



NEAEN MASTERFRY
CONTINUOUS FRYER



NEAEN MasterFry is a fryer designed for frying using total immersion in oil. Thanks to the dual grid, it can also be used for food which rises to the oil surface.

When the oil is hot, evaporating water forms bubbles which rise to the surface of the deep fat fryer around the product and create the illusion of boiling oil. Almost all the products being processed have (or obtain during frying) a lower density than the heated oil and therefore float on its surface.

The NEAEN MasterFry continuous fryer is ideal for frying large pieces of product with relatively solid surfaces, such as pieces of chicken or meat, burgers, crackers, corn on the cob, and the like.

Products are fried by immersion in oil, moving along the bath between two synchronously moving conveyor belts. Because of this products do not float on the surface of the oil bath and don't fall below to the bottom grid.

The speed of the conveyor grid is varied by inverter.

The product is loaded into the fryer by a feeding conveyor, which distributes the product evenly on the grid. After frying, if necessary, the product is intensively cooled by means of a air cooling conveyor. Excess oil is removed by intensive air purge. An "air knife" section is usually integrated into the cooling conveyor.



Permanently pure oil – a guarantee of a high quality finished product

The entire volume of oil in the NEAEN continuous conveyor fryers undergoes constant filtration. Smaller product particles are continuously removed using the special multistage stainless steel filters, and the operator visually determines the degree of contamination and the need for filter cleaning. Filter cleaning is performed during operation of the equipment while the oil is still being filtered through the second pair of filters.

Intensive oil circulation between the heat exchanger or heating elements and the product, as well as precise temperature control, prevents local overheating of the oil and thus does not impair its beneficial properties.



Oil savings

Using an external heat exchanger unit helps to achieve an extremely high rate of oil turnover. The whole cycle of oil circulation, including filtering, takes only a few seconds.

Due to uniform heating in the system, oil is not overheated at any time or place, and it does not contain product particles due to the continuous filtration.

Therefore, our continuous fryers require less total volume of oil in the system and do not require its change.

Oil consumption is only due to its carrying over of the product.



Making it a stable operation at high temperatures, design features of the neaen masterfry continuous conveyor fryers include:

- ▶ The housing design features high stability and strength, and therefore durability.
- ▶ The external drive is not subject to overheating, which can cause deformation and leakage of oil from the gearbox.
- ▶ The easy-to-remove covers provide thermal insulation and remove steam and smoke through the ventilation system and built-in filters.
- ▶ A labyrinth seal is applied to prevent leakage of flue gas.
- ▶ Operator safety is guaranteed by a reliable insulated layer.
- ▶ Its construction dynamically compensates the thermal expansion of the metal.
- ▶ Gear is mounted on the drive shaft to compensate the dynamic expansion of the grid.



