Machine modernisation
MULTIVAC Retrofit
The MULTIVAC Retrofit modernisation service allows you to adjust your existing packaging lines to perform new tasks and meet market requirements. Bring your production unit completely up-to-date by having your systems completely overhauled, integrating new modules or retrofitting additional functions. The result: the service life or your system will be extended and its profitability increased.
Benefit longer from your investments

A packaging line is subject to normal wear and tear during its production time. Regular servicing allows you to sustain its productivity over a long period of time. However, within such a period, market requirements and the competition can undergo lasting changes. The comprehensive MULTIVAC retrofitting service allows you to benefit from the latest innovations and implement new technical features. This means you can continue production in a competitive manner with an existing packaging line.

An extensive consultation with our specialists will discover which modules of your system could be optimised with the greatest benefit for your system. MULTIVAC offers various service packages for identifying the optimisation potential of your existing machines.

In addition to the hardware, the software will also be brought up-to-date as part of a comprehensive modernisation program. To keep production downtimes as low as possible, MULTIVAC reserves separate manufacturing capacities for the retrofitting service. All measures will, of course, be completely documented.

Modernisation according to plan

- Consulting and analysis
- Project planning
- Implementation of hardware and software by a team of experts
- Documentation of all measures

Thanks to the optimised die change, downtimes can be reduced
The MULTIVAC Retrofit program offers a comprehensive range of modernisation approaches for your system. We will draw up an individual package of the services that best suit your business needs according to your conditions and specifications.

**Accessories**
- Handling aids
- Product filling support
- Signaling equipment
- Operating elements

**Modernisation of central modules**
- Film transport
- Cutting unit
- Machine control
- Drives
- Electrical system
- Pneumatics
- Vacuum unit
- Gas flushing unit

**Servicing systems and inspection**
- Maintenance systems
- Remote assistance

**Control cabinet and machine frame**

**Efficient use of energy and resources**
Packaging material efficiency
- Film change
- Forming
- Film trim handling

Automation
- Conveyor systems
- Handling modules

Die change

Product inspection and process reliability
- Packaging
- Process

Hygiene
- Film transport
- Product transport
- Protection against contamination
- Cleaning the packaging machine
Packaging material efficiency

Lower packaging material consumption has many advantages. Not only are material costs reduced, but resources are also conserved. MULTIVAC can help to reduce packaging material consumption: by optimising the film change and through efficient forming technology.

**Film change**
- Splice tables for lower and upper web
- Tandem film winder for lower and upper web with quick-changing device for lower/upper web
- Jumbo film winder for upper/lower web also available as tandem version

**Forming**
- Explosive forming
- Stamp forming
- Sandwich heating system
- Proportional pressure regulator

Suction unit for film trim
Automation

Infeed, loading and unloading, converging and discharging: these are just some of the tasks that can be automated with MULTIVAC belt systems and handling modules. This results in higher speeds and increased precision of the packaging process and thereby also increases the economics of your system.

The modular concept of the MULTIVAC belt systems allows them to be perfectly adjusted to the task at hand, regardless of whether you are looking for an integrated or a stand-alone solution. We offer solutions for continuous or cycle-controlled processes as well as for use in clean room conditions.

The handling modules are just as versatile. Manual handling required in the packaging process can be automated in a hygienic and economical manner. Various gripper systems make the modules very flexible in the way they can be used for a variety of products, pack formats, weights and cycle times.

Belt systems and handling modules
- Infeed systems
- Discharge systems
- Converging systems
- Loading and unloading systems
Die change

The die change is one of the main causes of downtime on your packaging line. MULTIVAC offers a great many systems with which the die change can be performed faster. The focus here is on solutions for the forming die, the sealing die and the cutting unit, which are available with different levels of automation. The use of these die change systems means that manufacturing smaller batches can be performed more economically.

Die change
- Drawer system
- Automatic die changing unit with change carriage
- Squeezing knife can be swung in and out
- Automatic lowering support bars
- Lowerable squeezing knife unit
- Completely assembled and tensioned squeezing knife unit

Fewer standstill times – greater economy: die changing systems from MULTIVAC
MULTIVAC inspection systems enable the comprehensive monitoring of process and packaging quality. This not only reduces rejected packs but also increases levels of consumer safety. Metal detectors, x-ray checking devices and visual checking systems ensure that only perfect packs leave your production unit. At the same time, our inspection systems support you in the continuous improvement of your packaging processes.

**Product inspection and process reliability**

**Packaging**
- Metal detectors
- X-ray inspection systems
- Oxymeter and combimeter
- Checkweighers
- Product monitoring (empty pack monitoring, product protrusion)
- Visual inspection (position check of pack content, labelling or printing, detection of foreign bodies and surface damage)

**Process reliability**
- Monitoring of the forming pressure and forming vacuum
- Monitoring of sealing plates and sealing pressure
- Current monitoring for heating circuits
- Film side checks in lower web infeed
- Monitoring of the transport chain for edge trim remnants
- Web edge guide control
- Splice monitoring
- Equipment with lamp for early warning at the end of the lower/upper web

*Inspection systems, such as checkweighers, ensure a perfect packaging process*
Hygiene

Especially when packaging foodstuffs, the hygiene of the machine makes a significant contribution to consumer safety. The current generation of thermoforming packaging machines comply with the standards of the groundbreaking MULTIVAC Hygienic Design™ and are therefore optimal for hygienic packaging. To simplify cleaning of these machines, they can be equipped with an automatic Clean-in-Place (CIP) cleaning system for a very wide range of machine components.

For machines that do not comply with the standard of the MULTIVAC Hygienic Design™, MULTIVAC offers various retrofits for optimising hygiene standards.

