

Filters for the Food Industry

CAMTU Compressed Air Microbial Test Unit

Identify Sources of Contamination in Compressed Air and Improve Food Safety

Compressed air is used in a broad range of applications in the food processing industry, such as: mixing of ingredients, cutting, sparging, drying of product, transporting/propelling product through processing systems and packaging of final product.

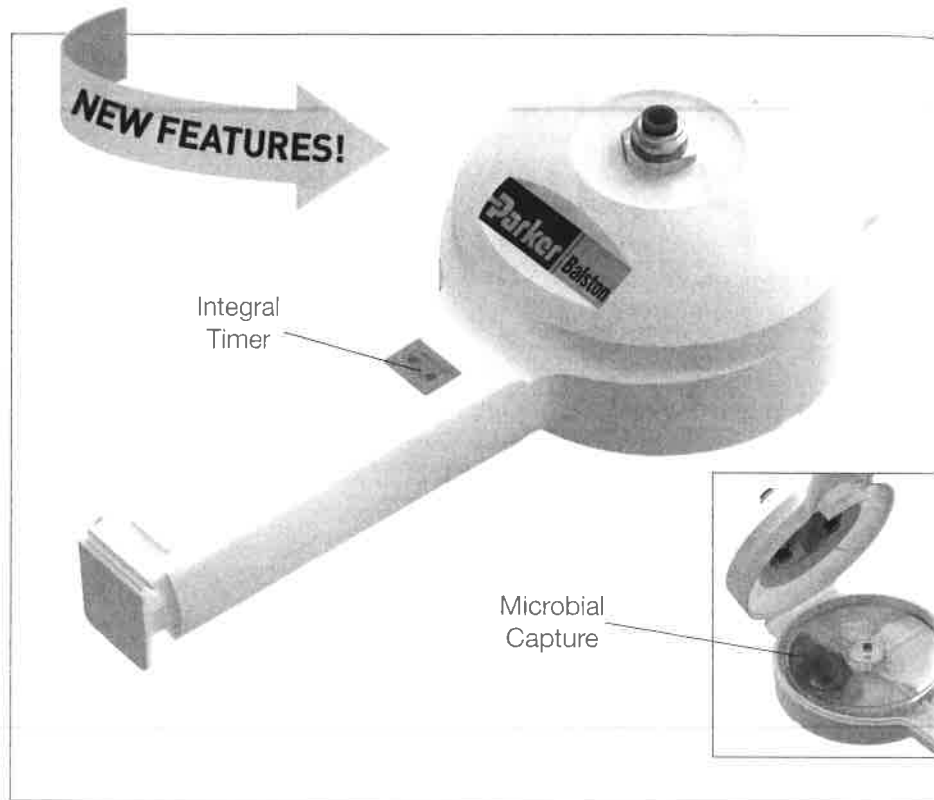
In many of these applications, compressed air is in direct or indirect contact with food product exposing it to bacteria and other micro-organisms which can result in:

- Food contamination which can affect color and taste
- Reduced shelf life
- Product recalls

Compressed air is warm, dark and contains moisture which is the ideal environment to promote the growth of microbes. These microbes migrate through the entire compressed air system and are released at exit points; critical areas at which food, packaging or surface areas come into direct contact.

Most GFSI food safety schemes now recognize food contact compressed air as a potential contamination risk. Safe Quality Foods (SQF) has released the 7.2 Edition. Sections 11.5.7.1 and 11.5.7.2 state:

"Compressed air that contacts food or food contact surfaces shall be clean and present no risk to food safety...Compressed air systems used in the manufacturing process shall be maintained and regularly monitored for purity."