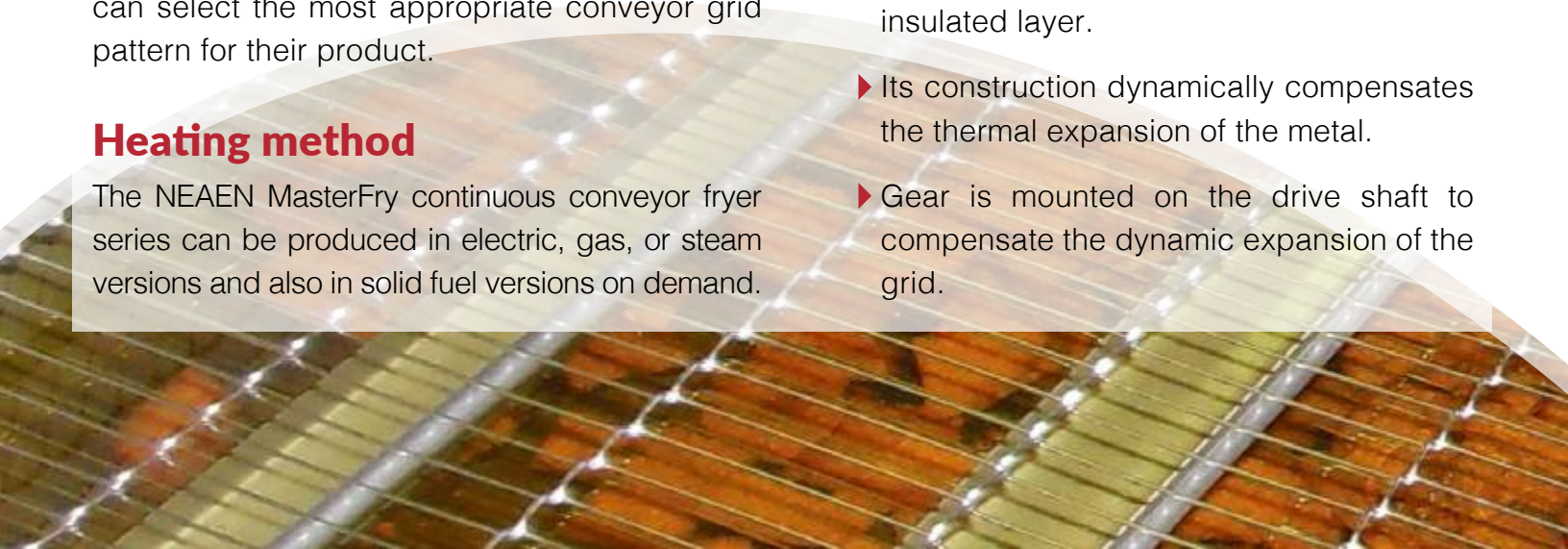
Frying grid

The conveyor grids used in the manufacturing of NEAEN continuous fryers are made of stainless steel, very hygienic, and easy to clean. You have the option to install a special “turbo brush” for continuous mechanical cleaning of the grid during the frying process.

With the configuration of the fryer, the customer can select the most appropriate conveyor grid pattern for their product.

Heating method

The NEAEN MasterFry continuous conveyor fryer series can be produced in electric, gas, or steam versions and also in solid fuel versions on demand.

