

# DOSOMAT

*Filling and Closing Machines*

# WALDNER



*DOSOMAT – Always one step ahead.*

# WALDNER DOSOMAT – the all-rounder

# Solutions and features at a glance

## Our product range of rotary and inline machines:

- DOSOMAT 1     Small, compact, powerful in only 1.5 m² of space.  
Performance: depending on the cup size and volume up to 6.000 cups/hour  
Standard basic dimensions: 1100 mm x 1200 mm
- DOSOMAT 2     Highly flexible all-rounder for every application.  
Performance: depending on the cup size and volume up to 10.000 cups/hour  
Standard basic dimensions: 1400 mm x 1400 mm
- DOSOMAT 10    Rotary machine for 2 – 8 lanes.  
Performance: up to approx. 16.000 cups/hour  
Basic dimensions without cabinet: 1850 mm x 1850 mm
- DOSOMAT 12    High performance all-rounder for 2 – 12 lanes.  
Performance: up to approx. 20.000 cups/hour  
Basic dimensions without cabinet: 2100 mm x 2100 mm
- DOSOMAT 16    For filling cups and buckets  
Performance: up to approx. 20.000 cups/hour  
Basic dimensions without cabinet: 2700 mm x 2700 mm
- DOSOMAT 20    Inline machine for all purposes.  
Performance: depending on the cup size up to 100.000 packs/hour
- DOSOMAT Pouch   For filling and packaging of liquid and chunky products in pre-formed stand-up pouches.

## End-of-line packaging machines:

- Carton erector KA
- Wrap-around packer WP
- Combined packer KP
- Toploader SP
- Integrated fully automatic case packer



## Dairy products:

- Yoghurt - inline machines                     page 4 – 5
- Packaging sterilisation                         page 6 – 7
- Yoghurt - rotary machines                    page 8 – 9
- Cream cheese                                    page 10 – 13
- Butter, margarine                                page 14 – 15

## Meat and pies:

- In plastic cups                                    page 16 – 17
- In plastic and aluminium cups               page 18 – 19
- Delicatessen                                      page 20 – 21

## Pharmaceuticals and cosmetics

page 22 – 23

## Pouch / Stand-up pouch

page 24 – 27

## End-of-line packaging

page 28 – 29

## Our references

page 30 – 51



## Service and spare parts:

**We are always there for you.**

Our strength lies in our excellent service. A highly trained WALDNER installation team is constantly available worldwide. We can therefore guarantee perfect and professional maintenance of the machines. The technicians in our MSR department can deal with any questions or irregularities in the

machine program at any time, remotely via modem, and so operate directly from Wangen, if necessary. Our well-stocked spare parts warehouse ensures that we can supply all necessary spare parts and wear parts in the shortest possible time.

### Machine design

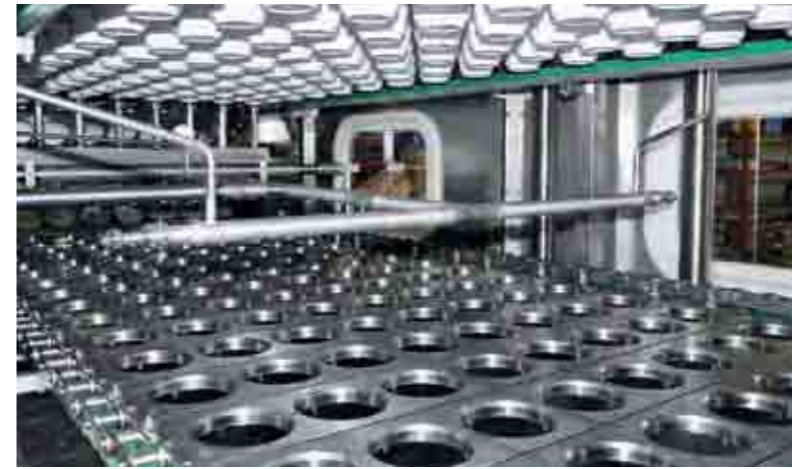
The machine base frame is of a modular construction. The frame houses the drive units which are easily accessible. All parts which come in contact with the product are made of high-alloy stainless steel (DIN 1.4404 or AISI 316 L) or plastics suitable for food.

