



Gentle new process for adding bioactive products

Safe and easy to integrate into your operations

New
**MORE
NUTRITIONAL**

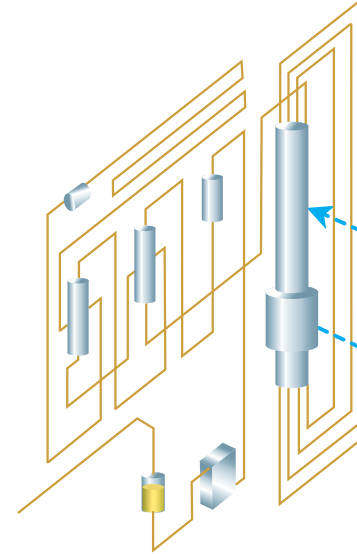


New technique for adding bioactive whey protein concentrate to infant milk formula and other functional foods

Batch process provides lenient treatment of heat sensitive ingredients

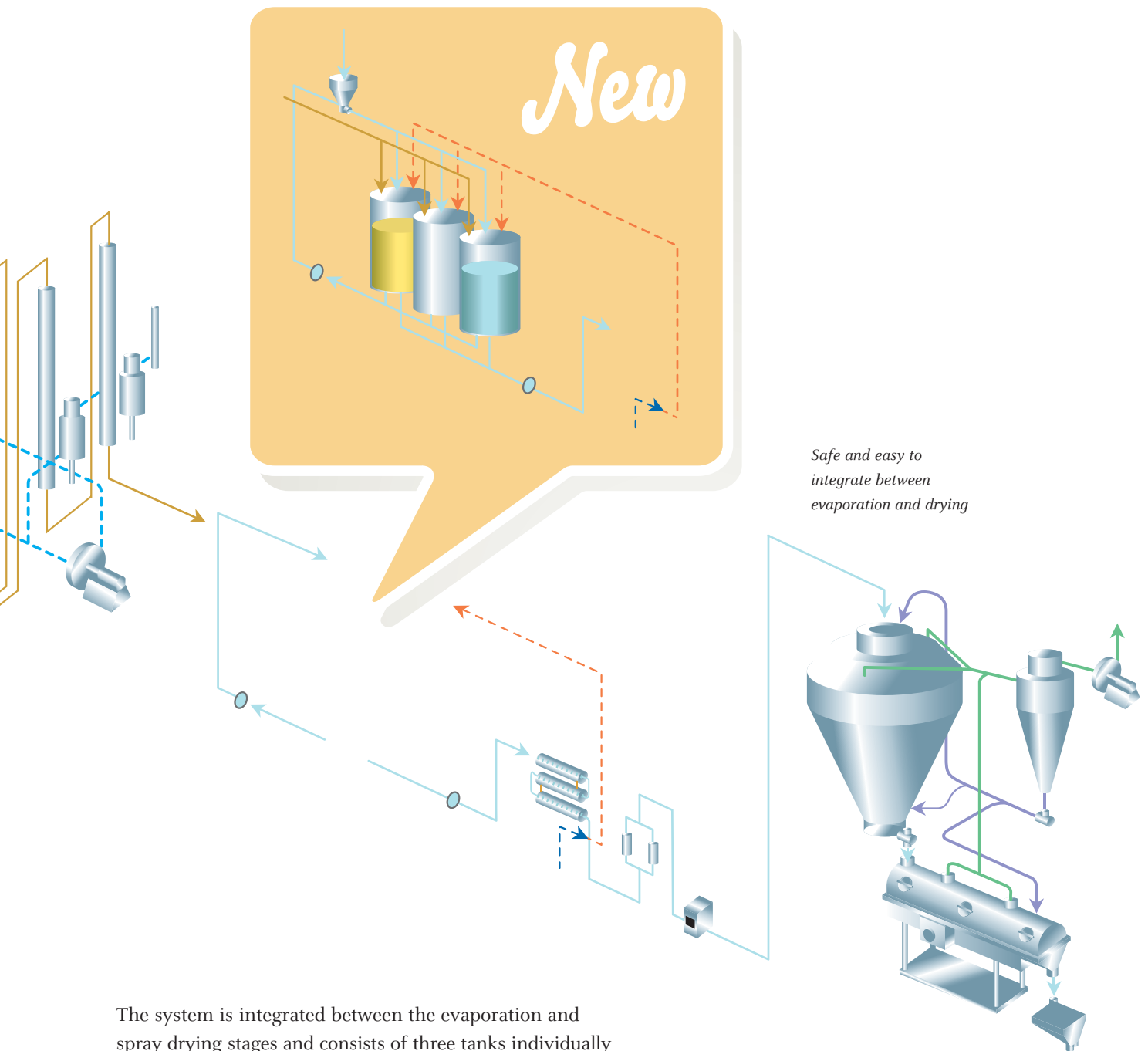
GEA Niro and GEA Liquid Processing have developed a new process for adding bioactive whey protein concentrate (WPC) to infant milk formula (IMF) and other functional foods that yields outstanding results without compromising safety. The process ensures retention of the bioactive properties of the WPC as well as compliance with international practice governing IMF production.

A gentle heating process, combined with careful processing and cleaning, enables production of high-quality bioactive products. Special care has been taken to guarantee adequate mixing into a homogeneous concentrate with minimal content of air.



Process highlights

- New process has been tailor-made for adding bioactive ingredients into the manufacture of functional foods such as baby food, IMF and protein drinks
- Special care has been taken to guarantee adequate mixing and ensure that the product is homogeneous and free of air and foaming
- Ingredients retain their bioactive properties thanks to gentle but effective heat treatment after evaporation
- Production in batches ensures traceability
- Skid-mounted unit is easily integrated between the evaporation and spray drying stages of production
- Process is individually tailored to your needs and your plant's drying capacity
- GEA Niro and GEA Liquid Processing have in-depth experience with equipment and solutions for manufacturers of IMF and functional foods



The system is integrated between the evaporation and spray drying stages and consists of three tanks individually connected to a vacuum mixer. Filling, mixing, emptying and cleaning in place (CIP) are carried out on a continuous basis. The final mix undergoes a gentle heat treatment en route to the spray dryer.

- Concentrate from the evaporator
- Addition of bioactive whey protein by circulation over the vacuum mixer
- Product return string
- Exhaust air
- Powder fines return
- Steam
- Water



A capable partner

GEA Niro is a world leader in industrial processing, with evaporation, spray drying, freeze drying, and fluid bed processing as core technologies. The GEA Niro companies are part of GEA Process Engineering.

GEA Liquid Processing offers life science process solutions with virtually no limitations on technological scale or scope, or with regard to geography. GEA Liquid Processing supplies engineering services as well as complete process plants and machinery to the brewing, beverage, dairy, and food industries as well as to manufacturers of pharmaceutical, biotech and personal care products.



GEA Process Engineering

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