

Hygienic challenges in food industry



Urszula Gawrylak
Factory Technical Manager – Bag Salads

Kanes Foods



PROUD
TO BE DIFFERENT

Agenda

Introduction to Kanes Foods

Overview of common hygienic design issues

Examples of improvements

Introduction

- Privately owned
- Prepared Leafy Salads, Salad Dressings, Prepared Vegetables, Stir Fry, Dressed Salads, Salad Bar & Stir Fry Sauces
- 4 Factories based on our one 28 acre Evesham Site:
 - Bagged Salad unit
 - Stir Fry & Noodle unit
 - Dressed Salads, Salad Dressings & Stir Fry Sauce unit
 - Beansprout Farm
- Employ 1,650 people, no agencies, no gang masters, all staff employed directly
- Based in the growing region of Vale of Evesham, where much of our leaf is grown
- Turnover £105m in 2014/15
- Supply ASDA & Sainsbury's with own label products

Company Vision



- Offer rewarding and inspiring employment throughout the company
- Lead the industry with our sustainability program
- Remain responsible and respectful to the local community
- Treat our suppliers with respect
- Make the customer central to all our decisions
- Manufacture products that surpass customer expectations
- Site turnover target £150m
- To provide the reliability, scale and service of a plc with the speed, nimbleness and flexibility of a private company

Ownership

- Dr Randall died July 2011
- 5 sons inherited Kanes Foods
- Appointed 4 Directors to take day to day control
- The family are very interested in Kanes performance
- Continue the same high level of investment
- Remain independent



Salad Factory



Water Recycling
and existing factory buildings



Kanes site

Bagged Salads Factory

Objectives:

- Provide a state of the art facility for the production of salads with capacity for future growth
- Seek and develop latest production technologies to enhance product quality and extend shelf life.
- Focus on our environmental responsibility optimizing the building and process design to become as efficient as possible and minimise as far as practical the embodied energy within building components
- Respect our rural location and blend the building development as much a possible with the surrounding landscape and natural habitats
- Creation of an ergonomically friendly working environment and where possible the introduction of natural light into the building.



Stir Fry Factory

- Purpose built facility commissioned Autumn 2001 at a cost of £16m
- 4 Thermoform tray lines, 1 bowl line and 6 high speed bagging lines
- Fresh noodle manufacture



Beansprout Farm

- 12 beansprout growing cells
- 150t capacity per week
- Wash the beansprouts and flume them to the Stir Fry factory
- Dried and bagged



Dressed Salads and Sauces Factory

- Grunwald 4-lane rotary line (coleslaw/ pasta Salads 300g)
- Grunwald 2-lane linear (big pots 500g)
- 4 x Flex-Deli lines (cous cous, bean, variety, twin)
- 1 x High speed bottled dressing line
- 1 x HFFS(Horizontal form fill seal) Doypack M/C for filling hot sauces into retail pouches
- 1 x 6 lane sachet machine
- Mayonnaise and dressing manufacture
- Tract recipe & weighing system
- Cooking for pasta & potatoes



Environment

Wildflower Meadow Roof (largest bio-diverse living roof in the UK) – planted with 90 species of wild flowers. This improves the ecology, it soaks up rainwater to reduce flooding, it provides insulation and muffles noise

Solar Panels – 2 banks of PV Solar Energy panels which provide all of the electricity needed for the computer cooling system

Natural Light – improving the mood and productivity of the employees

Energy Efficient Lighting – to supplement the daylight

Hempcrete Cassette System – improves thermal efficiency and reduces the embodied carbon within the structure

Geothermal Pumps – controls the heat from the factory, reducing demand for refrigeration systems and hence energy requirements

Underground Water Tanks – harvest rainwater from the roof used for toilet flushing

Sustainable Storm Water Management System – controlling excess water diverting it into ponds providing home for mallards, grass snakes, frogs, newts, toads, bulrushes and reeds

Water recycling – using low energy filtration systems, Kanes recycles half of our water requirements

