Bucket Elevators

Bucket Elevators Types

Introduction

Martin has been designing and manufacturing a multitude of bucket elevators for over 75 years with hundreds in service today. We offer a complete line of Industrial elevators to efficiently handle a wide range of dry free flowing materials in a relatively small space with minimum horsepower. These industrial elevators include centrifugal discharge and continuous discharge with chain or belt mounted buckets. Our elevators can be supplied with either boot or head take-ups. Martin additionally offers a line of industrial high-speed centrifugal grain elevators in both single leg and double leg designs.

Mill Duty-centrifugal discharge elevators are also available for your tough applications. The mill duty elevator is specifically designed and built for the severe service required by the cement, rock, fertilizer, lime, gypsum, coal and fine ore industries. The mill duty is offered with AC style buckets.

The Martin super capacity-continuous discharge elevator is designed around the use of "SC" bucket mounted between two strands of chain. These elevators are specifically used where higher capacities, severe duty and/or higher shaft centers are required.

Components such as sprockets, traction wheels, pulleys, buckets and most take-ups are manufactured by Martin.

Martin offers not only a complete line standard elevators but can design and manufacture MTO elevator specific for a customer's application.

The bucket elevator catalog may be used to assist in making a preliminary selection. Please contact one of martin's many service centers or distributors for a recommendation and quote.

Elevator Types

Martin designs and manufactures various types of industrial bucket elevators to efficiently handle most dry, free-flowing bulk materials. High design standards, quality manufacturing location throughout North America assures rapid manufacturing times and economical delivery. This catalog is designed as tool to help our customers make preliminary selections of bucket elevators manufactured by Martin. Martin also is able to fill your needs for a MTO bucket elevator to your specific requirements. Contact Martin to discuss your bucket elevator needs and to receive quotation.

Notes:

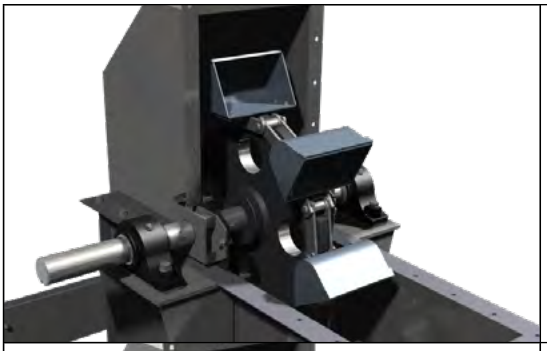
Various materials of construction and thicknesses are available.

Many types of drives are available and can be supplied. Bucket elevator styles 100, 200, 500, 700 and 800 are normally supplied with shaft mounted reducers having internal backstops. Other types of drives are available. Mill duty and super capacity elevators are quoted with a right angle reducer and chain drive with an external backstop.

Although the charts in this catalog are based on one type of bucket many other types are available. Nonmetallic buckets are also available in many types of buckets but offered as standard on our 500 series elevators.

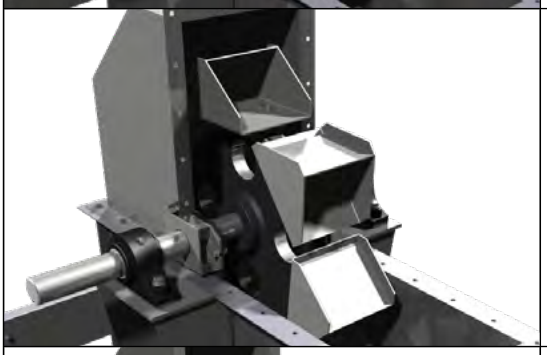
Martin recommends a backstop be installed on all bucket elevators.

Elevator Types



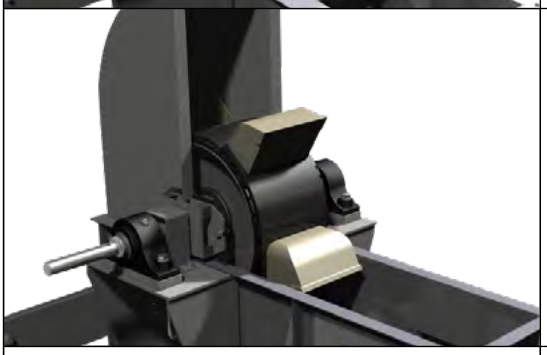
Centrifugal Discharge

Centrifugal discharge elevators are offered as: Series 100 (boot take-up) and Series 200 (head take-up). Both series are available with buckets mounted to a chain or belt. The centrifugal discharge elevators will handle free flowing materials with small to medium lump size. The Martin standard inlet chute and curved bottom plate help direct the material into the bucket, reducing the "digging" action of the bucket. The speed of the elevator is sufficient to discharge the material by centrifugal force.



Continuous Discharge

Continuous discharge elevators are offered as: Series 700 (boot take-up) and Series 800 (head take-up). Either series is available with buckets continuous mounted on chain or belt to handle many bulk materials ranging from light to heavy and from fines to larger lumps. The buckets are loaded by direct feeding with the use of a loading leg. Spillage of material is minimizing by the close bucket spacing. As buckets discharge, material flows over the preceding buckets; projecting sides form a chute, assisting in proper discharge.



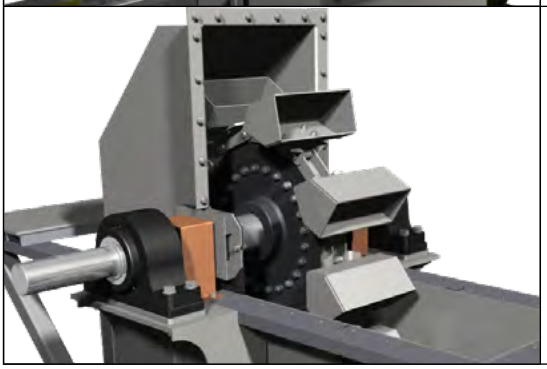
Centrifugal Discharge – High-Speed Grain

Series 500 (double leg) high-speed centrifugal discharge bucket elevators are specifically designed to economically handle grain and other free-flowing materials weighing less than 60 pounds a bushel. HSG elevators may be used in light duty frac sand applications.

Continuous Discharge – Super Capacity

Continuous Discharge Super Capacity elevators are offered as: Series SC with "SC" continuous discharge buckets mounted between two strands of heavy duty chain. These elevators are used where higher capacities, larger lumps, severe duty or higher shaft centers are required.

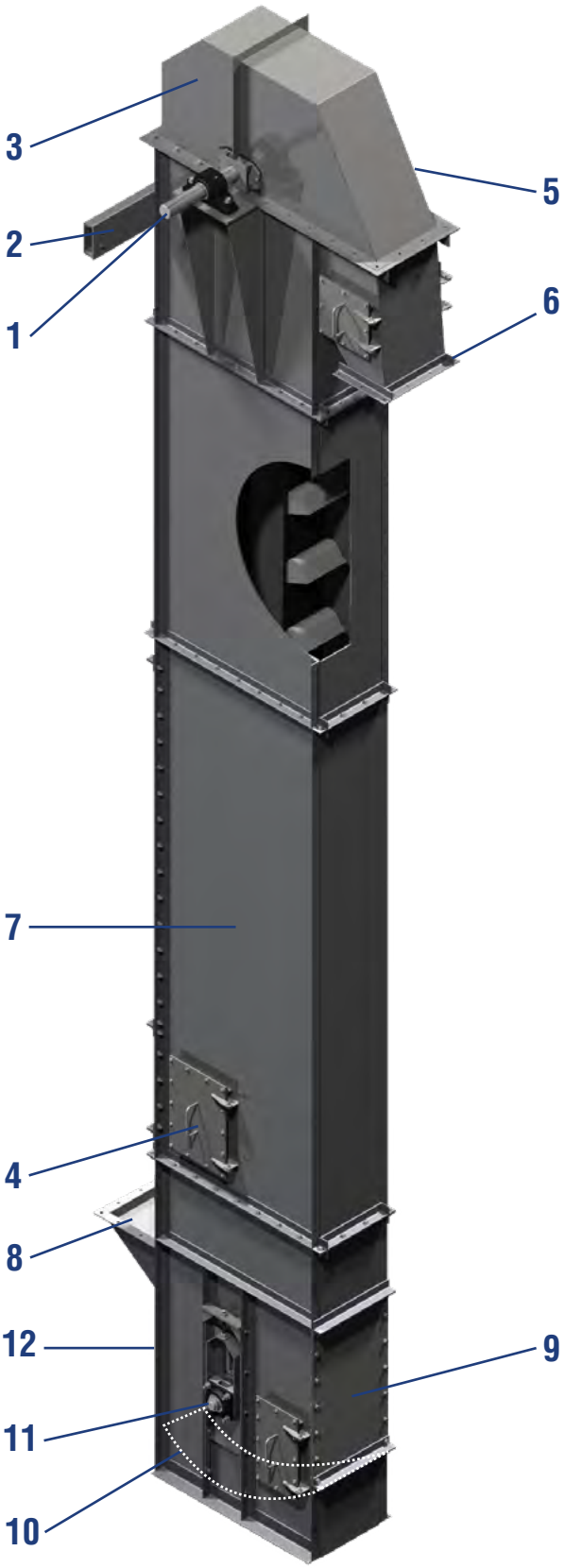
The feeding and discharge of material is similar to a standard continuous discharge elevator.



Centrifugal Discharge – Mill Duty

Centrifugal mill duty elevators are offered as: series MDC with AC buckets mounted on a chain, series MDC with buckets mounted on a chain and series mdb with AC buckets mounted on a belt. The mill duty elevators series MDC have a single medium duty or heavy duty rollerless elevator chain and a single row of AC type buckets. The series mdb belt type elevators may have a single or double row of AC buckets bolted to a heavy duty rubber covered belt. Product is centrifugally discharged as material passes over the head wheel or pulley. A head mounted traction wheel is utilized in chain type elevators, where practical. Lagged pulleys are standard on belt type mill duty elevators.

