

# FOOD TECHNICAL SERVICES

## TECHNICAL SUPPORT AND TRAINING FOR THE FOOD INDUSTRY

### Factory build projects

Changes in economic circumstances tend to make us think of new approaches, new opportunities, new markets and new products. Over the past few years we've seen more ideas coming forward and have assisted several businesses with some great new projects.

As Food Industry Technical Specialists (Food Technologists) we recognise the very complex nature of designing and building food processing operations/factories and the need for multidisciplinary teams. We do not underestimate the value of Architects and Project managers and their significant part to play in the designs and management of building projects, similarly the Engineering professions and their fundamental contributions.

As Food Processing Technologists with factory build experience and a broad network of skills we can add considerable value to the development team.

Our strengths are our ability to gather or develop the necessary information starting with basic question of what will the plant be going to do and developing it into a brief with manufacturing processes, inputs outputs, process flows and site/room layouts so that the relevant parties can "see" how the factory will operate - thereby reducing the risk of expensive amendments late in the design stages, build stages, or after completion.

We ask many questions (and can assist in answering them) basically to understand and capture what the plant is going to do? and how? – for example:

- What products and technologies, product formats, volumes and critical process parameters?
- What packaging formats?
- What heating and heat extractions/cooling? – the rates required and the forms of presentation/materials handling?
- What equipment is required and the relevant service requirements such as power, air, ventilation, drains, water etc)?
- What maintenance and access requirements?
- What are the resultant inputs and outputs to each area/room?
- What are the flow patterns of people, heat, waste streams, raw materials, packaging drainage, air, and product?
- What space and environmental requirements for raw materials, packaging, work in progress, final product, staff?
- What is the product mix? and what will be the interactions and segregation requirements between them?
- What are the Food safety management requirements? – ie use of HACCP.
- How the business could develop at later stages in the factory life and if/how his could be accommodated into designs?
- What fabrics and design details and how they meet hygiene/cleaning/operational expectations?
- Where and how and in what format is the product to be distributed/sold?
- What levels of site accreditation required, eg BRC, SALSA etc or export nations and their particular requirements?
- What constraints from the local environment and the external services available?
- What staffing numbers shift patterns and staff requirements/ facilities/safety/environmental requirements?

We capture the information or provide suggestions and together develop a brief with basic draft drawings. The remit and level of our input is discussed and agreed beforehand.

Some recent projects:

- A new Shellfish handling/cooking process and process factory for a Whitefish packing operation.
- A new Crab cooking plant feasibility study for a live shellfish export business.
- A 3500m<sup>2</sup> high care fish processing plant supplying Export and UK retail
- A replacement Crab cooking plant for an existing Crab processor.
- Process flow design and layout for a BRC certified langoustine packer to expand into cooked product.
- Assisting a Contract catering unit to improve processes and plant in order to double the shelf life on chilled soups
- New factory design/brief for a new ready meal manufacturer to supply "meals on wheels" services.
- Design of plant for fish/shellfish processors expansion into cooked/smoked higher value products.
- Dairy plant segregation improvements to improve microbe levels in final products
- Upgrades to a fish processing plant to allow BRC accreditation of its High risk (Cooked) products.
- Advice on processing parameters, layout/process flow considerations, for a new 15,000m<sup>2</sup> fish smoke/cook plant.
- Advice on processing parameters, flow paths, equipment and refrigeration for a large (new ) fish cooking plant.
- Assistance with the design and operational procedures for a new high care facility with a frozen shellfish plant.
- Assistance/advice for a BRC-Gluten free-Vegan-Organic Bakery running alongside a standard bakery.

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