

**metos**  
kitchen intelligence<sup>®</sup>

## Metos HOT-FILL and SOUS-VIDE pumps and basins



**– Productive and  
ergonomic**



# Hot-Fill

**Hot-Fill** means that food is packed hot – minimum 85°C – and tight in bags. Then the bags are fast cooled down. Products have longer shelf life and the cooking bags retain aroma and overall quality of the food offering a full taste experience. Food is warmed with or without bags in suitable way. Hot-Fill is used for liquid or puree types of food.

**Metos Hot-Fill pumps** ensure quick and precise dispensing of liquid food products. Soups, sauces and mashed potatoes are filled into bags and containers effortlessly. The built-in scale ensures that weighing of the product happens in one and the same workflow saving time in the kitchen. Changing the filling process from bags to containers only takes a few moments.

Metos Hot-Fill pumps ensure uniform portions. Operating the machine is managed via a modern touch-screen display with a user-friendly interface and built-in programmes. The display also controls how quickly the product is to be dispensed allowing flexibility in the workflow.

Dispensing hot food products is normally associated with a number of health and safety risks. These risks are minimized with a fully automated dispensing system. Additionally the pumps prevent effectively inappropriate working positions.



# HOT-FILL DOS 2

## Better dispensing:

- Dispenses puddings, fruit desserts, soups, sauces and mashed potatoes
- Built-in scale for accurate weighing of dispensed portions
- Dispensing over conveyor, tray-sealer and deep-draw packing machine
- Possibility of remote controlled dispensing
- Welding system for sealing Hot-Fill bags
- User friendly touch-screen display
- Particle size up to 38 mm depending on product

**HOT-FILL DOS 2** ensures quick and precise dispensing of liquid food products. Soups, sauces and mashed potatoes are filled into bags and containers effortlessly. The built-in scale ensures that weighing of the product happens in one and the same workflow saving time in the kitchen. Changing the filling process from bags to containers only takes a few moments. Simply remove the bag holder, fit the roller track and the HOT-FILL DOS 2 is ready.

The HOT-FILL DOS 2 makes the work station safer. The machine ensures a proper working position, protecting the operator from straining shoulders and wrists. This reduces inconveniences and prevents injuries.

The HOT-FILL DOS 2 is mounted on swivel wheels allowing for the workstation to be moved to the most convenient spot.

Dispensing food with HOT-FILL DOS 2 minimizes the risk of scalding since the machine handles the food. Operating the machine is managed via a modern colour touch-screen display with a user-friendly interface.

Cleaning the HOT-FILL DOS 2 is done by the built-in semi-automatic CIP system. Here all internal pipes, tubes and valves are cleaned. All loose parts are dishwasher safe.

HOT-FILL DOS 2 is delivered according to your specific needs or requirements.



## Main features:

- Quick change between bag holder and roller track convenient for canteens
- Ensures long shelf life for products
- Colour touch-screen display
- Swivel wheels and brakes allow for portability and stability
- Minimized risk of scalding
- Increased workplace safety
- Reduces occupational injuries to shoulders and wrists



# Hot-Fill

## The process step by step:

- ◆ The suction tube is fitted to the kettle or the hose between kettle and pump is connected.
- ◆ The desired quantity per bag is entered on the touch screen
- ◆ Press Go
- ◆ HOT-FILL DOS 2 sucks the product from the kettle dispensing the desired quantity into bags or containers
- ◆ When production is finished a CIP cleaning system is launched.
- ◆ The built-in semiautomatic CIP system cleans tubes, pipes and valves
- ◆ The fully automated cleaning system applies detergent and disinfectant automatically



## Technical specifications

**Power supply:** CEE plug, 16 A fuse, 230 Volt  
Type B RCD 300mA

**Air supply:** Tube with quick coupler, minimum 7 bar,  
100 l per min.

## FULLY AUTOMATED CIP SYSTEM

### Programmed Cleaning:

The optional fully automated CIP system significantly reduces hours spent on cleaning the machine. In addition, a fully automated CIP system allows for the programming of specific cleaning tasks.