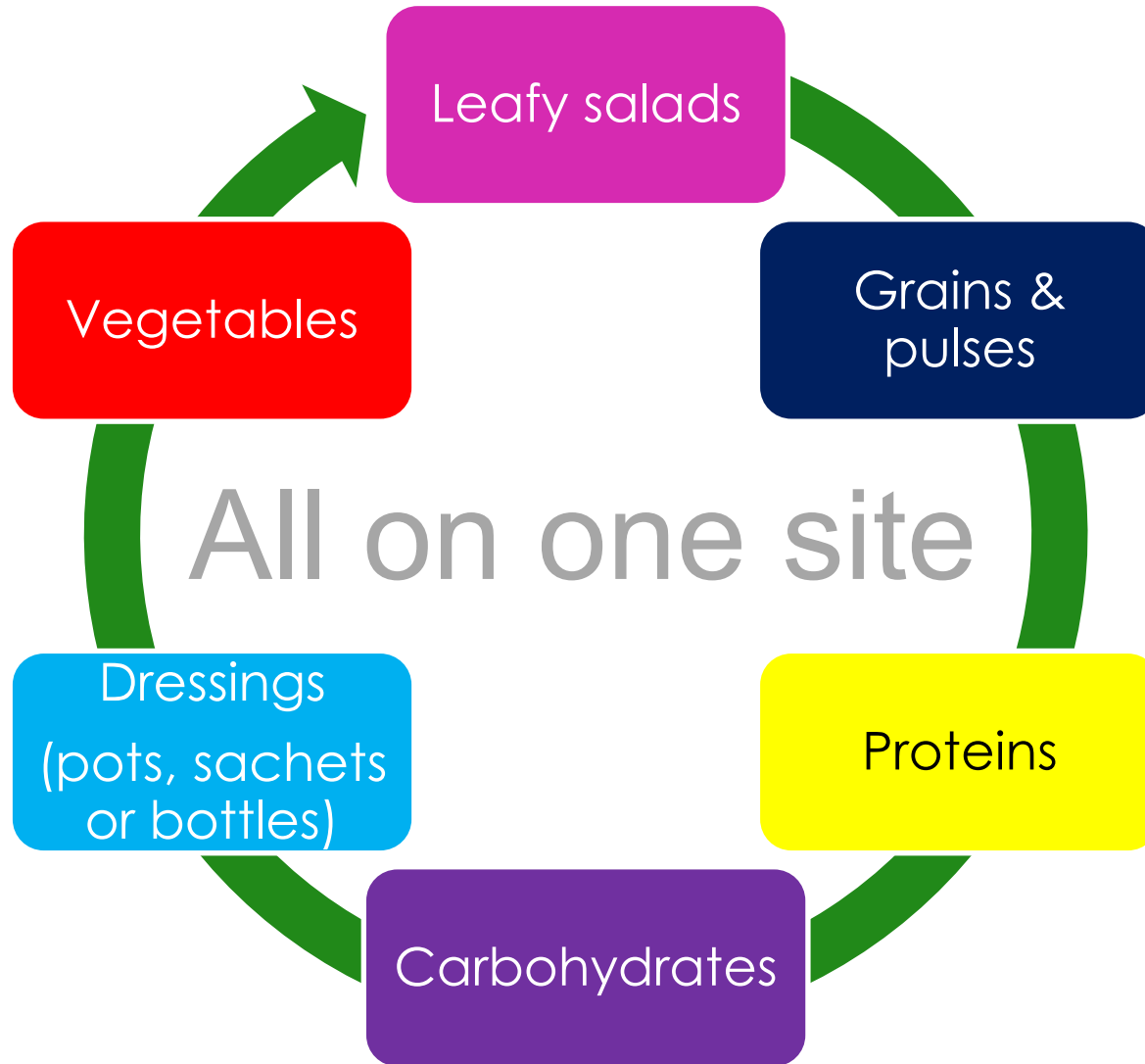
Technical

- We have a Technical Team consisting of over 100 people:
 - General Technical Manager
 - Technical Development Manager
 - 3 Factory Technical Managers
 - 3 Teams of Technical Compliance Controllers

Plus teams to cover: Quality Control, Shelf Life, Allergens, HACCP, Complaints, Auditing, Sampling & Benchmarking, Specifications

- BRC – Grade A*
- Hand-held Paperless QC System
- Automated dynamic weighing system to control recipe integrity
- Genius optical sorters
- 2 different types of automated drying systems /recipe controlled by written seasonal programs
- Built-in automated gas analyser units to control gas levels in finished pack

