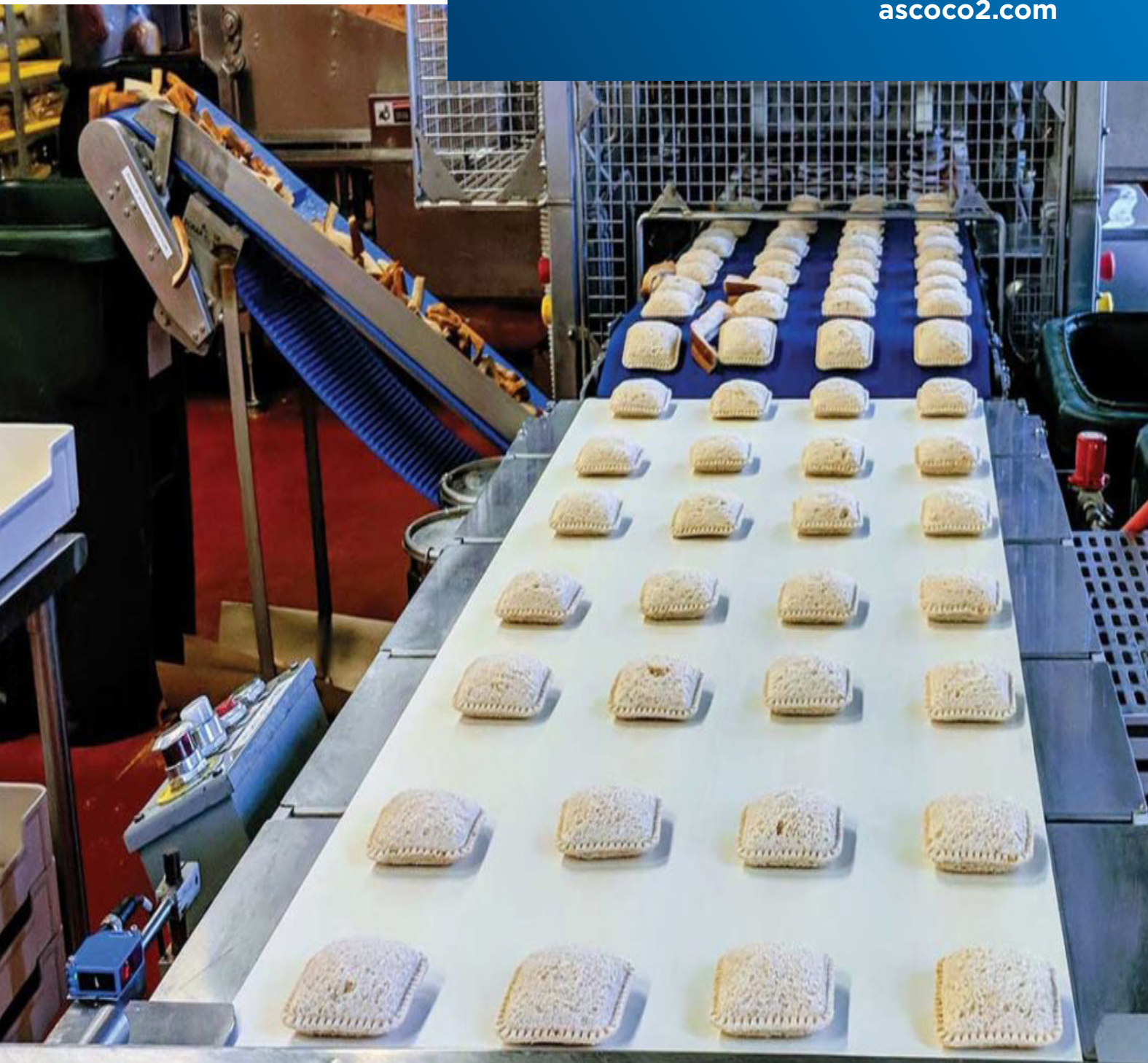


Dry Ice Blasting in the Food Industry

Mould and tool cleaning without production stop

ascoco2.com



In the food processing industry the cleaning of machines, surfaces, tools and moulds is an important prerequisite in the manufacturing process. This not only ensures compliance with hygiene regulations, but also increases quality and productivity.

