

TBA/8 and TBA/19 packaging lines

Long success story



Low investment

for low volume producers
(start-ups and local players)

TBA/8, TBA/19
Packaging Lines

Speed

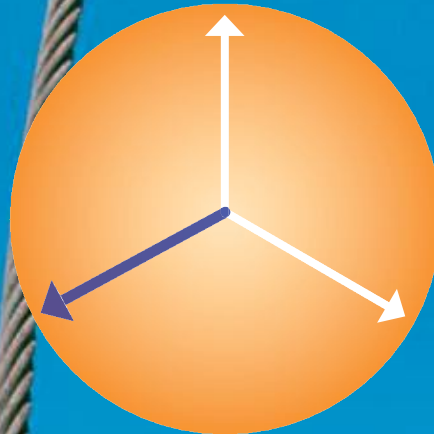
for high volume producers
looking for the lowest
operational cost

**TBA/22 and
Tetra Pak® A3/Speed**
Packaging Lines

Flexibility

for producers looking for
investment protection and
optimal capacity utilisation

Tetra Pak® A3/Flex
Packaging Lines



Low investment in a solid reputation

- ▶ **Reliability**
- ▶ **Simplicity**
- ▶ **Cost-efficiency**

TBA/19



TBA/8



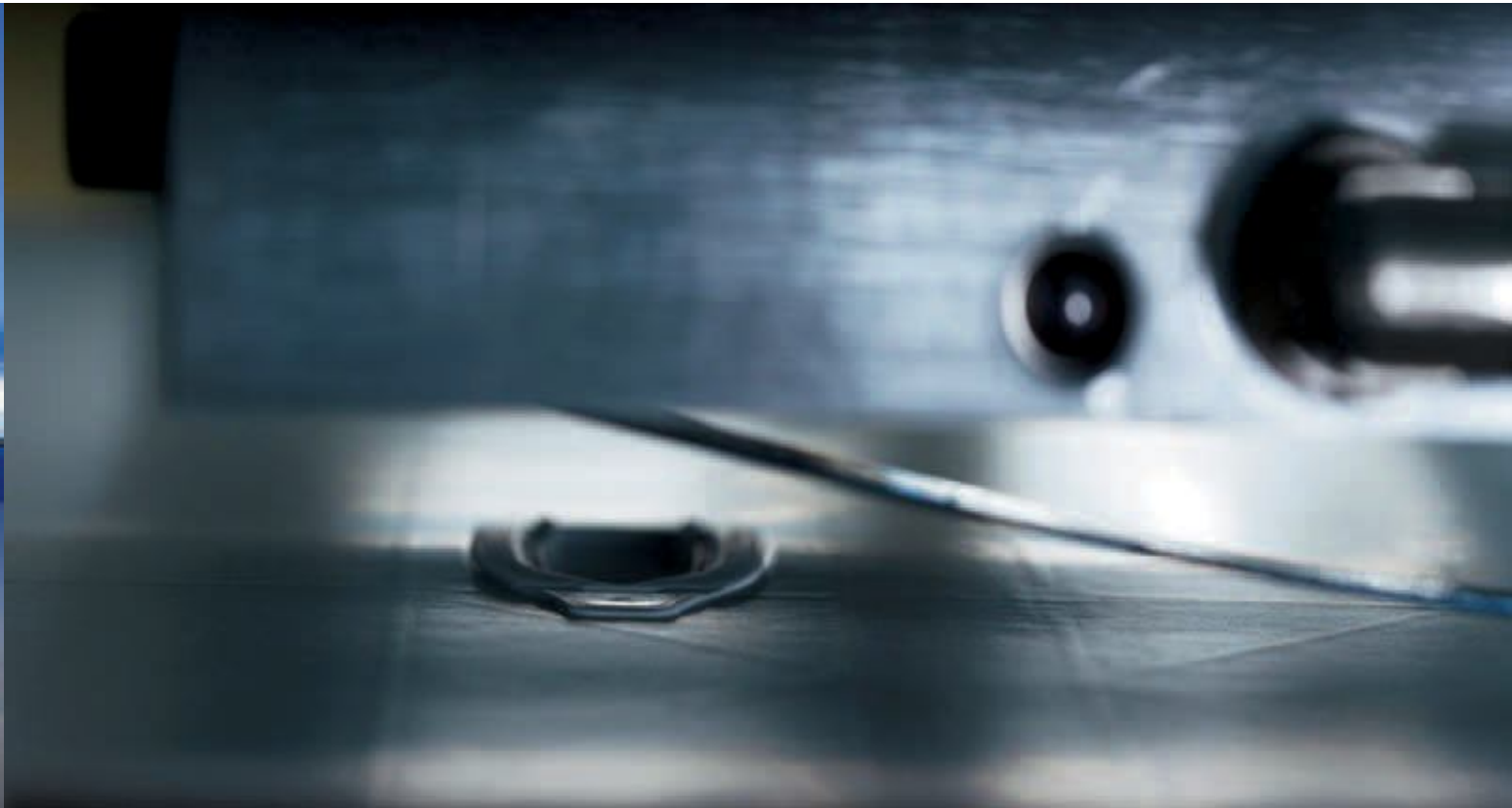


A track record of reliability, cost-

Reliability

With an accumulated global installed base of 5000 lines, the TBA/8 and TBA/19 packaging lines have come to be associated with reliability in our industry. Our most established long-serving systems, they consistently provide the solid performance upon which our customers depend. Backed up by Tetra Pak's engineering teams, these machines are continually being updated to keep them in line with current industry standards. For example, the Direct Injection Moulding Concept (DIMC) is used in the TBA/8 for in-line application of the low-cost FlexiCap™ opening.





efficiency and simplicity

Cost-efficiency

Low investment

Given the low start up investments they require, the relatively low operational costs of the TBA/8 and TBA/19 together with a capacity of respectively 5,000-6,000 and 6,000-7,500 packages per hour make them a competitive investment for low volume packers such as local and start-up producers.

Space efficiency

The TBA/8 and TBA/19 lines also offer space efficiency. The compact TBA/19 only occupies 11.6 square meters, with a resultant capacity of 650 packages/hour/square meter. So if you're short of space, the compact footprints of the TBA/8 and TBA/19 could be an added attraction.

Economic use of consumables

The use of consumables is low thanks to a deep-bath sterilisation system and space-optimised sterilisation chambers (a quarter the size of carton competitors' machines). These factors lead to fewer control points, lower level of peroxide consumption and shorter recovery time.





The world leader in





Roll-fed material: efficient transportation and storage

Tetra Pak primary packaging material for aseptic packages requires 40% less storage space than blanks of packaging material used by carton competitors. This is convenient and keeps inventory costs down.



aseptic technology

