



Ball Mill

The [Ball mill](#) is widely used for milling various kinds of ores or rocks in metal and non-metal mining and building material industry. The main bearing of the ball mill with the shell diameter 900-2100mm is spherical liner bearing; for the shell diameter 2700mm, the main bearing is completely closed self-aligning 120° bearing with strong alloy of high lead and low tin with low hardness, underneath laid with cooling copper piping full of water. The bearing is of static pressure structure with high and low pressure united oil lubricating system.

To use the Ball Mill, the material to be ground is loaded into the Neoprene barrel that contains grinding media. As the barrel rotates, the material is crushed between the individual pieces of grinding media that mix and crush the product into fine powder over a period of several hours. Obviously, the longer the Ball Mill runs, the smaller the powder will be. Ultimate particle size depends entirely on how hard the ground material is, and how long the Ball Mill runs. Our Ball Mills have been being used to grind glass, make ceramic glaze, powder various chemicals, and make Black Powder.



How ball mill works?



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A ball mill operates by rotating a cylinder with steel grinding balls, for the ball to fall back into the cylinder and onto the material to the ground. The rotation is usually between 4 to 20 revolutions per minute, depending upon the diameter of the mill. The larger the diameter is, the slower the rotation will be. If the peripheral of the mill is too great, it begins to act like a centrifuge and the balls do not fall back, but stay on the perimeter of the mill.

The [ball mills](#) are generally used to grind material 1/4 inch and finer, down to the particle size of 20 to 75 microns. To achieve a reasonable efficiency with ball mills, they must be operated in a closed system, with oversize continuously being recalculated back to the mill to be reduced.

Technical Data Of Ball Mill

Type	Bucket Speed (r/min)	Ball Weight (T)	Feed Lump Size (mm)	Output Size (mm)	Capacity (t/h)	Power (kw)	Weight (t)
Φ900×1800	38	1.5	≤20	0.075—0.89	0.65—2	15	4.2
Φ900×2100	38	1.73	≤20	0.075—0.89	0.8-3	15	4.6
Φ900×3500	38	2.81	≤20	0.075—0.89	1.5-5	18.5	6.2
Φ900×4000	38	3.25	≤20	0.075—0.89	2-8	22	7
Φ900×3000	38	2.51	≤20	0.075—0.89	1.1—3.5	22	5.5
Φ1200×2400	32	3.8	≤25	0.075—0.6	1.5—4.8	30-45	8
Φ1200×2800	32	4.3	≤25	0.074—0.4	1.5-4.9	30	8.5
Φ1200×3000	32	5	≤25	0.074—0.4	1.6—5	30-45	9
Φ1200×3500	32	5.25	≤25	0.074—0.4	1.7-6	37	10
Φ1200×4500	32	5.5	≤25	0.074—0.4	1.7-7.5	45	12.5
Φ1500×3500	29.7	8.2	≤25	0.074—0.4	4.2-6.5	75	15.3



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Φ1500×3000	29.7	8	≤25	0.074—0.4	2—5.8	75-90	14.5
Φ1500×4500	29.7	11.5	≤25	0.074—0.4	5-7	90	19
Φ1500×5700	29.7	15	≤25	0.074—0.4	3.5—8	110-132	24
Φ1830×3000	25.5	11	≤25	0.074—0.4	4—10	132-180	32
Φ1830×3600	25.5	15.2	≤25	0.074—0.4	4.8-12	132	34
Φ1830×4500	25.5	20	≤25	0.074—0.4	5-14	155	38
Φ1830×6400	25.5	23	≤25	0.074—0.4	6.5—15	210	40
Φ1830×7000	25.5	25	≤25	0.074-0.4	7.5-17	210-245	42
Φ2100×3000	24.7	16	≤25	0.074—0.4	9-20	210	45
Φ2100×3600	24.7	28	≤25	0.074—0.4	10-22	210	46.8
Φ2100×4500	24.7	29.5	≤25	0.074—0.4	12-26	185	47.6
Φ2200×3600	21.4	24	≤25	0.074—0.4	20	155	48
Φ2200×4500	21.4	25.5	≤25	0.074—0.4	26	210	55
Φ2200×5500	21.4	30	≤25	0.074—0.4	10—22	370	63
Φ2200×6500	21.4	31	≤25	0.074—0.4	14—26	380	68
Φ2200×7500	21.4	33	≤25	0.074—0.4	15—29	475	71
Φ2400×4500	20.4	34.5	≤25	0.074—0.4	34	400	69
Φ2400×7000	20.4	39	≤25	0.074—0.4	16—33	475	81
Φ2400×9500	20.4	46.5	≤25	0.074—0.4	36	570	90
Φ2400×11000	20.4	51.5	≤25	0.04—0.08	16—35	630	98
Φ2400×13000	20.4	60	≤25	0.074—0.4	33-50	800	105.3
Φ2700×3600	19.5	39	≤25	0.074—0.4	16—29	475	70
Φ2700×4000	19.5	40.3	≤25	0.074—0.4	30	570	76
Φ2700×4500	19.5	43.5	≤25	0.074—0.4	20—35	500	96.83
Φ3200×4500	18	65	≤25	0.074—0.4	25-40	800	115

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