

# FORMING SYSTEMS FOR A WIDE DIVERSITY

All types of skinless products





## AT THE CUTTING EDGE WITH FORMED PRODUCTS

Variety of products due to diverse process options



**Forming systems from Handtmann are the right solution for producers who want to be a part of the trend towards new product diversity. The automatic production of formed products with various feed materials and cross-sections widens the range of modern, contemporary product ideas for today's consumers.**

Handtmann offers forming systems for various different processes.

- Forming systems with diaphragm for small-scale, medium-scale and industrial producers
- Forming systems with filling flow divider for medium-scale and industrial producers

The vacuum filler, which loads and controls the forming systems efficiently, is at the heart of the process. Visualisation of the product possible on the monitor control system screen – based on the input of forming parameters, the product shape is shown in a graphic representation and the process parameters are calculated. Gentle feed of the filling product and portioning accurate to the gram by the vane cell feed system guarantee first-class product quality.

With formed products, optional use of the integrated Handtmann inline grinding system technology facilitates even further improvement of the product quality due to protection of the product. With the grinder head integrated at the vacuum filler, the product is ground to its final grain size and simultaneously portioned in one process step. This reduces the cutting work and decreases the number of process steps. Augmented by the automatic and individually controllable separating device for gristle, product reliability is guaranteed. The production of formed products is optimised in terms of process technology and quality.





↑ 79-0 dumpling forming device



↑ RF 440 round former



## FORMING SYSTEMS WITH DIAPHRAGM

For a variety of trend products from small-scale to industrial producers

### 79-0 dumpling forming device

The 79-0 dumpling forming device, which can be attached directly to the vacuum filler outlet, ensures accurately formed dumplings with maximum portioning accuracy. The vacuum filler continuously feeds the dumpling forming device. The portioning size of the dumplings is determined by a diaphragm. Two diaphragm outlets form and alternately portion each individual dumpling.



### RF 440 round former

With diaphragm sizes from 10 to 94 mm, the RF 440 round former facilitates a wide variety of products and shapes: spherical, conical and oval products. Impressive form accuracy is ensured by a diaphragm with perfectly-fitting contours. Continuous production makes up to 150 portions per minute possible with maximum weight accuracy. The modular structure of the system allows for further options – the 446 conveyor belt and the 446-30 flattening belt is used for producing burgers with homemade quality.



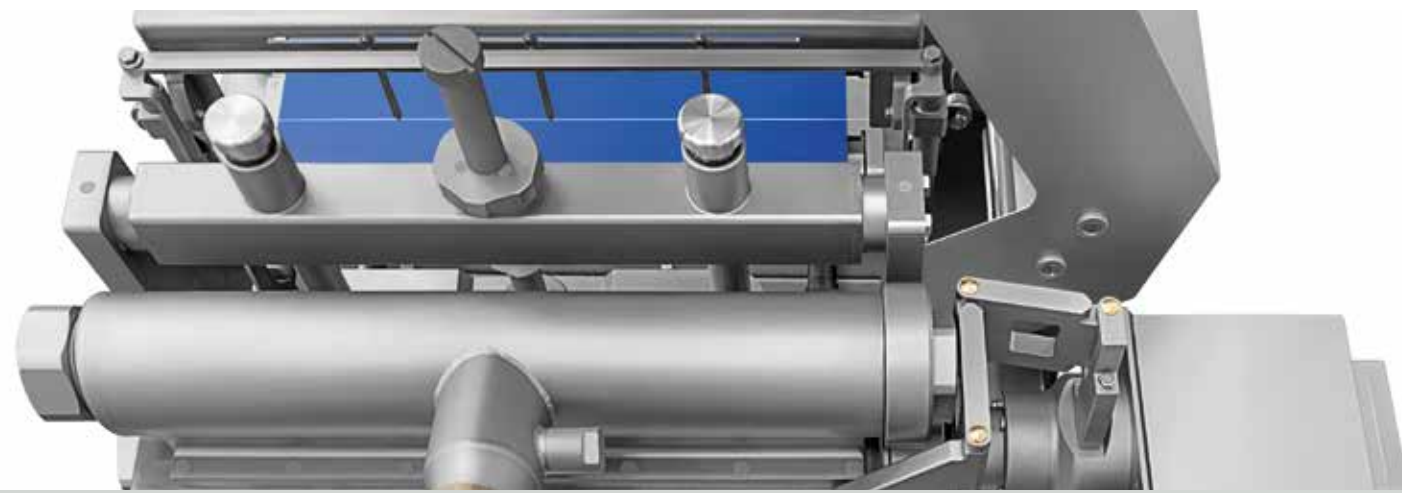
### PRODUCT EXAMPLES

- Meat processing: hamburgers with homemade quality, rissoles, balls
- Vegetarian products: vegetable burgers, cheese croquettes, potato burgers
- Dumplings: potato dumplings, bread dumplings, vegetable dumplings
- Soup add-ins: sausage meat dumplings, semolina dumplings, liver dumplings
- Fish products: fish balls, fishcakes, fish burgers, fish rissoles
- Dough processing: various dough, sweet products

