

Food

Vacuuming in food production



Industrial vacuum solutions for food production

How to increase safety, hygiene and efficiency in food production.

Learn more about the dust and granule vacuum and transportation solutions for breadmaking laboratories and food production companies.

Nilfisk is world leader in the manufacture of industrial vacuums and pneumatic transport systems and has a direct presence worldwide.

This publication lists the vacuum applications in both the artisan and industrial world of food production, illustrating the most common solutions that have been developed for thousands of companies worldwide.

For more information about the technical solutions, visit www.nilfisk.com.

An overview of industrial vacuum solutions for food production

Let's discover the three most common product lines used in laboratories and companies to obtain production efficiency, increase automation and maintain a high level of hygiene; all according to ATEX certification and in compliance with GMP standards.

INDUSTRIAL VACUUMS

Single-phase, three-phase and compressed air. In stainless steel or completely painted. Nilfisk industrial vacuums offer a high level of filtration due to the polyester fabric cartridge filters, ideal for very fine powders, filtering air at high temperatures and for toxic powders.

Nilfisk industrial vacuums are certified as compliant with the following international safety standards: ATEX, IECEx, CE, TÜV (L-M-H).

PNEUMATIC CONVEYORS

These are used to transport grains and powders, according to precise preset times and quantities, from the raw material containers to the loading hoppers of the packing or canning machines. They are excellent for increasing the automation of coffee and tea production lines. They are necessary for maintaining quality of mixtures in the beverage and confectionery industry.

CENTRALIZED VACUUM SYSTEMS

When cleaning of surfaces over large areas is required, or when access space for mobile industrial vacuums is limited, centralized vacuuming systems are the perfect solution in the food industry. They offer the advantage of positioning the vacuuming unit, the filtering unit and the exhaust system outside of the production environment, maintaining only the vacuuming hoses inside. Excellent for continuously vacuuming in multiple points along the conveyor belts.

Oven cleaning

- No more burned flour or crumbs = no more explosion or fire hazards



Keeping an oven in a perfect condition improves product quality

The use of an industrial vacuum is excellent for cleaning inside an oven, such as an industrial vacuum with a NOMEX filter (self-extinguishing material) suitable for vacuuming white-hot substances. For all environments with a potential risk of explosion due to the presence of flour, Nilfisk offers an ATEX certified industrial vacuum.

Emptying and cleaning the driers

- Even the most complex operations become simple and fast



Saving energy and time without limits

Cereal driers are used increasingly due to continuous weather fluctuations and sporadic rains which effect the quality of harvest or result in yields with unwanted moisture levels. An easy and quick emptying of the driers makes a fast and more intensive rotation of the drying phases possible.

Production line cleaning

- Occasional or constant vacuuming, all the solutions for a high quality end product



Eliminating waste means preserving product quality

Keeping the production lines clean according to schedule prevents the product from being contaminated by burnt crumbs and flour or other production waste. This operation also avoids a high percentage of waste. The "TPlus" range is an excellent solution, for working manually on the lines to serve this purpose.

The cleaning operation can also be performed as a continuous cycle by distributing vacuuming points along the production line that are connected to a three-phase industrial vacuum or a centralised vacuuming system.

Cleaning manufacturing environments

- A clean environment is safe, healthy and efficient



Increasing the safety of your environment improves operating efficiency and well-being

The quality of the food production environment is the basis for guaranteeing hygiene and safety. Nilfisk works constantly together with manufacturing companies in the design of industrial vacuums and accessories dedicated to this purpose.

Cleaning the floors and production lines, as well as all of the

systems, especially overhead ones, are operations that Nilfisk mobile industrial vacuums help perform. Exceptional quality of results are achieved, using accessories that speed up the work, only a few minutes are required and the results can be seen immediately.

Vacuuming packaging machine scraps

- The dynamic management of packaging scraps improves production organisation



More time to dedicate to work

Nilfisk produces a range of industrial vacuums for the recovery of manufacturing scraps, plastic, paper and fabric produced daily during the packaging cycle. The industrial vacuum eliminates the continuous interruptions for cleaning the cutting machine, avoids scattering the waste in the environment, whilst it makes it possible to check product quality in real time, vacuuming any fine powder that can contaminate it.

