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# JXSC Ball Mills

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Higher quality at a lower cost

# — Ball mill



**Heavy-duty ball mill machines are designed  
for long life and minimum maintenance.**

The ball mill is used for grinding materials such as coal, pigments, and feldspar for pottery. Grinding can be carried out either wet or dry but the former is performed at low speed.

Variations of the standard designs are available to suit any appropriate application. These may include but not be limited to: grate discharge, peripheral discharge, dry grinding, special length to diameter ratio, high temperature milling operations, or pebble milling.

# — Application

A ball mill grinds ores and other materials to a typical product size of 35 mesh or finer.

The feed to a ball mill is prepared by:

- Single or multistage crushing and screening
- Crushing, screening, and/or rod milling
- Primary crushing and autogenous/semiautogenous grinding

Normal feed sizes:

- 80% passing 1/4” (6 mm or finer) for hard ores
  - 80% passing 1” (25 mm or finer) for soft ores
- (Larger feed sizes can be tolerated depending).

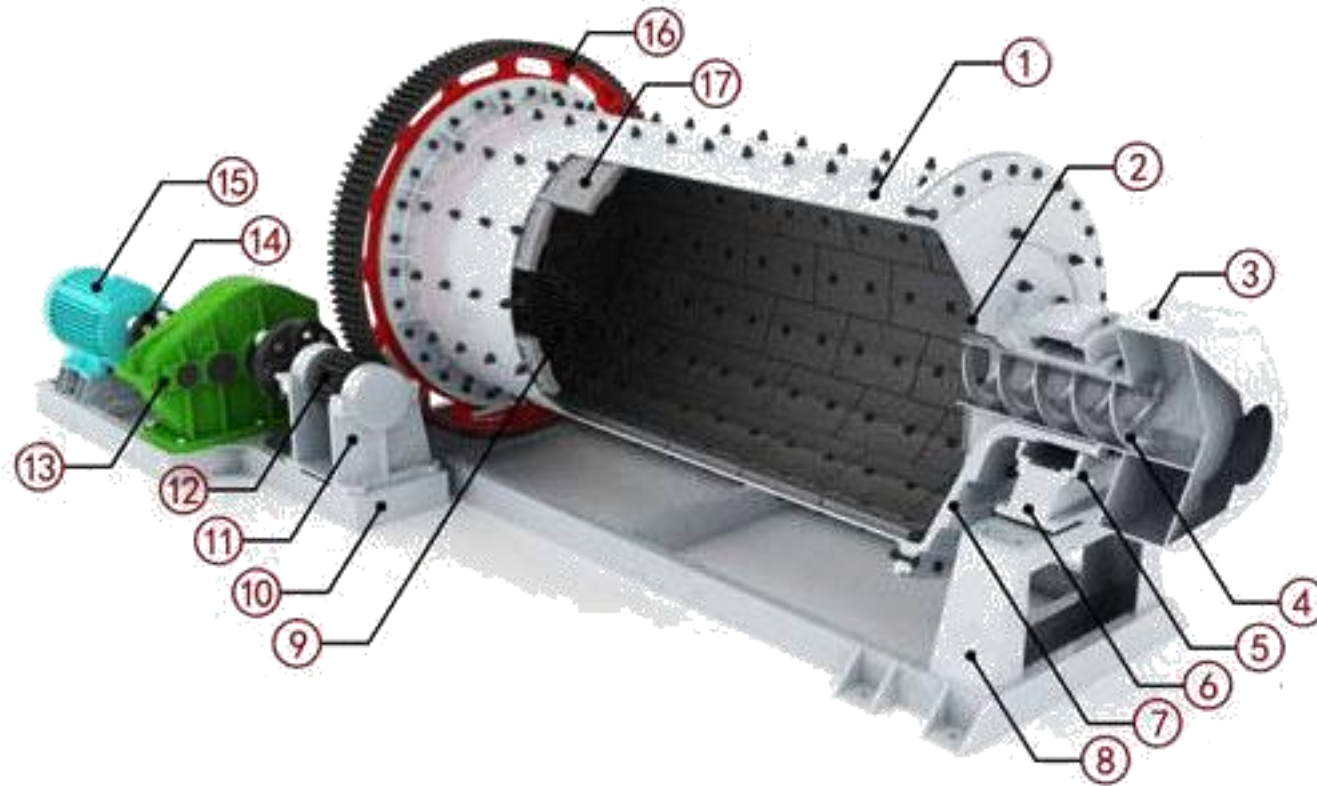
The length to diameter ratio of cylindrical mills range from 1 to 1 through 3 to 1. When the L/D ratio is 2 to 1 or greater, we refer to the mill as a Tube Mill.



# — Application



# — Ball mill structure diagram



1. cylinder 2. input liner 3. feeder port 4. feeder screw  
5. bearing cover 6. bearing seat 7. roller 8. frame  
9. rolled floor plate 10. driver seat 11. cross bearing  
seat 12. pinion 13. reducer 14. coupler 15. motor 16. big  
gear 17. big plate



# Parameter

More details at <https://www.jxscmachine.com/rock-crusher/ball-mill/>

Model	Drum size m	Speed r/min	Ball Weight t	Feed size mm	Output size mm	Capacity t/h	Power kw	Weight t
MQZ0918	0.9×1.8	38.8	1.92	0-20	0.074-0.6	0.4-2.14	22	5.34
MQZ1224	1.2×2.4	31	4.8	0-20	0.074-0.6	0.4-6.8	55	13.43
MQZ1245	1.2×4.5	31	5.2	0-20	0.074-0.6	1.6-12	75	17.4
MQZ1530	1.5×3	27.5	8.1	0-25	0.074-0.4	2.9-16.5	95	18.6
MQZ1557	1.5×5.7	29.2	15	0-25	0.074-0.4	4-25	130	24.54
MQZ1836	1.8×3.6	23.9	11	0-25	0.074-0.4	8-40	155	33
MQZ2136	2.1×3.6	23.8	27	0-25	0.074-0.4	8-61	210	46.8
MQZ2436	2.4×3.6	22	28	0-25	0.074-0.4	7-95	240	73
MQZ2465	2.4×6.5	22	36	0-25	0.074-0.4	7-110	310	76
MQZ2736	2.7×3.6	21.9	39	0-25	0.074-0.4	13-145	400	77
MQZ2740	2.7×4.0	21.9	43	0-25	0.074-0.4	13-150	400	91
MQZ3060	3×6	19	70	0-25	0.074-0.4	100-145	800	155

# Grinding circuit design

JXSC process engineers welcome the opportunity to assist you with circuit and circuit control design as well as start-up, operation, and optimization of the milling plant.

Ball mills operate either in open or closed circuit.

Open circuit operation is best utilized when:

- Another stage of grinding follows the mill
- Reduction ratio is small
- Feed material is already fine and one pass through the mill produces the desired results
- Product size control is not critical and oversize material can be tolerated in the product.

Where size control of the final product is important, closed circuit grinding is the most efficient method of operation. The production of a higher quality product at a lower cost justifies the additional capital investment.

Common wet grinding flow sheets include:

- Open circuit
- Closed circuit with hydro cyclones
- Closed circuit with vibrating screens
- Two stage variations of the above utilizing two mills in series



# — JXSC Mine Machinery Factory history

JXSC factory  
established

1985

Enter the worldwide market  
started exporting

2002

2012

Expand 3000m2 workshop  
ISO certified

Exported more than  
40 countries

2017

2019

A new factory is under  
construction

# — Contact us

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