

RevoPortioner

Perfectly portioned products of consistent quality



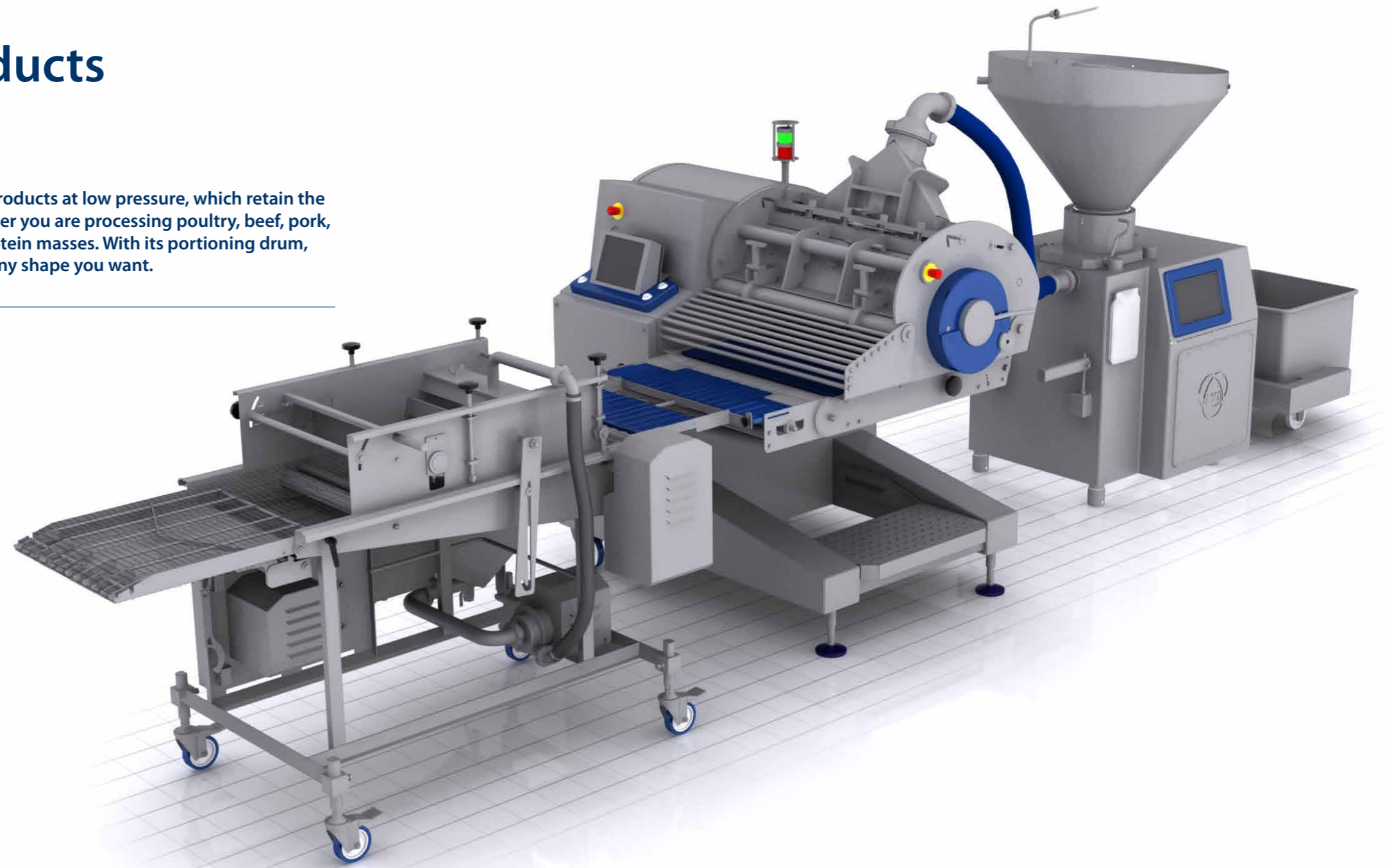
- Low pressure portioning
- Suitable for all proteins
- Products released with only air
- High capacity

Perfectly portioned products at low pressure

With the Marel RevoPortioner you can make perfectly portioned products at low pressure, which retain the texture and structure of your raw material. It doesn't matter whether you are processing poultry, beef, pork, fish or meat replacers. RevoPortioner copes beautifully with all protein masses. With its portioning drum, which is quick and easy to change over, you can make practically any shape you want.

