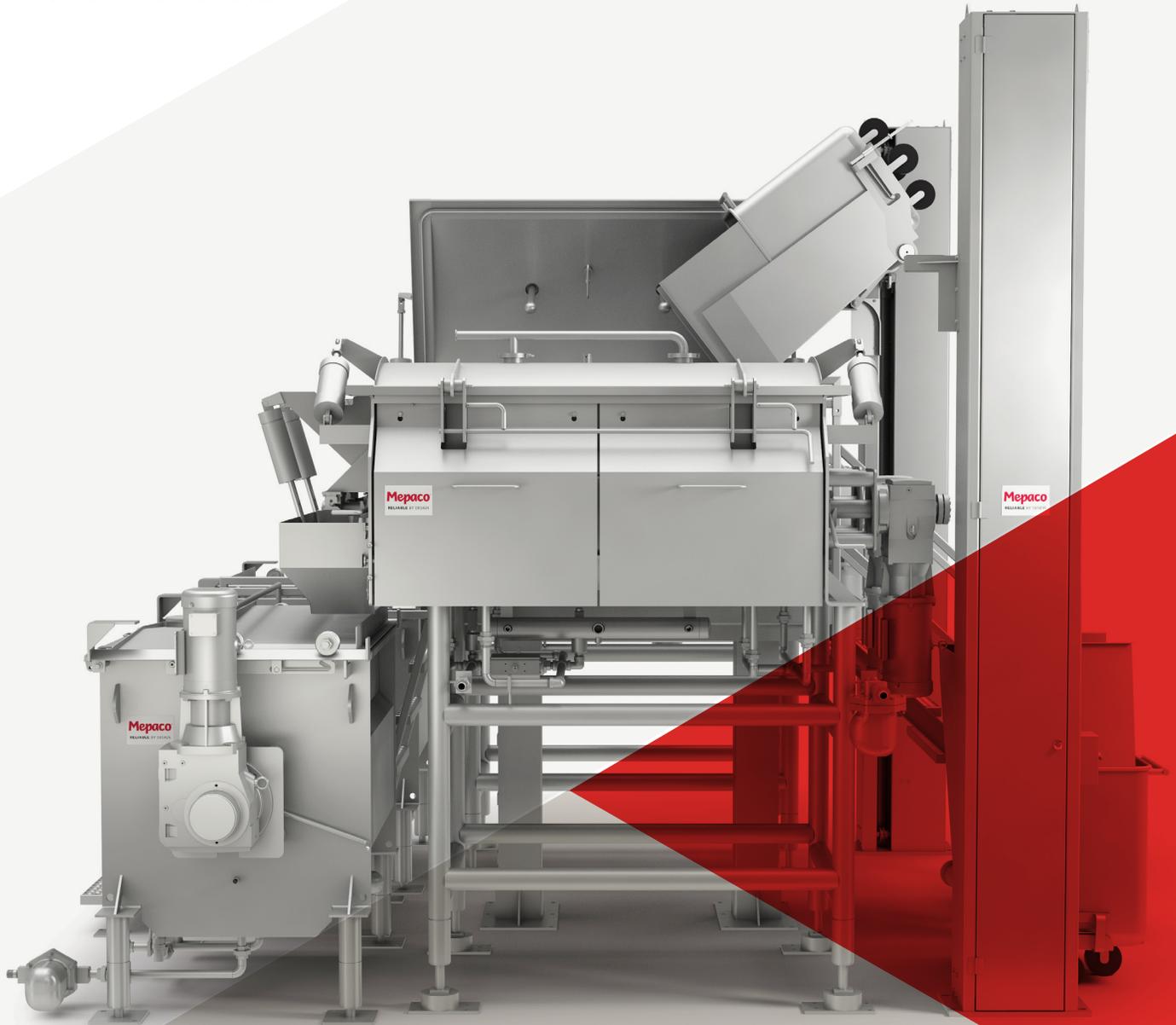


Mepaco®

RELIABLE BY DESIGN®



APPLICATION ENGINEERED
SYSTEMS

Application Engineering Approach

Mepaco provides an application approach to system solutions. Our team listens to your operations, engineering, maintenance and purchasing team members to understand existing challenges and operational goals for a new solution.

