

PET FOOD PRODUCTION PROCESS

OUR DEAR PETS...

They are humankind's closest friends. We share our homes and lives with them. **Cats seem to be the most popular pets in the world, followed closely by dogs.**

Regardless of species, a nutritious diet is essential for the health of our pets. The global demand for pet food is on the rise, and there is a steady increase in supply to catch up to this growing need.

Considering the needs of the pet food industry at Yemmak, we focus on helping our customers produce **high-quality pet food at the lowest possible operating and energy costs.** We offer **turnkey process solutions to pet food production facilities,** ranging from raw material intake to packaging.





YOUR RELIABLE SOLUTION PARTNER IN THE PET FOOD INDUSTRY

We boost your production capacity by optimizing the performance of your pet food production facilities and develop process technologies to lower your production costs. **Through holistic process management**, we provide accurate forecasts and achieve the most effective solutions thanks to the modular design of our equipment.

We are ready to support you in the pet food production industry with our **extensive experience in feed production technologies, custom solutions, and a corporate philosophy that revolves around continuous innovation.**

Over time, appropriate extrusion technology has proven to be the most effective equipment in modern and hygienic pet food production. **Yemmak's single- and twin-screw extruder solutions** provide the latest technology for your pet food production facility.

COLOR AND SHAPE STANDARDIZATION

In pet food production, multiple factors directly affect the nutritional quality and digestibility of products. These include size, shape, color, texture, aroma, smell, and density.





TAILOR-MADE PROCESS SOLUTIONS

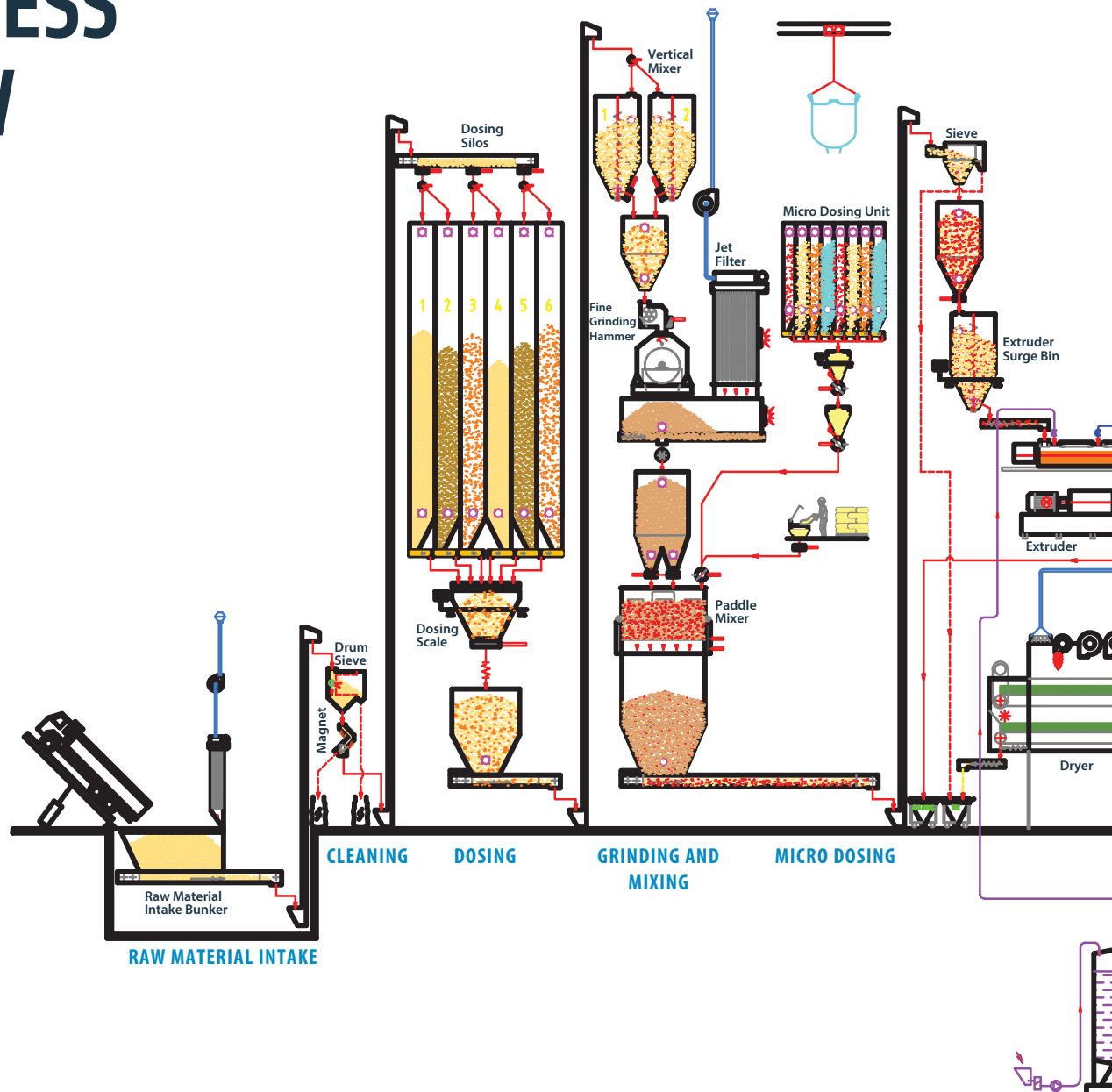
In line with our philosophy, we work with our customers to help them create and develop innovative products. Our improved process solutions are designed to equip you to realize the best formulations that suit your needs and produce high-quality pet foods that are distinctive in shape, consistency, weight, taste, and color. We offer innovative process technologies, the culmination of our extensive research, to help you achieve innovative and high-quality production.

