

PET FOOD





WE UNDERSTAND A THING OR TWO ABOUT PET FOOD

Most pet owners feed their cats and dogs ready-to-use food.

The trend goes towards premium nutrition as well as alternatives like BARF menus, organic and vegan food. As a manufacturer, you adapt your product recipes to the phases of the lives of cats and dogs, and to special health requirements, based on the latest scientific findings so that you can supply the best possible nutrition. Modern pet food often goes beyond pure nutritional value and offers other functional benefits. This trend is especially evident in snacks: functional treats like chewables for dental care, and variations to support the skin,

coat, joints and digestion are increasingly popular. As a producer of pet food, this means completely new potential sales as well as production challenges.

Automating your production processes using machines that are reliable, safe and flexible can help you to meet these growing demands. It helps to have a reliable partner by your side. That's why at VEMAG, you are at the centre of all our activities. Working in a continuous and close dialogue with our customers, we develop machines and attachments that meet your needs and offer high

performance, versatility and precision.

We will gladly advise you about how to make your production ready for the future.

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ENDLESSLY DIVERSE PRODUCTS

How do you want to design your product range?

There is a rising demand among animal owners, especially for premium products. As a producer, you face the challenge of responding quickly and flexibly to changing market requirements. That applies not only to ingredients but also to the type of food. From tinned food, to snack sticks, to bars and filled or unfilled pockets: with VEMAG, there are no limits to what you can manufacture. Our flexible machine systems allow you to extend your product portfolio whenever you want to.

The production possibilities are endless.



Cans/Jars

- Portioned Meals in Trays
- Canned Food
- Dog Sausage, Clipped Goods
- BARF Wholefood Meals

Dry Food

- Bars and Sticks
- Strips
- Pellets
- Chewable Snacks

EFFICIENCY AND PRECISION

Your endless options in processing.



Can Filling

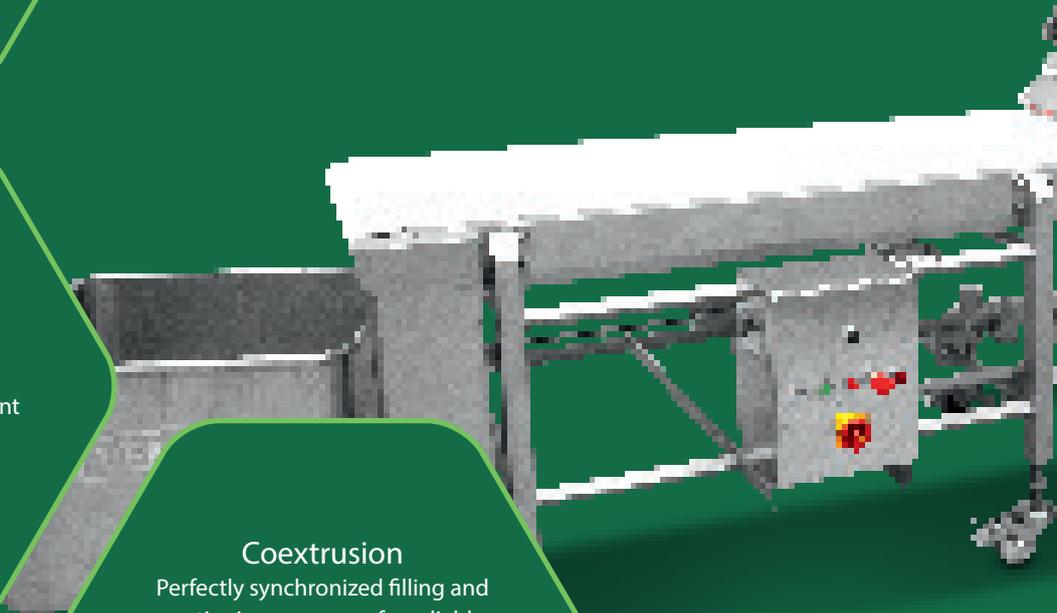
Accurate to the gram: filling jars, tins, cups uniformly and without dripping