With our ASCO dry ice blasting technology, we have developed a powerful process that is used in particular for the gentle cleaning of systems and conveyor belts in the food industry.

The ASCO dry ice blasting technology offers the following advantages:



POWERFUL & GENTLE

The hardness of dry ice pellets can be compared to the hardness of chalk. As a result, the surface structure of the cleaning surface is not damaged or changed in any way. Dry ice blasting is a gentle yet effective cleaning method. Unlike steel brushes or scrapers, dry ice blasting does not damage materials. ASCO'S unique nozzle technology with sophisticated aerodynamic flow behavior ensures optimum blasting result.



COST SAVING

Downtime of the objects or machines to be cleaned, interruptions of production and expensive disposal of hazardous waste are eliminated.



TIME SAVING

Cleaning of machines, tools, moulds, conveyors, extruder etc. can be performed during the ongoing production process. Since this cleaning technology is dry and non-abrasive, it can be applied directly onto the object to be cleaned. This way, downtime can be reduced to a minimum.



ENVIRONMENT FRIENDLY

The pellets immediately change to a gaseous state on impact. Only the removed contamination remains. There is no need to dispose of the cleaning media. This reduces waste dramatically! No sewage - or cleaning and filtration of wastewater. No contamination by hazardous additives, chemicals etc. No remains of the cleaning media. Dry ice is basically non-toxic.



SAFETY

Cleaning with dry ice is a dry and non-conductive cleaning process. By eliminating the use of solvents and hazardous chemicals the dry ice cleaning technology is safe for people and environment. The equipment is light, mobile, low in maintenance, reliable and easy to operate.



OPTIMIZATION

Thanks to their mobility and user-friendliness, the Ascojet blasting units are ideal for cleaning hard-to-reach areas quickly and gently. No solvents or other hazardous chemicals are used.

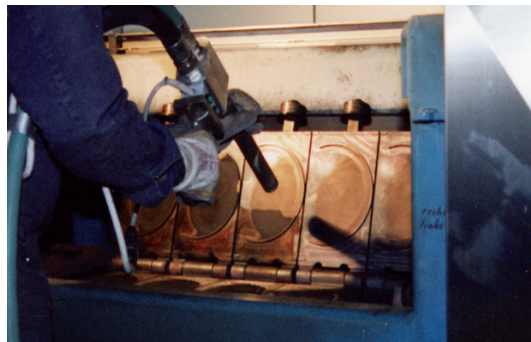
Food Industry: How is this blasting method used?

Many food manufacturers use dry ice blasting to avoid costly production downtimes and to achieve optimal hygiene and quality standards through regular cleaning. Equipment, conveyor belts and moulds are neither affected by the abrasive nor damaged by the temperature difference. Contamination is eliminated.

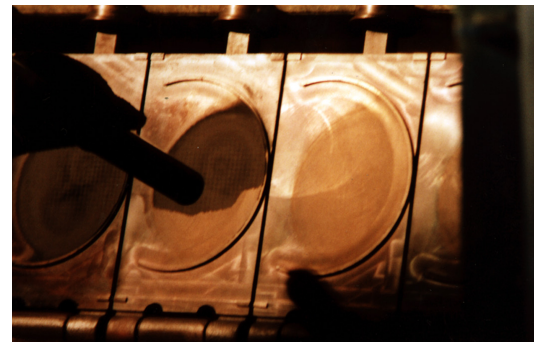
The gentle cleaning takes place in the assembled state directly on the machine, without causing downtimes and set-up times, which leads to an increased production quality and capacity.



Cleaning in pizza bakery



Cleaning of waffle iron



Our competence - your advantage

- With the ASCO Dry Ice Blasting units, we have the optimal technology that cleans machines, surfaces, tools and moulds in the food industry gently and at the same time thoroughly. This has been proven to happen faster and more efficiently than alternative types of cleaning.
- The Dry Ice Blasting Technology is ideal for fast cleaning of even difficult to access areas. This does not require disassembly of parts or cooling them down. Furthermore, this cleaning process is environmentally friendly and economical, as no aggressive chemicals are used and then have to be disposed of.
- Together with a wide variety of jet nozzles, our ASCO blasting units **ASCOJET 1208 and 1701** are the perfect all-round package for the food industry.
- Another big advantage is that this cleaning method is not abrasive. This means that the cleaned objects are not worn out. This significantly extends the service life.



