

The FoodTech Report, Volume 3 (2005) - Issue 2

A Commitment to Workplace Safety

Golden Opportunity for a Strategic Partnership

Eliminating the Guesswork from Sizing Freezers

FMC FoodTech Honored with Vendor Summit Award

Advancing Sterilization Processes

Increasing Yield and Profits

SuperAgi™ Offers Sterilization Versatility, Cost-Savings

News and Notes

Article Index Search



View all >>

A Commitment to Workplace Safety



FMC FoodTech's commitment to safety is a key consideration in the way the company services and designs customer equipment.

[Click here for more>>](#)

Golden Opportunity for a Strategic Partnership

A Golden Opportunity for a Strategic Partnership: FMC FoodTech Helps Seafood Processor Achieve Its Long-Term Goals



[Click here for more>>](#)

Eliminating the Guesswork from Sizing Freezers

Proprietary GYRoCAP™ Technology Matches Freezer Size with Customer Requirements



[Click here for more>>](#)

FMC FoodTech Honored with Vendor Summit Award

America's Leading Mexican Food Manufacturer cites FMC FoodTech with Vendor Summit Award

[Click here for more>>](#)

Advancing Sterilization Processes

Advancing Sterilization Processes at FMC FoodTech's Process Technologies Labs



[Click here for more>>](#)

Increasing Yield and Profits

The Tuna Pre-Cooker gives processors the ability to thaw, pre-cook and cool the tuna in one machine.



[Click here for more>>](#)

SuperAgi™ Offers Sterilization Versatility, Cost-Savings

SuperAgi™ Offers Unprecedented Versatility and Cost-Savings in Sterilization



[Click here for more>>](#)

News and Notes

FMC FoodTech's Upcoming Training Opportunities | THAIfex World of Food



[Click here for more>>](#)

The FoodTech Report,
Volume 3 (2005) - Issue 2

**A Commitment to
Workplace Safety**

Golden Opportunity for a
Strategic Partnership

Eliminating the Guesswork
from Sizing Freezers

FMC FoodTech Honored
with Vendor Summit
Award

Advancing Sterilization
Processes

Increasing Yield and
Profits

SuperAgi™ Offers
Sterilization Versatility,
Cost-Savings

News and Notes

Article Index Search



View all >>

**Delivering Value to Customers through a Commitment to
Workplace Safety**



FMC FoodTech's commitment to safety is a key consideration in the way the company services and designs customer equipment.

From traceability solutions to the company's "hygiene-by-design" philosophy, FMC FoodTech is known for helping customers improve the safety of their processes and products. What may be less well-recognized is FMC FoodTech's enviable record for workplace safety - and what that means for FMC FoodTech customers.

"We emphasize safety in all aspects of our business and our customer's businesses," said Charlie Cannon, group manager for FMC FoodTech. "From equipment design and operation manuals, to the rigorous safety standards all FMC FoodTech employees practice during customer site visits, our organizational commitment to safety is a remarkable value-add for our partners."



Using equipment built for safety, working with strategic partners firmly committed to safe practices, and implementing comprehensive safety procedures can offer processors more than just safer employees and better food safety records.

Health, safety and environment (HSE) is a core value of FMC Technologies, which has honored FMC FoodTech, an operating group of the corporation, with several awards for outstanding safety performance. In fact, FMC FoodTech divisions won the FMC Technologies Safety Award of Excellence in both 2002 and 2003 for their continuing improvement in safety performance.

"Compared to U.S. Bureau of Labor Statistics (BLS) and Occupational Safety and Health Administration (OSHA) data, we're several orders of magnitude safer than what's typical in the manufacturing industry," said Steve Ward, corporate director of environmental, health and safety for FMC Technologies.

FMC FoodTech's commitment to safety is a key consideration in the way the company services and designs customer equipment. "Operator safety is a critical element of our product design reviews," said Cannon. "We implement feedback about safety concerns into our products and incorporate protective guarding, interlocks and micro-switches into their designs to ensure maximum customer safety."

To aid service technicians in safely serving FMC FoodTech customers everywhere, HSE professionals are placed strategically throughout the world at the large manufacturing sites. In addition, FMC Technologies stringent safety standards are mandated while FMC FoodTech employees work on customer sites.

Proof of the company's commitment to safety is evident when looking at the safety records of FMC FoodTech's own facilities. The Collecchio, Italy, operation has completed more than three years without a lost workday or recordable incident, while the Parma, Italy, site has achieved the same results for an amazing eight years. Several additional FMC FoodTech sites around the world also went without a single lost workday incident in 2003. The same year, the West Coast operations for FMC FoodTech's Citrus Systems reached a combined total of 14 years without a lost workday.

"A notable benefit of working with FMC FoodTech is that we're happy to share our health and safety procedures with customers," said Ward.

The transformative potential of FMC FoodTech's safety programs and processes is evident from looking at the before-and-after safety results of some of the division's recent acquisitions.

