



Economical and sustainable overall concept

Recyclable spouted pouches for hotfilling and pasteurization



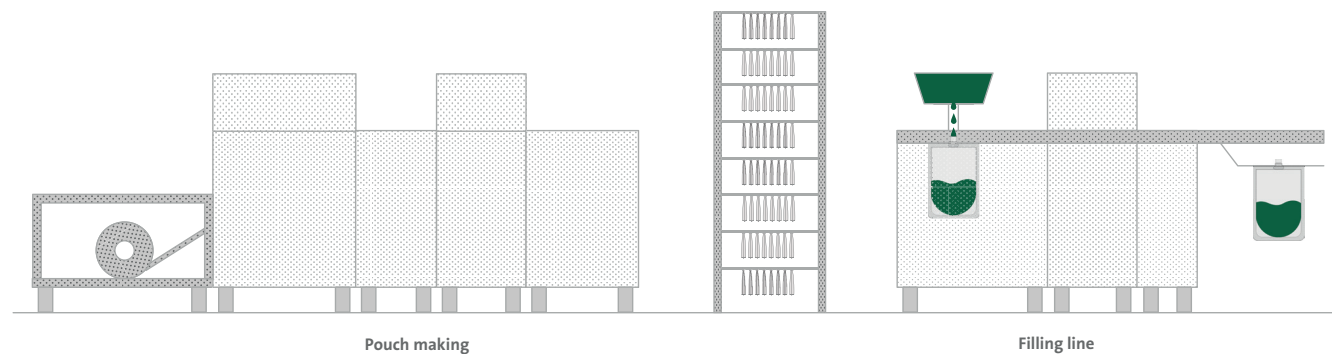


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Maximum efficiency and packaging reliability



With the innovative solution for the in-house production of spouted pouches, SN Maschinenbau, SÜDPACK and MENSCHEN are breaking new ground and providing the producers and fillers of thick and thin fluid products, such as fruit purees, smoothies and other liquids, with a sustainable and economical alternative to pre-made pouches that is also suitable for hotfilling and pasteurization.

The overall concept relies on powerful packaging technology and high-performance packaging components made of polypropylene with certified recyclability, which are perfectly coordinated and offer users not only simple handling, but also maximum process reliability. The concept is also pioneering in terms of economic profitability, packaging reliability and product protection, and offers sustainability as an extra benefit thanks to the use of monomaterials with certified recyclability.

High economic profitability and reduced handling

Thanks to its high efficiency, our solution offers the possibility to economically produce pouches as an attractive alternative to using pre-made pouches. The concept makes it possible for the producers and fillers of pasty and liquid food products to manufacture spouted pouches in-house, which can then be filled and sealed as usual on their existing filling machines. Producing pouches on site eliminates the complex handling and logistics required for processing finished pouches, which

are usually delivered on rails in cardboard boxes. The space that is necessary for reels is roughly one third of what is needed for pre-made spouted pouches. In addition to reduced transport costs, this also simplifies warehousing. Furthermore, the cardboard packaging from pre-made pouches is no longer required.

The concept is based on a user-friendly pouch making machine combined with films and spouts that are perfectly coordinated, which means they can be reliably processed. The film is processed from the reel, which provides many advantages in terms of efficiency and economic profitability without having to make compromises when it comes to quality. Based on this advantage, investing in the line for in-house pouch production is highly attractive from an economic point of view.

Packaging reliability and product protection

The sustainable SÜDPACK films are perfectly matched to the SN machines and can be reliably and efficiently processed into spouted pouches. This guarantees top product quality and packaging reliability with pouch quality that is easily on par with pre-made pouches. Crucial to the high quality are the perfectly coordinated spouts and sealing layers in combination with SN's proven sealing technology. Last but not least, the excellent sealing performance ensures the high tightness of the pouches and keeps liquids from leaking.

The machine's user-friendly operation prevents errors, which also boosts process reliability.

Simple process

Insourcing pouch production requires no additional effort because the machine is extremely user-friendly and can be operated easily by the existing staff. One of the many advantages is that the reel change has to be performed at most once every shift.



Recyclable film solution

The optimal solution for recyclability, processability and product protection

The sustainable SÜDPACK films are perfectly matched to the pouch making machines from SN Maschinenbau and can be reliably and efficiently processed into spouted pouches. This guarantees top product quality and packaging reliability with pouch quality that is easily on par with pre-made pouches. For the development of the sustainable films, SÜDPACK has drawn on its extensive expertise, particularly in producing innovative sealing layers.

