

SCANDIVAC

PACKING ALL

THERMOFORMING MACHINES





PACKAGING MACHINES SCANDIVAC

used to pack a wide range of products with thermoforming technology.

Thermoforming technology combines packaging production (forming), product placement and packaging sealing in a single process.

Thermoforming machines make it possible to pack products faster and easier.

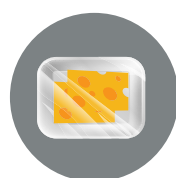
SCANDIVAC is one of the largest manufacturers of thermoforming machines in Eastern Europe with 25 years of experience in manufacturing food processing equipment. Packaging machines and their components are manufactured using the latest technologies in the field of mechanical engineering with the use of electronic and pneumatic components from leading European manufacturers.

MAIN ADVANTAGES SCANDIVAC

MOST SPARE PARTS ARE FREELY AVAILABLE, INCLUDING: electrical parts, electric motors, servo drives, spare parts for pneumatic and vacuum systems, bearings, silicone seals, etc.

Servo drive in standard configuration for precise and smooth feed of the film.

SCANDIVAC machines are used for packaging a wide range of products:



Food

packing of meat, fish, salads, cheese, vegetables and other products



Medicine

packing of medical products

Pharmacy

packing of pharmaceutical products, tools and goods



Packing of
industrial and
consumer
goods

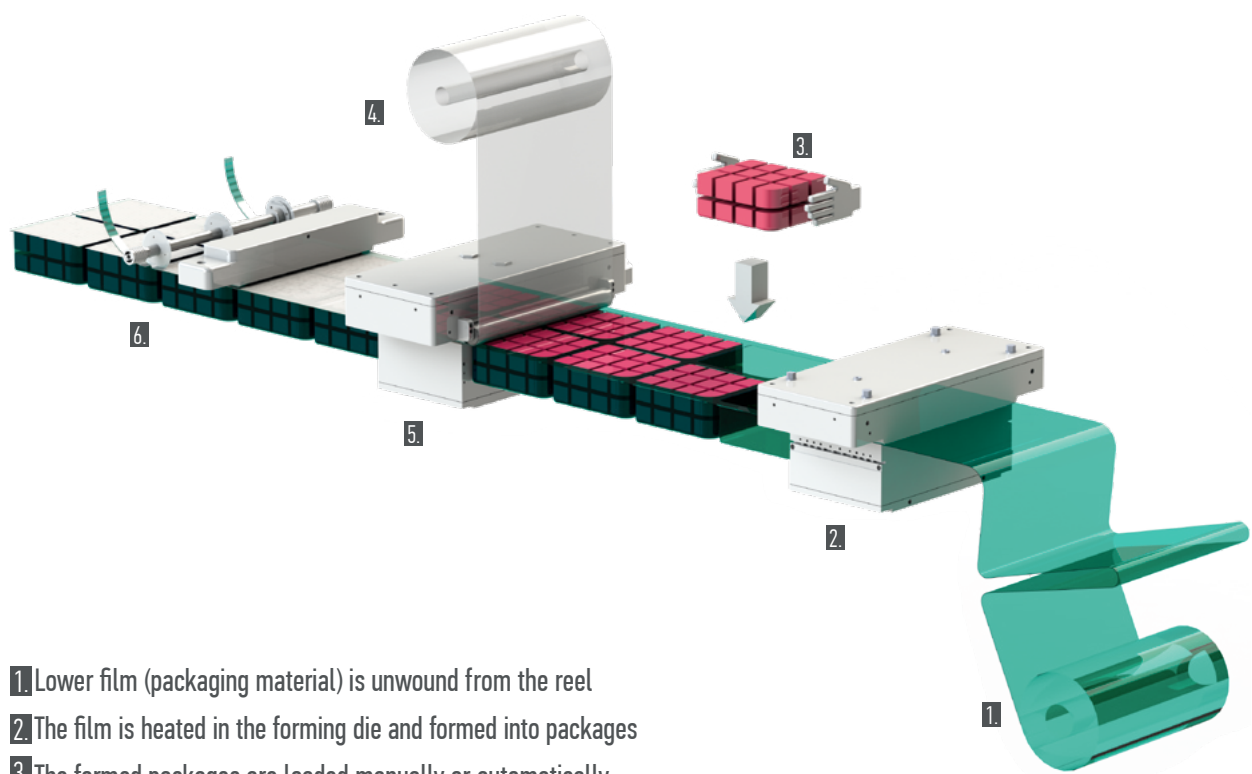
THERMOFORMING

Thermoforming is a production process in which forming the tray, loading the product into the formed trays and sealing the trays are combined in a single production cycle. The film used as the packaging material is heated to the required temperature and the tray is shaped by air and vacuum in a special matrix, which gives the tray the desired shape.

During the thermoforming process, the tray is produced by the same equipment in which it will be filled and sealed.

The thermoforming machine can be synchronized with other equipment, such as a labelmaker, which applies labels prior to or after the tray sealing process.

Thermoforming technology can be used for packaging small batches of goods, as well as part of the automation process in large production lines for product processing and packaging.



1. Lower film (packaging material) is unwound from the reel
2. The film is heated in the forming die and formed into packages
3. The formed packages are loaded manually or automatically
4. Upper film (packaging material) covers the filled packages
5. The air is evacuated from the sealing die and vacuum or protective gas is added if required. The pack is sealed by the application of heat and pressure