"In every case in which a company we've acquired has not been up to our safety standards, we have consistently improved their operations to attain them," said Cannon.

For instance, over the past five years, newly acquired businesses in FMC FoodTech's Food Services and Solutions Division have reported a 75 percent improvement in recordable injuries, and employees have worked more than one million hours without a lost time incident. In 2002, Steve Austin, the human resources manager at FMC FoodTech's Newberg, Oregon, operation, won FMC Technologies' Ray Tower Safety Award for outstanding leadership and achievement. From 1999, when the facility

"Safety is a sign that a company executes well, that it has attention to detail. These attributes, along with safety, are benefits FMC FoodTech offers to its customers."

was acquired by FMC FoodTech, to 2002, the operation reduced its number of recordable incidents from 27 to five.

Charlie Cannon
group manager
FMC FoodTech

Further evidence of FMC FoodTech's commitment to food safety can be seen in the training and education of customer personnel on safety issues related to food handling and processing. The company's Citrus Systems business, for example, has developed a broad food safety training program to help its juice customers meet the new HACCP requirements.

Using equipment built for safety, working with strategic partners firmly committed to safe practices, and implementing comprehensive safety procedures can offer processors more than just safer employees and better food safety records. Economic benefits such as lower workman's compensation bills and lower insurance rates can also result. This has already been observed in FMC FoodTech's Parma and Collecchio sites, whose excellent safety performance has resulted in reduced insurance premiums assessed by the National Institute of Working Insurance.

"Theoretically, it could be possible that for a company to be a well-run operation and still have a bad safety record- but I've never seen it happen," said Cannon. "Safety is a sign that a company executes well, that it has attention to detail. These attributes, along with safety, are benefits FMC FoodTech offers to its customers."

The FoodTech Report,
Volume 3 (2005) - Issue 2

A Commitment to
Workplace Safety

**Golden Opportunity for a
Strategic Partnership**

Eliminating the Guesswork
from Sizing Freezers

FMC FoodTech Honored
with Vendor Summit
Award

Advancing Sterilization
Processes

Increasing Yield and
Profits

SuperAgi™ Offers
Sterilization Versatility,
Cost-Savings

News and Notes

Article Index Search

Go

View all >>

A Golden Opportunity for a Strategic Partnership FMC FoodTech Helps Seafood Processor Achieve Its Long-Term Goals



By using the DHF Series fryers, Golden Fresh has realized a number of benefits, including controlled and even application of coating, uniform product temperature, quick startup, good oil management and high-quality final products that exhibit a desirable light golden color.

Golden Fresh, a Malaysia-based seafood processor, supplies premium seafood products such as prawns, fish, and squid in raw, cooked, crumbed, marinated and tempura forms for markets throughout Australia, Europe and the Middle East. The company has been a seafood supplier for a variety of high-profile events, including the 2000 Sydney Olympic Games, Wimbledon and Australia's World Rugby Cup.

To continue its success, Golden Fresh realized it would have to establish strategic relationships with business partners that both share its vision and understand its goals. One such valued partner is FMC FoodTech. The company's relationship with FMC FoodTech has evolved from its first purchase of FMC FoodTech Frigoscandia freezers to now include FMC FoodTech Stein coating equipment and fryers as well.

"There are many players in this industry but we've continued to work with FMC FoodTech because its equipment produces the results we want and is backed by good technical support," said Hai Earn, chief executive officer for Golden Fresh. Earn also noted that FMC FoodTech's forward-looking philosophy was an additional benefit to its customers. "FMC FoodTech understands how the industry has evolved over the years and where it's going," he said.

Today, Golden Fresh is using two FMC FoodTech Stein coat and fry lines with DHF Series direct heat fryers as well as two FMC FoodTech Frigoscandia GYROCOMPACT® self-stacking spiral freezers to maximize the efficiency of its coating, frying and freezing lines. By using the DHF Series fryers, Golden Fresh has realized a number of benefits, including controlled and even application of coating, uniform product temperature, quick startup, good oil management and high-quality final products that exhibit a desirable light golden color.

When compared to its previous experiences with non-self-stacking belt freezers, Golden Fresh has realized significant advantages from its use of the GYROCOMPACT self-stacking spiral freezers. Golden Fresh valued the easy cleaning, better hygiene, elimination of tension belting, increased user-friendliness and uninterrupted operation resulting from the self-stacking belt system of the GYROCOMPACT.

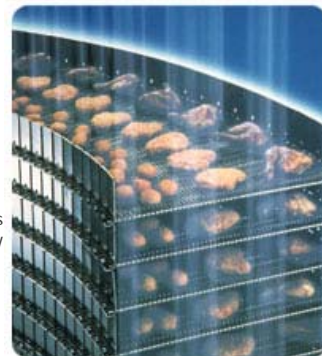
"The quality, technology, performance and reliability we've seen from our FMC FoodTech equipment has encouraged us to buy more FMC equipment – and avoid companies that offer cheaper equipment that ends up costing more in the end," remarked Lip Peng, facility director for Golden Fresh.

