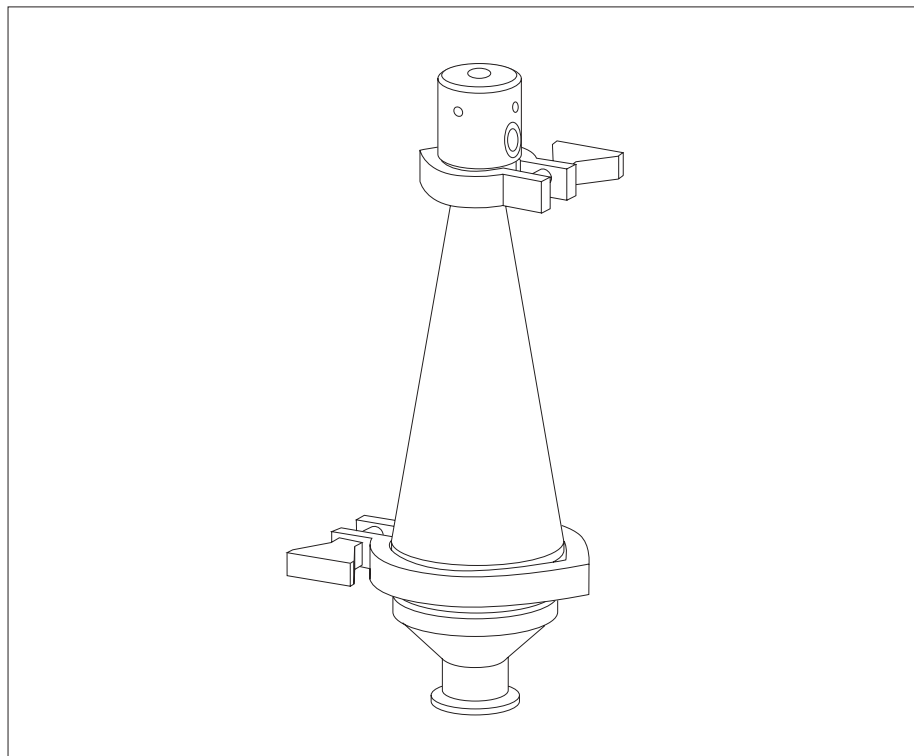


M Air T[®]

Compressed Gas and Air Sampling Kit

User Guide



MILLIPORE

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Introduction

The new M Air T[®] Compressed Gas and Air Sampling Kit is designed especially to monitor the microbiological quality of compressed gas and air used in the pharmaceutical and food & beverage industries.

Connected to the M Air T Isolator Pump ATBPUMP01, the new sampling kit allows accurate sampling and microbiological monitoring of a compressed gas sample, by direct impaction onto the M Air T pre-filled agar cassette.

The pre-sterilized M Air T agar cassettes used with the M Air T Compressed Gas and Air Sampling Kit are easier to handle, especially when wearing gloves, significantly reducing the risk of inadvertent contamination. The M Air T Compressed Gas and Air Sampling Kit is manufactured from stainless steel, with sanitary Tri-Clover[®] connections, making it autoclavable.

The design of the M Air T Compressed Gas and Air Sampling Kit allows one to sample compressed gas or air up to 5 bar (73 psi) of pressure, without any pressure reducer.

Applications

The M Air T Compressed Gas and Air Sampling Kit, connected to the M Air T Isolator Pump, is suited for a variety of applications, as follows.

Pharmaceutical

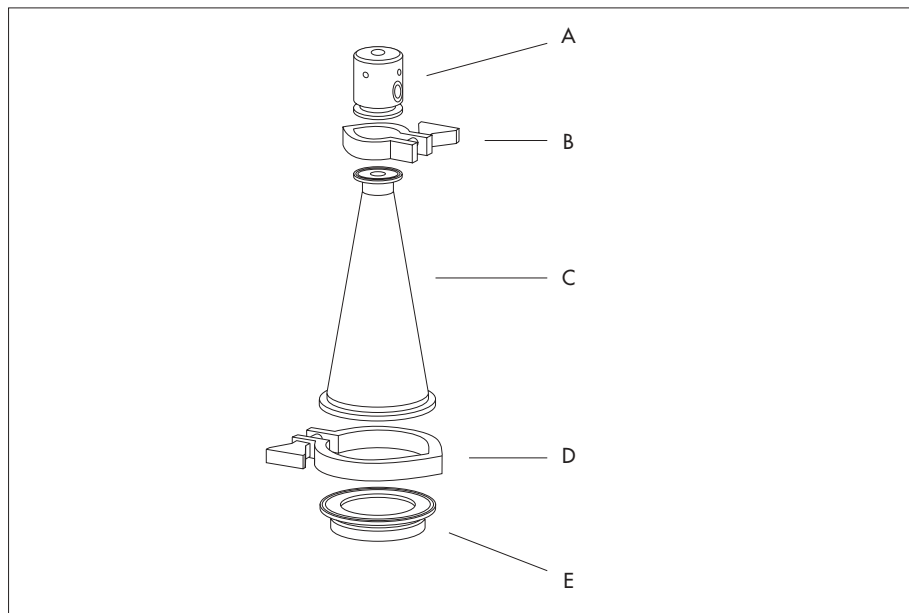
- Evaluation of the microbiological quality of compressed gas or air used for blanketing, purging, sparging or stirring products
- Evaluation of the microbiological quality of confined areas such as Blow Fill Seal (BFS) sterile showers