Product Features:

- Lightweight and ergonomically designed for ease of use
- Built in timer with indicator lights
- Pre-filled agar plates with specialized tryptic soy or potato dextrose agar designed to hold up to compressed air flow/pressure
- No electrical supply required
- Quick sampling time - 20 seconds
- Complete kit with connection tubing, pressure regulator/metering orifice, shut off valve, timer and agar plates.
- Constructed of durable polypropylene - easily sanitized

Filters for the Food Industry

CAMTU Compressed Air Microbial Test Unit

The CAMTU provides a quick, effective, cost efficient method of identifying potential sources of contamination

At high risk food contact points where contamination is detected Parker Balston Sterile Air Filters can be used to protect the processes.

British Compressed Air Society has produced a specification for dewpoint (-40F/C), oil removal <math><0.01\text{mg}/\text{m}^3</math> and particulate removal (including microbiological particles) 0.1-0.5 microns. (Request white paper by Lee Scott, "Reducing Contamination Risks of Compressed Air in Food Plants".)

To date, the only devices capable of sampling compressed air systems for microbes are expensive, very cumbersome, require lengthy sampling times and extensive training. Parker Balston recognized the need for an alternative device that is easily transported throughout the food plant and can provide a quick qualitative analysis of compressed air purity requiring very little training.

The CAMTU weighs less than one pound and is easily transported. It

CAMTU



Regulator



CAMTU Sampling System

comes complete with Anti Microbial Tubing, shut off valve and a specially designed pressure regulator and metering orifice. These matched components provide the exact amount of compressed air exposure for each sampling.

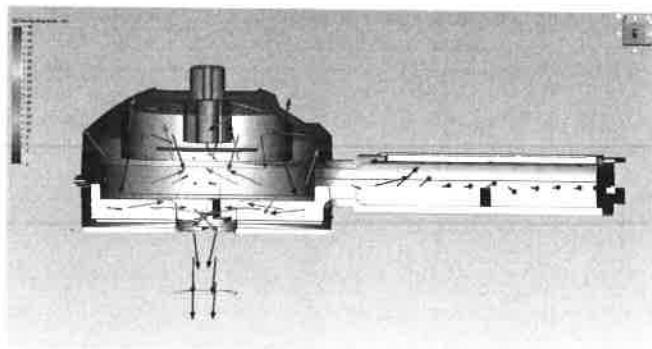
The agar plates are filled with specialized Tryptic Soy Agar (TSA) or Potato Dextrose Agar (PDA) designed to hold up to compressed air flow and pressure. TSA is used for the cultivation of a wide variety of microorganisms including most bacteria and mold spores.

The CAMTU has been validated by Dr. Mclandsborough, head of the Food Science Department of the University of Massachusetts, Amherst MA. (Request white paper by Dr. Mclandsborough "Comparison of the Compressed Air Microbial Testing Unit (CAMTU) to a standard

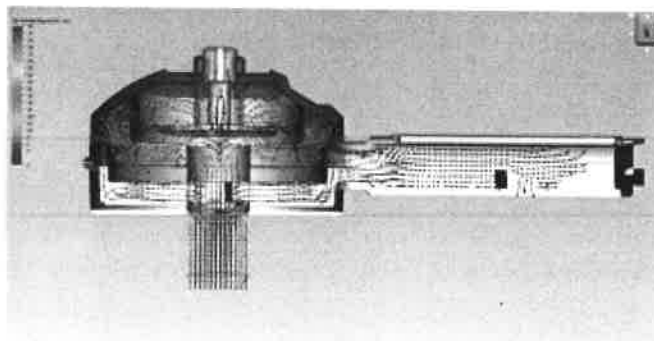
method of bioaerosol sampling.")

To obtain a sample, simply plug the connection tubing into the sample point on the compressed air system, insert an agar plate into the CAMTU, close the CAMTU, open the shut-off valve and expose the agar for 20 seconds. After exposure simply place the agar plate in an incubator for 48 hours or in a controlled environment of at least 68°F and observe for colony forming units (CFUs).

