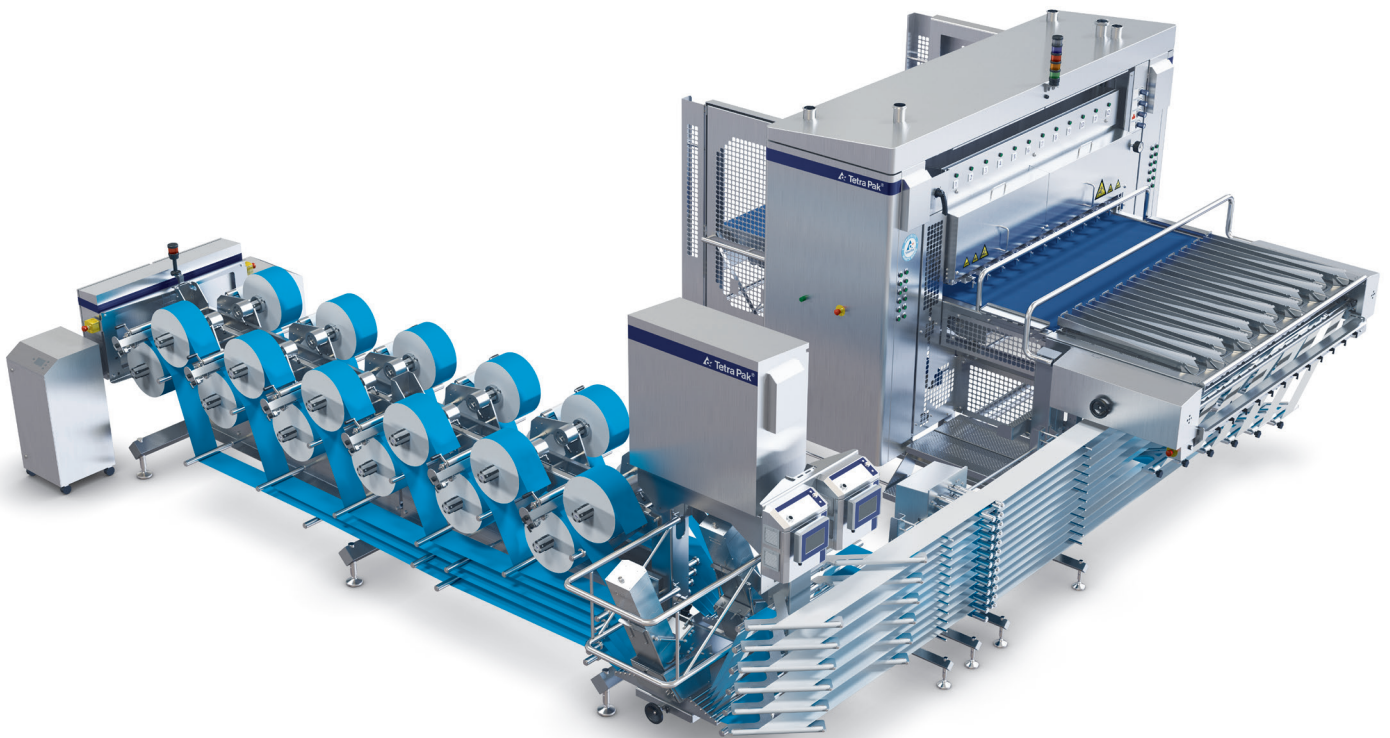




Tetra Pak® Multilane Wrapper A4

Safe and ergonomic with full tension control



Application

The Tetra Pak® Multilane Wrapper A4 is designed for continuous wrapping of the full range of ice cream products such as stick products, enrobed, sandwich and cone products. It enables all relevant wrapping materials available in the market, including both heat and cold seal.

Ergonomics and safety

Easy access for both operator and maintenance has been the main design parameter of this machine.

- External rack for loading of wrapping materials and splicing from one reel to the next.
- Incorporated steps and platforms for easy surveillance of performance.
- All adjustment parameters outside operator panel placed in convenient positions for operator.
- Maintenance access, especially in end-seal and cutting area, is “second to none” for this wrapping concept.
- All automation is accessible from the floor via two side cabinets.

Operating principle

Transfer:

Ice cream products are transferred into the open wrapping lanes either from a laydown device (extrusion and moulding) or horizontally from a conveyor.

Sealing and cutting:

- The lanes of wrapping material containing the products are led by a set of driving rollers to the sealing rollers where longitudinal sealing takes place. The rollers are driven by separate motors for each lane.
- The cross sealing and cut-off are based on a principle where the sealing jaws and the knives are suspended on two eccentric, rotating shafts driven by a servo motor. This system results in a box motion movement of the sealing jaws, which secures longer sealing time.
- During the sealing process the knives cut the lane through a slot in the lower sealing jaw.

