



KNEADERS

Kneaders, also known as dough kneaders or spiral mixers, are industrial baking equipment used to mix and knead dough in large quantities.

- **They are used primarily in commercial and industrial bakeries, as well as other food production facilities that require large volumes of dough.**
- **Kneaders are designed to mix and knead dough using a spiral mixing arm and a rotating bowl.**
- **The mixing arm is designed to work the dough by rotating and stretching it in a spiral motion, while the bowl rotates in the opposite direction. This allows the dough to be mixed and kneaded evenly and efficiently, resulting in a consistent and high-quality dough.**
- **They are typically made of stainless steel for durability and ease of cleaning and may include features such as variable speed controls and automatic timers to make the dough mixing process more efficient.**
- **Kneaders are commonly used for making a variety of baked goods, including bread, pizza dough, and pastry dough, and are an essential piece of equipment in many commercial and industrial bakeries**



WORKING PRINCIPLE

Based on a combination of rotating and spiral mixing actions that work the dough to create a consistent and well-mixed product.

- 1. Loading:** First, the ingredients are loaded into the mixing bowl. This typically includes flour, water, yeast, salt, and any other ingredients needed for the particular recipe.
- 2. Mixing:** The spiral mixing arm rotates around the bowl while the bowl itself rotates in the opposite direction. This motion works to combine the ingredients and form a dough.
- 3. Kneading:** As the mixing continues, the spiral arm also works to knead the dough. The twisting motion of the spiral arm helps to stretch and work the gluten in the dough, which gives it its elasticity and structure.
- 4. Resting:** After the dough has been mixed and kneaded, it is typically left to rest in the bowl for a period of time. This allows the dough to relax and the gluten to develop fully.
- 5. Discharging:** Finally, the dough is discharged from the kneader, typically through a chute or conveyor belt. It can then be further processed or shaped into the desired product, such as loaves of bread or pizza dough balls.



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MAJOR COMPONENTS

- 1.Mixing Bowl:** Designed to rotate in the opposite direction to the mixing arm, allowing the dough to be mixed and kneaded evenly.
- 2.Spiral Mixing Arm:** Does the actual mixing and kneading of the dough. It is shaped like a spiral and rotates around the bowl to work the dough in a twisting motion.
- 3.Motor and Gearbox:** Responsible for powering the mixing arm and bowl. They are typically located at the base of the kneader and may include variable speed controls and automatic timers.
- 4.Safety Guard:** Prevents accidental contact with the mixing arm or other moving parts during operation.
- 5.Control Panel:** Includes digital displays, push-button controls, and other features to make it easy to operate.
- 6.Discharge Chute:** The discharge chute may be adjustable to control the size and shape of the dough as it leaves the kneader.

KEY MANUFACTURERS

- Diosna
- Kemper
- Hobart
- Bongard
- Peerless
- VMI
- WP Bakery Group

