

Stein M-fryer – Superior immersion frying for the global processor



Next-generation
frying perfection

M stands for many things – all of them good

The M-fryer is the first of a new generation of immersion fryers from Stein and FMC FoodTech. It is engineered specifically to match the needs of global convenience food processors.

Market-driven development

Consumers around the world, motivated by growing affluence and the hectic pace of modern life, use convenience foods at an ever-increasing rate – even for at-home dining. And many food service providers, particularly quick-service restaurants, utilize processed foods to ensure uniform quality, shorter preparation times and greater food safety.

It's a consumer-driven market, and the continuously growing range of choices forces the entire industry – processors and food service providers alike – to increase quality, product range and food safety while simultaneously reducing costs.



Improved performance with the Stein M fryer.

The Stein M fryer enables superior product quality, which drives consumer satisfaction and processor profitability.

Stein can now offer you an immersion fryer that really sets the pace for your processing line and operating margins, by giving you:

- Superior, uniform product quality and consistency,
 - Cost-effective production,
 - Excellent process flexibility,
 - Verified process- and product safety,
- ... all from the world's leading supplier of integrated processing solutions for convenience food products.

Multiple processor benefits

The M-fryer builds on the solid foundation of proven THERMoFIN™ technology, the choice of many of the world's leading food processors. It delivers maximum output and operating economy. At the same time, it offers you great flexibility in terms of product range. You will benefit from the M-fryer's ability to:

- **Improve product quality by keeping oil fresher.** Superior food product quality results from many features, the most important being the proprietary THERMoFIN system's gentle heat transfer, which protects the oil from the degrading effect of rapid thermal changes.
- **Deliver cost-effective frying,** because low tank volume, gentle and uniform heat transfer and highly efficient sediment removal decrease your oil costs.
- **Increase operating profitability.** Rapid product changeover, user-friendly controls and a wide range of configurations deliver optimum performance.
- **Ensure food safety and promote processing safety,** because the M-fryer was designed with superior cleanability, exact process control and operating safety in mind.
- **Facilitate long-term flexibility and profitability,** because the M-fryer's modular design permits many configurations and options, matching its function to your processing needs – no matter what you produce, or where you produce it.

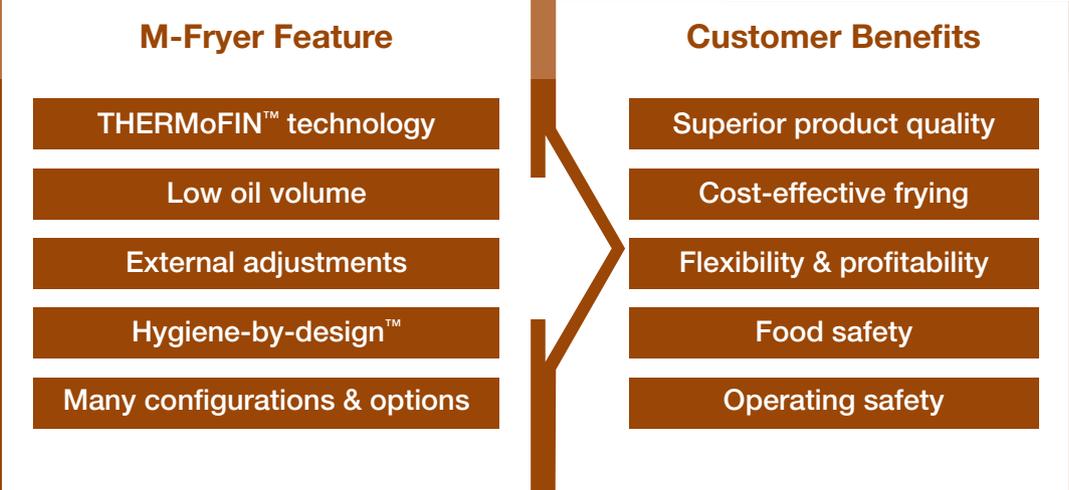
Get the fryer you need, today and in the future

Your profitability and revenue growth are the key factors motivating our differentiated frying technology.