Having access to equipment experts who are creative and flexible in adopting current systems to create new products is another factor that makes Golden Fresh continue to turn to FMC FoodTech to meet its equipment needs. In fact, Golden Fresh now often consults with FMC FoodTech during the process of developing new products.

"Whether it's for poultry or other products, much of today's existing technology can be applied to seafood," said Peng. "We're now looking into a drum breeder for our salt and pepper squid for a customer. We contacted FMC FoodTech to see if the company had any equipment that fit our needs, never expecting it would. But FMC FoodTech did have an ideal solution for us to incorporate, saving us a lot of hassle."

Golden Fresh has also taken advantage of FMC FoodTech's policy of inviting processors to view equipment at work in a facility as they are considering their purchase. This has given Golden Fresh the ability to study the equipment's pros and cons prior to investing a large amount of money, a service not often available to equipment buyers.

"Our experience with FMC FoodTech could not be



Golden Fresh valued the easy cleaning, better hygiene, elimination of tension belting, increased user-friendliness and uninterrupted operation resulting from the self-stacking belt system of the GYROCOMPACT.

"The quality, technology, performance and reliability we've seen from our FMC FoodTech equipment has encouraged us to buy more FMC equipment – and avoid companies that offer cheaper equipment that ends up costing more in the end."

Lip Peng
facility director
Golden Fresh

replicated with any other company. FMC FoodTech provides training to our people and allows us to send our people to their plants or learn and test the equipment with no obligation to purchase," said Earn. "Our relationship has developed into more than a buyer-seller relationship. FMC FoodTech is a trusted and indispensable strategic partner to us."

Asia Pacific Food Industry, Editor: Ms. Sheila Wan

WWW.FMCTECHNOLOGIES.COM

[LEGAL NOTICE](#) | [PRIVACY POLICY](#)

The FoodTech Report,
Volume 3 (2005) - Issue 2

A Commitment to
Workplace Safety

Golden Opportunity for a
Strategic Partnership

**Eliminating the Guesswork
from Sizing Freezers**

FMC FoodTech Honored
with Vendor Summit
Award

Advancing Sterilization
Processes

Increasing Yield and
Profits

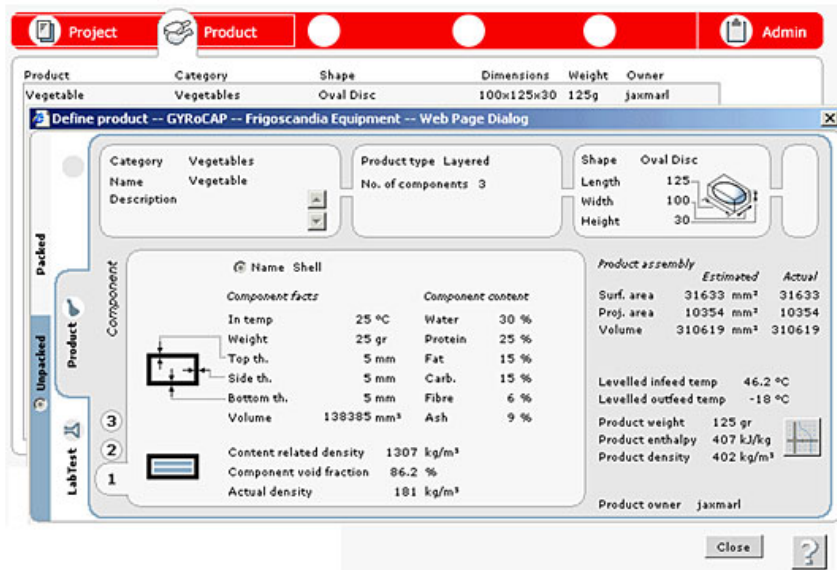
SuperAgi™ Offers
Sterilization Versatility,
Cost-Savings

News and Notes

Article Index Search

View all >>

Eliminating the Guesswork from Sizing Freezers



GYRoCAP measures many factors against the producer's desired throughput, operating time, and space requirements, to find the freezer that will operate in the most effective way possible with a specific product.

Installing a freezer of the wrong size can be disastrous to a production line. A freezer that's too small can reduce throughput and run times by slowing up production and requiring too-frequent defrosting. A freezer that's too large can result in unacceptably high power consumption and inefficient use of plant floor space. Choosing the right freezer, on the other hand, optimizes product quality, minimizes power consumption and plant space and keeps a production line up and running at full capacity.



Customers throughout the world who turn to FMC FoodTech for their freezing needs can rely on getting the perfectly sized freezer to maximize production success.

"Our entire team of global freezer support professionals is trained in the use of GYRoCAP," said Jaxmar. "Customers throughout the world who turn to FMC FoodTech for their freezing needs can rely on getting the perfectly sized freezer to maximize production success."

