

# ROBOT 500

Continuous automatic vacuum sausage filling machine



**VETMAG**

# This is the continuously operating automatic

For decades, VEMAG has been supplying continuous automatic vacuum sausage filling machines to more than 80 countries throughout the world. On the basis of these many years of experience, a continuous automatic vacuum sausage filling machine has been developed for small and medium-sized companies.

The ROBOT 500 is a continuously operating automatic vacuum sausage filling machine which, in particular, fulfils the specific demands of a small or medium-sized company. Its dimensions are small and the standard model is equip-

ped with a 40 litre hopper. On request, the machine can also be supplied with a 90 or 190 litre hopper.

As a vacuum sausage filling machine with an infinitely variable vacuum ranging from 0% to 96% final vacuum, the machine offers the small meat processing company, in particular, new quality features for its range of sausage and meat products. This is because evacuated sausage meat has a better meat colour and a longer shelf life, is filled more compactly and the sausage has a crisper taste.

A **continuous process** is guaranteed by the open filling hopper. There are no pauses during the filling operation caused by refilling the machine; as a result, less production time is needed than with conventional piston filling machines.

The ROBOT 500 can produce **portions** ranging from 10 to 10,000 g. The volume of the portion is set using 4 buttons on the electric **Portiomat**. With the vast portioning range available, it is possible to produce goods of constant weight for sale in the shops.

Sausage products are **twisted** via the **pivoting twist drive**. The number of twists between sausages is freely adjustable between 0 and 4.5. It is set with a button of the Portiomat. The wide setting range for the twists has an advantageous effect on the gentle forming of the end of the sausage and, on the other hand, it prevents excessive casing consumptions or the need to turn the sausages again on the curing spit.

The twist drive is designed for attachment of an **automatic casing holder**

## Twist drive

By fitting a pivoting twist drive, the vacuum sausage filler becomes an automatic portioning and twist linking unit.

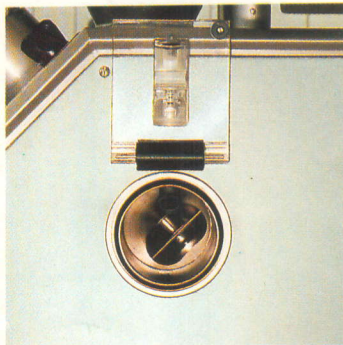
Without extensive dismantling operations, the machine can be set up for straight filling, portioning or portioning and twisting. The twist drive is easily pivoted into and out of position.

## Vacuum

The photograph shows clearly the vacuum duct in the machine with a vacuum flap and float valve. The vacuum pump located in the machine ensures an infinitely variable final vacuum of up to 96% for good evacuation of the product.

If the vacuum is set too high, the float valve prevents the product from flowing to the vacuum pump.

The vacuum duct leads to the rear of the feedworms it has a large dia-



meter and is consequently easily accessible.

## "Portiomat"

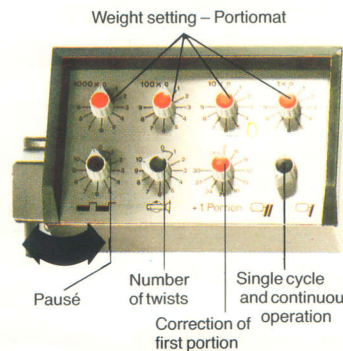
### portioning

The Portiomat is located in a pivoting housing and is consequently arranged to permit simple operation. On the Portiomat there are selector switches for

weight settings ranging from 10 to 10,000 g, as well as buttons for setting the pauses between the portions and the number of twists between sausages.

The function of the toggle lever can be changed from single cycle to continuous operation using a further selector switch.

By using a clipper control unit, clippers available on the market can be controlled in synchronism with the portion.