By helping you to produce uniform, superior food product quality today, we aim to provide you with the tools for long-term growth and profitability.



Superior product quality
The M-fryer's superior oil handling delivers both improved oil quality and lower oil cost, thanks to its lower oil volume and turnover, the unique THERMoFIN heat exchanger design, and better oil treatment.



Matched & modular – to answer your needs

As a processor, your highest priorities are superior, uniform product quality, processing safety, cost-effective production, operational flexibility and verifiable food safety.

The M-fryer was developed to fulfill each of these goals with ample margins. Its superior oil handling, precise controls and complete cleanability help ensure food quality as well as food safety.

Your feedback played a vital role in the M-fryer's development, and we have responded to your needs. Its differentiated modular design aims to give you greater flexibility in planning and production as well as measurable performance improvement in your day-to-day processing efficiency. But that's only the start.



The M-fryer was designed 'from the ground up' to ensure you measurable operating efficiency, better food product quality, greater operating flexibility and superior food safety.

Ensure product quality & cost-efficiency

Oil handling and oil cost are key concerns. Better oil management raises food product quality and reduces operating cost:

- **Gentle heat transfer** inherent to THERMoFIN™ technology reduces oil degradation – the oil stays fresher longer.
- **Reduced tank volume** means a smaller volume of oil is needed to fulfill the job – without prolonging process times.
- **Electro polished heat exchanger fins** prevent oil degradation. Food particles cannot adhere to them, but instead fall to the bottom, to be quickly removed by the sediment removal system.
- **Sediment is removed at infeed**, minimizing its opportunity to 'sour' the oil. This two-step system comprises a sediment conveyor running counter to product flow, and a slotted screen with cross-wise scraper at infeed that removes major sediment immediately.
- **Internal filtration system** keeps the oil clean, reducing (in some applications even eliminating) load on external filters.
- The unique **counter-current oil circulation** minimizes turbulence, allowing fine sediment to be removed to preserve oil quality.
- **The waterlock** stops condensation from returning to the oil, maintaining oil quality and promoting better food quality.