Food and Beverage

- Evaluation of the microbiological quality of compressed gas or air used for blanketing, purging, cooling and freezing products

Component Diagram

Item	Description	Function
A	Pressure reducer	Connected to the sampling port, to reduce incoming pressure
B	Clamp, 1.5 in. TC	To connect pressure reducer to cone adapter
C	Cone adapter	To reduce charge loss and to expand impaction onto the entire agar surface
D	Clamp, 4 in. TC	To connect cone adapter to impaction sieve
E	Impaction sieve	Captures microorganisms using 611 micro-perforations

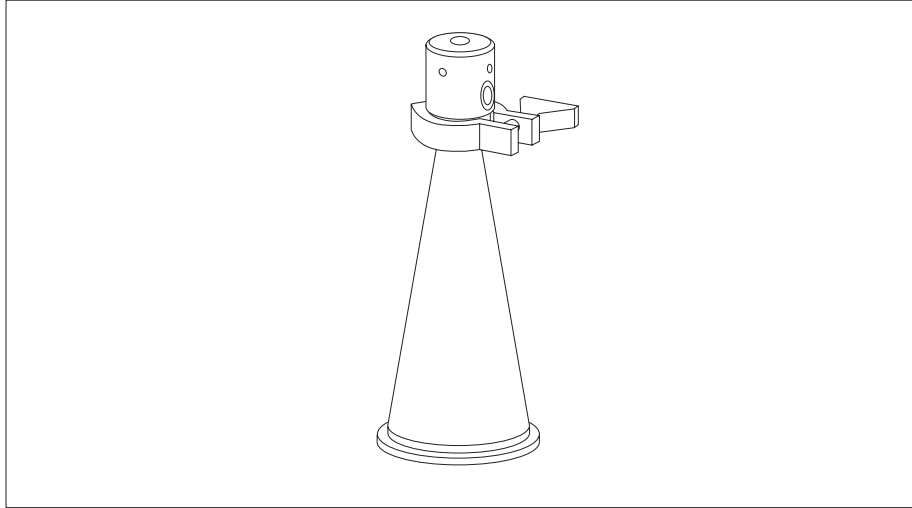


Precautions/Limitations

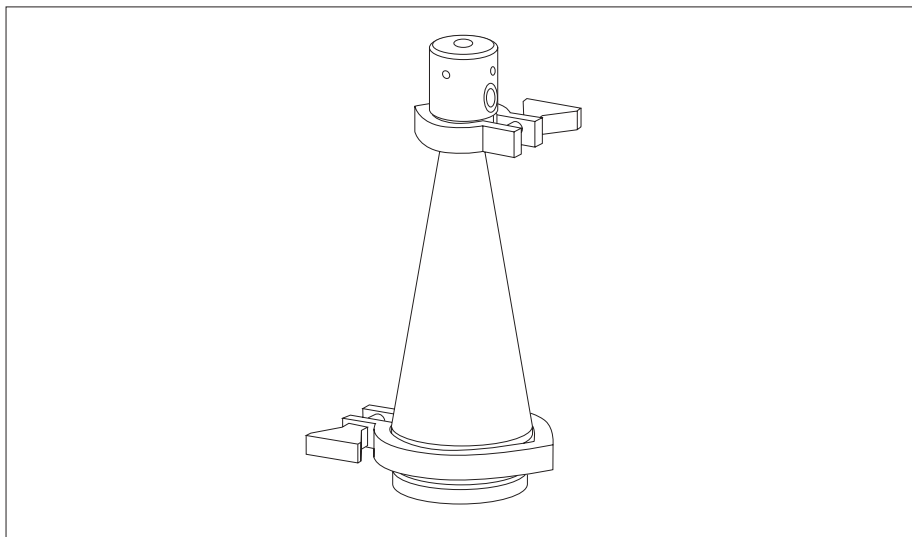
- Autoclave all parts at 121 °C for 20 minutes before any compressed gas or air sampling.
- Use only with the M Air T Isolator Pump.
- Use only M Air T cassettes with this unit.
- Do not use for microbiological monitoring of compressed O₂.
- Do not sample gas or air at pressures above the specified limit of 5 bar (73 psi).

