



Optimal compressed air technology in the food industry

Compressed air is an elementary energy carrier in the production of food and beverages. Therefore, it plays a special role in the manufacturing process.

Whether pasta, bread, dairy products, water or beer, sweets or frozen products, compressed air is often used here as process or control air. Typical areas of application here are:

- Filling
- Cleaning
- Mixing
- Spraying
- Cutting
- Transport
- Packaging

In the production of food and beverages, strict hygiene regulations must be adhered to, as well as quality standards that protect products from contamination. This is where standardized norms and concepts such as HACCP and DIN ISO 22000 come into play. Another important component is the requirement to work economically and in an environmentally friendly manner. Process reliability in the manufacturing process must be guaranteed accordingly, and CO2 emissions must be avoided and energy consumption kept as low as possible. This can also be adapted to compressed air as an energy source.

Compressed air technology in the food industry

Compressed air quality as its best

During the production process, compressed air comes into direct or indirect contact with the products. It must therefore meet high quality standards. Compressed air such as dust, moisture, oils or microorganisms can lead to contamination and impair the quality of the products. This can be avoided by a complete and carefully set up treatment of the compressed air. The prerequisite for this is, for example, the use of oil-free compressors and a perfectly matched filter system. In addition, the compressed air used must be regularly monitored and measured. In principle, the classification of compressed air quality should be based on the specifications of DIN ISO 8573-1.

Process reliability and energy efficiency in the compressed air chain

Every production company is concerned about safe processes without downtime. In order to avoid failures in the compressed air system, proper design and careful planning are important. This starts with the compressed air generator and ends with the distribution as well as the application. The actual compressed air requirement as well as the individual applications can thus be taken into account accordingly. Long-term process reliability as well as an increase in the service-life of the compressed air system can be ensured by predictive maintenance.

Nowadays, measures to increase energy efficiency are indispensable for industry. Up to 50 % of the energy used can be saved by optimizing the compressed air system. Energy efficiency analyses and the location and elimination of leaks are tools for determining the existing savings potential. This can be supplemented by further measures such as heat recovery.

Pure pneumatics for clean food and beverages

Clean compressed air is not the only important factor in a holistic compressed air concept. The right pneumatic components also play an important role. Based on the legal regulations of consumer protection, „hygienic design“ as well as the right choice of materials play a major role.

The components used in the food sector should have the following properties:

- washable and disinfectable
- smooth, continuous surfaces
- corrosion resistant
- non-toxic
- non-adsorbent



KAESER Screw compressor
Picture source: KAESER Kompressoren SE

Your Contact

FILCOM GmbH
Schönbuchstr. 1
D-73760 Ostfildern

Phone: +49 (0) 711-4413322-0
Fax: +49 (0) 711-4413322-22
Mail: info@filcom.de

www.filcom.de

FILCOM[®]
DRUCKLUFT