

Complete Ball Mill Model and Specification Overview

Controlled technical data for preliminary model comparison and equipment selection



The Octa Mach ball mill range covers models from $\Phi 900 \times 1800$ to $\Phi 3200 \times 4500$. Published motor power extends from 15 to 800 kW, while the verified preliminary capacity range reaches 0.65-90 t/h. The following pages consolidate cylinder speed, ball load, feed size, discharge size, capacity, motor power and equipment weight without inserting unverified values.

MODEL RANGE	FEED SIZE	DISCHARGE SIZE	CAPACITY	MOTOR POWER
$\Phi 900 \times 1800$ to $\Phi 3200 \times 4500$	≤ 25 mm	0.074-0.89 mm	0.65-90 t/h	15-800 kW

Use of this document

This overview supports early-stage model screening only. Final selection requires material test data, target P80, grinding method, discharge arrangement, classifier design, site power and installation review.

Small Ball Mill Models

Verified published parameters

Model	Cylinder Speed (r/min)	Ball Load (t)	Feed Size (mm)	Discharge Size (mm)	Capacity (t/h)	Motor Power (kW)	Weight (t)
Φ900×1800	42	1.4	≤20	0.075-0.89	0.65-2	15	3.6
Φ900×2100	41	1.7	≤15	0.075-0.83	0.7-3.5	18.5	3.9
Φ900×3000	41	2.5	≤20	0.075-0.89	1.1-3.5	22	4.5
Φ1200×2400	36	3.5	≤25	0.075-0.6	1.5-4.7	30	11.5
Φ1200×2800	36	4.5	≤25	0.075-0.6	1.5-5	37	13
Φ1200×4500	32	5.5	≤25	0.074-0.4	1.6-5.8	55	13.8

Engineering interpretation

Model designation indicates nominal cylinder diameter and length. Published capacity is a comparison range, not a guaranteed plant output.

Medium Ball Mill Models

Unverified ball-load entries are clearly controlled

Model	Cylinder Speed (r/min)	Ball Load (t)	Feed Size (mm)	Discharge Size (mm)	Capacity (t/h)	Motor Power (kW)	Weight (t)
Φ1500×3000	31	Pending confirmation	≤25	0.074-0.4	2-7	75	17
Φ1500×3500	31	Pending confirmation	≤25	0.075-0.4	3-8.5	75	17.5
Φ1500×4500	27	10.5	≤25	0.074-0.4	3.5-8	110	21
Φ1500×5700	27	15	≤25	0.074-0.4	3.5-10	130	24.7
Φ1830×3000	26	18	≤25	0.074-0.4	4-12	160	28
Φ1800×3600	26	10.6-11.35	≤25	0.075-0.4	5-13	160	33.5
Φ1830×4500	26.5	12	≤25	0.075-0.6	5.5-20	185	35
Φ1830×7000	26	25	≤25	0.074-0.4	6.5-22	210	36

Controlled-data notice

Ball-load values for Φ1500×3000 and Φ1500×3500 remain Pending confirmation. No estimate has been inserted.

Large Ball Mill Models

Project-dependent capacity is not converted into a fixed claim

Model	Cylinder Speed (r/min)	Ball Load (t)	Feed Size (mm)	Discharge Size (mm)	Capacity (t/h)	Motor Power (kW)	Weight (t)
Φ2100×3600	24	14-15.2	≤25	0.075-0.4	15-30	185	46.8
Φ2200×5500	21	30	≤25	0.074-0.4	10-20	245	48.5
Φ2200×6500	21	31	≤25	0.074-0.4	14-50	380	52.8
Φ2200×7500	21	33	≤25	0.074-0.4	16-50	380	56
Φ2400×3000	20.6	15.5-16.6	≤25	0.075-0.4	15-55	245	59
Φ2400×4500	21	30	≤25	0.074-0.4	15-60	380	65
Φ2700×3600	20.6	39	≤25	0.074-0.4	20-70	400	91.3
Φ2700×4000	20.7	40	≤25	0.074-0.4	20-80	400	94
Φ2700×4500	20.7	48	≤25	0.074-0.4	20-90	430	102
Φ3200×4500	18	65	≤25	0.075-0.4	Project-dependent	800	137

Selection note

The capacity of Φ3200×4500 is Project-dependent and must be confirmed against material properties, target product size and grinding-circuit design.

Technical Selection and Publication Control

How to use the tables correctly

1	Material properties
2	Maximum feed size
3	Required capacity
4	Target P80
5	Wet or dry grinding
6	Overflow or grate discharge
7	Ore hardness / BWI
8	Classifier arrangement
9	Site voltage
10	Installation conditions

Publication Item	Approved Wording
Φ1500×3000 ball load	Pending confirmation
Φ1500×3500 ball load	Pending confirmation
Medium-size model	Φ1830×3000
Φ3200×4500 capacity	Project-dependent
Image caption	Complete ball mill model and specification overview for preliminary technical comparison.
Alt text	Complete energy-saving ball mill specification table showing model, speed, ball load, feed size, discharge size, capacity, motor power and weight.

Performance statement

Actual throughput and final product size depend on material hardness, feed-size distribution, target P80, moisture content, grinding concentration, ball charge, media grading, liner condition, circulating load and classifier efficiency.

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