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## **A review on the modern methods of air handling systems in food industry**

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### **Abstract**

The quality of air within factory buildings is controlled by many food manufacturers. Environmental air of a specified quality (temperature, humidity and particle concentration) and quantity (fresh air volume) is required for the comfort and safety of employees. For the manufacture of some products, it is necessary to impose additional controls on environmental air quality to reduce the possibility of contamination. Also, process air that comes in contact with food must be controlled. The controlled properties of air, especially temperature and humidity, may be used to prevent or reduce the growth rate of some micro-organisms in manufacturing and storage areas. The particle content dust and micro-organisms can also be controlled to limit the risk of product contamination and hence contribute to safe food manufacture. Airborne contaminants are commonly removed by filtration. The extent and rate of their removal can be adjusted according to the acceptable risks of product contamination and also in response to any need for dust control. This paper A review of modern methods Air handling Systems in the food industry them.

**Key words:** quality of air, food industry, airflow, air distribution, air handling systems

### **1. Introduction**

The ability of air to contain and transport liquids, solids and living substances, such as microbes, is frequently overlooked or forgotten. Typically, biological agents such as plant cells, pollen, algae, protozoa, bacteria, yeasts, mould spores and viruses originating from natural habitats can be found in the air [1]. The quality of air within factory buildings is controlled by many food manufacturers. Environmental air of a specified quality (temperature, humidity and particle concentration) and quantity (fresh air volume) is required for the comfort and safety of employees. For the manufacture of some products, it is necessary to impose additional controls on