6. Loaded and sealed packs are longitudinal and cross-cutted

DESCRIPTION OF THERMOFORMING MACHINE

TYPE OF PACKAGING

- Only sealing of the package
- Vacuum and sealing
- Vacuum, gas and sealing
- "Skin" packaging

SPECIFICATION OF FILMS

- Film width: from 320 up to 600 mm
- Upper film: flexible film, paper, folio
- Thickness up to 100 microns
- Lower film: rigid film, flexible film, folio
- Thickness up to 1000 microns
- Printed upper film

TYPES OF CUTTING

- Longitudinal and cross-cutting
- Shape cutting
- Longitudinal perforation
- Cross-cutting perforation

LONGITUDINAL CUTTING

- Rotary knife assembly
- Squeezing knife assembly
- Roller shear cutting assembly – line cutting
- Roller shear cutting assembly – strip cutting

TYPES OF FORMING

- Only with compressed air
- With compressed air and vacuum
- With pre-heating of film
- With pre-heating of film and plugs
- Posiforming

CROSS CUTTING

- Cross cutting unit for flexible film – straight cut
- Cross cutting unit for flexible film – zig-zag cut
- Cross cutting unit for rigid film with round corners

DETAILS OF PACKAGES

- Hanging hole – oval or round
- Hanging hole – "euroslot"

CUT-OFF LENGTH

- Without preheating: up to 800 mm
- With preheating: up to 600 mm

CONTROL SYSTEM

- Colourful LCD touch screen
- Control elements from SMC Pneumatics, Schneider Electric, Allen Bradley, Busch and others



BEFORE DECIDING TO BUY THERMOFORMING MACHINE

The purchase of a thermoforming machine is a serious investment for many companies and requires a serious approach when selecting possible features and options. The right choice of equipment guarantees the desired result of the final product and saves you time and money.

We invite you to answer
the following 8 questions

1.	2.	3.	4.	5.	6.	7.	8.
WHAT PRODUCTS DO YOU PLAN TO PACK? • Fresh meat • Cheese • Vegetables • Other	NECESSARY PRODUCTIVITY PER HOUR OR PER DAY? (pcs. ,packages, kg)	WHAT KIND OF FILMS AND WHAT THICKNESS WILL BE USED? • rigid • flexible • folio • paper	TRAY DIMENSIONS AND DIMENSIONS OF THE PRODUCT? • width • length • depth	WHAT SHOULD THE PACKAGE LOOK LIKE? • the shape of the package • the presence of easy peel corner • strengthening ribs • hanging hole	TYPE OF PACKAGING? • vacuum • Modified atmosphere packaging (MAP) • SKIN • Only sealing	LOADING AREA LENGTH (mm)	IS IT PLANNED TO USE ADDITIONAL EQUIPMENT? • labeller • printer • dosing system • other

The answers to these questions provide a good basis for a constructive discussion about your future thermoforming machine.