Outlet

- An outlet conveyor connects to downstream equipment.
- The wrapper is prepared for all kinds of “end of line” solutions – from semi to fully automated second packaging.

Next generation printing solution

The Tetra Pak® Multilane Wrapper A4 is available with a patented laser solution where each printer can print up to six lanes. The external rack laser solution includes safety covers, suction manifold and vacuum units. As an alternative both Thermal Ink-jet (TIJ) and Continuous Ink-jet (CIJ) can be included as options or facilitated by brackets and signal interface as a customer purchase.

Wrapping material

Paper specifications

The Tetra Pak® Multilane Wrapper A4 is designed for the following types of wrapping material:

Cold sealing - Pressure sensitive adhesives (PSA)

Paper: bleached paper with cold adhesive 35 - 50 g/m².

Plastic: OPP-film with a thickness from 20 to 45 micron (30-60 micron for opaque OPP) + cold adhesive.

Heat sealing

Paper: bleached paper with heat sealable adhesive 40 - 50 g/m².

Plastic: OPP-film of heat sealable laminate with a thickness from 20 to 45 micron (30-60 micron for opaque OPP).

Samples must be sent to Tetra Pak for laboratory tests and approval before the final decision on wrapping materials and dimensions.

Wrap size and capacity

Reel size

- Up to 400 mm in diameter.
- 71 or 76 mm core hole.
- Width of reel depends on available space (lanes pitch) and necessary width related to product circumference.

Capacity

- The wrapper capacity is up to 60 cuts/min for all common stick products and common-sized stickless products.
- For small products – bite-size – up to 70 cuts/min are available.
- For larger wraps – ball-top cone – down to 50 cuts/min must be expected.

Standard equipment

- External rack for wrapping material.
 - 2 reels per lane
 - Tool-less loading with pneumatic quick lock
 - Active paper brakes
 - Paper break detection
 - Estimated reel duration before change/splice
 - Angle adjustable folding swords at wrapper inlet
- Precision adjustable inclination on fin-seal.
- Adjustable height on in- and out-let conveyor.
- Light in cutting/sealing area.
- Integrated platform steps and handrail.

Optional equipment (*:mandatory)

- Contrast sensor to secure “picture in place” cut off*.
- Folding boxes for foil/paper guiding at product transfer*.
- Individual heat control for each lane.
- Dynamic up-liner – depending on product transfer solution.
- NPNW (No Product / No Wrap).
- Minimizing “air-in-wrap” function.
- UPS (Uninterrupted Power Supply).
- Laser coding system – 1 laser per 6 lanes.
- Pulling station for tension reduction – mandatory for laser printer.
- Brackets and signal interface – facilitate customer sourced printer-systems.
- Spare parts for 2 years’ operation.



Technical data

	1 500 A4		1 900 A4		2 200 A4
Configuration					
Name	1500 Slim	1500 Wide	1900 Slim	1900 Wide	2200
Width at operator position	1200	1500	1700	1900	2200
Number of lanes	5 - 12		6 - 12		9 - 12

Heating coils					
Cross sealing, kW	2.4 - 4.8		3.2 - 6.4		3.2 - 6.4
Longitudinal sealing, kW	1.2 - 2.4		1.6 - 3.2		1.6 - 3.2

Electrical specification					
Voltage standard	3 x 380 - 480 V 50 - 60 Hz (cps)		3 x 380 - 480 V 50 - 60 Hz (cps)		3 x 380 - 480 V 50 - 60 Hz (cps)
Voltage optional	*		*		*
Connection	40 A		50 A		50 A

Air specifications					
Air consumption, m ³ (ft ³)/h	1.0 (35)		1.0 (35)		1.0 (35)
Air pressure, bar (psi)	6 - 8 (87 - 116)		6 - 8 (87 - 116)		6 - 8 (87 - 116)