GYRoCAP considers the different physical components of each product to be used in the freezer such as protein, fat, and composition. It measures these factors against the producer's desired throughput, operating time, and space requirements, to find the freezer that will operate in the most effective – and cost-effective – way possible with that specific product. Through this process, GYRoCAP helps processors select the right freezer to minimize power consumption, lower product surface dehydration, achieve the highest possible capacity in a limited footprint, and ensure the longest operation time.

In addition, GYRoCAP offers processors the flexibility to consult with FMC FoodTech several years down the line should they want to run a new type of product. GYRoCAP modeling can determine whether the freezer is capable of

FMC FoodTech, the world's leading freezer supplier, has merged its unparalleled knowledge of freezers and its expertise in software modeling to develop GYRoCAP, the industry's first program to accurately dimension freezers by simulating the interaction between the freezer and the product to be frozen. GYRoCAP is designed to operate with FMC FoodTech's GYRoCOMPACT® M-Series self-stacking spiral freezers, the world's bestselling freezer line with nearly 3,000 units sold worldwide.

"The products that customers are freezing today are so complex that accurately dimensioning spiral freezers in a manual way is almost impossible," said Torbjorn Persson, freezers product line manager for FMC FoodTech. "GYRoCAP eliminates the guesswork from freezer sizing, capitalizing on FMC FoodTech's breadth of experience and taking all production factors into account to pinpoint the right freezer to specifically meet customer requirements."

"The initial development of GYRoCAP dates back to 1982, when Leif Jaxmar, senior engineer for FMC FoodTech, created the first calculation functions to analyze air distribution throughout the stacks of the GYRoCOMPACT. Today's GYRoCAP includes far more capabilities than the older version and the program is currently used by sales support and research and development personnel throughout FMC FoodTech's global offices."

"GYRoCAP eliminates the guesswork from freezer sizing, capitalizing on FMC FoodTech's breadth of experience and taking all production factors into account to pinpoint the right freezer to specifically meet customer requirements."

Torbjorn Persson
freezers product line manager
FMC FoodTech

handling the change and what type of modification, such as a fan change, would be necessary to make it possible.

WWW.FMCTECHNOLOGIES.COM

[LEGAL NOTICE](#) | [PRIVACY POLICY](#)

The FoodTech Report,
Volume 3 (2005) - Issue 2

A Commitment to
Workplace Safety

Golden Opportunity for a
Strategic Partnership

Eliminating the Guesswork
from Sizing Freezers

**FMC FoodTech Honored
with Vendor Summit
Award**

Advancing Sterilization
Processes

Increasing Yield and
Profits

SuperAgi™ Offers
Sterilization Versatility,
Cost-Savings

News and Notes

Article Index Search

GO

View all >>

America's Leading Mexican Food Manufacturer cites FMC FoodTech with Vendor Summit Award



Ruiz Foods turned to FMC FoodTech to service its TFF fryers and get their production line running properly again.

Ruiz Foods recently honored FMC FoodTech with its prestigious 2005 Silver Award for Plant Services. The award honors Ruiz Foods vendors who "have gone beyond the norm for support and innovative solutions to help the company be a better processor." Brian Miller, Vice President of Operations for Ruiz Foods, presented FMC FoodTech with the award, stating "FMC FoodTech was available 24/7, never gave up, and demonstrated a 'can do' attitude." Ruiz Foods also cited FoodTech's willingness to support their demanding needs and of the extraordinary support given by a number of key FMC FoodTech individuals.

Ruiz Foods

Ruiz Foods has grown exponentially since its start more than 40 years ago as a small family-owned Mexican food manufacturer. Today, the Dinuba, Calif.-based company, now run by a third generation of the Ruiz family, is America's leading manufacturer of frozen Mexican food. Ruiz Foods produces more than 5 million tortillas a day at the start of a production line that includes burritos, taquitos, quesadillas, tornados and other ready to eat Mexican food products.

Ruiz has kept an edge in a market averaging yearly double-digit growth by providing customers high-quality products, consistent customer service and offering flexibility in meeting their changing demands. While many large producers need more than six weeks to develop a new product sample, Ruiz can do it in 48 to 72 hours. Two years ago the company produced 35 products; it makes more than 185 line items today.

"Ruiz Foods isn't afraid to take risks with their product development because the company's production flexibility makes it better able to maintain a quick and efficient response time," said Greg Smith, FMC FoodTech Account Manager. "Ruiz Foods continues to grow by remaining nimble in a volatile market."

The Beginnings of a Successful Partnership

Ruiz looks to its vendors for the same mobile, flexible responses that Ruiz exhibits with its own customers. One such partnership that has grown over time is with FMC FoodTech. Ruiz has used FMC FoodTech Frigoscandia freezers for years. In fact, since the company has grown up for the last 20 years building their production and packing lines around Frigoscandia spiral freezers, the process in each production line from the ingredient application through final packaging are referred to collectively in the plant as "Frigo One, Frigo Two, Frigo Three, etc."



