PerMix
Perfect Mixing Technologies
Part of the Proc-X Manufacturing Group
PrecXion DP AIS FuXion EmuXion QuantumX

PERFECT MIXING TECHNOLOGIES

PRODUCT. PROCESS. PERFORMANCE.

INDUSTRIAL PADDLE MIXING

PADDLE MIXERS

GENTLE ON THE PRODUCT.
ACTIVE THROUGHOUT THE BATCH.



Horizontal and vertical mixing solutions for powders, granules, fragile particles, and selected liquid additions.

CONTROLLED MOVEMENT
Paddle geometry selected for the material

PRODUCT INTEGRITY
Mixing action matched to particle sensitivity

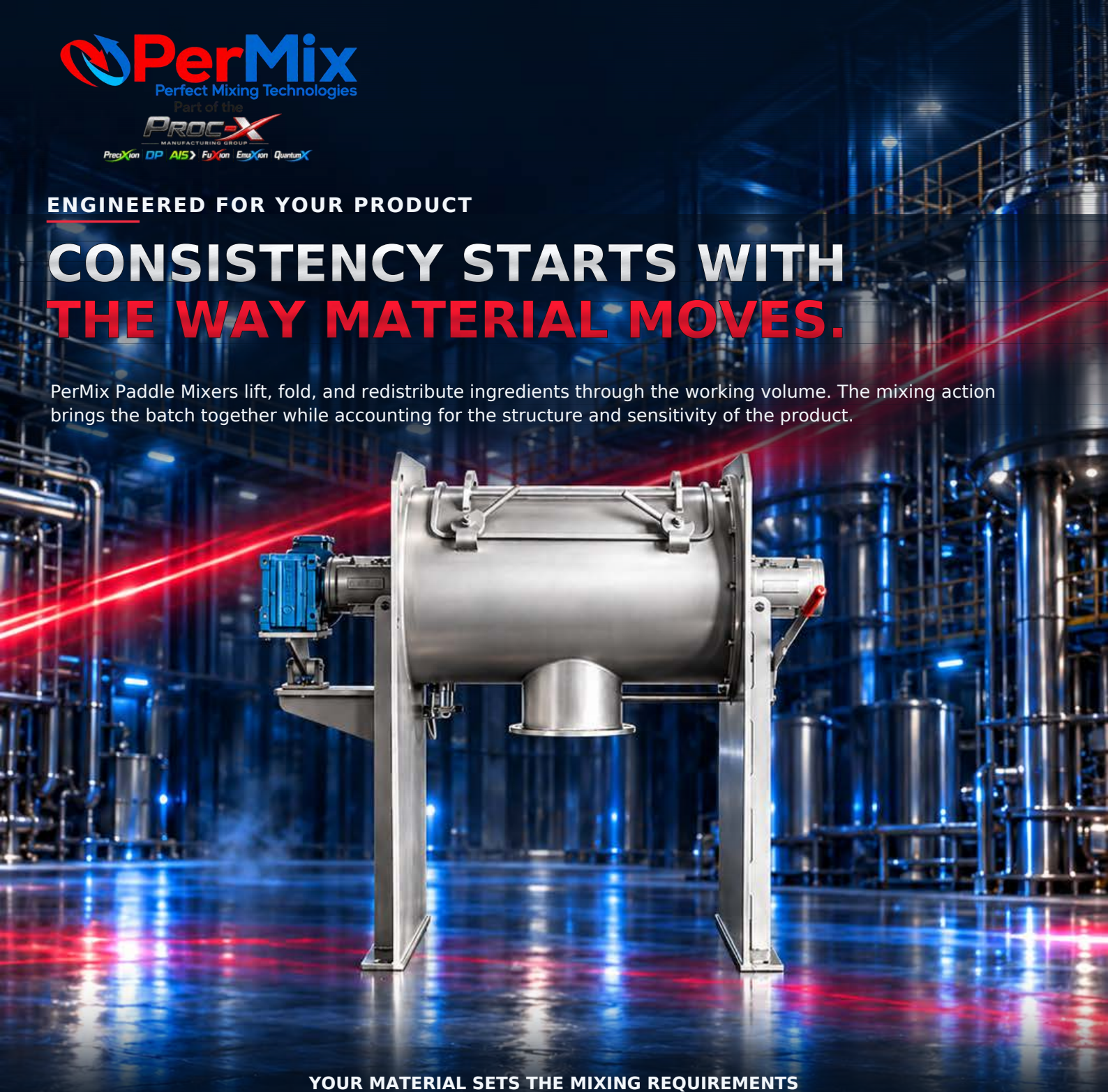
CONNECTED PRODUCTION
From ingredient entry to the next process step

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ENGINEERED FOR YOUR PRODUCT

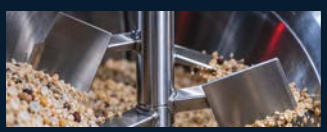
CONSISTENCY STARTS WITH THE WAY MATERIAL MOVES.