New Custom Designed Agar Plate Provides Enhanced Exposure to the Agar



Flow dynamics original CAMTU with standard agar plate



Flow dynamics new CAMTU with custom agar plate providing more compressed air exposure over the agar plate

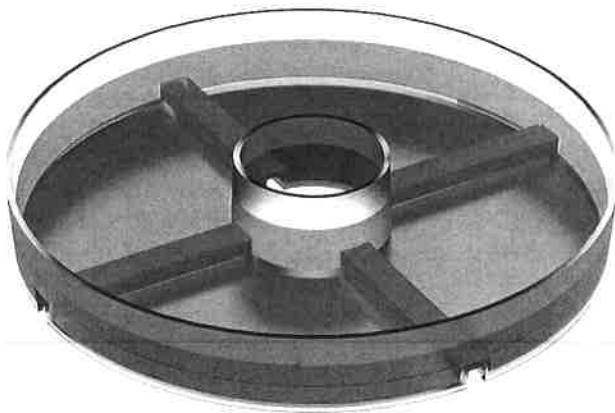
Filters for the Food Industry

CAMTU Compressed Air Microbial Test Unit

Optimum Agar Plate Design

Unlike the conventional agar plate, this unique CAMTU agar plate offers greater dispersion of the compressed air over the agar as a result of an improved air flow path through the center hole in the plate. This provides optimum detection performance and enhanced capture of microbes.

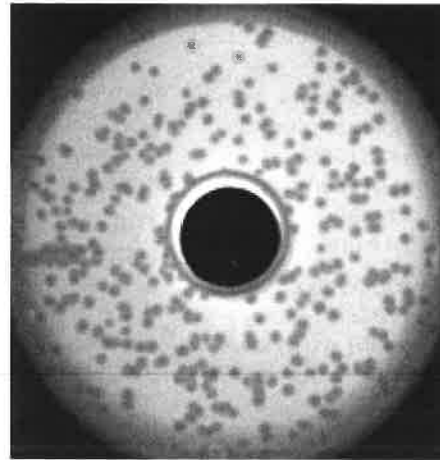
The CAMTU is an ideal device to incorporate into your Good Manufacturing Practices program for monitoring all identified HACCP risk points.



CAMTU Agar Plate

IMPORTANT

Agar plates are shelf-life sensitive and must be stored in a refrigerated environment upon arrival to maximize shelf life. Agar have a 60 day shelf life remaining at time of shipment and cannot be returned.



CFUs growing on an agar plate

Recommendation for High Risk Points

For those risk points where microbes were detected, Parker recommends installing Balston 3 stage sterile air systems which will remove oil, water, rust, pipescale and all microbes from the compressed air (Request Bulletin FMB09). The CAMTU can then be used to monitor those filter systems for optimum performance.



Sterile Air Filter Systems
Balston 6000 Series

Filters for the Food Industry

CAMTU Compressed Air Microbial Test Unit

Principal Specifications and Ordering Information

Description	Part No.
Complete CAMTU Kit	C01-0136
Includes 5 Tryptic Soy Agar Plates	
Agar Plates (5 total) Tryptic Soy*	C01-0143
Agar Plates (5 total) PDA*	C01-0134

IMPORTANT: These items are considered perishable and must be shipped via 1 or 2 day air and refrigerated immediately after receipt

*Agar plates are shelf life sensitive and should be stored in a refrigerated environment upon arrival to maximize shelf life. Agar plates will have a minimum of 60 days of shelf life remaining at time of shipment and cannot be returned.



Storage and Carrying Case

Replacement Parts	
CAMTU Sampling Housing	C01-0142
Timer	C01-0139
DFU Assembly	C02-2418
Tubing 1/4" OD	A01-0484
Regulator/Metering Assembly	C01-0125
Sanitizing spray bottle	C01-0124
Shut off valve	C01-0126
Petri dishes (5 total) Empty	C01-0133
Additional Specifications	
Dimensions	15.63"w x 13.63"h x 6.38"d (40cm x 35cm x 16cm)
Shipping Weight	7 lbs. (3.2 kg)