Assembling the M Air T Compressed Gas and Air Sampling Kit

1. With the 1.5-inch TC clamp, connect the valve to the cone adapter.



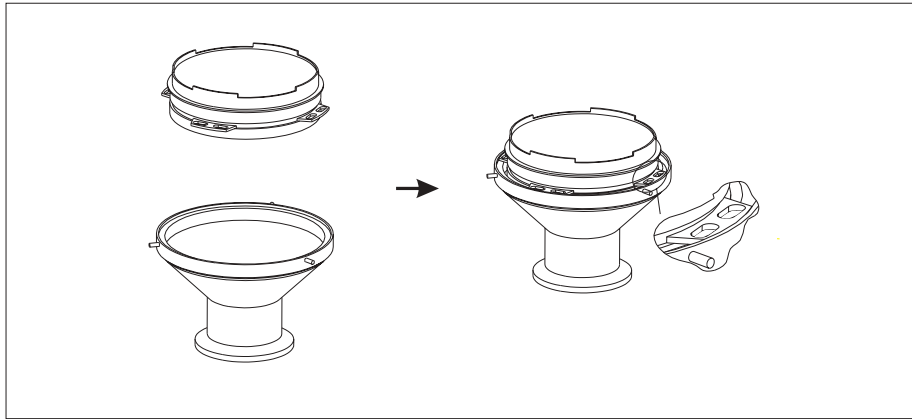
2. With the 4-inch TC clamp, connect the cone adapter to the impaction sieve and then autoclave.



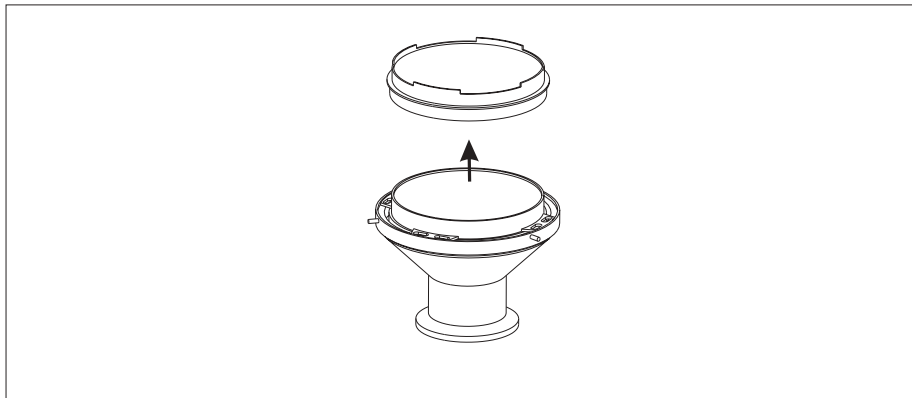
Installing the M Air T Cassette

The M Air T cassette, in its gamma-irradiated double-sleeve packaging, has been qualified and validated to monitor up to 1000 liters of compressed gas or air.

