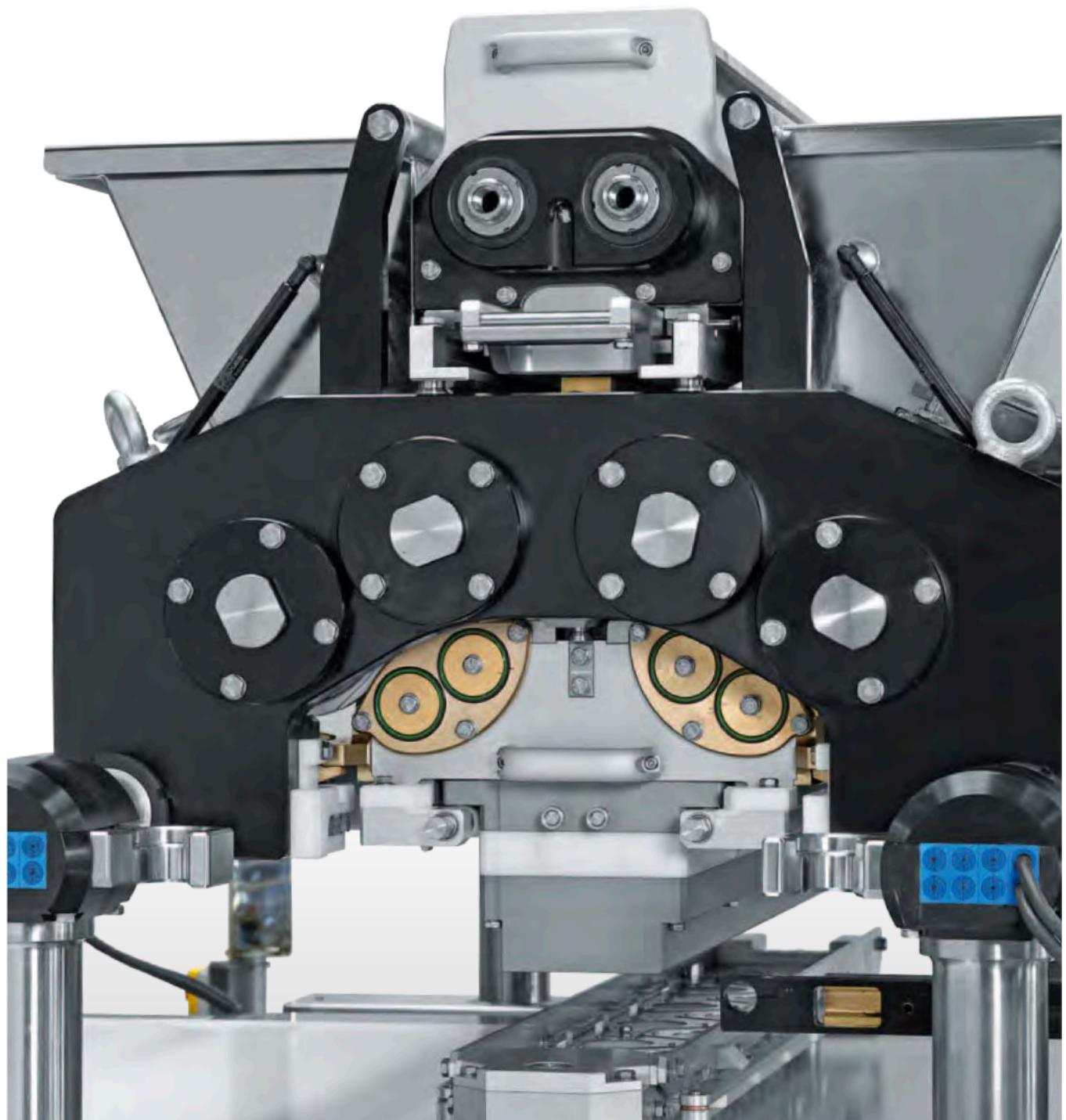


V60 SYSTEM – DEPOSITING, EXTRUDING AND WIRE-CUTTING

For the highest capacity and accuracy





YOUR ADVANTAGES AT A GLANCE

INTRODUCTION

We see more and more sophisticated products on the market. Products with fun shapes and in many colors or products with delicious fillings inside and exciting particles in the outer dough. With a V60 depositing, extruding and wire-cutting system it is easy to meet your customers' requirements of equipment for innovative products. The V60 system is based on more than 20 years' experience in designing and supplying of triple depositing and extruding systems. The system handles semi-liquid batters, soft deposited dough, stiff wire-cut dough, chocolate fillings and even low-fat extruded applications.

YOUR BENEFITS

- ▶ The V60 system is designed to grow with your business and your requirements. Therefore you can have the V60 machine with either one, two or three depositing heads. If you start with two depositing heads, you can upgrade the machine by applying an extra head for more product variety.
- ▶ The fact that it is possible to switch between the three depositing heads or use them all at one time makes the production highly flexible.
- ▶ The machine is very compact, designed to have the shortest dough flow possible ensuring an even dough pressure across the pump houses.

- ▶ The system has the highest capacity and accuracy. Equally important, the machine can make deposited, wire-cut or extruded products with up to three masses. You can also use the V60 depositing system for an injection. Furthermore, the machine allows a very gentle handling of inclusions such as chocolate, nuts or fruit pieces.
