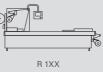
MULTIVAC product overview Packaging solutions for food



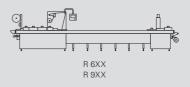
MULTIVAC offers an extensive portfolio of systems for the packing, labelling, marking, secondary packaging and palletising of food. Our solutions are designed to meet the widest range of requirements with regard to production quantities and flexibility. Reliability, durability and comprehensive service make MULTIVAC a resilient link in your production chain. Compact thermoforming packaging machines





High-output thermoforming packaging machines Ċ. R 2XX R 5XX

Thermoforming packaging machines for special applications

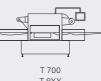


Automatic traysealers

Semi-automatic traysealers

T 1XX T 2XX





T 8XX

Tabletop machines



C 1XX C 2XX

Chamber belt machines



В ХХХ



Free-standing

С ЗХХ C 400 C 800

Special machines

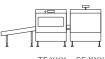
AGV

Double chamber machines

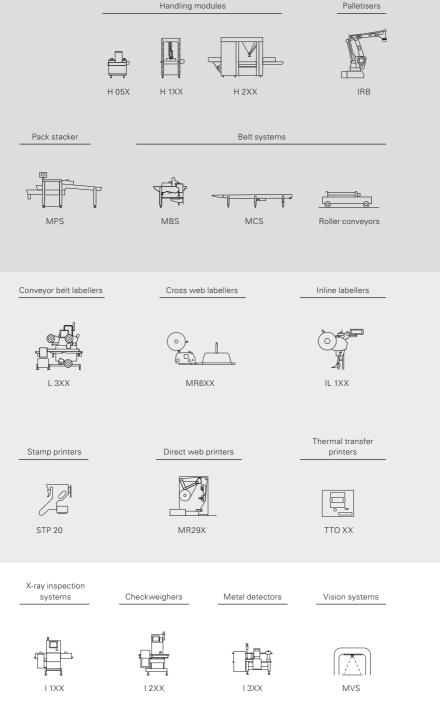


C 500 C 550

Shrinking and drying units



TE XXX SE XXX



Our trademark: complete cleanliness

The MULTIVAC Hygienic Design[™] sets the benchmark in the hygienic operation of packaging solutions for food. All the materials used and the machine construction are designed to prevent food residue or dirt from adhering, allowing it to be easily removed. This ensures optimum hygiene and consumer safety. The machine parts that are relevant to hygiene are manufactured from stainless steel. Dirt traps, such as small gaps and recesses, are systematically avoided. Large vertical or angled surfaces simplify cleaning and allow the cleaning water to drain easily.







Thermoforming packaging machines

MULTIVAC is the world's leading supplier of thermoforming packaging solutions. With our thermoforming packaging machines, customers are able to pack a wide range of products efficiently and economically.

Our range covers the widest spectrum of products on the market in regards to size, output and equipment level:

- · Compact machines for small batches
- · High-output machines for large batches
- Machines for special applications such as MultiFresh[™], FormShrink and others



Compact thermoforming packaging machines

The compact thermoforming packaging machines are designed to run flexible and rigid films, and they meet MULTIVAC's high standards of technology and quality. With their standard configurations and pre-defined basic formats, these models offer an excellent price-performance ratio. In addition to this, the models can be configured in a modular way to precisely suit your individual requirements.

Model series

R 085, R 095, R 105, R 126, R 145



High-output thermoforming packaging machines

Our high-output thermoforming packaging machines are designed for maximum output and for use under industrial-scale conditions. They offer the most extensive range of equipment options while setting the benchmark for output as well as process and machine reliability.

They can also be equipped with a variety of sensor devices for continuous monitoring of packaging materials, packs and machine parameters.

Model series R 225, R 235, R 245, R 515, R 535, R 685, R 900



Thermoforming packaging machines for special applications

MultiFresh[™] The complete solution for perfect vacuum skin packaging

We offer four thermoforming packaging machines for MultiFresh™ applications. Primarily, they differ in format size, available equipment options and output.