Standard Features of Centrifugal & Continuous Elevators



1. **Shaft Mount Type Drive** . . . . . furnished as standard. Other types available. Backstops are required to prevent reverse rotation. Various types are available. (Not shown on diagram.)
2. **Torque arm bracket** . . . . . box channel construction.
3. **Split hood** . . . . . 14 gauge.
4. **Inspection door** . . . . . near side.
5. **Head section** . . . . . fabricated of 12 gauge steel with bearing pedestal structurally reinforced.
6. **Discharge spout** (style 1 shown) . . . . . fabricated of 10 gauge plate steel with externally adjustable 4-ply belting throat lip (not shown). Style 2 (45°) available. Wear liners available.
7. **Intermediate section** . . . . . fixture welded 12 gauge casing continuously welded for dust tight construction. Sides are cross crimped for additional stiffness. Vertical corner angles are full length.
8. **Inlet** . . . . . fabricated of 3/16" thick plate steel.
9. **Clean out door** . . . . . bolted for easy removal.
10. **Curved bottom plate** . . . . . reduces build-up in boot
11. **Take-up ball bearing screw type** . . . . . for positive take-up tension. Available with roller bearings. Internal gravity type also available.
12. **Boot** . . . . . fabricated of 3/16" thick plate steel.

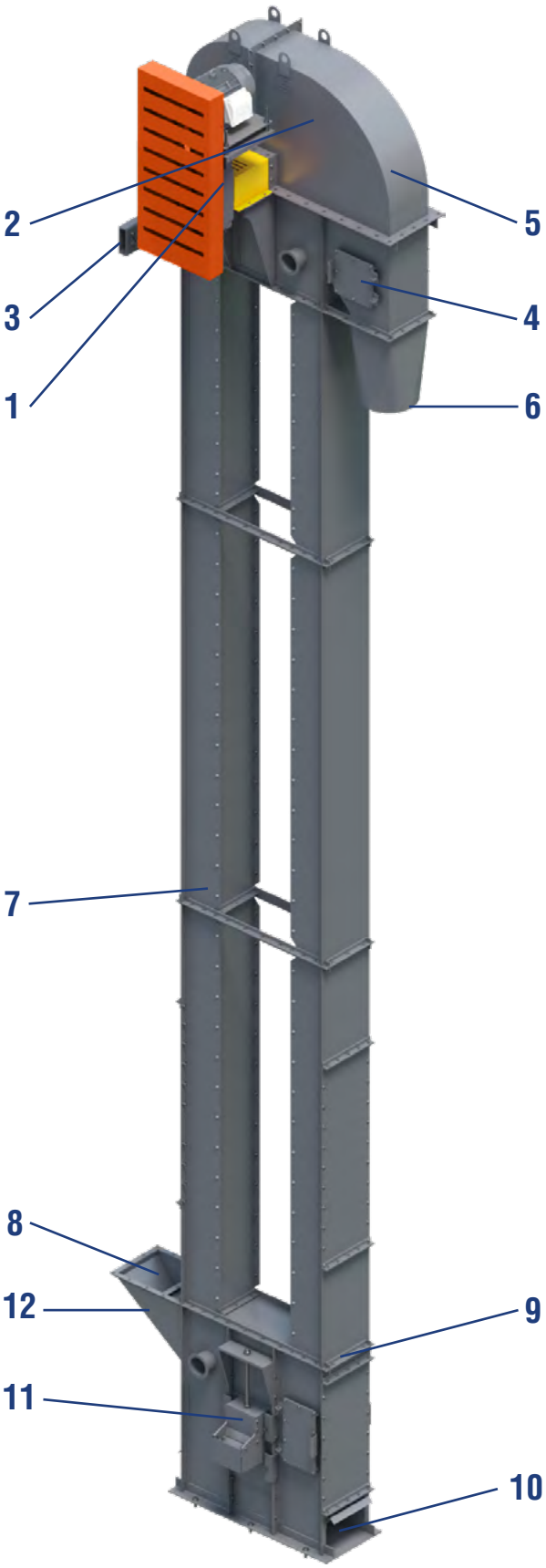
Elevator Number 100 thru 800 Series

Example – B43-108

Mounting	Bucket Size	Series	Head Wheel Diameter
I	I	I	I
B	**43**	**1**	**08**
I	I	I	I
B = Belt C = Chain	43 = 4 × 3 64 = 6 × 4 85 = 8 × 5 106 = 10 × 6 Etc.	1 = 100 2 = 200 5 = 500 7 = 700 8 = 800	08 = 8" dia.

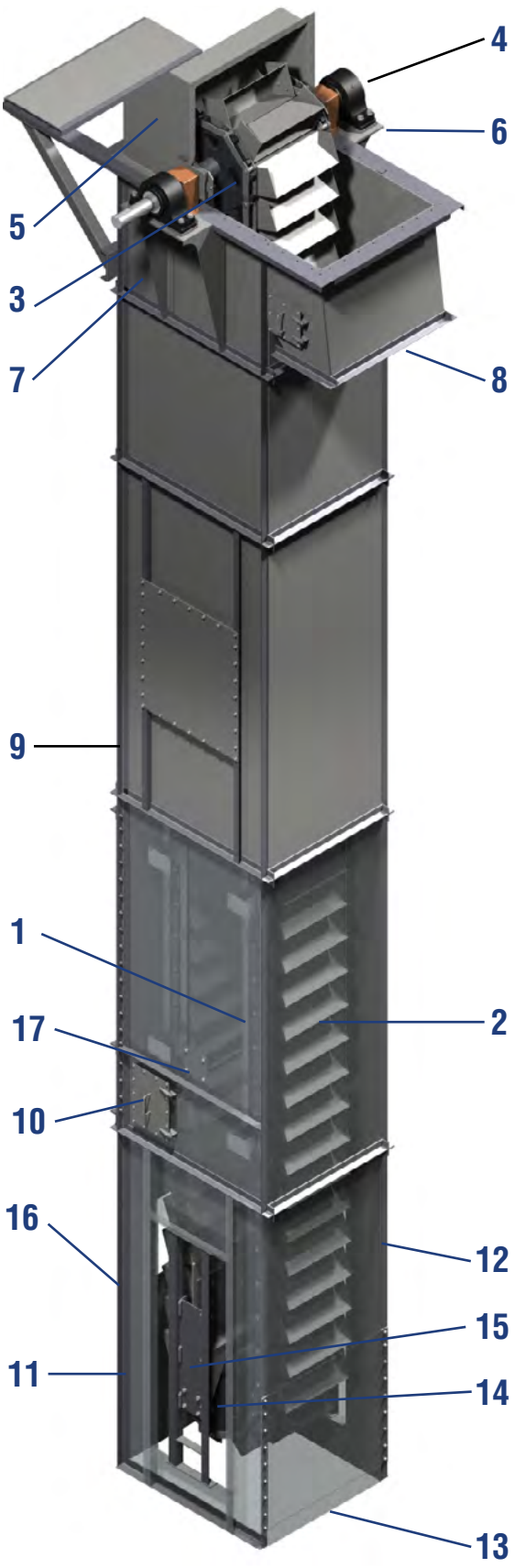
B43-108 is a belt (B) elevator with 4" × 3" (43) buckets, centrifugal discharge type with boot take up (Series 100), Unit 39. Specifications may be found on pages H-131.

Standard Features of High-Speed Grain Elevator



1. **Shaft mount type drive** . . . . . furnished as standard. Other types available. Backstops are required to prevent reverse rotation.(Not shown on drawing.)
2. **High-speed type split hood**. . . . . 14 gauge.
3. **Torque arm bracket**. . . . . box channel construction.
4. **Inspection doors** . . . . . one side.
5. **Head section**. . . . . fabricated of 10 gauge steel minimum, with bearing pedestals structurally reinforced.
6. **Discharge spout** (style 1) . . . . . fabricated of 10 gauge steel with externally adjustable 4-ply belting throat lip (not shown). Style 2 (45°) available as well as wear liners.
7. **Intermediate section**. . . . . fixture welded 12 gauge casing continuously welded for dust tight and weather tight constriction. Single casing intermediates are available. (Not shown on drawing.)
8. **Inlet**. . . . . fabricated of 3/16" thick steel plate and wear liners are available.
9. **Clean out door**. . . . . bolted for easy removal.
10. **Flat bottom with clean-out slides**. . . . . reduces material build-up in boot.
11. **Screw type ball bearing take-up**. . . . . provides positive take-up tension and bell adjustment. Roller bearings are available as well as spring loaded style take-ups.
12. **Boot section** . . . . . fabricated of 3/16" thick steel minimum.
13. **Sway bars** (inside). . . . . fabricated of structural angle and supplied on 30' intervals.

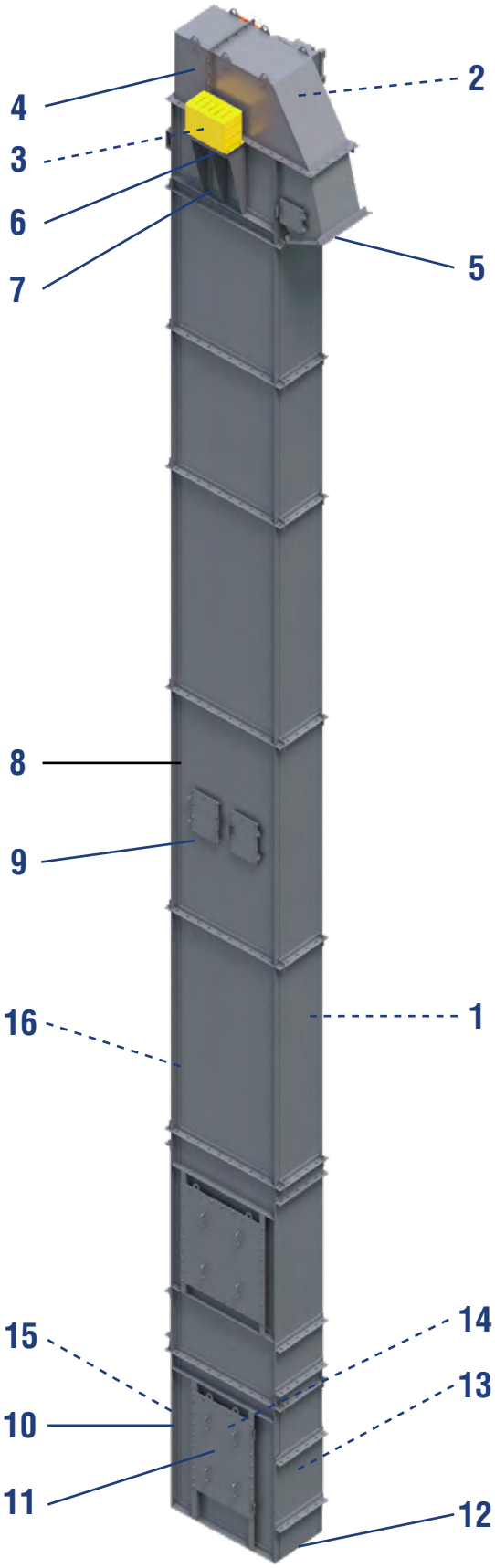
Standard Features of Martin Super-Capacity Elevator