Depositing

Precise depositing and dependable loading for an efficient packaging process

Coextrusion

Perfectly synchronized filling and portioning processes for reliable portion accuracy of combined products, inner filling (core) precisely positioned inside a completely closed outer product (envelope)





Filling

Gentle handling of raw materials and a continuous filling flow guarantee maximum product quality and a perfect subsequent processing

Dividing into Lanes

Perfectly divided filling flow into multiple lanes guarantees an outstanding portion control to the gram as well as a uninterrupted subsequent processing and automation

Forming and Cutting

Consistent forming and precise portioning, as well as clean cutting of the filling flow



FILLING



FILLING

Uniform, powerful performance and the utmost precision for the product you want to create.

The filling process plays an important part in the industrial production of pet food. Different parameters such as geometry, component size and function, from the inlet to the outlet, all influence fundamental product characteristics. You decide which properties your product should have, and we adapt our machine fully to your requirements. This helps you achieve perfect weight accuracy in your products, a drastic reduction of giveaway and big savings on resources and costs. Continuous product infeed, constant, powerful vacuum performance and gentle feeding of the filling material all ensure that the downstream attachments and

automated line systems are perfectly supplied with top-quality product.

Our powerful vacuum fillers feed your products carefully and along the shortest possible distance, with minimised dwell time: This prevents air inclusions and smearing, minimises leftovers and guarantees perfect hygiene.

The benefits:

- Exceptional product quality that meets your specifications
- Raw materials are processed gently
- Reduces giveaway and therefore saves money
- Ergonomic handling

The right double screw for every product



DIVIDING INTO LANES

Precision, lane by lane.

Our flow dividers are the perfect solution to achieving a consistent, multi-lane product application. The raw material is supplied by a fully continuous vacuum filler. Avoiding pressure peaks helps guarantee an excellent and even product quality combined with an absolutely identical output of multiple product strings. This allows the system to produce your quality products with precise weights under any production condition.

The design of our flow dividers is optimized in terms of flow-control and can be adapted entirely to your requirements: Number of lanes, diameter, centre to centre spacing, product shape – all of the above can be freely selected. Furthermore VEMAG

flow dividers can be integrated into many different production lines, including ones for the multi-lane processing of filled, viscous and fluid products.

Using the very latest flow divider technology, such as our patent offset rotor, we are able to do entirely without drive systems. This saves you as a customer on the cost of maintenance and power.

The benefits:

- Perfectly controlled filling flow guarantees accurate weights in every lane and in every application
- Thanks to an intelligent system that doesn't require any drive high product quality is guaranteed by avoiding temperature increase
- At the same time, there is no extra cost for energy and maintenance
- Easy to operate using a portioning computer

Precise multi-lane flow-control, flexible operation



FORMING AND CUTTING

Efficient and innovative machines for perfectly formed, versatile products.

Would you enjoy making perfectly formed products that you and your customers love? The VEMAG range of machines offers the right products for you. Our team of outstandingly trained technologists, designers and technical engineers are exceptionally customer-oriented. And what they love most is customising designs. The solutions we offer for products with exact weights that keep their shape are as diverse as the kinds of shape we can offer. Our machines form precise products made of all kinds of different raw materials, divide product flows accurately, and apportion mixtures into exact weights. Ball or drop shaped, cylindrical or ellipsoid, filled or unfilled: there are no limits to your creativity

since our machines are so versatile and flexible. The Ball Control Systems shape meat-based balls, The Cheese Block Former creates shapes of blocks or bricks. Interchangeable nozzle blocks on our flow dividers make it easy to change from one shape of product to the next.

VEMAG helps you open up new market shares with innovative products.

The benefits:

- Outstandingly formed products on account of gentle VEMAG filling technology
- Your innovative products can be reproduced reliably at a constant quality using highly developed machine technology, high-quality components and intelligent controllers
- Utilise resources optimally to maximise profits
- Ingenious machine designs make setting up quick and reduce downtime to a minimum
- Forming plates and nozzles are easy to change, facilitating diverse products
- Blade or wire for optimum cut quality
- Viscous products can be hot-filled

Forming and cutting exactly the way you want



CAN FILLING



CAN FILLING

Clean, quick portioning.

