



domnick hunter

# Media Release

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## **Complying with the Code of Practice on Food Grade Compressed Air**

**domnick hunter's Mark White provides food  
manufacturers with advice on meeting the requirements of the code**

The British Compressed Air Society (BCAS) / British Retail Consortium (BRC) Code of Practice regarding Food Grade Compressed Air is designed to help food manufacturers and food processors by providing recommended levels of air quality.

Domnick hunter, the world famous inventor and supplier of compressed air filters worked closely with the BCAS & BRC in producing the Code of Practice.

Mark White, filter Product Manager, at domnick hunter has many years experience with compressed air purification equipment and its applications. He says, "As with any new code of practice, manufacturers may be concerned about existing equipment and may find new product selection a minefield. In reality, the majority of existing compressed air systems may already comply, or can be easily and cost effectively updated to satisfy this Code with air treatment equipment such as high efficiency compressed air filters and dryers."

### **Water is the biggest contaminant found in compressed air**

Mark explains, "As air is compressed, large volumes of wet atmospheric air is draw into the compressed air system, which when cooled in storage vessels and or distribution piping, condenses into liquid water, making this the major contaminant in all compressed air systems. If this bulk water is not removed, water can lead to corrosion of the distribution system, blocked or frozen valves and

machinery and can ruin finished products. More importantly is the fact that it provides the ideal wet, warm environment for the growth of micro-organisms including bacteria.”

### **How big is the water problem?**

Mark answers “Up to 99.9% of the total liquid contamination found in a compressed air system is water and the annual volumes of condensed water is staggering. In a typically sized manufacturing unit, the compressor and refrigeration dryer combination can produce over 100,000 litres of liquid condensate per year. Mark adds, “The volume of condensate increases significantly for larger compressor systems, or during operation on hot, humid days.”

### **So what about oil?**

Mark says, “Food grade compressed air does not need to be oil free nor does it need to comply to ISO8573.1 Class 0 and as it accounts for only 0.1% of liquid contamination, it can easily be removed using filtration.”

### **What equipment should be considered to meet the code of practice?**

Mark says, “Coalescing filters are probably the most important items of purification equipment in a compressed air system. Designed to remove aerosols (droplets) of water and oil, they also have the additional benefit of removing solid particulate and micro-organisms. Installed in pairs, the first one is a general purpose filter being used to protect the second high efficiency filter from bulk contamination. This dual filter installation ensures a continuous supply of high quality compressed air with low operational costs and minimal maintenance.”

### **Do filters remove all contaminants ?**

Mark says, “No, water vapour is water in a gaseous form and is removed from compressed air using a dryer, with performance measured as pressure dewpoint. A pressure dewpoint of less than -26°C will not only prevent corrosion, it will also inhibit the growth of micro-organisms within the compressed air system and for this reason, the Code of Practice recommends a pressure dewpoint of -40°C or better for air in direct contact with food which is only achievable with a desiccant dryer. Refrigeration dryers are also available, however they can only achieve dewpoints down to +3°C and are therefore only used for air that will not come into direct contact with food”

Mark adds a word of warning, "Desiccant and refrigeration dryers are only designed to remove water vapour, not liquid water, therefore they require coalescing filters to work efficiently."

### **How important is the compressor type to air quality?**

Mark advises "No matter what type of compressor is installed, they all draw in large amounts of airborne contamination and therefore the level of compressed air purification equipment required in a compressed air system is not dependent upon the type of compressor installed. Adequate filtration and separation products will always be required to remove the large volume of dirty contaminated water as well as dirt, rust, pipe-scale and microbiological contamination."

### **Do food manufacturers need to comply with ISO8573.1 Class 0 ?**

Mark says, "No, the BCAS/BRC Code of Practice recommends minimum acceptable levels of compressed air quality which is specific to the food industry and does not require the extra expense required to meet Class 0."

### **How do I comply ?**

Mark stresses his next point, "It is important to remember, the aim of the code is to provide air quality recommendations to the food industry that will protect both the manufacturer and the consumer, not to over specify air quality in an attempt to sell plant equipment. Compliance may require little on the part of the food manufacturer as many may find that they already comply with most or all of the code. A full audit of the compressed air system should be conducted as part of the HACCP process and where required equipment updated or additional purification added. Remember that additional filters can be installed simply and relatively cheaply at point of use. Costly compressors do not have to be changed in order to comply.

Register now at [www.domnickhunter.com/](http://www.domnickhunter.com/) for a free copy of the British compressed Air Society Food Grade Compressed Air Code of Practice and the domnick hunter guide "A Guaranteed Solution to Food Grade Compressed Air"