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PRODUCT CATALOG / Planetary Mills

Soil grinder and sieve machine

XQM soil preparation configuration

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A planetary grinding and sieving workflow for soil sample preparation.

Overview

A planetary grinding and sieving workflow for soil sample preparation. The product information describes an agate-jar arrangement for soil analysis; the mill, jars and sieving hardware should be specified together.

How it works

Planetary motion grinds and mixes the sample before the selected sieving step. Sieve opening, sample recovery and contamination requirements must be defined independently from the mill's nominal capacity.

Key features

- The product information identifies a four-agate-jar configuration for soil work.
- The reference XQM base-machine chart supplies dimensions and drive power, but does not define a complete sieve specification.

- Jar and media selection should be checked against the elements being measured in the soil analysis.

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.

Model specifications — 1

No.	Model	Configuration	Jar holder internal diameter (mm)	Motor power	Jar revolution diameter (mm)
1	XQM-0.2	Micro	50	90W	Φ111
2	XQM-0.2S	Micro / glovebox	50	90W	Φ111
3	XQM-0.4A	A-series housing	80	250W	Φ140
4	XQM-6	—	134	0.75kW	Φ234
5	XQM-4A	A-series housing	134	0.75kW	Φ234
6	XQM-(8-12)	—	162	1.5kW	Φ275
7	XQM-(8-12)A	A-series housing	162	1.5kW	Φ275
8	XQM-16A	A-series housing	182	3kW	Φ320
9	XQM-20	—	222	4kW	Φ385
10	XQM-40	—	250	5.5kW	Φ430
11	XQM-60	—	275	7.5kW	Φ490
12	XQM-100	—	326	11kW	Φ578
13	XQM-200	—	460	22kW	Φ738

Model specifications — 2

No.	Dimensions (mm)	Net mass (kg)
1	420×260×310	25
2	Mill: 390×220×270 ; control box: 200×180×240	29
3	530×300×360	34
4	760×470×580	100
5	760×470×600	85

No.	Dimensions (mm)	Net mass (kg)
6	900×600×640	168
7	880×560×642	150
8	950×600×710	205
9	1200×790×930	392
10	1400×880×1070	656
11	1600×1070×1250	950
12	1750×1140×1330	1300
13	2670×1600×2804	2725

The mechanical rows are base-platform references, not a complete specification for the supplied sieve or control system.

Applications

Soil and geological sample preparation for laboratory analysis.

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

Accessories and options

Discuss agate jars and suitable media, sieve openings, sample handling and the control arrangement. Confirm which accessories are included and which are separate items.

- Jar and media: confirm material, volume, holder fit and the complete working load.
- Vacuum or gas requirements: specify the complete jar, lid and seal arrangement; no pressure rating is assumed.
- Utilities and supply scope: state voltage, frequency, phase, destination and required documents; confirm included versus optional items.

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

Selection guidance

Provide the analytical method, elements of interest, starting sample size, required sieve opening and number of samples. Ask for the exact base-machine and sieve arrangement rather than assuming that every reference model is a complete soil system.

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

Trials and comparisons

Material/application reference

Ore samples

XQM; exact model not recorded · Two agate-jar sample runs

- Sample: 40.2 g and 102 g
- Jar: 250 mL agate jar; agate media
- Recorded sampling / duration: 90 min per sample

Recorded observations

Sample	Sample mass	D50 (μm)	D90 (μm)
Sample 1	40.2 g	2.82	9.03
Sample 2	102 g	3.62	11.23

This is an ore preparation reference, not a soil-system test or validation of a soil analytical method. Both samples were recorded in one entry, but identical composition/batch and all other conditions are not established. The difference cannot be attributed solely to sample loading. The 3 h total covers two 90 min runs.

How to plan a fair comparison

A useful preparation comparison checks recovery, carryover and the target analytical result as well as size distribution. A D50 result for a mineral powder does not certify a soil-analysis method.

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/planetary-ball-mills/soil-grinder-and-sieve-machine.html>

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