1. **Double chain** . . . . . double strand of steel bushed "SC" chain.
2. **Buckets** . . . . . fabricated steel "SC" continuous style buckets.
3. **Two segmented sprockets** . . . . . Solid body construction in hardened steel.
4. **Roller bearing pillow block.**
5. **Split removable hood** . . . . . with lifting lugs and contoured to minimize packing of material.
6. **Heavy steel bearing support platform** . . . . . designed to distribute the load to the head section.
7. **Head section** . . . . . minimum 1/4" steel plate.
8. **Discharge stub** . . . . . with adjustable throat plate and access panel.
9. **Heavy-duty intermediates** . . . . . of a dust-tight and weather tight construction. Internal angle rails guide the chain.
10. **Hinged inspection door.**
11. **Boot section** . . . . . 1/4" steel plate construction minimum, supplied with an internal loading leg
12. **Bolted side & front access panels** . . . . . allows access to take-up, bearings and tail sprocket /traction wheel. (Not shown on drawing.)
13. **Flat bottom plate** . . . . . for better distribution of loads to the foundation.
14. **Hardened steel segmented sprocket or traction wheel with solid hub.**
15. **Internal gravity take-up** . . . . . or optional heavy duty external take-up can be supplied.
16. **Flanged inlet** . . . . . allowing easy connection to loading chute.
17. **Take-up loading beam** . . . . . for servicing the internal component**s.**

Super Capacity Elevator		
Example – SC35-2412		
Elevator Type	Head Wheel Diameter	Bucket Size
I	I	I
SC	**35**	**2412**
I	I	I
SC = Super Capacity Chain	35"	24" × 12"

Standard Features of Martin Mill Duty Elevator



1. **Buckets (inside)** . . . . . ac style hooded back and high front fabricated steel buckets.
2. **Traction wheel (inside)** . . . . . with solid body and hardened steel segments is supplied on chain type and a heavy duty pulley is supplied with a belt style ac elevator.
3. **Roller bearing pillow blocks (inside)**
4. **Split steel hood** . . . . . 12 gauge steel plate with lifting lugs and contoured to minimize packing of material.
5. **Discharge stub** . . . . . with adjustable throat plate and access panel.
6. **Heavy steel bearing support platform** . . . . . designed to distribute the load to the head section.
7. **Head section**. . . . . min. 1/4" Steel plate construction.
8. **Heavy-duty intermediates** . . . . . of dust-tight and weather tight construction.
9. **Hinged inspection door**
10. **Boot section** . . . . . min. 1/4" Steel plate construction.
11. **Bolted side and front access panels** . . . . . allows access to take-up, bearings and tail sprocket or pulley (not shown on drawing.)
12. **Flat bottom plate for better distribution of loads to the foundation.**
13. **Hardened steel segmented sprocket or heavy-duty tail pulley (inside).**
14. **Internal gravity take-up (inside)** . . . . . supplied standard on md elevators with chain and screw take-up on belt type. An optional external gravity take-up may be supplied.
15. **Flanged inlet (behind)** . . . . . allowing easy connection to loading chute.
16. **Take-up loading beam (inside)** . . . . . for servicing internal take-up and internal boot components.

Mill Duty Elevators			
Elevator Type	**Head Wheel Diameter**	**Bucket Size**	**Type of Spacing or # Rows**
Example – MDC26-2010A			
MDC	**26**	**2010**	**A**
MDC = Mill Duty Chain	26"	20" × 10"	
Example – MDC30-2714A-S			
MDC	**30**	**2714**	**A**
MDC = Mill Duty Chain	30"	27" × 14"	
Example – MDB30-1810DR			
MDC	**30**	**1810**	**DR**
MDB = Mill Duty Belt	30"	18" × 10"	DR = Double Row

Elevator Selection

General

To properly select a bucket elevator, the following factors must be determined:

1. **Volumetric Capacity** — All bucket elevators are volumetric devices with constant capacity ratings stated in cu.ft./hour, the capacity of any elevator in tons/hour varies with density. See Table 1-1 for conversions if necessary.
2. **Centers or Lift** — in feet.
3. **Lump Size and Lump Class** — Lump size is the largest particle dimension, and lump class is the percentage these lumps represent of the whole.
4. **Material Characteristics** — See Material Classification Code Chart.
5. **Operating Conditions** — Affecting operation include location (indoors, outdoors), number of hours per day operation, etc.

To Convert	To Cubic Feet per Hour (CF of FT^3/HR)
Tons per hour (short) TPH	$CFH = \frac{TPH \times 2000}{\text{Density (in pounds per cubic foot; PCF or LBS/FT}^3\text{)}}$
Pounds per hour Lbs/hour	$CFH = \frac{\text{Pounds per hour}}{\text{Density (in pounds per cubic foot; PCF or LBS/FT}^3\text{)}}$
Bushels per hour BPH	$CFH = BPH \times 1.24$

Procedure

The following steps should be followed to select an elevator:

1. **Determine proper elevator series** — See material table for recommendation.
2. **Select Elevator Number** — For the series selected, refer to the Capacity chart, and select an elevator number for which the capacity in cubic feet per hour listed equals or exceeds the required volumetric capacity. If the required volumetric capacity of centers exceed those listed, contact the Martin for a recommendation.
3. **Check Lump Size/Lump Class** — Check actual lump size/lump class against that listed for the elevator number selected. If the actual lump size/lump class is larger than that listed, choose a larger elevator where the actual is equal to or less than that listed.
4. **Determine Horsepower Requirements** — Consult Martin.
5. **List Specifications** — Refer to capacity, horsepower and dimension charts for the elevator number selected. List the specifications for the preliminary selection of the elevator.

Contact your local Martin Service Center or Martin, distributor for a recommendation.

Major Class	Material Characteristics Included		Code Designation
Density	Bulk Density, Loose		Actual lbs/PC
Size	Very Fine	No. 200 Sieve (.0029") and Under	A200
		No. 100 Sieve (.0059") and Under	A100
		No. 40 Sieve (.016") and Under	A40
	Fine	No. 6 Sieve (.132") and Under	B6
	Granular	1/2" And Under (6" Sieve to 1/2")	C1/2
		3" And Under (1/2" to 3")	D3
		7" And Under (3" to 7")	D7
	Lumpy	16" And Under (0" to 16")	D16
		Over 16" To Be Specified, X = Actual Maximum Size	DX
	Irregular	Irregular Stringy, Fibrous, Cylindrical, Slabs, Etc.	E
Flowability	Very Free Flowing		1
	Free Flowing		2
	Average Flowability		3
	Sluggish		4
Abrasiveness	Mildly Abrasive		5
	Moderately Abrasive		6
	Extremely Abrasive		7
Miscellaneous Properties or Hazards	Builds Up and Hardens		F
	Generates Static Electricity		G
	Decomposes — Deteriorates in Storage		H
	Flammability		J
	Becomes Plastic or Tends to Soften		K
	Very Dusty		L
	Aerates and Becomes a Fluid		M
	Explosiveness		N
	Stickiness — Adhesion		O
	Contaminable, Affecting Use		P
	Degradable, Affecting Use		Q
	Gives Off Harmful or Toxic Gas or Fumes		R
	Highly Corrosive		S
	Mildly Corrosive		T
	Hygroscopic		U
	Interlocks, Mats or Agglomerates		V
	Oils Present		W
	Packs Under Pressure		X
	Very Light and Fluffy — May Be Windswept		Y
	Elevated Temperature		Z

