- The used media are for Total Bacterial Count (e.g. Trypticase Soy Agar with Lecithin and Polysorbate 80) and Total Yeast and Molds Count (e.g. Sabouraud Glucose Agar with Lecithin and Polysorbate 80).



Insert the timer in the TRIO.CPS

Set the 10 seconds timer

1

5





Insert the contact plate in its slides

Remove the lid from the contact plate



Put the TRIO.CPS system in contact with the surface to be sampled

Start the 10 seconds timer and lift up the TRIO.CPS at the (6) end of time



(7)Apply the lid to the contact plate, remove the plate ready to

be transferred to the microbiological lab

Report the results as CFU/plate or CFU/cm2 (8)

## ACCESSORIES







## TRIO.BAS TABLE HOLDER family

The holders are robustus platforms which greatly improve the stability of the air sampler when vertically positioned and reduce the risk of fall or damage.

#### STAND UP HOLDERS:

Completely made in high density impact resistant technopolymer. The shaped base allows the vertical positioning of the air sampler with the use of just one hand. They can be positioned in any work surface or on all tripods and MINI multi holder chart with wheels. The stand up fixed on vertical tripod lets the air sampler be independent from the vertical tripod for charging the battery or removing the plates for sampling.





#### 521 - VERTICAL HOOK

Size 13x10x25h cm - weight 300 gr.

Completely made in stainless steel AISI 316. The shaped base allows the vertical positioning of the air sampler with the use of just one hand. It can be positioned in any work surface or can be fixed on all tripods and MAXI multi holder chart with wheels. The vertical hook fixed on vertical tripod lets the air sampler be independent from the vertical tripod for charging the battery or removing the plates for sampling.



#### 530 - WALL/TABLE HOLDER

Size 21x13x16h cm - weight 700 gr.Completely made in stainless steel AISI 316. It can be positioned in any work surface or can be fixed onto a wall to keep the air sampler in the same direction of the air coming out from conditioned port.



#### 373 - FLAT HOLDER

Size 14x12x1h cm - weight 100 gr.

Completely made in high density impact resistant technopolymer. The shaped base allows the vertical positioning of the air sampler. This holder is suitable with air sampler with base station induction battery charger only.

## TRIO.BAS FLOOR TRIPOD family

The floor tripods allow to position the air samplers higher than work surface and orientate them differently from vertical position.



#### **380 - STANDARD FLOOR TRIPOD**

Adjustable height from 56 cm to 153 cm. Completely made in aluminium. A ball joint fixes the air sampler and adjust the orientation of the air sampler.

The air sampler can be fixed directly on the tripod or alternatively on a stand up holder (optional) fixed on the tripod.



#### **523 - STAINLESS STEEL FLOOR TRIPOD**

Adjustable height from 150 cm to 200 cm. Completely made in stainless steel AISI 316. A ball joint fixes the air sampler and adjust the orientation of the air sampler. As made in stainless stee to avoid particle emissions, this tripod is suitable mostly for cleanrooms. The air sampler can be fixed directly on the tripod or alternatively on a stand up holder (optional) fixed on the tripod.

### TRIO.BAS CART ON WHEELS family



#### **371 - MINI MULTI HOLDER CART ON WHEELS**

#### Size 25x35x70h cm

Completely made in stainless steel AISI 316. As made in stainless stee to avoid particle emissions, this tripod is suitable mostly for cleanrooms.

It is robustus and it be easily used with the air sampler fixed on it. It is equipped with 3 shelves. It is suitable for medium height sampling.





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#### 372 - MAXI MULTI HOLDER CART ON WHEELS

Size 25x35x70h cm - adjustable height from 100 cm to 210 cm Completely made in stainless steel AISI 316. A fixed vertical hook and a vertical extensible support with ball joint are included with the chart. As made in stainless stee to avoid particle emissions, this tripod is suitable mostly for cleanrooms.

