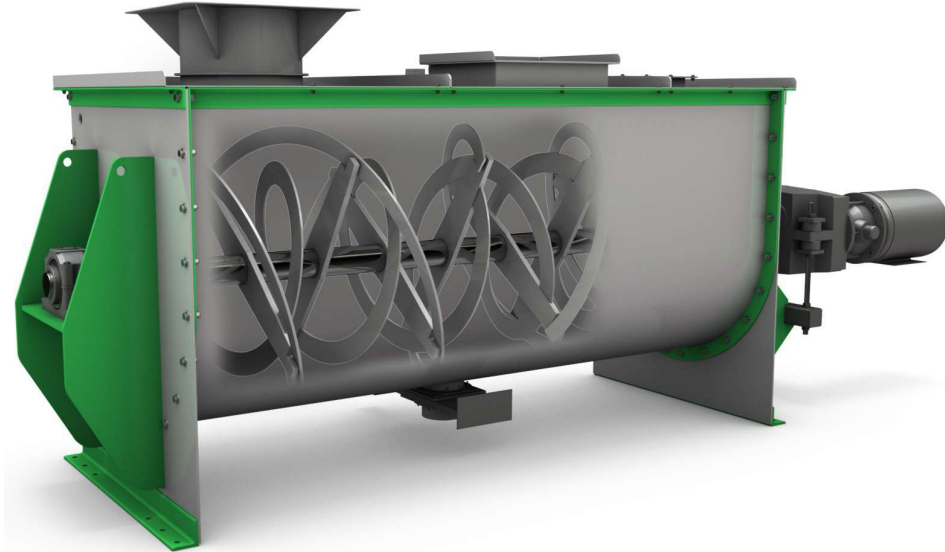


RIBBON BLENDER



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The SPM Ribbon Blender is a horizontal mixer widely used for the homogeneous mixing of powders, granules, and pastes. Designed for efficiency and consistency, it features a double-helical ribbon agitator that ensures uniform mixing by counter-current motion within a U-shaped trough. Ideal for both small batch and large-scale operations. Designed as per cGMP and international standards Suitable for dry powder, paste, and low-viscosity material blending

Detailed Technical Specifications

Construction & Design

- Type: Horizontal U-Trough
- Agitator: Dual ribbon (inner and outer) for radial and axial mixing
- Capacity: Ranges from 50 liters to 20,000 liters
- MOC Options: SS304, SS316, MS with epoxy coating, or customized alloy steels
- Finish: Mirror polished (pharma/food grade), matt finish, or industrial

Drive System

- Drive: Direct coupled or chain sprocket
- Motor: TEFC / Flameproof (as required)
- Gearbox: Helical or worm gear
- Speed: Fixed or Variable (VFD optional)
- Power: Based on volume and density of materials

Discharge System

- Discharge Valve: Butterfly, slide gate, or flush bottom
- Actuation: Manual or pneumatic
- Outlet Height: Customizable as per installation

Optional Features

- Heating/Cooling Jacket
- Vacuum Rated Construction
- Load Cell System for Batching
- PLC Based Automation Panel
- CIP (Clean in Place) Nozzles

Application & Functional Benefits

Applications by Industry

- Pharmaceuticals – Dry powder blends, excipients, granule mixing
- Food & Beverages – Mixing of flour, spices, nutrition powders, protein mixes
- Chemicals – Blending of pigments, fertilizers, resins, and additives
- Cosmetics & Personal Care – Talcum powders, cosmetic powders, face packs
- Detergents & Soaps – Dry detergent base, soap powder, enzyme mixes

Key Functional Advantages

- Homogeneous Mixing within Short Time
- Dust-Free Operation – Fully Sealed Unit
- Minimal Heat Generation for Sensitive Materials
- Low Maintenance – Simple Mechanism
- Energy Efficient Design
- Wide Range of Customization

SPM Engineering Edge

Our Ribbon Blenders are engineered with simulation-based mixing analysis for optimal blade geometry and material flow. Every unit is designed to meet exact plant specifications and process requirements.

Customization Options

- Ribbon blade profile (paddle/ribbon combo also available)
- Multi-zone jacket for heating/cooling
- Flameproof panels for hazardous zones
- Lifting arrangement for easy discharge
- Vacuum mixing for moisture-sensitive products
- CIP system for easy internal cleaning

Safety & Compliance

- Safety grid under top cover
- Emergency stop switch
- Limit switches on top lid
- CE, ATEX (optional), GMP compliant designs