



More than the sum of the parts

CARNAD

Case story



CARNAD produces fonds, bouillons and other natural food ingredients of exceptional quality. This is achieved by combining CARNAD's own innovative production concept with Novozymes' unique enzyme and protein technology capabilities, and high-efficiency processing technology from Alfa Laval.

The result is a new category of food products that enables companies to make effective use of previously under-valued resources and materials, via an unusually versatile, effective and environmentally responsible production process.

This unique facility also dramatically shifts the benchmarks for both the quality and usefulness of concentrated flavours and ingredients that are completely natural, opening up unprecedented market opportunities.

Combining know-how

One of the most effective ways to achieve technology breakthroughs in today's crowded and highly competitive markets – especially for consumer products – is to combine the know-how and resources of several companies, each a front-runner in its own field.

This is exactly what has been achieved by a small food processing company in Denmark. Operating from a brand new, advanced-technology facility, CARNAD uses a unique, patented continuous hydrolysis process that has been developed in close collaboration with Novozymes, the world leader in bio-innovations, enzyme and protein technology, and that uses equipment configured and supplied by Alfa Laval, one of the world leaders in heating, cooling, flow and separation technologies for the food industry.

The innovative technology that CARNAD uses is the result of an unusually close collaboration between CARNAD, Novozymes and Alfa Laval over an extended period. As Johnny Koch, managing director and *primus motor* behind CARNAD, explains, “this project has come to successful fruition as the result of a technical ‘meeting of minds’ – none of the companies involved could have achieved such results alone.”

The natural approach

CARNAD is a groundbreaking Danish company, located in a greenfield development in the small fjord-side town of Løgstør in northern Denmark. CARNAD produces fonds, bouillons and other completely natural food ingredients of exceptionally high quality.

The company only uses prime-quality natural raw materials that include seafood, game and meaty bones from beef, pork and poultry.

CARNAD products are specifically targeted at the worldwide food industry. These products are currently available in liquid, paste or spray-dried form, for use as best suits the customer’s finished product. They are ideal for use in food products that include soups, soup cubes, sauces, ready-made meals and marinades.

Back to basics

CARNAD products stand out a mile from traditional flavours and ingredients. Because they are completely natural, and contain no artificial additives, no chemicals and no foreign substances, they provide a clean, natural taste with an attractive “mouth feel”. This noteworthy natural taste also does away with the need to use additives to mask any unfortunate side effects of artificial flavours.

Just like the “good old days”

As Johnny Koch points out, the CARNAD process is really just like the broth pot simmering in any old-fashioned household kitchen, or the fond or bisque slowly reducing in the kitchen of any gourmet restaurant.