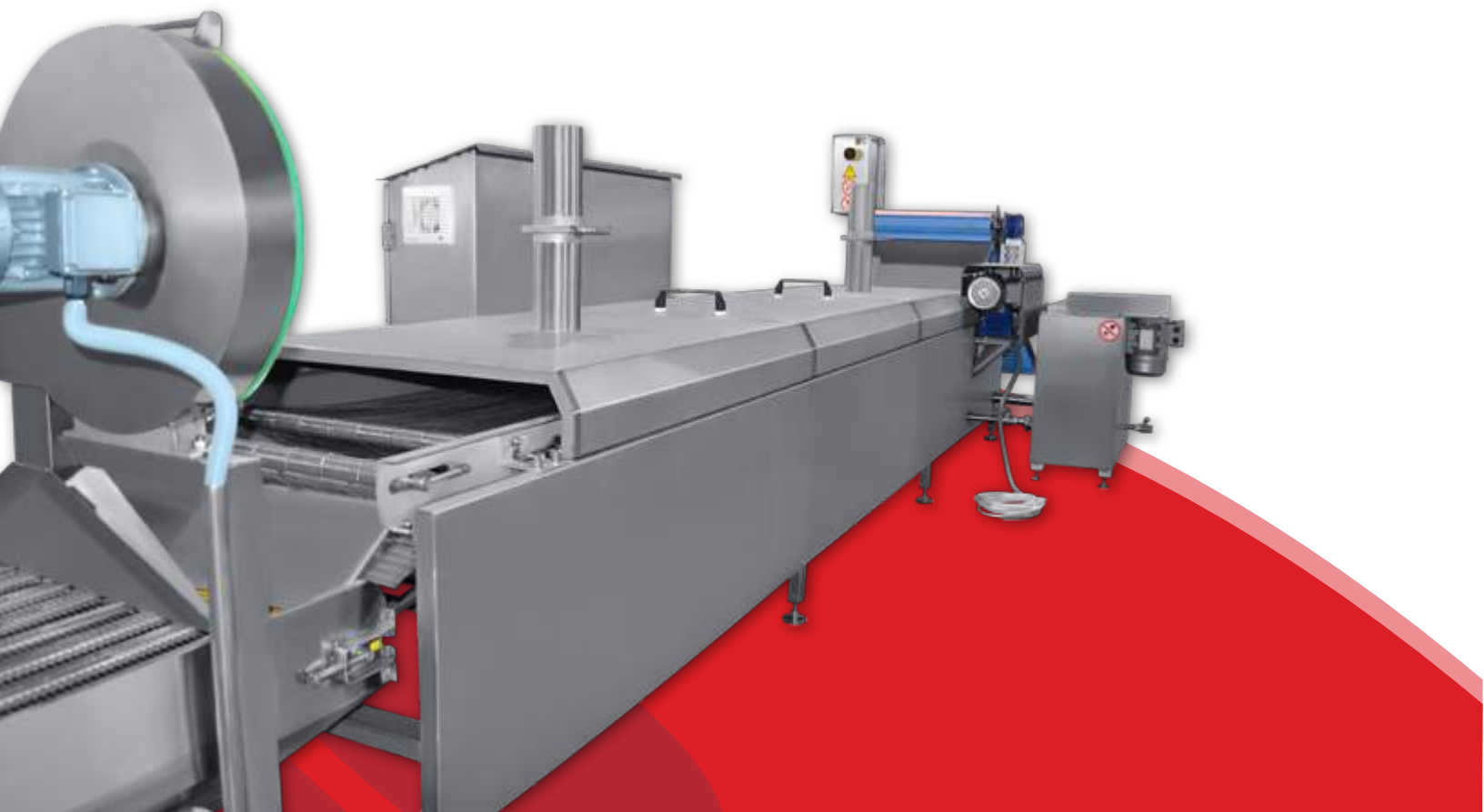


Continuous fryer selection and calculation of performance

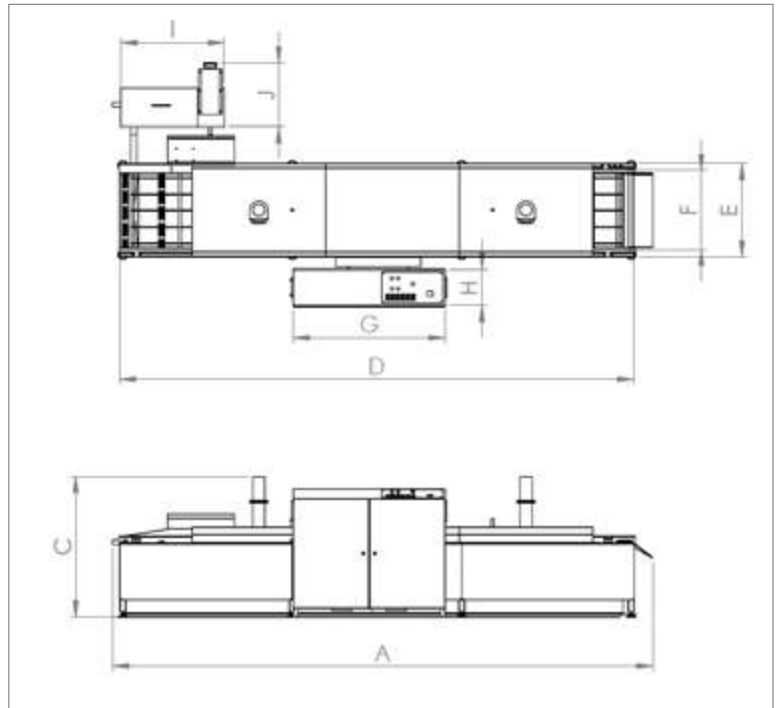
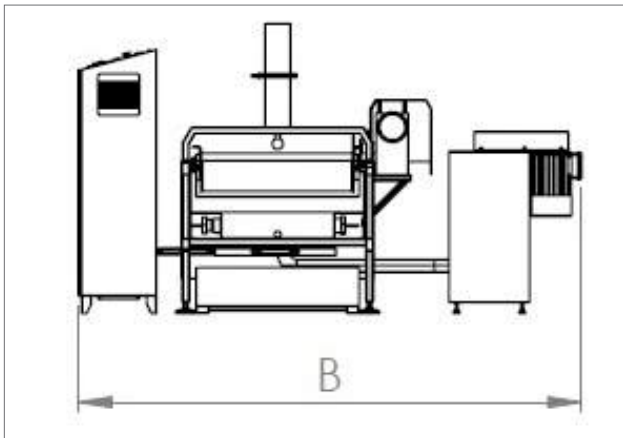
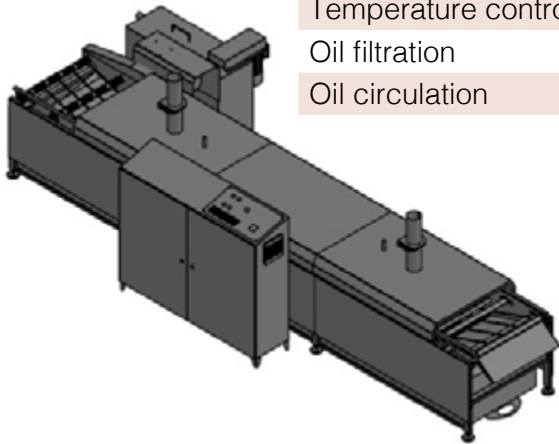
NEAEN MasterFry conveyor fryers are available in commercial models and include conveyor grid widths ranging from 200 to 2000 mm (larger on request); the length of the conveyor fryers is only limited by dimensional restrictions of the customer's plant.

