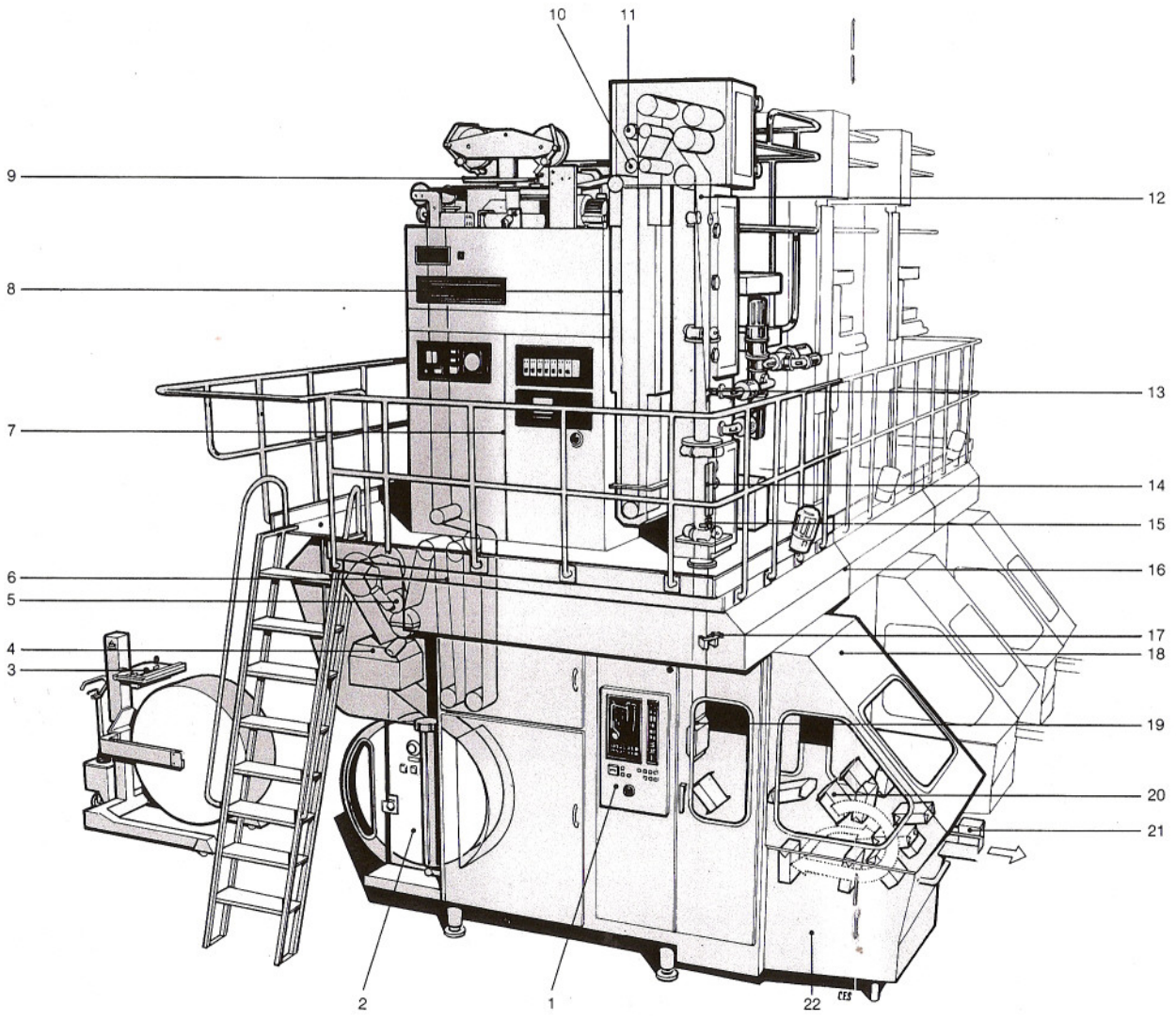
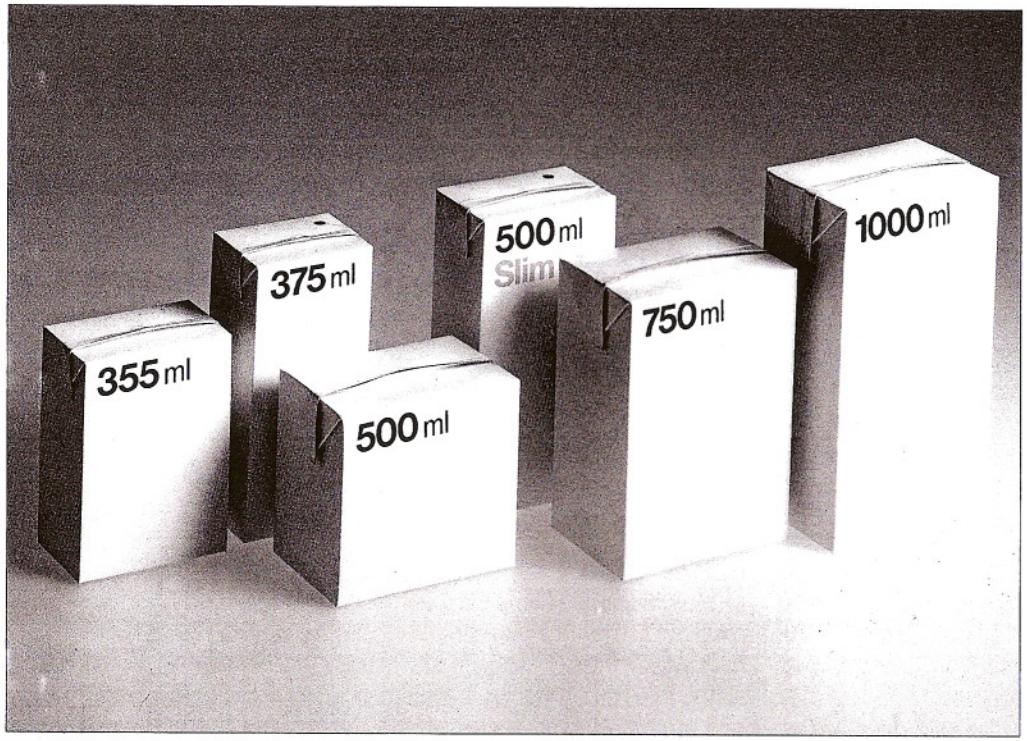


