



## Overview

Cold-air planetary ball mill is composed of planetary ball mill and cold-air device. Cycling of cold air quickly takes away the heat generated by grinding by means of air conditioning refrigeration principle, and temperature inside the grinding space can be controlled at 2-10 °C according to temperature difference of working environment. Such a cold-air device can be also applied to assembly other models like vertical ball mill, horizontal ball mill, 360 degree ball mill and dual ball mill.



Cryogenic Planetary Ball Mill



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## Working Principle

Cryogenic Planetary Ball Mill has four ball grinding tanks installed on one turntable. When the turntable rotates, the tank axis makes planetary movements and the balls in the tanks grinds and mixes samples in high speed movement. The product can smash and blend various products of different materials and granularity with dry or wet methods. Minimum granularity of ground powder can be as small as 0.1mm.

## Applications

Cryogenic planetary ball mill is mainly applied to ultrafine grinding under condition of low-temperature requested by materials. Compared with the artificial injection of liquid nitrogen cooling, cold-air planetary ball mill is much easier and more convenient to be operated, it is also cost-saved, and low-energy consumed.



### Parameters of Cryogenic Planetary Ball Mill

Model No	Power (KW)	Voltage	Revolution Speed(rpm)	Rotation Speed(rpm)	Total Timing(min)	Alternating Run Time of Forward & Reversal Rotation(min)	Noise<db
XQM-2(C)	0.75	220V-50Hz	35-335	70-670	1-9999	1-999	60db
XQM-4(C)	0.75	220V-50Hz	35-335	70-670	1-9999	1-999	60db
XQM-6(C)	0.75	220V-50Hz	35-335	70-670	1-9999	1-999	60db
XQM-8(C)	1.5	220v-50HZ	35-290	70-580	1-9999	1-999	60db
XQM-10(C)	1.5	220v-50HZ	35-290	70-580	1-9999	1-999	60db
XQM-12(C)	1.5	220v-50HZ	35-290	70-580	1-9999	1-999	65db
XQM-20(C)	4	380v-50HZ	25-215	50-430	1-9999	1-999	65db
XQM-40(C)	5.5	380v-50HZ	20-195	40-390	1-9999	1-999	68db
XQM-60(C)	7.5	380v-50HZ	27-174	40-260	1-9999	1-999	68db
XQM-100(C)	11	380v-50HZ	27-160	40-240	1-9999	1-999	68db

### Measurement of Cryogenic Planetary Ball Mill

Model No	Power (KW)	Speed Control Mode	Net Weight (kg)	Dimensions (MM)
XQM-2(C)	0.75	Frequency Control	93	750X470X564
XQM-4(C)	0.75	Frequency Control	93	750X470X564
XQM-6(C)	0.75	Frequency Control	93	750X470X564
XQM-8(C)	1.5	Frequency Control	150	900X600X640
XQM-10(C)	1.5	Frequency Control	150	900X600X640
XQM-20(C)	1.5	Frequency Control	150	900X600X640
XQM-40(C)	4	Frequency Control	330	1200X750X920
XQM-60(C)	5.5	Frequency Control	468	1400X850X1160
XQM-80(C)	7.5	Frequency Control	900	1600X990X1250
XQM-100(C)	11	Frequency Control	1250	1750X1140X1330

### Available Sizes of Mill Jar for Cryogenic Planetary Ball Mill

Model No	Specifications	Volume of Each Matched Pot	Quantity	Remarks
XQM-2(C)	2L	50-500ML	4 pcs	Can be matched with 50-250ml vacuum mill jar
XQM-4(C)	4L	250-1000ML	4 pcs	Can be matched with 50-1000ml vacuum mill jar
XQM-6(C)	6L	1-1.5L	4 pcs	Can be matched with 50-1000ml vacuum mill jar
XQM-8(C)	8L	1-2L	4 pcs	Can be matched with 50-1500ml vacuum mill jar
XQM-10(C)	10L	1-2.5L	4 pcs	Can be matched with 50-1500ml vacuum mill jar
XQM-20(C)	20L	1-3L	4 pcs	Can be matched with 1-2L vacuum mill jar
XQM-40(C)	40L	2-5L	4 pcs	Can be matched with 2-4L vacuum mill jar
XQM-60(C)	60L	5-10L	4 pcs	Can be matched with 5L vacuum mill jar
XQM-80(C)	80L	10-15L	4 pcs	Can be matched with 10L vacuum mill jar
XQM-100(C)	100L	20-25L	4 pcs	Can be matched with 20L vacuum mill jar