Material Tables

Material	Density LBS/FT³	Material Code	Recommended Elevator Series ▲
Alfalfa Meal	14-22	B6-45WY	F, H
Almonds, Broken	27-30	C1/2-35Q	C, F, H
Almonds, Whole Shelled	28-30	C1/2-35Q	F
Alum, Fine	45-50	B6-35U	A, F
Alum, Lumpy	50-60	B6-25	A, F
Alumina	55-65	B6-27MY	G
Aluminum Chips, Dry	7-15	E-45V	F
Aluminum Oxide	60-120	A100-17M	F
Ashes, Coal, Dry — 3" •	35-40	D3-46T	C, J, K, L
Asphalt, Crushed — 1/2"	45	C1/2-45	A, C, F, J, K
Bakelite, Fine	30-45	B6-25	F
Baking Powder	40-55	A100-35	F
Bauxite, Crushed — 3"	75-85	D3-36	A, C, F, J, K
Beans, Castor, Whole Shelled	36	C1/2-15W	A, C, F, H
Beans, Navy, Dry	48	C1/2-15	A, C, F, H
Bentonite, Crude	34-40	D3-45X	A, C, I, J, K
Bentonite — 100 Mesh •	50-60	A100-25MXY	A, C, I, J, K, L
Boneblack	20-25	A100-25Y	F
Bonemeal	50-60	B6-35	A, C
Bones, Crushed	35-50	D3-45	A, C, F, H
Bones, Ground	50	B6-35	A, C, F, H
Borax, Fine	45-55	B6-25T	A, C, I, J, K
Bran, Rice-Rye-Wheat	16-20	B6-35NY	A, C
Brewer's Grain, spent, dry	14-30	C1/2-45	A, C
Brewer's Grain, spent, wet	55-60	C1/2-45T	A, C
Buckwheat	37-42	B6-25N	E
Calcium Oxide (See Lime, unslaked)	—	—	—
Cast Iron, Chips	130-200	C1/2-45	F
Cement, Clinker	75-95	D3-36	A, F, I, J, K
Cement, Portland •	94	A100-26M	A, F, I, J, K, L
Chalk, Crushed	75-95	D3-25	A, F, I, J, K
Chalk, Pulverized	67-75	A100-25MXY	A, F, I
Charcoal, Lumps	18-28	D3-45Q	F, I
Cinders, Coal	40	D3-36T	A, F, I, J, K
Clay, Brick, Dry, Fines	100-120	C1/2-36	B
Coal, Anthracite, Sized 1/2"	49-61	C1/2-25	A, F, I, J, K
Coal, Bituminous, Mined, Slack	43-50	C1/2-45T	A, F, I
Coffee, Green Bean	25-32	C1/2-25PQ	A, F
Coffee, Roasted Bean	20-30	C1/2-25PQ	A, F
Coke, Breeze	25-35	C1/2-37	B, D
Coke, Loose	23-35	D7-37	D
Coke, Petrol, Calcined	35-45	D7-37	D, I, J, K, L
Copra, Cake, Ground	40-45	B6-45HW	A, C, F, G
Copra, Cake, Lumpy	25-30	D3-35HW	A, C, F
Copra, Lumpy	22	E-35HW	A, C, F
Copra, Meal	40-45	B6-35HW	A, C, F, G
Cork, Granulated	12-15	C1/2-35JY	F, H
Corn, Cracked	40-50	B6-25P	F, H
Corn Germ	21	B6-35PY	A, C
Corn Grits	40-45	B6-35P	A, C
Cornmeal	32-40	B6-35P	A, C
Corn Shelled	45	C1/2-25	E
Corn Sugar	30-35	B6-35PU	A, C
Cottonseed, Cake, Lumpy	40-45	D7-45HW	A, C
Cottonseed, Dry, Delinted	22-40	C1/2-25X	B, D
Cottonseed, Dry, Not Delinted	18-25	C1/2-45XY	B, D
Cottonseed, Hulls	12	B6-35Y	F, G
Cottonseed, Meal, Extracted	35-40	B6-45HW	A, C
Cottonseed, Meats, Dry	40	B6-35HW	A, C
Distiller's Grain, Spent Dry	30	B6-35	A, C
Dolomite, Crushed	80-100	C1/2-36	A, F, I, J, K
Ebonite, Crushed	63-70	C1/2-35	F
Feldspar, Ground •	65-80	A100-37	A, C, F, I, J, K
Feldspar, Powder	100	A200-36	F, H
Flaxseed	43-45	B6-35X	E
Flaxseed Cake (Linseed Cake)	48-50	D7-45W	C
Flaxseed Meal (Linseed Meal)	25-45	B6-45W	A, C
Fuller's Earth, Dry, Raw	30-40	A40-25	B, D
Fuller's Earth, Oily, Spent	60-65	C1/2-450W	B, D
Glass, Batch	80-100	C1/2-37	B, D
Granite, Fine	80-90	C1/2-27	F, I, J, K
Gypsum, Calcined •	55-60	B6-35U	A, C, F, H, I, J, K
Gypsum, Calcined, Powdered •	60-80	A100-35U	A, F, I, J, K, L
Gypsum, Raw — 1"	70-80	D3-25	F, I, J, K
Hops, Spent, Dry	35	D3-35	A, C
Hops, Spent, Wet	50-55	D3-45V	A, C
Ice, Crushed	35-45	D3-35Q	A, F
Ilmenite Ore	140-160	D3-37	A, C, F, G, I, J, K
Lime, Ground, Unslaked	60-65	B6-35U	A, C, F, G, I, J, K
Lime, Hydrated	40	B6-35LM	F, I
Lime, Pebble	53-56	C1/2-25HU	A, F, I, J, K
Limestone, Agricultural •	68	B6-35	A, C, F, H, I, J, K
Limestone, Crushed	85-90	DX-36	F, H, I, J, K
Malt, Dry, Ground	20-30	B6-35NP	A, C
Malt, Meal	36-40	B6-25P	A, C
Malt, Dry Whole	20-30	C1/2-35N	A, C
Marble, Crushed	80-95	B6-37	F, I
Milk, Malted	27-30	A40-45PX	A
Oats	26	C1/2-25MN	E
Oats, Rolled	19-24	C1/2-35NY	A, C
Oxalic Acid Crystals – Ethane Diacid Crystals	60	B6-35QS	B, D
Phosphate Rock, Broken	75-85	DX-36	A, C, F, H, I, J, K
Phosphate Rock, Pulverized •	60	B6-36	A, C, F, H, I, J, K
Potash (Muriate) Dry	70	B6-37	A, C, F, I, J, K
Pumice — 1/8" •	42-48	B6-46	F, I, J, K
Rice, Bran	20	B6-35NY	E
Rice, Grits	42-45	B6-35P	A, C
Rice, Hulled	45-49	C1/2-25P	E
Rye	42-48	B6-15N	E
Salt Cake, Dry Coarse	85	B6-36TU	A, C, F, H, J, K, L
Salt, Dry Fine	70-80	B6-36TU	F, H, I, J, K, L
Sand Dry Bank (Damp)	110-130	B6-47	B, G
Sand Dry Bank (Dry)	90-110	B6-37	B, G
Sand Foundry (Shake Out)	90-100	D3-37Z	B, G
Shale, Crushed	85-90	C1/2-36	B, H, I, J, K
Slag, Blast Furnace, Crushed	130-180	D3-37Y	F, I, J, K
Slate, Crushed — 1/2"	80-90	C1/2-36	F, I, J, K
Soda Ash, Heavy •	55-65	B6-36	A, C, I, J, K
Soda Ash, Light	20-35	A40-36Y	F, H, I
Sodium Phosphate	50-60	A-35	A, F
Soybean, Cake	40-43	D3-35W	C
Soybean, Cracked	30-40	C1/2-36NW	A
Soybean, Flake, Raw	18-25	C1/2-35Y	A, C
Soybean, Flour	27-30	A40-35Mn	B, D
Soybean Meal, Cold	40	B6-35	A, C
Soybean Meal, Hot	40	B6-35T	A, C
Soybeans, Whole	45-50	C1/2-26NW	E
Sugar Beet, Pulp, Dry	12-15	C1/2-26	F, H
Sugar Beet, Pulp, Wet	25-45	C1/2-35X	F, H
Sugar, Raw	55-65	B6-35PX	A, C
Trisodium Phosphate, Granular	60	B6-36	A, F
Wheat	45-48	C1/2-25N	E
Wheat, Cracked	40-45	B6-25N	A, C
Wheat, Germ	18, 28	B6-25	A, C
Wood Chips, Screened	10-30	D3-45VY	B, D

• Buckets should be drilled on the bottom for air venting to assure rated capacity.

▲ Elevator Series Designation	
A = Series 100 Chain	G = Series 700 Belt
B = Series 100 Belt	H = Series 800 Chain
C = Series 200 Chain	I = Series SC Double Chain
D = Series 200 Belt	J = Series MDC Chain
E = Series 500 Belt	L = Series MDB Belt
F = Series 700 Chain	

Centrifugal Discharge Chain

Series 100 Chain (Series 200 is for Head Take-up)

Centrifugal discharge chain type elevators handle a variety of relatively free-flowing dry materials with small to medium lump sizes that are mildly to moderately abrasive.

Buckets

Capacities and horsepower listed are for style "AA" buckets. Style "A", "AA-RB" and "Salem" can be furnished. Style "C" may also be used to handle wet or sticky materials. Consult the factory for a specific recommendation.

Chain

Centrifugal discharge chain type elevators are furnished with either combination chain for light to medium service or all steel (steel knuckle) chain for medium to severe service or when a higher chain working load is required.

Elevator	Capacity	Buckets				Chain			Lump Size		Nominal Casing Size		Head Sprocket			Boot Sprocket		
	Max CFH	Width	Proj.	Depth	Spacing	Number	Pitch	F.P.M.	100%	10%	Width	Depth	# Teeth	Pitch Dia.	RPM	# Teeth	Pitch Dia.	Shaft Dia.
C43-108	73	4	2.75	3	9.25	977	2.380	125	.5	1	8	18	10	7.50	63.7	10	7.5	1.500
C64-121	250	6	4	4.25	16	N102B	4.000	250	.5	3	11.75	39	16	20.50	39.4	14	18	1.500
C85-121	530	8	5	5.5	16	HSB102B	4.000	225	.75	3	11.75	39	16	20.50	41.9	10	13	1.500
C85-124	590	8	5	5.5	16	HSB102B	4.000	250	1	3.5	13.75	42	19	24.25	39.4	14	18	2.000
C106-124	1010	10	6	6.25	16	N102B	4.000	250	1.25	3.5	13.75	48	19	24.25	39.4	16	20.5	2.000
C127-125	1425	12	7	7.25	18	HSB110	6.000	250	1.25	4	15.75	48	13	25.00	38.2	9	17.5	2.438
C127-131	1765	12	7	7.25	16	N102B	4.000	275	1.25	4	17.75	54	24	30.50	34.4	19	24.25	2.438
C147-131	2135	14	7	7.25	16	N102B	4.000	275	1.25	4	19.75	54	24	30.50	34.4	19	24.25	2.438
C168-131	2800	16	8	8.5	18	HSB110	6.000	275	1.5	4.5	19.75	54	16	30.75	34.2	11	21.25	2.438
C188-131	3220	18	8	8.5	18	HSB110	6.000	275	1.5	4.5	24.75	54	16	30.75	34.2	11	21.25	2.438
C208-131	3460	20	8	8.5	18	HSB110	6.000	275	1.5	4.5	24.75	54	16	30.75	34.2	11	21.25	2.438
C248-131	4700	24	8	8.5	18	HSB833	6.000	275	1.5	4.5	30.75	54	16	30.75	34.2	11	21.25	3.000
C2410-131	6520	24	10	10.5	18	HSB833	6.000	275	2	4.5	30.75	54	16	30.75	34.2	11	21.25	3.000

All Dimensions in inches.
Max. CFH capacity is at 75% bucket load.
Consult Martin for head shaft size and horsepower requirements.
Other chain may be substituted based on chain pull requirements.

Centrifugal Discharge Belt

Series 100 Belt (Series 200 is for Head Take-up)

Centrifugal discharge belt type elevators handle a variety of relatively free-flowing dry materials with small to medium lump sizes that are mildly, moderately or extremely abrasive.

Buckets

Capacities listed are for style "AA" buckets. Style "A", "AA-RB" and "Salem" can be furnished. Style "C" may also be used to handle wet or sticky materials. Consult the factory for a specific recommendation.

Belt

Centrifugal discharge belt type elevators are typically furnished with 100% polyester carcass PVC belting or rubber covered ply belts specifically designed for elevator service. Many other types of belts and covers are available.

