

# bottel

## bottelpack® **ASEPTIC** SYSTEM

»bottelpack«®  
*blow-fill  
seal-technique*

### *Innovation*

From the beginning of the 1970's, the «bottelpack»® system established itself very rapidly in the field of eyedrops and ocular medicine for volumes situated generally between 5 and 15 ml.

These plastic bottles were blown and sealed under sterile conditions. The bottle-neck had a standard thread fitted with a piercing cap.

When the product was to be used, the cap was screwed down as far as it would go. The spike inside the cap pierced the upper membrane in the neck of the bottle.

The regular flow and size of the drops depended upon the diameter of the hole and the pressure exerted by the fingers. Excessive, continuous pressure transformed the flow drops into a spray.

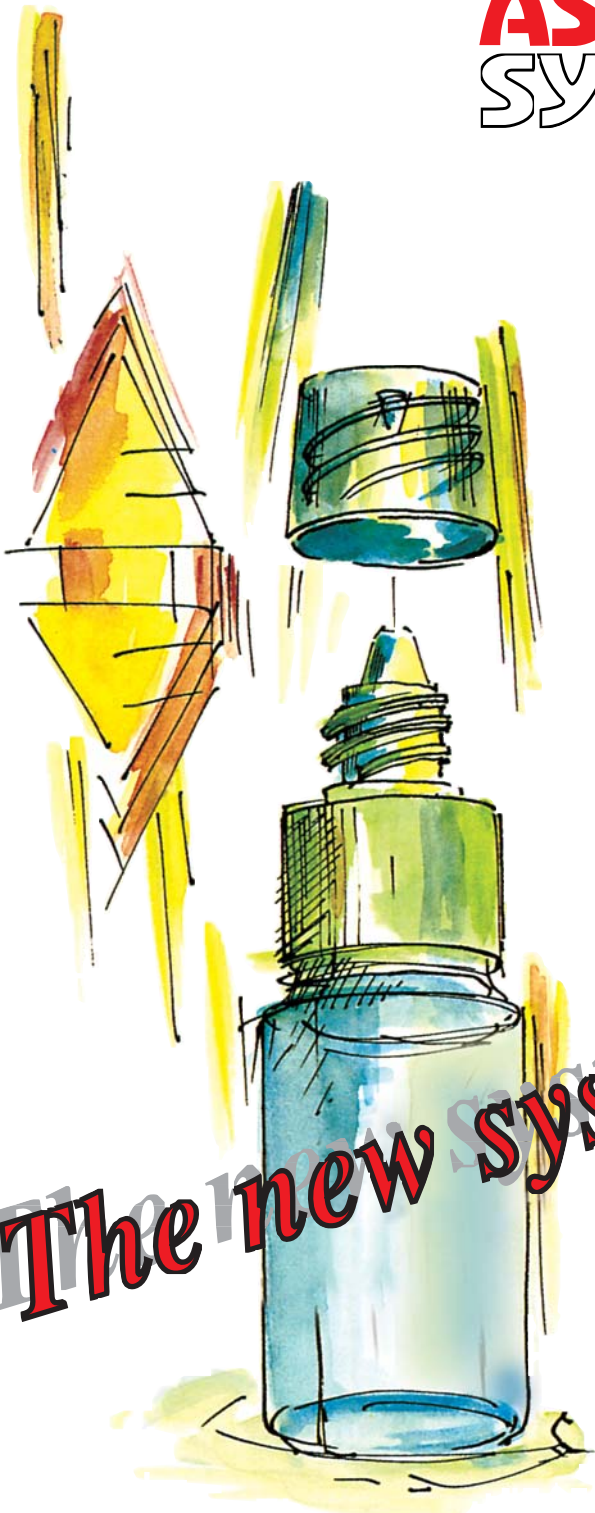
This system was simple, safe, practical and efficient. It was used for many years and gave complete satisfaction for the great majority of products.

However, it was considered inadequate for special products which required strict observance of dosage instructions.



- single drop application
- metered drop size
- tamper evident

*The new system*



# The new system



reclosure cap

calibrated dropper part

tamper - evident PE - ampoule

Therefore, it was essential to find a solution which provided greater safety by assuring control of the flow of drops. We have created, developed and perfected this solution:

## The drop-counting measuring cap

This is a complete closing-opening-dosing-reclosing assembly consisting of two distinct components: the lower ring which encircles the threaded neck of the bottle and which is equipped with a piercing nozzle and a drop counter, and the protective cap.

Like all «bottelpack»® containers, it leaves the machine blown, filled and sealed under sterile conditions.

Thus, this cap is fitted outside of the process, either completely automatically on-line, or off-line, depending on demands on work capacity.

It is essential that the ring is absolutely intact to safeguard against accidental piercing of the membrane.

## When the product is to be used:

- screw closing assembly down as far as it will go in order to open the bottle
- remove the upper cap
- squeeze the bottle to dispense the exact number of drops required.

The weight of these drops is constant regardless of the pressure exerted and its duration.

The safe packaging assured by «bottelpack»® is now enhanced by

## safe utilisation

The weight of the drop and its control depends largely on a number of factors and, in particular, on the viscosity of the product. Therefore, each individual application must be studied in detail to find the best possible specifications for the piercing nozzle and dosing unit in relation to the required dosage of the product in question.

The main advantage of our innovation lies in the separation of the closing dosing stage from the extrusion-blowing-filling-sealing process.

Up until now, it was possible to achieve a similar result by inserting a component at the end of the bottle-neck moulding stage, or by means of a special moulding inside the bottleneck.

However, the disadvantage of these solutions was that they considerably increased the cycle time which in turn reduced the hourly rate of production. Furthermore, special version machines were required which were specifically «dedicated» to this type of production.

The new drop-counting measuring cap also overcomes all the problems associated with guaranteeing the sterility of its insertion, fitting and impermeability.

It must also be mentioned that this system can be applied using any standard «bottelpack»® machine. The characteristics of the machine do not require any form of modification and its performance/output is not reduced. This innovation from «rommelag»® provides you with decisive technical and economic advantages which will enhance your competitiveness.

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