The Tetra Pak aseptic system delivers superior product safety. Packaging material surfaces are sterilised over and above US FDA and EU legal requirements. The machines are completely sealed, and hydrogen peroxide residues are drained and diluted in 1% water solution prior to discharge without any risk for the operator and for the environment.

Simplicity

The TBA/8 and TBA/19 packaging lines are designed for simplicity of operation. Easy access to key machine areas reduces the time, and, consequently the amount of money spent on maintenance. Material reel changes, material splicing and web threading are all achieved in a few simple steps. Enhanced automation simplifies operating and monitoring. The results are both increased efficiency and an improved working environment.





Maximising system performance: the key to enhancing your competitiveness

Most of today's food and beverage manufacturers operate in an environment of steadily rising competition, which makes defending margins a continual challenge and, consequently, a top strategic priority. Tetra Pak can offer you the means to maintain margins through continual reduction of your per-unit operating cost. We call this Maximising System Performance.

To keep your packaging system's performance at its maximum, some critical factors must be considered, including operating costs, retailer demands, product volumes and diversity, and both upstream and downstream logistics. Naturally, these factors vary across geographic regions and business segments.

Maximising System Performance means understanding the above factors in relation to your entire production system – people, lines, materials, and maintenance – and the entire life cycle of a packaging line.

This understanding then guides decisions to ensure that you get the lowest possible unit cost from your production line.

Tetra Pak focuses on reducing per-unit operating costs across the lifetime of a packaging line.

► **Existing packaging lines** For the lines that are already installed at your site, we can improve performance by providing training, new technical service products and equipment upgrades.

► **New installations** Selling and delivering line performance – not simply equipment – is our unique value proposition. This means working closely with you to establish common expectations during the pre-contract phase and ensuring that these are met as the project is executed.

► **Future developments** We engineer a higher level of robustness, reliability and usability into each new generation of line equipment. The operating cost and capacity usage studies we carry out in our customers' factories provide the data that guides our development efforts.



