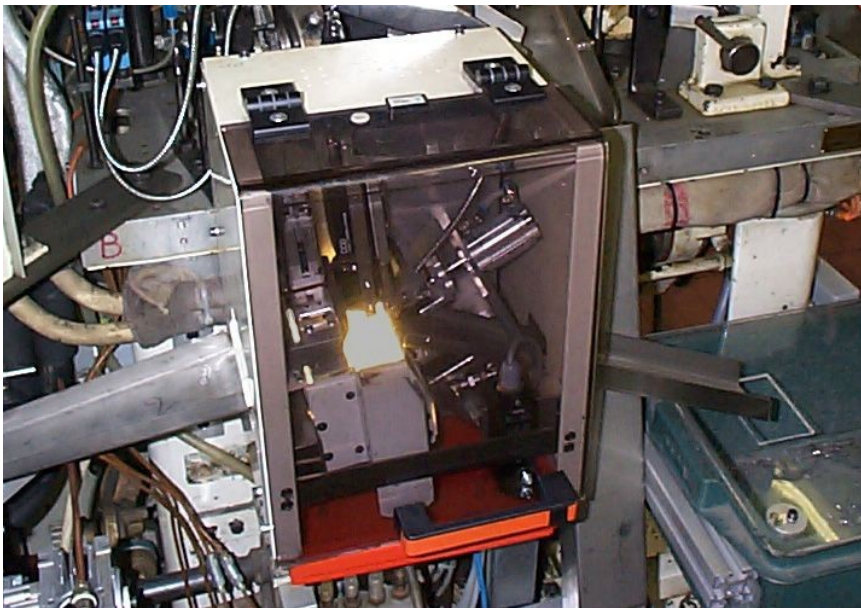


Glass balloons check



SPECIALVIDEO

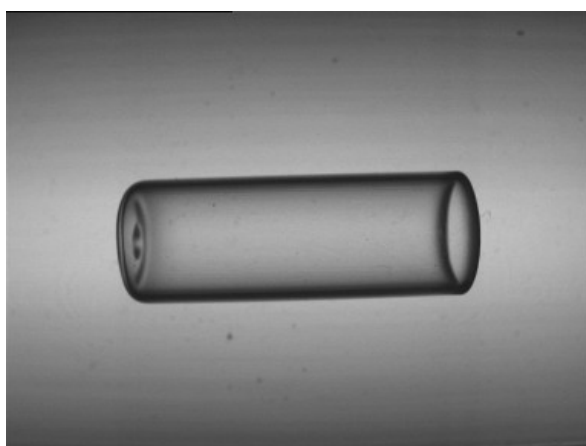
In order to check defects in



glass balloons, Specialvideo has created a machine capable of controlling and ejecting the defective product

Product Description

The controlled product is a balloon made of transparent glass as shown in FIG. It leaves the production machine still very hot and therefore it can not be manipulated without materials which do not affect



its quality.

The defects can be present on the entire lateral surface of the product but also on the bottom and on the mouth. It's therefore necessary to check the part from many angles.

Machine Composition

By exploiting the material material transparency and using appropriate optical devices, it was possible to carry out any checks using a single camera: the tube is rolled down a slide which is backlighted and tilted appropriately.

The camera acquires multiple images of the tube during its rolling, so as to control the entire lateral product surface.

Finally, thanks to the wide-angle lens use, the same camera also controls the bottom and mouth.

At the end of the rolling the product is locked via a mobile device pending images

examination. If the part is defective it is expelled through air blow, otherwise it is slipped into the correct parts container by lifting the latch.

In this way it was possible to realize a very compact reliable system, that can detect all defects requested by the client such as:

Edge defects (ridges, cracks, etc...).

Cracks in the side surface

Fund defective (punctures, material accumulations, etc.).

Dimensional inspection.

