

# PBM - 3315

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## Planetary Ball Mill



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

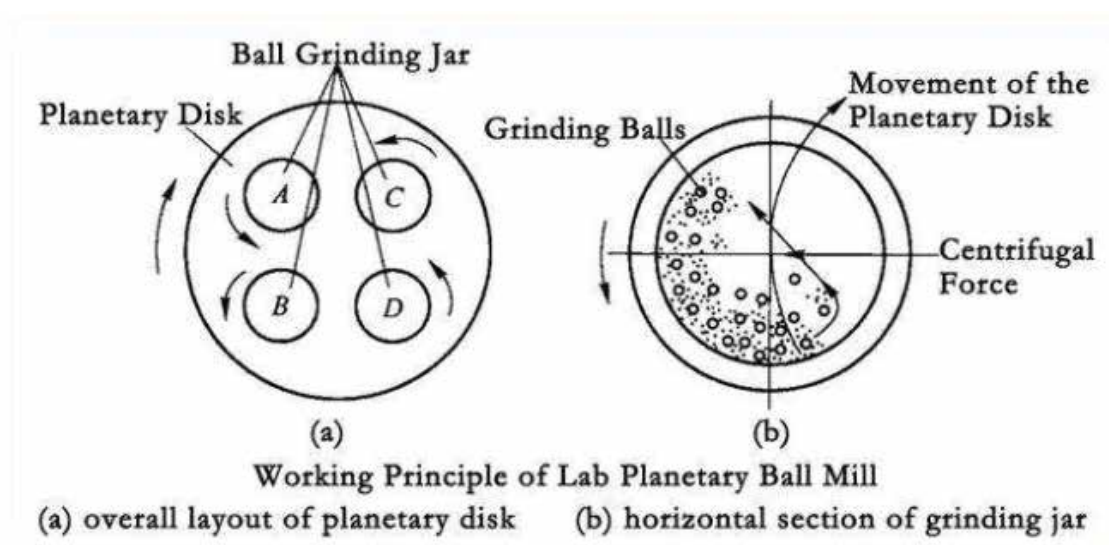
**Analytical Technologies Limited**

An ISO 9001 Certified Company

## ►► DESCRIPTION

Planetary Ball Mill pulverizes and mixes - soft, medium, hard to extremely hard, brittle and fibrous materials. It is used wherever the highest degree of fineness is required. Dry and wet grinding can be carried out in a planetary ball mill.

## ►► WORKING PRINCIPLE



Planetary Ball Mill have two superimposed movement move the grinding jars, Like in a planetary system the grinding jar rotates on a orbit around the center, This rotational movements is the self-rotation of the grinding container superimposed. The result centrifugal and acting acceleration forces lead to strong grinding effects. Furthermore there are forces working according to the Coriolis acceleration. The result is an intensive grinding effect between the grinding balls and the sample. There are different rotational ratios, with a rotation ratio of 1:-2 the grinding jar rotates thrice during a sun wheel turn.

## ►► APPLICATIONS

Minerals, ores, alloys, chemicals, glass, ceramics, plant parts, soils, sewage sludge, household and industrial waste and many other materials.

## ►► TECHNICAL SPECIFICATION

Parameters	Specification
Application	Milling, Mixing, Mechanical alloying, Size reduction, Pulverizing, Homogenizing, Colloidal milling etc.
Feed material	Up to 10 mm.
Final fineness	upto 0.1μ m
No. of working station	4
Effective dia. of the main(sun) disk	300 mm
Main (sun) disk speed	400-500 rpm.
Direction reversal	Alternate direction
Grinding process	Wet or Dry.
Transmission ratio	1: 2

## ►► OTHER SPECIFICATION

Parameters	Specification
Power supply	1 HP/230V/Single Phase Input
Motor	1 HP/3ph/230V/1440/Crompton make
Cover	The mill will be completely covered by M.S. lid with powder coated along with fan to avoid overheating. Lid will be easily removable. The mill will cease to operate as soon as the lid is opened. It is free from vibration and noise.
Top and bottom cover	M.S. with powder coated.
Locking of bowl	Will be secured totally.

## ►► CONTROL PANEL

1. Touch Screen Panel for display and control.
2. Auto & Manual mode of operation.
3. Two different grinding mode (Wet and Dry).
4. Programmable starting time.
5. Programmable batch selection and time input selection.
6. Setting of grinding time: Forward: 00:00:01 to 99:99:99, Pause: 00:00:01 to 99:99:99, Reverse: 00:00:01 to 99:99:99
7. Sun wheel RPM: 50 to 400 RPM
8. Main Bowl RPM: 100 to 800 RPM
9. Acceleration time: 0-30 sec
10. Deceleration Time: 0-30 sec
11. Power failure back up ensures storage of remaining grinding time.
12. Input Power: 1 hp/230V/Single phase input
13. Continuous operation time of 100 Hrs
14. Single phase power input /Table top model for laboratory.
15. Door Sensor : Machine will not start & display message to close the door in case door is open or not closed properly.
16. Exhaust Fan for Ventilation : 3 number of Exhaust fan is provided for ventilation and to control temperature of grinding chamber to enhance grinding time.
17. Standard Operational Process (SOP) Storage : Ten or more Standard Operational Process will be stored with material name and parameters.
18. Indication:
  - Plate rpm.
  - Bowl rpm
  - Total cycle and current cycle
  - Set time
  - Balance time

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3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.



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