Functional description

1. Control panel.
2. Roll with packaging material.
3. Trolley with hydraulic lift for transport of packaging material.
4. Automatic splicing equipment for packaging material.
5. Stamping unit for best before date.
6. Loops of packaging material which ensure smooth and jerk-free material feed and make possible continuous production when new packaging material is to be spliced on.
7. Most of the electronic control system of the machine is placed here.
8. The packaging material is sterilised in a deep bath of heated hydrogen peroxide.
9. Strip appliactor which provides one edge of the packaging material with a plastic strip which, at the subsequent longitudinal seam sealing operation, is welded together with the other edge. This results in a tight and durable seal.
10. Squeezer rollers which remove the hydrogen peroxide from the packaging material.
11. Nozzles for hot air which dries the packaging material.
12. Here, the packaging material begins to be formed into a tube.
13. Filler pipe.
14. Longitudinal seam element which welds together both edges of the packaging material.
15. "Short stop element" which completes the longitudinal seal when the machine is restarted after a brief production stop.
16. The machine is designed for interconnection to form compact production units where two or more packaging machines have a common platform.
17. Photocells which control the artwork retention.
18. Raisable and lowerable hood over the automatic washing system and the final folder section where the top and bottom flaps of the cartons are folded in and sealed against the cartons.
19. Sealing of the cartons takes place below the level of the liquid using induction heat. This is supplied by a pair of jaws which also shape and cut off the cartons.
20. In the final folder section, the top and bottom flaps of the cartons are sealed on two lines.
21. Discharge of finished cartons.
22. Bath which is automatically filled with water and detergent in conjunction with outer washing of the machine.