Transport of coffee beans or grains

- The pneumatic handling of coffee or grains makes it possible to save time and improve product quality



Maximising automation improves the manufacturing flow

Nilfisk pneumatic conveyors are designed for transferring powders and grains that, taken directly from bags, drums, big bags and other containers are released at a certain distance, at the desired times and in the desired quantities.

Using pneumatic conveyors means being able to transport the

product from a single point to multiple destinations at the same time, and vice versa. The entire transfer process is done hygienically, with respect for the environment and for the workers.

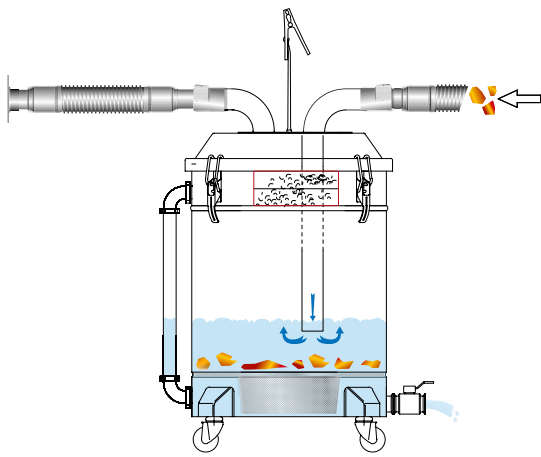
Recovery of liquids and waste in storage and ageing systems

- How to speed up the waste recover times and make the productive environment safer



Quickly recovering liquids and solids makes everything more efficient

Nilfisk produces industrial vacuums designed for cleaning in food storage and ageing areas where it is necessary to vacuum liquids and solid organics and materials. Essentially, there are three immediate advantages: saving cleaning time, making the production and packaging environments more hygienic and lowering resource expenses for maintenance.

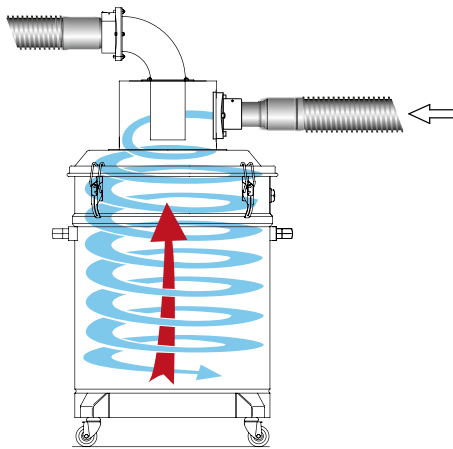
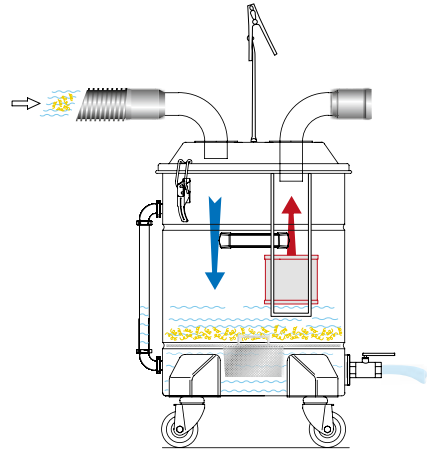


Separator for white-hot substances

Ideal for vacuuming and collecting white-hot substances. The material is cooled when it comes into contact with the water in the container. This water immersion system may be suitable for certain applications with dusty materials.

Separator for liquids

Ideal for vacuuming and collecting liquids. A mechanical stop system stops the vacuuming when the container is full, whereas the manual valves permit the liquid to be drained.



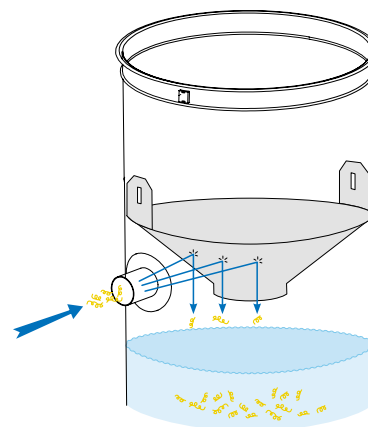
Cap with mini-separator

Ideal for vacuuming light or dusty material directly into the container. It fits on the container or hopper, creates a cyclonic effect which helps deposit the material on the bottom.