Moist pet food is often sold in tins and trays. Jars and tins especially are enjoying a renaissance because of growing resistance to plastic packaging. Our can filling systems are exact, fast and reliable when portioning mixtures that are anything between liquid and highly viscous. The edges of the cans remain clean and filled quantities are absolutely identical.

The lifting of the cans guarantees a perfect filling pattern from the bottom to the top. Your selected volume on the PC-Controller is portioned by a portioning cylinder through a filling head with a ball lock. The portions are cleanly separated at precise weight, with the help of a rotating blade around the ball.

The usual dripping is prevented. Even thick sinews are cut through easily.

This fully automated line portions multiple lanes into cups, trays and other containers. The filling speed is infinitely adjustable up to 120 containers per minute using the intuitive graphic display, thus, meeting the industrial requirements. Our can filling systems are extremely economical because they can portion so effectively, and they optimise production capacity.

The benefits:

- Products that nobody else can make: can even cut sinewy meat, such as raw ham hock, using a rotating blade
- Fast, precise filling
- Clean edges of receptacles
- Suitable for a wide range of viscosities, meaning flexible applications
- Flexible: a wide range of tin and jar formats and sizes
- Product can be fed in from either side
- Minimal giveaway and optimised manpower result in profitability
- Quick and easy to clean

Airfree filling by vertical lifting of can and lowering synchronized to filling speed



COEXTRUSION



COEXTRUSION

Flexible manufacturing for product diversity.

Crispy pockets and filled rolls: treats are all about what's inside. Filled products with thick, coarse and very soft fillings can all be made easily using the VEMAG range of machines. And they can be made in multiple lanes.

Combining different foods into one product opens up completely new possibilities and flavour experiences. It is a particularly effective way of setting yourself apart from

your competition and winning over your customers with ground breaking products.

Our machines position fillings precisely and close the ends securely. Products with open ends are of course possible too. The shape is retained even after preparation.

The benefits:

- High output
- Attractive product appearance and accurately distributed mixture thanks to proven VEMAG feeding technology
- Filling positioned accurately in outer product, ends closed
- High production output and constantly accurate weight – even in multi-lane applications thanks to patented flow divider technology
- Identically shaped products that can be reproduced daily guarantee high customer satisfaction
- Downstream automation and packaging systems can be supplied and controlled easily using centralised operation

Filling positioned accurately in outer product, closed ends





MULTI-LANE DEPOSITING AND LOADING

Efficient automation for the subsequent processing of your products.

If you are operating complex production lines and you want to divide your products up into multiple lanes so that they can be packaged automatically, you need a really good way of loading your products. VEMAG shuttle conveyors are available in different lengths, can be integrated perfectly into our production lines and are suitable for a wide range of products.

At up to 40 strokes per minute, they place down your products in the direction your packaging machine operates.

Our shuttle conveyors are the ideal addition to the FM250 forming machine, the MMP220 minced meat portioner and all VEMAG cutting systems.

The benefits:

- High rates of transfer to downstream processes on account of powerful servo drive
- User-programmed placement pattern allows product to be positioned to the nearest millimetre
- Can be used flexibly for a wide range of products
- Easy to operate
- Easy to clean using low pressure washers

High performance to efficiently feed downstream equipment



THE VEMAG MODULAR PRINCIPLE FOR MAXIMUM FLEXIBILITY

Modularity is what our machines are all about. And that means there are no limits to your product range.

THE VEMAG MODULAR PRINCIPLE FOR MAXIMUM FLEXIBILITY

VEMAG's big portfolio of machines, attachments and accessories is like a box of building blocks from which you can select the modules you want to assemble the solution for you.

