



Bucket Elevator

Selection Guide



Bucket Elevator Selection Guide

Bucket Elevators are ideal for elevating a variety of bulk materials economically, efficiently and reliably. The two main type of Bucket Elevators are Centrifugal type and Continuous type.

Centrifugal Bucket Elevators are extremely suitable for handling fine, free flowing materials. They have Lower feed point, simpler loading and lesser no. of buckets compared to continuous type. Buckets are on chain or belt and travel at high speeds to effect discharge by centrifugal forces as they pass around the head pulley. The buckets are mounted at intervals on a chain belt.

Continuous Bucket elevators have buckets mounted continuously on chain or belt. These elevators are suitable for sluggish, aerated and friable material or material with larger % of lumps. Loading of the buckets is through loading leg and discharged over the face of the preceding bucket while passing around the head wheel.

The buckets are mounted continuously on the normally friction surface belts. Continuous type steel buckets are used leaving minimum clearance between the buckets. Drive is through shaft mounted gear reducer with built in back stop or through geared motor with chain drive.

The most suitable bucket elevators for your application can be find by using material selection table.





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Material	Density (kg/lit)		Centrifugal			Continuous Discharge					Consult PAXAA	
	Min	Max	100	200	1400	700	800	1000	1100	1400		
Alfalfa Meal	0.27	0.27										
Almonds, broken	0.45	0.48										
Almonds, whole	0.45	0.48										
Alum, fine	0.72	0.8										
Alum, lumpy	0.8	0.96										
Alumina	0.8	1.04										
Aluminum chips	0.11	0.24										
Aluminum hydrate	0.29	0.29										
Aluminum ore, crushed (3" minus)	1.2	1.36										
Aluminum oxide	1.12	1.92										
Aluminum silicate	0.78	0.78										
Aluminum sulphate	0.86	0.86										
Ammonium chloride, crystalline	0.72	0.83										
Ammonium nitrate	0.72	0.72										
Ammonium sulphate, granular	0.72	0.93										
Ashes (dry coal 3" minus)	0.56	0.64										
Asphalt, crushed (1/2" minus)	0.72	0.72										
Bakelite, powdered (similar products)	0.56	0.72										
Baking powder	0.64	0.88										
Barite	2.88	2.88										
Barley	0.61	0.61										
Bauxite, crushed (3" minus)	1.2	1.36										
Beans, dry navy	0.58	0.58										
Beans, whole castor	0.77	0.77										
Bentonite (100 mesh minus)	0.56	0.64										
Bentonite, crude	0.8	0.96										
Bone meal	0.54	0.64										
Bones, crushed (1/2" minus)	0.8	0.8										
Bones, granulated or ground (1/8" mi-	0.88	0.96										
Borax, fine	0.72	0.88										
Borax, screenings (1/2" minus)	0.88	0.96										
Bran	0.26	0.32										
Brewers grain, spent dry	0.88	0.96										
Brewers grain, spent wet	0.4	0.48										
Calcium oxide	0.96	1.04										
Carbon black powder, channel	0.32	0.4										
Carbon black powder, furnace	0.06	0.11										
Carbon black, pelletized	0.06	0.11										
Carborundum (3" minus)	1.6	1.6										
Cast iron borings	2.08	3.2										



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	Min	Max	100	200	1400	700	800	1000	1100	
Cement clinker	1.51	1.51	■	■		■	■			
Cement, portland	0.96	1.2	■	■		■	■			
Cement, portland aerated	1.2	1.52		■		■		■	■	
Chalk, lumpy	1.2	1.36	■	■		■	■			
Chalk, pulverized (100 mesh minus)	1.04	1.2				■	■			
Charcoal	0.29	0.4				■				
Cinders, blast furnace	0.64	0.64		■		■				
Cinders, coal	0.91	0.91		■		■				
Clover seed	0.77	0.77	■	■						
Coal, anthracite sized	0.88	0.96	■	■		■	■			
Coal, anthracite, river coal & culm	0.88	0.96	■	■		■	■			
Coal, bituminous, mined 50 mesh minus	0.8	0.86				■	■			
Coal, bituminous, mined, run of mine	0.69	0.8	■	■		■		■	■	
Coal, bituminous, mined, sized, over 1/2"	0.72	0.88		■		■		■	■	
Coal, bituminous, mined, slack, 1/2" minus	0.72	0.88	■	■		■		■	■	
Coal, bituminous, mined, stripping, un-	0.8	0.96	■	■		■		■	■	
Cocoa beans	0.48	0.64	■	■		■				
Coffee, green bean	0.51	0.51	■	■		■	■			
Coffee, roasted bean	0.35	0.42	■	■		■	■			
Coke breeze, 1/4" minus	0.37	0.56		B						
Coke, loose	0.56	0.72		B						
Coke, petroleum, calcined	0.4	0.56		B						
Copra	0.35	0.35	■	■		■				
Copra Cake, groud	0.4	0.48	■	■		■				
Copra Cake, lumpy	0.64	0.72	■	■		■	■			
Copra meal	0.64	0.72	■	■		■	■			
Cork, fine ground	0.19	0.24				■	■			
Cork, granulated	0.19	0.24				■	■			
Corn germs	0.72	0.8	■	■						
Corn grits	0.72	0.72								■
Corn sugar	0.72	0.72								■
Corn, cracked	0.34	0.34	■	■						
Corn, seed	0.64	0.72	■	■						
Corn, shelled	0.5	0.5	■	■						
Cornmeal	0.61	0.64	■	■						
Cottonseed hulls	0.56	0.56		B						
Cottonseed meal	0.29	0.4		B						
Cottonseed meats	0.64	0.72	■	■						
Cottonseed, cake, lumpy	0.19	0.19				■	■			
Cottonseed, dry delinted	0.56	0.64	■	■						