The cleaning of moulds, machines, tools, conveyors and extruders is also easier and faster with the **ASCO dry ice blasting process**.

The cleaning time of several hours is reduced to a few minutes.



Conclusion: Are you looking for a competent partner for the optimal cleaning solution for moulds, machines, tools, conveyors or extruders? Benefit from our decades of experience in cleaning in the food industry. We are happy to help you find the tailor-made solution for your application.

The Process

Dry ice is produced from liquid CO₂. Inside an ASCO dry ice pelletizer, the liquid carbon dioxide is expanded under controlled conditions to form dry ice snow (approx. -79 °C) is pressed into pellets by a corresponding extruder plate.

The dry ice pellets are filled into the ASCO dry ice blasting unit and conveyed to the blasting gun. Here the pellets are accelerated with compressed air to a speed of up to 300 m/s and hit the moulds to be cleaned. The impact of the pellets creates a punctual thermal shock and kinetic energy which removes the contamination. The pellets immediately change to a gaseous state on impact, leaving a clean and dry surface. Only the removed contamination remains, and no abrasive needs to be disposed of. Since the pellets only have a hardness of less than 2 Mohs, the surface quality is maintained. Likewise, thermal shock has no adverse effect on the surface structure of the moulds.



ASCOJET 1208
The Small Industrial



ASCOJET 1701
The Industrial Allrounder



ASCOJET 1708 Combi Blaster
The Flexible Abrasive



ASCO CO₂ Detectors
For your Safety

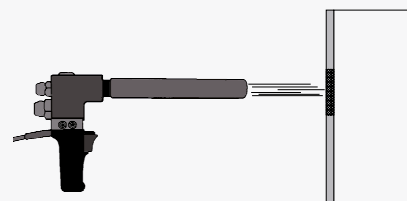


Dry Ice Box AT126
Storage of Dry Ice Pellets



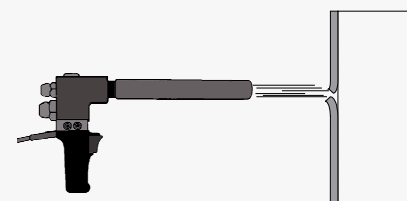
Dry Ice Pelletizer P15i
Production Capacity
150 kg/hr for 3 mm Pellets

Cleaning Method



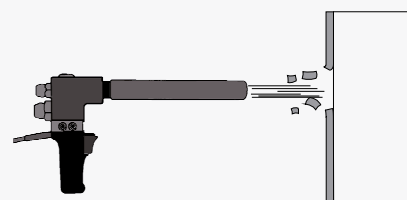
The thermo shock

As a result of the sudden and intense temperature shock on the surface, the coating or impurity contracts.



The cracking

As a result of the contraction the coating cracks and the material becomes brittle due to the cold.



The cleaning

The dry ice pellets hit the surface with great speed and remove the detached coating and clean the surface material

The complete solution

As leading provider of complete dry ice blasting solutions, ASCO's aim is to find tailor-made solutions for individual customer requirements. The extensive ASCO product and service range consists of:

- Dry ice blasting units
- Dry ice pelletizers
- Dry ice containers
- CO₂ gas detectors
- Wide range of accessories
- Specially developed guns or nozzles
- Automated cleaning solutions
- High quality dry ice
- Building up your in-house dry ice production

ASCO not only introduces you to the ASCO dry ice blasting technology but helps also with integrating dry ice cleaning into the production process and continually optimizing it.

In case of an increased demand for dry ice we will be pleased to offer you an economical calculation for your inhouse dry ice production to optimize on cost and quality. Our product range contains dry ice pelletizers with production capacities from 150 to 750 kg/hr.

The **ASCO CAREFREE rental solutions** enable you to have your own dry ice production **without investment costs!** Ask us!