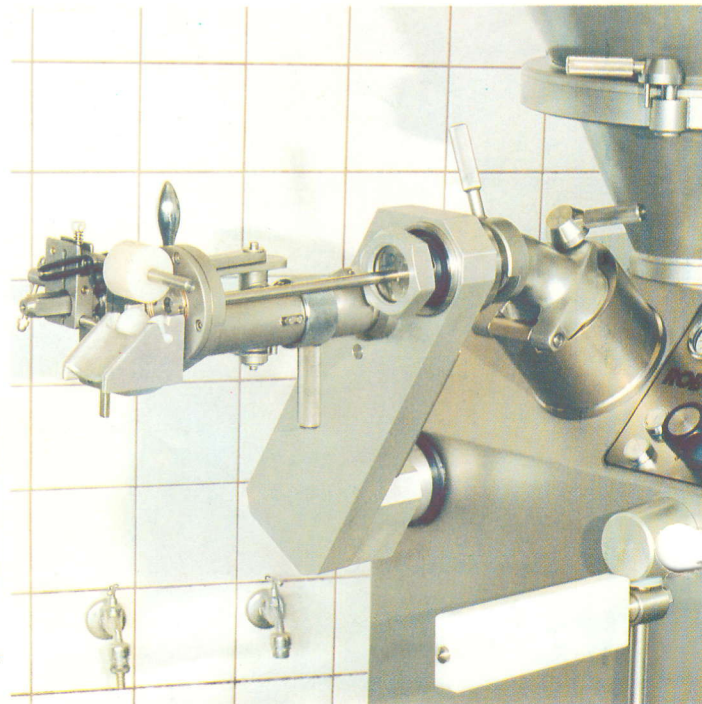
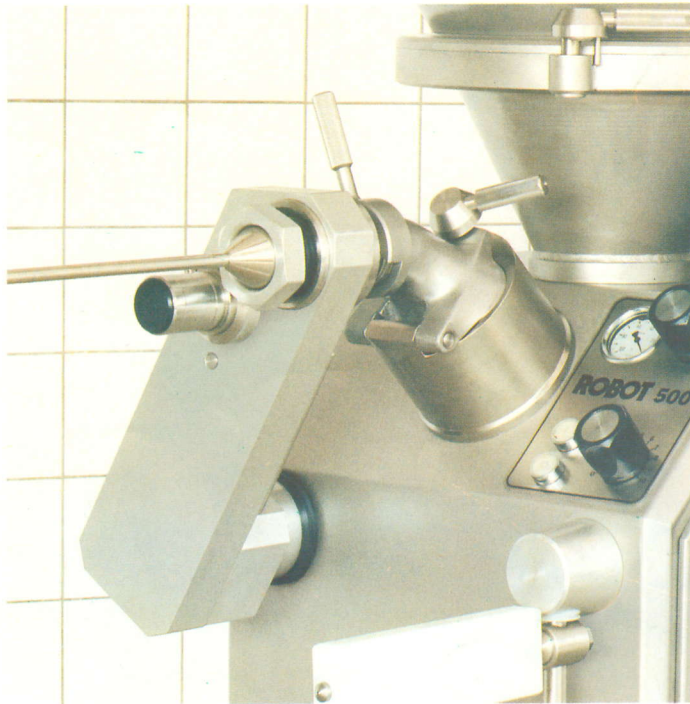
## Casing holder

The casing holder type 835 is used to automate the twist operation still further on the automatic vacuum filling machine ROBOT 500.

With the casing holder, natural, col' and other synthetic casings can be twisted.

The firmness of the sausage can be adjusted via a knurled screw, even during the filling operation.

Even with the casing holder attached, the twist drive can be removed and the machine converted to straight filling.



# vacuum sausage filling machine ROBOT 500

type 835, with which both natural and collagen synthetic casings can be twisted.

It is possible to **change casing types**, even with very small batches, without a great deal of work or loss of product.

An infeed scroll in the hopper ensures that the latter is emptied. The actual feed system, a double-screw pump, generally called a feed worm, is self-cleaning as a result of its helical movement and it feeds the product gently to the machine outlet.

The product remaining in the filling nozzle and filling nozzle holder can be scraped out by opening the filling nozzle holder slightly.



## Filling nozzle holder

The filling nozzle holder is hinged. The design permits simple, rapid removal of residual product when changing production or cleaning.



## Filling hopper

Practical use of the ROBOT 500 has shown that, depending on the size of company and the specific batches to be handled, different sizes of hoppers are necessary in order to be economical. Therefore, the standard ROBOT 500 is equipped with a 40 litre hopper or, at an extra charge, with a 90 or 190 litre hopper.



## Infeed scroll

The ring gear and infeed scroll are used to transfer the product of the filling system – the feedworms. The component has no unnecessary chambers and seals and can be removed easily for cleaning.



Sausage meat path

## Feedworms

The heart of the machine is a double-screw pump, generally known as the feedworms. It operates evenly and without pulsation and feeds the product gently and cleanly. The feedworms are self-cleaning. The front section is used to convey the product and the vacuum is applied to the rear section of the feedworms.



## Can filling

Special curved filling nozzles are available for filling cans, jars and other containers with various products. These nozzles are provided with scraper plates or rubber nozzles, according to the product used.



## Instrument panel

The instrument panel is located in the immediate vicinity of the operator. The buttons to set the vacuum and filling speed, the vacuum gauge and the "ON" and "OFF" push-buttons are located on the instrument panel.