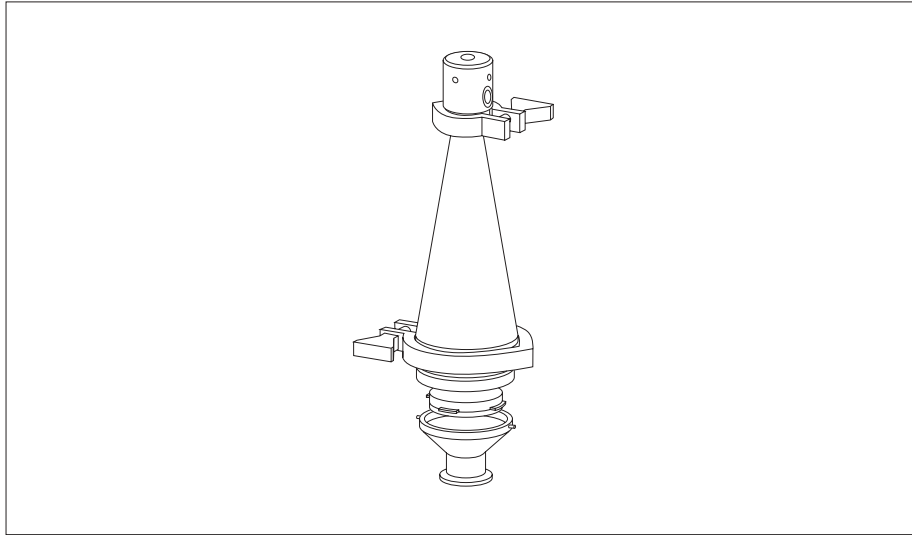
1. Grasp the wings of the cassette and place it on the sampling head. Lock the cassette into place.



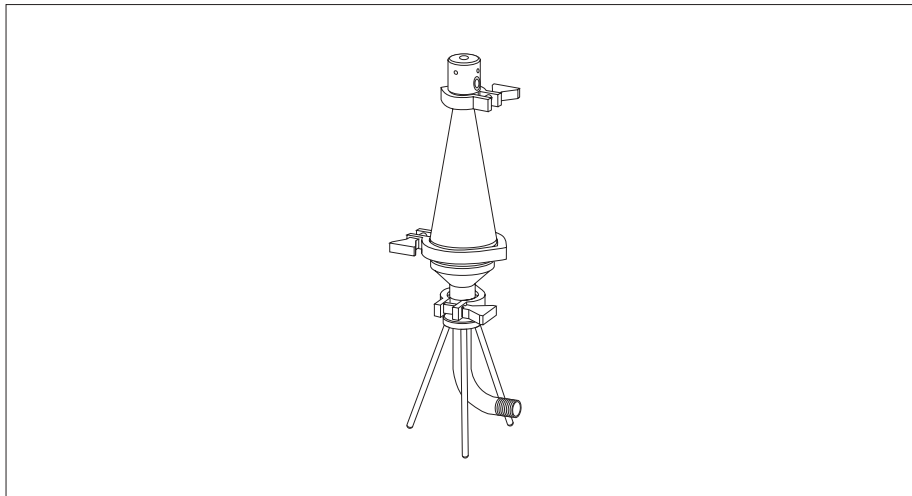
2. Remove the cover and place it on a work surface with the inside facing down.



3. Place the sieve, cone adapter and pressure reducer on the cassette and lock it into position.



4. As described in detail in the M Air T Isolator Pump User Guide, connect the assembly to the pump:
 - a. Install the assembly on the tripod.
 - b. Connect the assembly to the pump, using the silicone tubing.



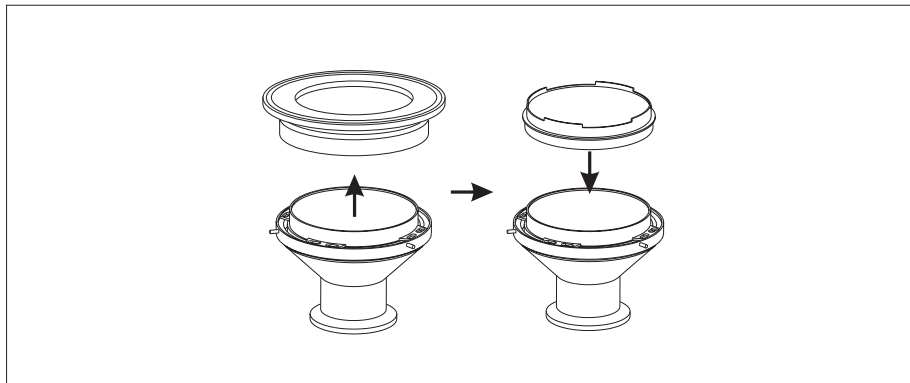
Installing the M Air T Cassette, continued

5. Connect the compressed gas sampling port to the inlet connection of the pressure reducer.
6. Open the sampling valve and adjust the valve indicator to between 5 and 6 mm, to achieve an inlet gas flow rate between 140 and 180 liters/minute.