It is robustus and it be easily used with the air sampler fixed on it. It is equipped with 3 shelves. It is suitable for high height sampling.

## MULTI HOLDER CART ON WHEELS

## mini model

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The Stand up fixed on the surface of the cart guarantees the stability of the instrument during the movements. It also makes the instrument independent from the cart





Fixing system of the stand up to the cart

#### **DESCRIPTION**

- The air sampler remains safely on the cart during staff movement or activities inside the cleanroom.
- The air sampler remains in rest position during battery charging phase.
- The 3 shelves guarantee a better organization of environmental monitoring operations inside the cleanroom.
- The air sampler can be positioned on a stand up holder to avoid falls or errors by the staff.
- Optional: stand up holder for TRIO.BAS MINI (code 370), stand up holder for TRIO.BAS MONO, DUO, TRIO (code 376) or stand up holder for AIRBIO (code 377).

## **IDENTIFICATION CODES**

Code	MULTI HOLDER MINI
371	MULTI HOLDER MINI – stainless steel cart on wheels – size 25x35x70h cm



## MULTI HOLDER CART ON WHEELS

## maxi model



Vertical hook fixed on the cart





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The stand up fixed on vertical monopod lets the air sampler independent from the cart. The operator is facilitated when he has to remove the instrument to charge the batteries and remove the Petri dishes after sampling.

## DESCRIPTION

- The air sampler remains safely on the cart during staff movement or activities inside the cleanroom.
- It is totally made in stainless steel, so that it is easy to clean and disinfect.
- Thanks to the extensible support, it is suitable for different positions and heights of the air sampler inside the cleanroom.
- The maxi model consists of one cart, the vertical hook and the vertical extensible support.

extension 130 cm - max extension 210 cm)

- Optional: stand up holder for TRIO.BAS MINI (code 370), stand up holder for TRIO.BAS MONO, DUO, TRIO (code 376) or stand up holder for AIRBIO (code 377).
- The air sampler can be positioned in critical points of the cleanroom where there are risk of contamination:
  - in the same direction of the vertical unidirectional air flow
    in the same direction of the horizontal
  - unidirectional air flow
  - close to vials closure
  - close where the staff movement is more concentrated
  - close to doors/interchange

## **IDENTIFICATION CODES**

Code	MULTI HOLDER MAXI
372	Stainless steel cart on wheels with vertical hook holder and vertical extensible support – size 25x35x70h cm (min



## CARRYING CASE family

The air samplers are generally transferred from/to different production environments, even far from one to another. They are also periodically sent to service centers for calibration.

Due to that, they need cases that protect them during movings and avoid damages.

The TRIO.BAS carrying cases are either lightweight or robustus against any impact. The robusuts models are IP67 certified and they are resistant from extreme temperature changes. The inside is shaped and made by lightweight impact resistant materials.





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Code	CARRYING CASE
392	ROBUSTUS LARGE carrying case for TRIO.BAS MULTIFLEX 1+2/TRIO.BAS MULTISTATION with 1/3 Satellites - 56x43x22h cm
394	ROBUSTUS MEDIUM carrying case for TRIO.BAS MULTIFLEX 1+2/RABS ISOLATOR with 1/3 Satellites - 56x43x22h cm
395	ROBUSTUS STANDARD carrying case - 48x38x17h cm
398	ROBUSTUS LARGE carrying case TRIO.GAS - 56x43x31h cm
401	ROBUSTUS MEDIUM carrying case for ARBIO - 56x43x22h cm
402	ROBUSTUS MEDIUM carrying case for GAS TEST - 56x43x22h cm
403	LIGHT carrying case for CALITEST - 34x30x16h cm
524	LIGHT STANDARD carrying case for TRIO.BAS MINI - 43x35x19h cm

#### **BLUETOOTH PRINTER**

#### DIRECT PRINTING



#### **520 - BLUETOOTH PRINTER**

Ultra-light and compact portable Bluetooth printer with a large roll of paper and high printing autonomy. It has an end paper sensor and it prints most popular barcodes. A practical belt hook, a battery charger and USB cable are included in the package. Size 11x9x5h cm - weight 450 gr.