## Hygiene

The body of the ROBOT 500 is manufactured from stainless steel. No heavy parts need to be removed or dismantled for cleaning purposes. The ROBOT 500 has vertically adjustable feet which ensure not only a firm support, but also easy cleaning of the floor below the machine.

The ROBOT 500 is available in 3 different models:

1. as a continuous vacuum sausage filling machine (pump) for straight filling
2. as a continuous vacuum sausage filling machine with attached portioning unit
3. as a continuous automatic vacuum sausage filling machine for portioning and twisting.

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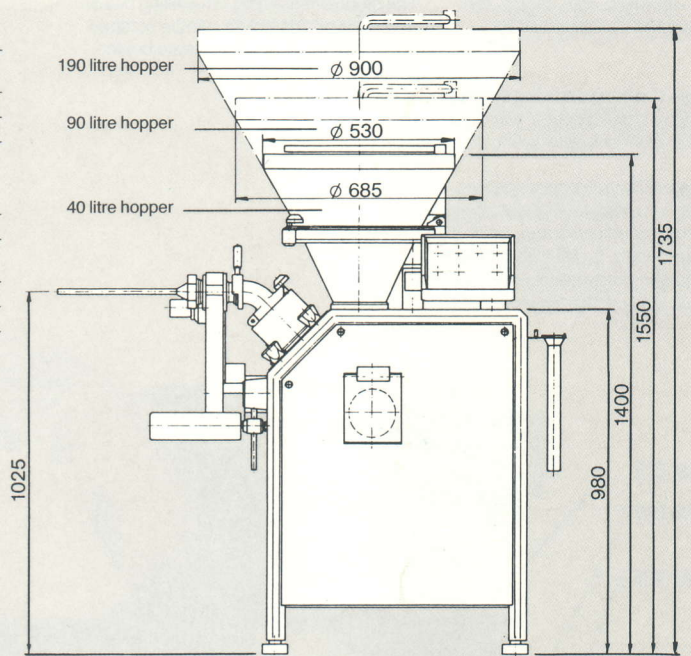
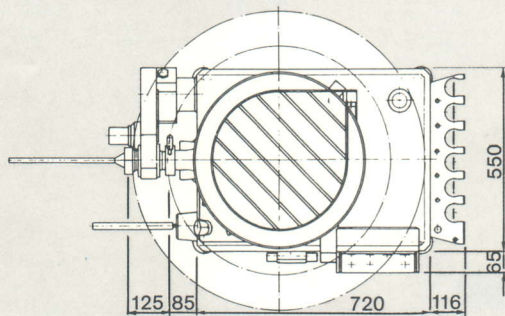
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# Small in dimensions, but high in output

## Technical data – ROBOT 500

Filling pressure	up to approx. 20 bar	Rating	4 kW
Filling capacity	up to 2200 kg/h	Fuses	3 × 2.5 A, slow-blowing
Portion weight	10 – 10.000 g	Supply line cross-section	4 × 25 mm <sup>2</sup> Cu
Infinitely variable number of twists	0 – 5 turns	Supply line length	5 m
Portioning speed		<b>Weights</b>	
at 25 g	approx. 300 portions/min.	Machine	376 kg
at 50 g	approx. 230 portions/min.	Machine with Portiomat 874	382 kg
at 100 g	approx. 180 portions/min.	Machine with Portiomat 874 and twist drive 849	405 kg
at 200 g	approx. 120 portions/min.	Extra weight with 90 l hopper	8 kg
<b>Electrical connection</b>		Extra weight with 190 l hopper	20 kg
Voltage	3-ph. a.c., 220/380/415 V, 50 Hz or 220/380/440 V, 60 Hz		



## Accessories

The accessories for the ROBOT 500 include filling nozzles which can also be used for manual twisting, also a complete set of tools. A bracket fitted to the rear of the machine holds the filling nozzles and tools for the machine. Above the filling nozzles, you will find a cleaning ram to enable simple, rapid cleaning. In this way, product in the filling nozzles is removed rapidly and completely and a change of production is completed in a very short time.

## Service

to VEMAG is not a slogan, but an important means of looking after our customers throughout the world. Our dealers in the Federal Republic of Germany, our agents in countries abroad and our experienced and mechanics demonstrators are available at short notice. The services of our experts are not restricted to repairing or servicing a machine – they will also provide advice on optimum utilisation and application.



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Infeed scroll  
Filling nozzle holder  
Feed worms

Instrument panel  
Portiomat  
Vacuum

