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PRODUCT CATALOG / Grinding Jars

Tungsten carbide planetary mill jar

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A cemented-carbide milling jar for evaluating hard materials and applications that need a hard working surface.

Overview

A cemented-carbide milling jar for evaluating hard materials and applications that need a hard working surface. The carbide grade, binder and loaded mass must be confirmed for the intended sample and mill.

How it works

The jar working surface forms part of the contact system between sample, media and mill. Material selection should balance the required mechanical action with chemical compatibility and the acceptable contribution from wear.

Wear can introduce tungsten and binder constituents. A hard material is not wear-free, and binder chemistry may be important for the sample.

Key features

- The catalog describes a carbide material with a metallic binder.
- The catalog lists a 50–2000 mL reference range.
- Confirm the drawing, complete mass and binder grade for the selected jar.

Specifications

Published catalog references are reproduced below. Nominal volume is not a sample-mass rating. Confirm the selected model, material grade, electrical supply and complete supplied configuration in the quotation.

Carbide jar selection reference

Item	Reference / confirmation needed
Working material	Cemented carbide; confirm tungsten-carbide and binder grade
Catalog nominal-volume reference	50–2000 mL
Dimensional drawing	Request the drawing for the selected volume and construction
Binder / grade	Confirm against sample contamination requirements
Complete jar mass	Confirm for the selected volume and mill holder
Lid, seal and vacuum proposal	Configuration-specific; no pressure rating inferred

Applications

Hard mineral, carbide and other demanding powder-processing studies where the working material is compatible.

Suitability depends on the actual sample, process and analytical requirements; a listed application is not a guaranteed final-particle-size result.

Accessories and options

Request a confirmed drawing, carbide/binder grade, jar mass, lid and clamping arrangement for the selected volume.

State the required grade, quantities, drawings and destination when requesting a quotation.

Confirm what is included, the document requirements, packing and commercial terms; no generic delivery time or universal custom capability is assumed.

[Compare milling jars](#) · [Compare grinding media](#) · [Low temperature planetary grinding machines](#) · [Ultrasonic planetary ball mills](#)

Selection guidance

Match cemented tungsten carbide to the sample chemistry and the elements or residues that matter to the analysis. Then confirm the dimensions, complete loaded mass and operating arrangement against the selected mill.

[Work through the selection guide](#) · [Request a configuration quotation](#)

Trials and comparisons

Material/application reference

Pyroxene mineral

XQM; exact model not recorded · Dry milling with carbide jar/media

- Sample: 238 g
- Jar: 500 mL cemented-carbide jar
- Recorded sampling / duration: 30 min

Recorded observations

Observation	Sampling time	D50 (μm)	D90 (μm)
Carbide-jar sample	30 min	7.63	28.00

Severe settling/caking was recorded. An earlier steel-jar run used a different charge and a separately received sample, so it is not a controlled carbide-versus-steel comparison. Carbide/binder grade and jar part number were not recorded.

How to plan a fair comparison

For a cemented tungsten carbide comparison, use matched sample portions and the same measurement/dispersion method. State the jar, media, mass/volume loading basis, processing schedule and contamination measurements. A change in material grade alone is not established as the cause of a result.

These anonymous records are not operating instructions. Measurement and dispersion methods are not fully specified in the test summaries; results apply to the reported samples and conditions.

Discuss a matched sample evaluation

Plan your milling configuration.

TENCAN develops and manufactures planetary milling equipment, with application support in Changsha and a production base in Wushi, Hunan.

Share your material, batch size, target particle size and contamination limits. Our team can help confirm the mill, jars, media and electrical requirements, or arrange a sample grinding evaluation.

Reference information applies to the described models and conditions. Confirm the final specification and supplied accessories with TENCAN before ordering.

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Product page

<https://www.planetaryballmill.com/milling-accessories/jars/tungsten-carbide-planetary-mill-jar.html>

Sample grinding www.planetaryballmill.com/sample-testing/