# **RotaTherm**<sup>®</sup>

# WORLD-LEADING MEAT PROCESSING DEFATTING, RENDERING, TACO MEAT & PIE FILLINGS

### Cooks up to 20,000kg/h

- Runs 156h non-stop between CIPs
- Flexible, best taste, lowest waste
- Low temp, pasteurise, UHT
- Lowest operating costs, fastest ROI

Beef, poultry, fishmeal & more







## Your benefits with RotaTherm®

The Natec Network RotaTherm® continuous cooking system's fast even heating (~15 secs) and flexible processing conditions benefits meat product manufacturing by delivering a fresher, less processed product with superior bacterial treatment and resultant shelf life.

Productivity is increased by higher yields and long runs times (with very high processing rates available).

### • Flexibility and control of the processing conditions to optimise the result from each formulation

- Multiple steam injectors for better control and fine-tuning
- Maintain particulate integrity (up to 25mm)

#### • Increased:

- » Yield: up to 7%
- » Productivity: up to 30%
- » Run time: up to 156h (long run options available)
- » Turn down ratio
- » Bacteriological safety
- » Particulate management
- » Hot fill
- » Density control
- » Fill weight control

### • Reduced:

- » Labour costs: up to 30%
- » Heating and cooling costs: up to 30%
- » Footprint: up to 50%
- » Formulation costs: up to 10%
- » Reduced environmental waste
- » Cleaning chemicals up to 70%
- » Maintenance
- » Packing costs up to 30%







## **C**onfigurations

- » Pasteurised, UHT or aseptic
- » Designed to meet your requirements

## **Defatting process:**



44,000lbs per hour of fatty beef meat trimmings are transported to a grinder, and ground through a hole plate, usually 1/8 to 3/16. This product will generally test about 70% fat.

The grinder would be positioned to discharge the meat into a Natec Network Twin Auger Feed Hopper. The twin augers (screws) push the product forward, under constant pressure, into a Waukesha feed pump.

The product is pumped into a direct steam injected RotaTherm® continuous cooker column. All process parameters are continuously monitored to insure consistent product flow, consistent steam pressures, consistent steam injection and uniform mixing of the culinary steam with the product. Very precise temperature control is achieved, maintaining a cook temperature of 40.5°C (105°F).

Product then enters a hold tube, which maintains temperature for approximately 30 seconds, insuring a complete melting of all fat content in the meat.

The liquefied product is passed through a Comatrol (a disintegrator) to break up any protein chains that may have formed during the cook process.

The product is then pumped to a horizontal centrifuge, where the remaining protein solids are separated from the liquid phase.

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The solids portion will usually be approximately 30% of the incoming total. The solids are dropped out of the horizontal centrifuge into an auger feed hopper.

The liquid phase goes to a vertical decanter where the liquid phase is separated into two streams, one containing the liquid fat, and a second stream containing the natural moisture along with soluble proteins from the meat and the moisture added by the steam used in the cooking process.

The liquid phase consists of approximately 80% oils and 20% serum plus the water added as steam during the cook process

The liquid fat is transferred to a holding tank or transport vessel.

The second stream of natural serum is pumped back into the hopper with the solids obtained from the horizontal centrifuge. This recombined product is pumped to a blender that is equipped with CO<sub>2</sub> injectors, where it is thoroughly mixed and cooled

The resulting product is still considered to be raw meat, and will be approximately 95% lean.



*Natec Network* is a global group of food technology companies, with vast expertise and experience that innovates with you to deliver the exact production solution you need.

We pride ourselves on building adaptable machines and production lines that are super-efficient, reliable, have huge productive capacity and bring you fast ROI. This machine is no exception.

Let's work together to develop your ideal solution.

#### Please contact us today.



Explore our meat processing systems online



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