Ruiz Foods produces more than 5 million tortillas a day at the start of a production line that includes burritos, taquitos, quesadillas, tornados and other ready to eat Mexican food products.

"Ruiz liked the price and delivery time estimated by the used equipment vendors, but found that their purchase agreements had a way of lingering on and never quite living up to expectations," said Jerry Rogala, FMC FoodTech's Aftermarket Equipment Project Manager. "After giving FMC FoodTech a chance, they found that when we took on a request to supply service or new equipment we would not relent until Ruiz was completely satisfied."

At one point, Ruiz took on a new customer that required the company to develop, build, equip and start up a satellite facility in just 12 weeks. In order to work within this short time frame, Ruiz Foods had to outfit the plant with a mix of new and used equipment. When Ruiz encountered problems with some of the used Frigoscandia freezers that had been purchased from third party sources, they called FMC FoodTech in for support. Within days, FMC FoodTech supplied a large crew of technicians who worked through several holiday weekends to get the equipment up and running to United States Department of Agriculture (USDA) standards.

Some years ago, Ruiz Foods started using FMC FoodTech's Stein fryers, purchasing several, over time, from used equipment vendors. As the demand for production efficiency on fried products grew, the need for outside support for service and applications assistance became evident, as equipment break-downs were resulting in significant downtime. It was a major concern that the lines achieve maximum efficiency, particularly for a company running its production lines 28 days a month to meet growing demands from critical customers.

In addition to offering original parts to ensure optimal equipment functioning and reduced downtime, FMC FoodTech is there for customers should problems occur. In fact, if an FMC FoodTech service technician is not at the customer plant within 24 hours of receipt of an order for service, the service call is free.

Ruiz turned to FMC FoodTech to service the used fryers and get its production line running properly again. While the used equipment vendors were able to service Ruiz's equipment from a mechanical perspective, the company found that FMC FoodTech was better able to resolve any applications-related issues by focusing on the specific way that Ruiz needed to use the equipment.

"Since we spend a significant amount of time in the Ruiz facility we are familiar not only with what they want to achieve on a line but also what will or will not fit in with their operations practices," said Smith. Ruiz was so happy with the results of our technicians that it reevaluated its position on the value of support, and purchased its next aftermarket fryer directly from FMC FoodTech.

Pioneering New Solutions for Every Need

While working with FMC FoodTech on the operation of three used Stein fryers in its Dinuba facility, Ruiz decided to purchase a new Stein fryer from the company. After the equipment had been incorporated into the plant, Ruiz requested that FMC FoodTech modify the conveyor for the fryer to prevent folded tortillas from opening when they hit the oil—a significant recurring problem for the company. FMC FoodTech willingly accepted this challenge and engineered a unique fryer conveyor design to capture the product without pinching it when it hit the oil, maintaining product quality while reducing the product loss rate to less than 1 percent.

Ruiz Foods additionally wanted to use the fryers not only for fried products but also as a conveyor when running unfried products such as burritos. FMC FoodTech's traditional fryer belts were designed to run only in oil, so FMC FoodTech, in cooperation with Ruiz, did further on-the-spot equipment development to create belts that would be effective both with and without oil. The belt design engineered for Ruiz offered a solution that not only solved the original goal of running both types of product cleanly but also reduced down-time and belt replacement costs.

"We don't simply 'stamp out' the same piece of equipment for every food processor," said Smith. "Each customer has different needs, and FMC FoodTech has built its business around providing the expertise and flexibility to meet those needs."

A History of Innovation and Support

The innovation, reliability and close customer support displayed by FMC FoodTech so impressed Ruiz Foods that when the company decided to acquire and renovate an existing facility in Denison, Texas it purchased two new lines of equipment from FMC FoodTech that included coating, frying and freezing equipment.

"Each customer has different needs, and FMC FoodTech has built its business around providing the expertise and flexibility to meet those needs."

Greg Smith
account manager
FMC FoodTech

The FoodTech Report,
Volume 3 (2005) - Issue 2

A Commitment to
Workplace Safety

Golden Opportunity for a
Strategic Partnership

Eliminating the Guesswork
from Sizing Freezers

FMC FoodTech Honored
with Vendor Summit
Award

**Advancing Sterilization
Processes**

Increasing Yield and
Profits

SuperAgi™ Offers
Sterilization Versatility,
Cost-Savings

News and Notes

Article Index Search



View all >>

Advancing Sterilization Processes at FMC FoodTech's Process Technologies Labs



FMC FoodTech is the world's only equipment supplier with a comprehensive lineup of sterilization technologies, including retorts, rotary sterilizers, and hydrostatic sterilizers.

With more than 50 percent of the world's canned foods sterilized in its equipment, FMC FoodTech is the world leader in food sterilization. The company's Process Technologies Labs in Madera, Calif., and Sint-Niklaas, Belgium, offer global food processors the opportunity to tap into this unrivaled knowledge for advanced technical assistance in developing food sterilization processes.