**One system for a wide variety of products and shapes.**







# FORMING SYSTEMS WITH FILLING FLOW DIVIDER

Reliable production of new products with fully-automatic forming

**Continuous production of formed products creates new market potential for forward-thinking processors. As industrial production of long, dimensionally stable, skinless products with various feed materials and cross-sections is a valuable addition to the product range.**

Handtmann forming systems with filling flow divider boast an efficient process. The filling product is fed to the filling flow divider by the vacuum filler. Precise portioning is facilitated by the servo-driven filling flow divider. Weights accurate to the gram for each product and lane are thus guaranteed. The choice of various filling flow dividers from 2 to 24 lanes ensures flexibility. The desired product shape is created using mould components positioned at the outlet. This gentle treatment creates first-class product quality. The formed products are transported on a conveyor belt or transferred to containers and systems for further processing.



## FS 521 FORMING SYSTEM

For dumplings, cylindrical products, sticks and 3D shapes  
Optionally in water or oil bath systems, laminating systems or subsequent conveyor belts



## FS 522 FORMING SYSTEM

For burgers, balls, cylindrical products and 3D shapes on conveyor belts with a flattening belt or optionally in water or oil bath systems, laminating systems or subsequent conveyor belts



## FS 510 FORMING SYSTEM

For cylindrical products, sticks, 3D shapes, special shapes such as stars, hearts etc.  
Positioned on a conveyor belt or on supplied racks/trays



## FS 520 FORMING SYSTEM

For burgers, balls, cylindrical products, 3D shapes and special shapes positioned on a conveyor belt or on racks/trays



## PRODUCT EXAMPLES

- Meat products: cevapcici, dry sausage sticks, mini rissoles or rissoles
- Vegetarian products: vegetable sticks, cereal bars
- Convenience products made of potato products: croquettes
- Dough products: pastry snacks, cookies, chin chin
- Fish products: fish fingers, fish croquettes
- Dairy products: cheese sticks and cheese croquettes
- Pet food: sticks, pellets



# Product overview

Models at a glance

The forming system portfolio provides the right model for every production requirement – from the entry-level model to the industrial high-performance model. Extensive flexibility in terms of application and products is ensured.

Forming system	Target group	Application	Performance parameters
<b>79-0 dumpling forming device</b>	Small-scale producers Medium-scale producers	<ul style="list-style-type: none"> <li>Dumplings and balls</li> <li>In vats/containers</li> </ul>	<ul style="list-style-type: none"> <li>Attached to the vacuum filler outlet</li> <li>Diaphragm 50 or 70 mm</li> <li>Up to 300 portions/min.</li> <li>Product size up to max. 60 mm</li> </ul>
<b>RF 440 round former</b>	Small-scale producers Medium-scale producers	<ul style="list-style-type: none"> <li>Burgers, dumplings</li> <li>Spherical, conical and oval</li> <li>On a conveyor belt</li> <li>Optional flattening belt</li> <li>Optional structuring roller</li> </ul>	<ul style="list-style-type: none"> <li>Forming module on machine base</li> <li>Diaphragm 10 to 94 mm</li> <li>Up to 150 portions/min.</li> <li>Belt height 850 to 1,000 mm</li> <li>Flattening belt 10 to 55 mm</li> </ul>
<b>MBF1 forming system</b>	Medium-scale producers Industrial producers	<ul style="list-style-type: none"> <li>Burgers, oval burgers, balls, sticks</li> <li>Round, square, longish, special shapes</li> <li>On a conveyor belt</li> <li>Integrated flattening belt</li> <li>Structuring rollers</li> </ul>	<ul style="list-style-type: none"> <li>1-lane forming system</li> <li>Up to 400 cycles/min.</li> <li>Product size 10 to 85 mm</li> <li>Product weight 5 to 350 g</li> </ul>