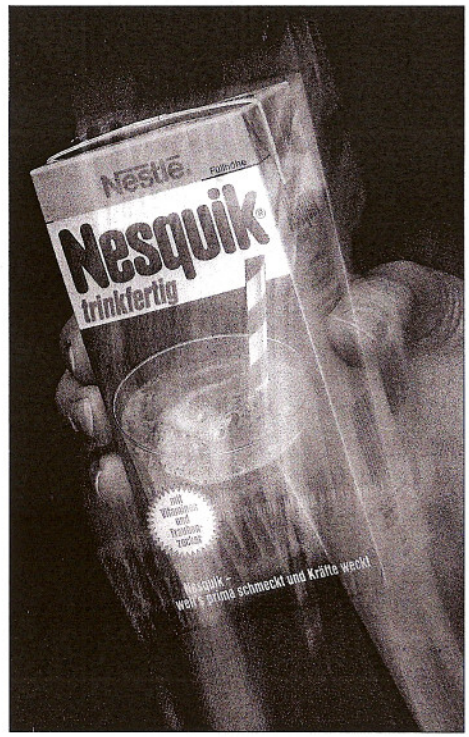


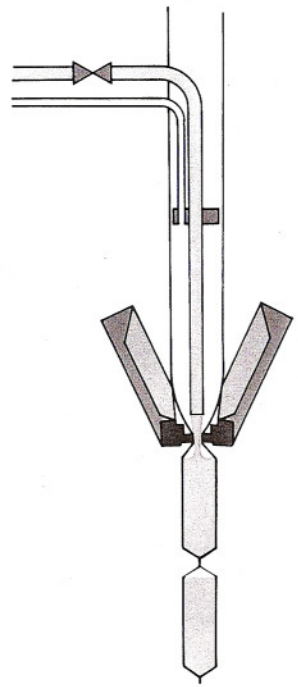
A tailor-made carton

The Tetra Brik Aseptic TBA/8 machine is available for one of six different volumes within the range of 355–1000 ml.

The packaging material is composed of paper, plastic and aluminium foil. The material composition may be adapted to meet the demands placed by the packed product. The product is given maximum protection and retains its original quality until it is to be consumed.

The product can be given its own profile by the availability of choice of suitable packaging volume and form, in combination with a printing method which suits the product in question. The printing methods the system offers are flexographic, rotogravure and offset printing.



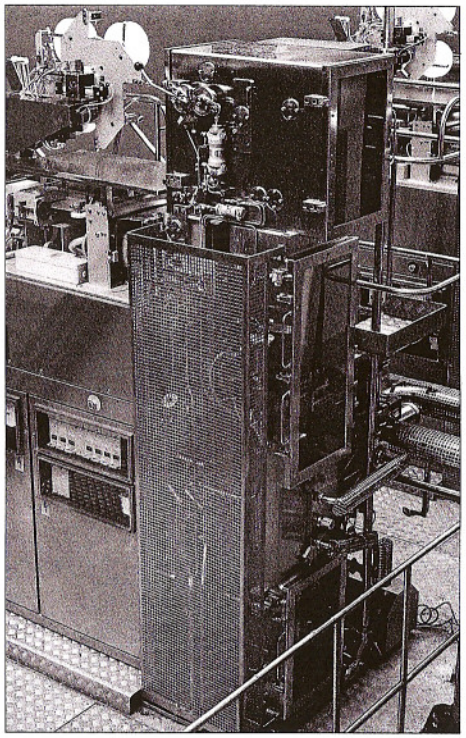


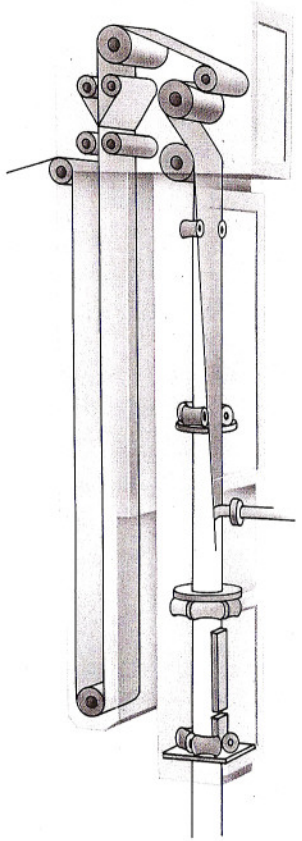
Different filling possibilities

The Tetra Brik Aseptic system is based on the principle of sealing the cartons below the level of the liquid, with completely filled cartons as the result.

Certain products need to be shaken before being served. In such cases the carton cannot be completely filled. The TBA/8 machine can be fitted with additional equipment which makes it possible to pack both completely filled and partly filled cartons leaving a head-space, by sealing the carton through the product flow, as the sketch shows.