### Dosing systems

Piston dosing fillers  
inductive flow measuring and mass flow measuring weighing dosing systems (e.g. for fruit or pieces), pocket fillers (muesli, pet food/chunks etc.) auger fillers (powder, granulate) robotic systems (pick and place). The appropriate dosing method is available for every product.

### Drive versions

Servo motors via Schneider Electric (formerly ELAU) PAC Drive 3 or Allen Bradley frequency-controlled motors, mechanical drive, pneumatic drive, or combinations of these. The chain drive train uses a servo motor to achieve perfect acceleration and deceleration values.



### Closing Systems

- Heat-sealing closure
- Special heat-sealing for aluminium cups (sterilisable)
- Labelling unit
- Hot-melt
- Snap-on-lids, with or without tamper-proof closure
- Ultrasonic sealing
- Inductive sealing
- Sealing from roll stock and lid-cutting
- Sealing from roll stock with integrated lid-cutting



### CIP cleaning / SIP sterilisation

Implementation: a closed hopper with spray ball and electric level control. The entire dosing unit can be cleaned in place without dismantling. To initiate the cleaning procedure, the circuit is closed by means of an automatic locking cleaning adapter. All components and seals meet the requirements for food products and can be adjusted to meet international standards (3A, EHEDG). The WALDNER standard which applies to all CIP/SIP relevant parts avoids dead space and other points of re-contamination.

The sterilisation procedure of the dosing unit is controlled by safety checks (time elapsed and temperature reached). This means that the dosing unit is only returned to production, when cleaning and sterilisation has been successfully achieved.



## Packaging sterilisation – an important topic

### DOSOMAT AS

For the sterilisation of cups and lids on all machines we offer different systems:



### Clean air cabinet

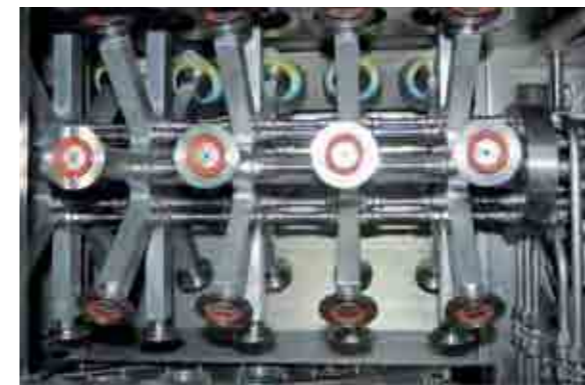
The combination of a clean air cabinet (laminar flow) with the specified filter classes and packaging sterilisation adds up to a self-contained clean room which is particularly suitable for the following operating conditions:

- Use of packaging material contaminated with germs.
- Use in rooms where the air is contaminated by mould or other airborne germs.
- Use in rooms with low ceilings and a high air circulation rate
- Use in areas where traffic passes through (forklift trucks, transport of goods)



### Cup sterilisation using H2O2 and hot sterile air

Sterile air treatment, H2O2 treatment and all the necessary valves and lines are situated in a sterile module next to the machine. The cups passing through it are subjected to sterile air enriched with H2O2 and then finally dried with hot sterile air. In this way, especially mould spores can be adequately killed off or inactivated.



### Sterilisation of lids by means of H2O2 and hot sterile air.

Sterile air treatment, H2O2 treatment and all the necessary valves and lines are situated in a sterile module next to the machine.



### Cup sterilisation by means of a UVC lamp unit directly over the cups which consists of:

- UV medium pressure lamps of the latest design
- Lamp housing with cooling fan
- Control unit for controlling the radiation intensity

In this way, especially mould spores can be adequately killed off or inactivated.



### Sterilisation of lids by means of a UVC lamp unit

This consists of:

- UV medium pressure lamps of the latest design
- Servo-controlled rotating star for handling lids
- Control unit for controlling the radiation intensity



### Cup sterilisation by means of "pulsed light"

A high intensity pulsed light with flash duration of approx. 0.3 ms. on the inside cup surface sterilises this effectively. The sterilisation station consists of:

- Control cabinet with charge and discharge electronics
- Optical cabinet with gas discharge lamps / reflectors
- Passive safety equipment (panels with safety switches)
- Active safety equipment to ensure the lightproof closing of the sterilisation station.



