

INDUSTRIAL BUCKET SPEED CHARTS

Speed and capacity reference charts for industrial elevator bucket applications.

INDUSTRIAL ELEVATOR BUCKET SPEED CHARTS

1. Optimal Speed by Bucket Type

BUCKET STYLE	DISCHARGE TYPE	SPEED RANGE (FT/MIN)	BEST MATERIAL
AA	Centrifugal	350 – 550	Sand, gravel, cement
AA-RB	Centrifugal	350 – 550	Heavy abrasive, rock
LF	Continuous	150 – 300	Friable, powder
MF	Continuous	200 – 350	Granular, chemical
HF	Continuous	200 – 350	Heavy powder, minerals
HFO	Continuous	200 – 350	High temp, abrasive

2. Capacity by Material (tons/hour)

BUCKET	SPACING (IN)	CEMENT	SAND	GRAVEL	COAL	CLINKER
5×4	8	12	14	15	10	13
6×4	9	18	21	22	15	19
7×4	10	25	29	30	21	26
8×5	11	35	40	42	29	36
9×5	12	45	52	54	37	46
10×6	13	58	67	70	48	59
12×7	15	85	98	102	70	86
14×7	16	110	127	132	90	111
16×8	18	140	160	167	114	141

Capacities based on 75% bucket fill factor for centrifugal, 85% for continuous discharge. Material densities: Cement 94 lb/ft³, Sand 100, Gravel 105, Coal 55, Clinker 85.

3. Material Density Quick Reference

MATERIAL	DENSITY (LB/FT³)	RECOMMENDED BUCKET
Cement	94	HF or HFO

Sand (dry)	100	AA or AA-RB
Sand (wet)	120	AA-RB
Gravel	105	AA
Crushed rock	100 – 120	AA-RB
Coal (anthracite)	55 – 60	MF
Coal (bituminous)	50 – 55	LF or MF
Clinker	85	HFO
Fly ash	45 – 55	HF
Limestone dust	85	HF
Fertilizer	50 – 70	LF

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