Through site visits and conferences, our application experts discover parameters for the new system, tie-ins, and plant specifications to deliver a customized application-specific, high-performance solution.



Design & Workmanship

In addition to performance, Mepaco engineers focus on reliability and ease-of-maintenance of our process and material handling solutions. Our equipment is designed for heavy industrial processes, long-term service, and we support busy maintenance teams with low maintenance designs and service support.

Our welders and fabricators only manufacture industrial food and other hygienic processing stainless equipment products. That's what we do. Our technicians are highly skilled, and their work is verified by our in-house quality administrators before it leaves our factory.



Total Customer Experience

It is important that our customers and partners have a good experience with our equipment and our teams. We strive to provide excellent service from sales and engineering to field support and parts.

As an employee-owned business, the entire company understands the impact of quality equipment and service has on our customers. We have internal feedback protocols for our projects to ensure consistency, and we survey our customers and partners annually to obtain a 360-degree view of our equipment, service offerings, and value.



Your Strategic Partner

We have a strategic team consisting of tenured engineering professionals working alongside technology driven engineers to ensure consistency and innovative solutions for years to come.

Mepaco offers 3D SOLIDWORKS design, in-house controls management, and a proactive, knowledgeable field services group.

RELIABLE BY DESIGN

Reliability is the cornerstone that transcends our products and services. Great strides are taken to exceed expectations in production, quality, workmanship, longevity, safety, sanitary design, and overall value. Reliability must be realized by all who come in contact with our products and services.



Processing Expertise

- Blending
- Cooking
- Formulation
- Mixing



System Experience

- Accumulation
- Automation
- Buffering
- Ease of Maintenance
- Food Safety
- Least Cost Formulation
- Personnel Safety
- Sanitation Performance
- Scale
- Space Optimization
- Traceability



Industries

- Dairy & Cheese
- Fruits / Vegetables
- Meat / Poultry
- Pet Food
- Plant-Based Foods
- Prepared Foods



Dual Cook System

APPLICATION

A multi-recipe prepared foods manufacturer sought to increase cooking production and the flexibility to add varieties of soups and sauces to their product offerings. The application required cooking and blending of viscous food products with limitations in available floor space.

SOLUTION

Mepaco's solution was a side-by-side ThermaBlend® cooking system, sharing a maintenance and sanitation platform.

Column dumpers add ingredients to the ThermaBlend® cookers. The Mepaco Column Dumper offers a robust design and is engineered for ease of maintenance.

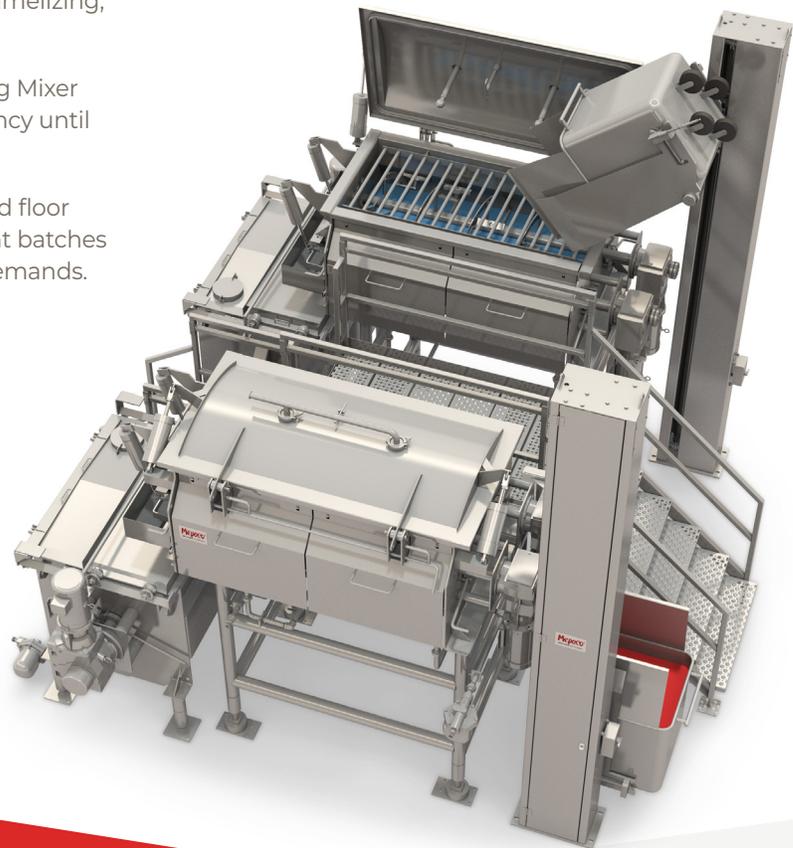
The side-by-side ThermaBlend® Cookers support quick batch turns for multi-recipe production needs. A versatile unit, these cookers are capable of cooking, searing, caramelizing, sautéing, and blending.