SC 140

SC 140 S
SC 140 M
SC 140 L



TECHNICAL DATA

	SC 140		
Machine length (mm)	3300	3800	4300
Film width (mm)	320, 420		
Cut-off length (mm)***	120 - 300		
Maximum forming depth (mm)	120		
Loading area maximum (cycles)	2 - 8		
Cross cutting (pcs)	1		
Maximum capacity (cycles/min)	6 - 14 *		
Upper film	flexible, paper, folio		
Lower film	rigid, flexible, folio		
Upper film thickness (microns)	to 100		
Lower film thickness (microns)	to 400		
Reel max. diameter (mm)	400		
Conveyor motor	servo drive 1 – 2 kW		
Vacuum pump (m³/h)	60 - 160		
Needed capacity (kW)	4 - 6		
Compressed air (bar)	6 - 8		
Cooling (L/h)	70 - 120		
Control system	«Allen-Bradley» programming control system + colour-ful LCD touch screen (TFT, Touch Screen)		

OPTIONS

	S	M	L
Closed cooling system		•	
Supply system for protective gas		•	
Photocell to position printed upper web		•	
Posiform forming system	N		•
Figure cutting system		N	
Roller shear cutting		N	
Squeezing knife		•	
Corrosion-resistant gripper chain		•	
Automatic chain lubrication		•	
Central lubrication system		•	
Chain cleaning program		•	
Printer		•**	
Labelling machine		•**	
Product dosing system	•**		•
Ability to use a gas mixture with oxygen content over 21%		•	

*Depends on different conditions. ** Depends on machine complete set. *** In complete set with pre-heating, cut-off length available 50% from the max length..

Non-standard options available on request.

SC 190

SC 190 S
SC 190 M
SC 190 L



TECHNICAL DATA

	SC 190		
Machine length (mm)	3800	4300	4800
Film width (mm)	320, to 520		
Cut-off length (mm)***	120 - 300	120 - 360	120 - 400
Maximum forming depth (mm)	80 - 120		
Loading area maximum (cycles)	2 - 8		
Cross cutting (pcs)	1 - 2		
Maximum capacity (cycles/min)	6 - 14 *		
Upper film	flexible, paper, folio		
Lower film	rigid, flexible, folio		
Upper film thickness (microns)	to 100		
Lower film thickness (microns)	to 1000		
Reel max. diameter (mm)	400, "Jumbo" - 1000		
Conveyor motor	servo drive 1 - 2 kW		
Vacuum pump (m³/h)	to 400		
Needed capacity (kW)	4 - 12		
Compressed air (bar)	6 - 8		
Cooling (L/h)	100 - 150		
Control system	«Allen-Bradley» programming control system + colourful LCD touch screen (TFT, Touch Screen)		

OPTIONS

	S	M	L
Closed cooling system		•	
Supply system for protective gas		•	
Photocell to position printed upper web		•	
Posiform forming system	N		•
Figure cutting system		•	
Roller shear cutting		•	
Squeezing knife		•	
Corrosion-resistant gripper chain		•	
Automatic chain lubrication		•	
Central lubrication system		•	
Chain cleaning program		•	
Printer		•**	
Labelling machine		•**	
Product dosing system	•**		•
Ability to use a gas mixture with oxygen content over 21%		•	

*Depends on different conditions. ** Depends on machine complete set. *** In complete set with pre-heating, cut-off length available 50% from the max length.

Non-standard options available on request.

