

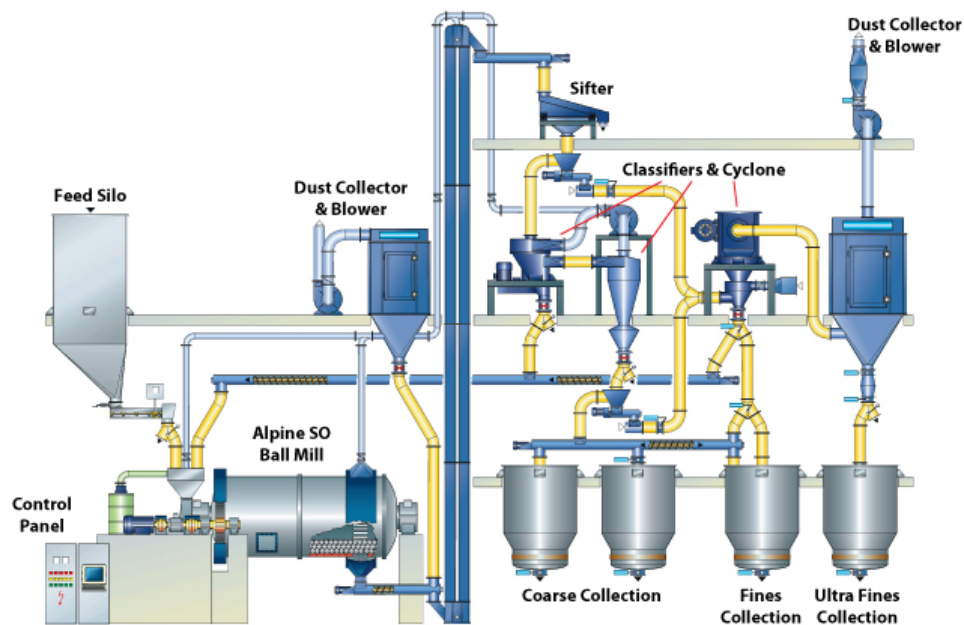


A [ball mill](#) is a type of grinder used to grind and blend materials for use in mineral dressing processes, paints, pyrotechnics, ceramics and selective laser sintering.

It is most commonly used in the mining industry; these machines can be found in other industry sectors as well, like metallurgy,

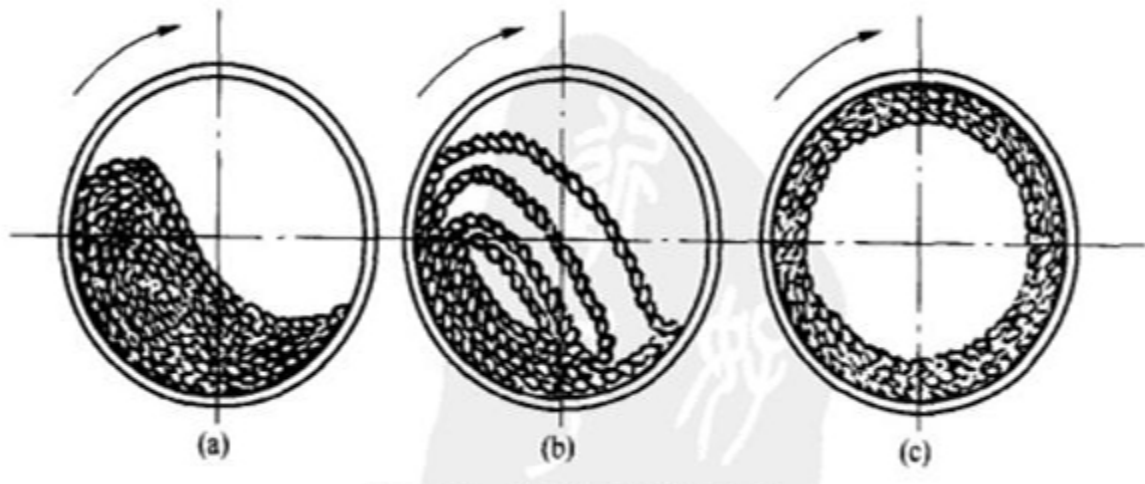
chemistry, ceramics and construction. This tool is described as highly efficient and versatile, as it can mix, blend, grind, and crush massive materials into fine powder.