Standard lines:

A sure path to superior system performance

What is a Standard packaging line?

It's a well established and technically evaluated packaging line configuration that's been verified over an extended period of time for its ability to meet specific criteria such as:

- ▶ scheduled operator time
- ▶ line efficiency
- ▶ packaging material efficiency
- ▶ maintenance requirements

TBA/8 Line Performance results*

- ▶ MME (Machine Mechanical Efficiency) \geq 92%

* Results apply to the following configuration:
TBA/8 + TER+/TCCS + TCBP70
(Standard line 1)

The benefits

- ▶ Enhanced overall performance
- ▶ Improved package appearance
- ▶ Minimised material waste
- ▶ Optimised package flow between line components
- ▶ Benchmarked performance based on identical reference installations
- ▶ Rapid installation and start-up

TBA/19 Line Performance results*

- ▶ MME (Machine Mechanical Efficiency) \geq 92%

* Results apply to the following configuration:
TBA/19 + TER+/TCCS + TSA21 + TCBP70
(Standard line 1)

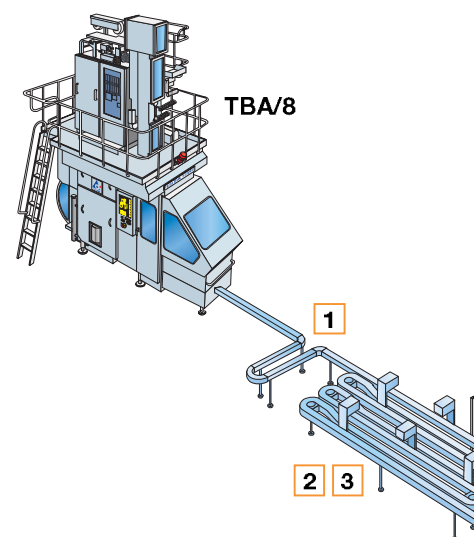
TBA/8 and TBA/19 packaging lines

Package portfolio TBA/8

Volume	Package	Opening	Capacity
355 ml	TBA 355 B	Wave Perf., Straw, PullTab	6 000 p/h
375 ml	TBA 375 S	Wave Perf., Straw, PullTab	6 000 p/h
500 ml	TBA 500 B	Wave Perf., Straw, PullTab	6 000 p/h
	TBA 500 S	Wave Perf., Straw, PullTab, ReCap 2	6 000 p/h
750 ml	TBA 750 B	Wave Perf., Straw, PullTab	6 000 p/h
	TBA 750 S	Wave Perf., Straw, PullTab, ReCap 2	6 000 p/h
1000 ml	TBA 1000 B	Wave Perf., PullTab, Recap3, FlexiCap	6 000 p/h
	TBA 1000 S	PullTab, Recap3, FlexiCap, SlimCap	6 000 p/h
	TBA 1000 Sq	Straight Perf., PullTab, Recap3, StreamCap	5 500 p/h

Package portfolio TBA/19

Volume	Package	Opening	Capacity
100 ml	TBA 100 B	Straw, PullTab	6 000 p/h
125 ml	TBA 125 S	Straw, PullTab	7 500 p/h
160 ml	TBA 160 S	Straw, PullTab	7 500 p/h
180 ml	TBA 180 B	Straight Perf., Straw, PullTab	7 500 p/h
200 ml	TBA 200 B	Straight Perf., Straw, PullTab	7 500 p/h
	TBA 200 M	Straw, PullTab	7 500 p/h
	TBA 200 S	Straight Perf., Straw, PullTab	7 500 p/h
250 ml	TBA 250 B	Straight Perf., Straw, PullTab	7 500 p/h
	TBA 250 S	Straw, PullTab	7 500 p/h
284 ml	TBA 284 B	Straight Perf., Straw, PullTab	7 500 p/h
300 ml	TBA 300 S	Straight Perf., Straw, PullTab	7 500 p/h
330 ml	TBA 330 S	Straight Perf., Straw, PullTab	7 500 p/h
200 ml	TPA 200 Sq	PullTab	7 500 p/h
250 ml	TPA 250 Sq	PullTab	6 000 p/h
330 ml	TPA 300 Sq	PullTab, StreamCap	6 000 p/h
125 ml	TWA 125 S	Straw	6 000 p/h
200 ml	TWA 200 S	Straw	7 500 p/h
200 ml	TWA mw 200 S		6 000 p/h



More technical information on the following downstream equipment is available in the respective data sheets:

1. Tetra Package Conveyor 21 is a flexible conveyor system that can be adjusted to fit all Tetra Pak package sizes and shapes from 40 to 78 mm.