Elevator	Capacity	Buckets				Belt		Lump Size		Nominal Casing Size		Head Pulley		Boot Pulley	
	Max CFH	Width	Proj.	Depth	Spacing	Width	F.P.M.	100%	10%	Width	Depth	Pitch Dia.	RPM	Pitch Dia.	Shaft Dia.
B43-108	95	4	2.75	3	8	5	140	.25	1	8	18	8	62.9	8	1.500
B64-124	325	6	4	4.25	13	7	260	.5	2.5	11.75	39	24	40.5	24	1.500
B85-120	540	8	5	5.5	16	9	230	.75	2.5	11.75	39	20	42.9	20	1.500
B85-124	590	8	5	5.5	16	9	250	.75	3	13.75	42	24	39	24	2.000
B106-124	1010	10	6	6.25	16	11	250	1	3	15.75	48	24	39	24	2.000
B127-124	1425	12	7	7.25	18	13	250	1.25	4	17.75	48	24	39	24	2.438
B127-130	1600	12	7	7.25	18	13	280	1.25	4	17.75	54	30	35.1	30	2.438
B147-130	1930	14	7	7.25	18	15	280	1.25	4	19.75	54	30	35.1	30	2.438
B168-130	2860	16	8	8.5	18	17	280	1.5	4.5	22.75	54	30	35.1	30	2.438
B188-130	3280	18	8	8.5	18	19	280	1.5	4.5	24.75	54	30	35.1	30	2.438
B208-130	3530	20	8	8.5	18	21	280	1.5	4.5	26.75	54	30	35.1	30	2.438
B127-142S	4490	24	8	8.5	16	24	350	1.25	4	28	66	42	35.1	42	3.000
B2410-130	6640	24	10	10.5	18	25	280	1.5	4.5	30.75	60	30	35.1	30	3.000

All Dimensions in inches.
Max. CFH capacity is at 75% bucket load.
Consult Martin for head shaft size and horsepower requirements.

Continuous Discharge Chain

Series 700 Chain (Series 800 is for Head Take-up)

Continuous discharge chain type elevators will handle various free-flowing dry or sluggish materials which contain medium to large lumps and are mildly, moderately, or extremely abrasive.

Buckets

Capacities listed are for a medium-front, non-overlapping style fabricated steel bucket. High front style buckets are available. Consult the factory for a specific recommendation.

Chain

Continuous discharge chain type elevators are furnished with combination chain for mild to moderate service or all steel (steel knuckle) chain for moderate to severe service or when a higher chain working load is required.

Elevator	Capacity	Buckets				Chain			Lump Size		Nominal Casing Size		Head Sprocket			Boot Sprocket		
	Max CFH	Width	Proj.	Depth	Spacing	Number	Pitch	F.P.M.	100%	10%	Width	Depth	# Teeth	Pitch Dia.	RPM	# Teeth	Pitch Dia.	Shaft Dia.
C85-721	570	8	5	7.75	8	HSB102B	4.000	120	.75	2.5	11.75	39	16	20.5	22.4	11	20.5	1.50
C105-721	730	10	5	7.75	8	HSB102B	4.000	120	.75	2.5	13.75	39	16	20.5	22.4	11	20.5	2.000
C107-725	1010	10	7	11 5/8	12	HSB110	6.000	125	1	3	13.75	48	13	25	19.1	10	25	2.000
C127-725	1230	12	7	11 5/8	12	HSB110	6.000	125	1	3	15.75	48	13	25	19.1	10	25	2.438
C147-725	1425	14	7	11 5/8	12	HSB110	6.000	125	1	3	17.75	48	13	25	19.1	10	25	2.438
C128-725	1550	12	8	11 5/8	12	HSB110	6.000	125	1.25	4	15.75	48	13	25	19.1	9	25	2.438
C148-725	1828	14	8	11 5/8	12	HSB110	6.000	125	1.25	4	17.75	48	13	25	19.1	9	25	2.438
C168-725	2110	16	8	11 5/8	12	HSB110	6.000	125	1.5	4.5	19.75	48	13	25	19.1	9	25	2.438
C188-725	2365	18	8	11 5/8	12	HSB110	6.000	125	1.5	4.5	22.75	48	13	25	19.1	9	25	2.438
C208-725	2800	20	8	11 5/8	12	HSB833	6.000	125	1.5	4.5	24.75	48	13	25	19.1	9	25	2.438
C248-725	3400	24	8	11 5/8	12	HSB833	6.000	125	1.5	4.5	28.75	48	13	25	19.1	9	25	3.000
C2010-725	3900	20	10	11 5/8	12	HSB833	6.000	125	2	4.5	24.75	54	13	25	19.1	9	25	3.000
C2410-725	4670	24	10	11 5/8	12	HSB833	6.000	125	2	4.5	28.75	54	13	25	19.1	9	25	3.000

All Dimensions in inches.
Max. CFH capacity is at 75% bucket load.
Consult Martin for head shaft size and horsepower requirements.
Other chain may be substituted based on chain pull requirements.

Continuous Discharge Belt

Series 700 Belt (Series 800 is for Head Take-up)

Continuous discharge belt type elevators will handle various free-flowing dry or sluggish materials which contain medium to large lumps and are mildly, moderately, or extremely abrasive.

Buckets

Capacities listed are for a medium front, non-overlapping style fabricated steel bucket. High front style buckets are available. Consult the factory for a specific recommendation.

Belt

Continuous discharge belt type elevators are typically furnished with 100% polyester carcass PVC belting or rubber covered ply belts specifically designed for elevator service. Many other types of belt and covers are available.

Elevator	Capacity	Buckets				Belt		Lump Size		Nominal Casing Size		Head Pulley		Boot Pulley	
	Max CFH	Width	Proj.	Depth	Spacing	Width	F.P.M.	100%	10%	Width	Depth	Pitch Dia.	RPM	Pitch Dia.	Shaft Dia.
B85-720	760	8	5	7.75	8	8	160	.75	2.5	11.75	39	20.00	29.8	14	1.500
B105-720	975	10	5	7.75	8	11	160	.75	2.5	13.75	39	20.00	29.8	16	2.000
B107-724	1300	10	7	11.625	12	11	160	1	3	13.75	48	24.00	24.9	20	2.000
B127-724	1570	12	7	11.625	12	13	160	.75	3	15.75	48	24.00	24.9	20	2.438
B147-724	1825	14	7	11.625	12	15	160	1	3	17.75	48	24.00	24.9	20	2.438
B128-724	1980	12	8	11.625	12	13	160	1.25	4	15.75	48	24.00	24.9	20	2.438
B148-724	2340	14	8	11.625	12	15	160	1.25	4	17.75	48	24.00	24.9	20	2.438
B168-724	2700	16	8	11.625	12	17	160	1.25	4.5	19.75	48	24.00	24.9	20	2.438
B188-724	3025	18	8	11.625	12	19	160	1.5	4.5	22.75	48	24.00	24.9	20	2.438
B208-724	3560	20	8	11.625	12	21	160	1.5	4.5	24.75	48	24.00	24.9	20	2.438
B248-724	4320	24	8	11.625	12	25	160	1.5	4.5	26.75	48	24.00	24.9	20	3.000
B2010-724	4970	20	10	11.625	12	21	160	1.5	4.5	24.75	54	24.00	24.9	20	3.000
B2410-724	5975	24	10	11.625	12	25	160	1.5	4.5	28.75	60	24.00	24.9	20	3.000

All Dimensions in inches.
Max. CFH capacity is at 75% bucket load.
Consult Martin for head shaft size and horsepower requirements.

High-Speed Grain Centrifugal Discharge

Series 500 Belt

The High-Speed centrifugal discharge type elevator is specifically designed to handle free flowing dry materials such as 48 lb. grains which have a small lump size and are mildly abrasive.

Buckets

Capacities and horsepower listed are for style "HD-MAX" buckets. Other style and materials of construction can be supplied. Consult factory for a specific recommendation.

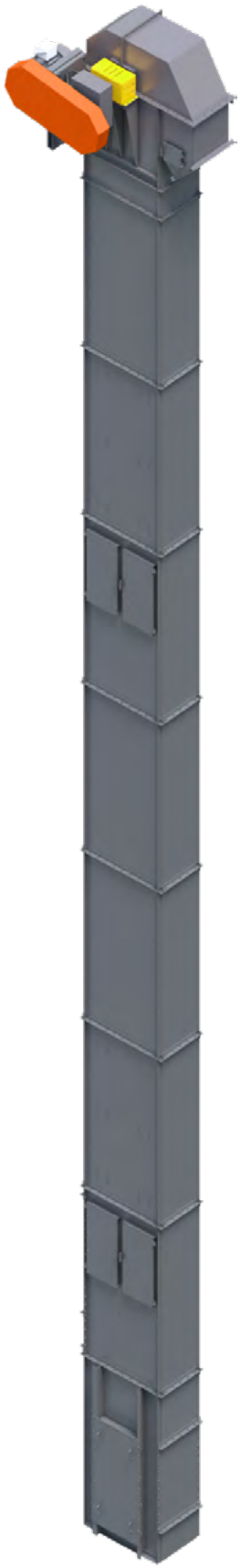
Belt

Centrifugal discharge High-Speed Grain elevators are supplied with 100% polyester carcass PVC belting or rubber covered belts specially designed for elevator service. Many other types of belts and covers are available

Part Number	No. Bucket Rows	Capacity				Buckets Standard Duty Plastic				Belt Width	Pulley Width	Head Pulley Diam.	Boot Pulley Diam.
		C.F.H.		At Speed									
		@ "Y-Y +5 Deg." Max. Useable	@ "Y - Y" (W.L.)	Belt RPM	H.S. RPM	Typical Style	Width	Proj.	Spacing				
B64-508 *	1	782	697	265	119	HD-MAX	6.250	4.500	7	7	7	8	8
B65-512A	1	1,079	980	350	107	HD-MAX	6.250	5.625	10	7	8	12	12
B65-512B	1	1,541	1,400	350	107	HD-MAX	6.250	5.625	7	7	8	12	12
B95-518A	1	1,853	1,640	440	90	HD-MAX	9.375	5.625	12	10	11	18	18
B95-518B	1	2,470	2,187	440	90	HD-MAX	9.375	5.625	9	10	11	18	18
B95-518C	1	3,176	2,812	440	90	HD-MAX	9.375	5.625	7	10	11	18	18
B96-524	1	3,974	3,600	460	70	HD-MAX	9.375	6.625	8	10	11	24	24
B96-530	1	4,406	3,991	510	63	HD-MAX	9.375	6.625	8	10	11	30	30
B106-530	1	4,931	4,534	510	63	HD-MAX	10.375	6.625	8	11	12	30	30
B136-530	1	6,388	5,864	510	63	HD-MAX	13.375	6.625	8	14	15	30	30
B127-536	1	8,879	8,123	600	62	HD-MAX	12.500	7.750	9	13	15	36	36
B147-536	1	10,747	9,900	600	62	HD-MAX	14.500	7.750	9	15	16	36	36
B167-536	1	12,000	11,289	600	62	HD-MAX	16.500	7.750	9	17	19	36	36
B168-542	1	14,751	13,798	620	55	HD-MAX	16.500	8.750	10	17	19	42	42
B188-542	1	16,740	15,764	620	55	HD-MAX	18.500	8.750	10	20	22	42	42
B2108-548	2	20,648	19,164	700	55	HD-MAX	10.500	8.750	10	22	24	48	48
B2138-548	2	26,412	23,706	700	55	HD-MAX	13.500	8.750	10	28	30	48	48
B2168-548	2	33,314	31,681	700	55	HD-MAX	16.500	8.750	10	34	36	48	48
B2188-548	2	37,800	35,595	700	55	HD-MAX	18.500	8.750	10	38	40	48	48
B3168-548	3	49,971	47,521	700	55	HD-MAX	16.500	8.750	10	50	52	48	48
B4158-548	4	63,222	59,652	700	55	HD-MAX	15.500	8.750	10	62	64	48	48
B4188-548	4	75,600	71,190	700	55	HD-MAX	18.500	8.750	10	74	76	48	48

* Single Leg Intermediate Casing: 50' maximum height.
Head shaft diameter to be determined by customer's application and specifications.
Plastic buckets are available as Nylon, HDP or Urethane. Steel is available on special request.