Head-space also provides the possibility for weight filling and for a larger number of volumes, since it can be regulated to 20% of the carton volume. This also gives the carton superior pouring properties.





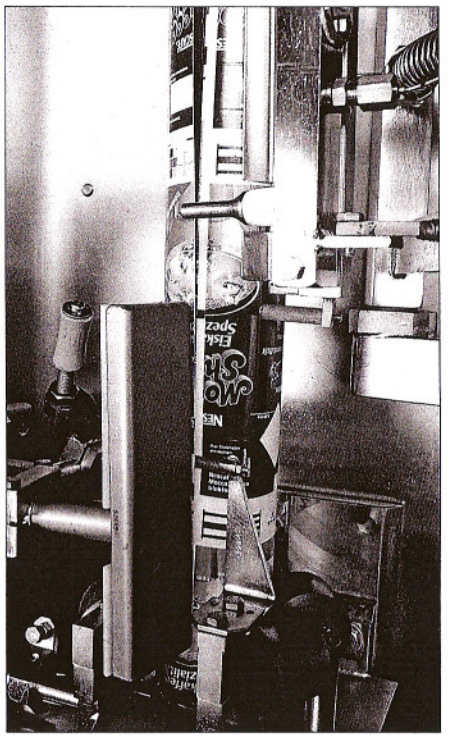
A reliable aseptic system

The chemo-thermal aseptic system is based on Tetra Pak's many years of experience from several thousands of packaging lines now in production throughout the world.

The packaging material passes through a bath of heated hydrogen peroxide which is later removed by squeezer rollers. In the next stage, the material web passes nozzles emitting hot sterile air. In this stage, any peroxide residues are removed. The packaging material, which is now sterile and completely dry, is formed into a tube. The sterilization and tube formation take place in a complete enclosed section of the machine, which prevents re-infection of the material.

The filler system is equipped with an AP (Aseptic Product) valve. This makes it possible to wash the filler system of the machine while the product is still in the product conduit connected to the machine.

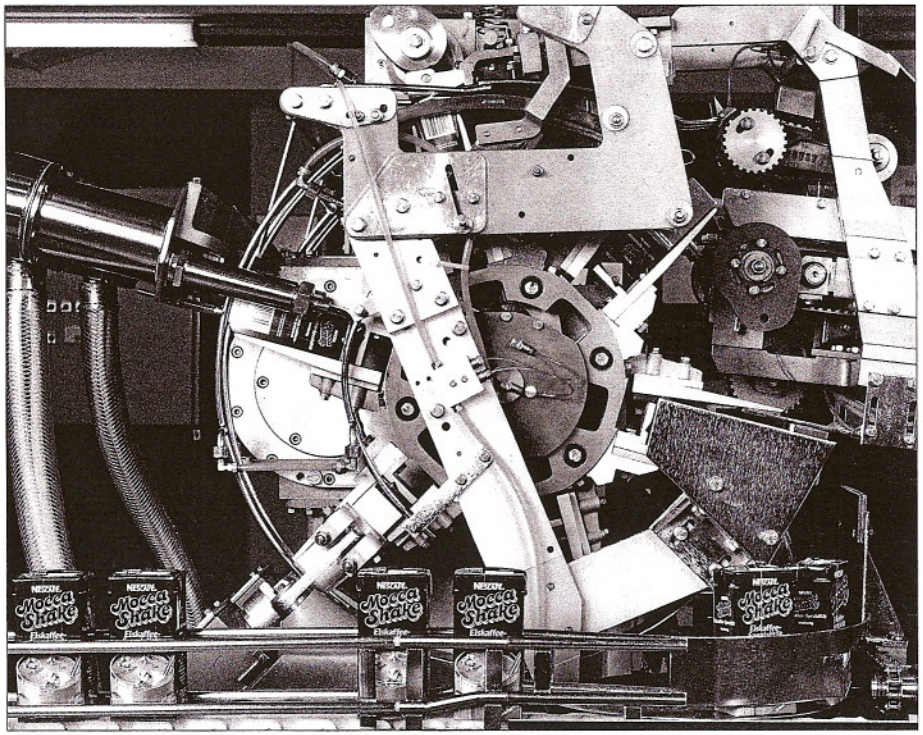
The picture left shows photocells which monitor the position of the material web. The picture right shows the short stop element.