- ▶ The V60 system also comprises a comprehensive assortment of decorating equipment as for example egg washing machines, sprinkling by roller or vibration, guillotines and roller cutting machines.

FEATURES

- ▶ Very exact depositing of the dough leads to products with consistently accurate weight and shape.
- ▶ All the necessary parts of the V60 unit are accessible from the operator side for ease of operation and maintenance.
- ▶ Due to full recipe control, the production output can be changed easily and quickly. This reduces downtime and gives a more effective production.
- ▶ The nozzle plates and pump house can be pulled out easily and reinstalled from the operation side whenever you want to clean the machine or change nozzle plates. Furthermore, the hoppers are tiltable for easy cleaning of feed rollers.
- ▶ All machines have a cleaning-in-place (C.I.P.) function.

CONSISTENTLY ACCURATE WEIGHT AND SHAPE



INNOVATIVE TECHNOLOGY AND INDIVIDUAL SOLUTIONS
FOR A BROAD VARIETY OF PRODUCTS

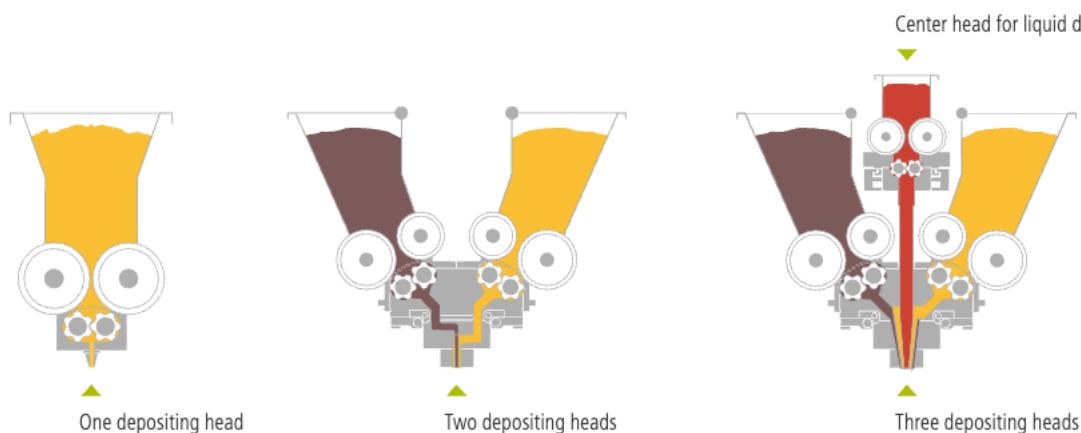
V60 1–3 DEPOSITING AND EXTRUDING HEADS



OPERATING PRINCIPLES

The V60 depositor/extruder comes with one to three depositing heads as seen below. If you have two depositing heads, the heads are entirely identical, but are mounted in a laterally reversed position. Later on, a center head can easily be mounted. The heads are fitted with feed rollers for heavy dough and can be sealed for liquid materials. The machine allows for a quick change of production and enables you to