### Foil sterilisation

Set-up of a UVC lamp unit at the foil feed-on spool of the DOSOMAT, consisting of:

- UVC medium-pressure lamps of the latest design
- Lamp housing with cooling fan
- Control unit for controlling the radiation intensity.

The foil is irradiated with UV light. In this way, especially mould spores are adequately inactivated.



Roll stock sealing station with wind-up of remaining foil, and without pressure/squashing of the bucket structure during sealing.

### DOSOMAT bucket filler

for container sizes from 1 to 15 kg, in rotary operation the machines have the world's highest performance in terms of product per square meter of space. Despite that, these machines are easily accessible for quick format and product changes, and for maintenance and cleaning work.



### DOSOMAT bucket filler

Performance: depending on the cup size and volume, up to 5400 buckets/hour with 1000 g net weight.



### DOSOMAT cup filler

for small containers of 20 to 500 ml, these are the most flexible machines on the market. Format change in the shortest possible time by the tool-free exchange of quick-change format plates, push-in cup destackers and lid magazines allow immediate response to the daily market requirements and to the realisation of strategic decisions in terms of cup design changes, even years after the initial installation.

Can be filled for example with: natural and fruit yoghurt, yoghurt with muesli, cream, quark, cream cheese and processed cheese.



Clearly laid out station ensures quick changes and easy cleaning and maintenance of the plant.

# DOSOMAT

## Dairy products



Servo-driven gripper for removing the cups from the cell chain. Bringing together in two axes onto the packing arrangement of crates.

### Storage magazine

Enough for 20 min, clearly laid out machine, highly effective servo control of the latest design, precise dosing, drawer magazine to refill the 10-lane sealing lid magazine without interrupting the running of the machinery, secure sealing of the lids, mechanical gripper for removing the finished packing arrangements directly from the machine and insertion into the waiting crates, these are the factors which enable only one operator to produce 30.000 cups/hour.



Slim, fast, powerful, maximum output with minimum personnel - these are the keywords for the inline machine DOSOMAT 20 shown here. Only one cup and one product, it does not always have to be a highly flexible, multi-format machine for a wide product range. Too often the demand is heard, "Low priced, reliable, easy!" when it comes to filling low-cost products. The DOSOMAT 20 can also serve this segment.



Swinging the sealing station into service position at the press of a button; simple maintenance, inspection and cleaning.



# DOSOMAT

## Dairy products - cream cheese



The stacking of filled and sealed cups is done in stacks of five for collection by the robot gripper at the final packaging.

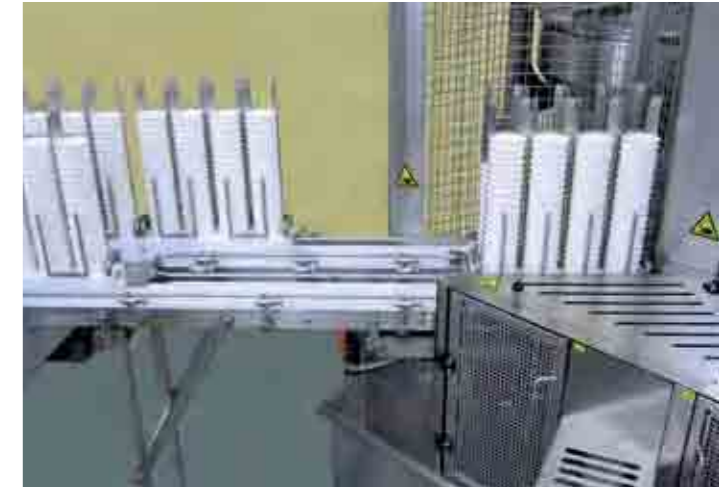
### DOSOMAT 20 with laminar airflow cabin

Performance: up to 30.000 cups/hour  
For filling and packaging of cream cheese or similar dairy products.

Fully automatic filling and closing machines for filling a variety of different products into pre-formed cups made of plastic, aluminium, cardboard, coex materials, tin or glass. The contents range from liquids to highly pasty products, or to powdered or chunky

products. Cosmetic and technical products can also be packaged in pre-formed cups.

The cups are sealed using pre-formed lids, snap-on-lids or aluminium or plastic lids punched from the roll. The performance of DOSOMAT machines covers a range of 4.000 to 100.000 packages per hour.



