

Flexible heating & filling

New beverages enter the supermarket at high speed. Popular combinations are fruit, soy and dairy products, with health ingredients such as pro-biotics and pre-biotics or added vitamins and minerals. These products need to be stable during shelf life and still have excellent taste and health attributes.

NIZO food research can help you beat the competition by decreasing the time to market and to innovate in short development cycles.

Each step of the development cycle can be executed at NIZO food research. New ingredients and concepts are developed, products are produced for consumer testing, and the production process is optimized for efficiency and product quality.

Process and recipe

NIZO is experienced in including new ingredients into various applications. New concepts are developed, starting from the laboratory up to production, that are stable and good tasting during shelf life.



For example, NIZO food research developed recipes for low-fat products that maintain a creamy perception; included health ingredients while preventing off-flavours; and optimized ingredients for cost-effective recipes.

Product examples:

- Drinking yoghurt
- Clinical foods
- Fruit and vegetable juices
- Fermented soy drinks
- Sport drinks
- Peanut butter
- Cream Cheese
- Ketchup
- Mayonnaise
- Soup
- Chocolate deserts
- Condiments
- Carbonated beverages

Ingredients:

- Proteins & peptides
- Fat
- Starch
- Hydrocolloids
- Pro-biotics & pre-biotics
- Health ingredients
- Oligosaccharides

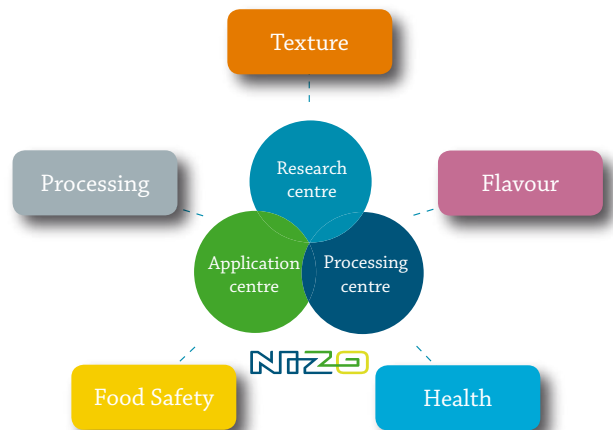
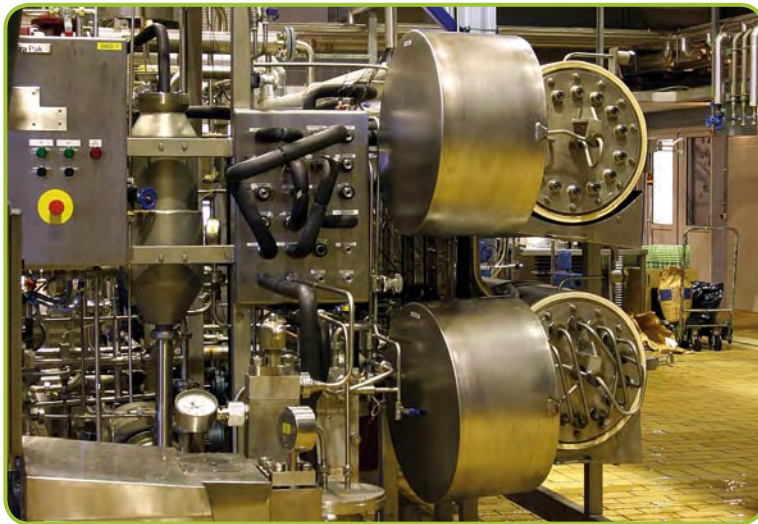
Testing and tasting

To assist with consumer testing, NIZO produces representative food grade batches between 1 litre and 1000 litres in scale.

Different ingredients and process conditions are tested, benchmarked, and optimised.

Products are prepared for human trials, for instance for studying satiety or clinical effects. NIZO helps its customers show their products to their clients, or at exhibitions, by producing and packaging excellent quality samples.





Your Benefits

- Fast development cycle
- One stop from concept to factory
- Flexible pilot plant
- Representative food grade batches
- Recipe development
- Scientific and analytical backup

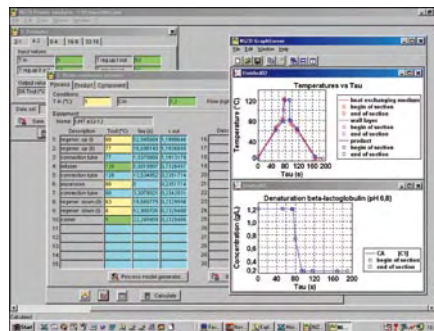
Heating

Different type of heat exchangers are available:

- UHT (direct and indirect steam injection)
- Pasteurising (tubular, plate)
- Process cookers
- Scraped heat exchangers

Factory support

Using a combination of our experience and computer models, NIZO can design process lines with heating steps that ensure safe products and at the same time minimize product damage and fouling. These processes can be tested in the pilot plant and scaled-up into the factory of the customer. We are especially experienced in solving fouling problems in heat exchangers.



Filling

There are facilities for aseptic and hygienic filling with various packages and caps.

- Bottles (0,3 – 1,0 liter)
- Cups (PE 0,2 – 0,5 liter)
- Bag in box (1-10 liter)
- Customer packaging



About NIZO food research

NIZO food research is an independent and one of the most advanced research centres in Europe. We provide industry with solutions they require by developing and applying technologies for innovations in the areas of flavour, texture, health, food safety and process optimisation. The food-grade industrial pilot plant is used for development and testing at industrial level and is available for test productions. The NIZO application centre provides industry with facilities for product development & product oriented research.

For more information, please contact:

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