combine the different depositing techniques, e.g. from depositing with one depositing head to depositing with two depositing heads and one jam depositing head. The V60 machine is designed to give an extremely short material flow path from the metering pumps to the nozzle opening. This gives you greater flexibility regarding the range of materials that can be processed as well as an accurate extrusion and deposit.



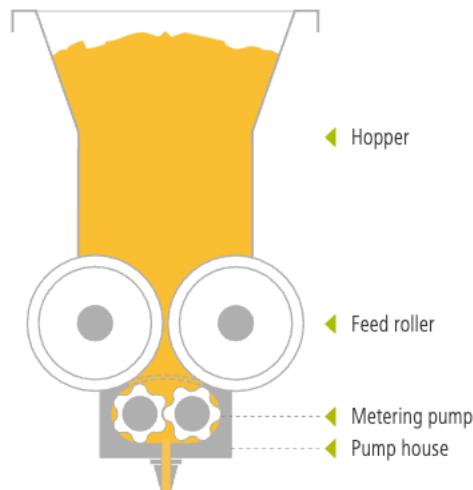
DOUGH METERING

UNIQUE CONCEPT

The unique metering principle of the V60 system is suitable for forming or extruding continuous ropes of various masses and dough types, from semi-liquid masses to stiff, normally wire-cut masses.

OPERATING PRINCIPLE

The accurate dough metering is achieved through an individual metering pump for each nozzle. The metering pumps are of the positive displacement lobe-rotor type giving a gentler and lower pulsating dough flow. This ensures that the mass is metered with the highest accuracy across the conveyor. The gear teeth are big enough to allow large inclusions in the mass, yet small enough to minimize pulsation. The rotation of the metering pumps is controlled by an electric servomotor, resulting in an exact metering of the product. To stop the flow of the product when depositing individual pieces, a reversal of the metering pumps creates a vacuum. This results in a very uniform finish of the deposited product with no tailing.