When combined with MultiFresh[™] films, these machines produce vacuum skin packs with outstanding quality and perfection.

Model series R 105 MF, R 175 MF, R 275 MF, R 575 MF



FormShrink[®] The thermoforming packaging solution for efficient shrink packing

FormShrink® is a cost-effective and automated alternative to packing with shrink bags. Thermoforming films with special shrink properties, which are activated in a shrinking tunnel, are used for the FormShrink® packaging procedure.

The result is attractive packs which envelop their products like a second skin.

Model series R 155, R 255, R 555



Model overview of thermoforming packaging machines





	R 0XX	R 1XX	
Models	R 085, R 095	R 105, R 126, R 145	
Focus of application	Thermoforming packaging in limited space	Compact machines for standard packs	
Output	★★★★ Small batches	★★★★ Small to medium-sized batches	
Equipment options	****	****	
Pack types			
Film types	Flexible film, rigid film up to 350 µm	Flexible film, rigid film up to 500 µm	
Special applications	-	MultiFresh™, FormShrink®, Isopak	
Max forming depth	80 mm	130 mm	
Max. cut-off lengths (without preheating)	300 mm	500 mm	





R 2XX	R 5××	Special machines
R 225, R 235, R 245	R 535	
Largest range of packs and high output	Highest output Max. automation capability	Thermoforming packaging machines for special applications
★★★★★ Large batches, fast product change	★★★★★ Very larges batches, fast product change	Fresh meat (R 515) Bacon (R 595) Stacked sliced products (R 685)
****	****	Liquid products (R 900)
Flexible film, rigid film, aluminium multi-layer film, foam materials	Flexible film, rigid film, aluminium multi-layer film, foam materials	
MultiFresh™, FormShrink®, Isopak	MultiFresh™, FormShrink®, Isopak	
150 mm	210 mm	
700 mm	1,300 mm	



Traysealers

MULTIVAC traysealers can be used flexibly and are simple to operate, as well as allowing the widest range of trays and upper webs to be run.

Our portfolio includes semi-automatic traysealers for small to medium-sized batches, as well as fully automatic traysealers for industrial-scale production volumes.



Semi-automatic traysealers

Due to their compact dimensions, semi-automatic traysealers are highly flexible and can be used in many production environments. The range of applications covers sealed packs with and without modified atmosphere (MAP), vacuum skin packs and FreshSAFE packs.

User-friendly machine controls with graphics display guide the operator safely through all the stages of the packaging procedure. The die can be changed easily for running different trays.

Model series T 100, T 200, T 250



Automatic traysealers

MULTIVAC's automatic traysealers are individually designed to meet your requirements with regard to tray and product infeed, discharge of packs, labelling or marking and quality inspection. They dovetail seamlessly into your new or existing production environment, either as a stand-alone machine or as part of a fully automated packaging line.

The quick and easy change of the film and die ensures maximum flexibility.

Model series T 300, T 600, T 700, T 800, T 850



Model overview of automatic traysealers





	Т 300	Т 600
	Т 300 , Т 300 Н	T 600, T 600 L
Area of application	Tray packaging in the smallest space	Smallest traysealer which can be integrated in lines
Batch size	Small batches	Small to medium-sized batches
Output (cycles/min)	****	****
Equipment options	****	****
Die size	****	****
Max. pack tracks	3	1







T 700	T 800	T 850	
T 700 XS, T 700 S, T 700	T 800 S, T 800	T 850	
Highest output in the smallest space	Highest cycle output in fully automated packaging lines	Highest cycle output in fully automated packaging lines	
Large batches	Very large batches	Very large batches	
****	****	****	
****	****	****	
****	****	****	
2	2	2	



Chamber machines

MULTIVAC chamber machines pack quickly and flexibly. They can be used to produce MAP packs as well as vacuum and shrink packs.

Our machine range covers the entire spectrum of size, output and equipment level:

- · Compact tabletop and free-standing models
- · High-output double chamber machines
- · Fully automatic chamber belt machines
- · Integrated shrink packaging lines

Our chamber machines can be equipped with a wide range of accessories.