RevoPortioner ensures that each product will always have the desired shape, weight, size and be of uniform quality, exactly according to your wishes. Combine that with high process capacity, minimal leakage and very low maintenance costs and an extremely short payback time you will understand why RevoPortioner is so successful.

We can put the perfect portioning system together for your needs. RevoPortioner is available in various executions, for several belt widths up to 700 mm / 28" and will link up perfectly with the rest of your line.



Product variety

When development of the RevoPortioner began in the late 1990s, it was of paramount importance that the system had to be able to produce products automatically, at high volume and on different belt widths for a wide range of meat masses. Product quality, expressed as structure and bite, had to be perfect.

The RevoPortioner range contains a large amount of research and knowledge, all based on the wishes and requirements of a loyal customer base. Examples of some of the products which you can make with these machines are hamburgers, nuggets, schnitzels and three dimensional products such as tenderloins, steaks and fillets. It is even possible to portion large, or very thin products - products with a definite edge or very small products such as fingers and popcorn - thanks to the technology that uses only air instead of pushers and water for the discharge of the products.

With the same high quality results as red and white meat, RevoPortioner can also be used to portion fish, potato and meat replacement products.

RevoPortioner – strong features

- Suitable for meat protein masses (emulsion and whole muscle), potato, fish and meat replacement
- Low pressure which preserves texture and structure and gives the best possible mouth feel
- Consistent weights and perfect shape
- Accurate product positioning on the belt
- Virtually no leakage of raw product and no smearing
- High capacities possible
- Very low maintenance costs
- No water needed for product release
- Optimal product variety possible with portioning drums, which are quick and easy to exchange
- Very low noise emission
- Simple to operate and clean



Product quality

Operation

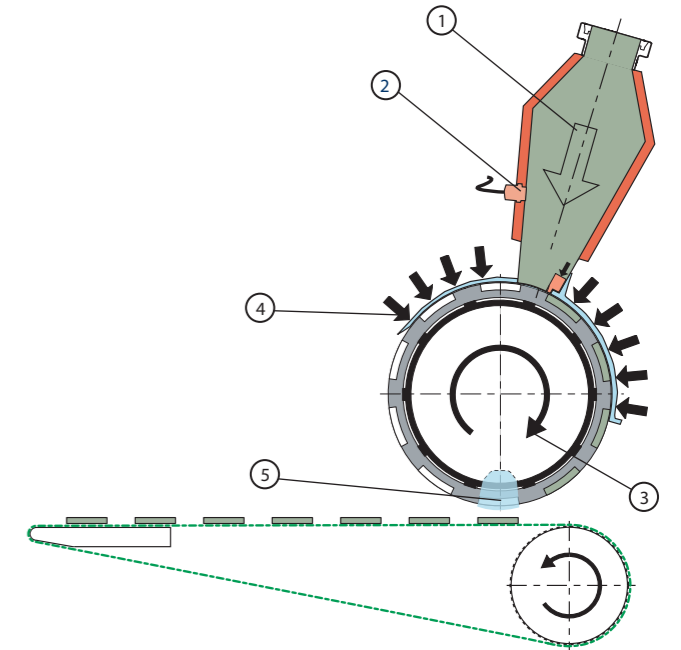
Product mass is transported at low pressure to the RevoPortioner portioning unit by a meat pump. The portioning unit portions the product mass while the drum determines product shape and dimensions.

