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PRODUCT CATALOG / Planetary Mills

Liquid Nitrogen Planetary Ball Mill

XQM-C liquid-nitrogen-cooled configurations

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A planetary mill combined with a liquid-nitrogen cooling arrangement around an insulated milling enclosure.

Overview

A planetary mill combined with a liquid-nitrogen cooling arrangement around an insulated milling enclosure. It is a configured low-temperature system, not an assertion that the sample reaches liquid nitrogen's boiling temperature.

How it works

The cooling arrangement removes heat from the milling environment while the planetary motion processes the sample. The product information lists a -40 to 20 °C reference range; sample temperature depends on the setup and measurement location.

Key features

- The published base-model chart lists XQM-1C through XQM-12C configurations.
- The product information identifies 30 L and 50 L supply-vessel options, subject to package

confirmation.

- Cooling consumption, control method and the measurement point must be confirmed for the proposed installation.

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

Model	Combined nominal capacity	Supply voltage	Power	Speed (reference not specified)	Net mass
XQM-1C	1L	220V or 110V	0.75kW	70-810 rpm	83kg
XQM-2C	2L	220V or 110V	0.75kW	70-810 rpm	85kg
XQM-4C	4L	220V or 110V	0.75kW	70-810 rpm	88kg
XQM-6C	6L	220V or 110V	0.75kW	70-670 rpm	93kg
XQM-8C	8L	220V or 110V	1.5kW	70-580 rpm	150kg
XQM-10C	10L	220V or 110V	1.5kW	70-580 rpm	150kg
XQM-12C	12L	220V or 110V	1.5kW	70-580 rpm	150kg

Model specifications — 2

Model	Dimensions
XQM-1C	750*470*590mm
XQM-2C	750*470*590mm
XQM-4C	750*470*590mm
XQM-6C	750*470*590mm
XQM-8C	880*560*670mm
XQM-10C	880*560*670mm
XQM-12C	880*560*670mm

Cooling-system references

Item	Published reference / scope
Cooling arrangement	Liquid-nitrogen supply around an insulated milling enclosure
Listed system temperature range	–40 to 20 °C; sample temperature must be measured separately
Supply-vessel options	30 L or 50 L; confirm supplied package
Consumption and utilities	Confirm operating basis and actual system requirements

Applications

Low-temperature method development and milling studies involving heat-sensitive samples.

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 the base mill, suitable jars, cooling controls and supply vessel. The supplied package, installation requirements and any special-atmosphere jar arrangement need separate confirmation.

- 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

State the permitted sample temperature, intended operating cycle, room conditions and available utilities. Agree on temperature logging and the complete cooling supply arrangement before ordering.

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

Trials and comparisons

No identifiable trial of this exact product/configuration was found in the available planetary-milling test summaries. A result from a different mill, jar grade or assistance system is not attributed to this product.

A comparison to request

Request matched runs at agreed measured sample temperatures. There is no identified liquid-nitrogen-cooled trial in the available test summaries, so no size or throughput advantage is presented as measured.

Discuss a 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/liquid-nitrogen-planetary-ball-mill.html>

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