Slicing and automated packaging
From a single source
With its automatic lines for slicing and packing sausage, ham, and cheese products, MULTIVAC is able to perfectly link slicers to thermoform packaging machines and traysealers. Our future-proof line solutions also include functionalities such as labelling, quality inspection, box packing, and end-of-line processes.
Slicing and automated packaging: Efficient line solutions from a single source from MULTIVAC

MULTIVAC is a leading manufacturer worldwide of integrated packaging solutions. In addition to manufacturing packaging machines, our focus is on solutions for processing and slicing, labelling, and marking as well as quality inspection and product handling. We build our market position on an innovative and cutting-edge technology and a comprehensive product portfolio, as well as on a long-term expertise and experience. Our customers benefit from our profound process and automation expertise, as well as from our proximity to our customers.
Maximum quality and reduced space requirements
MULTIVAC slicer lines impress customers with their consistently high portion and packaging quality. Thanks to innovative slicing technologies and seamless integration of a wide variety of loading solutions, they are particularly powerful, compact, and user-friendly.

Benefits
- One technology partner responsible for the entire process
- Efficient overall solution instead of the linking of individually functioning parts
- Integration of functionalities enables optimised solutions with a reduced footprint
- Uniform operating concept and MULTIVAC Line Control for all line modules
- MULTIVAC Hygienic Design® to meet the most demanding hygiene standards
Comprehensive portfolio

MULTIVAC solutions for slicing and feeding, as well as our thermoforming packaging machines and traysealers, can be modularly configured. This is how we achieve slicer lines that are precisely designed according to individual requirements.

Slicer
Our innovative slicers are highly impressive with their perfect slicing results within a wide temperature window, their simple and rapid set-up and conversion, as well as their ergonomic and reliable operation.

Handling modules
Handling modules feature maximum loading accuracy and maximum flexibility for automated loading of thermoforming packaging machines and traysealers. Loading solutions with handling modules are also perfectly scalable.

Horizontal loader MHL
The hygienic loading system for sliced products is gentle on products and fully integrated into a thermoforming packaging machine. This means that no height differences have to be bridged between the slicer and the thermoform packaging machine. This results in a significantly smaller footprint of the line.

Belt loader SB
With the belt loaders, we have a reliable solution for connecting slicers to thermoform packaging machines that are not equipped with a horizontal loader.
A variety of portion shapes

The portioning unit of the slicer precisely and reliably performs virtually any portioning task – from precise placement of the slices in shingled portions to straight or staggered, stacked portions through to shingled portions of wafer-thin cut and multiple portions. The servo-driven portioning system, which can be raised and lowered, enables stacked portions up to 80 mm high to be produced, along with tall shingled portions and large bulk packs.

Flexible handling of portions

The portions of the slicer can be taken directly into the packaging process or flexibly processed according to custom requirements.
Multi-layer packs

Grouped stacked portions
MULTIVAC slicer
Higher slicing quality, easier operation, lower costs

- Intuitive operation with graphical user interface
- Maximum cutting quality and precise portion placement
- Fast, tool-free, and ergonomic conversion of product infeed and knives
- Exact weighing of portions with high mechanical load-bearing capacity
MULTIVAC benefits

- Maximum cutting performance and quality at higher product temperatures and within a wider temperature window
- High yield
- Pioneering ergonomics and user-friendliness
- Individual configurability
- Fulfilment of the most demanding hygiene standards

Precise measurement of product volume enables precise portion weights with reduced give-away

Fast and ergonomic loading
Higher slicing quality, easier operation, lower costs

MULTIVAC slicers impress with the superiority of their rapid make-ready and conversion, their perfect slicing results at high output and their particularly ergonomic and reliable operation.

The MULTIVAC cutting system features outstanding cutting quality at warmer product temperatures and within a wider temperature window. Improved yield, high weight accuracy and reduction of give-away are further advantages of our innovative technology.

In addition to meeting the most demanding hygiene standards, MULTIVAC slicers achieve maximum throughput and an unrivalled level of user-friendly handling. Rapid product and format changes ensure maximum flexibility is achieved.

Thanks to their space-saving integration and uniquely reliable link with the packaging machine, MULTIVAC slicers make a major contribution to accelerating and simplifying the slicing and packaging processes, thereby reducing costs significantly.

