



FLUID BED DRYER

Efficient Drying & Cooling for
Heat-Sensitive Materials



Fluid Bed Dryer Manufacturer & Supplier | India

ENGINEERING THE FUTURE OF PROCESSING

www.millnest.com

PRODUCT OVERVIEW

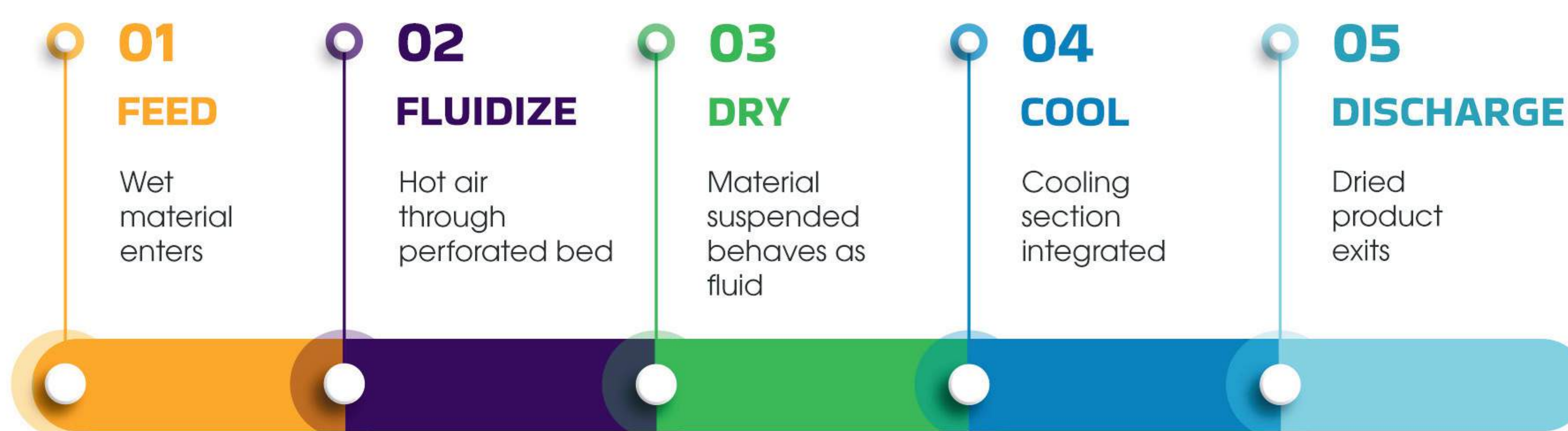


What is a Fluid Bed Dryer?

A thermal processing system where process air passes through a perforated bed to fluidize wet material and enable uniform drying. Shaking or vibratory motion (in applicable configurations) supports controlled conveying and residence time, helping maintain consistent air product contact. Drying performance depends on material properties, inlet moisture, target moisture, air temperature, airflow, and residence time.

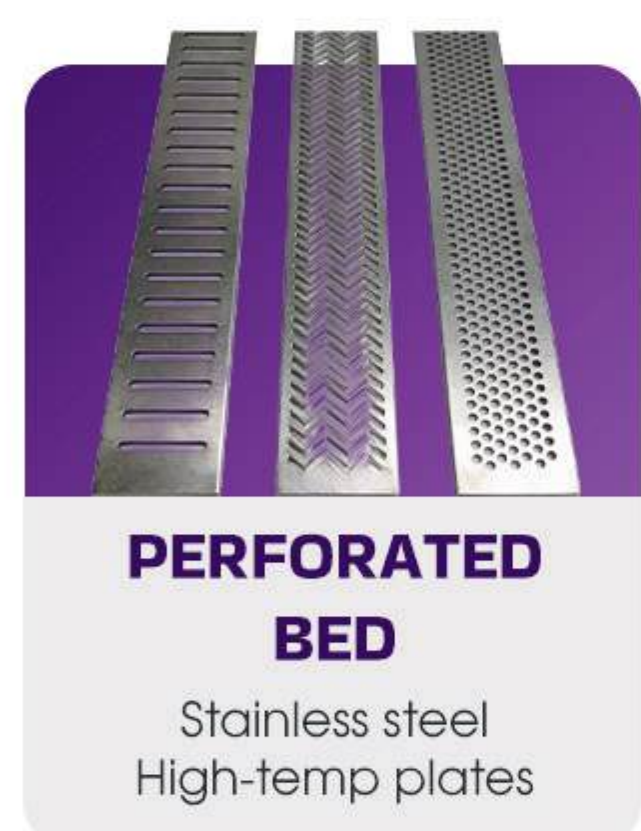


How It Works



Original Line Components

Recommended wear & service components:

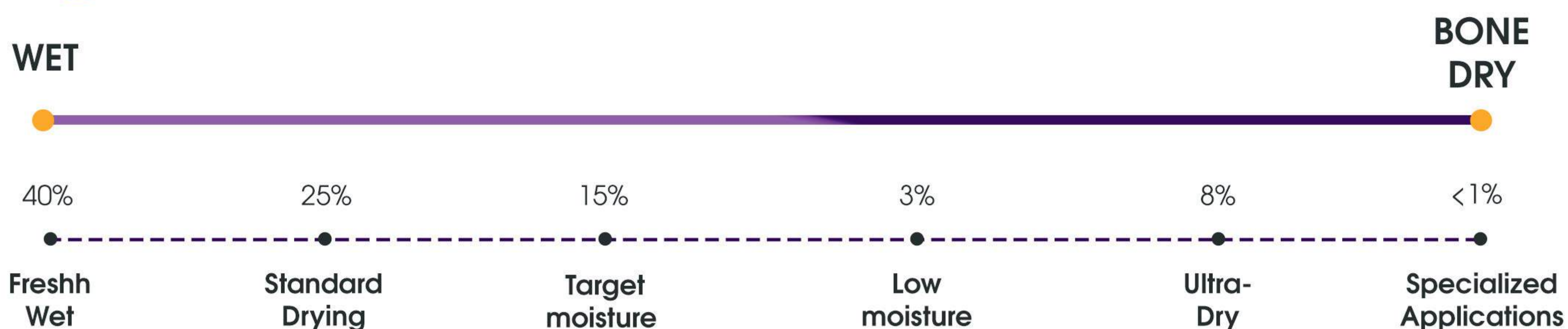


Fast-moving critical spares supported



Genuine parts help maintain stable airflow and bed behaviour

Moisture Reduction Capability



Temperature Range: **Drying air temperature and product temperature are application dependent (defined by product limits and process design)**

Residence Time: **Controlled through bed design, feed rate, and vibration settings (as applicable)**

Energy Behaviour: **Energy consumption depends on airflow, recirculation strategy, and moisture load**

SPECIFICATIONS & APPLICATIONS



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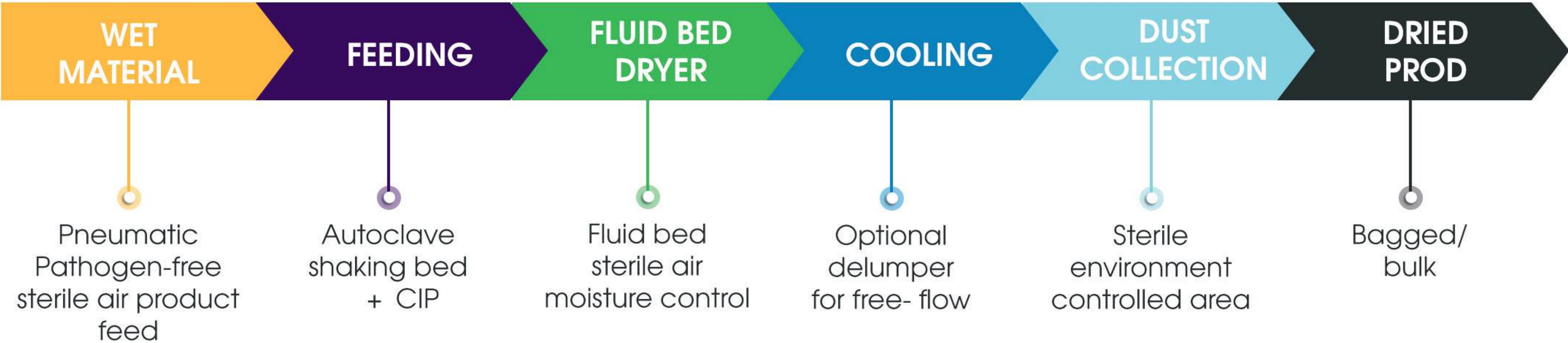
Technical Specifications — MFBD Series

Model	Capacity	Bed Area	Air Volume	Footprint
MFBD-10	50–200 kg/hr	1.0 m ²	1000–3000 m ³ /hr	3.0 × 1.5 × 2.5 m
MFBD-25	200–500 kg/hr	2.5 m ²	2500–6000 m ³ /hr	4.5 × 2.0 × 3.0 m
MFBD-50	500–1000 kg/hr	5.0 m ²	5000–12000 m ³ /hr	6.0 × 2.5 × 3.5 m
MFBD-100	1000–2000 kg/hr	10.0 m ²	10000–20000 m ³ /hr	8.0 × 3.5 × 4.0 m

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.

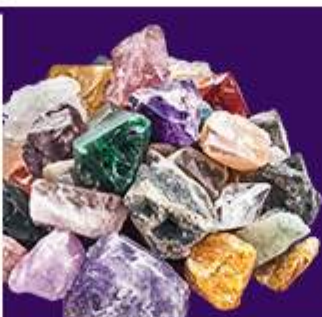
- **Configurations:**
Shaking bed (sticky materials) / Static bed (uniform materials)
- **Features:**
Integrated cooling section, submerged heat exchangers (optional)
- **Operation:**
Continuous or batch processing

Integrated Drying System



Turnkey Solutions Available — Air handling, dust collection, and integration support

Applications

 FOOD PROCESSING	 PHARMA	 CHEMICALS	 SPECIALTY
Spice powders	API drying	Fertilizers	Minerals
Dehydrated vegetables	Granule drying	Pigments	Crystalline products
Instant beverages	Herbal extracts	Plastic pellets	Catalyst drying
Starch products	Tablet granulation	Detergent powders	Ceramic materials
Protein powders	Excipients	Specialty chemicals	Recycled materials
Nutritional ingredients	Nutraceuticals	Polymer additives	Extruded products





MillNest Originals™

Premium Refurbished Equipment

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 Program

Upgrade Pathways for Existing Installations

MillNest evaluates eligible grinding 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
- ✓ End-to-end coordination support

Spare Parts & Maintenance

Spare Parts & Maintenance	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 learning resources for processing professionals — from operator training to advanced material handling and low-shear mixing optimization.

- ✓ 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.



Contact Us :

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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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Fluid Bed Dryers | Drying and Cooling Systems for Powders and Granules | MillNest | India