## Technical specifications

### CIP SYSTEM FOR HOT-FILL DOS 2 OPTIONAL

**Power supply:** CEE plug, 32 A fuse, 400 Volt  
Type B RCD 300 mA

**Cold water:** 3/4", 2 1/2" bar

**Hot water:** 3/4", 2 1/2" bar

**Drain:** 100 mm in diameter

# HOT-FILL DOS 2 is delivered according to your specific needs

**5002** Hot-fill Dos 2 with conveyor for containers etc. For dispensing thin and thick products with particles up to the size of 30mm. Built-in scale for accurate weighing of the dispensed portions. Temperature display on touch screen

**5001** Bag holder, adjustable plate and bag welder, for dispensing from pot to hot-fill bags

**5003** Ergonomic height adjustment of the Hot-fill up to 300 mm – programmed at the touch screen

**5004** PT100 temperature sensor. Equipped with an alarm for monitoring product temperature, entered at the touch screen – if the product temperature falls below the minimum temperature, the alarm starts

**5005** PT100 temperature sensor – with data log. Equipped with an alarm for monitoring product temperature, entered at the touch screen – if the product temperature falls below the minimum temperature, the alarm starts. Data log for saving temperatures, batch no., date and time. The data can be saved at a USB pen

**5006** Remote dispensing by pulse to tray sealer or deep-draw etc. The Hot-fill is prepared to receive signal from other machines

**5007** Pistol with start/stop by footswitch for dispensing directly into canteens, roasting pans, soup buckets - 3 m D25 tube

**5009** Quick switching between 8 different scales of weights – by a single touch at the touch screen, it is possible to select a new scale of weight