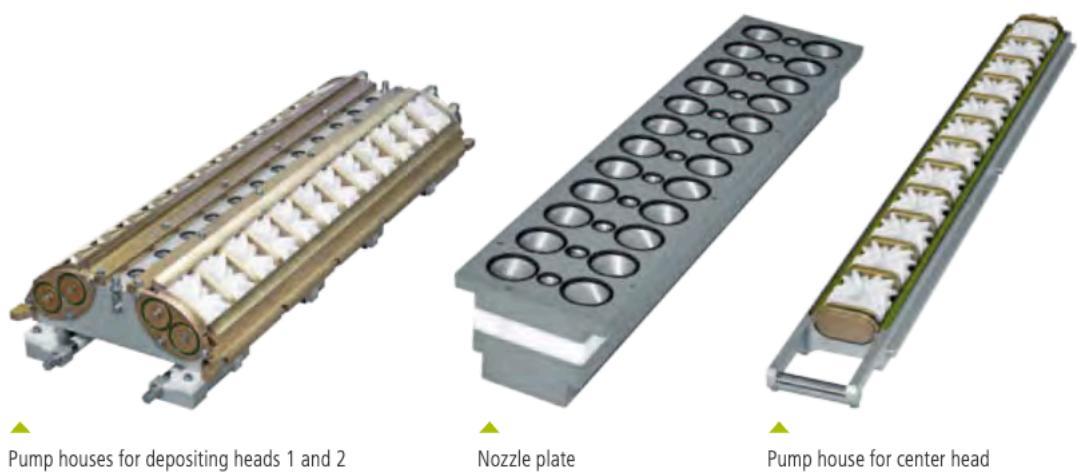
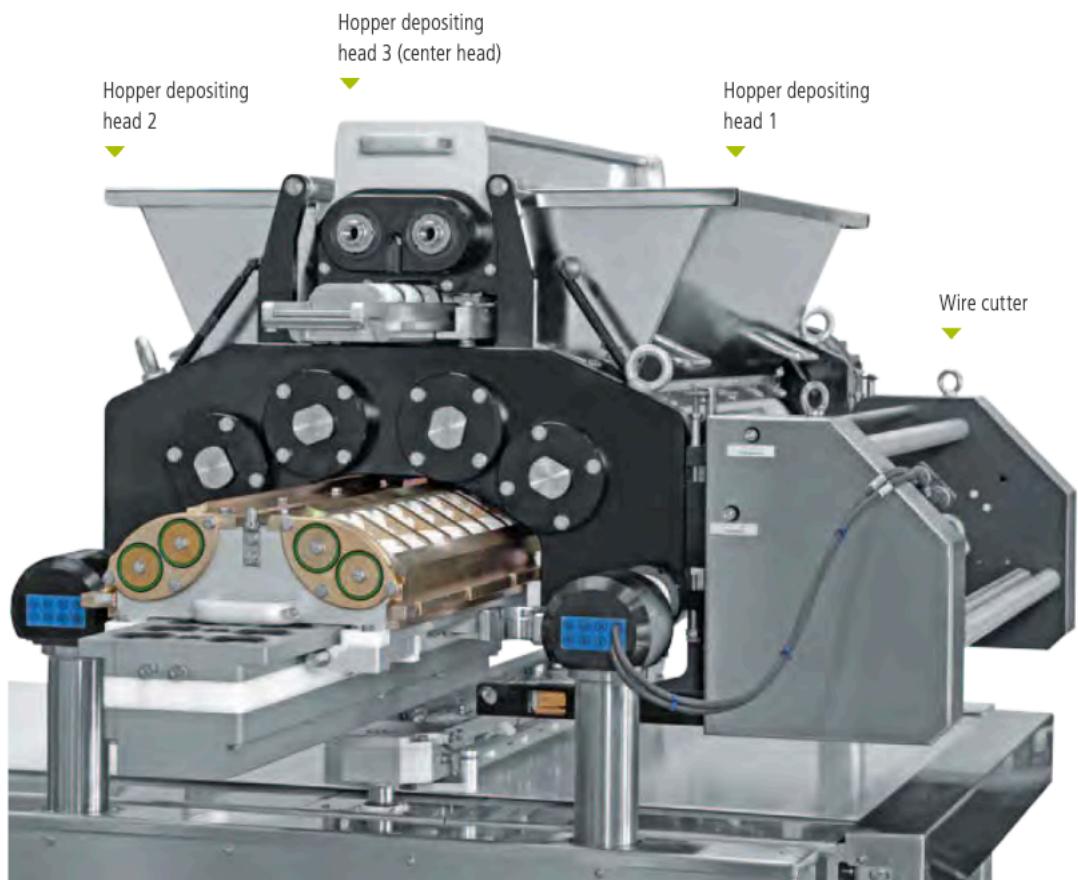


FEED ROLLERS IN DEPOSITING HEADS

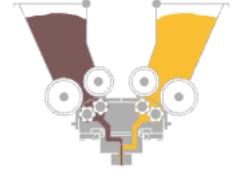
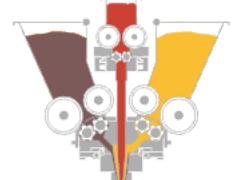
1 AND 2

To ensure a uniform feeding of the product to the metering pumps, the V60 machine is fitted with two large-diameter feed rollers per depositing head. The feed rollers build up a uniform pressure in a cavity above the metering pumps in order to ensure a constant supply of product to each metering pump. For very liquid masses the feed rollers can be fitted with sealed guards to keep the hopper completely tight.