Minimal production waste

A sophisticated artwork retention system keeps the artwork exactly aligned and gives cartons of perfect shape. Photocells are employed to monitor the position of the material web and transmit information to the artwork retention system which, when necessary, corrects synchronization during production.

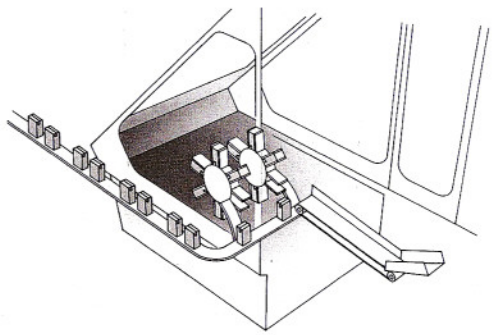
To reduce unnecessary production waste even further, the machine features a "short stop function". A "short stop element" is included in this special feature which completes the longitudinal seal when the machine is restarted.

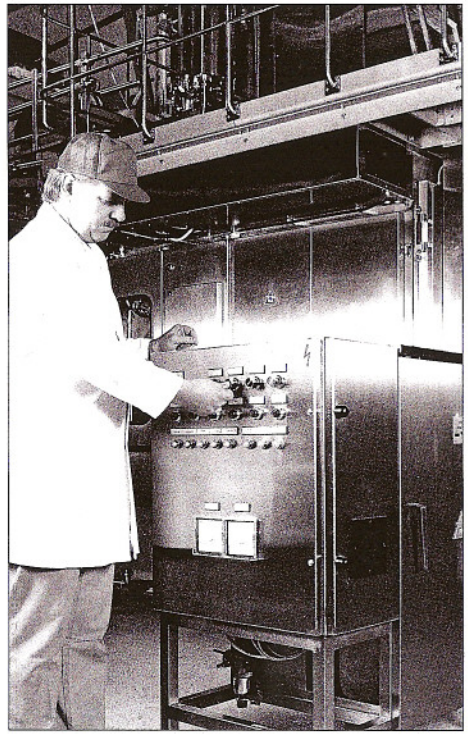


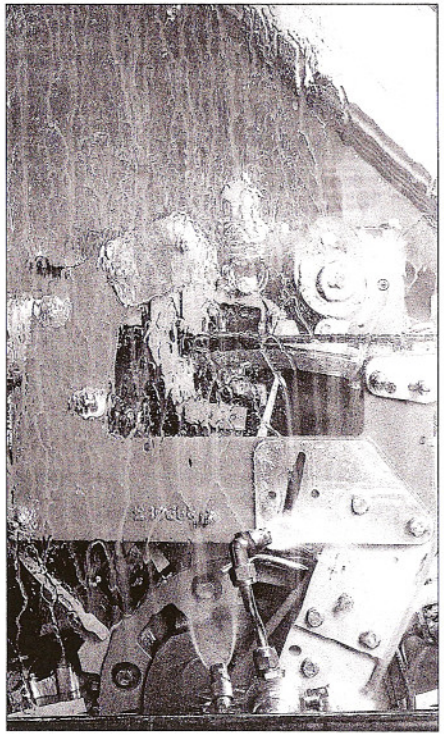
High output capacity

On the final forming of the carton, it is crucially important that the top and bottom flaps of the carton are completely sealed. The sealing time will be sufficient to ensure complete seal because the final forming takes place in two lines. The machine can maintain high output speed while at the same time gently handling every individual carton.

Thanks to the deep sterilization bath, the packaging material will be completely sterilized despite the speed of the machine. The automatic splicing feature of the machine is a further technical advance which makes for high output capacity and reliable production.







Maximum hygiene

Clad entirely in stainless steel, the machine is easy to clean.

In addition to the external washing feature which caters for those parts of the machine which form and seal the cartons, a separate CIP (Cleaning In Place) unit is available as extra. With this washing system, the product valve and filler pipe will be cleaned in less than 30 minutes. For viscous products, the daily washing operation can be supplemented with an acid and lye wash which, for other products, should be carried out once a week.

A CIP unit can be connected to one or two machines. The system, developed by Tetra Pak, gives the machines the maximum hygienic status.

The washing operation is controlled by a PLC (Programmable Logic Controller) program, implying that all the operator has to do is connect the washing pipe and push the start button for the desired washing operation.