



RIBBON BLENDER

Precision Blending for Consistent,
Repeatable Quality



Ribbon Blender Manufacturer & Supplier | India

ENGINEERING THE FUTURE OF PROCESSING

www.millnest.com

PRODUCT OVERVIEW

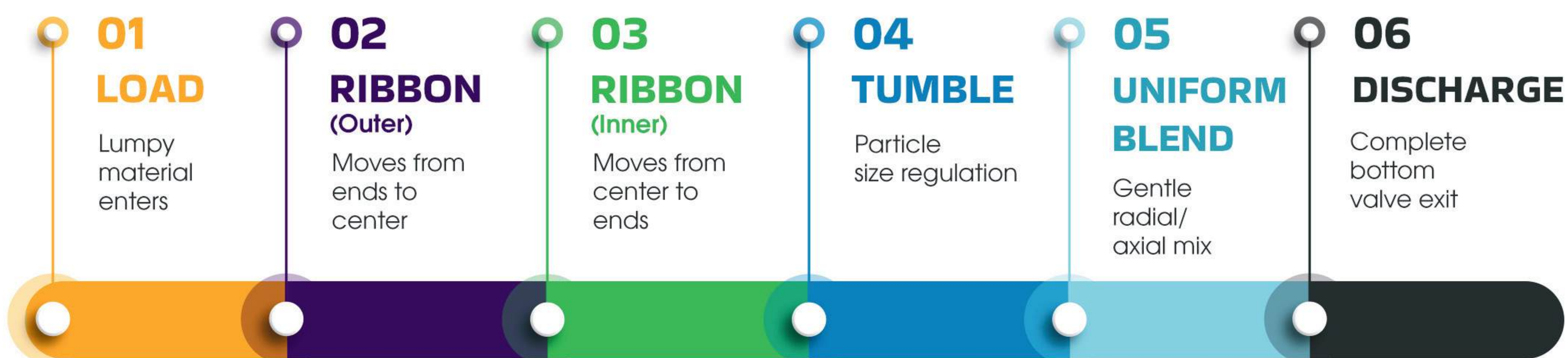


What is a Ribbon Blender?

A ribbon-based mixing system designed to blend powders, granules, and dry ingredient mixes through combined axial and radial material movement. The inner and outer ribbons move material in opposing directions to promote turnover and distribution across the mixing zone. Mixing outcome depends on material flow behaviour, fill level, ribbon geometry, speed setting, and mixing time or residence time (based on configuration).



How It Works



Original Line Components

Recommended wear & service components:



RIBBON AGITATOR

Inner/outer helical design



DISCHARGE VALVE

Butterfly or slide gate



BEARINGS

Heavy - duty sealed unit



VARIABLE FREQUENCY DRIVE

varies motor speed



Fast-moving critical spares supported



Genuine parts help maintain mixing behaviour and reliability

Blend Uniformity Capability

COARSE BLENDS

FINE BLENDS



Note: Uniformity depends on ingredient compatibility (density, particle size, cohesion), loading sequence, and operating settings.

Particle Size Range: **50 microns to 5mm** | Bulk Density Range: **0.2–1.2 kg/liter**
Component Count: **3–20 ingredients per batch**

Technical Specifications — MRBL Series

Model	Capacity	Total Volume	Motor	Mixing Time
MRBL-100	100 L	150 L	2.2–3.7 kW	8–15 min
MRBL-300	300 L	450 L	3.7–5.5 kW	8–15 min
MRBL-500	500 L	750 L	5.5–7.5 kW	10–15 min
MRBL-1000	1000 L	1500 L	7.5–11 kW	10–18 min
MRBL-2000	2000 L	3000 L	11–15 kW	12–20 min

Note: Specifications are indicative and may vary with material characteristics, feed condition, target particle size, selected configuration, and the connected airflow/collection system where applicable. Footprints are approximate and can change with inlet–outlet orientation, drive arrangement, safety/accessories, and line integration; final sizing should be confirmed through application data or trials.

-  Construction: SS304/SS316L, electropolished (Ra <0.8 µm)
-  Fill Level: 60–80% of total volume
-  Feed Options: Gravity / Screw conveyor / Inline mounting
-  Discharge: 99%+ material recovery

Integrated Blending System



Turnkey Solutions Available — Recipe management to bag-off systems

Applications

 SPICES & FOOD	 PHARMA	 CHEMICALS	 SPECIALTY
Garam masala	API blends	Detergents	Animal feed premix
Curry powders	Tablet formulations	Fertilizers	Mineral supplements
Seasonings	Herbal extracts	Pigments	Nutritional powders
Flour fortificants	Nutraceuticals	Plastic additives	Cosmetic powders
Instant drinks	Vitamin premixes	Dry chemicals	Soil conditioners
Bakery premixes	Excipient mixing	Colorants	Fortified ingredients



MillNest Originals

Refurbished Equipment Program

Select machines rebuilt under MillNest standards. Each unit is inspected, restored with genuine parts where required, and function-tested for dependable operation. Availability depends on incoming equipment and rebuild scope.

- ✓ Warranty as per rebuild scope
- ✓ Typically shorter lead times
- ✓ Spares and service support
- ✓ Rotor sets as per scope

Equipment Buy-Back / Trade-In Options

Upgrade Pathways for Existing Installations

MillNest evaluates eligible equipment and recommends retrofit, rebuild, or replacement routes based on condition, application needs, and logistics feasibility.

- ✓ Evaluation-led recommendation
- ✓ Trade-in or buy-back options (case dependent)
- ✓ End-to-end coordination support

Spare Parts & Maintenance

Spare Parts & Maintenance Lifecycle Support	Planned Maintenance Guidance
Recommended spares (rotor elements, screens, bearings, liners) aligned to your configuration	Preventive maintenance plans and inspection checkpoints to help maintain stable output

MillNest Academy

Process Intelligence That Strengthens Processing

Structured resources and application guidance to help teams run consistent multi-product grinding outcomes: rotor selection logic, parameter baselines, sampling checks, and change-over discipline.

- ✓ academy.millnest.com

Ready to Discuss Your Requirements?

Whether establishing a new facility, expanding capacity, or optimizing an existing line — MillNest supports equipment selection, system integration, and commissioning aligned to your product and plant reality.



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Quick Decision Guide

- Need coarse to fine grinding with high throughput - **Hammer Mill (MHAM)**
- Need ultra-fine powder with tight cut control - **Air Classifying Mill (MACM)**
- Need one mill for multiple products - **Universal Mill (MUNI)**
- Need fibrous size reduction by cutting, not impact - **Cutter Mill (MCUT)**
- Need to break lumps and restore flow, not grind - **Delumper (MLUM)**
- Need uniform dry blending of free-flowing powders - **Ribbon Blender (MRBL)**
- Need fast-cycle mixing, trace ingredient distribution, or liquid addition - **Paddle Blender (MPBL)**

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Ribbon Blenders | Ribbon Mixing Systems for Powders and Ingredient Blends | MillNest | India