BASE AND DEPOSITOR HEAD – MAKE A CHOICE

The products illustrated on the right should be seen as representing product groups.	TYPE 4220 height-adjustable rack for building-in or with plastic conveyor	TYPE 4230 height-adjustable rack base with servolifting device shown with optional plastic conveyor and conveyor lifting device	TYPE 4240 base with servo-lifting device for conveyor belt and servo-pacing motion including plastic conveyor
			
			
			
WIRE-CUTTING*	V60-1 single servo motor driven 120 rows / min twin servo motor driven 200 rows / min		
EXTRUDING*	10 m / min	10 m / min	10 m / min
DEPOSITING*	–	with conveyor start/stop 60 rows / min	70 rows / min

*) Capacities stated are only a guide. Pacing motion approx 50 mm; stiff dough, long pacing motion and large products may reduce the capacity.



TYPE 4250 base with cam disc lift and cam disc pacing motion for installation in a steel band line	TYPE 4265 base with cam disc lift and servo pacing motion for installation in a steel band line	TYPE 4275 base with cam disc lift and cam disc pacing motion for installation in a steel band line	TYPE 4280 base with cam disc lift and servo pacing motion for installation in a steel band line	TYPE 5260 base with mechanical wire-cutting mechanism. All wire-cutting motions are adjusted on the operator panel during operation
V60-1	V60-1			V60-1, V60-2, V50-3, 5100, 6100
single servo motor driven 120 rows/min twin servo motor driven 200 rows/min				(single-row) 300 rows/min
10 m/min	10 m/min	10 m/min	10 m/min	–
90 rows/min	90 rows/min	V60-1: 90 rows/min V60-2: 70 rows/min V60-3: 60 rows/min	V60-1: 90 rows/min V60-2: 70 rows/min V60-3: 60 rows/min	–

V60 – AT A GLANCE



DEPOSITOR, EXTRUDER AND WIRE CUTTER TYPE V60 WITH ONE DEPOSITING HEAD (Compare Type 4250 page 9)

EXTRUDER AND WIRE CUTTER TYPE V60 ON HEIGHT-ADJUSTABLE FRAME (Compare Type 4230 page 8)

With the V60 extruder and wire cutter you can extrude up to three masses. The extruder is mounted on a height-adjustable frame for placement over the existing steel band or for extrusion on an intermediate decorating conveyor. By adding a servo-driven wire cutter, this machine can also make wire-cut products with up to two masses. The decoration conveyor can be placed before the oven band or above the baking band before the oven. On the decorating conveyor it is possible to mount all the decorating and cutting equipment; of course with automatic return systems for excess materials.

DEPOSITOR, EXTRUDER AND WIRE CUTTER TYPE V60 WITH ONE, TWO OR THREE DEPOSITING HEADS (Compare Type 4275 page 9)

The depositor, extruder and wire cutter type V60 with one, two or three heads is designed for the depositing of various masses and dough types, from semi-liquid dough to heavy wire-cut dough. The machine is well suited for products such as butter cookies, biscuits, cup cakes, co-extruded and triple extruded bars, encrusted cookies just to name a few.

DEPOSITOR AND WIRE CUTTER TYPE V60 ON PLASTIC CONVEYOR WITH SERVO-DRIVEN PACING AND UP/DOWN MOTION OF CONVEYOR BELT (Compare Type 4240 page 8)

This base can be equipped with up to three heads for depositing, extruding and wire-cutting. Furthermore you can add different tools for making deposited products with fillings completely encapsulated. The V60 heads are mounted on a base that has a servo-driven pacing mechanism together with a servo-driven up/down motion of the plastic conveyor belt. This enables you to make all kinds of deposits including swirl products on the plastic conveyor. Furthermore, it is possible to add decoration and cutting equipment and mount it on the conveyor before delivering the products to the baking conveyor. The plastic conveyor is equipped with a sharp nose transfer that makes it possible to transfer very soft, deposited products.