Working principle:



This [ball mill](#) is horizontal type and tubular running device, has two warehouses  
The material enters spirally and evenly the first warehouse of the milling machine along the input material hollow axis by input material device  
In this warehouse, there is a ladder scale board or ripple scale board, and different specification steel balls are installed on the scale board, when the barrel body rotates and then produces centrifugal force, at this time, the steel ball is carried to some height and falls to make the material grinding and striking  
After grinding, coarsely in the first warehouse, the material then enters into the second warehouse for regrinding with the steel ball and scale board  
In the end, the powder is discharged by output material board and the end products are completed

At different speeds, the cylinder body ball movement of stone and materials as shown below:



**Classification of ball mill**

A ball mill can grind raw materials in two ways: dry or wet grinding. It's important to mention that two types of ball mills stand out on the market. That's the grate type and the overfall ball mill. This classification is made depending on how the materials are discharged through the mill.

**Dry grinding**



Dry type ball mill has no water in the production, which is of straight cylinder with wind conducting device, dust discharging pipe and dust collector. We can design and manufacture other type of ball mill according to the customer's requirement, or by the customer's mineral sample, capacity and size dimension. By making ore

grinding test and calculation, we can confirm the suitable model and type, and design the best working condition of the ball mill, making them that they have not only no functional shortage and also ensuring the capacity and size requirement.

**Technical Parameters**

Model & specification	Rotation speed of cylinder (r/min)	Ball load (T)	Feeding particle size (mm)	Discharging particle size (mm)	Output (t/h)	Motor power (kw)	Weight (t)
Φ900×1800	38	1.5	≤20	0.075-0.89	0.65-2	18.5	3.6
Φ900×3000	38	2.7	≤20	0.075-0.89	1.1-3.5	22	4.5

Φ1200×2400	32	3.8	≤25	0.075-0.6	1.5-4.8	45	11.5
Φ1200×3000	32	5	≤25	0.074-0.4	1.6-5	45	12.8
Φ1200×4500	32	7	≤25	0.074-0.4	1.6-5.8	55	13.8
Φ1500×3000	27	8	≤25	0.074-0.4	2-5	90	17
Φ1500×4500	27	14	≤25	0.074-0.4	3-6	110	21
Φ1500×5700	27	15	≤25	0.074-0.4	3.5-8	132	24.7
Φ1830×3000	24	11	≤25	0.074-0.4	4-10	180	28
Φ1830×6400	24	23	≤25	0.074-0.4	6.5-15	210	34
Φ1830×7000	24	25	≤25	0.074-0.4	7.5-17	245	36
Φ2200×5500	21	30	≤25	0.074-0.4	10-22	370	48.5
Φ2200×6500	21	31	≤25	0.074-0.4	14-26	380	52.8
Φ2200×7500	21	33	≤25	0.074-0.4	16-29	380	56
Φ2400×7000	20.4	39.5	≤25	0.074-0.4	20-32	475	68

Wet grinding



Wet grinding ball mills for the treatment of minerals, ores and other bulk materials for the wet grinding process. A large number of these mills are used for grinding silica sand for producing aerated concrete or fibre cement. The mills are also used for treating iron and various other ores. These mills are also available in different designs. Smaller mill sizes can largely be delivered in a pre-assembled state, which in turn means a great saving in terms of time and installation costs