For more than 50 years the Process Technologies Labs have worked to perfect sterilization processes. Today, many of their efforts take place at the forefront of the packaging revolution. By helping to develop sterilization processes for everything from tuna in pouches to milk-based products in plastic containers to chili in paperboard-based packaging, the labs have been instrumental in helping customers differentiate their products and positions in the marketplace.



Terry Heyliger, manager of FMC FoodTech's Process Technologies Laboratory in Madera, Ca., leads a team of experts offering the combined knowledge to optimize every facet of the food sterilization process. Terry's own expertise in microbiology and more than 25 years of experience in the thermal processing of foods help him deliver effective thermal process solutions to customers.

"We assist in bringing new products and alternate package types from concept to commercial reality through the optimization of sterilization processes," said Terry Heyliger, thermal processing manager for FMC FoodTech and manager of the Madera Process Technologies Lab. "Working confidentially with customers, we develop new processing techniques and support their ongoing thermal processing requirements."

A Century of Knowledge

Customers visiting the Process Technologies Labs have access to a knowledgeable staff offering more than 200 years of experience with virtually all process-related issues. With expertise in every aspect of thermal processing, including food engineering, microbiology, packaging, metallurgy, and controls, the staff can assist with in-container processing, aseptic processing and even metallurgical and corrosion support for food processing equipment. Additionally, the staff can provide expertise in a multitude of languages, including English, French, Spanish, Chinese, Italian, German, Dutch, among others, making them a truly global resource.

FMC FoodTech is the world's most comprehensive supplier of full range sterilization solutions including various static and agitating retorts, rotary sterilizers, hydrostatic sterilizers and aseptic sterilizers. As a result, FMC FoodTech's labs offer unbiased advice on the best equipment to use for a specific sterilization process since the company isn't beholden to one particular technology. In fact, the Process Technologies Labs staff works across all sterilization platforms in the market today. They can develop thermal processes for any equipment on the market today, whether made by FMC FoodTech or not.

Equipped with the industry's latest processing and simulation equipment along with fully functioning microbiology labs, the Process Technologies Labs allow visiting customers to batch product in the kitchen and formulation area and perform the required heat penetration studies in the appropriate laboratory sterilizer.

Advanced Modeling Capabilities

FMC FoodTech's industry-leading competency in modeling is an additional advantage to customers visiting the Process Technologies Labs. Using two widely-known proprietary software modeling solutions, NumeriCAL® and AseptiCAL®, FMC FoodTech food scientists can work with processors in the early product design stages to develop the most efficient sterilization process, to help customers achieve optimal product quality and lower production costs.

NumeriCAL can help producers improve sterilization efficiencies from 5 to 50 percent, depending on the product and its consistency, by utilizing the entire process time. Similarly, AseptiCAL verifies the sizing calculations of aseptic processing systems and reduces time spent by food processors in new product development.

"Whether using NumeriCAL and AseptiCAL or developing custom software models for our customers, modeling software is another unique service that FMC FoodTech provides through our Process Technologies Labs," said Heyliger. "This technology enables us to help processors safely sterilize food while maintaining its taste, texture and color."

A Recognized Authority

One of the most compelling benefits of the Madera Process Technologies Lab to U.S.-based customers is its

designation as a recognized Process Authority with the Food and Drug Administration (FDA) and the U.S. Department of Agriculture (USDA). This status enables FMC FoodTech to provide compliance assistance with FDA and USDA regulations regarding thermal processing of shelf-stable foods and makes the lab the only manufacturer-run facility in North America to offer both lab facilities and Process Authority status.

"The Process Technologies Labs offer an advantage to FMC FoodTech customers who are developing new products or looking to improve existing processes," said Jeff Dahl, business manager of food processing equipment for FMC FoodTech. "The combined capabilities, knowledge and technical expertise of the two labs make them a valuable extension of any processor's sterilization expertise."

The FoodTech Report,
Volume 3 (2005) - Issue 2

A Commitment to
Workplace Safety

Golden Opportunity for a
Strategic Partnership

Eliminating the Guesswork
from Sizing Freezers

FMC FoodTech Honored
with Vendor Summit
Award

Advancing Sterilization
Processes

**Increasing Yield and
Profits**

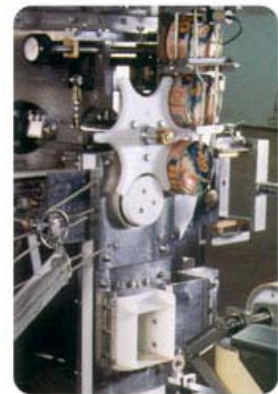
SuperAgTM Offers
Sterilization Versatility,
Cost-Savings

News and Notes

Article Index Search

View all >>

Increasing Yield and Profits through Complete Process Line Solutions



The Tuna Pre-Cooker gives processors the ability to thaw, pre-cook and cool the tuna in one machine.