**5010** Dispensing by pulse. For dosage of product, where the packing is not placed at the plate

**5013** Filling valve for Hot-fill Dos 2 – D38. For dispensing of product containing large particles

**5014** Silent built-in air compressor

**5015** Filling valve for bottles

**5018** Knee control, start of the bag welder. Left mounted

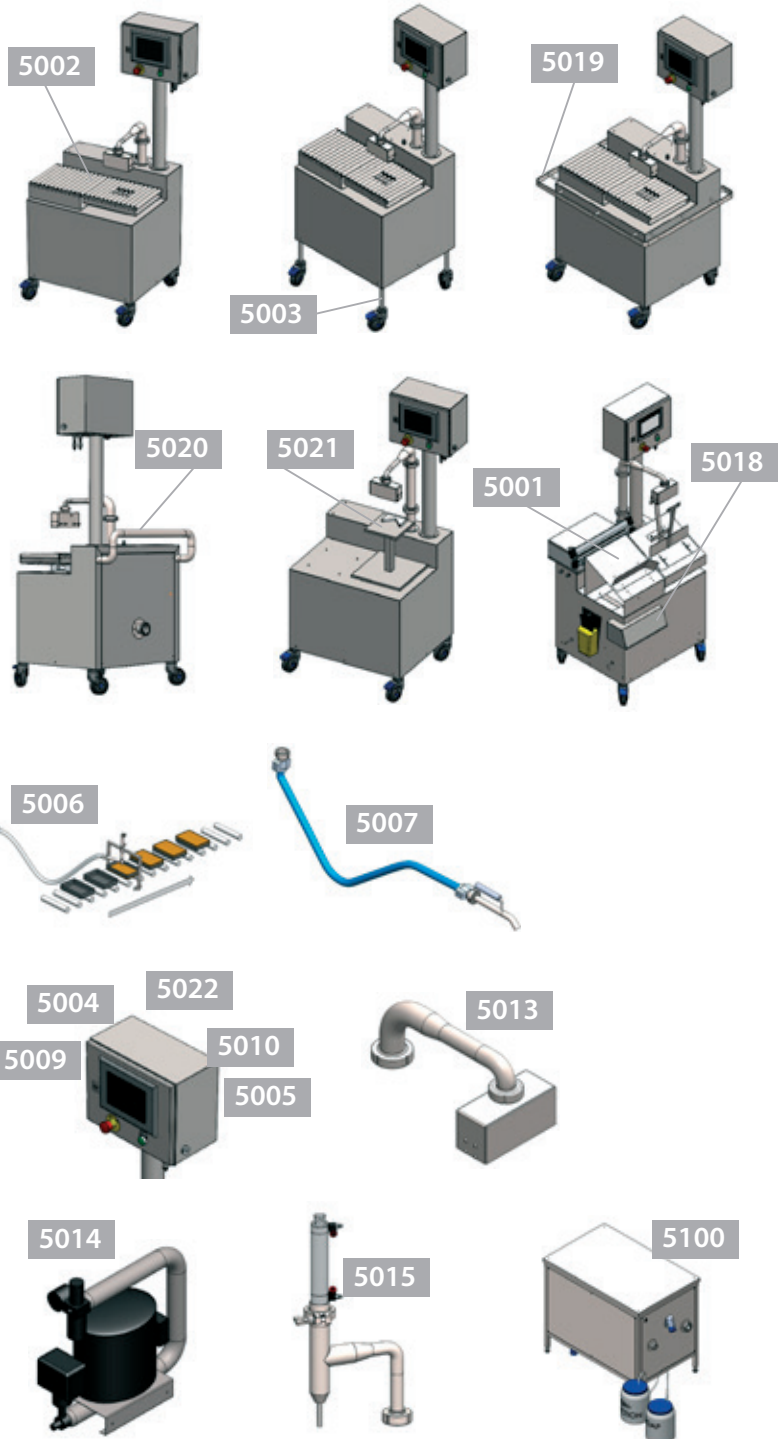
**5019** Bumper for Hot-fill Dos 2

**5020** Safety handle for moving Hot-fill Dos 2

**5021** Height adjustable platform – for different heights at trays, bottles and buckets. The platform is mounted with adjustable fixation placing the tray etc. under the filling valve

**5022** Auto-timer – for time dosage

**5100** Fully automatic CIP Unit for Hot-Fill Dos 2 For cleaning of all tubes and pipes



## HOT-FILL DOS 3



## Fully automated HOT-FILL with automatic bag-packing and automatic CIP-cleaning

Our fully automated HOT-FILL DOS 3 ensures the responsible and efficient dispensing of food products into bags.

Dispensing hot food products is normally associated with a number of health and safety risks. These risks are minimized with a fully automated dispensing system. The controls make sure that the operator avoids any direct contact with the 90°C hot product. The automatic bag-packing unit seals the bags once they are filled. Furthermore the need for lifting products over long distances is reduced since the ready packaged dishes are transported from the filling station to the operator via a small conveyer belt. This prevents inappropriate working positions.

### Perfect portions

HOT-FILL DOS 3 ensures uniform portions. The quantity is controlled via the touch- screen display. The display also controls how quickly the product is to be dispensed allowing for flexibility in the workflow.

The fully automated HOT-FILL DOS 3 sucks the product directly from the kettle and is fitted with a temperature alarm consistently ensuring the correct temperature of the product.

# HOT-FILL DOS 3

## The process step by step:

- ◆ The suction tube is fitted to the kettle
- ◆ The desired quantity per bag is entered on the touch-screen display
- ◆ Press Go
- ◆ The bags are produced automatically by the bag-packing unit which is fed from a roll of plastic foil fitted on the Hot-Fill
- ◆ HOT-FILL DOS 3 sucks the product from the kettle filling the desired quantity into the bags
- ◆ When the batch is completed the CIP system is fitted by mounting the CIP tube to the bag machine
- ◆ The CIP system cleans all internal parts like tubes, pipes, valves and pump
- ◆ The fully automated cleaning system applies detergent and disinfectant automatically.