The machine controls, which can be operated intuitively, ensure packing is simple and reliable.

Tabletop machines

MULTIVAC tabletop machines are the ideal packaging solution for small batches in butchers' shops, restaurants, hotels, farm shops and direct marketing businesses, as well as in hospitals and institutional providers. They are easy to operate and can be used for a wide range of food.

Model series C 70, C 100, C 200, C 250 BASELINE P 100, P 200, P 300, P 360



Free-standing units

MULTIVAC free-standing chamber machines are easy to operate, clean and service. They offer the highest output on the smallest footprint and also provide impressive performance thanks to their pack quality. They can be used very flexibly due to their compact dimensions.

Model series C 300, C 350, C 370 BASELINE P 400



Large chamber machines

The large chamber machines from MULTIVAC are designed for a wide range of large and bulky products. Depending on the product to be packed and the packaging material used, the large chamber machines can be equipped with a variety of sealing systems, chamber and lid heights, vacuum pumps and ancillary equipment.

Model series C 400, C 800



Double chamber machines

The double chamber machines from MULTIVAC enable highquality pouch packs to be produced at almost double the output. While the film pouches are being sealed in the closed chamber, the open chamber can be filled with product.

Model series

C 300 TWIN, C 450, C 500, C 550 BASELINE P 500, P 600, P 650



Chamber belt machines

The MULTIVAC Chamber belt machines combine ergonomics with a design that makes the machines easy to clean and service. This enables them to ensure a high level of pack quality and security while providing high throughput. Chamber belt machines are capable of being configured as complete lines with shrinking units and drying tunnels.

Model series B 210, B 310, B 510, B 610



Vertical chamber machines

The AGV is suitable for packing products in upright film pouches. It is equipped with a vacuum chamber that is opened from the side and a height-adjustable roller conveyor. A pouch holder ensures that the packaging procedure is performed securely and that there is a crease-free seal seam.

Model series AGV



Model overview of chamber machines







	Tabletop machines	Free-standing chamber machines	
		Compact	Large
	C 70, C 100, C 200, C 250	C 300, C 350, C 370	C 400, C 800
Models	BASELINE P 100, P 200, P 300, P 360	BASELINE P 400	
Product size	* * * * *	* * * * *	* * * * *
Product size Production volumes	★ ★ ★ ★ Small batches	★★★★ Small to medium- sized batches	* * * * Small to medium- sized batches
	Small batches	Small to medium-	Small to medium-
Production volumes	Small batches	Small to medium- sized batches	Small to medium- sized batches

Double chamber machines	Chamber belt machines	Vertical chamber machines
C 300 Twin, C 450, C 500, C 550 BASELINE P 500, P 600, P 650	B 210, B 310, B 510, B 610	AGV
****	****	****
Large batches	Very large batches	Small to medium-sized
		batches
* * * *	****	batches * * * *



Shrinking and drying units

MULTIVAC offers shrinking and drying units, capable of being combined with chamber machines, thermoforming packaging machines and high-pressure processing systems. They can be integrated seamlessly into packaging lines and operate in an energy-efficient, non-stop mode with high output.

Shrinking units

The MULTIVAC portfolio includes semi-automatic shrink tanks as well as automatic shrinking tunnels. The shrink tanks operate on the dipping principle and are the ideal complement for MULTIVAC chamber machines. The automatically operating shrinking tunnels work on the continuous principle and ensure that there is constant product flow with high output. They are intended for use in shrink packaging lines.

Model series SE 60, SE 115, SE 130





Drying units

The automatic drying units enable large batches of products to be dried, as well as bulky or heavy packs. The dried packs can subsequently be transferred to downstream processes such as labelling, marking or packing into boxes.