2. Accumulator Easy Ride Plus is a ready to install unit for one filling line. It has the same electrical cabinet as the Tetra Easy Ride and includes conveyors. The conveyors are pre-mounted on a frame, with cables installed and all settings made. (Accumulation time: 2-3 minutes).

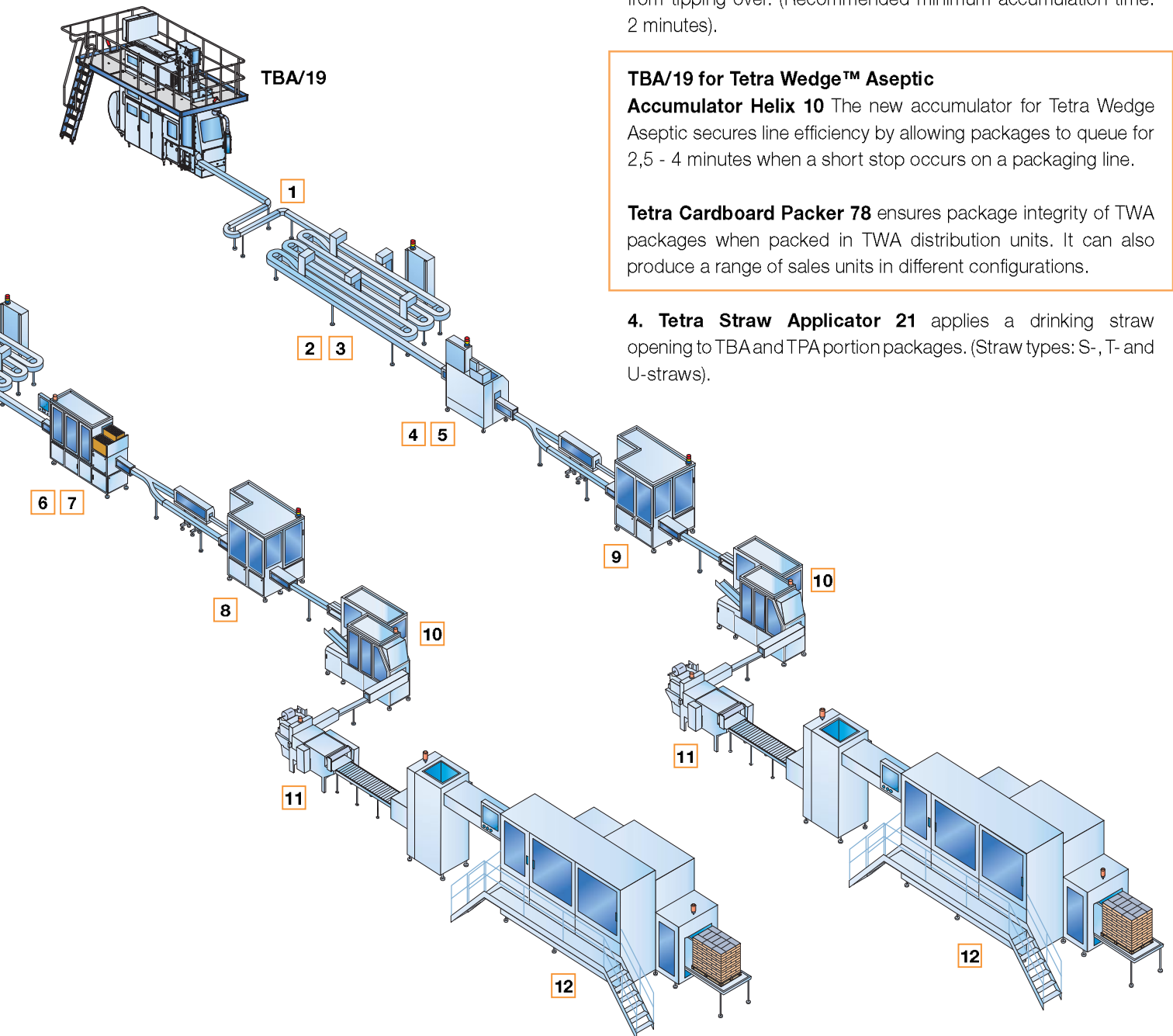
3. Tetra Conveyor Control System makes it possible to accumulate the maximum number of packages on the conveyors, ensuring careful treatment of the packages and preventing them from tipping over. (Recommended minimum accumulation time: 2 minutes).