FMC FoodTech's expertise in every stage of food processing enables it to offer processors the breadth of knowledge and range of solutions to maximize food production over entire production lines.

This is especially apparent in the tuna processing industry, where FMC FoodTech is the only company to offer solutions across the entire process line, providing equipment that includes vacuum pre-cookers, tuna fillers, vacuum liquid fillers, seamers, and overpressure sterilizers for plastic containers, pouches or traditional cans.

"We're the most comprehensive provider to the tuna industry," said Alessandro Palmos, marketing and business development, FMC Technologies Italy. "Other companies may focus on one aspect of production, but we look at the overall process to provide not just equipment, but also optimization techniques that improve production overall. These techniques increase yield and product quality for tuna producers – and they can be applied to other industries as well."



FMC FoodTech is a leader in using advanced modeling software in tandem with innovative processing equipment to achieve better results. For instance, FMC FoodTech's Tuna Pre-Cooker, when used with FMC FoodTech's proprietary TunaCAL[®] modeling software, can considerably improve yield over conventional methods.

"Many processors, particularly those using older equipment and operating where production costs are low, may be hesitant to invest a lot of money in technology," said Dino Bertani, tuna product line engineering manager for FMC FoodTech. "But the price of the tuna itself remains high even in places where labor costs are low. So, yield improvement is one way for all producers to realize savings."

In fact, since raw material costs account for 65 to 80 percent of a producer's costs, yield is the biggest single factor impacting profits. With certain species of tuna, the savings generated by increased yield alone can bring the return on investment for the cost of FMC FoodTech's Tuna Pre-Cooker to less than two years.

FMC FoodTech's expertise in every stage of food processing enables it to offer processors the breadth of knowledge and range of solutions to maximize food production over entire production lines.

The Tuna Pre-Cooker gives processors the ability to thaw, pre-cook and cool the tuna in one machine. It thaws the product more quickly than the traditional method of leaving the tuna out in the open air or in water tanks for hours, greatly reducing the risk of contamination.

To optimize the pre-cooking process, the TunaCAL software adjusts for a multitude of product variables including fish size, species, starting backbone temperature and desired backbone temperature, among other factors. The Pre-Cooker then heats the tuna at a higher initial temperature than that used by conventional machines, which kills more bacteria. The vacuum cooking allows the fish to be cooked at a lower temperature for the remainder of the pre-cooking process, virtually eliminating scorching due to high temperature throughout the process typically utilized in the atmospheric steam pre-cookers. The absence of air eliminates the oxidation while the even heat distribution reduces tuna meat dehydration, enhancing product quality. The moisture that remains in the skin also makes skin removal easier for

"We've optimized the tuna cooking"

workers. These benefits are made possible by the enhanced process control of the vacuum cooker.

Eliminating the need for a separate sprinkle area to water the fish for cooling, the FMC FoodTech Tuna Pre-Cooker actually fills this role as well, cooling the fish by applying a small amount of water to the fish surface and then evaporating it. Combining these stages into one machine saves floor space and time, and reduces the pre-cooking and cooling time versus the traditional method.

FMC FoodTech can also work with tuna processors improve the sterilization process, by applying the company's modeling capabilities to optimize product quality.

NumeriCAL® is the industry's only modeling software that accurately accounts for the killing of bacteria that occurs during the heating up and cooling down phases of the sterilization process. This allows processors to reduce sterilization time and safely avoid the problem of overcooking, just one more way FMC FoodTech is able to help processors produce better-tasting tuna.

"We've optimized the tuna cooking process by looking at the entire production line – seeing the 'big picture' allows us to help tuna producers achieve better results," said Jeff Dahl, business manager of food processing systems for FMC FoodTech. "In the process, we've developed capabilities that can apply to all types of food processing. In fact, we have already been applying some of these very concepts to optimizing tomato peeling, hydrating beans and improving vitamin retention in foods."

*process by looking at the entire
production line – seeing the 'big picture'
allows us to help tuna producers achieve
better results."*

Jeff Dahl
business manager of food processing systems
FMC FoodTech

The FoodTech Report,
Volume 3 (2005) - Issue 2

A Commitment to
Workplace Safety

Golden Opportunity for a
Strategic Partnership

Eliminating the Guesswork
from Sizing Freezers

FMC FoodTech Honored
with Vendor Summit
Award

Advancing Sterilization
Processes

Increasing Yield and
Profits

**SuperAgi™ Offers
Sterilization Versatility,
Cost-Savings**

News and Notes

Article Index Search

 60

View all >>

SuperAgi™ Offers Unprecedented Versatility and Cost-Savings in Sterilization

The growing trend toward nontraditional packaging – from plastic containers to pouches to paperboard cartons – has driven a need for equipment that can sterilize a wide range of containers at an acceptable speed and cost. FMC FoodTech's new SuperAgi™ automated agitating batch retort meets this need with a capacity unmatched in the market today and the versatility to sterilize virtually any in-container product. The SuperAgi's unique design and features give processors the ability to meet their sterilization needs now and into the future – no matter what the packaging.

