AMT
Advanced Microwave Technologies

Black Pudding and Cooked Sausage

Process description

The AMT System introduces a completely new way of manufacturing cooked sausage.

Ingredients such as blood (fresh or reconstituted), meat emulsions, cereal, fat and seasoning may be premixed and pumped raw through the AMT System.

Operating at a temperature of 85°c, the cooked mixture emerges from the machine evenly heated and sterile.

The cooked sterile mixture can then be fed directly and aseptically from the AMT System into a conventional casing filling machine or packaging line.

Versatility

The scalable and modular nature of the AMT System allows a wide range of production capacities to be catered for.

The smallest machine the **AMT 150** is capable of producing 150 kgs of cooked product per hour.

The large **AMT 1500** is capable of cooking approximately 1.5 - 1.6 tonnes per hour of black pudding or cooked sausage (equivalent to 9 - 9.5 tonnes in a 6 hour shift).

Virtually any mix that can be pumped through a 50mm pipe may be cooked using the AMT System.

The easily cleaned cooking chamber in the AMT System allows a range of products to be cooked using the same machine with little time lost between recipes.

The advantages of "Hot Fill" cooked sausage production using the AMT System

Cost reduction

- Dramatically reduced cooking costs
  AMT System: £7 per tonne
  Conventional : £~80 per tonne
- Low installation costs & small foot print
- Reduction in labour costs

Improved product

- Significant increase in shelf life
- Better retention of nutrients and flavour
- Improved control of temperature and hence quality

Better for the environment

- More efficient use of energy
- Carbon footprint reduction (up to 90%)

'Global leader in the use of microwaves to heat and condition liquids, suspensions and semi solids'

The AMT System of "Volumetric Heating" presents a unique technique to deliver microwave energy deep into liquids on a continuous basis and on an industrial scale.

The AMT system allows practically any material that can be pumped through a 50mm diameter pipe to be heated and conditioned using microwaves. The heart of the system is a unique wave guide which allows magnetrons of varying power output to focus their energy uniformly across the entire cross-sectional area of any microwave transparent tube. The AMT mixing system keeps even the thickest liquids moving and ensures rapid and even heating.

Design Features

- There are no hot metal surfaces for difficult materials to stick to (eg milk, egg, blood)
- The unique AMT mixing device ensures even flow and cooking of the most viscous fluids
- The cooking chamber may be made of any microwave transparent material and can be optimised for the temperature and pressures required
- By adjusting the number, spacing and size of the microwave sources the cooking system is highly scalable
- Fine control of temperature (±0.5°c) is achieved by automatically varying the flow rate of the integrated pump
- Compact design fabricated in stainless steel
- Easily and quickly cleaned
- Batch processes may be made continuous
- Potential to create new or enhanced products
- No ancillary equipment or controls required

For further information about demonstrations of the AMT system or to trial the technology, please contact BESTPUMP on 0845 467 2378 or email info@bestpump.co.uk

The AMT System can offer significant carbon reductions over conventional methods of cooking. AMT can help provide an independent assessment of how these savings can be converted into economic benefits.