



PILOT PLANTS: MARGARINE

FH SCANDINOX and our partner and sister company GERSTENBERG SERVICES in Copenhagen have in close collaboration developed a new state-of-the-art margarine pilot plant.

INVESTING IN THE FUTURE

The POLARON margarine pilot plant sets new standards in the crystallisation of all kinds of yellow fat products. With the POLARON pilot plant you can carry out trials to improve your existing products and to develop new recipes and do small-scale productions for market tests. It is the most recent stage in the development of margarine products, incorporating the newest innovative technology, ideas and features.

The highly flexible units make product development activities efficient and cost-effective.

The POLARON pilot plant gives you the opportunity to process small-scale samples under exactly the same conditions as those generated in large-scale production facilities.

The FH SCANDINOX pilot plants are all pre-manufactured and skid-mounted on stainless steel frames or in stainless steel cabinets, equipped with the necessary process equipment, e.g. small tanks, pumps, valves, instruments, pipes, fittings etc.

The pilot plants can also be offered electrically prewired and carefully tested prior to shipment.

BENEFITS

- State-of-the-art pilot plant
- Innovative technology
- Available for CO₂ and NH₃
- Flexible
- Efficient

PRODUCT APPLICATIONS

- Table margarine
- Puff Pastry margarine
- Industrial margarine
- Cake margarine
- Low fat margarine
- Shortening
- Ghee
- Spreads
- Anhydrous milk fat
- Low fat butter
- Texturised butter

APPLICATION CENTRE

In 2020 we installed a complete, new pilot plant for innovative development of margarine products and other types of yellow fat products. The pilot plant is located in Hoven in the western part of Denmark and consists of the best processing technology equipment available on the market.

The plant is based on the POLARON, the most versatile tubular scraped surface heat exchanger in the fat crystallisation industry, and is installed in our application centre and available for our valuable customers.

In our application centre we have a team of engineers, including margarine specialists and technologists, and we can thus assist you in designing the perfect process set-up ensuring the optimal texture and greatest mouthfeel of the product.

The product trials to be carried out are custom-tailored, and all work performed together with you is subject to the strictest confidentiality and meets the highest standards of customer service.

VIRTUAL TRIALS

As a result of COVID-19 and the resulting restrictions in travelling abroad, we can offer you virtual trials.

In this way, you can maintain your product development programme without travelling anywhere, and your R&D people can follow the trial live. They can even see what is happening inside some of our equipment units.

As a final result of your virtual visit, we deliver a 'take-home' package which includes:

- Technical report
- Webinar-type video of the trial
- Samples from the trial

TECHNICAL DATA

- Capacity: 50 kg/h – 500 kg/h
 - Max. working pressure: 120 bar
 - Cooling cylinders: Up to 4 pcs.
 - Cylinder dimensions: Ø 65.5 mm – L195 mm
 - Product volume per cylinder: 0.6 l.
 - Cooling requirement per cylinder: CO₂: 7.5 kW/NH₃: 5.0 kW
 - Rows of scrapers: 2 pcs. per cylinder
- Scope of equipment:
 - High pressure pump
 - Scraped surface heat exchanger
 - Pin rotor machine
 - Resting tube
 - Equipment for:
 - Fat melting
 - Emulsifier
 - Water phase preparation
 - Emulsion preparation
 - Remelt
 - Refrigeration
 - Automation