The WALDNER cassette system for cup stockpiling is an extremely flexible way of creating a high storage capacity despite having to deal with various formats, sometimes incompatible with each other.



# DOSOMAT

## Dairy products - butter & margarine

### Line efficiency from WALDNER

Highest line efficiency through machines which bear the solid hallmarks of design, control, workmanship, installation and service.

Uncompromising use of stainless steel. The WALDNER Packer used by inline DOSOMAT machines is made entirely of stainless steel. This means that the line, as well as auxiliary units (check-weigher, metal detector) are suitable for use in wet areas. This is an unbeatable advantage in tight spaces, or for delicate products. Cleaning the WALDNER packer requires the same cleaning agents as for the DOSOMAT machines.



Punched bases of the wrap-around cartons.

### Butter/margarine filling

Another long-standing core competence of the DOSOMAT machines. The latest compensation cylinder with or without rework function for butter, light butter and/or margarine, differential pressure-controlled laminar flow air hoods to avoid any exposure to mould or bacteria by air, safest closure systems; these all contribute to high-quality spreads.



Compensation cylinder for synchronizing product feed and discontinuous filling process





# DOSOMAT

## Meat & pies in plastic tubs

### Cup setter with control station

The tubs are removed from the magazine by mechanically enforced destacking using a screw technique for the correct destacking of the tubs from the magazine. The tubs are placed in the receiving holes. Automatic tub monitoring: if a tub is missing, the machine stops with an error message on the display.



### Roll stock sealing station with evacuation (MAP version)

With integrated sealing-punching unit, for simultaneous sealing and cutting the foil, with rewinding of remaining foil. Servo-driven sealing station and use of special sealing head material for minimal temperature fluctuations at a uniform temperature distribution.



WALDNER DOSOMAT machines are the market leader in the innovative filling and packing of pasties, sausage spread, liver sausage and sausages in plastic tubs with resealable lid. The machines are designed with the utmost care and after delivery, are well looked after by our service department.

With the help of our sophisticated quality assurance system, all operations on a DOSOMAT are understandable and the highest quality is the norm.

### Example of use: pies, luncheon meat

The product is fed to the dosing unit via a vacuum filler with fitted compensation cylinder, and filled into the tub using our proven piston dosing system with special rotary cutters. To achieve a minimal residual oxygen content, the machine can be equipped with a closed chamber for evacuating the tub head space, followed by the application of a protective gas.



DOSOMAT for filling pre-formed plastic dishes with sausages, closure by plastic sealing film and snap-on lids.



# DOSOMAT

## Sausage & pies in tubs made of plastic or aluminium

### For decades, first class

A synonym for perfect filling and sealing quality in the processing of pastes, sausages and pet food - the DOSOMAT with the aluminium seal.

### A classic

Featuring the latest servo control for filling and sealing of pastes, sausage and pet food cups. The highlight of this DOSOMAT type is, in addition to the dosing, the sealing station with the

sealing force coming from below. The sealing pressure of about one ton per cup produces dense and autoclavable seams which all still have easy-peel properties.



Powerful servo-driven sealing station. As a counterpart to the mechanical seal movement from below, the DOSOMAT employs an air-cushioned sealing upper tool. Sealing forces of up to 1200 kg /lane in only 0.4 sec. sealing time are standard parameters.



Simple to change cups due to quick change device for format parts.



### Pull-out horizontal piston dosing unit - the advantages are obvious:

Extremely simple dismantling / cleaning / maintenance next to the machine. Falling product residues can be collected in a pan and do not contaminate the machine. Horizontal arrangement of the dosing pistons allows the shortest suction and discharge distances; this is a highly valued advantage, especially for very viscous products with chunks.



# DOSOMAT

## Delicatessen

### DOSOMAT 12.4

Filling in plastic containers with seal and snap-on lid, available with optional tamper-evident closure.

The delicatessen industry relies on WALDNER DOSOMAT machines when it comes to the careful filling and packaging of salads, or similar products. The range extends from portioned containers to large containers that among other things are filled with herring salad, crab salad, bean salad, coleslaw, potato salad, etc.



Example of use for delicatessen products: hygienic design and full flexibility are the main requirements in the delicatessen industry.

