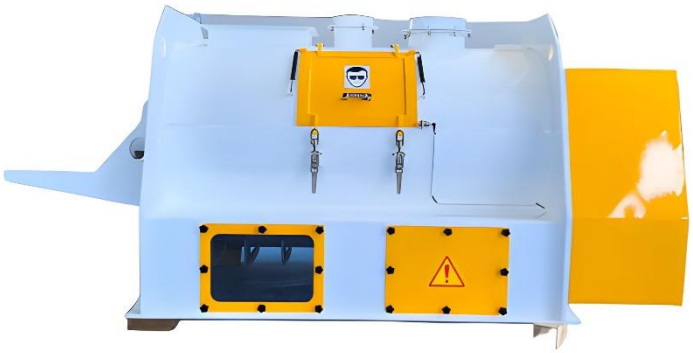
Single-shaft paddle mixer

Product Overview

The single-shaft paddle mixer is an efficient mixing solution engineered for homogeneous blending of dry powders and granular materials. It finds extensive application in animal feed, chemicals, food, building materials, and pharmaceuticals. Using a single shaft with specially arranged paddles, it creates a three-dimensional flow through intensive convection and shear, achieving a C.V. below 5% within 2 – 4 minutes. Its robust build, low residue, and fast discharge make it a core mixer in modern production.





Technical Specifications

Model	DWZ1000	DWZ1500	DWZ2000	DWZ2500	DWZ3000	DWZ3500	DWZ4000
Volume	1000L	1500L	2000L	2500L	3000L	3500L	4000L
Mixing coefficient	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7
Power（KW）	15KW	22KW	22KW	30KW	30KW	37KW	37KW
Mixer Weight（kg）	≈ 1500kg	≈ 2000kg	≈ 2500kg	≈ 3000kg	≈ 3500kg	≈ 3800kg	≈ 4500kg
Mixing speed（r/min）	89r/min-95r/min						
Mixing uniformity（%）	99.5%						
Mixing time（S）	150s-240s						
Unloading time（S）	15s-20s						
All mixer models can be customized with different materials (carbon steel, 304 stainless steel, 316 stainless steel, and other materials).							

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The mixer can be equipped with either paddles or screw blades.(As shown in the figure)





Key Benefits and Features of the Product

Engineered for Precision, Built for Endurance

Step into a new era of mixing efficiency. This single-shaft blade mixer has been meticulously crafted to handle slurry and dry powder mortar with a level of performance that transforms your production line.

Every component is designed to save space, prevent waste, and deliver flawless consistency — from the first scoop to the last discharge.

Ultra-Compact Framework, Effortless Integration

The mixer's sleek, consolidated architecture occupies minimal floor space, making it a perfect fit for both greenfield installations and retrofits into existing plants.

Its intelligent layout streamlines rigging, alignment, and future equipment upgrades, giving you flexibility without compromising throughput.

Dual-Seal Leak Protection

A robust tandem sealing system merges a precision mechanical seal with an air-purge barrier.

This dual-defense strategy locks in material and locks out contamination, virtually eliminating leakage.

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The result is a cleaner workspace, safer handling, and batch-to-batch integrity you can rely on.

Blade Mixing Refined

At the heart of the mixer lies an expertly contoured blade assembly that turns raw ingredients into a homogeneous mass with remarkable speed. Instead of simply tumbling, the blades create overlapping convection and shear currents, drawing every particle into the mixing zone.

The outcome? A thoroughly blended charge that meets even the strictest quality benchmarks.

Full-Opening Discharge: Speed Meets Cleanout

Downtime between batches shrinks dramatically thanks to the wide-arc discharge door.

It swings open fully, releasing the entire load in seconds and leaving behind virtually no residue.

Quick, complete emptying not only boosts cycle rates but also eliminates cross-batch carryover — essential when switching between formulations.

High-Speed Chopper Knives for Flawless Dispersion

Tackle stubborn agglomerates head-on with the integrated high-speed flying knives.

Their intense shearing and centrifugal projection break apart clumps instantly, dispersing them uniformly into the mix. This dynamic action slashes total mixing time while sharpening blend accuracy.

For materials notorious for caking or lumping, the choppers act as a continuous de-agglomeration and anti-caking tool, ensuring a lump-free, silky-smooth final product every time.

Applications

Chemical Industry: Pigments, coatings, plastic pellets, and premixed additives

Building Materials Industry: Dry-mixed mortar, joint compound, and insulation materials

Food Industry: Seasonings, milk powder, and protein powder blending

Pharmaceutical Industry: Pharmaceutical powders and raw material blending for nutritional supplements

Feed Industry: Production of premixes and concentrated feed

Why Choose Us?

Expert Technical Team: Over 10 years of experience in R&D of mixing equipment, providing customized solutions

Quality Assurance: Rigorous quality control system; ISO 9001-certified company

After-Sales Service: Global service network, 24-hour response, and lifetime technical support

Success Stories: Serving over 500 companies across more than 20 countries and regions

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Customer Testimonial

1.

★★★★★ Purchasing Manager, a large mortar manufacturing plant (Vietnam)

Your production line has completely transformed our operations. From shorter project timelines to superior mortar quality, their technology is specifically designed to operate efficiently under real-world conditions.

2.

