Many questions have been raised about compressed air testing as it relates to SQF certification. With the actual language of the earlier published codes being vague in nature lending to the confusion. The most recent edition of the code SQF Code, ED 7.2 (2014) and its guidance modules have painted a clearer picture of what the minimum requirement is. To further assist with the clarification, the SQF institute has provided the following answer, available also on their website by clicking here.

Purity is defined in the SQF Code (Appendix 2: Glossary) and means … the air must not contribute any contamination to the product.

Food processing facilities need to operate from a fundamental assumption that compressed air can be a source of chemical and microbiological contamination. The site must verify and validate that the compressed air used in the facility is appropriate for use and not a source of contamination. Where compressed air comes in contact with exposed product, direct product contact surfaces and interior surface packaging, the air compressor should use food grade oil.

Preventive maintenance programs need to ensure that an appropriate filtration program is in place at the point of use and the filters are cleaned/changed at a frequency appropriate to the product and process or following any maintenance to the air supply source or equipment. Maintenance must be done in a hygienic manner. Air should be filtered at the point of use for most operations (recommended filter size at point of use is 0.1 micron, or as determined as appropriate by a risk analysis). Nozzles and air hoses are to be in good condition, properly repaired and maintained in a hygienic state (e.g., cleaned and sanitized). Hoses and nozzles are to be kept off the ground.

Testing is to be conducted to validate the air-filtration control system for the compressed air is effective based on the risk to the product, but at a minimum of once a year. Testing can be done in-house or by a contracted party. Test requirements and number of samples will be based on the risk to the product and process. Microbiological testing can include testing for aerobic plate count and/or indicator organisms as appropriate to the operation. Testing for moisture should be considered if moisture is a potential risk to the product (e.g., dry operations). Aseptic sample collection should be used. There are a wide variety of measures available including the use of air sampling equipment, use of sterile sponges, membrane filtration and others.
Frequently Asked Questions?

- **Is there a standard I should be testing to?**
  
  No, while the SQF code does mandate the need for testing it does not specify the type or allowable limits of the contaminants to test for. It does however, reference ISO 8573 as ‘a very good reference...for quantifying compressed air quality’ for more info see Module 11 of The Code.
  
  This openness allows the code to apply to the wide range of food sector categories in the code. Which are contained in SQF Code, appendix 1. Module 11 applies to food sector categories 8-22,31 and 33.

- **What do you recommend I test for?**
  
  In the absence of a company standard TRI Air Testing recommends that customer complete a baseline, no specification comparison test created around ISO 8573-1:2010 and determined by the use of the compressed air. TRI Air Testing suggests performing testing on new or untested systems to help determine the appropriate specification requirements.

- **I have specific testing requirements can you help?**
  
  Yes, in most cases we can also provide you a custom report with your specifications contact us for details.

- **How frequently should I test?**
  
  The requirement is to test at a minimum of once annually. Many of our customers, including many companies in Food Processing’s TOP 100 food processors list, test on a quarterly or semi-annual interval as well as anytime maintenance is performed on the air system. In the end only your company can decide what is appropriate based off of your internal risk analysis or HACCP plan.

- **I have technical questions who can I talk to?**
  
  TRI’s Lab Director Dr. Ed Golla, Ph. D. is available to answer customer questions 24/7.

- **Do you have technician that can come to my location(s)?**
  
  Over the past 40 years, we have built an international network of Dealers and Distributors that carry our products and can service your compressed air testing needs. TRI test kits are designed to be easy to use and ship direct to the end user. If you are unsure of what the best path for your organization is our account managers are here to assist you.

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**Additional Resources**

- TRI Air Testing
- SQF Code Ed. 7.2
- ISO 8573-1