Model series TE 115, TE 130



Model overview of shrinking units







Shrinking units	SE 60	SE 115	SE 130
Shrinking medium	Hot water	Hot water	Hot water
Functioning principle	Dip tank	Flow tunnel	Flow tunnel
Packaging types	Shrink bag	Shrink bag, FormShrink thermoformed packs	Shrink bag
Pack size	****	****	****
Production volumes	****	****	****
Automation capability	****	****	****

Model overview of drying units





Drying units	TE 115	TE 130
Drying medium	Air	Air
Functioning principle	Flow tunnel	Flow tunnel
Packaging types	Pouch packs, thermofor- med packs, trays	Pouch packs, thermofor- med packs, trays
Pack size	****	****
Production volumes	****	****
Automation capability	****	****



Product handling

MULTIVAC develops and produces solutions for product handling in order to increase process efficiency and ensure optimum product flow. They can be used for product infeed and discharge, as well as for end-of-line applications.

Our portfolio extends from simple transport conveyors to handling modules, palletising systems and fully automatic lines.

Handling modules

Handling modules from MULTIVAC are used to automate a wide spectrum of handling tasks quickly and precisely, and these include:

- · Loading products into packs
- · Orientating or turning packs over, converging them or putting them into boxes
- · Ejecting products or packs

They are very flexible in the way they can be used for a variety of products, pack formats, weights and cycle times.

Model series H 05x, H 1xx, H 2xx



Belt systems

MULTIVAC belt systems automate the transport, converging and ejection of packs efficiently and hygienically.

MBS belt systems - precise line converging

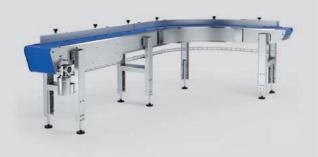
MBS converging systems converge two or up to six parallel pack tracks into one track. They can also be used to regulate product flow.

MCS conveyor systems - reliable transport

MCS transport conveyor systems can be used in a versatile way, particularly for the infeed of products or trays to packaging machines, for feeding packs to downstream modules, and for discharging boxes at the end of line.

Model series

MBS 0xx, MBS 1xx, MBS 2xx, MBS 9xx MCS 2xx, MCS 9xx



Pack stacker

The pack stacker automatically creates pack stacks and therefore simplifies manual loading of packs into boxes.

It is suitable for thermoformed packs and tray packs, which have a flat top and bottom and which are fed to the pack stacker as a single track.

Model series MPS 302



Palletising systems

Robot-based palletising solutions offer maximum flexibility, reliability and efficiency. MULTIVAC's wide product range enables the customer's requirements to be ideally matched to the modular products in terms of capacity, footprint and linked processes.

Model series

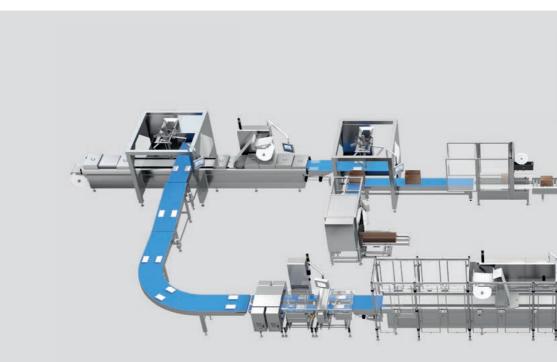
MPU 100, MPU 200, MPU 300

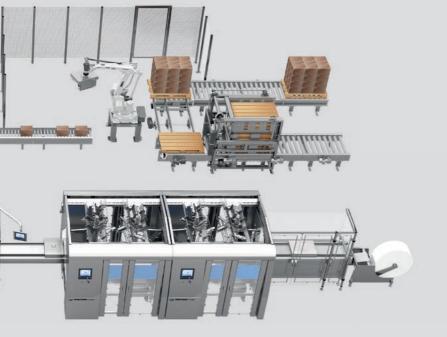


Line control

MULTIVAC Line Control (MLC) is used for the end-to-end coordination of packaging lines. It ensures that procedures are rapid, precise, reproducible and transparent, and it is also very easy to operate. Its many functions include central recipe management and traceability of products.

With MLC, MULTIVAC is capable of establishing a link between our automated packaging solutions and our customers' ERP, MES, MRP or PPS systems.