**Technical Parameters**

Model	Cylinder Speed (r/min)	Ball Charge (t)	Feed Particle Size (mm)	Discharge Size (mm)	Output (t/h)	Motor Power (kw)	Weight (t)
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900*1800	38	1.5	<=20	0.075-0.89	0.65 - 2	18.5	3.6
900*2100	38	1.3-1.4	<=15	0.075-0.83	0.7 - 3.5	18.5	3.9
900*3000	38	2.7	<=20	0.075-0.89	1.1 - 3.5	22	4.5
1200*2400	32	3.8	<=25	0.075 -0.6	1.5 - 4.8	30	11.5
1200*2800	32	3.3-3.5	<=25	0.075-0.6	2 - 6	30	13
1200*4500	32	7	<=25	0.074-0.4	1.6 - 5.8	45	13.8
1500*3000	27	8	<=25	0.074-0.4	2 - 5	75	17
1500*3500	27	6.75-6.4	<=25	0.075-0.4	3 - 7	75	17.5
1500*4500	27	14	<=25	0.074-0.4	3.5 - 12	110	21
1500*5700	27	15	<=25	0.074-0.4	3.5 - 8	115	24.7
1830*3000	24	18	<=25	0.074-0.4	4 - 10	130	28
1830*3600	24	10.6-11.35	<=25	0.075-0.4	5 - 22	130	33.5
1830*7000	24	25	<=25	0.074-0.4	7.5 - 17	210	36
2100*3600	22	14-15.2	<=25	0.075-0.4	15 - 36	370	46.8
2200*5500	21	30	<=25	0.074-0.4	10 - 22	210	48.5
2200*6500	21	31	<=25	0.074-0.4	14 - 26	380	52.8
2200*7500	21	33	<=25	0.074-0.4	16 - 29	380	56
2400*3000	20.6	15.5-16.6	<=25	0.075-0.4	22 - 24	245	59
2400*4500	21	30	<=25	0.074-0.4	8.5 - 60	380	65
2700*3600	20.6	39	<=25	0.074-0.4	12 - 70	400	91.3
2700*4000	20.7	40	<=25	0.074-0.4	12 - 80	400	94
2700*4500	20.7	48	<=25	0.074-0.4	12 - 90	430	102
3200*4500	18	65	<=25	0.075-0.4	set according	800	137

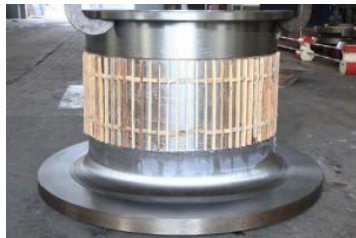
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Customer most concern problem in the fowling

Ball Mill service life

How to extend Ball Mill service life? Great wall machinery suggest: we should keep ball mill in good maintenance, eliminate the defects disease, to ensure the normal operation of grinding ball mill machine. Besides daily maintenance, it is still need regular maintenance every month. Machine engineer suggest customers examine the hollow shaft, main bearing, barrel, reducer, gear, carefully and make detailed records. According to the defects, make proper repair and overhaul plan and arrangement

### Parts sof ball mill:



Ball mill Trunnion



Ball mill gears

### **Pre-sales Service:**

The wide product range enables us to provide our customers with stand-alone machines or complete processing plants. Based on our customers' request and budget, our experts make efficient, reliable solutions. Following customers' order we produce strictly, what's more, before placing the order every customer has the chance to visit XinXiang Great Wall (Chaeng) working machines or complete plant in the site.

To ease the trip for every visitor to China, in particular the first-time visitor, we provide FOR FREE all relevant visitor-friendly services including invitation letter preparation, hotel reservation, airport pick-up, incity transportation, and sightseeing guide, etc.

### **After-sales Service:**

Experienced technicians guidance is available on the phone, and on the internet. One or more engineers will be dispatched to the quarry site to help install the customers' plants. Necessary training about machine daily maintenance to local workers is provided also.

After-Sales department is made of well-trained employees and installation engineers, the installation engineers are special and professional members of XinXiang Great Wall (Chaeng), they are now strategically located home and abroad, working for our customers.