PerMix
Perfect Mixing Technologies
Part of the PROC-X MANUFACTURING GROUP
PrecXion DP AIS FuXion EmuXion QuantumX

PERFECT MIXING TECHNOLOGIES

PRODUCT. PROCESS. PERFORMANCE.

INDUSTRIAL RIBBON MIXING

RIBBON MIXERS

MOVE EVERY INGREDIENT.
BUILD A CONSISTENT BLEND.



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

ENGINEERED FLOW
Geometry selected for the material

PRACTICAL ACCESS
Designed around daily operation

CONNECTED PRODUCTION
From charging to discharge

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ENGINEERED FOR YOUR PRODUCT

CONSISTENCY STARTS WITH CONTROLLED MOVEMENT.

PerMix Ribbon Mixers circulate powders and granules through the working volume, bringing ingredients together under controlled mixing conditions.

YOUR MATERIAL SETS THE MIXING REQUIREMENTS

DISTRIBUTE INGREDIENTS



Bring major and minor components through active mixing zones to support a consistent batch.

ESTABLISH REPEATABILITY



Coordinate geometry, speed, and working fill around the formulation and mixing objective.

HANDLE THE PRODUCT



Evaluate density, flowability, fragility, and selected liquid additions together.

FIT THE WORKFLOW



Consider charging, discharge, cleaning, and connected equipment from the beginning.

THE PROCESS COMES FIRST

A practical mixing solution begins with how your product behaves.

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HOW RIBBON MIXERS WORK

BALANCED FLOW. EFFECTIVE BLENDING.

Opposing inner and outer ribbons move material along the trough. Exchange between these paths repeatedly brings ingredients through active mixing zones.



RIBBON WIDTH & PITCH

Width affects product engagement. Pitch affects axial transport. Both work with diameter and material behavior.

INNER & OUTER BALANCE

Different ribbon radii require coordinated dimensions to support exchange between opposing streams.

SPEED & WORKING FILL

Speed and batch level affect ribbon engagement, product turnover, and mixing intensity.

STRENGTH UNDER LOAD

Ribbon thickness, shaft design, and drive selection account for operation and loaded starts.

WHY THE DESIGN MATTERS

EVERY REVOLUTION SHOULD CONTRIBUTE TO PRODUCTIVE CIRCULATION THROUGHOUT THE BATCH.

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HORIZONTAL & VERTICAL CONFIGURATIONS

THE RIGHT MIXER. THE RIGHT FIT.

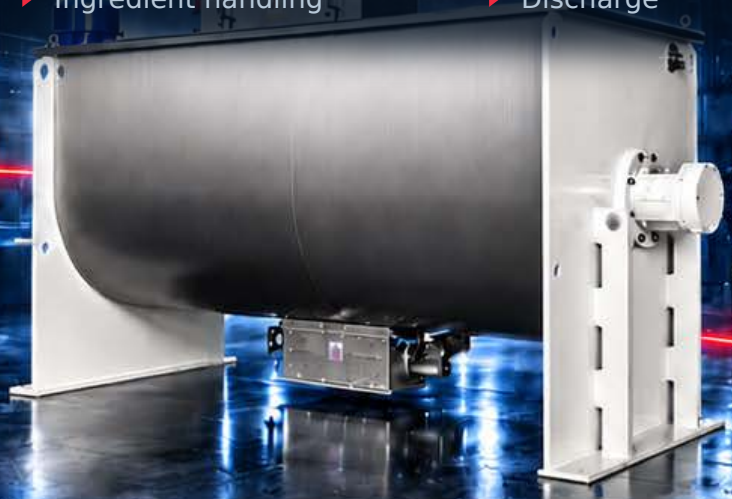
- Capacity
- Available space
- Ingredient handling
- Discharge

HORIZONTAL RIBBON MIXERS

FLEXIBLE BATCH PRODUCTION

An elongated trough and horizontal agitator provide a flexible platform for powder and granule blending.

- Production-scale batch blending
- Flexible charging and liquid addition
- Access for cleaning and inspection



VERTICAL RIBBON MIXERS

COMPACT PROCESS INTEGRATION

An upright helical agitator combines mechanical lifting with gravity-assisted material return.

- Compact plant footprint
- Fits vertical process arrangements
- 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 industrial and sanitary duties. Selected alloys and liners can be evaluated for corrosion or abrasion.

SUPPORT CHANGEOVER

Access doors, smooth surfaces, and appropriate weld finishes support inspection and cleaning.

DESIGN THE DETAILS

Seals, contact finishes, and outlet components are selected together for the intended product.

PLAN THE CLEANING

Dry cleaning and wet washing place different demands on access, surfaces, and component selection.

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.

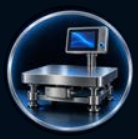
A productive cycle includes everything that happens before and after the agitator runs. Coordinate ingredient handling, blending, and discharge around the way your team operates.

PROCESS OPTIONS



LIQUID ADDITION

Spray systems distribute selected liquids into the moving batch at an appropriate addition rate.



WEIGHING & CONTROL

Load cells, variable-speed drives, and PLC/HMI controls support programmed batch sequences.



LOCAL INTENSIFICATION

Optional choppers assist with soft agglomerates or liquid dispersion when appropriate.



LINE INTEGRATION

Coordinate charging, outlets, conveying, screening, and downstream packaging.

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APPLICATIONS & DEVELOPMENT

DIFFERENT INGREDIENTS. CONSISTENT AMBITION.

FOOD & BEVERAGE

Seasonings, bakery mixes, beverage powders, dairy ingredients, and protein blends.



PHARMACEUTICAL & NUTRACEUTICAL

Excipients, vitamin and mineral premixes, botanical powders, and supplement formulations.



CHEMICAL & SPECIALTY

Pigments, detergents, catalysts, additives, and formulated powder products.



PLASTICS & POLYMERS

Resins, pellets, fillers, stabilizers, colorants, and additive packages.



MINERALS & CERAMICS

Ceramic powders, refractories, construction blends, and abrasive minerals.



DEVELOP WITH THE NEXT STEP IN MIND

Evaluate formulations, ingredient sequences, mixing time, and cleaning needs before finalizing production equipment. Scale-up considers material behavior and mixing conditions alongside batch capacity.

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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
- Capacity range and cycle target
- Liquid additions and cleaning method
- Available space and utilities
- Upstream and downstream equipment



Ribbon geometry, construction, access, controls, and integration shape how a mixer performs in daily production. Start with what the process needs to accomplish, then define the machine around it.

START YOUR PROJECT

Built around your product. Connected to your process.

www.permixmixers.com