From the pump the product mass is pressed at low pressure into the distributor housing (1). The distributor housing ensures equal distribution of the product mass over the width of the drum.

A pressure sensor (2) measures the filling pressure and controls the meat pump to maintain the filling pressure at a constant level.

A continuously rotating portioning drum (3) can be found at the end of the distributor housing. This drum is made from sintered stainless steel, through which air can permeate. As they pass the distributor housing opening, portions are filled by row with the product mass. The pressurized side plate (4) keeps the filled form under pressure ensuring consistent product shape.

At the blow-off position (5) portioned products are blown from the portioning drum using air pressure. After they have been blown off, portioned products move on a discharge belt to the next process step.



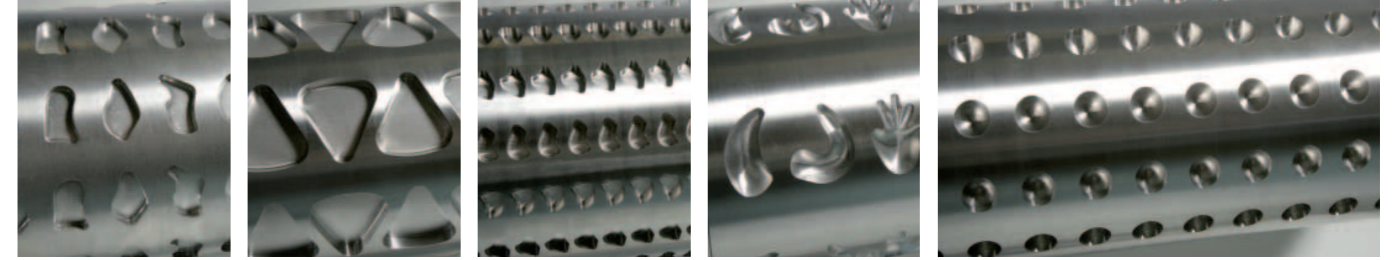
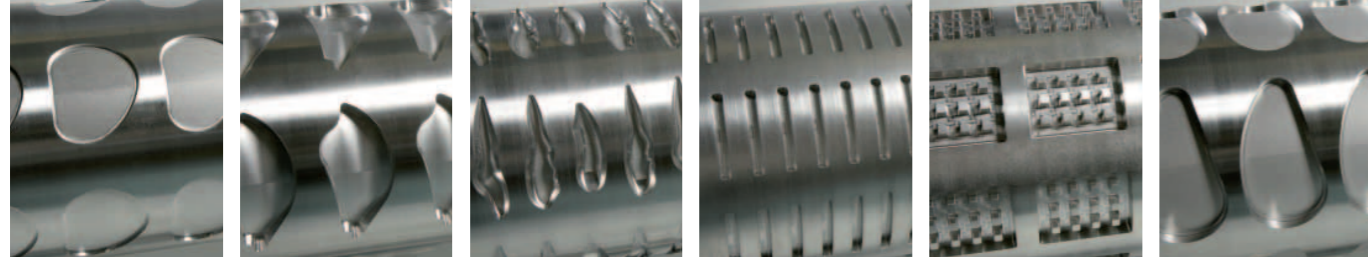
Low pressure

RevoPortioner portions at low pressure. This is attractive when the structure and texture of the raw material are to be preserved and is key for presentation and bite of the product, i.e.: its eating experience. Another advantage of working at low pressure is that there is practically no meat loss (minimal leakage). This saves raw material. When higher pressures are required for certain masses, this is also possible with RevoPortioner.

Product release using air

As RevoPortioner releases product with the help of only air, there is no need to use water. This ensures better product quality, certainly with fresh products. Using only air offers additional benefits, allowing complete control of both the process and product quality during downstream operations such as flouring, battering, breading, frying, cooking and the packing of (fresh) products. There is also less mess in and around the machine and saves on the cost of waste water treatment.





