Product Development Centre Filtration Solutions

Denmark





Introduction

The Tetra Pak Filtration Solutions PDC in Aarhus is a cutting-edge filtration pilot plant designed for developing new food and beverage applications based on milk and whey as well as plant-based or alternative proteins combined with water saving solutions.

The laboratory, under the same roof, provides necessary analyses to control the processes during the trials.

In the PDC, you can work together with experienced Tetra Pak food technologists and engineers to develop and optimise the production process for new filtration solutions. We also offer virtual testing.

The facility has all the equipment for industrial trials on a variety of applications. We create the appropriate setup required for customer trials.

Filtration is also a key technology in water savings. We offer specialist competences within:

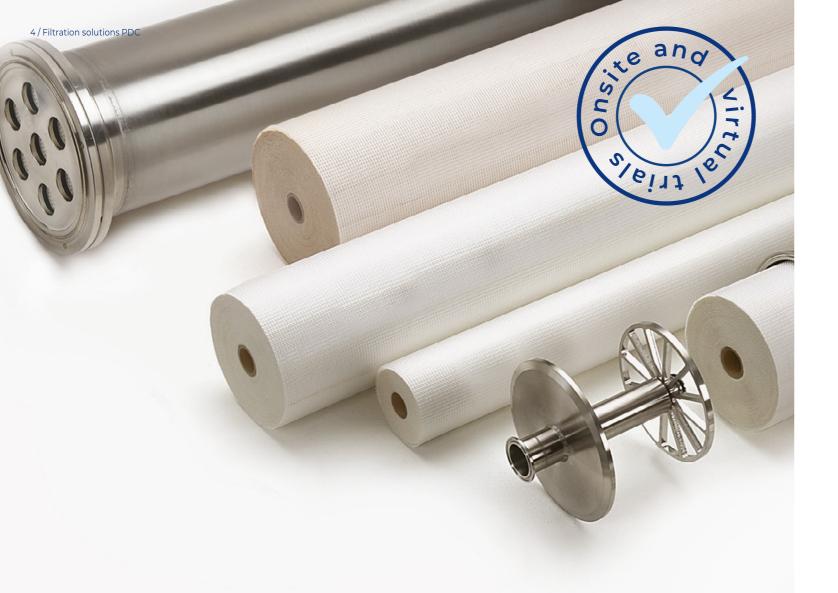
- Process water recovery
- Product recovery
- Condensate recovery
- CIP chemical recovery

Possible objectives for customer trials:

- Develop, test, and validate new processes and applications
- Produce application samples
- Optimise performance
- Troubleshooting
- Membrane screening

Other site facilities:

- 10 person meeting room
- Additional guest meeting rooms for break-out work/other activities
- Canteen with a varied buffet
- Aarhus is the second-tier city of Denmark with a great variety of cultural events and beautiful nature, right by the ocean, and within one hour's drive from three international airports



How to organize a test?

When you consider a trial for any process using membrane filtration, please contact your local Tetra Pak representative or contact the PDC Sales directly *filtration.info@tetrapak.com*.



Filtration technologies

- Reverse osmosis, spiral wound system
- Nanofiltration, spiral wound system
- Ultrafiltration, spiral wound, ceramic, and plate & frame systems
- Microfiltration, spiral wound, ceramic, and plate & frame systems

Lab analyses

- Total solids
- Protein
- Fat
- Minerals
- Mono- and disaccharides
- pH
- COD (chemical oxygen demand)
- Particle size distribution
- Viscosity

Agree trial date Perform trials

Trial report & presentation

late & frame systems blate & frame systems



Filtration possibilities in our Product **Developement** Centre

When developing next generation food and beverages, finding the right membrane filtration solution can be key to success.

At the Tetra Pak Filtration Product Development Centre in Denmark, experienced food technologists and engineers work with you to develop dairy, plant-based and alternative proteins and nutrients.

Recovery solutions



- Reduction of freshwater consumption
- Product recovery
- Process water recovery
- · CIP chemical reclaim

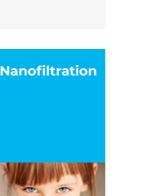
Milk and whey products



- Bacterial removal
- Casein standardization
- Brine treatment
- Cheese milk preparation
- Fat removal
- Extended shelf life
- MCC productionn



- · Demineralized milk and whey
- Salt reduction
- High solids concentration
- Infant formula





Ultrafiltration



Protein standardization

Brine treatment

• Milk: MPC/MPI

Lactoferrin

· Whey: WPC/WPI

De-calcification

- White cheese • Greek yogurt
- Skyr
- Quark
 - Milk drinks
 - Desserts
- Cream cheese
- Reverse





- Solids concentration
- Milk concentration
- Whey concentration
- UF permeate concentration
- Buttermilk concentration

New and plant-based food



- New food fermentation
- Plant protein concentration, fractionation, and standardization
- Bacterial removal
- Juice clarification
- New protein sources



Microfiltration Ultrafiltration



- Plant based drinks
- Plant based yoghurt
- Plant based protein ingredients
- Tofu
- · Coconut, orange, and other juices



Reverse Osmosis Nanofiltration



- · Solids concentration and standardization
- Sugar standardization
- Tea and coffee concentration
- Plant based powder





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