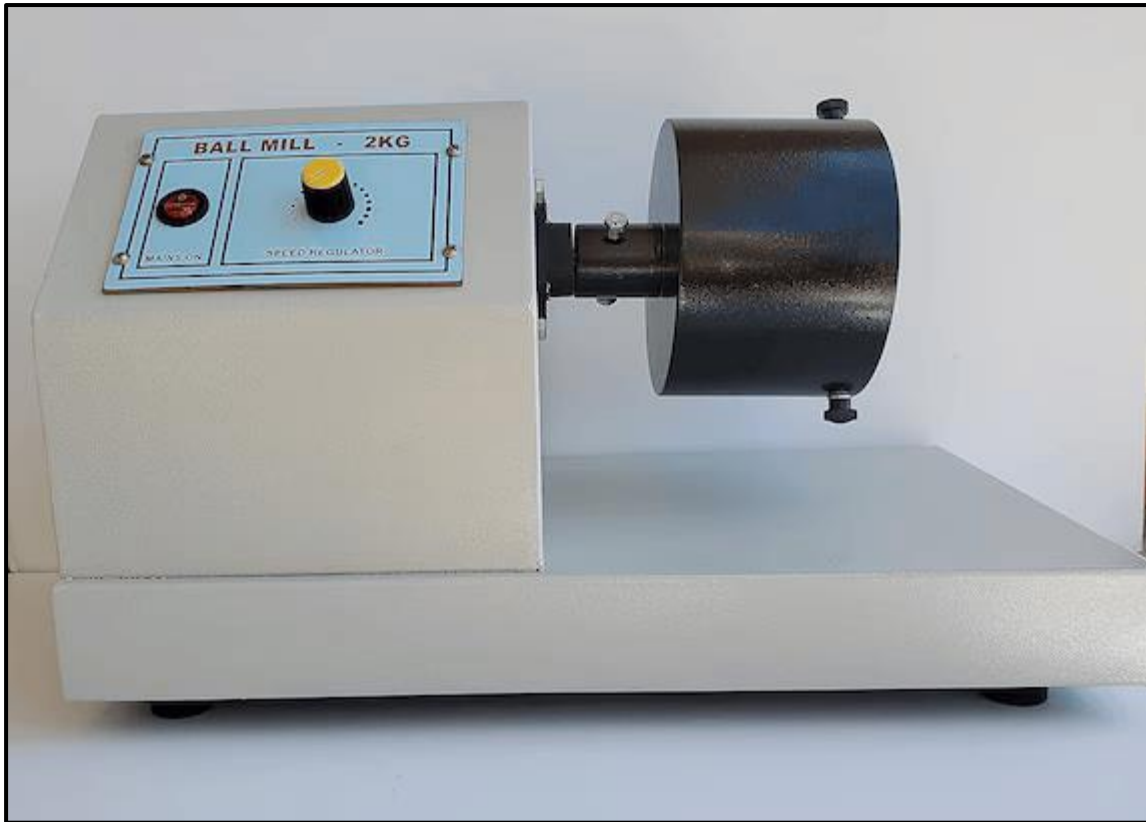


## 1. Ball Mill



A Ball Mill is a grinding device used to crush and blend materials for various industries, including pharmaceuticals, mining, cement, and chemicals. It works by rotating a cylindrical chamber filled with grinding media (balls) to reduce material size through impact and friction.

Key Features:

- Cylindrical chamber made of metal or ceramic.
- Grinding media (steel, ceramic, or rubber balls).
- Rotates on its axis at a controlled speed.
- Can operate in dry or wet conditions.

Working Principle:

1. The mill rotates, causing the balls to lift and then fall onto the material.
2. Impact and friction break down the material into finer particles.
3. The final particle size depends on the rotation speed, duration, and ball size.

Applications:

- Powder preparation in pharmaceuticals.
- Ore processing in mining.
- Paint, pigments, and ceramic production.