THE RIGHT RECIPE FOR BALANCED NUTRITION

Ingredients that are carefully selected according to the pet food manufacturer's recipe, which is formulated to provide complete and balanced nutrition for cats and dogs. We consider the storage conditions, conveying processes, and contamination risks of the selected materials to offer solutions that eliminate such risks and safely transport your special recipes to our special friends.



PROCESS FLOW



RAW MATERIAL INTAKE

The raw materials that are transported to the facility via various vehicles are discharged into the bunker. The resulting dust is removed through a filter and a fan system. Additional localized filters and fans placed on the transportation equipment prevent dust and positive pressure.

CLEANING

The raw material is first sieved to remove foreign materials and lumps. It is then naturally sifted through a magnet system to remove any metal pieces within.

DOSING

Raw materials to be included in the pet food are combined hygienically and with precision at the desired ratio.

GRINDING

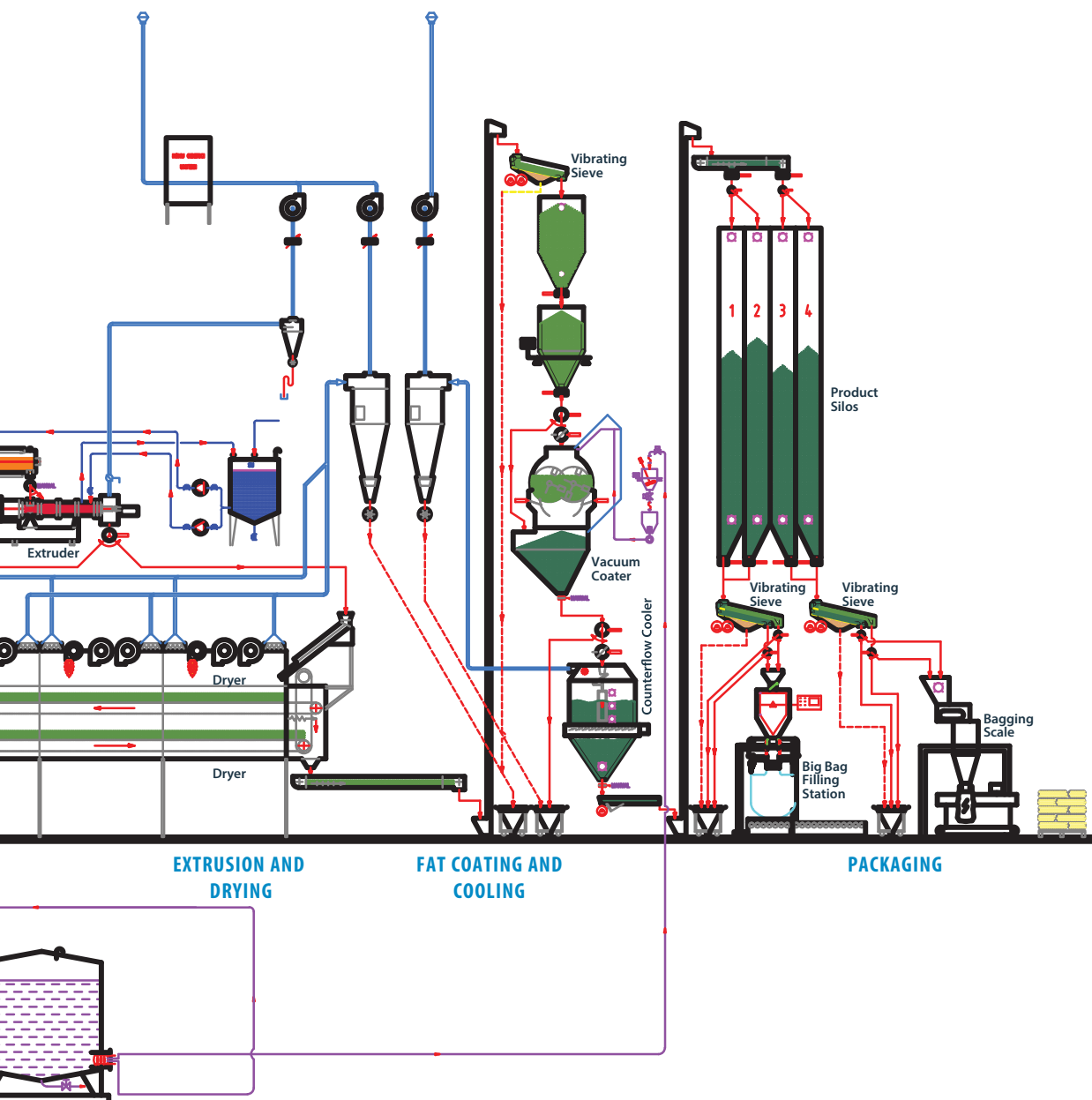
The entire raw materials are ground in fine grinding hammer mills to achieve the optimum size for nutrition and quality.