For you as a user, it means that once you have purchased the core system, a VEMAG

filler, you can design your production the way you want using a combination of different attachments and suitable accessories. So you do not have to buy a new machine for new products: all you need is the right accessories or an attachment.

VEMAG attachments and accessories are

system components whose technology and operation are tailored exactly to our machines. That means you always have the perfect solution from a single source.



OUR MACHINES AND EVERYTHING THAT GOES WITH THEM

Our filling systems provide you with powerful, flexible systems that can be combined with our attachments and accessories to enable a wide range of products, efficiently supporting even the most complex production processes.



Ball Control BC236



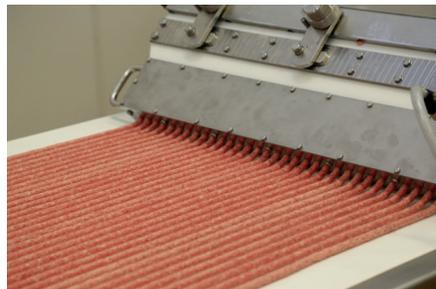
Ball Control BC237



2-up Crimper



FST883 - ASV811



FST883



FM250 forming machine



LPG208



Cup filling line



FKFII

OUR MACHINES AND EVERYTHING THAT GOES WITH THEM



Filling head



SC260-263 shuttle conveyor



MTL280-283

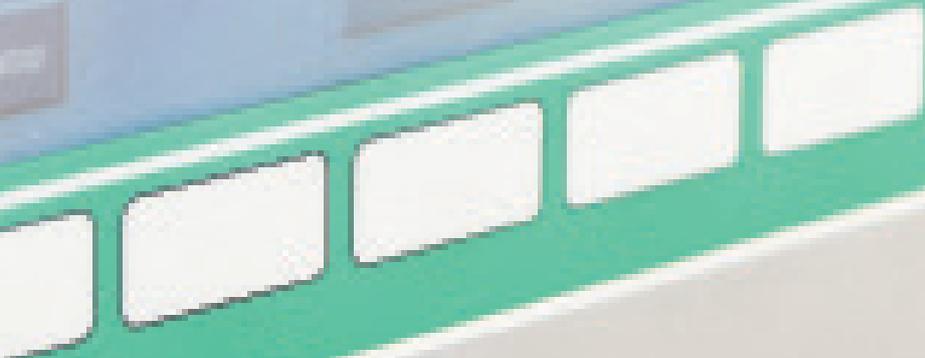


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**STRONG TOGETHER
FOR YOUR SUCCESS**





YOUR PRODUCT

...is Number One

At VEMAG, our top priority every day is to be there for our customers in every way. We consider your product the most valuable asset, and we want to protect it, refine it, improve it and make it even more professional.

That will give you an edge and your customers as well.

We develop, perfect and install every vacuum filler, every attachment and every complete line so that you can achieve your objectives with a wide range of functions:

- Excellent products, designed and produced exactly the way you want them
- VEMAG machine technology is highly flexible, enabling amended and newly developed products to be made easily on existing VEMAG lines to produce the best possible outcome
- Optimised standards that ensure guaranteed reproducibility and product safety for your end-customers

Our product managers and food technologists are there to assist you and are in constant dialogue with our development department in order to make your products even better using improved machine technology.



LESS RAW MATERIALS

...for more sales

Only once your product is as perfect as you want it can we think about improving yields. We understand that good food has to be competitive, which is why our own teams of experts are always using and developing their knowledge to allow you to get more of your high-grade raw materials into sellable products. That means more profit, and also less waste.

- Optimised weight accuracy and less giveaway allow you to deliver only what you are going to be paid for.
- Higher yield reduces your costs. For example, have you ever calculated what 1% less casing or raw material and ingredients could do for your profits, thanks to VEMAG's intelligent filling technology?
- Perfect product lengths and geometries reduce packaging problems and improve your packaging costs. They also eliminate high waste costs.

Together we can work out how your process combined with our technology can generate added value for you, precisely by using less raw material.