ADVANTAGES

- ▶ Heavy-duty extrusion and wire-cutting
- ▶ Very compact unit giving full flexibility on a small footprint
- ▶ Quick changeover
- ▶ Easily dismountable for cleaning
- ▶ High weight accuracy
- ▶ Exact dosing
- ▶ Many accessories for new products
- ▶ All drives are servo-controlled

ACCESSORIES

- ▶ Servo-driven wire cutter
- ▶ Guillotine cutting
- ▶ Roller knife cutting
- ▶ Jam extrusion
- ▶ Jam depositing
- ▶ Egg washing
- ▶ Sprinkling systems for decoration with automatic return systems
- ▶ Gauge roller
- ▶ Printing/engraving roller
- ▶ Water-jacketed hoppers
- ▶ Decoration conveyors
- ▶ Depositing nozzles
- ▶ Rotatable nozzles
- ▶ Slingerspritz system
- ▶ Servo-driven up/down motion of conveyor belt
- ▶ Iris cutter for encrusted products
- ▶ Die stamping equipment for encrusted products
- ▶ Roller cutting for decoration on top of encrusted products

TECHNICAL SPECIFICATIONS

- ▶ Standard working widths 600, 800, 1000, 1200 or 1500 mm
- ▶ Static height adjustable ± 50 mm
- ▶ Pacing motion 0–80 mm (4230 excepted)
- ▶ Drive control servo-electrical
- ▶ Control system: HMI-based color screen with recipe control



ACCESSORIES

THE IRIS CUTTER CONCEPT

Consumer trends show a growing demand in new multi color products with different fillings, for example chocolate cookies with creamy chocolate inside or multicolor cookies with fruity fillings. These products can be summarized under the type of encapsulated products. Dough with one or two colors, one or two different fillings are only some of the possible combinations done on the V60. To produce those complex products Haas-Meincke has developed the 'Iris Cutter'. Dough colors and fillings are deposited with the highest accuracy and are then cut by closing blinds which ensure that no filling leaks out and the shape is constantly the same. The Iris Cutter is suitable for all

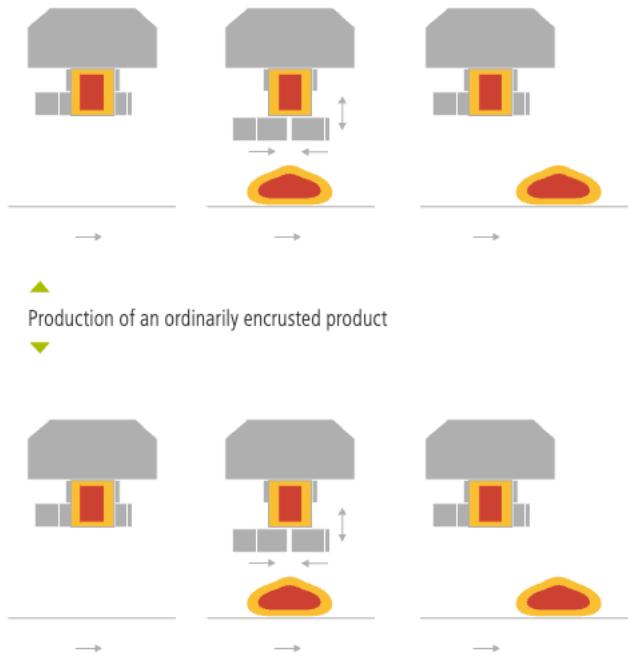
types of dough, even with inclusions and different types of fillings. The Iris cutter is perfect for the production of high-quality encapsulated products. The basis for the production of finely shaped encrusted products is a simple encrusted product. The products are refined after depositing by die stamping or pattern rolling.