High-pressure processing of food





MULTIVAC HPP is a gentle and reliable process for extending the shelf life of packed food. In many cases products treated with HPP can completely remove preservatives and additives. The resulting high product quality, combined with particularly long shelf life, creates additional customer benefits.

Thanks to its patented process control, MULTIVAC HPP even offers the opportunity to process modified atmosphere (MAP) packs efficiently and gently with high pressure. MULTIVAC high-pressure processing equipment can be integrated into packaging lines for efficient and high-volume throughput, even on a fully automated basis.

Advantages of MULTIVAC HPP

- Highest possible degree of filling and maximum efficiency thanks to innovative transport containers and individual loading patterns
- Minimisation of loading and unloading times through horizontal line system design and line integration
- Maximum stability and minimisation of equipment wear through the use of innovative concepts
- Process and production safety in accordance with worldwide safety standards
- · Certification as per ASME/ISO
- · Container volumes: 55 I, 160 I, 350 I and 700 I (tandem)



Marking systems

The labelling and printing solutions from MULTIVAC cover a large spectrum of inline and offline systems, which are suitable for a wide range of applications. Our diverse range of products extends from cost-effective BASELINE labellers to complex labelling and marking systems, which are individually designed to specific customer requirements. Labelling and marking solutions from MULTIVAC ensure quality, precision and reliability.

Cross web labellers

MULTIVAC cross web labellers are used for labelling packs on thermoforming packaging machines. The labels are precisely applied to the top and/or bottom of a pack. A wide range of label formats and materials can be run. The cross web labeller is operated via the HMI 2.0 of the thermoforming packaging machine.

Model series MR615, MR625, MR635



Conveyor belt labeller

MULTIVAC's modular constructed conveyor belt labellers offer the highest level of flexibility for labelling a wide range of packs, such as cartons, jars, bottles, pots, thermoformed packs or trays. Labels can be applied to the top or bottom of products, to one or more of their sides, as well as on the leading face or over the edges of the pack. It is even possible to apply both front and back labels, or wrap-around labels and sealing labels.

Model series

BASELINE L 300, L 301 L 310, L 320, L 330, L 340



Inline labellers

MULTIVAC inline labellers can be integrated flexibly and efficiently into existing production or packaging lines. Thanks to their modular construction and wide range of mounting systems, they can be easily installed on existing transport units or packaging machines. They are easy to operate and can be integrated into various control environments via a wide range of communication interfaces.

Model series





Tabletop labellers

MULTIVAC tabletop labellers are a reliable, cost-effective and convenient solution for applying self-adhesive decorative or information labels from the roll. They ensure the dispensing process is rapid and fluid, thereby optimising procedures at manual work stations or service counters. Depending on the particular version, the label strip is pulled by hand or advanced by means of a synchronous motor.

Model series MR112, MR113



Direct web printers

Thanks to their compact design, MULTIVAC direct web printers can easily be installed on thermoforming packaging machines or traysealers. They print variable data, such as texts (use-by dates, batch numbers) or barcodes, directly onto the packaging film. The direct web printer is operated centrally via the HMI 2.0 control terminal of the packaging machine.

Possible installation positions:

- · Upper web before the sealing station (film infeed)
- · Top of pack (outfeed)
- · Bottom of pack (outfeed)

