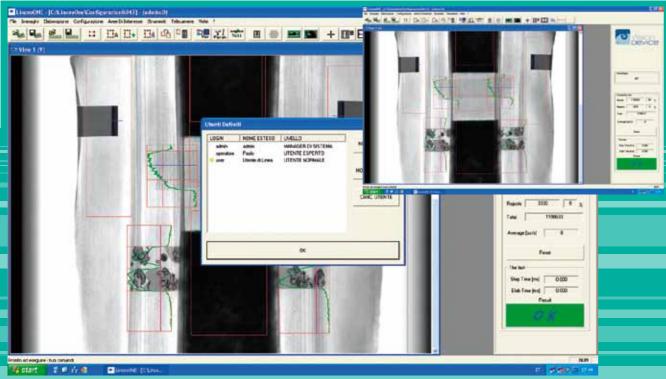
ACCURATE AND CONTINUOUS INSPECTION

With DiaperCHECK, the inspection of sanitary napkins and diapers is realized with the utmost accuracy, seamlessly, carrying out in parallel the following operations:

- image acquisition and digitizing;
- display of the images on the screen;
- image processing;
- result reporting and ensuing actions.





The software is dynamic and the remarkable hardware capabilities provide accurate, timely indications:

- providing an immediate feedback on the manufacturing process.
- enabling to execute real time actions

hardware (sound or light signal, expulsion, manufacturing line stop, etc.);

software (on screen message, save to statistics, save defect image, etc.).









AVAILABLE INSPECTIONS

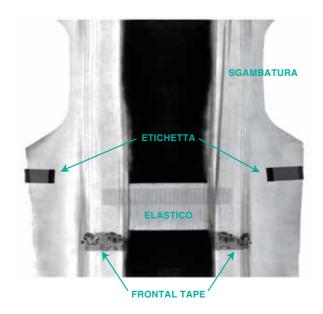
The system detects the presence and the position of all the main features of the product, issuing a quality assessment based on the results of the check and the parameters set by the operator.

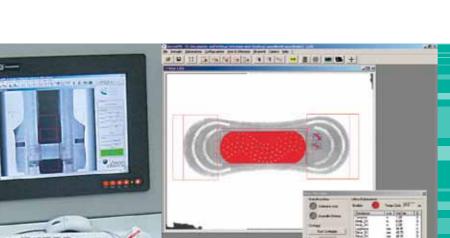
Setup is quite easy: the work areas and the checks to be performed in those areas are set by means of a graphic, highly interactive environment.

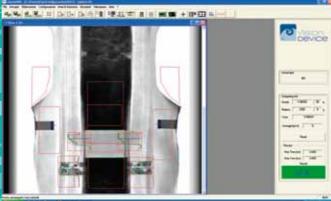
Several products can be checked and it is possible to store the parameters which have been set, recalling them when required.

The system executes full checks with the product moving under the monitoring station.

The check can exceed 1200 pieces/min with a linear speed of over 400 mt/min.







OPERATING PRINCIPLE

The solution is based on the use of a linear camera, a special camera which acquires a line of pixels at a time, just like a scanner. However, scanning is always carried out from a fixed point, with the product moving below it.

For this reason, this camera is suitable to acquire objects in translatory movement, achieving high resolution, sharp images, with good contrast. Once acquired, the image is processed exactly as if it had been acquired by a conventional camera.

Depending on the check requirements, lighting can be:





BY REFLECTION





BENEFITS OF THE LINEAR CAMERA

Uniformity and contrast of the image

The acquisition with the linear camera enables to achieve images featuring very high contrast and uniformity, thanks to a totally constant lighting for the entire width of the product: maintaining a constant lighting along a line is much more effective than maintaining it on an area.

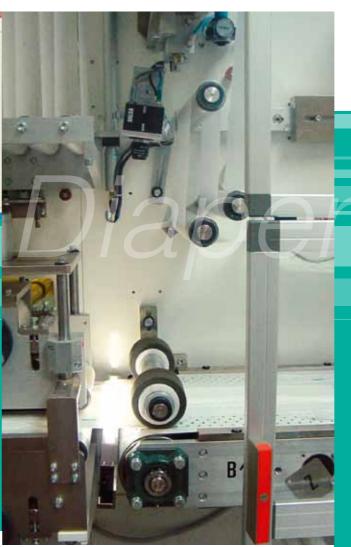
The image on the right shows that this recording technique enables to highlight details which usually are not easily visible.

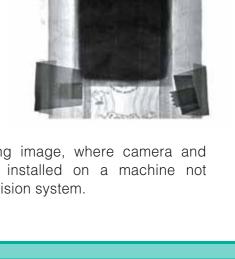
Minimum space required on the machine

The use of the linear camera enables to save quite a lot of space on the machine, because a few millimetres in the advance direction are enough (< 50 mm).

> The system can be easily incorporated in existing machines, as

shown in the following image, where camera and spotlight have been installed on a machine not designed to host the vision system.





CONFIGURATIONS AND COMPONENTS

The system can be provided with an independent cabinet, yet it can be easily integrable inside the control panels of the machine.

The standard configuration provides for a single "scanning head", usually positioned at the end of a manufacturing line.

It is possible to request as well two or more scanning heads, which enable to inspect the product at several points of the machine.

The acquisitions can be fully independent and asynchronous.