★★★★★ Production Supervisor, a putty powder manufacturing company

(Uzbekistan)

The installation and commissioning process went very smoothly. The machine performance has been highly reliable since day one, and the production capacity fully meets our project requirements. The technical support team was professional and responsive throughout.

3.

★★★★★ Business Director, a mortar company (Russia)

The entire production line operates very smoothly and is highly automated; we now use fewer workers than before and have achieved higher output than ever.

FAQ

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1.

Q: What is the minimum order quantity for your products?

A: For larger equipment such as mixers, our minimum order quantity is one unit; for smaller products such as valves and fittings, the minimum order quantity ranges from 50 to 100 pieces. Please contact our sales representatives to confirm the specific minimum order quantity.

2.

Q: From which port do you ship?

A: Since our company is located in Qingdao, most of our shipments depart from the Port of Qingdao.

3.

Q: Are you a factory or a trading company?

A: We are a manufacturing company with our own factory; all our equipment is produced in our factory's production lines.

4.

Q: What products can your mixers produce?

A: Our mixers can be used in a wide range of industries to produce various products.

Classified by industry and material type (dry or wet):

Dry materials:

Building materials industry: dry-mix mortar, putty powder, gypsum powder, cement, dry refractory castables

Food industry: flour premixes, starch, milk powder, powdered sugar, instant coffee powder, powdered beverages, chicken bouillon powder

Pharmaceutical Industry: Tablet granules, capsule filling powders, traditional Chinese medicine powders

Chemical Industry: Powder coatings, pigments, dyes, plastic additive premixes

Metallurgical Industry: Metal powders (iron, aluminum, copper, titanium) mixed with lubricants

Feed Industry: Complete compound feed, premixes, concentrates

Wet Materials:

Building Materials Industry: Concrete, wet mortar, self-leveling mortar, foam concrete slurry, refractory slurry

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Coatings/Ink Industry: Water-based/solvent-based coatings, emulsion paint, printing ink, UV ink

Adhesives/Sealants Industry: Epoxy AB adhesives, polyurethane adhesives, silicone sealants, hot-melt adhesives

Cosmetics/Personal Care Industry: Shampoo, body wash, face cream, lotion, toothpaste, makeup pastes

Pharmaceutical Industry: Ointments, creams, gels, oral suspensions, injectable emulsions

Food Industry: Tomato sauce, mayonnaise, chocolate paste, jam, honey crystallization treatment, meat paste

Rubber/Plastics Industry: Compounded rubber, PVC paste resin, color paste, masterbatch wet premixing

Battery Industry: Lithium battery anode and cathode slurries (wet vacuum mixing)

Environmental Protection Industry: Fly ash solidification slurry, sludge stabilization slurry, water treatment chemical solutions

5.

Q: Can your mixers be customized to meet my specific needs?

A: Yes, all our mixers can be customized. We will tailor them to your specific requirements based on the raw materials you use, the products you manufacture, and your desired output.

6.

Q: How often do the mixing blades in your mixers need to be replaced? Is it easy to obtain replacement parts?

A: In theory, replacement is recommended every six months to a year, though there is no fixed replacement schedule. The raw materials used in production vary, and different materials cause varying degrees of wear on the blades. Additionally, the daily operating hours of the mixer differ. Therefore, we recommend checking the wear on the blades through the inspection window to determine the replacement frequency. All mixing blades in our mixers are made of wear-resistant materials and are reinforced with wear-resistant welds, resulting in a longer service life than standard mixing blades on the market. The mixing arms and blades inside the mixer are all secured with bolts, making it very convenient to replace parts.

7.

Q: There are many types of mixers. How should I choose the right one?

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A: Generally, horizontal mixers are used for mixing powders, granules, pastes, and high-viscosity materials; vertical mixers are used for low- to medium-viscosity liquids, slurries, and suspensions; disc mixers are primarily used for high-hardness and highly abrasive materials; and ribbon mixers are commonly used for powders, granules, pastes, and high-viscosity materials.

8.

Q: Aside from equipment sold separately, do you offer design, manufacturing, and installation services for complete production lines?

A: Yes. We have customers in over 20 countries worldwide who use production lines that we have designed, manufactured, and installed.

9.

Q: What is the measurement accuracy of this precision measurement system?

A: Typically ±0.2%. (Higher measurement accuracy can be customized upon request.)

10.

Q: How do I choose the right type of packaging equipment for my products?

A: When selecting packaging equipment, the following factors should be considered:

1. Product characteristics: including product dimensions, shape, weight, and material

2. Packaging format: such as bagging, boxing, bottling, or canning

3. Production capacity requirements: Determine the equipment speed based on the production line's output needs

4. Level of automation: Choose between fully automatic, semi-automatic, or manual equipment

5. Budget range: Select the equipment with the best cost-performance ratio based on your investment budget

6. Space constraints: Consider equipment dimensions and workshop layout requirements

11.

Q: How can we verify that the quality of equipment packaging meets standards?

A: Packaging quality verification primarily includes the following aspects:

• Sealing test: Checking the integrity of the packaging seal

• Visual inspection: Ensuring the packaging appears neat and free of wrinkles

• Measurement accuracy: Verifying that weighing or measurement meets standards

• Production efficiency: Confirming that the nominal production speed is achieved

• Pass rate statistics: Calculating the pass rate after continuous production of a certain quantity

• Stability testing: Assessing stability during 8 hours of continuous operation

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