TBA/19 for Tetra Wedge™ Aseptic

Accumulator Helix 10 The new accumulator for Tetra Wedge Aseptic secures line efficiency by allowing packages to queue for 2,5 - 4 minutes when a short stop occurs on a packaging line.

Tetra Cardboard Packer 78 ensures package integrity of TWA packages when packed in TWA distribution units. It can also produce a range of sales units in different configurations.

4. Tetra Straw Applicator 21 applies a drinking straw opening to TBA and TPA portion packages. (Straw types: S-, T- and U-straws).



configuration of standard packaging lines

5. Tetra Cap Applicator 40 (not pictured) applies StreamCap opening devices to TPA 330 Sq or TBA 200 Sq packages.

6. Tetra Cap Applicator 21 attaches ReCap opening devices to TBA and TPA family packages.

7. Tetra Cap Applicator 88 (not pictured) attaches SpinCap or StreamCap opening devices to TBA 1000 Sq.

8. Tetra Film Wrapper 66 produces multipacks of TBA and TPA family packs wrapped in clear thin polyethylene (PE) film. (Sales units: 4, 6 packs with 2x2 recommended cardboard unit packing pattern and 3x2).

9. Tetra Film Wrapper 67 produces multipacks of TBA and TPA portion packs wrapped in clear thin polyethylene film (PE). An option for this machine is printed film in register. (Sales units: 3, 4, 6, 8, 9, 10, 12 packs for most volumes).

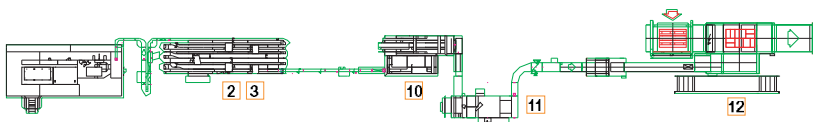
Tetra Conveyor Flexi 56 and **Tetra Unit Conveyor 54** are conveyor systems to fit a range of distribution and sales units. TUC 54 has fixed widths while TCF 56 has adjustable railings.)

10. Tetra Cardboard Packer 70 is a flexible cardboard packer that has a number of possibilities when it comes to package sizes, packing patterns and cardboard units. It is suitable for all TBA and TPA packages. A variety of distribution units are available.

11. Tray Shrink 51 wraps cardboard trays in film for stability and protection against dirt. (Unit size: Max. Height 265 mm, Width 150 - 240 mm and Length 180 - 420 mm).

12. Tetra Pallet System 10 is a whole system consisting of Tetra Pallet Loader 10, Tetra Pallet Magazine 10 and Tetra Elevator 10 which are combined to create a complete solution for the customer. A variety of the most common pallet sizes are available.

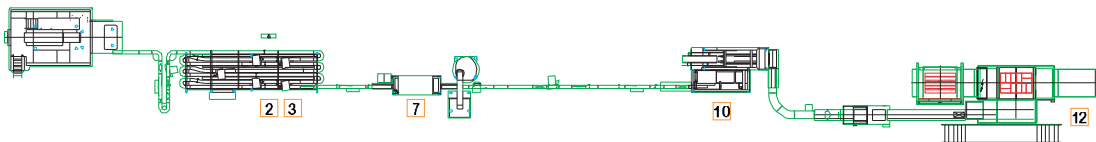
Line 1 TBA packages in Tetra Tray with shrink film on pallet



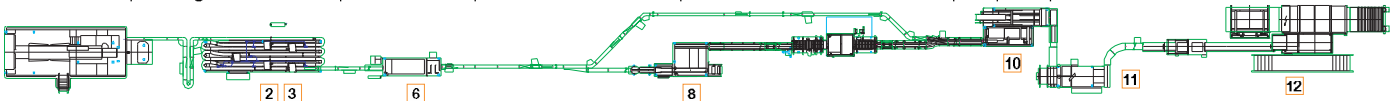
Line 2 TBA packages with ReCap in Tetra Wraparound box with inside top flap on pallet