Recyclability

The recyclable film solution is suitable for hotfilling and pasteurization. Due to their mono-structure, the PP-based Pure-Line films are classified as 96%* recyclable. In combination with a PP-based spout, a recyclable stand-up pouch can be produced that meets the same technical requirements as stand-up pouches made from conventional materials. Moreover, the carbon footprint of the PP-based monofilm is up to 57% lower than that of conventional film laminates – without compromising on product protection. The use of innovative SPQ technology can improve the carbon footprint even further.

*certified recyclability according to cyclos-HTP

Safe processing and high process reliability

The films are equipped with a sealing layer with an optimized seal initiation temperature (SIT). Thanks to the combination with a heat-resistant carrier material, the film offers a wide processing window. This enables safe, efficient processing during the packaging and filling process and makes sealing in the spouts easy. The excellent sealing strength results in outstanding package quality, giving the pouches maximum tightness and burst-pressure resistance.

Product protection and extended shelf life

The PP-based films from SÜDPACK are equipped with a high barrier for optimal product protection. Depending on the product to be packaged, the barriers can be customized to protect against water vapor, oxygen and UV light. Due to their heat resistance, they are suitable for both hotfilling and pasteurization, which can extend the shelf life of products. The high dimensional stability of our films, even under fluctuating conditions, helps ensure a reliable processing and packaging process.

Application

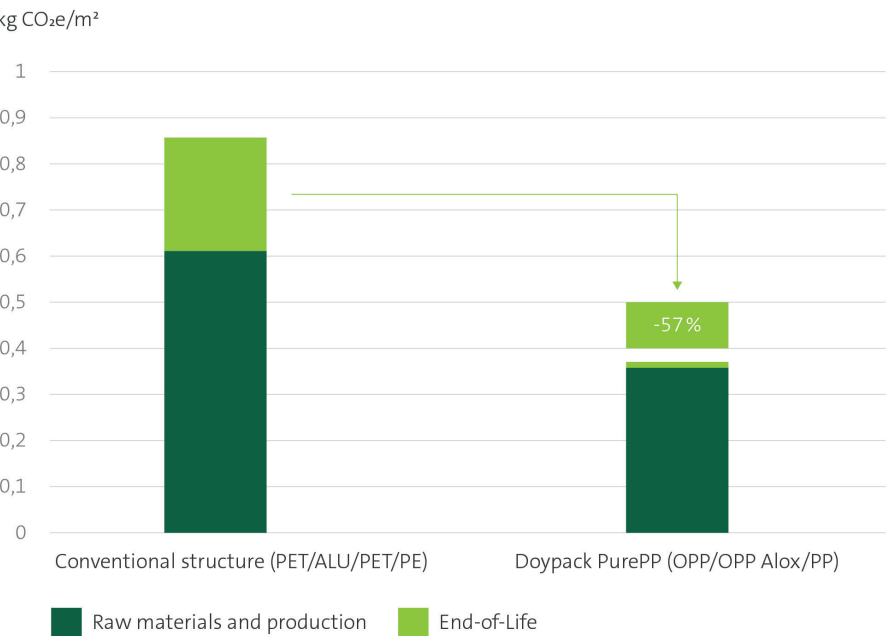
➤ Fruit purees and pasty or liquid food

➤ Hotfilling and/or pasteurization



Reduced carbon footprint*

When the entire life cycle of the film is assessed, the carbon footprint of the PurePP film is 57% lower when compared to a conventional structure (PET/ALU/PET/PE).