SC 240

SC 240 S
SC 240 M
SC 240 L
SC 240 LS



TECHNICAL DATA

	SC 240			
Machine length (mm)	4300	4800	5300	6200
Film width (mm)	320, to 600			
Cut-off length (mm)***	120 - 300	120 - 360	120 - 400	120 - 500
Maximum forming depth (mm)	150			
Loading area maximum (cycles)	2 - 8			
Cross cutting (pcs)	1 - 3			
Maximum capacity (cycles/min)	6 - 14 *			
Upper film	flexible, paper, folio			
Lower film	rigid, flexible, folio			
Upper film thickness (microns)	to 100			
Lower film thickness (microns)	to 1000			
Reel max. diameter (mm)	400, "Jumbo" - 1000			
Conveyor motor	servo drive 1 - 4 kW			
Vacuum pump (m³/h)	to 400			
Needed capacity (kW)	4 - 12			
Compressed air (bar)	6 - 8			
Cooling (L/h)	100 - 150			
Control system	«Allen-Bradley» programming control system + colour-ful LCD touch screen (TFT, Touch Screen)			

OPTIONS

	S	M	L	LS
Closed cooling system		•		
Supply system for protective gas		•		
Photocell to position printed upper web		•		
Posiform forming system	N		•	
Figure cutting system		•		
Roller shear cutting		•		
Squeezing knife		•		
Corrosion-resistant gripper chain		•		
Automatic chain lubrication		•		
Central lubrication system		•		
Chain cleaning program		•		
Printer		•**		
Labelling machine		•**		
Product dosing system	•**		•	
Ability to use a gas mixture with oxygen content over 21%		•		

*Depends on different conditions. ** Depends on machine complete set. *** In complete set with pre-heating, cut-off length available 50% form the max length.

Non-standard options available on request.

SC 330

SC 330 L
SC 330 LS



TECHNICAL DATA

	SC 330	
Machine length (mm)	6200	7200
Film width (mm)	320, to 600	320, to 610
Cut-off length (mm)***	120 - 700	
Maximum forming depth (mm)	200*	
Loading area maximum (cycles)	3 - 6	4 - 8
Cross cutting (pcs)	1 - 4	
Maximum capacity (cycles/min)	6 - 14 *	
Upper film	flexible, paper, folio	
Lower film	rigid, flexible, folio	
Upper film thickness (microns)	to 100	
Lower film thickness (microns)	to 1000	
Reel max. diameter (mm)	400, "Jumbo" - 1000	
Conveyor motor	servo drive 1 - 4 kW	
Vacuum pump (m³/h)	to 400	
Needed capacity (kW)	4 - 12	
Compressed air (bar)	6 - 8	
Cooling (L/h)	150 - 200	
Control system	«Allen-Bradley» programming control system + colour-ful LCD touch screen (TFT, Touch Screen)	

OPTIONS

	L	LS
Closed cooling system		•
Supply system for protective gas		•
Photocell to position printed upper web		•
Posiform forming system		•
Figure cutting system		•
Roller shear cutting		•
Squeezing knife		•
Corrosion-resistant gripper chain		•
Automatic chain lubrication		•
Central lubrication system		•
Chain cleaning program		•
Printer		•**
Labelling machine		•**
Product dosing system		•
Ability to use a gas mixture with oxygen content over 21%		•

*Depends on different conditions. ** Depends on machine complete set. *** In complete set with pre-heating, cut-off length available 50% from the max length.

Non-standard options available on request.

OPTIONS



CARTRIDGE TYPE CONTOUR SEALING PLATE IN THE SEALING STATION PROVIDES FASTER TRANSITION TO ANOTHER DIE FORMAT.