### Main features:

- Produced in stainless steel designed for easy cleaning
- Dispenses mashed potatoes, soups, sauces etc, particle size up to 30 mm.
- Dispenses directly from the kettle into Hot-Fill bags
- Fully automated cleaning system
- Touch-screen display
- Temperature alarm with data logging. Built-in USB data logging for logging time and temperature
- 0,5 kg to 5 kg HOT-FILL bags made from plastic foil roll



## Technical specifications

### BAG-PACKING UNIT

**Power supply:** CEE plug, 16 A fuse, 400 Volt  
Type B RCD 300mA

**Air supply:** 7 bar, 400 l per min.

**Drain:** 100 mm in diameter

## Technical specifications

### HOT-FILL/CIP FOR BAG-PACKING UNIT

**Power supply:** CEE plug, 32 A fuse, 400 Volt  
Type B RCD 300mA

**Cold water:** 3/4", 2 1/2" bar

**Hot water:** 3/4", 2 1/2" bar

**Drain:** 100 mm in diameter

## Accessories

**HOT-FILL DOS 3** comes with pulsed portions. Also available with weighed portions.

# Sous-Vide

## Custom made Sous-Vide solutions for your specific needs



*Touch screen display to control cooking and cooling*



*Core temperature probe to precise temperature control*



*Lid is tight and lightened*



*Baskets and, racks are included in the delivery*



# Custom made Sous-Vide solutions for your specific needs

## Food production process example:

Casseroles cooked in the morning are dosed hot directly from the kettle to sous-vide bags. The pump doses even portions with scale or accurate power-time setting, only one work phase needed for this. After sealing the bags are chilled down in our efficient sous-vide basin.

During first batch chilling the next batch is cooked in kettle or some other dish in sous-vide bags in oven. After cooling the first batch is finished, it is moved to a cold room and the next batch is put in to cooling basins.

The last batch in the evening is meats requiring long cooking times. The meats in sous-vide bags are put in to baskets and fitted with core temperature probe. During the night the meats are cooked gently according to preset programme and when cooking process is finished products are cooled automatically.

In the morning meats are cooked and cooled and ready to be moved for cold storage. The basin is ready for next cooling batch. Maybe there is a batch of overnight cooked food in the Metos SelfCooking Center waiting for cooling.



### Main features:

- For sous-vide cooking and cooling
- Sizes 54-500 kg
- Precise temperature control 2-99°C
- Automatic cooling
- Touch screen
- Core temperature probe
- Delta-T and two cooking sequences for example pasteurising at the end of cycle
- Temperature alarm with data logging. Built-in USB data logging for logging time and temperature
- Baskets, trolleys, racks, lift and chiller included in the delivery
- Stainless steel construction, easy to clean

# Sous-Vide

## Technical specifications: Sous-Vide basins

PROD. NO	55080	55126	55190	55250	55300	55378	55450	55500
Kg / batch	80 kg	126 kg	190 kg	250 kg	300 kg	378 kg	450 kg	500 kg
Water consumption (L)	330	425	600	750	900	1100	1250	1400
Depth (mm)	1304	1304	1304	1304	1304	1304	1304	1304
Width (mm)	1764	1764	2164	2564	2854	3364	3764	4164
Height (mm)	1094	1094	1094	1094	1094	1094	1094	1094
Power (kW)	28	35	42	50	58	65	72	80
Current (A)	51	63	80	100	116	130	140	160
Drain (Ø)	100	100	100	100	100	100	100	100
Cold water	3/4" 3 bar	3/4" 3 bar	1" 3 bar	1" 3 bar	1" 3 bar	5/4" 3 bar	5/4" 3 bar	5/4" 3 bar
Hot water	3/4" 3 bar	3/4" 3 bar	1" 3 bar	1" 3 bar	1" 3 bar	5/4" 3 bar	5/4" 3 bar	5/4" 3 bar
Boiler, 7,5 kW	3	4	5	6	7	8	9	10
Baskets	10	14	21	28	35	42	49	56

## Technical specifications: Chiller

Chiller	ANL 070	ANL 070	ANL 090	ANL 150	ANL 150	ANL 200	NLR 280	NLR 300
kW	14,3	14,3	19,4	29,4	29,4	37,4	44,6	51,2
Amp	13,5	13,5	17,3	26,0	26,0	34,0	48,0	55,0

### Sous-vide saves the taste:

- Ensures tender meat
- Retains the aroma and the quality
- Preserves food longer
- Minimizes shrinkage

### Sous-vide system advantages:

- Timesaving
- Flexibility
- Easy workflow
- More hygienic products
- More productivity
- 50 recipe library



# Sous-vide systems feature a crane minimizing heavy lifting



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