



LANFRANCHI

The right side of technology

change-over system for unscrambler



A complete range of change-over systems for our machines allow us to offer our customers the best solutions according to their particular needs. Our great flexibility allows us to modify our standard systems in order to satisfy also the most specific requests; for example the possibility to unscramble bottles that have a very small neck, or rectangular bottles, etc. An engineering team working on a 3D Cad system develops the best solutions checking them by means of a simulation system that allows to highlight the eventual critical aspects. In this way Lanfranchi can unscramble every kind of bottle.

Traditional change-over system

This kind of change-over allows to handle different bottles/containers by replacing the main parts of the equipment (funnels and separators) without the aid of tools.

All our machines are manufactured in order to be easily equipped with this kind of change-over that is mainly used when the unscrambler handles only one bottle size or when the bottle sizes to be handled are very different or

have particular characteristics.

The change-over time is different according to the dimensions and the characteristics of the container to be handled but we can state that in general it can vary from 10 to a maximum of 60 minutes; the presence of a skilled engineer is not required.

The weights of the different components are not more than 15 kilos.



phase number 1
View of the lever fixing system: open position of the separator



phase number 2
A technician installs the separator



phase number 3
The technician rotates the lever until the separator is blocked



phase number 4
View of the separator hinged to the cylinder of the machine



phase number 5
View of the fixing system in open position of the funnel.



phase number 6
The funnel is installed



phase number 7
The blocking pivot is set by the operator



phase number 8
View of the funnel fixed

quick manual changeover LACO and cradle spacers

The LACO change-over with hundreds of units fabricated and installed is a well tested tool for the most demanding applications that require multiple bottles handling. In combination with the simple cradle spacers, the result is a robust and reliable changeover mechanism with an attractive balance between a traditional changeover (time consuming) and a delicate automatic changeover (high investment and expensive maintenance costs in order to maintain the repeatability).

The LACO concept is based on the very simple “release, slide and lock-in” principle in which the operator moves the lower part of the funnel to well marked predefined mechanical positions; the cradle requires just a replacement of a spacer without tools according to the bottle size.

In the faster models of unscrambler with Separators the standard use of the vacuum extraction starwheel and the LACO design could actually eliminate the need of replacing the separators.

Change-over operation is easily taken care of by a single no expert operator and according to the machine model and the bottle characteristics it varies from 5 minutes to up to 30 minutes at the most.





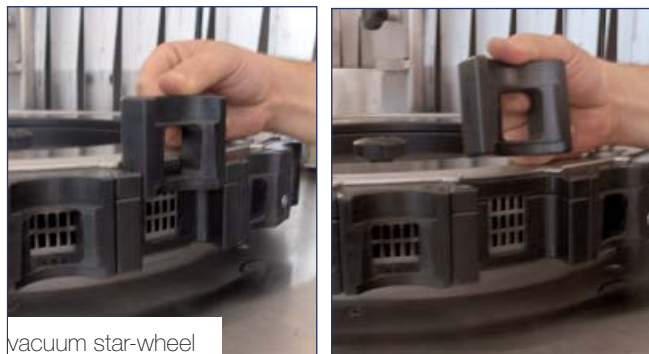
General view of the upper part of funnel and the cradle regulation system.



View of the cradle regulation system in preset positions: the holes can easily be seen.



universal separator



vacuum star-wheel

vacuum star-wheel extraction bottle system

The vacuum extraction starwheel has been a standard component of the basic machines configuration since 2004; drastically reduces change-over time by replacing only the plastic inserts that cover the vacuum intakes without the use of tools.