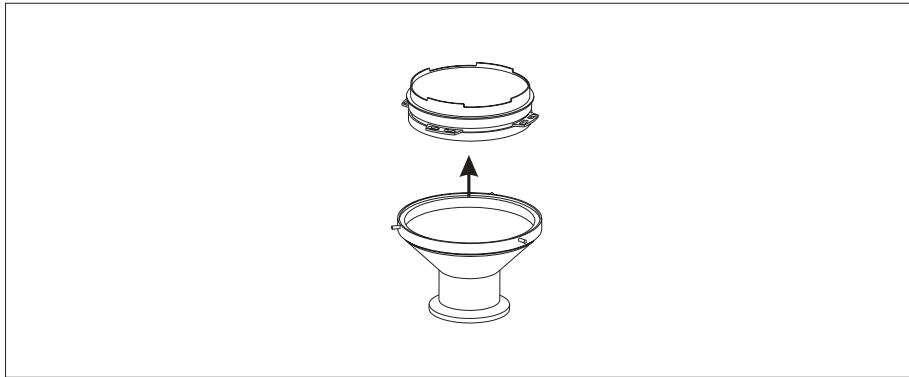
Note: If the sampling port does not allow this flow rate to be achieved, a flow rate adjustment valve can be placed between the sampling port and the pressure reducer.

CAUTION: During sampling, the inlet gas flow rate must exceed the vacuum flow rate (136 liters/minute), so that the excess air will be diverted through the evacuation holes to the pressure reducer.

7. After sampling, close the sampling port. Loosen the sieve connected to the cone adapter, remove it and replace the cassette cover.



- Remove the cassette by grasping the “wings” and lifting it off the sampling head.



- Label the cassette.

NOTE: Incubate the cassette upside down.

Specifications

Dimensions (M Air T Compressed Air/Gas Sampling Kit):

Total height:	310 mm (12.2 in.)
Total width:	170 mm × 130 mm (6.7 in. × 5.11 in.)
Total weight:	3.5 kg
Maximum operating pressure:	5 bar (73 psi)

Materials of Construction

Pressure reducer, cone adapter, sieve and clamps:	316 AISI stainless steel
Gaskets	silicone

Product Ordering Information

This section lists the catalogue numbers for the M Air T Compressed Gas and Air Sampling Kit. See the Technical Assistance section for information about contacting Millipore. You can also buy Millipore products on-line at www.millipore.com/purecommerce.

Description	Qty/Pk	Catalogue No.	
M Air T Compressed Gas and Air Sampling Kit	1	ATBH GAS 01	
<i>The kit includes the following:</i>			
M Air T pressure reducer	1	ATBH PRE 01	
M Air T cone adapter	1	ATBH CON 01	
M Air T sieve for cone adapter	1	ATBC SEV 01	
Clamp, 1.5 in. TC	1	YY20 040 45	
Clamp, 4 in. TC	1	FTPF 007 88	
Silicone gasket, 1.5 in. TC	10	YY20 040 55	
Silicone gasket, 4 in. TC	10	FTPF 007 89	
Flow Rate Adjustment Valve (Optional)			
Valve, 3/4 in. TC	1	YFS7ETC34	
Female Plug, 3/4 in. TC	1	YFS714N34	
Silicone seal, 3/4 in. TC	10	YFS7S0034	
Clamp, 3/4 in. TC	1	YFS7TCC34	
M Air T Isolator Pump and Accessories			
M Air T isolator pump	1	ATBP UMP 01	
M Air T isolator tripod	1	ATBF EET 01	
M Air T isolator sampling head	1	ATBH EAD 01	
M Air T isolator printer	1	ATBP RNT 01	
M Air T isolator tubing	1	ATBT UBE 01	
M Air T Agar Cassettes			
Pre-filled gamma-sterilized in double sleeves (6 bags with 4 or 10 cassettes each)			
Medium	Application	Qty/Pk	Catalogue No.
Tryptic Soy	Total count	60	ATSM TTD 60
Sab Dex	Yeast and mold	60	ATSM SDD 60
TSA w/ beta lactamase	Areas containing antibiotics	60	ATSM PND 60
Tryptic Soy	Isolator monitoring	24	ATSM TTB 24
TSA w/pyruvate	Isolator monitoring (VHP-sanitized)	24	ATSM TPB 24

Technical Assistance

For more information, contact the Millipore office nearest you. In the U.S., call **1-800-MILLIPORE** (1-800-645-5476). Outside the U.S., see your Millipore catalogue for the phone number of the office nearest you or go to our web site at www.millipore.com/offices for up-to-date worldwide contact information. You can also visit the tech service page on our web site at <http://www.millipore.com/techservice>.

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