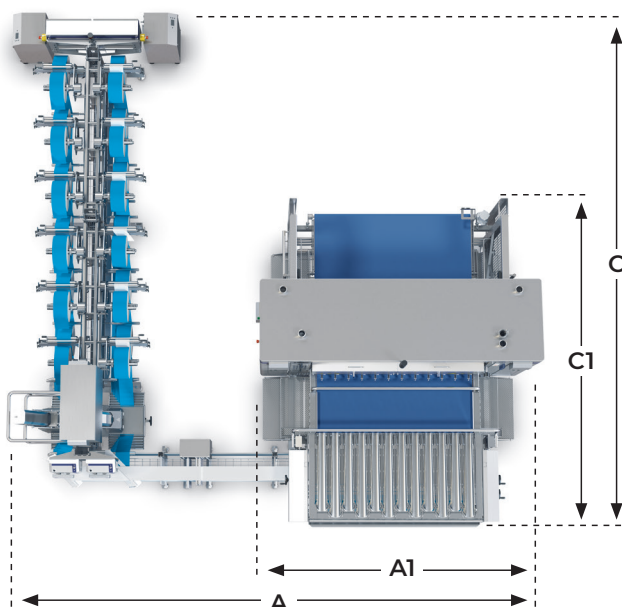
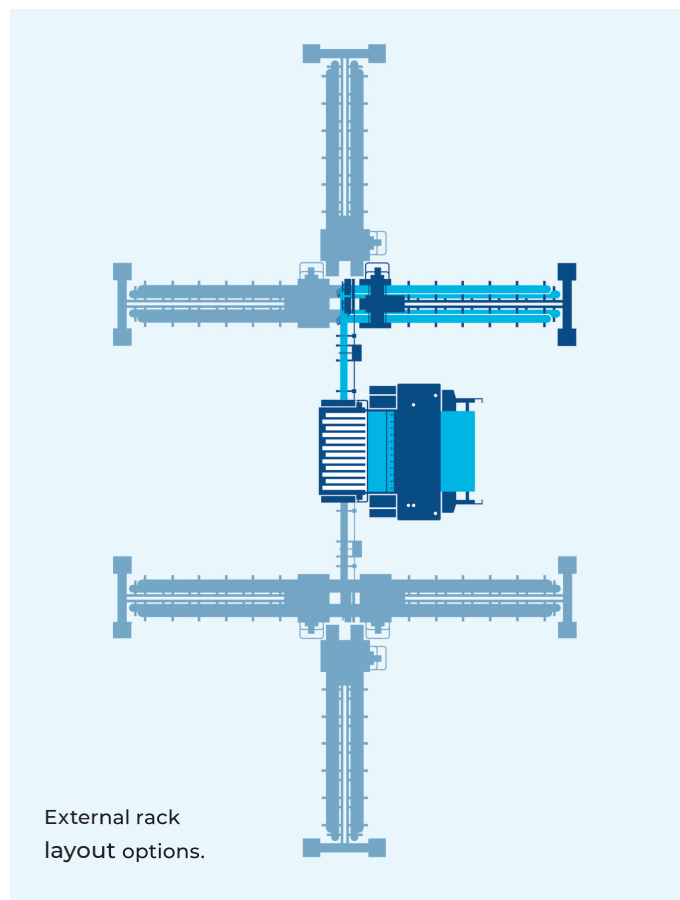
Shipping data Multilane Wrapper					
Net weight, kg (lbs)	3 405 (7 507)		3 565 (7 860)		3 725 (8 220)
Gross weight, kg (lbs)	4 365 (9 625)		4 465 (9 845)		4 565 (10 064)
Volume, m ³ (ft ³)	38 (1 342)		42 (1 483)		45 (1 589)

Shipping data external rack	6 lanes	8 lanes	10 lanes	12 lanes
Net weight (w.o. Laser to w. Laser), kg (lbs)	850 to 1150 (1874 to 2536)	1050 to 1350 (2315 to 2980)	1200 to 1500 (2650 to 3300)	1650 to 1950 (3650 to 4300)
Gross weight (w.o. Laser to w. Laser), kg (lbs)	1400 to 1700 (3087 to 3748)	1300 to 1600 (2866 to 3528)	1750 to 2050 (3860 to 4520)	2805 to 3105 (6200 to 6850)
Volume (w.o. Laser to w. Laser), m ³ (ft ³)	13 to 23 (460 to 812)	15 to 27 (530 to 954)	17 to 31 (600 to 1100)	19 to 35 (671 to 1236)

There are six layout options for the external rack – left and right side combined with forward, perpendicular or backward direction. The external rack includes double reel fixture per lane – including a pneumatic reel lock on the axial loaded spindle. Each spindle is controlled by a pneumatic break which provide a constant tension through the lifetime of the reel.

A patented drive system positioned just after the first folding sword secures that the tension is reduced to the correct level before reaching the wrapper lanes. In case of cold seal, the guiding system from the external rack and over to the wrapper includes divider plates to avoid glue sides to interfere.

A patented printer system will enable 1 Laser to print on the fin-seal edge of up to 6 lanes at the same time. The printer solution include safety covers with vapour suction integrated into the external rack. Alternative printer systems (CIJ or TIJ) can be facilitated with mounting brackets and signal interchange.



Dimensions

Multilane Wrapper (mm)	1 500 A4	1 900 A4	2 200 A4
A	6 247	6 477	6 597
A excl. Laser	5 643	5 873	5 993
A1	2 680	3 140	3 380
C1	3 907	3 907	3 907

External rack (mm)	6 lanes	8 lanes	10 lanes	12 lanes
C	4 340	5 060	5 780	6 500
C excl. Laser	3 892	4 612	6 052	5 993