Features

High-resolution monochrome camera

Personalized illuminator

Easily replaceable PU with TFT display and membrane keyboard

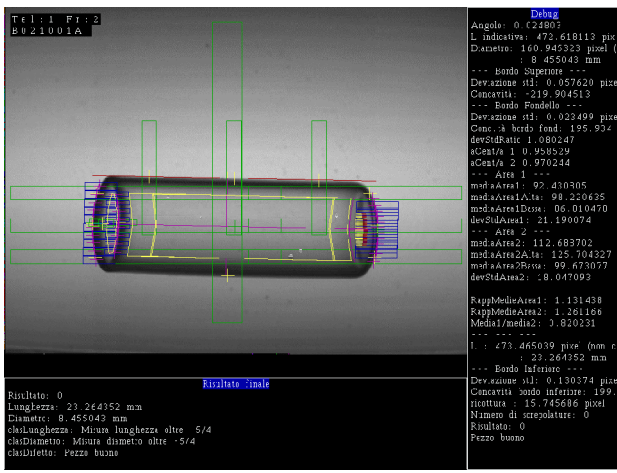
Digital I/O interface

Ability to control up simultaneously four stations

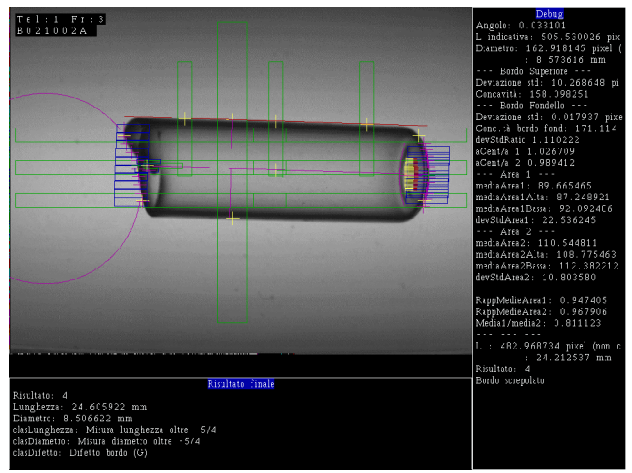
Production statistics display with defect classification

Results

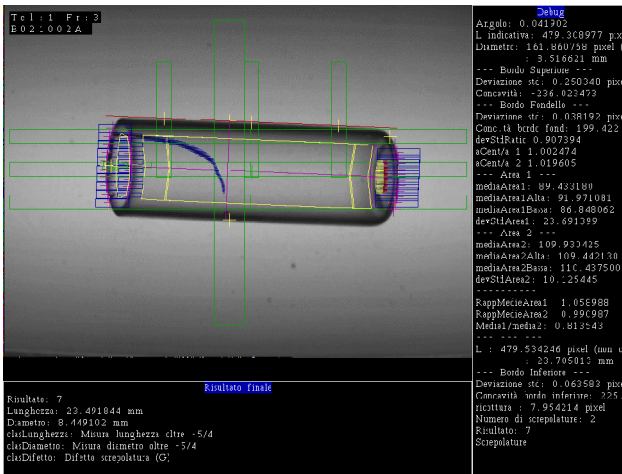
The end result has fully met the required specifications. The reliability, accuracy and repeatability of the results have proved to be far superior to those of the manual controls that were previously performed.



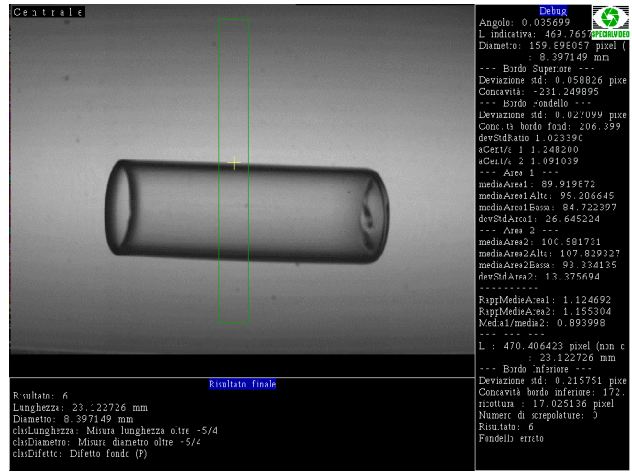
Piece without defects



Defect on the mouth



Crack



Defect on the back

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