Technical data

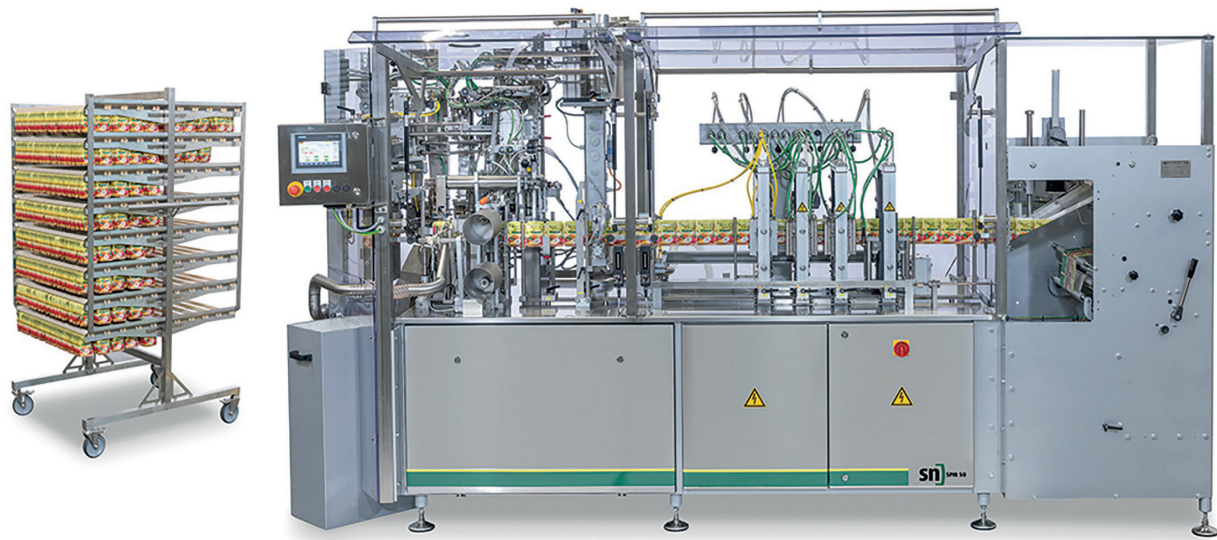
Barrier	Oxygen transmission rate (OTR) <= 1 cm ³ /m ² 24h Water vapor transmission rate (WVTR) <= 1 g/m ² *d
Thickness Grammage	116 µm 106 g/m ²
Wide processing window	120-160°C sealing temperature
Tear resistance (MD*) Tear resistance (CD**)	> 90 N/15 mm > 100 N/15 mm
Elongation at break (MD*) Elongation at break (CD**)	> 60% > 40%
Bondstrength	> 2.5 N/15 mm before and after pasteurization
Sealing strength	> 50 N/15 mm

*MD = machine direction | **CD = cross direction

Spouted Pouch Maker SPM 50

Technical data: SPM 50

Pouch format range	80-100 mm pouch width; 70-210 mm pouch length
Output	up to 4,200 spouted pouches per hour (70 cycles/min)
Electrical power requirements	3x400V + N + PE, 50/60Hz, approx. 4 kWh
Air consumption	Approx. 1.000 NI/min., 6 bar
Dimensions L x W x H mm	5.970 × 3.730 × 2.500



Maximum packaging efficiency and reliability

On the SPM 50 horizontal pouch making machine from SN Maschinenbau, the spouted pouches are manufactured horizontally from the film reel and the spouts are sealed in. They are then automatically inserted into the commercially available rail systems and are stored on a transport cart. Each rail can then be easily and ergonomically inserted into the existing pouch-filling machines and the empty spouted pouches can be filled. Compared to pre-made pouches, this significantly simplifies handling and allows the staff to process an increased number of pouches more efficiently because it eliminates the time- and effort-consuming process of separating the rails. The low-maintenance machine is highly efficient and can be used in tight production spaces thanks to its compact design. This allows for its flexible placement, either right next to the filling machine or on its own in a separate room.

Insourcing pouch production is easy because the machine is extremely user-friendly. It can generally be operated by the staff that already operates the filler. One of the many advantages is that the reel change has to be performed at most once every shift and requires minimal set-up time. The SPM 50 from SN Maschinenbau processes the film and spouts, producing up to 4,200 pouches per hour, and achieves continuous production of over 30,000 spout pouches per eight-hour shift.

The factors mentioned above make investing in this pouch concept extremely attractive in economic terms. In combination with substantially improved ergonomics for spout and rail handling and a high degree of flexibility regarding different pouch and spout designs, the SPM 50 is an excellent investment that can also enhance companies own value creation.





MENSHEN LoTUS™ Spouts

for baby food and fruit puree/juice



The optimal and efficient weld

Monomaterial laminates of different thicknesses can be optimally welded thanks to the optimized heat distribution and conductivity of MENSHER LoTUS™. When used correctly, this saves energy and ensures an optimal production process.

Spouted pouches and sustainability

Sealing process – multimaterial vs. monomaterial:

- Sealing weldspouts with multimaterials – Required temperature: 190–200°C (374 - 292°F)
- Sealing limit for monomaterial: 130°C (266°F)

Energy can be saved by coordinating the individual components (machine, laminate, spouts)

Benefits of the MENSHER-LoTUS™ platform

- Simplified welding with monomaterials
- Recyclable monomaterial solution
- Improved sealing quality and appearance of the sealed area
- Coordinated with machine manufacturers
- Works with PE and PP
- No impact on machine capacity

Weldspouts

Highlights:

- Opening - 8.5 mm
- Snap-on & screw-on options
- Available in PE and PP
- Also as a tethered solution for beverages

Superior tamper evidence – Fenestra

- Easy for end consumers to see and hear
- No loose parts



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