Super Capacity
Continuous Discharge Chain



Series SC Chain Elevator

- Built to handle friable, heavy or abrasive materials typical of the aggregate and cement industries.
- Buckets are mounted between two strands of chain and project back towards the center of the elevator thus carry a much larger capacity and larger lump sizes because of their deeper design.
- The SC elevator's continuous discharge design allows for the operation of the elevator at much slow speeds greatly increasing chain and sprocket life.
- As a result of the increased life of wear components, maintenance costs are reduced.
- Higher shaft centers is also a benefit of the Martin SC elevator's double chain design.
- The Super-Capacity elevator is designed to handle Free-Flowing materials with particles ranging from fines up to heavy lumps.

Super Capacity Elevator w SC Buckets SC Series Double Chain

Elevator	Max CFH Capacity	Bucket	Spac-ing	Chain	Speed	Lump Size	Casing Size	Head Wheel	RPM	Boot Sprocket	Shaft Diam.
SC31-128	2250	12 × 8.75 × 11.625	12	6102 1/2	100	2 to 4	26 × 56	31.36	12.2	8T-31.36PD	2.438
SC31-148	2700	14 × 8.75 × 11.625	12	6102 1/2	100	2 to 4	28 × 56	31.36	12.2	8T-31.36PD	2.438
SC31-168	3150	16 × 8.75 × 11.625	12	6102 1/2	100	2.5 to 6	30 × 56	31.36	12.2	8T-31.36PD	3
SC31-188	3600	18 × 8.75 × 11.625	12	6102 1/2	100	2.5 to 6	32 × 56	31.36	12.2	8T-31.36PD	3
SC31-208	4050	20 × 8.75 × 11.625	12	6102 1/2	100	2.5 to 6	34 × 56	31.36	12.2	8T-31.36PD	3
SC35-1612	5625	16 × 12.75 × 17.625	18	9124	125	3.5 to 8	33 × 68	34.77	13.7	12T-34.77PD	3
SC35-2012	7125	20 × 12.75 × 17.625	18	9124	125	3.5 to 8	37 × 68	34.77	13.7	12T-34.77PD	3
SC35-2412	8250	24 × 12.75 × 17.625	18	9124	125	3.5 to 8	41 × 68	34.77	13.7	12T-34.77PD	3.438
SC35-3012	10500	30 × 12.75 × 17.625	18	9124	125	3.5 to 8	47 × 68	34.77	13.7	12T-34.77PD	3.438
SC35-3612	12375	36 × 12.75 × 17.625	18	9124	125	3.5 to 8	53 × 68	34.77	13.7	12T-34.77PD	3.438
SC35-4212	14450	42 × 12.75 × 17.625	18	9150	125	3.5 to 8	60 × 68	34.77	13.7	12T-34.77PD	3.438
SC35-4812	16500	48 × 12.75 × 17.625	18	9150	125	3.5 to 8	66 × 68	34.77	13.7	12T-34.77PD	3.438

Notes: 6102 1/2 Chain is 12 Pitch
9124 Chain is 9 Pitch
9150 Chain is 9 Pitch

All Dimensions in inches.
Max. CFH capacity is at 75% bucket load.
Consult Martin for head shaft size and horsepower requirements.
Other chain may be substituted based on chain pull requirements.

Mill Duty
Centrifugal Discharge Chain

Series MDC Mill Duty Elevator with AC Buckets

- Built for the severe duty required of industries like cement, rock, lime, and gypsum.
- Buckets are mounted to a single chain in a continuous sequence.
- Material in fed directly into the bucket to minimize digging action, reducing wear and horsepower requirements.
- Centrifugal force causes discharge of buckets as they pass over head wheel.
- Designed to handle free-flowing material with particles ranging from fines up to 2" lumps.
- Most commonly supplied with a heavy duty steel rollerless chain.

Mill Duty with AC Buckets & Chain - MDC Series

Elevator	Max CFH Capacity	Bucket	Spac-ing	Chain	Speed	Lump Size	Casing Size	Head Wheel	RPM	Boot Sprocket	Shaft Diam.
MDC26-128	2230	12 × 8 × 8.5	18	ER-856	265	Fines to 2	20 × 56	26	36	13T-25.07PD	3
MDC26-148	2625	14 × 8 × 8.5	18	ER-856	265	Fines to 2	22 × 56	26	36	13T-25.07PD	3
MDC26-128	3340	12 × 8 × 8.5	12	ER-856	265	Fines to 2	20 × 56	26	36	13T-25.07PD	3
MDC26-148	3935	14 × 8 × 8.5	12	ER-856	265	Fines to 2	22 × 56	26	36	13T-25.07PD	3
MDC26-168	4530	16 × 8 × 8.5	12	ER-856	265	Fines to 2	24 × 56	26	36	13T-25.07PD	3
MDC26-1810A	4930	18 × 10 × 10.5	18	ER-856	265	Fines to 2	26 × 64	26	36	13T-25.07PD	3
MDC26-2010A	5470	20 × 10 × 10.5	18	ER-856	265	Fines to 2	28 × 64	26	36	13T-25.07PD	3
MDC26-2410A	6760	24 × 10 × 10.5	18	ER-856	265	Fines to 2	32 × 64	26	36	13T-25.07PD	3
MDC26-1810B	7400	18 × 10 × 10.5	12	ER-859	265	Fines to 2	26 × 64	26	36	13T-25.07PD	3
MDC26-2010B	8200	20 × 10 × 10.5	12	ER-859	265	Fines to 2	28 × 64	26	36	13T-25-07PD	3
MDC26-2410B	10136	24 × 10 × 10.5	12	ER-859	265	Fines to 2	32 × 64	26	36	13T-25-07PD	3.438

Notes: 6102 1/2 Chain is 12 Pitch
9124 Chain is 9 Pitch
9150 Chain is 9 Pitch

All Dimensions in inches.
Max. CFH capacity is at 75% bucket load.
Consult Martin for head shaft size and horsepower requirements.
Other chain may be substituted based on chain pull requirements.

Mill Duty
Centrifugal Discharge Belt

Series MDB Mill Duty Elevator with AC Buckets

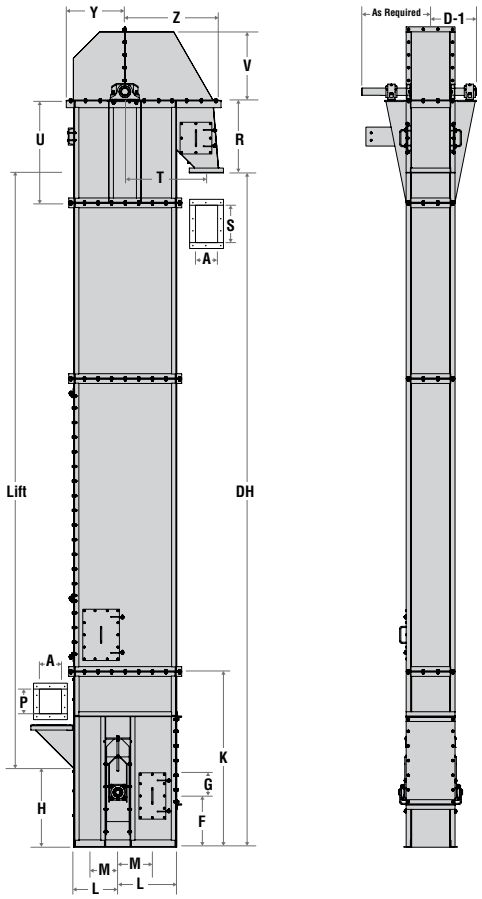
- Built for the severe duty required of industries like cement, rock, lime, and gypsum.
- Buckets are mounted to a single belt in a continuous sequence.
- Material in fed directly into the bucket to minimize digging action, reducing wear and horsepower requirements.
- Centrifugal force causes discharge of buckets as they pass over head pulley.
- Designed to handle free-flowing material with particles ranging from fines up to 2" lumps.
- Most commonly supplied with a heavy belt or steel web core belt.

Mill Duty with AC Buckets & Belt - MDB Series

Elevator	Max CFH Capacity	Bucket	Spacing	Belt	Speed	Lump Size	Casing Size	Head Wheel	RPM	Boot Sprocket	Shaft Diam.
MDB30-128A	2520	12 × 8 × 8.5	18	14	300	1.5 to 4	22 × 58	30.00	37.6	24.00	3.000
MDB30-148A	2970	14 × 8 × 8.5	18	16	300	1.5 to 4	24 × 58	30.00	37.6	24.00	3.000
MDB30-168A	3420	16 × 8 × 8.5	18	18	300	1.5 to 4	26 × 58	30.00	37.6	24.00	3.000
MDB30-128B	3780	12 × 8 × 8.5	12	14	300	1.5 to 4	22 × 58	30.00	37.6	24.00	3.000
MDB30-148B	4455	14 × 8 × 8.5	12	16	300	1.5 to 4	24 × 58	30.00	37.6	24.00	3.000
MDB30-168B	5130	16 × 8 × 8.5	12	18	300	1.5 to 4	26 × 58	30.00	37.6	24.00	3.000
MDB30-1810A	5580	18 × 10 × 10.5	18	20	300	2 to 5	28 × 64	30.00	37.6	24.00	3.000
MDB30-2010A	6190	20 × 10 × 12.5	18	22	300	2 to 5	30 × 64	30.00	37.6	24.00	3.000
MDB30-2410A	7650	24 × 10 × 10.5	18	26	300	2 to 5	34 × 64	30.00	37.6	24.00	3.000
MDB30-1810B	8370	18 × 10 × 10.5	12	28	300	2 to 5	28 × 64	30.00	37.6	24.00	3.000
MDB30-2010B	9290	20 × 10 × 10.5	12	30	300	2 to 5	30 × 64	30.00	37.6	24.00	3.000
MDB30-2410B	11475	24 × 10 × 10.5	12	34	300	2 to 5	34 × 64	30.00	37.6	24.00	3.475
MDB30-1610DR	12500	16 × 10 × 10.5	12	34	275	1.5 to 4	42 × 64	30.00	34.4	30.00	3.475
MDB30-1810DR	15345	18 × 10 × 10.5	12	38	275	2 to 4.5	46 × 64	30.00	34.4	30.00	3.475
MDB30-2010DR	17030	20 × 10 × 10.5	12	42	275	2.5 to 4.75	50 × 64	30.00	34.4	30.00	3.475
MDB30-2410DR	21040	24 × 10 × 10.5	12	50	275	2.5 to 4.75	58 × 64	30.00	34.4	30.00	3.475

All Dimensions in inches.
Max. CFH capacity is at 75% bucket load.
Consult Martin for head shaft size and horsepower requirements.
Other chain may be substituted based on chain pull requirements.