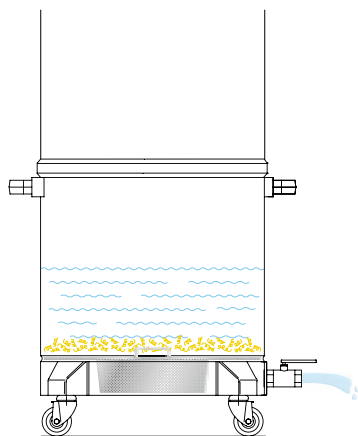


Separator

Ideal for protecting the primary filter from splashes of liquids or potentially sharp material vacuumed up. Should not be used with dusty material.



Ciclone standard

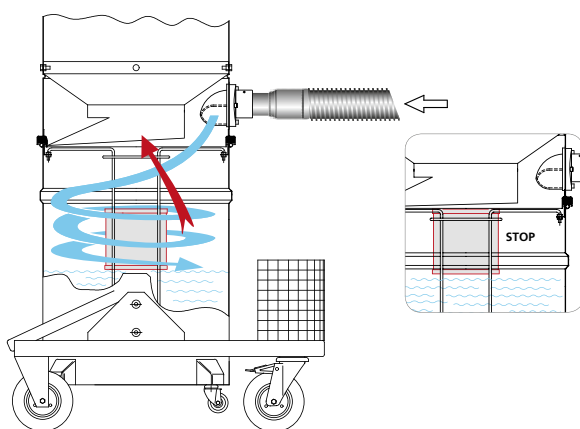
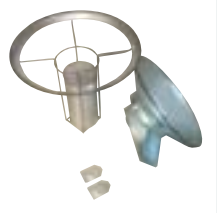
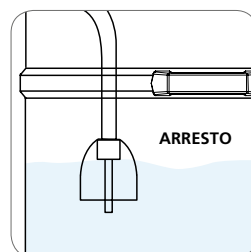
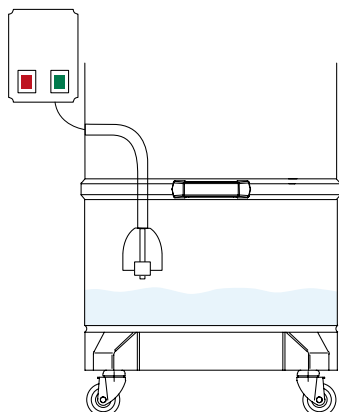


Grille and valve

Ideal for separating solid material from liquids directly inside the container. The grille in the base of the container lets solid material deposit, while liquids can be recovered or drained through the manual valve on the bottom.

Automatic liquid stop

Ideal for vacuuming liquids, and powers down the vacuum cleaner automatically. The unit powers down when the max. liquid level is reached in the container.

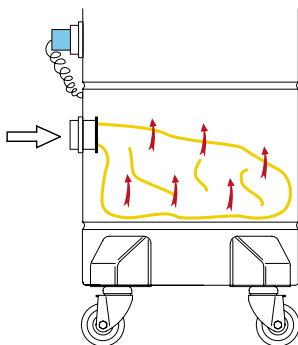


Mechanical liquid stop

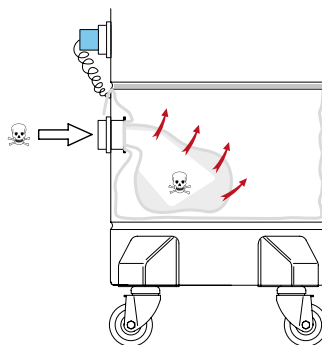
This stainless steel system stops the vacuum system mechanically when the max. liquid level is reached in the container. Mainly used on compressed air models or where automatic stop is not envisaged.

Paper bag, safe bag and anti-static safe bag

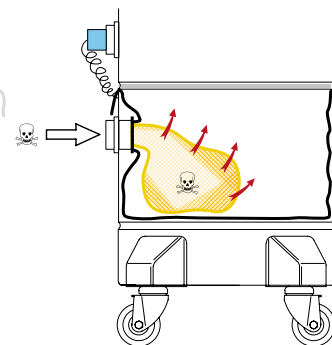
The container, which can be exchanged with the original, is able to house the paper bag or safe bag. The safe bag system can be used to collect toxic powders and has a safety closing system that upon its removal prevents the user from coming into contact with the vacuumed product.



Sacco carta



Safe Bag



Safe Bag antistatico



DEXIS

RP MECATRÓNICA

