



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
ShearTherm
online



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ShearTherm

WORLD-LEADING HIGH-SHEAR COOKER VERSATILE EMULSIFIER & STEAM BATCH COOKER

- ✓ Amazing for powder content, patented M4E tech stops lumps
- ✓ Far less energy use than shear pumps & old emulsifiers – fast ROI
- ✓ Fast CIP (fast changeovers, max uptime)
- ✓ Steam – freshest taste & colours
- ✓ 4 sizes: 30L up to 4x 600L batches/h



Vegan
slices



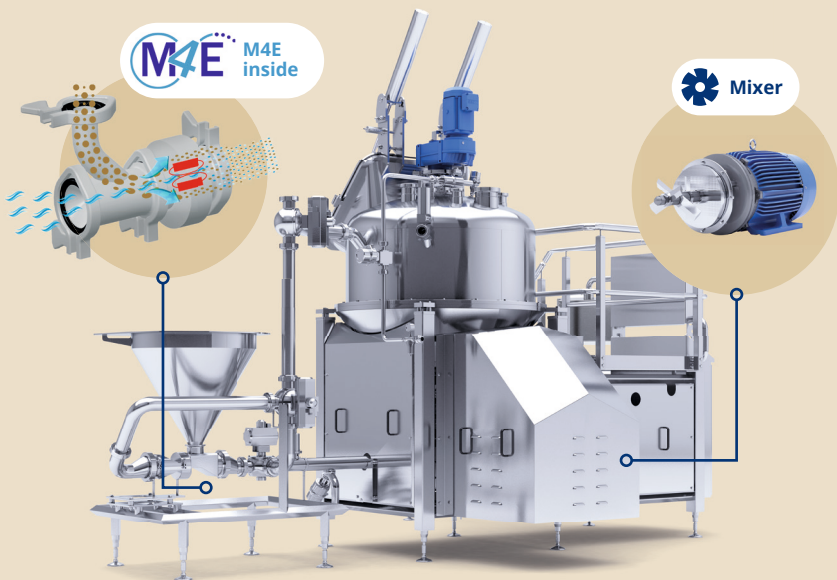
ShearTherm

Natec Network's ShearTherm is an integrated mixing, cooking, shearing and emulsifying system. Many processes are combined and controlled in the small **ShearTherm** footprint, delivering maximum process, recipe and application flexibility and efficiency. With full control of all process functions it delivers excellent finished product characteristics and quality – even with particles!

The **ShearTherm** is the perfect choice for high powder concentrated and plant-based products. With our innovative and unique **Magnet for Emulsion (M4E) technology**, and a special multi directional pre-mixer and agitator, it delivers short and efficient ingredient mixing. The integrated vacuum system and different shearing units, each with controlled variable speed, guarantees a very high repeatability, short batch cycles, 100% homogeneous and lump free product. Product heating utilises unique **Natec Network** direct steam injection while temperature is accurately monitored by **Natec Network** self-cleaning temperature probes.

ShearTherm with M4E: a unique combination!
The M4E is ideal for almost any process for mixing/emulsifying of dry materials and liquids or as replacement for shear pumps and commercial emulsifying units.

- Benefits of using M4E technology compared to a mechanical shear unit**
- » Simple handling and easy to integrate into any process
 - » Improved product quality and product stability
 - » Significantly lower service and energy consumption
 - » No wear, no maintenance costs as there are no moving parts and complicated shaft seals
 - » No product contamination through abrasion or defective seals



- Better ROI**
- » Built to minimise downtime
 - » Fastest CIP (fast changeovers, max uptime)
 - » Save your recipes/processes (quick changeover)
 - » High productivity (up to 4x 600L batches/h)
 - » Only 1 operator required
 - » Steam cooking can add to yield



Cooking /
pasteurising



Processed
cheese



Cream
cheese



Soups, sauces
& dressings



Plant based
& vegan



Fruit &
vegetables



Baby
food



Specialty
& desserts

+ Benefits

- » Amazing for high powder content recipes – patented M4E tech stops lumps
- » M4E removes need for old-fashioned mechanical shear unit or shear pumps
- » M4E does less product damage than mechanical shear units
- » Highest control over processing conditions delivers excellent product characteristic and quality
- » Optimum functionality generates stable emulsifications with repeatability quality
- » Reduced energy costs and space requirements
- » Far less energy use than shear pumps & old emulsifiers – fast ROI
- » Easy production and CIP through automatic programs and a touch screen
- » Fast CIP allow fast changeovers, and maximum uptime
- » Combined discharge and CIP pump
- » Fully enclosed, CIP-able, hygienic design ensures product safety
- » Uses direct steam injection cooking which retains the freshest taste & colours

+ Options & attachments

- » Bin lifter for ingredients addition
- » Level measurement for exact dosage and traceability
- » Steam conditioning unit
- » Liquid addition system
- » Integration with existing CIP system
- » Indirect heating and cooling jacket
- » Duplex filters (for processed cheese)
- » Seamless integration with a UHT **RotaTherm®** cooker
- » Buffer tanks available
- » Flexible powder addition systems
- » Shear pump version also available
- » Further options available

⚙️ Technical data

Machine data » 400V, 50Hz, 3 phase Different voltages available	Capacity data » Up to 4 batches/h Recipe dependent	Heating temperature » Up to 98°C (208°F) by direct steam injection	Human Resources » 1 operator required
Utilities » Steam, air, water and power as required	Cleaning » Stand alone, or integrated into CIP system	Execution » All product surfaces are AISI 316L (1.4404) stainless steel	

Type	Direct steam injectors (DSI)	Capacity*	Dimensions** (LxWxH)
ShearTherm 50	2	30-50L	3,300 x 1,700 x 2,100mm (130" x 67" x 83")
ShearTherm 150	4	75-150L	6,000 x 2,500 x 3,300mm (237" x 99" x 130")
ShearTherm 300	6	150-300L	6,600 x 3,700 x 3,600mm (260" x 146" x 142")
ShearTherm 600	10	300-600L	6,600 x 3,700 x 3,600mm (260" x 146" x 142")

* Capacity range from 50% to 100%, ** Dimensions including bin lifter and buffer tank. Different configurations available to suit your plant layout.