Microbial Detection System for Compressed Air Systems

Market Application Publication

Background:

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 contact or indirect contact with food product. The impurities in the compressed air may contaminate the food product which can result in change of color and taste, reduced shelf life, in addition to exposure to bacteria and other micro-organisms, can result in product recalls.

Contact Information:

Parker Hannifin Corporation
Gas Separation and Filtration Division
4087 Walden Ave.
Lancaster, NY 14086

phone 716 686 6400
fax 877 857 3800

www.parker.com/gsf

Product Features:

- Lightweight and ergonomically designed for ease of use
- Constructed of durable polypropylene - easily sanitized
- Pre-filled petri dishes with specialized tryptic soy agar designed to hold up to compressed air flow/pressure
- No refrigeration required for the petri dishes – 300 day shelf life
- Quick sampling time – 20 seconds
- Complete kit with connection tubing, pressure regulator/ metering orifice, shut off valve, timer and petri dishes
- No electrical supply required

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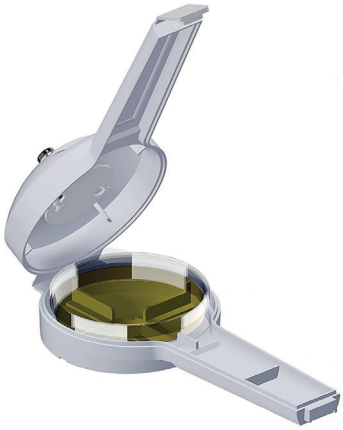
Application:

In the Food Industry, the freshness of the food product determines quality and shelf life. Compressed air is warm, dark and contains moisture which is the ideal environment to promote the production of microbes. These microbes migrate through the entire compressed air system and are released at exit points, critical areas that food, packaging or surface areas come in direct contact. Frequent testing of the compressed air supply at these critical areas will ensure the food product is not being exposed to microbial contamination. Until now, this test sampling was time consuming, complex and relatively expensive. The CAMTU detection device is a low cost, easy to use, quick sampling device that will indicate the purity of the compressed air supply at each sampling point.



Case Study:

Many food processing plants are becoming aware of the fact that compressed air is a possible source of contamination that could result in changes in food color and or taste, shorter shelf life or possible recalls. Most are struggling with how to go about accurately testing for microbial contamination.

A large bakery in Illinois recognized the need to test the compressed air that was coming in direct contact and indirect contact with their food products. Specifically, they were concerned with the process lines that blow open the bag prior to inserting the loaf of bread. They tested these critical areas for contamination by exposing petri dishes with tryptic soy agar and discovered CFU's (colony forming units). The bakery took corrective action and installed 3 stage Parker Balston Sterile Air Filtration Systems. They then repeated the testing with petri dishes and again found CFU's. The flaw in their sampling method was discovered to be the exposure to both ambient air as well as the compressed air as the method involved, simply holding a petri dish up to a blow off gun for 20-30 seconds and then incubating it. The bakery then employed the use of the Parker Balston CAMTU detection device. This device connects directly to the compressed air supply thereby exposing the petri dish to only the compressed air and it's components. After repeated testing over several months, the bakery confirmed the elimination of microbial exposure to the packaging line, and validated the performance of the Parker Balston Sterile Air Filtration Systems. The bakery incorporated this CAMTU test equipment into their Good Manufacturing Practices program for monitoring all the identified HACCP risk points.

Product Specification and Ordering Information

CAMTU Complete Kit C01-0128 contains:	Model Number
CAMTU Sampling Device	C01-0122
DFU Assembly	C02-2418
Timer Device	C01-0123
Tubing 1/4" OD	A01-0459
Regulator/Metering Assembly	C01-0125
Sanitizing Spray Bottle	C01-0124
Shut Off Valve	C01-0126
Petri Dishes (20 each)	C01-0127

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