### Cup feeding

The loading of the cup setter can be done via a free-standing or linear magazine built onto the machine as well as a carousel, or it can be built to customer specifications. Up to 1.000 to 1.500 cups per lane can be taken from the linear magazine depending on the packaging material and supplied to the cup setter, one stack at a time. In this way, an optimum buffer time is reached according to the filling rate.



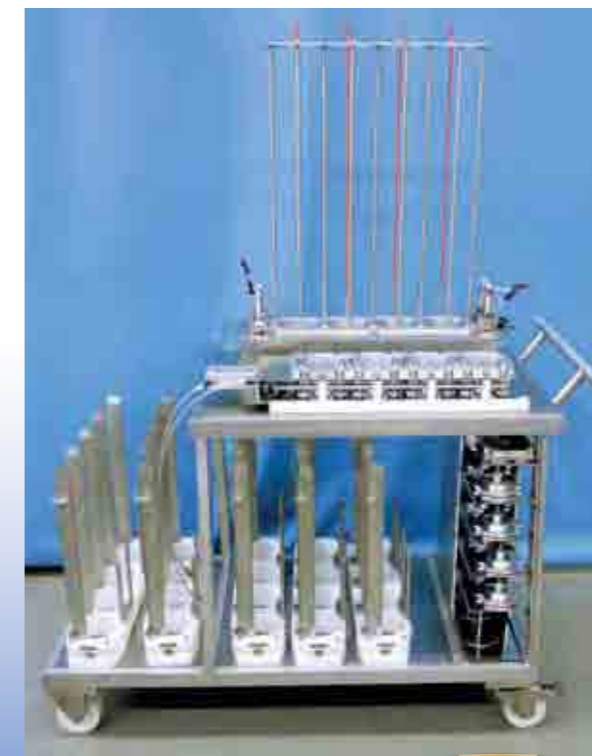
For the fastest change between two or more cup sizes, several format sizes are mounted on the DOSOMAT machines.

They are brought into position by a servo unit on the control panel.



### Sealing station as swiveling version:

Servo-driven sealing station. For a quick change of format, the triple sealing station is designed to rotate, and switches to the second format in seconds by pivoting. In parallel, another format can already be heated while the machine is running. This completely eliminates changeover time for tool changes and heating-up during the format change.



WA format trolley for storing a complete format set.



# DOSOMAT

## Pharmaceuticals



Pick 'n Place System for inserting desiccant in the bottom of the cup, with double sensor system (pneumatic/sensory).

State of the art secondary packaging machine for packing delicate pharmaceutical and cosmetic products in high-quality and safe secondary packaging. Depending on the requirements, we offer packaging systems that ensure safe transport without damage or impairment of the products by environ-

mental factors (moisture, drying out, light, gases, etc.). Because of a variety of possible combinations of handling, filling, packing, add-ons and different sealing types, in conjunction with highly flexible servo drives, it is possible to accommodate all customer wishes.

Ergonomic operation together with the lowest service requirements and avoidance of unnecessary down times, all this results in the highest possible availability of DOSOMAT machines.

By combining different handling and packaging steps in one machine, line losses can be reduced to a minimum.



Ejection of the finished package onto good lanes (for final packaging) or bad lanes with cross-checking. If a package is determined to be bad, it is checked if it arrives on the "bad lane" and that it is definitely missing from the "good lane".



# DOSOMAT

## Pouch

### DOSOMAT 20 Pouch

A new generation of inline machines for filling liquid and pasty products as well as lumpy products which cannot be pumped into pre-formed pouches. Bags in the form of flat pouches or stand-up pouches, with or without spout, are possible. The bags are sealed using ultrasonic sealing and additional heat sealing for a cosmetic seam. Customized machine design including multi-stage filling of bags with different dosing fillers:

multihead weighers or pocket fillers for lumpy products, auger fillers for powdery products, and piston dosing

fillers for pumpable products. Flow meters (inductive or inertia) for liquid products. If required, direct loading of downstream autoclave tray systems can be offered for long-life products.