Machine design

Increased capacity

Besides quality, capacity will also be of great importance to you. Thanks to RevoPortioner's rotating portioning mechanism, it is possible to increase your portioning capacity. When compared to high pressure portioning technology, low pressure portioning can give three times as much capacity.

Flexibility

The RevoPortioner now has one universal frame for three belt widths (500mm, 600mm, 700mm / 20", 24", 28"), which determine how many products can be distributed simultaneously. Capacity can be increased in the future by moving up to a larger belt width with some adjustments to the frame. The drums from the previous model can also be used in the new model. There is also a smaller 400 mm version of the RevoPortioner for capacities up to 1,000 kg. per hour.

Drums

There are different types of drums available for RevoPortioner, giving you a broader area of application. The standard stainless steel drum is an enduring element that will accurately portion your products for many years. However, if you produce seasonal products or have another reason for needing a drum for shorter or smaller production runs, there is a suitable drum available. Alternatively, for test batches or development of new products, there is an X-drum (exchangeable drum) whereby the appropriate portioning segment is inserted into a space on the core drum.

Simple to operate

Operating RevoPortioner is simple, with a user-friendly operation screen. Pre-stored recipes are easy to retrieve via a touch-screen, where use is made primarily of recognizable icons. Teaching someone to operate the machine takes little time. You will be able to produce products quickly and flexibly.

Low cost

Portioning at low pressure keeps leakage to a minimum, and it is possible to portion at higher temperatures. In most cases when preparing product mass, you will not have to chill it as much. This gives you a direct cost saving. Another cost saving comes from the fact that less cold product enters the fryer or oven, resulting in less energy consumption of the fryer/oven.

The machine has been developed as a robust unit able to function for a long time without downtime. The machine contains a very small number of wear parts, which are also easy to replace. This means low maintenance costs.

Hygiene

During design, giving optimal access to the machine and making it easy to clean were taken into account. Its open construction makes it conveniently accessible. The portioning drum can be removed quickly and easily and is cleaned automatically on the inside and outside in a cycle of seven steps in a specially developed washer that can be used for all different drum sizes. After cleaning, the portioning drum is ready for the next production shift or can be stored in the specially designed storage rack. Because of the limited product leakage, there is also very little pollution of the machine and its surroundings. RevoPortioner works cleanly, so cleaning is quick and easy. The inside of the machine is very easily accessible for cleaning, providing increased hygiene.

Ergonomics

Its compact build makes RevoPortioner easy to move and position in line without using a forklift.

RevoPortioner has one side from which an operator can start up all available operations and functions using a clearly laid-out touch screen.

Part of the RevoPortioner system is an easy-to-handle hoisting unit for lifting portioning drums in and out of the RevoPortioner. When using this hoisting installation, operated by one person, portioning drums can be moved simply to the cleaning unit or storage rack. The storage rack has been specially designed to enable you to store portioning drums not in use in a safe manner. Both the hoisting unit and the storage rack can be used for all drum sizes.

Low noise level

RevoPortioner not only works cleanly, it also makes virtually no noise. Where a high pressure portioner is the noisiest machine in a further processing line, RevoPortioner is the most quiet.



The lifting unit easily moves the portioning drums to the cleaning unit or to the storage rack



The cleaning unit cleans portioning drums fully automatically both inside and outside





More information?

Low pressure, high volume

RevoPortioner is an excellent solution for low pressure portioning at high volume. It is a very flexible system, which can portion almost all masses into virtually any shape. RevoPortioner makes high quality products. Products are released by air, and the use of low pressure ensures that the structure and texture of the raw material is preserved in the best possible way.

Various widths and configurations

RevoPortioner is available in various widths and configurations. Whether you want to make low or high volumes, whichever raw materials you want to use, RevoPortioner is the perfect portioning solution. For more information on all the different possibilities, contact your local sales person.



Marel is the leading global provider of advanced equipment and systems for the fish, meat and poultry industries.