421 - ROLL PAPER

For BLUETOOTH PRINTER - size 57 mm - 10 x box

## **BARCODE READER**



#### 294 - BARCODE READER BLUETOOTH 1D 2D USE

This miniature barcode reader, which is frequently used in microbiological air monitoring procedure, can help to save time, to better control the activity of the operator and to achieve a complete traceability of the test - size 6x3,5x1,5h cm - weight 45 gr.

#### 291 - LOCATION PRESET BARCODE TAG

Size 8,5x5,5 cm - 10 x box

292 - USER PRESET BARCODE TAG

Size 8,5x5,5 cm. - 10 x box

#### **CPU Command Portable Unit**



#### **301 - PCU - PORTABLE COMMAND UNIT**

301 - PCU PORTABLE COMMAND UNIT This device has the APP Android ASAPP (code 300) already installed. It has a display 7" LCD. The Bluetooth connection with all TRIO.BAS instruments allows to download the sampling data. The PCU can also be used to remotely switch on, switch off and pause the air sampler. The data downloaded from the instruments through the PCU can be transferred to a PC where Air Sampler ASPC software is installed (i.e. by USB connection). The PCU Portable Command Unit is an ideal instrument to simplify and to facilitate the activity of operator.

#### TRIO.MINI INCUBATOR



#### 565 - TRIO.MINI INCUBATOR

Codice 565 This small incubator is designed for small companies that normally do not have a microbiological laboratory and must keep the Petri plates or Contact plates used with the TRIO.BAS air samplers at the right temperature. The TRIO.MINI INCUBATOR is compact and economical. The body is made in technopolymer. A plexiglass door offers full visibility to the inside. One shelf is included. A thermometer allows the user to monitor the temperature. It can include up to 48 Petri dishes. Temperature range: +5° to +45°C. - exterior dimensions 28x28x33h cm - interior dimensions 23x20x20h cm - weight 4 kg. - electrical 230 volt.

### BAS.SOFTWARE PC for TRIO.BAS Microbial Air Samplers



#### 296 - BAS.SOFTWARE PC FOR TRIO.BAS MICROBIAL AIR SAMPLERS

The BAS.SOFTWARE PC allows to transfer the environmental sampling data from TRIO.BAS air samplers to PC according to Data Integrity as requested by regulatory authorities. The BAS.SOFTWARE PC is a software for personal computer (PC) that allows database management, editing, reporting and remote control the air samplers via Bluetooth® or via cable. Data integrity means that data must be reliable and accurate over its entire lifecycle. The most important features of BAS.SOFTWARE PC are: 1. Management of users, passwords and related permissions. 2. Communication and data transfer between TRIO.BAS air samplers

#### IQ,OQ, PQ documents



#### 500... AND MORE - IQ, OQ, PQ DOCUMENTS

For industries involved in pharmaceutical and healthcare products or laboratories, product quality is very important and even small inconsistencies can generate disastrous results. Installation Qualification (IQ), Operational Qualification (OQ) and Performance Qualification (PQ) are essential parts of quality assurance in the equipment validation. IQ OQ PQ protocols establish that the equipment, which is installed and used, offers a high quality assurance, so that manufacturing processes will consistently produce products that meet predetermined quality requirements.

#### CALIBRATION

We recommend to calibrate the air samplers every 6-12 months. We also recommend a recalibration when the air sampler is potentially damaged or the flow rate is compromised or anytime the firmware is upgraded.

During the recalibration, the air sampler's flow rate is checked to guarantee the value of aspirated air is consistent and the instrument works correctly. A detailed certificate of calibration is issued after the calibration.



## Why TRIO.BAS?

