High Moisture Meat Analogs (HMMA)

SIMULATE WHOLE MUSCLE MEATS IN LOOK, TASTE AND NUTRITION

WENGER®
FOOD + INDUSTRIAL DIVISION

Recognized as the pioneer for the process of textured vegetable proteins (TVP) by extrusion for more than 50 years, Wenger systems are used worldwide for the efficient production of a wide variety of TVP products.
Among the newest products introduced in this field are high moisture meat analogs (HMMA). These plant-based products are designed to mimic whole muscle meat, and can be created to exhibit similar characteristics for moisture, protein and fat contents, as well as a densely layered, somewhat fibrous structure. Whereas traditional textured vegetable proteins are extruded at less than 30% moisture, and further dried to below 10%, HMMA products contain between 50% to 80% moisture after extrusion – corresponding to their whole meat counterparts.

Tailored Recipe Options

In addition to typical soy proteins or wheat gluten base ingredients, a wide variety of alternative protein sources may be used in meat analogs, to meet target objectives such as texture, mouthfeel and appearance. Pea protein is gaining in popularity as an ingredient source, as are proteins from lupins, lentils and other legumes. Salt, coloring, starches, oils and flavors may be incorporated during the extrusion process to further define specific products.

As the experienced leader in the extrusion processing industry, we dedicate ourselves to the evolving needs of our food & industrial product clients, serving based on three guiding principals: Integrity, Ingenuity and Initiative.

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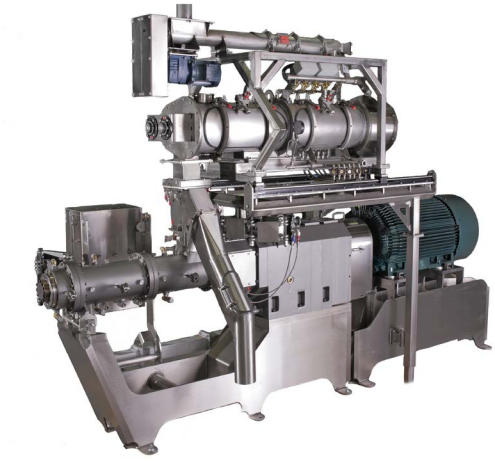

Customized To Meet Precise Objectives

WENGER TWIN SCREW EXTRUDER

As with each process, the Wenger twin screw extruder is customized for efficient production of the high moisture meat analogs. The new High Intensity Preconditioner (HIP), with it's automated mixing intensity control, has proven to be a beneficial tool for optimizing process conditions to match the variety of ingredients used. Following the preconditioning phase, the material is subjected to a combination of mechanical and thermal energy inputs within the extruder barrel, along with specialized cooling die technology, to achieve the desired product textural output.

After extrusion, these products are cut, sliced or shredded to their desired form before going to further processing or freezing.

Innovative Solutions to Processing Challenges

WENGER TECHNICAL CENTER

The Wenger Technical Center is equipped with the latest in research and production scale extrusion and drying equipment for the exclusive use of our clients. With over 50 years of experience, the Technical Center can assist with product development, laboratory analysis and process evaluation. Our process engineers will address your unique processing needs and then satisfy those needs with the most appropriate technology for your product.

WENGER®

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