AMT
Advanced Microwave Technologies

Scrambled Egg

Process description

The AMT System introduces a completely new way of producing scrambled egg in a commercial situation.

The ingredients - raw egg, milk and seasoning may be premixed and pumped directly through the AMT System.

Operating at a temperature of 85°c, the cooked scrambled egg emerges from the machine evenly cooked and virtually sterile.

The egg may then be fed directly and aseptically from the AMT System into a conventional filling machine or packaging line.

The AMT System is particularly suited to the cooking of high protein foods such as eggs because there are no hot metal surfaces on which the proteins can stick.

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 scrambled egg per hour. The large **AMT 1500** is capable of pasteurising approximately 1.5 tonnes per hour of egg (equivalent to 9.o 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 cooking egg using the AMT System

Cost reduction
- Dramatically reduced cooking costs
  AMT System: £7 per tonne
  Conventional : £~60 per tonne
- Allows fresh eggs to be used rather than pasteurised egg
- Low installation costs & small foot print
- Reduction in labour costs

Improved product
- Significant increase in shelf life
- Better retention of micronutrients
- Better retention of colour and flavour

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 (±1°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.