

Professional
Powder Equipment
Manufacturer

TENCAN

Product Brochure



Powder
Equipment



Milling
Technology



Powder
Materials



OTHER GRINDING EQUIPMENT

agate grinder with three working stations

MNY

Metal-free dry grinding for analytical samples. Delivers ultra-fine, uniform results with quiet, easy operation. Ideal for labs.

<https://www.planetaryballmills.com/products/grinding-series/other-grinding-equipment/agate-grinder-with-three-working-stations.html>



Product Overview

Metal-free dry grinding for analytical samples. Delivers ultra-fine, uniform results with quiet, easy operation. Ideal for labs.



Three-Head Agate Grinder

MNY-Φ120×3

Dry Grinding
No Metal Contamination
Low Noise

Easy Operation
Uniform Grinding





Product Introduction

The three-head agate grinder is a device for dry grinding and analysis of samples. It has no metal contamination to the ground sample, the grinding material is uniform and ultra-fine, the operation is simple, and the equipment operates with low noise. It is mainly used in laboratories of geology, coal, mining, metallurgy, chemical industry, building materials, hydropower and other departments as well as universities and scientific research units. It is a standard equipment for various types of analysis, sorting, inspection and testing. It can also be used for quality inspection, environmental testing or for grinding small amounts of general materials.

Grinding Series

Product Details



- **Geology and Mining** : Crush and homogenize rock and ore samples to facilitate subsequent component analysis.
- **Materials Science** : Preparation of nanomaterials and ceramic powders to improve material dispersion and uniformity.
- **Chemistry and Pharmaceuticals** : Grinding and mixing of high-purity chemical reagents and pharmaceutical ingredients to ensure bioavailability.
- **Environmental monitoring** : Pretreatment of environmental samples such as soil and water samples to remove impurities and refine particles.
- **Quality inspection and scientific research** : Rapid grinding of a small amount of samples in the laboratory to meet the needs of sorting, inspection, etc.

Technical parameters

project	unit	MNY-Φ120×3 three-head agate grinder
Mortar diameter	mm	Φ120
Number of grinding heads	individual	3
Rotation speed of grinding rod	r/min	220
Mortar speed	r/min	9
Feeding particle size	mm	-1.5
Discharge particle size	mm	-0.074
Reference weight	kg	105
Overall dimensions	mm	770×740×470

Working Principle

- **power transmission** : The motor drives the grinding head and mortar to rotate through the pulley and gear shaft, and the clutch controls the power on and off to start and stop grinding.
- **grinding action** : The grinding head exerts shear, friction and impact force on the sample in the mortar under the action of centrifugal force. The co-rotation of the mortar and the grinding head enhances the crushing effect.
- **pressure regulation** : Adjust the grinding head pressure through the disc spring to adapt to the processing needs of materials with different hardness.
- **Unloading and transposition** : After grinding is completed, operate the handle to rotate the mortar to the discharging position, and brush the powder to the receiving container.; The transposition function supports the alternate use of three sets of mortars.

Product Features

- **Pollution-free grinding** : Agate material avoids metal contamination, ensures sample purity, and is suitable for high-precision analysis.
- **Efficient three-head design** : Three sets of independent grinding heads can work simultaneously or individually to improve processing efficiency and support multi-batch continuous operations.
- **Fine-grained control** : The discharge particle size can reach 0.074mm (about 200 mesh), and some models support micron-level or even nano-level crushing.
- **Ease of operation** : Equipped with digital time display and multi-stage speed adjustment function to support precise control of grinding time and speed.
- **low maintenance cost** : Agate parts have strong wear resistance, the equipment structure is modular, and wearing parts (such as friction plates, gear shafts) are easy to replace.
- **Safety and environmental protection** : Dry grinding does not require solvent, and it can be used with an exhaust dust removal device to reduce dust pollution.

Accessories & Customization

Accessories

Grinding jars, heating elements, sample holders, control modules and other matching accessories can be selected according to the product configuration.

Customization

For voltage, capacity, chamber size, process temperature or application requirements, please contact TENCAN for a suitable configuration.