



Know How Cheat Sheet

Selecting the Right Powder Mixer

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Brand-to-Mixer Type Index

Lindor	-> Gentle Drum Mixer
Hosokawa Micron	-> High-Shear Mixer
Lödige	-> Ploughshare Mixer
GEA	-> High-Shear Mixer
Diosna	-> High-Shear Mixer
Eirich	-> Planetary/Intensive Mixer
Matcon	-> Tumble Mixer
Vrieco-Nauta	-> Conical Screw Mixer

Why Mixer Selection Matters

Choosing the right powder mixer is critical for ensuring product quality, process efficiency, and material integrity. This sheet explains how to match mixer types to powder behavior and industry demands.

Overview of Powder Mixer Types

Mixer Type	Best For	Key Strengths
Tumble Mixer	Free-flowing, non-cohesive powders	Gentle, low-shear, minimal breakage
Ribbon Blender	Similar flow powders	Cost-effective, easy to scale
Ploughshare Mixer	Agglomerates, added liquids	Fluidizes, fast blending
High-Shear Mixer	Cohesive powders	Deagglomerates, efficient
Gentle Drum Mixer	Fragile, heat-sensitive powders	Preserves integrity, low energy
Planetary Mixer	Viscous, dense formulations	Precision mixing, batch validation

Key Selection Questions

1. Is your powder free-flowing or cohesive?
2. Are particles fragile or sensitive to heat or shear?
3. Do your components vary in size or density?
4. Do you require fast throughput or batch precision?
5. Are there hygienic or ATEX compliance requirements?

Final Tips

- Always test small batches before scaling up.
- Account for cleaning access, residue risk, and CIP needs.
- In regulated industries, ensure mixers meet EHEDG, GMP, or ATEX.
- Match powder characteristics with mixer intensity, not just mixer popularity.