NEAEN continuous conveyor fryer can be completed with any additional equipment at the customer's request – different types of conveyors, product feeding device to the grid, unloading devices, coolers and air knives to remove excess oil, drum coating machines, and conveyor device for adding spices.

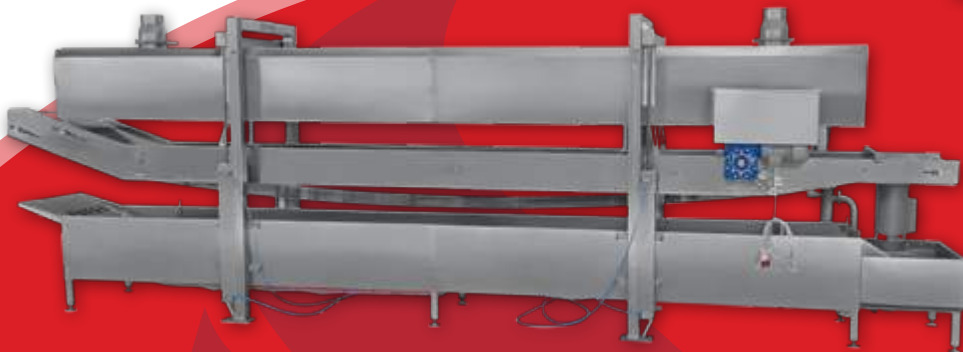
The performance of the continuous fryer is calculated for each product individually and depends on the bulk density of the product (how many kilograms of the product that will be posted on the one square meter of the conveyor grid) and frying time.



Width of the conveyor grid, mm	200	300	400	500	600	800	1000	1200	1500	2000
Length of the conveyor grid, mm	2000-10000									
Heating	electro, steam, gas									
Temperature control	three-level control system									
Oil filtration	two-stage stainless steel filter									
Oil circulation	continuous forced oil circulation system									



Model with mechanical lifting of the lid



THE EMA EUROPE COMPANY HAS MORE THAN THIRTY YEARS OF EXPERIENCE IN THE DEVELOPMENT, DESIGN, AND MANUFACTURE OF INDUSTRIAL EQUIPMENT FOR THERMAL FOOD PROCESSING

The range of commercially available equipment includes continuous conveyor fryers and ovens, drum fryers, batch blanchers, and continuous drum and conveyor blanchers, defrosters, continuous and batch cookers both atmospheric and vacuum, scraped surface heat exchangers, and a wide range of auxiliary equipment such as washers, conveyors, pumps, homogenizers, and others.

Our company offers a complete cycle service from design of technology projects to the manufacturing of equipment of any complexity in our own production site, located in the heart of Europe, as well as the introduction of the equipment in operation, upholding the warranty and after-warranty service with our own service center.

Having much experience in the practical implementation of projects in the industrial processing of meat, fruit and vegetable products, semi-finished and other products, our company is ready to offer technological consultation, development of the production process of the project, equipment manufacturing, erection supervision, commissioning works, and further maintenance services to its customers.



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