



LANFRANCHI

The right side of technology

bottle air conveyor



The Lanfranchi bottle air conveyor is designed like the rest of our products, to deliver the best results in its category. Every component from the curves to the combiner/divider and everything in between has been engineered with a target in mind: the highest line efficiency. Lanfranchi has also heavily invested in a refined software automation using the latest technology available and has bonded all together with more than 20 years of experience in layout design.

The dynamic speed control ASC (Automatic Speed Control), the automatic system to remove bottles jams JRS (Jam Resolution System) and the Infinity body guide change-over are just three of the applications available on Lanfranchi air conveyor that contribute to make it an efficient and reliable product for today's and tomorrow's production lines.

The Lanfranchi bottle air conveyor is available in three executions:



Basic

recommended for soft drinks, edible oils and detergent.



Clean

recommended for water, juice and any other application for which the driving air that comes in contact with the bottle neck is treated with higher grade of filtration than the basic version.



UltraClean

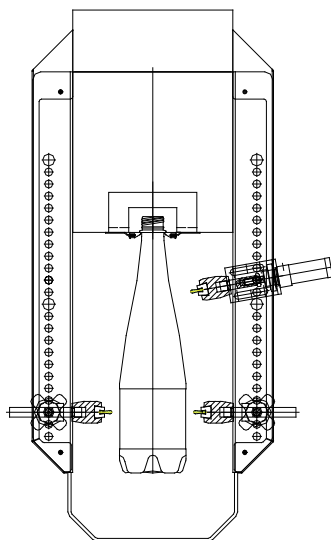
with this version Lanfranchi guarantees that the air conveyor line does not increase the contamination level of the bottles when moving between blow mold equipment or unscrambler and the filling equipment. A special system for air recirculation allows to recover and filter the air over and over helping to extend drastically the life of the filters.



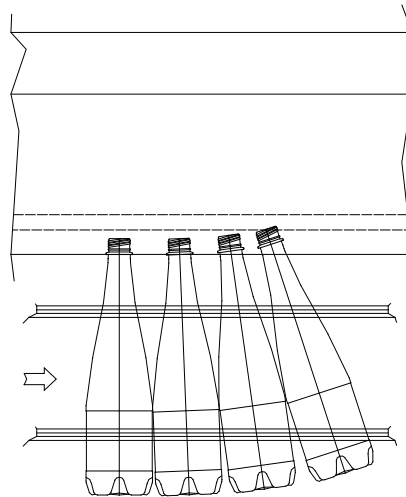
One of the key factors in order to have a well performing air conveyor line is the ability of managing quickly and accurately the speed at which the bottles move and to meet this important requirement Lanfranchi has created a strong automation software based on years of hands on experience. Additionally, Lanfranchi has introduced the Automatic Speed Control (ASC) package that offers to the operator the flexibility of an independent and automatic speed control for each blower according to the zone where the blower is actually installed (blow

mold room, tunnel, filling room, etc.)

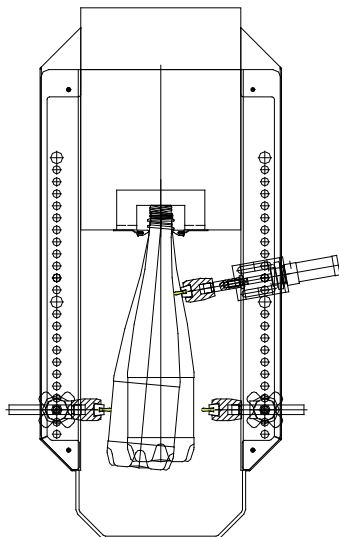
The ASC package becomes an important tool to get the best out of an air conveyor line, particularly when the room temperature or the room humidity or even the blow molding process can change their parameters between areas of the plant and also according to the time of the day. Despite all the possible controls available, it is better to be prepared for the unexpected situations because they do happen. Lanfranchi air conveyors offer the Jam Resolution System (JRS – Patented) exactly to be prepared. The JRS effectively removes bottle jams automatically and restarts delivering bottles to the filler in a short time.



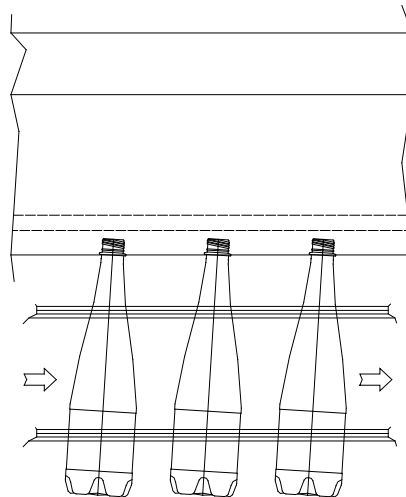
JRS guide in resting position.



Bottles stop closed



JRS guide activated



Bottles stop open

Lanfranchi air conveyors are available with adjustable neck and body guides in the following versions:

- Manual
- Automatic with pneumatic micro-cylinders
- Automatic INFINITY



Manual version

recommended only when changeover is not frequent and the line is compact and easily accessible by the operators.



Automatic with pneumatic micro-cylinders

recommended for the majority of the applications. Each guide is connected to a set of micro-cylinders with pre-defined position and stroke. The higher is the number of very different bottle sizes to be run on the line the more complex becomes to fit each body guide and their cylinders in the space available and this is probably the limitation of this well tested version.



Automatic INFINITY

with the use of just a SINGLE body guide at each side of the chamber the Lanfranchi Infinity adjustable series is absolutely the most flexible, accurate, repeatable and clean solution available on the market. Adding new bottle size is as simple as pushing a button on the operator panel. Each guide is connected to a series of stepper motors with built in encoder that move the guide both horizontally and vertically finding the best position for that specific bottle size. Particularly important is the accuracy of positioning offered by the INFINITY neck guides when there are more than 2 neck sizes or with reduced thickness of the support ledge – common practice nowadays to lightweight a PET bottle.



The Lanfranchi air conveyor has a clean modern design visible for example in air and electrical duct completely integrated in the frame of the chamber . The duct is available in a closed version or in an open wire mesh version.

The accessories available are numerous.



standard



expanded



high efficiency

The levels of filtration that can be supplied are three:

- standard 95% gravimetric;
- expanded 95% gravimetric + HEPA filter H10;
- high efficiency 95% gravimetric / intermediate F7 / HEPA H13.



Lane divider/combiner from 1 to 2 or 1 to 3, and symmetrical divider from 2 to 2 are fundamental accessories to meet the needs of the most sophisticated production lines.



Pivot sections are a necessity when transferring bottles of different sizes from air conveyor to filler or labelling machine or leak tester just to name the most common scenarios.

Each blower is controlled by VFD and Lanfranchi offers the option of installing the VFD on board of its blower or inside the central control panel. Numerous sonar sensors are spread along the line to detect the bottles speed in real time and they are linked together with Profibus network.



automatic brake

is a device used to regulate the flow of bottles along the conveyor. It can be either single or double.

The single brake is installed before the intermediate dump gate. By opening or closing the plates you give time to the dump gate to open or close as needed.

The double brake is installed before the divider-combiner. By opening or closing the plates it prevents the bottles from flowing towards the divider-combiner while the latter is moving.

The two systems allow to form "trains" of bottles to make a smoother flow of bottles along the line.