PerMix Paddle Mixers lift, fold, and redistribute ingredients through the working volume. The mixing action brings the batch together while accounting for the structure and sensitivity of the product.



YOUR MATERIAL SETS THE MIXING REQUIREMENTS

DISTRIBUTE INGREDIENTS



Bring major and minor components into repeated contact. Define the uniformity the finished batch needs to achieve.

PROTECT THE PRODUCT



Consider fragile granules, flakes, pellets, and inclusions when selecting the mixing action and operating conditions.

HANDLE THE FORMULATION



Evaluate particle size, density, flowability, and selected liquid additions as parts of the same process.

FIT THE WORKFLOW



Plan charging, discharge, inspection, and cleaning around the way production operates.

THE PROCESS COMES FIRST

A practical mixing solution begins with how your product behaves.

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HOW PADDLE MIXERS WORK

CONTROLLED LIFTING. PRODUCTIVE EXCHANGE.

Individual paddles engage the material in sequence, lifting and redirecting it into neighboring zones. Their arrangement establishes circulation through the batch.



PADDLE WIDTH & ANGLE

Width affects how much material each paddle engages. Face angle directs its movement through the vessel.

SPACING & ACTIVE AREA

Paddle number, spacing, and position coordinate the mixing action along the shaft. Active area must support turnover without unnecessary resistance.

SPEED & WORKING FILL

Speed and batch level influence engagement and product movement. Set the operating range around the formulation and required result.

STRENGTH UNDER LOAD

Shaft, supports, and drive selection account for batch characteristics, running loads, and loaded starts.

WHY THE DESIGN MATTERS

EVERY PADDLE SHOULD CONTRIBUTE TO CONTROLLED EXCHANGE THROUGHOUT THE BATCH.

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HORIZONTAL & VERTICAL CONFIGURATIONS

THE RIGHT MIXER. THE RIGHT FIT.

- Capacity
- Available space
- Ingredient handling
- Discharge

HORIZONTAL PADDLE MIXERS

FLEXIBLE BATCH PRODUCTION

A horizontal shaft carries paddle elements through an elongated vessel, providing a practical arrangement for batch blending.

- Flexible ingredient charging
- Access for inspection and cleaning
- Discharge options matched to the product



VERTICAL PADDLE MIXERS

COMPACT PROCESS INTEGRATION

A top-driven shaft carries paddles within an upright vessel, offering an alternative where floor space and vertical material flow influence selection.

- Compact plant footprint
- Fits vertically arranged process lines
- Gravity-assisted discharge



CONFIGURED AROUND YOUR WORKFLOW

Select the arrangement around the complete journey from ingredient entry to discharge.

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CONSTRUCTION & CLEANABILITY

BUILT FOR THE MATERIAL. READY FOR THE NEXT BATCH.

Product compatibility, routine access, and cleaning requirements belong in the original mixer design.



MATCH THE MATERIAL

Carbon steel and stainless steel address different industrial and sanitary duties. Review contact materials against the product and cleaning method.

SUPPORT CHANGEOVER

Access openings and the spaces between paddle elements support inspection. Plan how operators will reach the surfaces that need attention.

DESIGN THE DETAILS

Evaluate weld finishes, seals, outlets, and paddle clearances together. Wear protection can be considered for abrasive service.

PLAN THE CLEANING

Dry cleaning and wet washing place different demands on access and component selection. Establish the cleaning approach before finalizing the machine.

CLEANABILITY IS PART OF PRODUCTIVITY

Make cleaning, inspection, and maintenance part of the production plan.