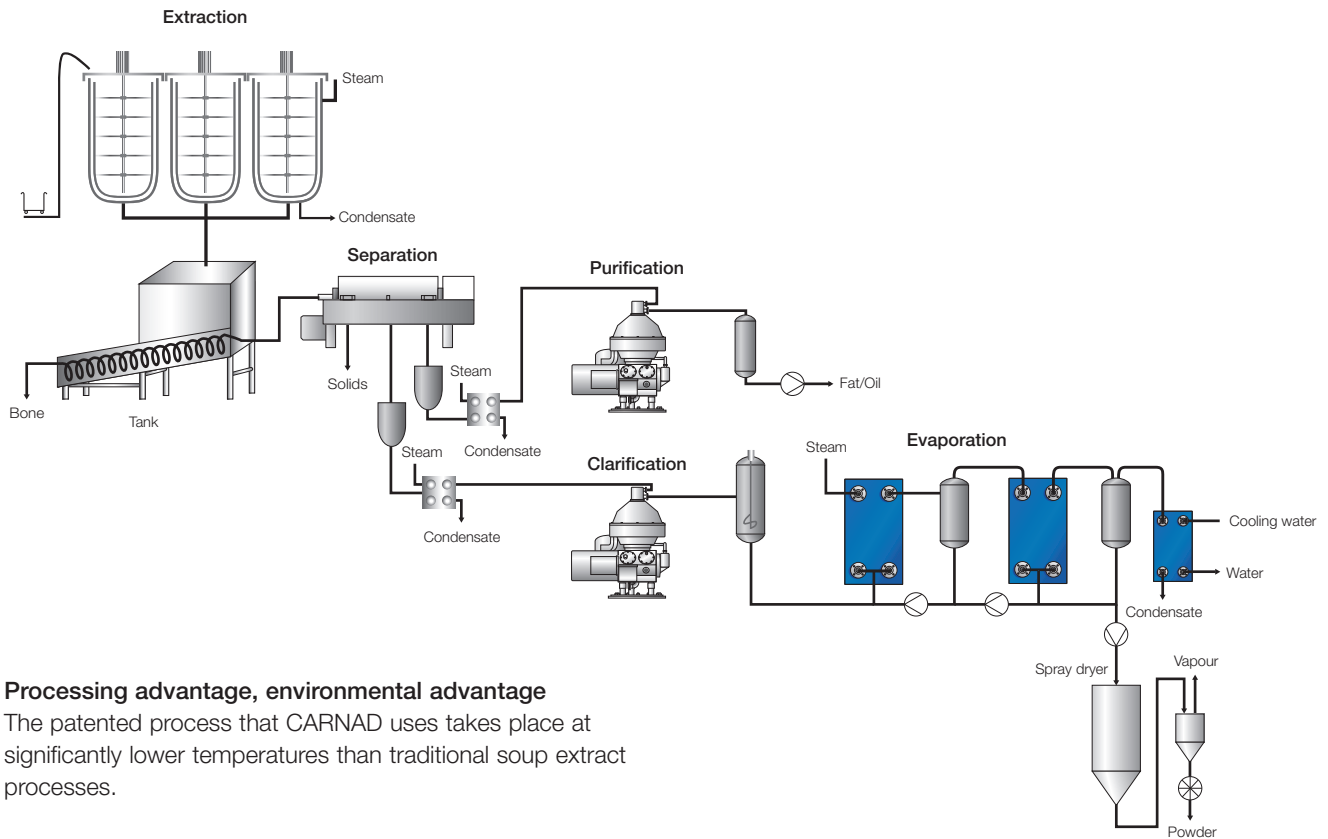
CARNAD products provide a powerhouse of good, concentrated natural taste that makes it possible to avoid the jungle of chemical additives and the many issues involved. The beauty of the highly innovative CARNAD facility is that it is essentially “just” a vastly more efficient way of doing what our forefathers always did – but with the help of oodles of modern technology.

Making the most of what you’ve got

In the modern food industry, there are many raw materials that normally have only limited use, despite being of excellent quality. An advanced-technology process such as that used by CARNAD makes it possible to make maximum profitable use of raw materials such as meaty bones of all kinds, carcasses, and any cuts of meat, poultry fish and game that may have been damaged by machine handling or logistics.

The unique combination of specialist technologies present in the CARNAD facility is an important bellwether for the significant commercial opportunities available from the advanced-technology processing of valuable food proteins.





Processing advantage, environmental advantage

The patented process that CARNAD uses takes place at significantly lower temperatures than traditional soup extract processes.

As a result, not only does this continuous hydrolysis process (based on a patented Novozymes enzymatic process) result in better-quality products, it also reduces energy consumption and environmental impact.

“Clean label” focus

Food producers and consumers alike are increasingly concerned about human food products only containing natural ingredients. A “clean label” on the final products can result in a key price premium, as well as paving the way for entry into new, higher-value markets.

The natural purity of CARNAD products also makes it possible for food industry companies to maintain a clear overview of the specifications of their ingredients – artificial additives with fluctuating, difficult-to-document compositions can be forgotten.



High nutritional value

Most traditional flavours and additives contribute very little that’s positive to the nutritional profile of the food products in which they are used.

By contrast, the kinds of products on which CARNAD focuses can provide distinct nutritional improvements and advantages, thanks to their high protein content and low fat content. Furthermore, they contain no sugars or phosphates – unlike the ingredients normally used in marinades, for example.

Better commercial value

The combination of top-quality natural raw materials, the 100% natural end product, and a cost-effective processing technology with a limited environmental footprint adds up to significant new business opportunities.

Not only are the products of high value, with a quality and traceability that help boost market price, they also pave the way into new and more lucrative markets and product segments.

Furthermore, companies working with raw materials that are a suitable source of protein can employ set-ups featuring this innovative combination of technologies to move further up the value chain.

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