Forming system	Target group	Application	Performance parameters
<b>FS 510 forming system</b>	Medium-scale producers Industrial producers	<ul style="list-style-type: none"> <li>Dimensionally stable and skinless products</li> <li>Cylindrical products, 3D shapes</li> <li>Onto a conveyor belt or rack</li> </ul>	<ul style="list-style-type: none"> <li>Forming module on machine base</li> <li>Separating with blade or wire</li> <li>Up to 250 cycles/min.</li> <li>6 to max. 24 lanes</li> <li>Product size up to max. 80 mm</li> <li>Belt width 600 mm</li> </ul>
<b>FS 520 forming system</b>	Medium-scale producers Industrial producers	<ul style="list-style-type: none"> <li>Burgers, balls, cylindrical products, 3D shapes, special shapes</li> <li>Onto a conveyor belt or rack</li> </ul>	<ul style="list-style-type: none"> <li>Forming module on machine base</li> <li>Rotating hole plate system</li> <li>Up to 250 cycles/min.</li> <li>6 or 8-lane</li> <li>Product size up to max. 65 mm (correspondingly larger when flattened)</li> <li>Belt width 600 mm</li> </ul>
<b>FS 521 forming system</b>	Medium-scale producers Industrial producers	<ul style="list-style-type: none"> <li>Dumplings, cylindrical products, 3D shapes, special shapes</li> <li>Optionally in in water or oil bath systems, laminating systems and subsequent conveyor belts</li> </ul>	<ul style="list-style-type: none"> <li>Forming module with mobile transport trolley</li> <li>Rotating hole plate system</li> <li>Up to 250 cycles/min.</li> <li>2 to max. 8 lanes</li> <li>Product size up to max. 65 mm</li> </ul>
<b>FS 522 forming system</b>	Medium-scale producers Industrial producers	<ul style="list-style-type: none"> <li>Balls, burgers, cylindrical products, 3D shapes, special shapes</li> <li>On conveyor belt with flattening belt</li> <li>Optional structuring roller</li> <li>Optionally in water or oil bath systems, laminating systems and subsequent conveyor belts</li> </ul>	<ul style="list-style-type: none"> <li>Forming module with mobile transport trolley and conveyor belt</li> <li>Rotating hole plate system</li> <li>Up to 250 cycles/min.</li> <li>2-lane (only with conveyor belt) or 4-lane with a vat application</li> <li>Product size up to max. 65 mm</li> <li>Belt width 300 mm</li> <li>Flattening belt width 280 mm</li> </ul>





## ADVANTAGES DUE TO A RANGE OF SHAPES

Today's consumers want variety

A wide range of products and variety are in demand. Handtmann provides the suitable solutions. Continuous production of formed products makes it possible to be a part of consumer trends and exploit new market potential.

### FLEXIBILITY

- Large range of applications for pasty products: meat, convenience products, dough etc.
- Outstanding system flexibility due to simple adaptation to product versions

### PRODUCT QUALITY

- Excellent product appearance due to extremely gentle processing
- Guaranteed reproducible, top quality product standards
- Well-formed products with maximum form accuracy Efficiency
- Individual portions accurate to the gram due to excellent portioning accuracy
- High level of productivity due to the continuous process
- Efficiency and process reliability due to simple handling

### COST REDUCTION

- Portions accurate to the gram reduce give-away and costs
- Low maintenance and running costs
- Optionally with the Handtmann Communication Unit software (HCU) for complex production control and monitoring

### PROCESS RELIABILITY

- High level of system availability and reliability, including as a module in complex process chains and handling systems
- Perfect hygiene conditions due to a reduction in manual intervention

## INCREASE IN EFFICIENCY DUE TO PRODUCT HANDLING

The most productive way of producing formed products

Produce a wide variety of formed products fully-automatically. Product handling makes this possible. Continuous production with increased potential for automation, almost unmanned production and in-line packaging – Handtmann product handling systems provide the opportunity to further automate the production process.

Forming systems have a modular design. Standard components, such as the vacuum filler and the inline grinding system, are the basis of these systems. Modules from depositing through to packaging facilitate a compact and complex line configuration, tailored to individual production requirements.

### 1. PLACING FORMED PRODUCTS DIRECTLY INTO TRAYS

**Vacuum filler, MBF1 forming system, VRB1 retraction belt and tray denester**

The Handtmann vacuum filler portions accurate to the gram, the MBF forming system produces precisely formed products, the synchronised VRB1 retraction belt conveys the products gently and precisely into the trays provided by the tray denester. Single, shingled or stacked. Individually and in quantities of your choice.

### 2. TRANSFERRING FORMED PRODUCTS FOR FURTHER PROCESSING

**Vacuum filler, MBF1 forming system and VRB1 retraction belt**

Without a tray depositor, depositing onto subsequent conveyor belts, cooking and frying systems or packaging machines are possible as an alternative.

### 3. MODULAR WITH MINCED MEAT PORTIONER AS A TURNKEY SOLUTION

**GMD minced meat portioner instead of the forming system**

The compatibility of the modules makes it possible to use the GMD minced meat portioner instead of the forming system for the continuous production of minced meat portions or formed products.

### ADVANTAGES

- Wide variety of products with just one line
- Excellent hygiene standards without manual intervention
- Ensured product shelf life due to continuous, hygienic process
- High production performance due to a continuous turnkey solution
- Significant cost savings due to reduction of staff
- Guaranteed process reliability due to precise product depositing



**Patents (USA/Canada):**

8,997,614

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