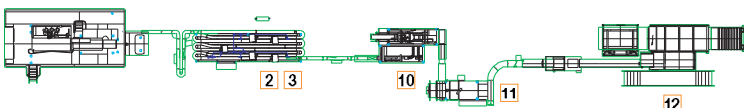
Line 3 TBA 1000 Sq packages with SpinCap or StreamCap in Tetra Wraparound box with side flap on pallet



Line 4 TBA packages with Recap in film multipacked in Tetra Wraparound box with inside top flap on pallet



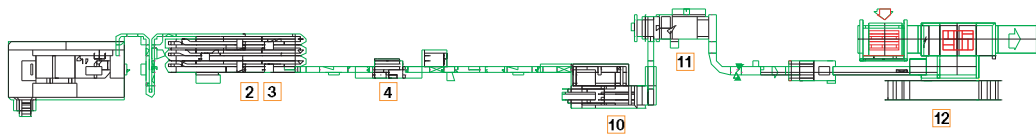
Line 5 TBA packages with FlexiCap Aseptic in Tetra Wraparound box with inside top flap on pallet



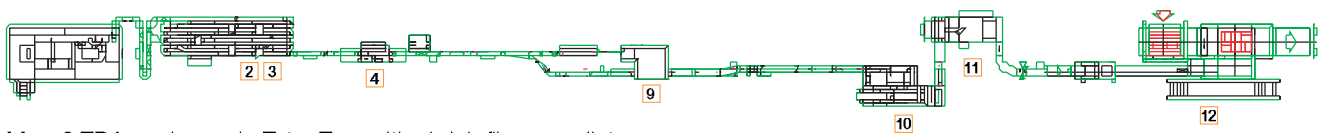
TBA/19

standard packaging lines

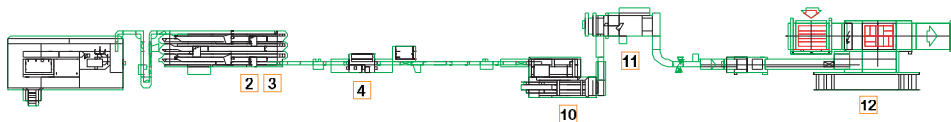
Line 1 TBA packages with straw in Tetra Tray with shrink film on pallet



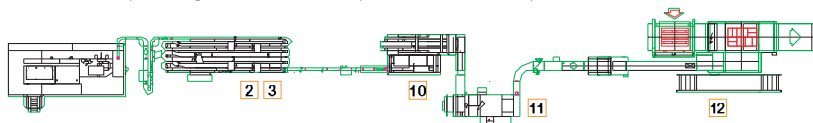
Line 2 TBA packages with straw in film multipack in Tetra Tray with shrink film on pallet



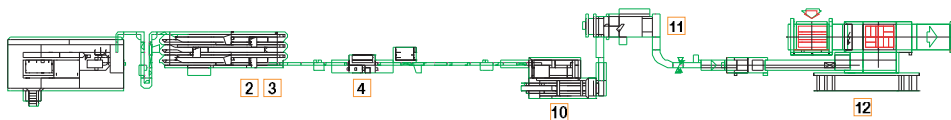
Line 3 TBA packages in Tetra Tray with shrink film on pallet



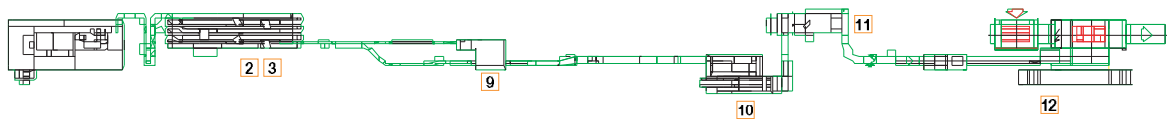
Line 4 TPA packages in Tetra Wraparound box on pallet



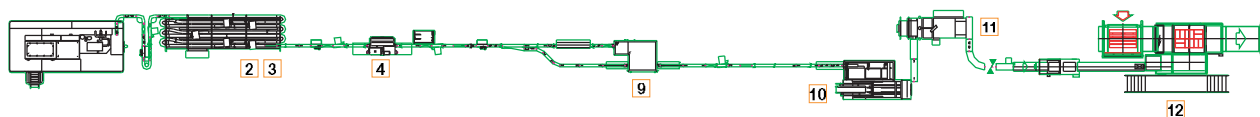
Line 5 TPA packages with straw in Tetra Wraparound box on pallet