MULTIVAC slicers feature many advantages:

- A wider temperature window and cutting without freezing simplifies product preparation
- Reliable cutting of products with fresher consistency enables faster production throughput
- Simultaneous cutting of several products with adapted knife speed achieves greater throughput
- Smaller end pieces contribute to higher yield
- Availability is increased through fast and ergonomic handling of the slicer during set-up and dismantling, as well as when the products are being loaded.
- Maximum flexibility is guaranteed by extremely fast format changes without line conversion, such as from 3 to 4 pack tracks
- MULTIVAC Hygienic Design™ enables fast and reliable cleaning
MULTIVAC slicer
Innovations

Innovative slicing system and blade design
The innovative slicing system of MULTIVAC slicers is highly impressive. A “gentle cut” ensures the product is cut in a manner that is controlled and smooth, and that the pressure is minimal. This means sausage, ham, and cheese can be sliced with extreme precision and gently. The longer cutting edge and the extended service life of the knives ensure higher productivity, as well as reduced effort and costs.

Benefits
- Even distribution of pressure and traction in the blade
- Symmetrical cutting line
- Consistent cutting performance across all tracks
- Blade change without removal of counterweight
- Wide regrinding range

Variable number of tracks
MULTIVAC slicers can be designed for one to eight pack tracks. Since track-centred loading ensures that the products are aligned exactly in the cutting chamber irrespective of tolerance, a wide range of filling combinations are possible at maximum slicing speed and quality. Even if only one of the multiple tracks is loaded with product, the MULTIVAC slicer still achieves first-class slicing results.
Fast changeover and cleaning
Conversion of the MULTIVAC slicer to a variety of products and formats is user-friendly and takes just a few simple steps. Quick-change systems for the grippers accelerate and facilitate the conversion to different products and formats; time-consuming adjustment and tightening is no longer required. The gripper of the MULTIVAC slicer also requires no pneumatic connections. The cutting frame and all belts can also be changed quickly and without tools.

All product-dependent components can be changed in less than five minutes. This accelerates the processes for

- Conversion to a different number of tracks
- Conversion to other products and formats
- Easy and safe cleaning

Reduced overall costs
The innovative technology for slicing and product guiding makes fast production throughput possible, and processing of the product at warmer temperatures is also facilitated. This ensures energy savings in product preparation, as well as a reduction in the storage capacity required. High throughput, high availability, and fast product changeover contribute significantly to reduced overall costs.
MULTIVAC slicer
Custom configurations

Product volume measuring system
The product volume measuring system determines the distribution of the product volume even before the cutting process begins. This enables the required slice thickness to be calculated precisely, allowing the target weight to be achieved. Here it is possible for MULTIVAC to offer a multi-track measuring system with laser scanners, which delivers measured results for each product independently of the track. Thanks to the use of the product volume measuring system, even naturally shaped products such as raw ham, bacon, and cheese can be portioned with precise weights, with give-away also being minimised.

Digital checkweigher
Capturing the exact portion weights is one of the basic preconditions for slicing with optimum weight control. This is used to comply with the legal weight requirements and to minimise give-away. The checkweigher determines the precise weight of each individual portion and transmits this to the machine control of the slicer so that the portion weights are always optimised.

The digital checkweigher is designed to suit the configuration of the slicer. Its main features are:

- Precise determination of portion weights
- Robust and hygienic design
- Quick and reliable cleaning
- Transport belts that are easy to remove without tools
Blade grinding unit
The blade grinding unit quickly and reliably sharpens MULTIVAC slicer blades (as well as curved and circular blades from other manufacturers). Its main features are its simple make-ready, safe handling, and high level of precision. The knife grinding machine enables you to sharpen your knives as required in your business, reducing the number of blades required and increasing the level of flexibility.

Knife transporting device
For ergonomic handling of the knife, you can use a knife carrying device that makes it unnecessary for the operating personnel to touch the knife, which contributes to quick and safe knife changes.

Die changing trolley
The die changing trolley offers many possibilities for storing and cleaning machine components that come into contact with the product, such as transport belts, grippers, and cutting frames. The die changing trolley is mobile and has its own lockable castors. The space required corresponds to that of a euro pallet.
Efficient slicer lines from MULTIVAC

MULTIVAC offers various solutions for efficiently connecting slicers to packaging systems that best meet individual customer requirements. Whether highest possible output, maximum flexibility or integration of existing equipment – our future-proof complete solutions feature unparalleled efficiency, simple operation, and the ultimate level of hygiene.

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Line configuration for maximum flexibility

In order to guarantee maximum flexibility and loading accuracy during automated loading, this line concept has a handling module as its loading solution. It processes all standard portion shapes and sizes and enables any loading of portions. Loading solutions with handling modules are also perfectly scalable.

Line modules
- Slicer
- Buffer conveyor
- Handling module with transport conveyors and vision system
- Thermoform packaging machine

Benefits
- Greatest possible flexibility
- High personnel efficiency
- Handling of all common portion shapes and any orientation in the package
- Loading capacity scalable to include additional robots
- By integrating the pick-up conveyor into the side frame of the packaging machine, the robot’s working paths are minimized and the loading capacity maximized.
**Loading with handling modules**

Through the connection of handling modules, the machine control of the packaging machine also controls the transfer of portions from the upstream slicer and the insertion of portions into the packaging, making it possible to almost completely prevent empty packs and downtime.