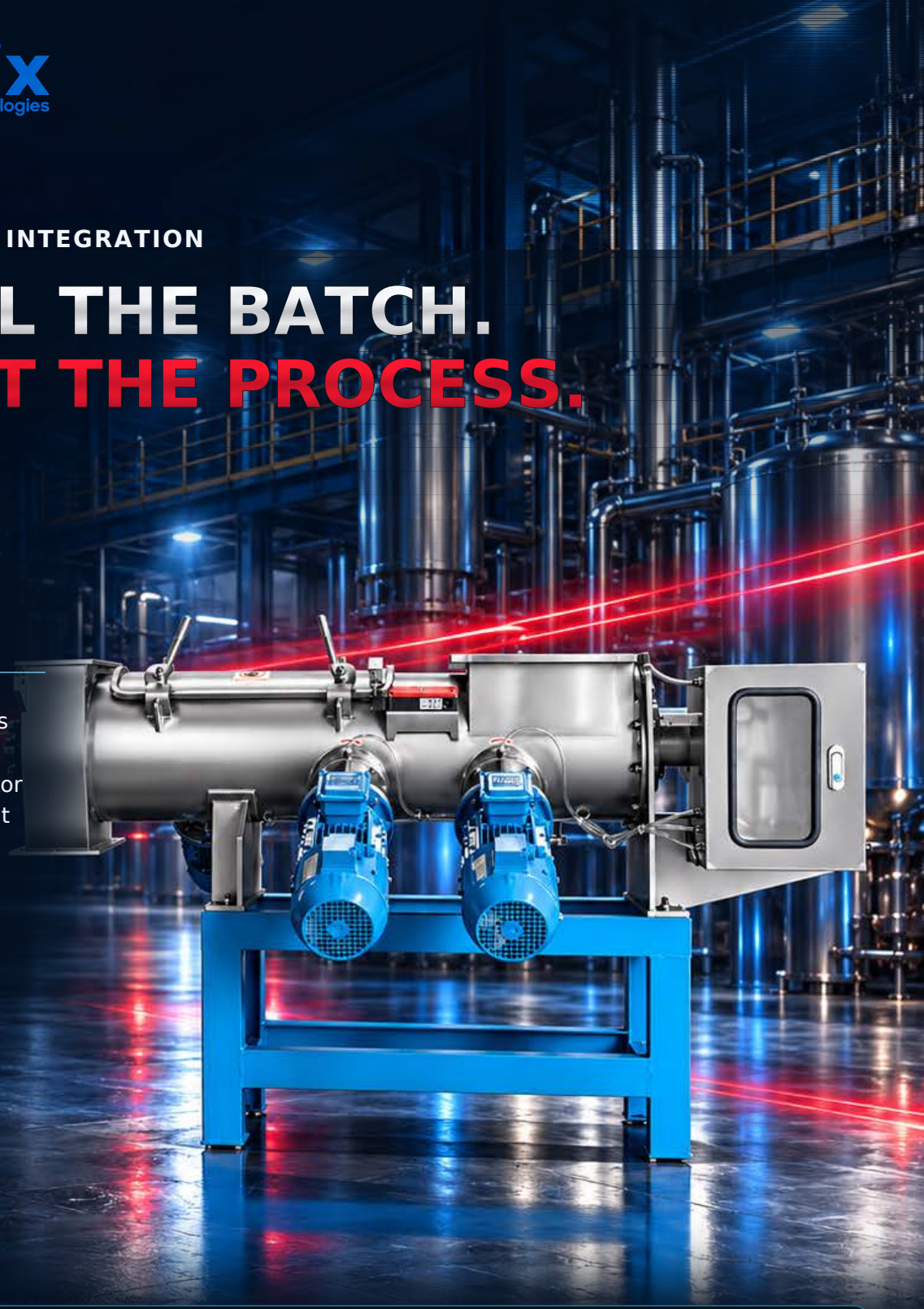
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OPTIONS & PROCESS INTEGRATION

CONTROL THE BATCH. CONNECT THE PROCESS.

MORE THAN MIXING TIME.

A productive cycle includes everything that happens before and after the agitator runs. Coordinate ingredient handling, blending, and discharge around the way your team operates.

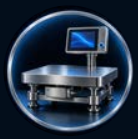


PROCESS OPTIONS



LIQUID ADDITION

Spray systems introduce selected liquids into the moving batch. Match addition rate and distribution to the formulation.



WEIGHING & CONTROL

Load cells, variable-speed drives, and operator controls help coordinate batch preparation and mixing.



LOCAL INTENSIFICATION

Optional choppers can assist with soft agglomerates or liquid dispersion where additional action suits the product.



LINE INTEGRATION

Coordinate ingredient feeding, conveying, screening, and packaging with the mixer and its discharge arrangement.

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APPLICATIONS & DEVELOPMENT

DIFFERENT INGREDIENTS. CONSISTENT AMBITION.

FOOD & BEVERAGE

Seasonings, bakery blends, protein powders, cereal products, fragile dried ingredients, and snack coatings.



PHARMACEUTICAL & NUTRACEUTICAL

Excipients, granules, vitamin and mineral ingredients, botanical powders, and supplement blends.



CHEMICAL & SPECIALTY

Pigments, detergents, additives, catalysts, coated particles, and granular chemicals.



PLASTICS & POLYMERS

Pellets, resins, stabilizers, colorants, fillers, and recycled polymer blends.



MINERALS & CERAMICS

Ceramic powders, refractories, cement additives, abrasive minerals, and foundry materials.



DEVELOP WITH THE NEXT STEP IN MIND

Evaluate the formulation, ingredient sequence, product condition, and cleaning needs before finalizing production equipment. Assess the complete cycle, including charging and discharge, when defining the next stage of production.

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WHY CHOOSE PERMIX?

A BETTER BLEND BEGINS WITH THE RIGHT PARTNER.

Your ingredients. Your batches. Your plant. PerMix considers the requirements together to develop a practical mixing solution.

LET'S DEFINE YOUR NEXT MIXING SOLUTION

- Ingredients and mixing objective
- Batch weight and bulk density
- Particle size and product fragility
- Capacity range and cycle target
- Liquid additions and cleaning method
- Available space and connected equipment



From paddle geometry and product access to discharge and process connections, the details should serve the way you work. Bring PerMix the challenge you need to solve, and build the mixing specification around the result you want to achieve.

START YOUR PROJECT

Built around your product. Connected to your process.

www.permixmixers.com