The batches are discharged into a heated Buffering Mixer that maintains product temperature and consistency until signaled and required by downstream operations.

For maximum flexibility and production in a limited floor space, the dual cook system allows for two different batches or double batches to accommodate production demands.

SOLVES:

- ✓ Increased capacity
- ✓ Production flexibility
- ✓ Effective footprint
- ✓ Sanitation Efficiency



Featured Equipment: **The ThermaBlend® Cooker**



In the system, the food processor required a versatile cooking solution to efficiently blend and cook various soups and sauces, all with different process recipes and controls. The ThermaBlend® was specified for the “Dual Cook System” because of its ability to blend and cook the processor’s viscous products with superior efficiency.

In the application, soups and sauces were mixed, blended, and cooked all in one piece of equipment, the ThermaBlend® Cooker. The mixing and blending action and speeds were determined for each different recipe. The loading temperatures, cooking temperature, batch times, and unloading temperatures were all calculated for the best process and controls solution for each batch. The “Dual Cook” system utilized both direct and indirect steam.

In the system, the ThermaBlend® Cookers also included automated features including multiple recipe programs, controls automation, CIP (clean-in-place) sanitation assist, controlled steam PSI and water temperature/flow.



ThermaBlend® Cookers are designed for large-scale operations, tailored to meet various applications, and equipped with the following features:

- ✓ A wrap-around steam jacket providing large heating surfaces for optimal heat transfer
- ✓ Application-specific agitator designs for quick homogeneous blending, while minimizing shear
- ✓ A bi-directional scraper system that aids in processing efficiency
- ✓ Customization that drives production goals including vacuum and cooling

Bin Batching System

APPLICATION

A pet food processor with multiple SKUs required significant efficiency and scale for a formulation processing line to satisfy market demand and a competitive cost position.

SOLUTION

A Bin Batching System was developed for a pet food manufacturer that required expanded production with significant efficiencies for a protein and ingredient formulation line.