The camera system of the handling module detects the position of the portions coming from the slicer, enabling position correction as well as orientation of the portions when they are being inserted into the packs. In addition, there is the greatest possible flexibility with regard to the handling of the products in different numbers of tracks and with regard to the number of layers per package.

MULTIVAC handling modules are designed for use in the food industry. They meet the most demanding hygiene standards and are designed for the typical cleaning processes of the food industry, ensuring maximum product safety and high reliability. Quick-change devices enable quick conversions and effortless cleaning.
Line configuration for maximum output

For configuration of an automated slicer line with thermoforming packaging, the use of a MULTIVAC horizontal loader provides unparalleled output and efficiency.

The horizontal loader is a product-friendly and hygienic loading system for sliced products that can be fully integrated into a thermoforming packaging machine. Thanks to the use of the horizontal loader, only very small height differences (if any) have to be bridged between the slicer and the thermoforming packaging machine. This reduces the slipping of the portions and increases the loading accuracy while also minimising the need for manual corrective interventions. Product transfer with a very small height difference also enables the optimum transfer angle to be achieved between the infeed conveyor and the pack, making the transfer particularly consistent and reliable.

By integrating the loading system into the thermoforming packaging machine, the footprint of a slicer line can be noticeably reduced. The particularly precise and gentle product transfer also enables high output.

**Line modules**
- Slicer
- Thermoform packaging machine with integrated horizontal loader
Advantages:
- Highest possible output
- High personnel efficiency
- Production of all common portion shapes
- Reduced footprint through integration of the loading module into the thermoform packaging machine
- Variable number of tracks
- Easy cleaning
- Unrestricted accessibility to the packaging machine

Thermoform packaging machine with MULTIVAC horizontal loader
By integrating the loading module into the thermoform packaging machine, it controls the loading process in addition to the packaging process. This includes aligning, buffering, and inserting the portions. The thermoform packaging machine automatically adjusts its cycle output to the output of the slicer to prevent downtime and empty packs. This contributes to continuous production, as well as to an increase of the availability of the slicer line.
MULTIVAC horizontal loader

The horizontal loader is an hygienic loading system for sliced products which is gentle on products and which can be fully integrated into a thermoform packaging machine. The open stainless steel construction of the horizontal loader allows quick and ergonomic access to the product-guiding parts. The conveyors can be folded up without tools, enabling quick conversion and effortless cleaning. All transfer points are designed to be as close as possible to each other, ensuring the reliable and gentle transport of a wide variety of portion types. The horizontal loader includes the following functions:
Distribution
The distribution belt takes over portions from the slicer in a way that is gentle on the product and creates the desired track spacing.

Buffering
The buffer conveyors compensate for irregularities in the product flow and ensure a continuous packaging procedure.

Alignment
The alignment conveyor aligns the portions lengthwise during transport. Alignment of the portions after buffering ensures particularly precise positioning and transfer.

Loading
The precisely aligned portions are fed horizontally into the pack cavities. The horizontal loading process enables very gentle and precise loading of the product, even at the highest output.
Line configuration for multilayer and multi-variety packages

In order to guarantee maximum flexibility and loading accuracy during automated loading, this line concept has a handling module as a loading solution. They process all standard portion shapes and sizes and enable any feeding in for portions of multi-variety packs, multi-layer packs or special formats. Loading solutions with handling modules are also perfectly scalable.

An automatic high-performance traysealer is used as the packaging system. The integrated infeed unit of the tray sealer features high capacity, precise transport of the trays, and an optimised footprint.

**Line modules**
- Slicer
- Handling modules
- Buffer conveyor
- Traysealer

**Benefits**
- Greatest possible flexibility
- High personnel efficiency
- Production of all common portion forms, in particular multilayer and multi-variety packs
**Loading with handling modules**

The handling modules are integrated into the line control. The MULTIVAC control system thus controls the entire process, from slicing the products to sealing the filled packs. This ensures maximum efficiency, virtually eliminating downtime.

The camera systems of the handling modules detect the location and positions of the incoming portions. This enables position correction, as well as orientation of the portions during insertion into the pack cavities. In addition, there is the greatest possible flexibility with regard to the number of portions and layers per pack.

MULTIVAC handling modules are designed for use in the food industry. They meet the most demanding hygiene standards and are designed for the typical cleaning processes of the food industry. This ensures maximum product safety and high reliability. Quick-change devices enable quick conversions and effortless cleaning.
Line configuration for a standard connection to packaging machines

Belt loaders are a proven and efficient loading solution for the integration of slicers in packaging lines. Line configurations with belt loaders are perfect for thermoform packaging machines that are already installed. In newly configured slicer lines, a belt loader ensures maximum flexibility in combinations of slicers and packaging machines of the future.