LESS RISK

...more customers

VEMAG fillers and VEMAG lines offer endless features, making them low-risk production systems that give you more time to concentrate on what is important. Every time we develop anything, we think about your safety and the hygiene standards you build your business on. We were leading the world in some areas while other companies hadn't even started there.

- VEMAG supplies the world's first vacuum filler with 3-A Sanitary Standards.
- VEMAG fillers allow you to remove stoppers and feed units hygienically, quickly and easily in the filling direction so you can clean them. This means you can clean seals properly because it is quick and easy to do, and practical for operators.
- The vacuum channel between the feeding system and vacuum pump is much shorter and easy to clean. VEMAG is at the top of the industry when it comes to hygiene standards.
- VEMAG feeding technology makes product distances shorter and with fewer corners in the product flow. Hygiene is outstanding, and the products are better.
- Fewer parts in the feeding system mean better hygiene. There are also fewer parts to lose.



OUTSTANDING AVAILABILITY

...another aspect of VEMAG Service

What happens if your product is not ready to sell on time? No product often means no sales, which not only reduces turnover, it can annoy your customers a lot and even drive them into the arms of your competition VEMAG Service includes lots of ways of avoiding that:

- VEMAG machine concepts include 'Function First'. From the drawing board onwards, we try to make functions as durable as possible. A good example is our vacuum fillers' box-in-box system, which doubly encapsulates electronic parts.
- Quick set-up times mean more time for production. VEMAG lines can often start producing a completely new product simply by replacing a small attachment or module, which is quick and easy.
- VEMAG trains agency and branch office technicians at its VEMAG Academy. This means our international service standards are always improving for your VEMAG solutions, and it means you receive, from installation onwards, the service that will secure your investment over the long term and make your product available to meet your customers' demands flexibly.

NOTHING CAN BEAT IT: THE VEMAG DOUBLE SCREW



NOTHING CAN BEAT IT: THE VEMAG DOUBLE SCREW

At the heart of our fillers are VEMAG double screws. No other feeding technology is as flexible when it comes to adapting to your product.

Lots of options in terms of pitch, diameter, length, compression, profile and much more all mean one thing: your product is perfect.

Perfection in precise weights or whole pieces of muscle - specialist or compromise, or both?

Every cleaning process enables the double screw to be changed quickly. You might want to change the product quickly, or service parts of the pump. The feeding system consists of just two

parts: the housing and the double screw. VEMAG technology enables you to use components such as double screw parts that are made entirely out of stainless steel. This makes it more durable, and also improves hygiene levels.

A major benefit of VEMAG double screw technology, one which protects your products, is the first-in-first-out principle: the filling material is continuously force-fed. A system such as rotary vanes can drag the product several times through the pump, whereas the mixture that arrives first at the double screw is what arrives first at the outlet.

The benefits:

- Ideal for adapting to your product
- Handles raw materials gently
- Flexibility for new product ideas
- Outstanding weight accuracy even at high outputs
- Optimised yield providing more sellable product
- Uniquely hygienic feeding system
- VEMAG filling-grinding technology: The ideal in-line extension and next step for sensitive products
- Easy to disassemble and clean
- Lower service costs

RELIABLE, EXPERT PARTNER



MACHINE ANALYSIS AND PRODUCTION PLANNING WITH SMART LINK 4.0

Evaluate operating and machine data effectively, quickly and remotely, so you can know what's happening on which line, and when. All this is possible with the latest VEMAG Smart Link 4.0.

VEMAG Smart Link 4.0 is an operating and material data collection system which allows you to evaluate your filling data at any given time and date. VEMAG Smart Link records internal machine parameters.