Dimensions of Standard Elevators

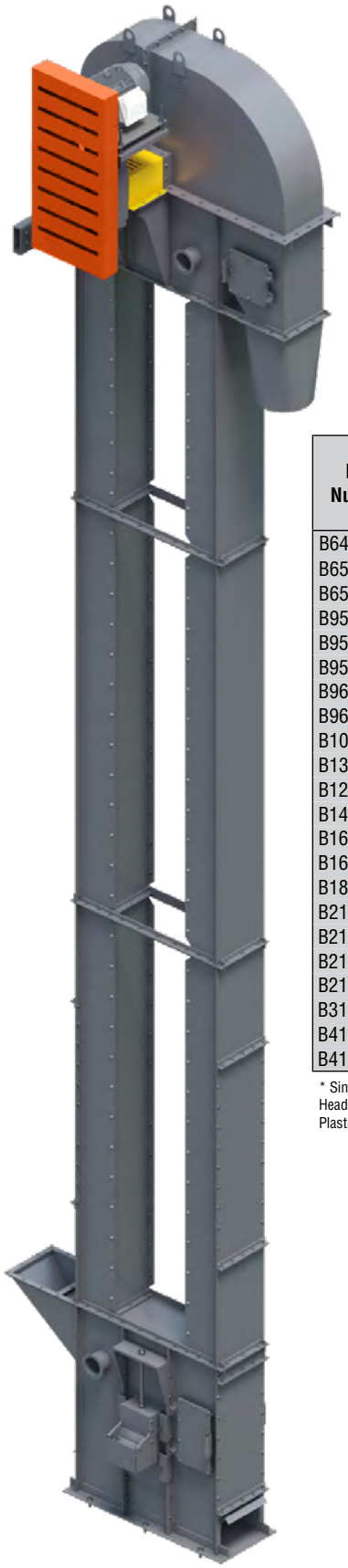


Standard Elevator - 100 & 200 Series

Elevator Number				Casing		Boot								Head								
Chain Series 100	Belt Series 700	Belt Series 100	Chain Series 700	A	B	F	G	H	J	K	L	M	N	P	R	S	T	U	V	Y	Z	D-1
C43-108	–	B43-108	–	8	18	9	6	27.25	36.75	42	9	6	10	6	15	8	17.5	36	14	9	20.25	13
C64-121	–	B64-124	–	11.75	39	14	9	26.5	43	72	19.5	16.5	15.5	13	31.5	10	30.5	42	21.5	19.5	32.5	14
C85-121	B85-720	–	C85-721	11.75	39	14	9	26.5	43	72	19.5	16.5	15.5	13	31.5	10	30.5	42	21.5	19.5	32.5	14
–	B105-720	B85-120	C105-721	13.75	39	14	9	26.5	43	72	19.5	16.5	17.5	13	31.5	10	30.5	42	21.5	19.5	32.5	15
C85-124	–	B85-124	–	13.75	42	16	9	32.5	50	72	21	18	17.5	13	32.5	10	33.25	42	24	21	36.25	15.5
C106-124	B107-724	–	C107-725	13.75	48	19	9	40.5	60	72	24	21	17.5	15	35.75	13	36.5	48	27.5	24	40.625	16
C127-125	B127-724 B128-724	B106-124	C127-725 C128-725	15.75	48	19	9	40.5	60	72	24	21	19.5	15	35.75	13	36.5	48	27.5	24	40.625	17
–	–	B127-124S	–	28	66	26	10	29.75	60.5	72	32	29	30.5	26.5	36	17	46.5	48	36.5	32	53	24
–	B147-724 B148-724	B127-130	C147-725 C148-725	17.75	48	19	10	40.5	60	72	24	21	21.5	15	35.75	13	36.5	48	27.5	24	40.625	18
C127-131	–	–	–	17.75	54	21	10	36	60.5	72	27	24	21.5	17	38.25	17	41.5	48	31	27	45	19.25
–	B168-724	–	C168-725	19.75	48	20	10	40.5	60	72	24	21	23.5	15	35.75	13	36.5	48	27.5	24	40.625	16
C147-131	–	B147-130	–	19.75	54	21	10	39	60.5	72	27	24	23.5	17	38.25	17	41.5	48	31	27	45	20
–	B188-724		C188-725	22.75	48	19	10	40.5	60	72	24	21	26.5	15	35.75	13	36.5	48	27.5	24	40.625	21
C168-131	–	B168-130	–	22.75	54	21	10	39	60.5	72	27	24	26.5	17	38.25	17	41.5	48	31	27	45	22
–	B208-724	–	C208-725	24.75	48	19	10	40.5	60	72	24	21	28.5	19	35.25	13	36.5	48	27.5	24	40.625	22
C188-131 C208-131	B2010-724	B188-130	C2010-725	24.75	54	21	10	40.5	60.5	72	27	24	28.5	19	38.25	17	41.5	48	31	27	45	23
–	B248-724	–	C248-725	28.75	48	19	10	39	60	72	24	21	32.5	22.5	35.25	13	36.5	48	27.5	24	40.625	24
C248-131	–	B208-130	C2410-725	28.75	54	21	10	40.5	60.5	72	27	24	32.5	22.5	38.25	17	41.5	48	31	27	45	25
C2410-131	B2410-724	B2410-130	–	30.75	60	23	10	38	60.5	72	29	27	34.5	22.5	40	21	46.5	60	31	30	52	26

All Dimensions in inches.
① NOT certified for construction.
② Normal maximum for largest head shaft listed.
For units not shown, contact Martin.

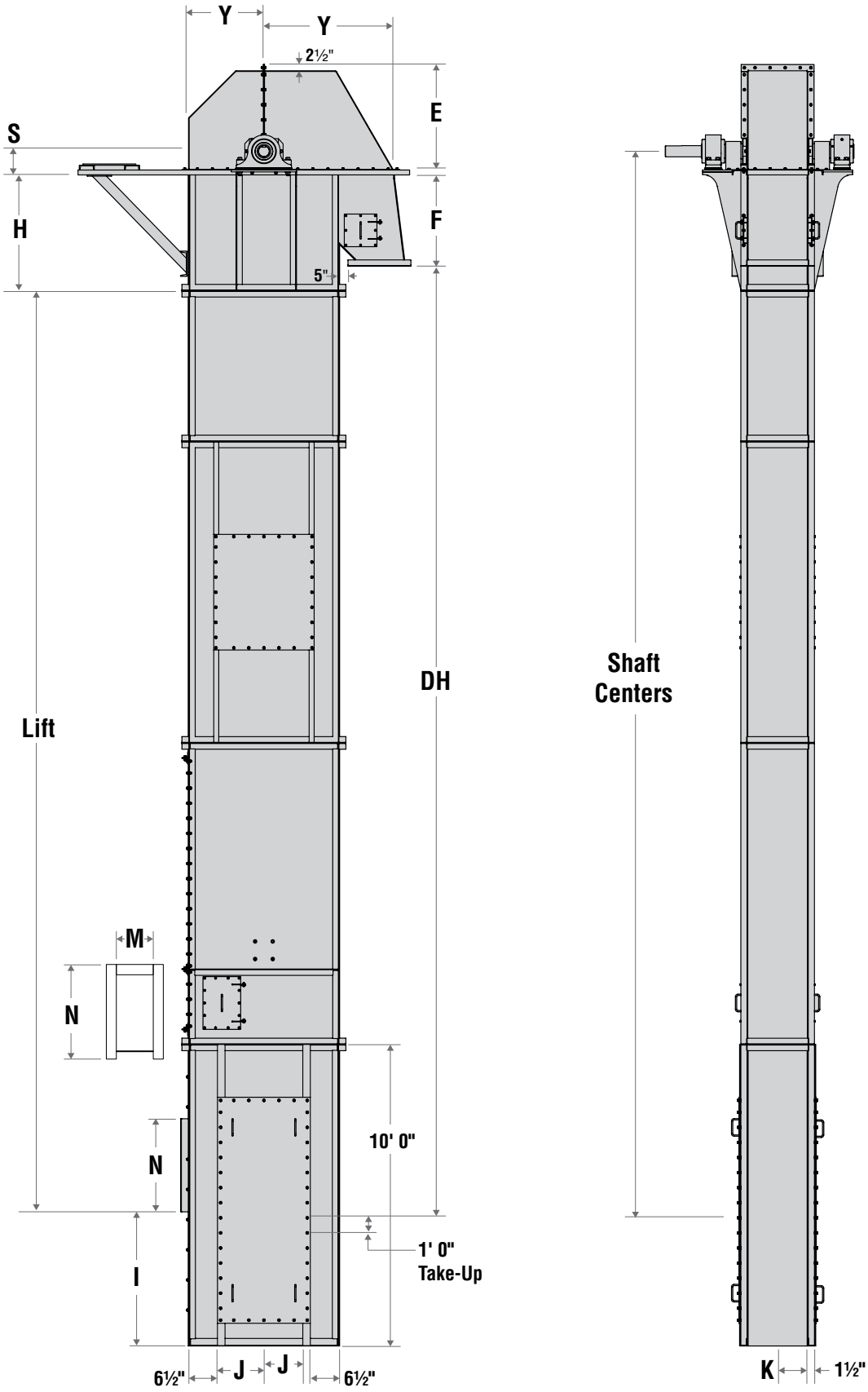
Dimensions of High-Speed Grain Elevators



