



Tetra Pak® Product Development Centre

Rayong, Thailand



+ ปาล์มไร้กังวล

ALLA 1t

+ SAFETY FIRST

Innovate with precision.
Validate with confidence.
Scale with success.

Four individuals in a clean industrial setting. Two women and two men are wearing white lab coats and hairnets. One man is wearing a blue polo shirt and jeans, gesturing towards the machinery. The background features stainless steel pipes, tanks, and a large overhead crane.

Where innovation becomes industrial reality

The new Tetra Pak® Product Development Centre Rayong is an integrated food and beverage processing pilot facility.



Located on the eastern coast of the Gulf of Thailand in Rayong province, just 90 minutes from Suvarnabhumi Airport and 150 minutes from Don Mueang Airport.

Designed as a true scale-up model of a production plant, the Product Development Centre (PDC) enables you to develop, test, and refine innovative food and beverage products in a controlled, industrially relevant environment.

Here, ideas move seamlessly from concept to validated process, giving you the confidence needed for full-scale manufacturing.

PDC Rayong integrates two key areas:
the Liquid Food Solutions and the Food Development Facility.

Designed to assess new technologies and optimise liquid food processing solutions, PDC Rayong offers one of the industry's most **comprehensive and flexible testing environment**. Its wide range of processing configurations and advanced equipment allows you to evaluate both product performance and manufacturing feasibility.



As demand grows for ready-to-eat meals, on-the-go nutrition, and ambient storage, retort processing has become a central technology in global food manufacturing. Our **modern kitchen and pilot-scale retort facility** enable producers to simulate real production conditions, assess product quality, and validate process feasibility.



As an integral part of **Tetra Pak's Marketing Services** innovation ecosystem, PDC Rayong supports every stage of development.

Our value proposition

PDC Rayong provides a production-relevant testing environment that allows you to:



- ✓ Shorten development timelines
- ✓ Minimise risks before industrial investment
- ✓ Optimise processes for commercial manufacturing
- ✓ Ensure product quality and food safety
- ✓ Validate new technologies and formulations

With broad category flexibility including dairy, juices, plant-based, tea, coffee, prepared foods, and more, we help you transform great ideas into market-ready products.

We do not just run trials —we partner with you. From the first conversation through to your commercial launch, our experts collaborate with you every step of the way, ensuring your product development journey is efficient, insight-driven, and built for long-term success.

PDC Rayong: Your innovation engine



A fully integrated platform turning concepts into commercially viable products with speed, precision, and confidence.



Our promise

-  **Excellence**
Precision-engineered facilities delivering reliable, consistent, high-quality results.
-  **Efficiency**
Smart, flexible processes accelerating development from idea to launch.
-  **Next-generation nutrition**
Future-ready capabilities shaping tomorrow's food and beverage innovation.

**Accelerate innovation.
Reduce risk.
Scale with confidence.**



Expertise and customer focus at the core

Our team brings decades of real-world processing experience, delivering **tailored, end-to-end solutions** that transform ideas into scalable, commercially viable products.

Where science meets technology

- Applying scientific principles to solve practical challenges
- Precisely matching technology to your product requirements
- Designing processes that work, from pilot to industrial scale

New product development

Product & process definition

- Formulation development with latest concepts & technologies
- Prototypes development with food scientist
- Recipe optimisation & product revitalisation support



Pilot trial

What we deliver

- New product scale-up to simulate commercial setup
- Define and follow-up criteria for successful process and product
- Produce samples for testing (sensory, nutritional, stability, shelf-life)



Process optimisation

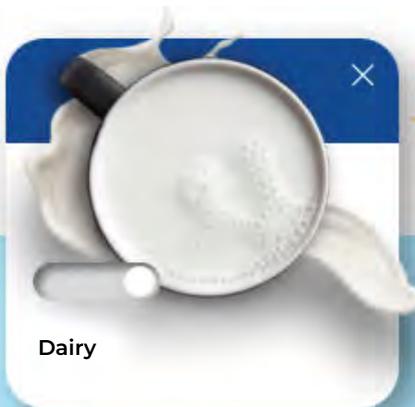
Our focus

- New process/technology development
- Testing and analysis of multiple process parameters
- Process optimisation to reduce cost, time, and raw material usage

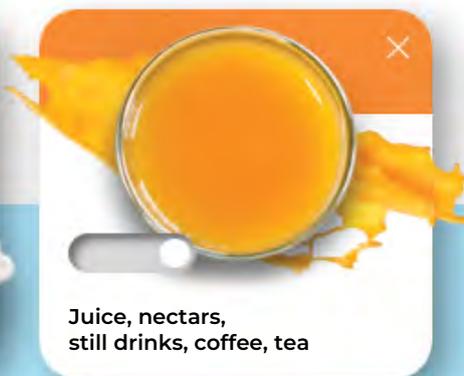




Our pilot plant supports 6 product application categories.