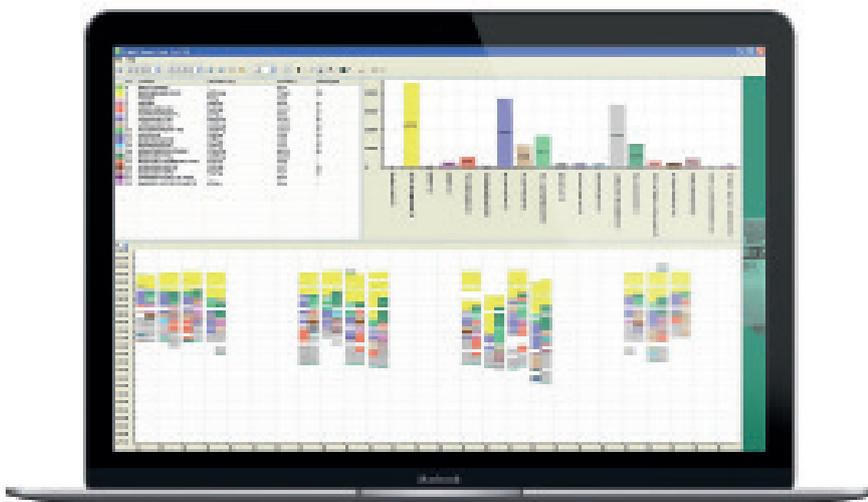
It means you can see exactly what is happening at a glance. Power consumption, operating hours and other information can be viewed, compared and evaluated. This allows you to identify any weak points that may exist, as well as good things you can improve on. Perhaps even more valuable is the information provided by operating

data recording. It allows you to see what is actually happening right now. Filling data is transferred and stored, in the filler as well if you want.

This means that product filling weights and the quantities produced can be shown on a monitor in the operation manager's office. This means more planning possibilities.

The benefits:

- Be ready for IoT: Networking your machines improves your production
- Receive a constantly updated insight into your primary production figures. One of the things this enables is accurate product costing
- Reduce costs (reduce giveaway and use resources more effectively)
- Guarantee safety in production and constant quality by optimising machine settings
- Obtain automated documentation



RELIABLE, EXPERT PARTNER



VEMAG: YOUR RELIABLE AND COMPETENT PARTNER

Service and maintenance: we are there for you worldwide

At VEMAG we consider service part of our DNA: you, the customer, are always at the centre of our activities.

VEMAG service technicians, subsidiaries, agencies throughout the world: we will always provide you with outstanding service wherever you are, and we define manufacturer standards to keep it that way, including at our VEMAG Academy. VEMAG Service in Germany and our offices and agencies abroad will support you from the installation of your machine, through-

out comprehensive training, and whenever repairs are needed.

You can rely on:

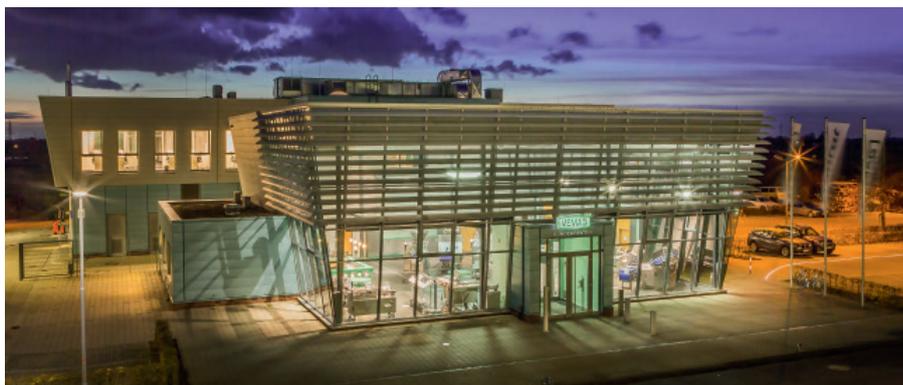
- Global support
- Service technicians trained worldwide by the VEMAG Academy
- Sound technological training
- Practice-based technician and user training



The VEMAG Customer Centre: Space for innovation.

Make your vision a reality with us and discover how you can improve your production. We can show you individual components and complete production lines at our VEMAG Customer Centre. We will show you, under realistic conditions, how you can make a wide range of foods.

Experience VEMAG up close and in action — our competent advisers are there for you.





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