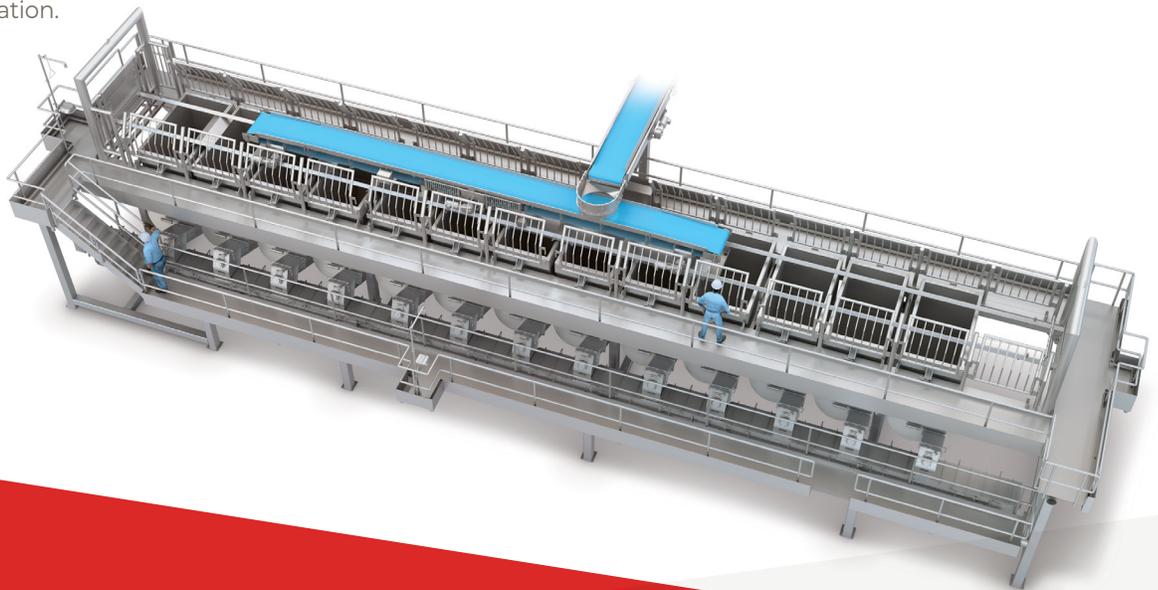
Pre-broken frozen food product (meat, fish, chicken, vegetables) are delivered to a designated Metering Screw Conveyor on a traversing belt which locates the exact drop position. Once the recipe is established and the demand is made, the applicable metering screw conveyors deliver product.

Load cells are used to measure product displacement over a given time (loss-in-weight method). Downstream equipment and processes will signal for the raw materials in each SKU and the metering screw conveyors will deliver the correct dosage of product required through the primary grinder and then ultimately to the batch for final formulation.

This batching solution, configured with 13 metering screw conveyors, reduces labor and material handling of frozen products, and eliminates downtime with continuous, 24/7, large batch production utilizing real-time material availability and on-demand formulation.

SOLVES:

- ✓ Scale
- ✓ 24/7 Automation
- ✓ Labor challenge



Featured Equipment:

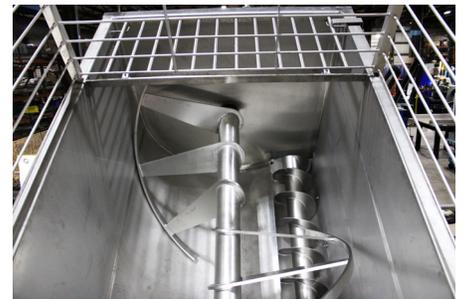
Metering Screw Conveyor w/Clean-Sweep Hopper



Integral to the Bin Batching System are the Metering Screw Conveyors, designed with a Clean-Sweep hopper. The Clean-Sweep hopper offers a solution that mechanically clears food product between batches on metering or surge loading applications. The ribbon agitator gently and continually pushes product into the feed screw.

The Clean-Sweep hopper has a spin ridge design that keeps product from barreling, maintaining positive conveyance until the food product is completely unloaded. The Clean-Sweep feature reduces food waste and eliminates the need for personnel to have to manually clear product and proves to be a reliable automated solution for the 24/7 pet food formulation system.

Depending on the application, Bin Batching Systems can be configured with any number of Metering Screw conveyors (from 3000 to 7500 lb. capacity), with customized output speed.



The Clean Sweep Metering Screw has been engineered for prepared foods, ground, or trim meat products. The design is modified to meet the requirements of the application, including:

- ✓ Hopper style customization
- ✓ Different agitator configurations
- ✓ Screw Diameters up to 20" diameter
- ✓ Customized safety grating
- ✓ Load cells
- ✓ Pneumatic covers on the screw conveyor discharge
- ✓ Electropolished food contact surfaces

Pre-Blend System



APPLICATION

A red meat processor required a scale formulation solution with greater efficiencies for lean / fat analysis to eliminate food waste from lean give-away.

SOLUTION

The Pre-Blend System is a seamless, accurate solution for effective fat/lean formulation. It addresses the customer's production goals for speed, flexibility, and accuracy with attention to safety and sanitation requirements. In addition, the system provides efficient transfers that reduce transport time and eliminates transfer issues that result in lost yields.