It is recommended to use:

- When using a large number of die formats
- When necessary to change die formats frequently
- For the dies with the big cut-off length



INKJET PRINTERS ARE WIDELY USED FOR PRINTING DATES AND MARKINGS

on the top (and bottom) film. Depending on the task, various mounting options for the printer head are offered:

- Before the sealing station
- At the extension between the sealing station and cross-cutting knives
- Stationary
- With a traverse - movement on one axis or on two axes



AUTONOMOUS UNWIND UNIT OF THE BOTTOM FILM:

- Mechanism used to work with "Jumbo" type large diameter film rolls - up to one meter
- Frame and rollers made from stainless steel
- Film tension control provided by a sensor
- One of the two support arms swiveling by 90° when replacing a roll of film
- Friction roller with electric motor provides film unwinding

OPTIONS

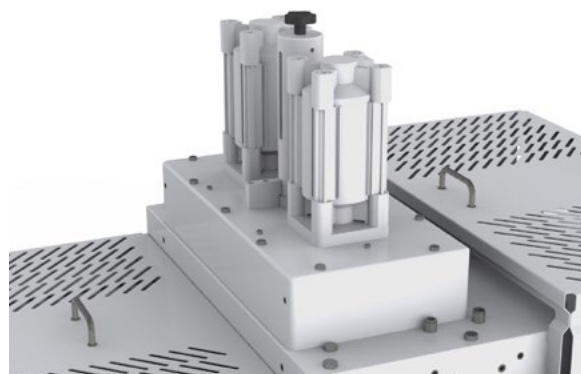
OIL DOSING SYSTEM IS USED TO PRECISELY DOSE OIL INTO THE FORMED TRAYS:

- Stainless steel frame, couplings and valves
- System is easily removable for cleaning
- Dosing unit lifts down on each cycle for better oil filling into the tray
- Temperature and pressure sensors, for the correct dosing process



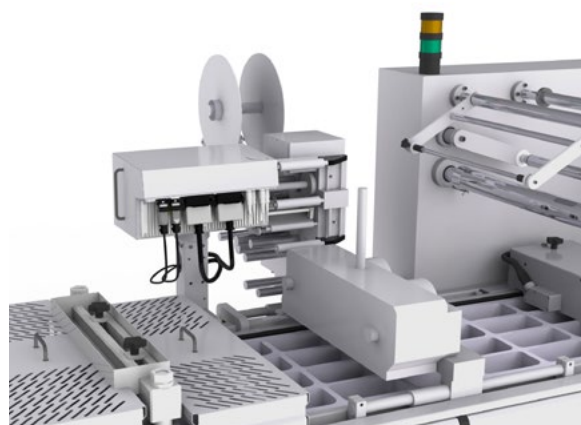
FORMING WITH HEATED PLUGS IS USED TO ENSURE SMOOTH AND HIGH QUALITY FORMING:

- Used for rigid film when the forming depth is more than 40 mm
- Used for flexible films with a certain ratio of the trays depth
- Depth regulation possibilities with screw type handle
- Spring plunger type depth fixation
- Teflon plugs for better quality of formed tray



CROSS OR IN-LINE WEB LABELLING SYSTEMS FOR TOP, BOTTOM OR TOP AND BOTTOM FILMS:

- System can be mounted onto the extension of the frame between the sealing station and the cross-cutting knives or on the top of the electrical cabinet
- Labelling system can be equipped with thermal transfer or inkjet printers
- Variable dimensions and positioning of label is possible





SIA SCANDIVAC



Pļieņciema iela 16, Mārupe,
Mārupes novads, LV-2167, Latvija



phone: +371 639 23813
fax: +371 639 60316



info@scandivac.com



www.scandivac.com

SCANDIVAC is thermoforming machines made by company SIA SCANDIVAC, established in 1991. Company manufactures several models of thermoforming machines, as well as different kind of packing equipment's additional units. In more than 25 years of operation, company has exported packaging machines to Sweden, Finland, Norway, Germany, Estonia, Lithuania, United Kingdom and other European countries, as well to Russia, Ukraine, Belarus, Kazakhstan, South Africa, Panama and United States of America.

Being in a close collaboration with partners and customers, lot of attention is paid to the development and improvement of the thermoforming machines. SCANDIVAC supplies equipment for meat processing companies, dairy industry companies, companies of fish industry, pharmaceutical companies and to companies from other industries.