Breadth of Ingredients



Overview of common hygienic design issues

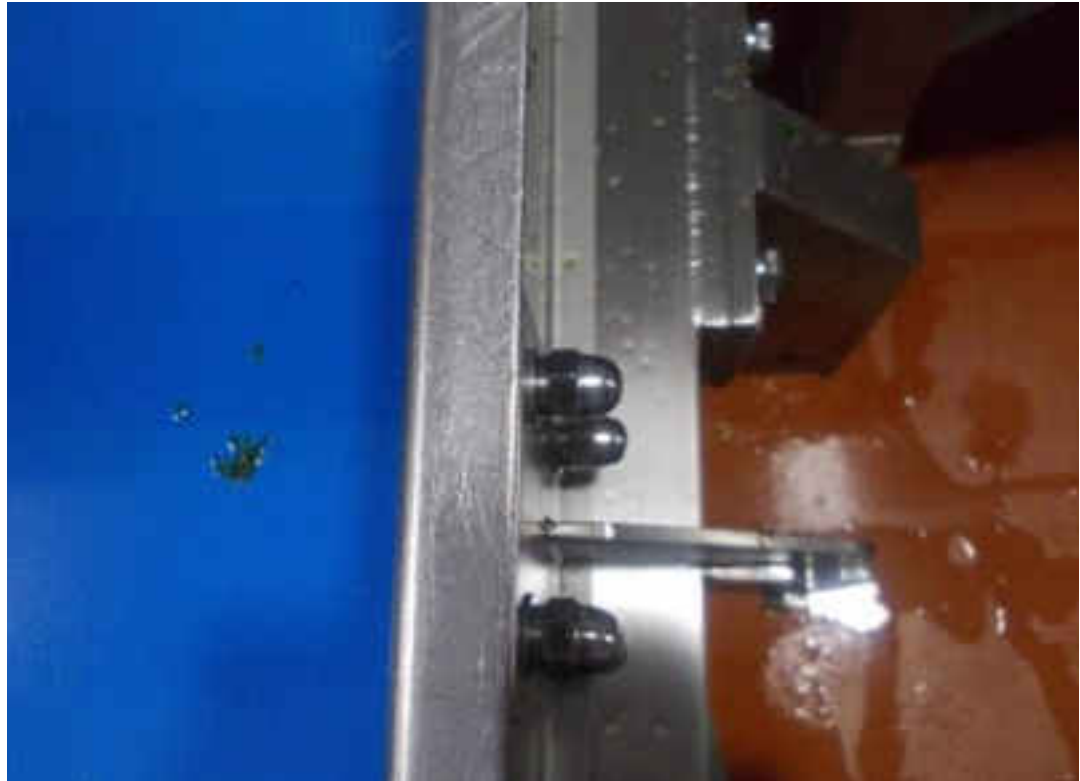
Key challenges to the food industry in hygienic design

- Historical design issues and previous modifications
- Design do not always suit what is required – cost, access
- Installation
- Health & Safety requirements

Fastenings



Exposed screw threads, nuts, bolts, screws and rivets must be avoided wherever possible in product contact areas

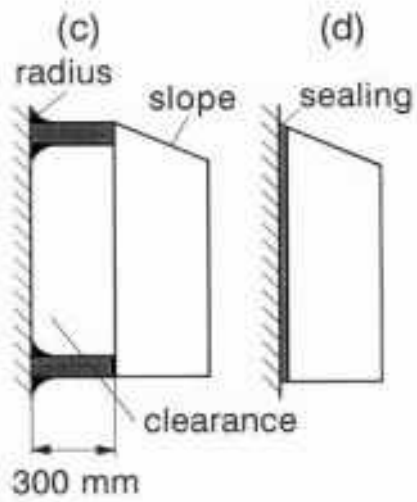


Fastenings kept outside of the product flow

Drainage



Horizontal surfaces on the top the cabinets



Slope



Installation and Bearings



Bearing should, wherever possible, be mounted outside the product area to avoid possible contamination of product by lubricants (unless these are edible), or to avoid possible failure of the bearings due to the ingress of the product.

Motor above the product but
the catch tray was installed



Smooth and continues
product flow



Health & Safety Requirements



Guarding of moving parts sometimes makes access more difficult

Kanes Foods is investing in people

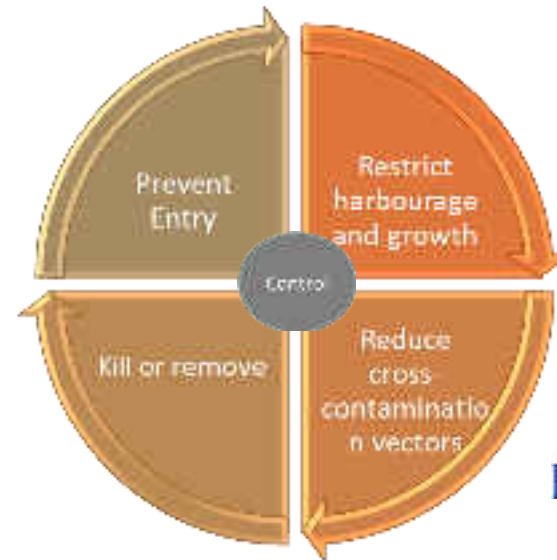
EHEDG Advanced Course on Hygienic Design,

completed by key personnel from Engineering and Projects departments



Level 3 – Listeria Management course,

completed by Technical, Production, Hygiene and Engineering teams across 3 factories (over 40 people)



Thank you very much for your attention!