### Advantages of the DOSOMAT 20 Pouch:

Significantly higher performance is can be achieved compared to traditional rotary machines, thus optimising the unit cost of production. Multi-stage filling with different dosing fillers is possible without restrictions with the appropriate length of the machine. High format flexibility by means of intelligent format plate system: adaptation to different bag widths at the press of a button using a servo motor. Open hygienic design for easy wash-down

cleaning. Ultrasonic sealing for reliable airtight sealing, even with product contamination in thesealing area, especially for products which are then sterilised in an autoclave.

Sealing control in the micron range for ejecting faulty (kinked) bags, or incompletely sealed bags before final packaging, or the autoclave process. Thermal heat sealing as an additional cosmetic seam. All movements are fully servo-controlled. This results in

ideal machine settings for optimising performance and minimizing wear. WALDNER's proven quality ensures low cost of spare parts and service.

Take advantage of over 60 years of WALDNER expertise, and also profit from the intelligent technology of the DOSOMAT 20 Pouch!

# DOSOMAT

## Pouch



Removal of ready filled and sealed bags using a 2-lane conveyor for downstream processing. In case of faults or congestion in the downstream process, transport can also be switched to a single trouble-free lane.



Filling hoppers for receiving the product dropped from a multihead weigher. The hoppers are lowered into the open bag for each discharge, so that no product losses are entailed.



Integrated packer system for direct loading of the autoclave trays with filled, sealed pouches. Downstream conveyors, further handling and formatting are completely eliminated. Extremely compact layout lines for filling machine and subsequent autoclaving.



Smart format plate system for adapting to different bag widths at the press of a button with a servo drive.



Pouch magazine for receiving the stack of bags with subsequent servo-driven bag inserter. Due to the servo drive, the exact insertion position and the holding position of the lateral bag grippers can be adjusted individually.



Filling position of the opened bag under the filling valves of a piston dosing filler. When filling, the nozzles are inserted into the bag in order to achieve an optimum filling behaviour.

Preinstalled filling hopper for receiving a product from a customer-supplied dosing unit for chunky products.



# DOSOMAT

End-of-line packaging solutions -  
All from one source!



## DOSOMAT with fully automatic integrated packer

The integrated packer grasps the cups from the format cells according to the packaging arrangement, and puts them into the waiting cardboard boxes. By avoiding additional interfaces, an integrated packer guarantees highest process security.

## WALDNER Wrap-around Packer WP

Wrap-around packer - for packing a variety of products in wrap-around cartons, up to 25 cartons/min.

- simple format change
- pre-stacking units
- different formats are possible
- clean design for tins, aluminium portion cups, plastic cups, etc.



## WALDNER carton erector KA

Can produce cartons with holes or perforated crates.

- Easy change of format
- Direct packing available as option
- Direct packing with an integrated packer possible
- Clean design for cups, cans etc. closure using hot glue.



Overview of various individual applications.



## WALDNER combined packer KP

For erecting and filling the cartons in a machine for perforated cartons and open crates.

- Closure by hot glue
- Available as Side Loader
- gripping system to format the cups before inserting it in the perforated cartons.













# DOSOMAT

References - butter & margarine

















# DOSOMAT

The Dosomat has friends worldwide –  
we are looking forward to your inquiry.



## WALDNER

Our site in Wangen: a good place to live and work. As a leading company in our region, we employ more than a thousand employees.

## Our other business areas:

**WALDNER Laboratory Systems GmbH & Co. KG**  
Haidösch 1 · D-88239 Wangen  
Phone +49 7522 986-0 · Fax +49 7522 986-280  
labor@waldner.de · www.waldner.de

**WALDNER Laboratory and School Facilities GmbH & Co. KG**  
Anton-Waldner-Straße 10 – 16 · D-88239 Wangen  
Phone +49 7522 986-0 · Fax +49 7522 986-526  
schule@waldner.de · www.waldner.de

**Hermann WALDNER GmbH & Co. KG · Process Systems**  
Anton-Waldner-Straße 10 – 16 · D-88239 Wangen  
Phone +49 7522 986-0 · Fax +49 7522 986-595  
processsystems@waldner.de · www.waldner.de

05/2014/2000 · BIG Isny

Hermann WALDNER GmbH & Co. KG  
D-88239 Wangen im Allgäu  
Phone +49 7522 986-348 · Fax +49 7522 986-419  
dosomat@waldner.de · www.dosomat.de



# WALDNER