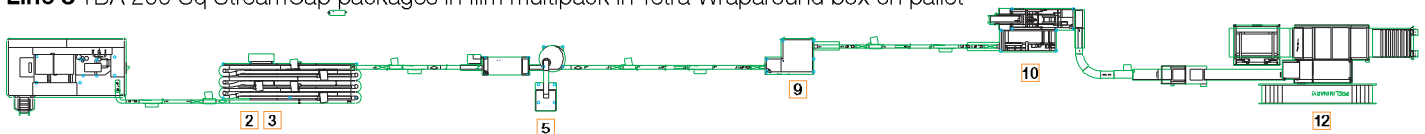
Line 6 TPA packages in film multipack in Tetra Wraparound box on pallet



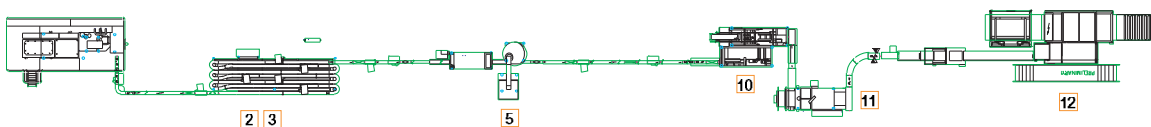
Line 7 TPA packages with straw in film multipack in Tetra Wraparound box on pallet



Line 8 TBA 200 Sq StreamCap packages in film multipack in Tetra Wraparound box on pallet



Line 9 TPA 330 Sq StreamCap packages in Tetra Wraparound box on pallet





Preserving and adding value all

Look to complementary products and product solutions from Tetra Pak for ways to protect and enhance the value of each filled package as it moves through the distribution system.

Tetra Pak Film Wrappers and Cardboard Packers are used to transport and protect products as they make their journey to the retail outlet. They make for easier handling and can be used for retail displays.

The large surface areas on the Film Wrapper and Cardboard Packer units are ideal for branding, merchandising and promotional messages to increase visual impact and product differentiation in store.

The Tetra Wedge Aseptic 200 S can be packaged into cardboard boxes or film-wrapped to suit different applications. The cardboard boxes can be used as transport units, sales units or display units.

Cardboard multi-pack units make it easier for consumers to buy larger quantities of packages each time. This fits today's bulk shopping trend, especially in hypermarkets and large discount retailers.

Choose between three types of units – standard box, waistline box or film wrapped packages – and ensure your product reaches the end consumer in perfect condition.





the way to the consumer



Packages for a wide variety of competitive products

Packages produced by the TBA/8 and TBA/19 are synonymous with high quality, user-friendliness and low cost the world over. Here are a few of the reasons why these lines and their products beat out the competition:

Tetra Wedge™ Aseptic Stand up – Stand out

Compatible with a wide range of aseptic packages in many different shapes and volumes, the TBA/8 and TBA/19 can produce 29 different packages with volumes ranging from 100 ml to 1500 ml. The TBA/19 offers the widest range of portion packs in the industry, with package volumes from 100 ml to 330 ml.

The TBA/19 offers yet another option in the shape of the Tetra Wedge Aseptic package. It has a modern, attractive and trendy look. It is inexpensive to produce. And that is why it's perfect for children and youngsters: it stands up and shows off on the shelf, complimenting the outlook – and the budget – of young people seeking ways to express their personality.





Tetra Brik® Aseptic

The TBA/8 supports the familiar and well-established Tetra Brik Aseptic family, rated for its simplicity and broad consumer acceptance. With its numerous combinations of size and opening/closure solutions, the Tetra Brik Aseptic satisfies a great variety of liquid food packaging needs. Openings include more simple solutions, such as perforation, PullTab™, straw and the more sophisticated reclosable and resealable openings such as ReCap™3, StreamCap™ and SlimCap™.

Tetra Prisma® Aseptic – Sensational

The Tetra Prisma Aseptic package is designed to differentiate your product and make your brand stand out. With its unique 8-sided shape, enhanced packaging material, and high-quality printing options, the Tetra Prisma Aseptic looks sensational and can infuse your brand with an unmistakable, innovative image. It's a new packaging style created for the quality and image-conscious consumer who wants a superior product.