Dairy



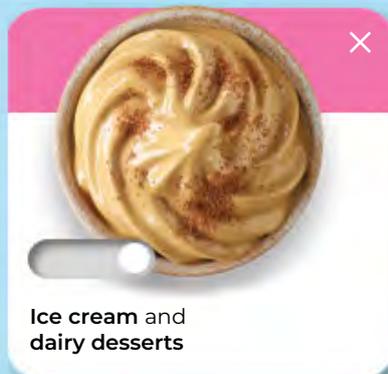
Juice, nectars,
still drinks, coffee, tea



Plant-based beverage,
fermented products, and food



Food supplement
and nutrition



Ice cream and
dairy desserts



Food (Tetra Recart® – culinary,
porridge, dishes)



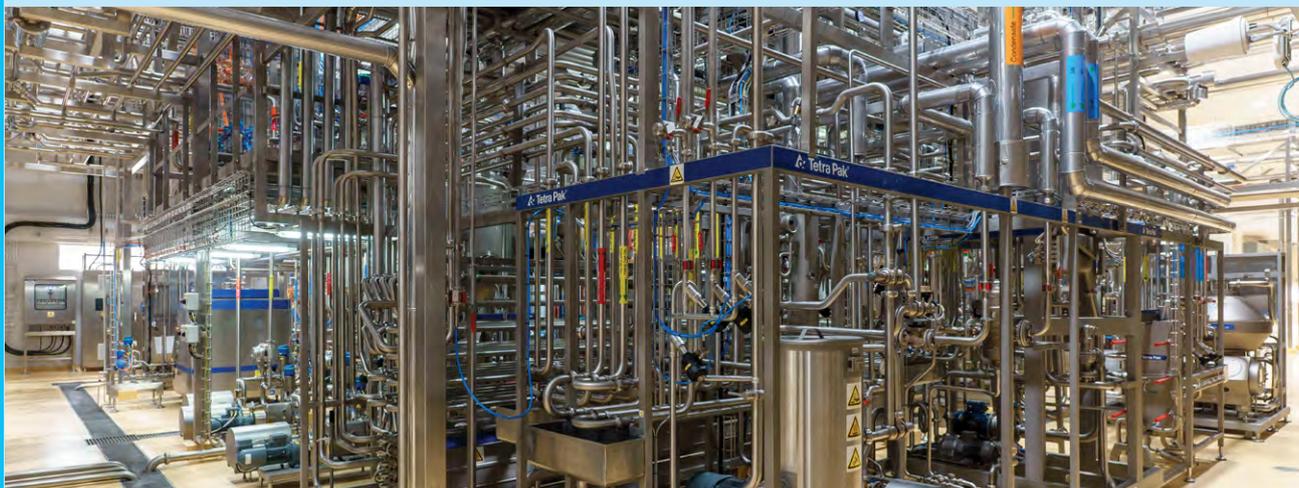
Pilot plant solutions for innovative food manufacturing

Unlock your innovation pipeline with a comprehensive and competitive equipment portfolio, combined with deep expertise in production line design.

Our solutions ensure food safety and the highest hygiene standards, while enabling faster, more confident product development.

Engineered for confidence

Our systems are built on robust, reliable design principles that require minimal maintenance, delivering safe, efficient, and dependable operation at every step of the process.



End-to-End capabilities

We support the full spectrum of food and beverage manufacturing needs across multiple categories, including:



- ✔ Dairy processing
- ✔ Juice and beverage processing
- ✔ Coffee and tea extraction
- ✔ Plant-based ingredient extraction (from whole raw materials)
- ✔ Membrane filtration technologies
- ✔ High-shear mixing systems
- ✔ Advanced heating and cooling solutions
- ✔ Aseptic processing and filling
- ✔ Retort technology

With our integrated approach and industry expertise at PDC Rayong, you can explore new product concepts, validate processes, and scale with confidence.

Pilot plant processing & filling capabilities



Extraction & product preparation

- Tetra Pak® Plant based Extraction System
- Tetra Pak® Pilot Membrane Filtration Unit
- Tetra Pak® Continuous Freezer S700 A2
- Pilot Tea & Coffee extractor



Homogenising & blending

- Tetra Pak® Homogenizer (600 bar)
- Tetra Pak® High Shear Mixer – Recirculation unit
- Tetra Pak® High Shear Mixer – Batch unit (Cold emulsion)
- Blending tanks



Advanced heating & cooling systems

Tetra Pak® Pilot UHT module

- Tetra Pak® Direct UHT unit (injection & infusion)
- Tetra Pak® Indirect UHT unit (THE & PHE)

Tetra Pak® Enzyme Deactivation System

- Tetra Pak® Tubular Heat Exchanger
- Tetra Pak® Plate Heat Exchanger
- Direct steam injection

Pilot Retort



Aseptic filling solutions

Tetra Pak® A3/CompactFlex

- Tetra Prisma® Aseptic 250 Edge DreamCap™ 26 Pro



Tetra Recart® Food solutions

Tetra Recart® Pilot Form & Seal

- available in following sizes: 100ml, 200ml, 340ml, 390ml, 500ml

Secure product excellence from lab to shelf

1

Define requirements

We begin by understanding your goals and challenges, then define the trial scope, ingredients, equipment, and key performance indicators together.

2

Trial plan & quotation

Based on your needs, we develop a detailed plan and quotation outlining the setup, testing methods, and expected deliverables.

3

Agree on date & validation

Once approved, we schedule the trial, prepare the facility, and validate all the technical and logistical details to ensure smooth execution.

4

Perform trials

Your trial is conducted in our semi-industrial pilot plant using modular equipment that mirrors real production conditions, with options to attend in person, remotely, or in a hybrid setup.

5

Trial report & presentation

After the trial, we provide a comprehensive report with data insights, along with product samples and a recording if you attended remotely.



Product Development Centre

Contact details

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