REFINEMENT

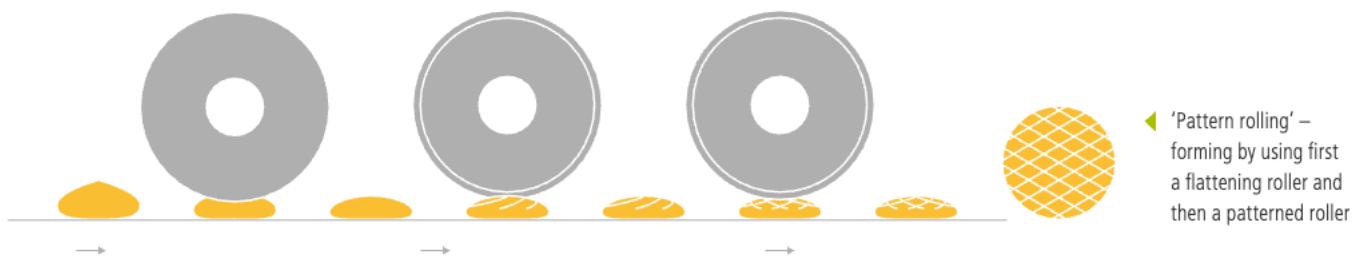
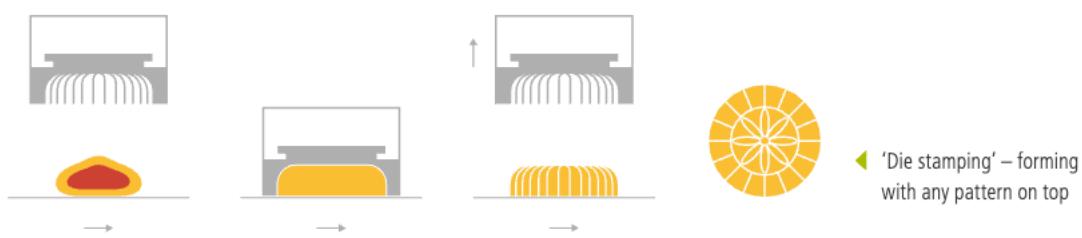
- ▶ **'Die stamping'**: the encrusted product can be formed with any pattern on top.
- ▶ **'Pattern rolling'**: The encrusted product can be formed by using first a flattening roller and then a patterned roller.



◀ 'Iris cutter' system for the production of encapsulated products



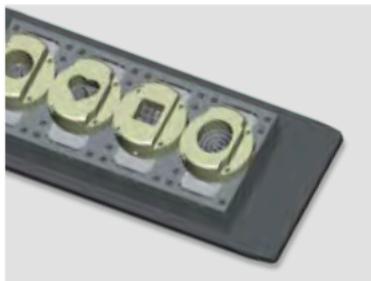
▲ Production of an ordinarily encrusted product
▼



PRODUCT VARIETY THROUGH ENCAPSULATED PRODUCTS

NOZZLE PLATES AND NOZZLES

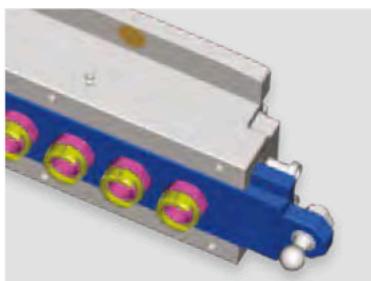
With a Haas-Meincke depositor you can produce a wide variety of products, formed in a countless number of ways. By adding for instance a die plate which can rotate the nozzles or move the nozzles across the oven band, the product portfolio can be enriched with new exciting, geometric shapes.



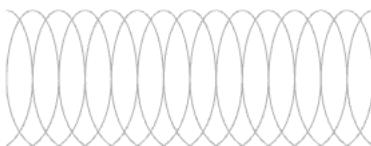
▲ 'One-two-three' die plate



▲ 'Swirl' die plate



▲ 'C50' die plate



▲ 'Twist' die plate

'One-two-three' die plate

With the 'one-two-three' die plate you can transform new ideas into marketable products in a very short time. The die plate makes it possible for you to produce wire-cut products with up to three masses and with a variety of inclusions.

