



CENTRAL BOTTLING INTERNATIONAL

Central Bottling International Ltd



- Privately Owned
- Based in South Yorkshire
- Formed in 1978
- Primarily supplies equipment to the food and beverage industry worldwide
- Significant Exports to third world countries
- Other activities include supplying process equipment to many industries

Objectives Today



- Practical view – operate own aerobic digestion plant
- Current position
- Outline of plant operation
- Advantages of this operation
- Test plant
- Operating costs
- Uses for end product
- Plant locations
- Our conclusions

Current position



- Recognised opportunities in late 1990's
- Erected purpose built facility 2001 / 2002
- Commenced operations March 2003
- Fruit, vegetable + pastry waste
- Produce pathogen free liquid animal feed
- Received temporary accreditation for ABP in February 2004

Current position



- Agreeing end product outlets
- Creating partnerships
- Potential orders to supply aerobic digestion plants
- Test plant
- Experience of handling various products

Plant Operations



- Waste delivered in Dolav's (lidded)
- Contents into hopper



Plant Operations



- From hopper to shredder to in-line macerator-
via inspection belt, fitted with metal detector
- Dolav through bin washer



Plant Operations

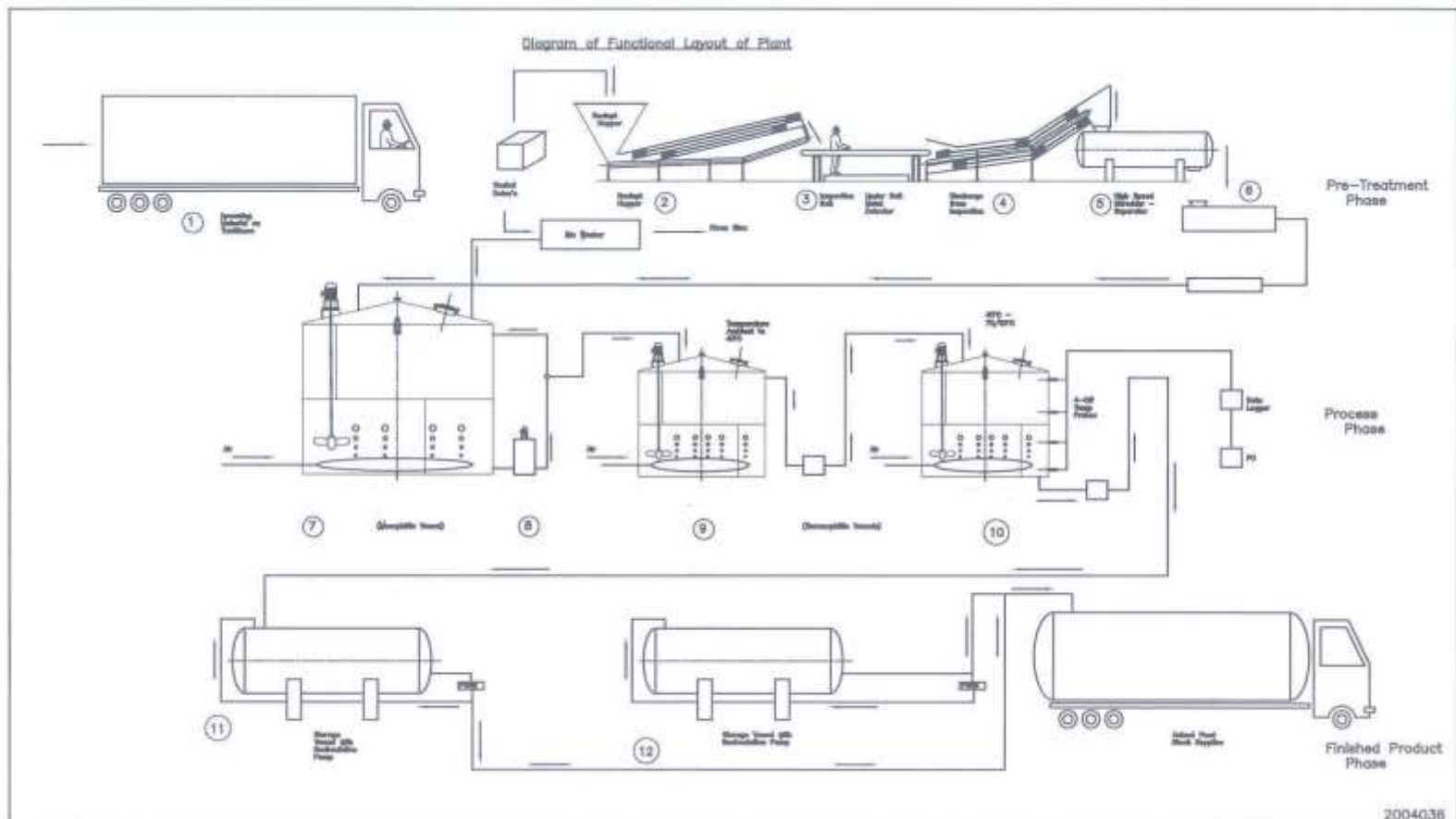


- Product to feed vessel
- Continuous operation

Plant Operations



- Feed vessel → digester 1 → digester 2
- Digester 2 → End product vessels



Advantages



- Modular
- Three maceration stages
- Batch controls on second digester
- Temperature probes linked to computer providing permanent record
- No cold spots in digester
- Relatively clean operations
- Relatively low labour costs
- Product processed quickly then taken off site
- No harmful emissions
- No by-products

Test Plant



- Configuration



Test Plant



- Configuration
- EA approval for use on our site
- Allows range of products to be tested

e.g poultry trimmings, fish waste, school catering waste and feathers





Test Plant

- Tests have always resulted in serious plant enquiries.

Operating costs



- Haulage
- Labour
- Depreciation
- Electricity
- Distribution of end product



End Product

- Soil enhancer
- Compost manufacture
- Growing media manufacture
- Various agricultural uses
- Bottling the product to retail



Plant Locations

- Farm land close to waste producers
- Industrial estates
- Urban areas
- Existing landfill sites
- Waste producers sites
- Anywhere

Conclusions

- Commercial equation
- Regulatory bodies
- Legislation changes
- Technologies available
- Combined effort required



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