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	Min	Max	100	200	1400	700	800	1000	1100	
Cottonseed, dry with lint	0.64	0.64								
Cracklings, crushed, 3" minus	1.28	1.92		B						
Cullet	0.64	0.8								
Dolomite, lumpy	1.44	1.6								
Ebonite, crushed 1/2" minus	1.04	1.12								
Feldspar, ground 1/2" minus	1.12	1.36								
Feldspar, powdered 200 mesh	1.6	1.6								
Flaxseed cake, expeller	0.77	0.8								
Flaxseed meal	0.4	0.4								
Flour, wheat	0.56	0.64		B						
Flourspar, 1/2" screenings	0.56	0.64					x2	x2		
Flue dust, boiler house, dry	1.36	1.68								
Fuller's Earth, burnt, oil filter	0.48	0.56		B						
Fuller's Earth, dry	0.96	1.04		B						
Fuller's Earth, oily	0.64	0.64		B						
Fuller's Earth, raw, oil filter	0.56	0.64		B						
Glass batch	1.28	1.6		B						
Glue, ground, 1/8" minus	0.64	0.64								
Glue, pearl	0.64	0.64								
Grains, distillery, spent dry	0.48	0.48								
Granite, 1/2" screenings	1.28	1.44								
Grass seed	0.16	0.19								
Gravel, screened	1.44	1.6								
Gypsum 1/2" screenings	1.49	1.49								
Gypsum, 1 1/2" to 3" lumps	0.96	1.12								
Gypsum, dust, aerated	1.12	1.28								
Gypsum, dust, non-aerated	1.12	1.28								
Hops, spent, dry	0.56	0.56								
Hops, spent, wet	0.8	0.88								
Ice, crushed	0.56	0.72								
Ilmenite ore	2.24	2.56								
Lignite, air dried	0.72	0.88								
Lime, ground, 1/8" minus	0.96	1.04								
Lime, hydrated, 1/8" minus	0.64	0.64								
Lime, hydrated, pulverized	0.85	0.9								
Lime, pebble	0.51	0.64								
Limestone, agricultural, 1/8" minus	1.09	1.09								
Limestone, crushed	1.36	1.44								
Limestone, dust	1.28	1.36								
Linseed meal	0.4	0.4								



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	Min	Max	100	200	1400	700	800	1000	1100	
Malt meal	0.35	0.35								
Malt, dry ground, 1/8" minus	0.43	0.48								
Malt, dry, whole	0.96	1.04								
Malt, wet or green	0.58	0.64								
Marble, crushed, 1/2" minus	0.54	0.64								
Meat Scrap	0.8	0.88								
Muriate of potash	1.23	1.23								
Mustard seed	0.72	0.72								
Oats, rolled	0.3	0.3								
Oxalic acid crystals	0.96	0.96		B						
Peanuts, shelled	0.72	0.8								
Peas, dried	0.56	0.72								
Phosphate rock, broken, dry	1.2	1.36								
Phosphate rock, pulverized	0.96	0.96								
Phosphate, acid fertilizer	0.8	0.88								
Phosphate, triple super	0.96	0.96								
Pumice, ground, 1/8" minus	0.64	0.72								
Rice bran	0.26	0.32								
Rice grits	0.67	0.72								
Roofing granules	1.36	1.52								
Rubber, ground	1.04	1.12								
Salt, cake, dry, coarse	1.12	1.28								
Salt, cake, dry, pulverized	0.64	0.88								
Salt, dry, coarse	1.36	1.36								
Salt, dry, fine	0.96	1.36								
Sand, damp bank	1.76	2.08		B						
Sand, dry bank	1.44	1.76		B						
Sand, dry silica**	1.44	1.6		B						
Sand, foundry, prepared	1.12	1.44		B						
Sand, foundry, shakeout	1.44	1.6		B						
Sawdust	0.16	0.21								
Shale, crushed	1.36	1.44		B						
Slag, blast furnace, crushed	1.28	1.44								
Slag, blast furnace, granulated, dry	0.96	1.04								
Slag, blast furnace, granulated, wet	1.44	1.6								
Slate, crushed, 1/2" minus	1.28	1.44		B						
Slate, dust	1.12	1.28		B						
Soap beads or granules	0.24	0.4								
Soap flakes	0.08	0.24								
Soda ash, heavy	0.32	0.56								



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	Min	Max	100	200	1400	700	800	1000	1100	
Soda ash, light	0.88	1.04								
Soybean cake, over 1/2"	0.48	0.64								
Soybean flakes, raw	0.64	0.69								
Soybean meal, cold	0.32	0.42								
Soybean meal, hot	0.64	0.64								
Soybeans, cracked	0.64	0.64								
Steel chips, crushed	1.6	2.4								
Stone, crushed	1.44	1.6								
Sugar beet, pulp, dry	0.8	0.96								LA
Sugar beet, pulp, wet	0.8	0.88								LA
Sugar, granulated	0.19	0.24								
Sugar, powdered	0.88	1.04								
Sugar, raw, cane	0.88	1.04								
Tanbark, ground	0.88	0.88								
Timothy seed	0.58	0.58								
Wheat germ	0.64	0.72								
Wheat, cracked	0.45	0.45								
Wood chips	0.16	0.48								
Wood shavings	0.13	0.24								
Zinc concentrate	3.2	3.2								
Zinc dust	1.2	1.28								
Zinc ore, crushed	2.56	2.56								
Zinc ore, roasted	1.76	1.76								
Zinc oxide, heavy	0.48	0.56								
Zinc oxide, light	0.16	0.24								

- B Belt Type Elevator
- LA Loading leg
- X2 Select elevator with double the required capacity

PAXAA

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