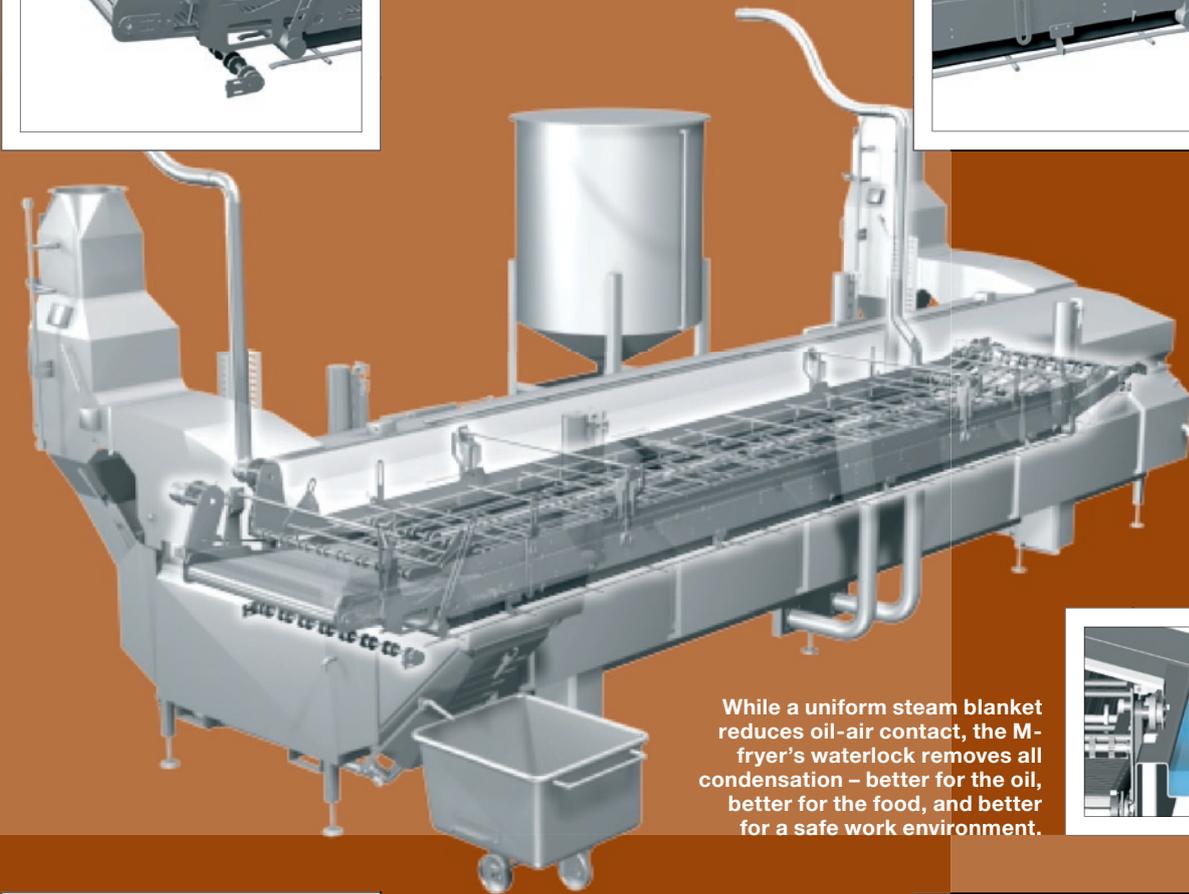
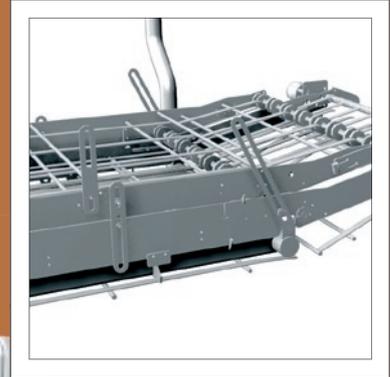
Food safety is the key to long-term profit

Product quality and food safety go hand-in-hand. We made sure that you will achieve both, without sacrificing profitable production time:

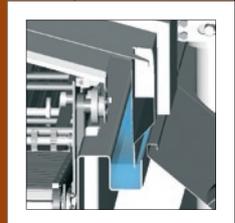
- All areas of the M-fryer are **accessible for cleaning**, including the hood and stack; its 250 mm floor clearance ensures thorough cleaning outside the machine, too.
- With the optional CIP system, you can **automate cleaning**, to achieve completely reliable hygiene control and faster turnaround.
- Design of heat exchanger, oil circulation, internal filters and sediment removal **keep oil quality better** for a longer time.
- Exact heat control and gentle heat transfer give you **instant control** over your process, while safeguarding oil quality.



External adjustment of product conveyor and top submerger enable fast turn-around between products, while the M-fryer's low oil volume ensures rapid oil change.



While a uniform steam blanket reduces oil-air contact, the M-fryer's waterlock removes all condensation – better for the oil, better for the food, and better for a safe work environment.



The unique THERMoFIN™ vertical heat exchanger delivers the gentle heat transfer and maximum heat availability that promote superior product quality. Its large surface area transfers heat quickly and efficiently, while the open design of its electro polished fins ensures that sediment falls through and is quickly removed. The minimal fluid volume and high flow rates in the heat exchanger ensure quick response to heat demands, at start-of-shift and throughout operation.



Measure your profitability in terms of range and flexibility

Foreseeing and satisfying the fast-changing tastes of today's consumer is the key to success, profit and sustained growth in the convenience food industry.