**Line modules**
- Slicer
- Belt loader
- Thermoform packaging machine

**Advantages:**
- High output
- High personnel efficiency
- Production of all common portion forms
- Variable number of tracks
- Flexible line design
Product infeed with the MULTIVAC belt loader

The belt loader takes over the portions from the slicer and also aligns, buffers, and inserts them into the packs with high output and precision. The flexible, modular system can be optimally connected to existing packaging solutions and is available as a version that can be integrated into the control system and as a stand-alone feeder.

The belt loader features hygienic and space-saving design. Separate conveyor units allow quick and easy access to the packaging machine – for film change, for example. The buffer and alignment conveyors can be adapted quickly and easily for flexible use on different packaging machines.

The maximum number of good portions can be achieved by means of an optional weight correction display. A display mounted in the loading area of the packaging machine indicates which portions have to be reloaded manually.
MULTIVAC belt loader

The MULTIVAC belt loader enables maximum flexibility for the connection of slicers to packaging machines. The conveyors can be folded up without tools, allowing quick access to the packaging machine, quick conversion and fast and safe cleaning. The MULTIVAC belt loader can be equipped with the following modules:
**Distribution conveyor**
The distribution conveyor takes over the portions of a slicer or an upstream process. The transfer positions are designed with very small radii and ensure the portions are transported very gently. The angle of the distribution conveyor can be adjusted and set to different transfer heights.

**Alignment conveyor**
The alignment conveyor aligns the portions lengthwise during transport. A short alignment conveyor enables a higher portion output to be achieved, whereas a combined alignment conveyor allows the number of tracks to be changed via programmed control. Formats are constituted on the distribution conveyor and the buffer conveyors.

**Distribution conveyor**
The formation conveyor starts with the formation of the formats, which are finalised on the buffer conveyors. The distribution conveyor is used primarily for lines with a high output.

**Buffer conveyors**
Buffer conveyors ensure the packaging machine is loaded constantly. They buffer entire formats. Depending on the respective application, several buffer conveyors can be used.

**Infeed conveyor**
The precisely aligned portions are transferred into the packs. So the portions can be placed perfectly in the packs, the conveyor length and loading angle are designed to suit the application.

**Ejection conveyor**
Reject-weight portions can be ejected from the process onto an ejection conveyor by means of a rocker. The portions can be easily loaded manually in the loading area of the packaging machine. The ejection conveyor can be swung out on the operating side, simplifying handling during operation.

**Weight correction display**
The maximum number of good portions is achieved by means of an optional weight control system. A display mounted in the loading area of the packaging machine indicates which portions have to be reloaded manually.
Investing

More than every second thermoform packaging machine sold worldwide is a MULTIVAC. When you choose MULTIVAC as your technology partner for slicer solutions, you benefit from individually tailored packaging, efficiency and safety in the packaging process, pioneering MULTIVAC Hygienic Design™ and our excellent after-sales service.
Custom built for you

MULTIVAC offers you custom designed, holistic solutions. Our wide and flexible product range enables us to supply a line with the output, functionality, and flexibility that meet your requirements.

Take advantage of our consulting services and benefit from our experience in food processing and packaging in order to obtain the optimum overall solution.
Comprehensive service

Service from MULTIVAC covers the entire lifecycle of a packaging solution. More than 1000 specialists worldwide support you with consultancy, training, and technical service.

**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 your new packaging solution is put into service without a hitch and that it is integrated in your production process.

**Tests in the MULTIVAC Innovation Centers**
In our Innovation Centres, we offer the opportunity to conduct cutting, product, and packaging tests. You 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.

**Needs-based training courses**
We offer user training courses worldwide for our customers’ operators and service personnel. At the customer site or at one of our worldwide Training & Innovation Centres. We are flexible in matching the content of our training courses to your requirements.

**Machine maintenance**
Thanks to the benefits of reliable machine technology, our technical service always ensures the maximum availability of your equipment is maintained. The easy and rapid supply of spare parts contributes significantly to this. The expertise of our specialists makes our service perfect.
MULTIVAC is there for you on site worldwide.

Our sales and service network comprises more than 85 subsidiaries. We are present on all continents and in all important markets. At all times and in all places, more than 1000 consultants and service technicians will offer you expert advice and a comprehensive range of services, as well as support you on your way to the best possible and most efficient overall solution. Our technical service, combined with rapid availability of spare parts, ensures that all MULTIVAC solutions installed worldwide are at maximum readiness.