"An agitating batch retort system is the best way to effectively sterilize a variety of nontraditional containers," said Bart Mertens, sales and marketing manager for FMC FoodTech. "FMC FoodTech's innovative process water distribution system allows SuperAgi to sterilize virtually any container with better temperature distribution and lower utility costs than traditional agitating batch retorts.

" SuperAgi is the industry's only steam water spray (SWS™) batch retort enhanced by patented FMC FoodTech design that mounts the process water sprays inside the drum, instead of outside the drum as conventional retorts do. This places the sprays closer to the batch of containers being sterilized and eliminates the problem of the drum getting in the way of the water as it sprays the product. This design ensures consistent sterilization throughout the batch as containers at the center of the basket receive the same treatment as those on the outside.



The newest generation of the SuperAgi, which is available to customers at the same price as the previous generation model, can accommodate six baskets at a time instead of four, increasing the value of the equipment tremendously.



The SuperAgi is the industry's only steam water spray batch retort that mounts the process water sprays inside the drum, eliminating the problem of the drum getting in the way of the water as it sprays the product.

Putting the sprays inside the drum also saves floor space in the processing plant by allowing more efficient use of the space inside the retort vessel. Whereas the previous-generation conventional agitating batch retort was 1.8 meters in diameter, the SuperAgi is just 1.55 meters for the same holding capacity. This space savings additionally results in lower utility consumption, since less water and steel need to be heated up per kilogram of product during the sterilization process.

Another advantage of locating the water sprays inside the SuperAgi drum is a drastically simplified drum design. Previous designs required an open drum design made of rings and tubing to give the water space to spray through. Now the SuperAgi features a stronger, perforated vessel, since the water no longer needs to be propelled through the drum construction. The end result is a sturdier drum that can be built 50 percent longer than previous designs, accommodating six baskets at a time instead of four. What's more, this capacity increase is available to customers at the same price as the previous generation model, increasing the value of the equipment tremendously.

"The maintenance time and cost per machine for the SuperAgi, whether for the larger size or the smaller, are essentially the same," said Mertens. "By achieving the same capacity using fewer machines, processors can now reduce maintenance costs and increase productivity dramatically."

In addition, the SuperAgi's spray configuration makes it the first agitating batch retort to produce even temperature distribution in static mode. This means the equipment is equally as effective when used to sterilize those products that don't require agitation. Since operating the retort in static mode results in less wear and tear on the equipment, this is yet another way that SuperAgi's advanced design reduces maintenance costs. For even greater flexibility, FMC FoodTech offers the option of multi-process capability, which enables SuperAgi to operate in SWS or full- or partial-water immersion mode for products that require gentler processing.

"As our customers' industries demand more flexibility, FMC FoodTech has stepped up to meet those demands," said Mertens. "For processors who have complex sterilization needs and want to be prepared for whatever packaging sterilization challenges the future may hold, at the lowest cost per unit produced, SuperAgi is the answer."

"For processors who have complex sterilization needs and want to be prepared for whatever packaging sterilization challenges the future may hold, at the lowest cost per unit produced, SuperAgi is the answer."

Bart Mertens
sales and marketing manager
FMC FoodTech

The FoodTech Report,
Volume 3 (2005) - Issue 2

A Commitment to
Workplace Safety

Golden Opportunity for a
Strategic Partnership

Eliminating the Guesswork
from Sizing Freezers

FMC FoodTech Honored
with Vendor Summit
Award

Advancing Sterilization
Processes

Increasing Yield and
Profits

SuperAgi™ Offers
Sterilization Versatility,
Cost-Savings

News and Notes

Article Index Search

GO

[View all >>](#)

News and Notes

FMC FoodTech's Upcoming Training Opportunities | THAIlex World of Food

Upcoming Training Opportunities:

Technical training classes are available at FMC FoodTech's food processing and technology center (FPTC) in Sandusky, Ohio. Upcoming classes include *Basic Oven Cooking*, July 12-14 and October 4-6, *Basic Coating and Frying*, August 2-4 and November 8-10, *Spiral Freezer PM Seminar*, August 30-September 1 and November 1-3, *Basic Freezing*, September 13-15, *BIRT training*, October 24-27 and *New! Sanitation Training*, December 6-7.

For more information on attending these classes, please contact Emilie Woodburn at 800-653-0304.



THAIlex World of Food:

Over 20,000 visitors passed through the exhibition hall at THAIlex World of Food in Bangkok, Thailand on May 18-22nd. FMC FoodTech demonstrated impingement freezing and cooling technology at the company's booth in the exhibit hall. In addition, FMC FoodTech conducted a seminar entitled, "Cooking and Freezing Technologies," to over 110 attendees from various Asian countries.