To achieve this, it is not enough to be creative. Your production resources must quickly adapt to a range of recipe requirements and, in the age of 'designer' food, be able to produce a wide variety of product with a minimum of process downtime. Just as important, as your business grows, your resources must be able to grow with you.

Set the pace for your process

Here, again, we anticipated customer needs when we developed the M-fryer. User-friendly operation, with exact stepless temperature control and external adjustment of product conveyor and top submerger, increases



It takes teamwork to achieve processing profitability. The M-fryer is backed by the global resources of FMC FoodTech – the Solutions Provider who puts your team in the championship.

recipe range and reduces changeover down-time, while a wide range of configuration alternatives matches the M-fryer to your processing requirements – today and in the future – including:

- Two effective frying widths and four different fryer lengths, to match your capacity needs,
- Electric- or hydraulic drive,
- Thermal fluid- or electric heating (and possibility to switch from electric to thermal fluid at a later date),
- Single- or double-ventilation stack,
- CO₂- or water mist fire suppression-compatible,
- Optional components to further adapt the fryer to your needs – floating sediment removal with oil recovery, Teflon slats with external adjustment, oil mist eliminator, and more.

Ensure the safety of your operation

Productive, profitable processing is also a question of making the job simpler and safer for the operator.

The M-fryer's external adjustments and user-friendly controls promote safe, accurate, efficient operation. Operator panel is conveniently located close to the fryer, while power panel is kept separate. Features such as the optional fire suppression system and oil mist eliminator provide additional insurance for your investment and process safety.

Your LINK to success

The M-fryer is LINK™-enabled, because process automation is rapidly gaining ground in the food processing industry.

LINK, FMC FoodTech's comprehensive process automation and control suite, satisfies the industry's growing documentation requirements while giving you the tools to simplify production at the same time you improve product uniformity and optimize yield.

The complete solutions provider

As part of FMC FoodTech, we deliver complete food processing solutions, from product portioning to battering, breading, frying, cooking, freezing and refrigeration.

We don't just supply the technology. Our Food Technology experts can help you to optimize product and production. FMC FoodTech's global service team offers cost-effective preventive maintenance, as well as emergency trouble-shooting capabilities.

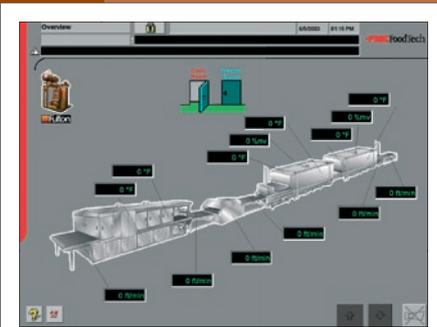


Put FMC FoodTech's specialists on your team. They can work with you to improve processing efficiency, develop new food products or enhance the profitability of your operation.



FMC FoodTech's global service team is on call to serve you at a moment's notice.

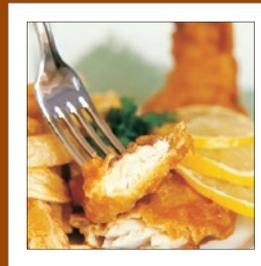
The M-fryer is LINK-enabled, which means you can quickly incorporate process automation on your process line, with such features as recipe management, troubleshooting, and complete process documentation.



Your education, testing and processing facilities away from home

Chances are, your technicians are working on new concepts right now. We invite them to bring their concepts to the FMC FoodTech Technology and Training Centers. Our fully equipped processing facilities have been used by most of the leading processors around the globe to give birth to some of the most popular brands of foods on the market. Call or go online to learn more about further education and product development opportunities at FMC FoodTech.

Your one source for complete food processing solutions:



- DSI Portioners
- Stein Coating Systems
- Stein Frying and Filtration Systems
- Stein Ovens and Cooking Systems
- Frigoscandia Equipment – Freezing and Refrigeration Systems
- Northfield – Structure Supported Spiral Freezing Systems
- Aftermarket Services
- Food Processing Technology and Training Centers
- LINK™ Controls and Software Solutions

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