TURNKEY EPC SOLUTIONS

# INTERCOOL FOOD TECHNOLOGY LTD.

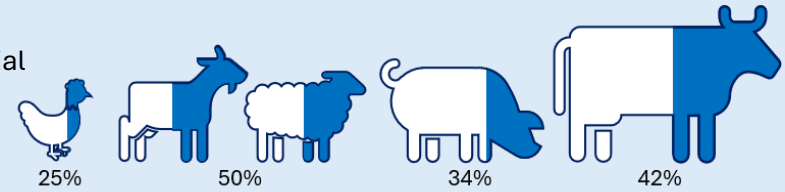
# RENDERING FACILITIES

## ENGINEERED FOR PERFORMANCE. DELIVERED FROM CONCEPT TO COMMISSIONING.

Integrated EPC solutions for rendering animal by-products (ABP) and upgrading them into valuable ingredients such as fats, protein meals and other recoverable nutrients.

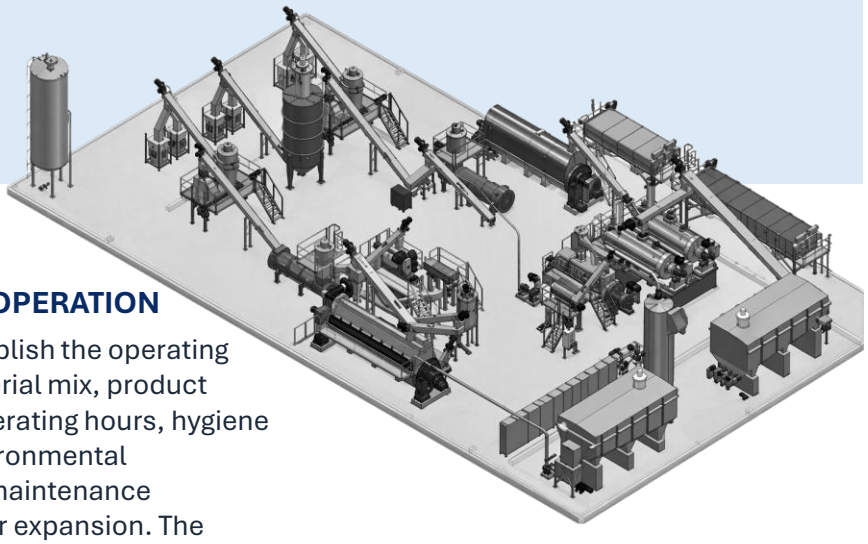
## FROM BY-PRODUCT TO VALUE

Rendering helps divert organic material from landfill and supports a more sustainable and circular use of resources.




## THESE RENDERED PRODUCTS ARE ESSENTIAL COMPONENTS IN:

- Pet food
- Animal feed
- Fertilizers
- Renewable fuels



## DESIGNED AROUND YOUR OPERATION

Before design is frozen, we establish the operating basis: site conditions, raw-material mix, product specifications, capacity and operating hours, hygiene concept, available utilities, environmental constraints, logistics, staffing, maintenance philosophy and opportunities for expansion. The result is a facility designed around how your business actually works.

## TURNKEY EPC SCOPE

INTERCOOL can support the complete project journey, coordinating the disciplines that determine rendering capacity, hygiene, reliability, energy performance and product quality:

- Concept development, capacity studies and operations planning
- Site layout, civil works, building design and hygienic zoning
- Raw-material reception, storage, size reduction and conveying
- Cooking / rendering, separation, pressing and drying technology
- Meal cooling, grinding, screening, storage, bagging and bulk handling
- Fat separation, clarification, polishing, storage and loading
- Odour control, vapour treatment, ventilation and environmental interfaces
- Steam, condensate, hot water, compressed air and other process utilities
- Electrical systems, MCCs, instrumentation, automation and process control
- Wastewater, drainage and clean/dirty area interfaces
- Installation, commissioning, performance testing, training and start-up support

**TURNKEY EPC SOLUTIONS**

## ONE PARTNER. ONE INTEGRATED SOLUTION.

A successful Rendering Facility is more than thermal dryer. It is the integration of building design, process selection from reception to bagging and fat processing, logistics, utilities, and control into one efficient facility.

### PRODUCT VALUE

Protect meal and fat quality through controlled processing, residence time, separation, drying and hygienic handling.

### LOWER LIFE-CYCLE COST

Integrate heat recovery, vapour management, utilities and maintainable equipment layouts to reduce operating cost.

### HIGHER UTILISATION

Coordinate reception, process capacity, storage and dispatch to support stable throughput and reliable operation.

# ENGINEERING THE DETAILS THAT MATTER

*Rendering performance depends on matching raw-material characteristics and throughput with the right process configuration, hygienic zoning, utilities, odour treatment, controls and operating philosophy.*

### 1 RAW MATERIAL & CAPACITY

ABP category and source, composition, particle size, arrival profile, storage time, daily volumes, peaks, product targets and future expansion.

### 2 RECEPTION & HYGIENE

Vehicle flow, unloading, raw-material storage, clean/dirty zoning, drainage, washdown, pest control and separation of personnel and product flows.

### 3 PROCESS TECHNOLOGY

Pre-breaking and conveying, cooking/rendering, solid-liquid separation, pressing, drying, meal cooling, grinding, screening and product storage.

### 4 FAT PROCESSING

Settling and separation, clarification/polishing, heating, storage, quality protection, transfer systems, tanker loading and interfaces to further refining.

### 5 ENERGY & UTILITIES

Steam generation and distribution, condensate return, heat recovery, hot water, electrical demand, compressed air, water balance and utility redundancy.

### 6 ODOUR & ENVIRONMENT

Capture of process vapours and room air, ducting, condensers and odour-treatment interfaces, wastewater segregation and environmental-control philosophy.

### 7 BUILDING & MAINTENANCE

Corrosion-resistant materials, washable surfaces, access platforms, lifting routes, equipment removal space, workshops, stores and maintainability.

### 8 AUTOMATION & SAFETY

Instrumentation, MCC/PLC/SCADA interfaces, interlocks, traceability, alarms, machine safety, fire protection, access control and applicable compliance requirements.

| 1 DEFINE | 2 ENGINEER | 3 PROCURE | 4 CONSTRUCT | 5 COMMISSION |
|---|---|---|---|---|
| Products, capacity & site | Process, building & utilities | Select specialists' systems | Coordinated site execution | Test, optimize & handover |

## FROM IDEA TO REALITY

Our EPC approach brings together process specialists, building disciplines and utility systems to create a coherent rendering plant. The objective is robust throughput, consistent ingredient quality, safe operation and a practical path from raw-material reception to marketable protein meals and fats.

Talk to **INTERCOOL** FOOD TECHNOLOGY LTD. about your next rendering facility or integrated ABP processing project.

## FOOD INDUSTRY EXPERIENCE

Solutions for red meat, poultry, fish and other food products, developed together with trusted specialist suppliers worldwide. Our focus is the right combination of design, process technology and material selection to improve performance, simplify execution and control investment and operating costs.

Lars Jacob Kristensen
Business Manager
C +45 2080 0765
M ljk@intercool.dk



*Your Solution Facilitator!*

**INTERCOOL** FOOD TECHNOLOGY LTD.