Model series MR29x, DP 2xx



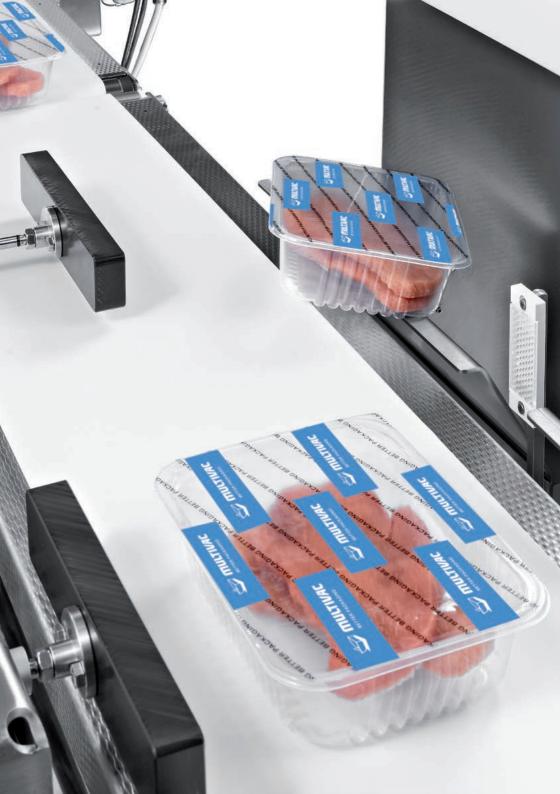
Thermal transfer printers

MULTIVAC TTO thermal transfer printers are suitable for the direct web printing of packaging film on thermoforming packaging machines and traysealers, as well as for the printing of labels on cross web labellers and conveyor belt labellers.

Due to their complete integration in the machine control of the packaging machine or labeller, they offer significant benefits with regard to efficient and reliable operation.

Model series TTO 5, TTO 10, TTO 11, TTO 20





Inspection systems

MULTIVAC's inspection systems support efficient quality control and ensure packs and their labelling are faultless. From the detection of foreign bodies through to weight checking and right up to final pack inspection, MULTIVAC offers a wide spectrum of solutions for meeting statutory regulations and maintaining the highest quality standards.

Visual inspection

Visual inspection systems are used for checking the quality of packs and their labels or printed data. The scope of the tasks in these areas is wide-ranging and extends from inspection of labels and their printed data through to checking for completeness of packs.

The portfolio ranges from sensors and code readers for simple inspection tasks up to the MULTIVAC camera inspection system (MVS MULTIVAC Vision System) for meeting complex requirements.



Checkweighers

Automatic checkweighers calculate the pack weight precisely and reliably, as well as automatically ejecting underweight and overweight packs. They make a significant contribution to meeting internal quality guidelines and statutory requirements. MULTIVAC checkweighers are available as single-track and twin-track versions, and they can also be equipped with metal detectors.

Model series



Metal detectors

MULTIVAC metal detectors reliably detect and eject products with metal contamination. They contribute substantially to complying with standards such as HACCP, IFS or BRC, by ensuring a consistently high level of packaging output and quality is maintained.

Model series



X-ray inspection systems

MULTIVAC inspection systems detect the smallest foreign bodies such as metal, glass, stone, bone fragments and high-density plastics, reliably and safely. In addition to providing seamless quality control, they also enable the shape, thickness and integrity of products to be inspected, as well as ejecting any reject packs.

Model series BASELINE I 100 I 110



Expert service

MULTIVAC services covers the entire life cycle of a packaging solution. More than 900 specialists worldwide are at your side with consultancy, training and technical support.

Professional consultancy and machine installation

The packaging specialists from MULTIVAC analyse existing packaging concepts and highlight potential for improvement. They develop new types of packaging and suitable machine concepts with you. They also ensure that your new packaging machine is put into service without a hitch and that it is integrated into your packaging procedure.

Packaging trials

MULTIVAC Innovation Center is available to customers conduct packaging trials. Here, customers have the opportunity to test packaging concepts as well as produce small quantities for conducting market acceptance studies. Shelf life tests and technical food analysis can also be performed.

Training courses

MULTIVAC offers user training courses worldwide for our customers' operators and service personnel. These courses are offered on site at a customer location, at the premises of our subsidiaries or at the MULTIVAC Training & Innovation Center. Training courses are specifically designed to the specific requirements of our customers.

Machine maintenance

MULTIVAC Technical Service ensures that your equipment is utilised to its maximum. The easy and rapid supply of spare parts contributes significantly to this. The expertise of MULTIVAC specialists makes service perfect.

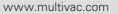




BETTER PACKAGING

Our goal is for MULTIVAC packaging solutions to fulfil your requirements reliably and efficiently. That is why MULTIVAC team of experts offers you a wide range of technical support and services, from the initial consultation to the supply of all spare parts for at least 10 years after your MULTIVAC packaging system was put into service.

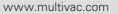




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