In this layout, the dumper transfers product into a Metering Screw Conveyor. The Metering Screw transfers the product to a sanitary belt conveyor with metal detection. The two-tier conveyor flips the trim for further inspection of contaminants while feeding the primary grinder. A pivoting incline screw conveyor transfers product into either Mixer/Blender with both systems equipped with vacuum sampling for lean-point accuracy.

The product is then transferred with another incline Screw Conveyor into a final Mixer.

In the side-by-side configuration of the Mixer/Blenders, the equipment provides a pre-blending process with one containing pre-ground lean trim and the other containing pre-ground fat.

Product is sampled from each Mixer/Blender and the results are loaded into the formulation program in the control package. Once loaded, product can be formulated quickly, accurately, and without disruption into the final mixer using load cells on both the pre-Mixer/Blenders and the final Mixer.

All product contact surfaces are electropolished which reduces product adhesion and accelerates the sanitation process.

SOLVES:

- ✓ Improved accuracy
- ✓ Eliminates delays
- ✓ Measured Lean Points
- ✓ High production volumes
- ✓ Increased lean-yield accuracy

Featured Equipment: **Mixer-Blender**



Mepaco's overlapping paddle Mixer-Blenders provide a quick and accurate blend with minimal temperature rise. The Mixer-Blenders in the Pre-Blend System are both equipped with vacuum sampling (image upper right) capability to confirm the actual lean-point for accurate formulation.

Mixer-Blenders are designed for rugged versatility to meet a wide range of application challenges. Designed for the application, Mepaco's Mixer-Blenders reduce cycle times and provide accurate and efficient blending to maximize productivity and yields.

In the Pre-Blend Formulation System, Mixer-Blenders utilize load cells and the loss-in-weight method to signal for the correct dosage of product. The loading and unloading processes are fully automated. In the system, with recipe programming for multiple fat/lean formulation products.

While engineered for cold room meat processing applications, Mixer-Blenders have been engineered to mix and blend pet food, prepared food, dairy and fruits/vegetables.

Customizable options include:

- ✓ Application specific agitator options
- ✓ Vacuum Operation
- ✓ Temperature Control: ASME Dimple Jacketing, Steam Injection, CO2 Injection
- ✓ Testing models from 50 pounds to large scale 15,000-pound units



Field Services & Control Engineering

Field Services

The Mepaco Team understands how valuable production uptime is to your company's bottom line. We are evolving our service team to provide quick-response commissioning, ramp-up, maintenance, repair and emergency breakdown support.

To help end-users stay informed about our equipment, we provide experienced and proficient industry technicians and engineering support to perform services.

Control Engineering

Mepaco has in-house controls capabilities that provide the latest in software and device technology to bring the best results in your process and material handling systems. Customers can expect UL listed industrial control panel design and assembly, as well as UL listed stainless NEMA 4 and 4X enclosures, allowing Mepaco to provide controls programming and integration with your system.

Field Services:

- ✓ Remote support via phone, e-mail or web conference
- ✓ Field repair, service, parts recommendations, troubleshooting
- ✓ Start-up and commissioning services
- ✓ Operations and maintenance training
- ✓ Maintenance diagnosis and identification of spare parts needed
- ✓ Audits and service contracts available
- ✓ Tech Tips, Videos, Resources

Control Engineering

- ✓ Motor Control Centers
- ✓ PLC/HMI Control Systems
- ✓ Metal Detection
- ✓ Combining, Rejecting Product
- ✓ Temperature/Pressure Monitoring
- ✓ Recipe programming
- ✓ Weighing
- ✓ Field Startup and Integration



Why Mepaco Equipment

Mepaco works to develop long-term relationships with processors and partners by providing application-specific solutions that solve operational and production goals. Our services and resources are designed around our customers and their industry challenges. Mepaco is part of Apache Stainless Equipment Corporation, specializing in capital heavy-duty process equipment for food and hygienic industries all over the world.



www.mepaco.net



920-356-9900



**200 W Industrial Drive
Beaver Dam, WI 53916**