**Film transport**
- Hygienic transport chain
- Chain guide in MULTIVAC Hygienic Design™
- Cover for upper and lower web unwind

**Product transport**
- Transport conveyors

**Protection against contamination of the packed substances**
- Safety guard in a hygienic design
- De-ionisation of lower and upper web

**Cleaning the packaging machine**
- CIP module for the fully automatic cleaning of the transport chain, chain guide, sealing die bottom section or discharge conveyor

✓ The Clean-in-Place cleaning system automatically washes off corrosive brines on a regular basis, for example
Accessories

Simple and comfortable work is the basis for a smooth-running and error-free packaging process. MULTIVAC offers a wide range of handling aids and filling aids for filling packs as well as additional elements that enable you to design your systems so they can be operated in an ergonomic manner. In this way, these retrofits contribute to the reliability of the production process.

**Handling aids**
- Lifting trolley
- Transport carriage for web rolls
- Changing aid for rotary shears cutting

**Product filling support**
- Vibrating units
- Loading stations
- Loading grids

**Operating elements**
- Additional operating elements for emergency-stop and start-stop
- Operating element for contact-free start-stop
- Contact-free user identification using a chip card

**Signaling equipment**
- Signal horn
- Signal tower
- Warning lamp with LEDs
Control cabinet and machine frame

If our thermoforming packaging machines are to be used outside of the defined environmental conditions, the control cabinets can be retrofitted with heating, cooling or ventilation.

In addition, MULTIVAC can also fit lighting to the interior of the control cabinet or machine room.

Control cabinet
- Control cabinet heater
- Control cabinet cooling and ventilation
- Control cabinet lighting

Machine frame
- Safety panels with polycarbonate viewing windows
- Interior lighting
- Viewing window in the side panel
- Line-motion control with indicator light

✓ The lighting eases orientation in the interior of the machine
Automatic maintenance equipment, such as the automatic grease lubrication of important machine components, helps to minimise unplanned downtime of your system. This is of great use particularly if your system is subjected to wet cleaning regularly or used in a demanding production environment.

Our remote maintenance system – MULTIVAC Remote Assistance™ allows the MULTIVAC experts to access your packaging system at your request and to support you in rectifying faults as well as in optimising processes.

We will also conduct machine inspections comprised of servicing and a comprehensive analysis which results in a project plan of useful retrofits for modernisation of your packaging equipment.

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### Maintenance systems
- Automatic grease lubrication of the lifting systems
- Individual nipple grease lubrication of the lifting systems
- Automatic lubrication pumps for transport chain

### Remote assistance
- MULTIVAC Remote Assistance™

### Inspection
- Servicing, analysis, retrofits

> The service life can be significantly extended by the automatic lubrication of the transport chain
Modernisation of central modules

Older thermoforming packaging machines can also benefit from MULTIVAC retrofitting services, as they allow all relevant modules to be continuously modernised. This considerably extends the lifespan of the installed systems and also raises the efficiency of the processes.

Retrofitting your system will ensure fault-free and economical operation. Systems for disposing of film trim sorted by material also increases efficiency with regard to your packaging materials.

### Film transport
- Conversion kit for film unwind
- Ball bearing-mounted deflection rollers
- New version of the film infeed roller
- Optimised clamping device for transport chain
- Chain deflection roller with needle bearing
- Protective panel for edge trim winder

### Cutting unit
- Rotary shears cutting: conversion to movable knife
- Knife shaft: frequency transformer for progressive speed change

### Machine control
- Conversion of MC 92 or MC 96 control to IPC06

### Drives
- Conversion to MC-Drive-D
- Conversion of AC-Drive to contactor control

### Electrical system
- Conversion to SSR (solid state relay)
- Proximity switches on lifting unit and film unwind

### Pneumatics
- Conversion to new valve group CL03 (pilot valves)
- Renewal of maintenance unit

### Vacuum unit
- Conversion to UV5

### Gas flushing unit
- Electronic gas mixer

### Film trim handling
- Suction ring for film trim with Venturi nozzle
- Edge trim winder in tandem version
- Edge trim winder RSW 20
- Edge trim removal unit
- Granulator for edge trim incl. pipe
- Suction unit
- Slide for strip punch waste
- ST5 suction unit (hole punch)

« In near mint condition: Lifespan and productivity of the packaging machine can be increased with updated modules
To reduce cooling water consumption, your packaging machine can be retrofitted with a temperature-controlled flow regulator. In addition, we also offer retrofittable water chilling units that facilitate a closed cooling water circuit. This allows your packaging system to function without fresh water.

Electric drives require less energy to function than pneumatic systems. By replacing pneumatically driven modules with electrically powered systems, you can reduce the energy consumption of your systems.

**Efficient use of energy and resources**

- **Cooling water consumption reduction**
  - Temperature regulation for cooling water flow
  - Water chilling unit

- **Energy consumption reduction**
  - Electrically driven cross cutter for flexible film

💡 The cooling water circuit offers potential for optimisation
✔️ The electrically driven components reduce the energy consumption of your machine
Our goal is for MULTIVAC packaging solutions to fulfil your requirements reliably and efficiently. This is why a 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 the MULTIVAC packaging system was put into service.

**Comprehensive advice**
From the initial idea to the first test run – a competent and experienced project team will be at your side during the implementation of your packaging solution, a team that will accompany you from the first evaluation to the final completion of the packaging project.

**Training**
We offer comprehensive training courses for you to become familiar with the operation, servicing and care of your machine. In this way you can fully realise the potential of your MULTIVAC packaging solution.

**Service**
Worldwide there are over 800 MULTIVAC experts in the field: around 300 sales advisors to develop the most efficient packaging solutions with our customers, as well as more than 500 service technicians to assist with service support, retrofit equipment and training.