MIXING

The ground raw material is then transferred to the mixer with additives to produce a homogeneous mixture.

MICRO DOSING

Premix, micro-material, minerals, and vitamins are then added to the semi-ready product. These additives are automatically added in precise proportions according to the ratio in each charge.



EXTRUSION

The semi-finished product prepared in the weighing and mixer warehouse is rolled to the conditioner on the frequency-speed controlled conveyor belt. Following the addition of the necessary liquids, the semi-finished product is cooked with steam in the conditioner and transferred to the extruder. After additional steaming from the extruder, the product is cooked at a high temperature and pressure with the impact of the cutting force. Introducing water into the system, the extruder ejects products from the die at the desired diameter and shape during the final stage.

DRYING

The wet-humid and hot product expelled from the extruder is sent to a dryer where a flow of heat goes through the product. The hot air absorbed by the cyclone and fan permeates deep into the product, drying it thoroughly.

FAT COATING

Oil and other liquids are then added to the dried product under vacuum pressure before it is sufficiently mixed. The vacuum coating aims to ensure the thorough permeation of oil through all surfaces and layers of the pet food.

COOLING

The dried and oil-coated product will remain warm. The still-warm product is transported to the cooler where it meets a cyclone and fan that provide a flow of cooler air through the product. The cooling is a necessary step to ensure a longer shelf-life after packaging.

PACKAGING

Stored in finished goods warehouses, the final product is weighed in 1.5–15-kilogram batches on the bagging scale, then packed and transferred to storage. They can also be packed in 750–1000-kilogram big bags.

MAIN MACHINERY IN THE PROCESS

SINGLE-SCREW EXTRUDER



The Yemmak single-screw FPFE series extruder provides high-quality pet food production with minimal operating costs.

With its fast-response processing flexibility, any pet food can be produced. The user-friendly design for operation and maintenance minimizes downtime.

VACUUM COATER

The Yemmak VCD series vacuum coaters have been specifically developed to add powder and liquid additives to the extruded food in a precise manner. The hygienic structure minimizes the risk of contamination in product transitions. The durable stainless steel body functions under high vacuum pressure.



FINE GRINDING HAMMER MILL



The Yemmak FGHM series fine grinding hammer mills guarantee micronized grinding of all products in pet food production. The quiet and vibration-free fine grinding hammer mills encourage a safe working environment and are budget-friendly in terms of consumables.

DRYER

The Yemmak HBD series horizontal dryers guarantee controlled drying with the direct or indirect heat flow through the product. The interior design contains the optimum number of drying chambers and prevents foods from breaking apart by making the product height and belt speed adjustable.



MICRONIZED CENTRIFUGAL SIEVE

The Yemmak CFSD series micronized centrifugal sieves are popular due to their high sieving capacity, easy maintenance, and low energy consumption. Pet foods can be produced in any size with the help of modular and easy-to-replace screen sets.



Z ELEVATOR

The Yemmak BESZ series Z elevators are used to transport powder and granular products horizontally and vertically. They can also perform bucket filling in the desired volume and without damage thanks to the specially designed feeding system. The hygienic bucket body design prevents contamination.