'Swirl' die plate

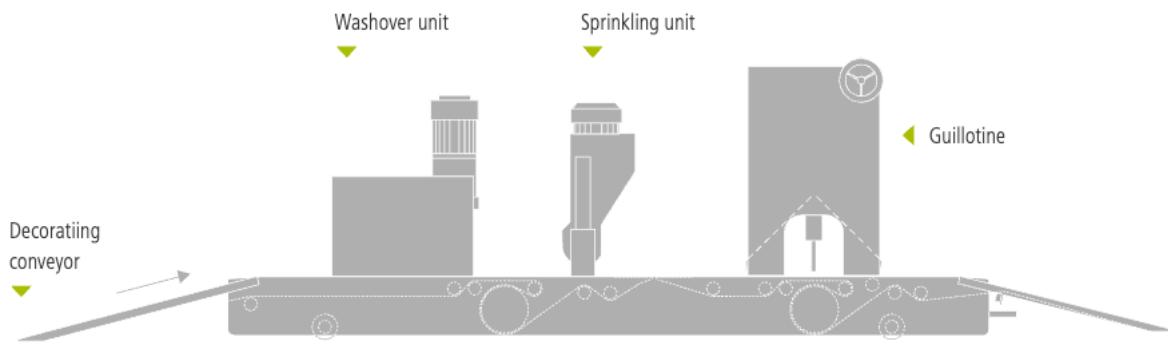
The 'Swirl' die plate makes it possible to rotate a nozzle 360 degrees around its center axis. The die plate is designed in a single- and a double-row version. With the double-row die plate, two rows of products at each cycle can be made, or two products can be placed on top of each other.

'C50' die plate

The 'C50' die plate is applicable for the depositor type V60. It is possible to move the nozzle up to 50 mm across the operating direction of the baking band. With a die plate the products can be decorated with e.g. chocolate or sprinkling material. This can be done across or at the ends of the product without turning the product 90 degrees before it passes the decorating equipment. You are also able to produce zigzag and S-shaped products.

'Twist' die plate

The 'Twist' die plate combines up to three different masses, one or two fillings and dough. This enables you to make novel and exciting products. The possibilities are almost endless. The C50 swirl and twist die plates are all servo-driven, giving you the highest degree of flexibility and precision.



Decorating conveyor

The decorating conveyor can diversify the products in a simple way. It is placed between the depositor/wire cutter/extruder and the oven band in order to egg wash, sprinkle and finally cut your products, depending on your requirements.

Washover unit

The washover unit is used for the application of egg wash, water, or other liquids to biscuits and similar products. It can be provided with different washover brushes/rollers for the application of liquid over the entire production width and is placed above a continuously running conveyor.

Sprinkling unit

The sprinkling unit is used for decoration and can be used with almost any kind of material i.e. granulated sugar, castor sugar, whole and chopped nuts, almond flakes, sesame seeds, poppy seeds, salt and various spices.

Guillotine

The guillotine is designed to cut soft ropes of dough. Guillotine capacity for soft dough: 0–200 cuts/min with an electric servomotor.

Mini depositor

The mini depositor is especially suitable for the depositing of liquid substances, jam, cream, icing, ketchup as well as fruit and candy substances. The mini depositor can be supplied with integrated feed rollers in the hopper.

Servo-driven wire-cutting device

The wire-cutting device is driven by a servomotor via a cam disc. The stroke length is adjustable for optimum cutting and placing of the products onto the conveyor band. The cutting can be done by a fixed wire or an oscillating knife to achieve distinct appearances on the surface of the product and to be able to handle a large variety of particles in the dough. Capacity for type 120: only with wire frame – no oscillating knife. Capacity for type 200: 200 cuts with fixed wire frame and 200 cuts with oscillating knife blade frame.

'Cigar' cutting device

The mouthpiece is mounted with two servo-driven cutting plates placed directly above and below each other. Each cutting plate has holes equivalent to the mouthpiece. When dough is extruded through each hole across the mouthpiece it is cut off by means of the holes in one of the cutting plates moving sideways. This is particularly suitable for products with big inclusions. Capacity up to 80 cuts/min.

Mini depositor



Servo-driven wire-cutting device



'Cigar' cutting device



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