Part Number	Boot Shaft Diam.	External Casing Dimensions		Intermediate Casing Dimensions		Casing Thicknesses			Inlet Height Diam.
		Depth "C"	Width "A"	Depth "C"	Width "B"	Head	Boot	Int.	
B64-508 *	1.188	8	20	8	20*	12 ga.	12 ga.	12 ga.	30
B65-512A	1.438	9	27	9	8	12 ga.	12 ga.	12 ga.	32
B65-512B	1.438	9	27	9	8	12 ga.	12 ga.	12 ga.	32
B95-518A	1.438	12	34	12	9	12 ga.	10 ga.	12 ga.	39
B95-518B	1.438	12	34	12	9	12 ga.	10 ga.	12 ga.	39
B95-518C	1.438	12	34	12	9	12 ga.	10 ga.	12 ga.	39
B96-524	1.938	13	42	13	10	10 ga.	10 ga.	12 ga.	44
B96-530	1.938	15	48	15	10	10 ga.	3/16"	12 ga.	48
B106-530	1.938	15	48	15	10	10 ga.	3/16"	12 ga.	48
B136-530	1.938	18	48	18	10	10 ga.	3/16"	12 ga.	48
B127-536	2.438	18	56	18	11	10 ga.	3/16"	12 ga.	56
B147-536	2.438	21	56	21	11	10 ga.	3/16"	12 ga.	56
B167-536	2.438	21	56	21	11	10 ga.	3/16"	12 ga.	56
B168-542	2.438	23	68	23	14	3/16"	3/16"	12 ga.	72
B188-542	2.438	26	68	26	14	3/16"	3/16"	12 ga.	72
B2108-548	2.938	28	74	28	14	3/16"	1/4"	10 ga.	76
B2138-548	2.938	34	74	34	14	3/16"	1/4"	10 ga.	76
B2168-548	2.938	40	74	40	14	3/16"	1/4"	10 ga.	76
B2188-548	3.438	44	74	44	14	3/16"	1/4"	10 ga.	76
B3168-548	3.438	56	74	56	14	3/16"	1/4"	10 ga.	76
B4158-548	3.438	68	74	68	14	3/16"	1/4"	10 ga.	76
B4188-548	3.438	80	74	80	14	3/16"	1/4"	10 ga.	76

* Single Leg Intermediate Casing: 50' maximum height.
Head shaft diameter to be determined by customer's application and specifications.
Plastic buckets are available as Nylon, HDP or Urethane. Steel is available on special request.

Dimensions of Super Capacity & Mill Duty Elevator



Dimensions of Super Capacity & Mill Duty Elevator

Super Capacity Elevator with SC Buckets & Double Chain – SC Series

Elevator Number	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
SC31-128	26	56	28	48	34.5	47	44.25	60	56	25	14.750	17	8	20	23
SC31-148	28	56	28	48	34.5	47	44.25	60	56	25	15.750	17	10	20	24
SC31-168	30	56	28	48	34.5	47	44.25	60	56	25	16.750	17	11	20	25.625
SC31-188	32	56	28	48	34.5	47	44.25	60	56	25	17.750	17	8	20	26.625
SC31-208	34	56	28	48	34.5	47	44.25	60	56	25	18.750	17	10	20	27.625
SC35-1612	33	68	32	52	41.5	52	50.25	60	60	28	18.25	17	12	22	27.125
SC35-2012	37	68	32	52	41.5	52	50.25	60	60	28	20.25	17	13	22	29.125
SC35-2412	41	68	32	52	41.5	52	50.25	60	60	28	22.25	17	16	22	31.875
SC35-3012	47	68	32	52	41.5	52	50.25	60	60	28	25.25	17	12	22	34.875
SC35-3612	53	68	32	52	41.5	52	50.25	60	60	28	28.25	17	13	22	37.875
SC35-4212	60	68	32	52	41.5	52	50.25	60	60	28	31.750	17	16	22	41.375
SC35-4812	66	68	32	52	41.5	52	50.25	60	60	28	34.750	17	20	22	44.375

All Dimensions in inches.
Dimensions not certified for construction.
R & S dimensions dependent on head shaft size and reducer selection.
P will vary with shaft dimension.

Mill Duty Elevator with AC Buckets & Chain – MDC Series

Elevator Number	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
MDC26-128A	20	56	28	48	34.5	47	44.25	60	56	34.75	11.75	17	9	20	19
MDC26-148A	22	56	28	48	34.5	47	44.25	60	56	34.75	12.75	17	11	20	21
MDC26-128B	20	56	28	48	34.5	47	44.25	60	56	34.75	11.75	17	9	20	19
MDC26-148B	22	56	28	48	34.5	47	44.25	60	56	34.75	12.75	17	11	20	21
MDC12-168B	24	56	28	48	34.5	47	44.25	60	56	34.75	13.75	17	12	20	22
MDC26-1810A	26	64	32	52	41.5	52	48.25	60	60	38.75	14.75	17	14	20	23
MDC26-2010A	28	64	32	52	41.5	52	48.25	60	60	38.75	15.75	17	15	20	24
MDC26-2410A	32	64	32	52	41.5	52	48.25	60	60	38.75	17.75	17	18	20	26
MDC26-1810B	26	64	32	52	41.5	52	48.25	60	60	38.75	14.75	17	14	20	23
MDC26-2010B	28	64	32	52	41.5	52	48.25	60	60	38.75	15.75	17	15	20	24
MDC26-2410B	32	64	32	52	41.5	52	48.25	60	60	38.75	17.75	17	18	20	26

All Dimensions in inches.
Dimensions not certified for construction.
R & S dimensions dependent on head shaft size and reducer selection.
P will vary with shaft dimension.

Mill Duty Elevator with AC Buckets & Belt – MDB Series

Elevator Number	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
MDB30-128A	22	58	29	49	34.5	47	45.25	60	56	35.75	12.75	17	9	20	20
MDB30-148A	24	58	29	49	34.5	47	45.25	60	56	35.75	13.75	17	11	20	22
MDB30-168A	26	58	29	49	34.5	47	45.25	60	56	35.75	14.75	17	12	20	23
MDB30-128B	22	58	29	49	34.5	47	45.25	60	56	35.75	12.75	17	9	20	20
MDB30-148B	24	58	29	49	34.5	47	45.25	60	56	35.75	13.75	17	11	20	22
MDB30-168B	26	58	29	49	34.5	47	45.25	60	56	35.75	14.75	17	12	20	23
MDB30-1810A	28	64	32	52	41.5	52	48.25	60	60	38.75	15.75	17	14	20	24
MD30-2010A	30	64	32	52	41.5	52	48.25	60	60	38.75	16.75	17	15	20	26
MDB30-2410A	34	64	32	52	41.5	52	48.25	60	60	38.75	18.75	17	18	20	23
MDB30-1810B	28	64	32	52	41.5	52	48.25	60	60	38.75	15.75	17	14	20	24
MDB30-2010B	30	64	32	52	41.5	52	48.25	60	60	38.75	16.75	17	15	20	26
MDB30-2410B	34	64	32	52	41.5	52	48.25	60	60	38.75	18.75	17	18	20	27
MDB30-1610DR	42	64	32	52	41.5	52	48.25	60	60	38.75	22.75	17	18	20	32
MDB30-1810DR	46	64	32	52	41.5	52	48.25	60	60	38.75	24.75	17	21	20	34
MDB30-2010DR	50	64	32	52	41.5	52	48.25	60	60	38.75	26.75	17	22	20	36
MDB30-2410DR	58	64	32	52	41.5	52	48.25	60	60	38.75	30.75	17	26	20	40

All Dimensions in inches.
Dimensions not certified for construction.
R & S dimensions dependent on head shaft size and reducer selection.
P will vary with shaft dimension.

Head Service Platforms
Series 100 thru 800

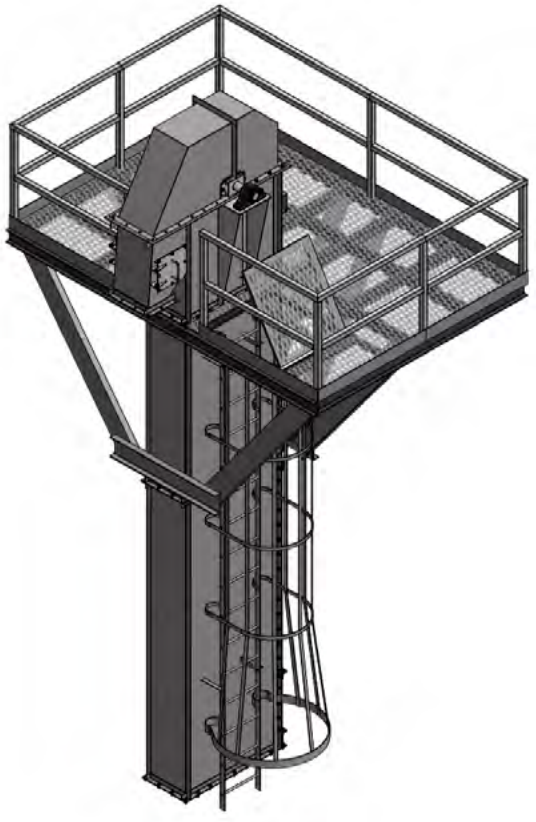
Head Platforms: Series 100 thru 800

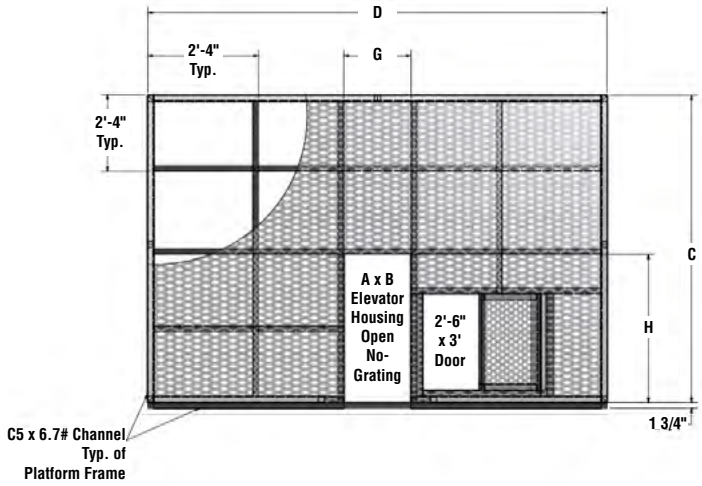
Martin head section service platforms consist of:

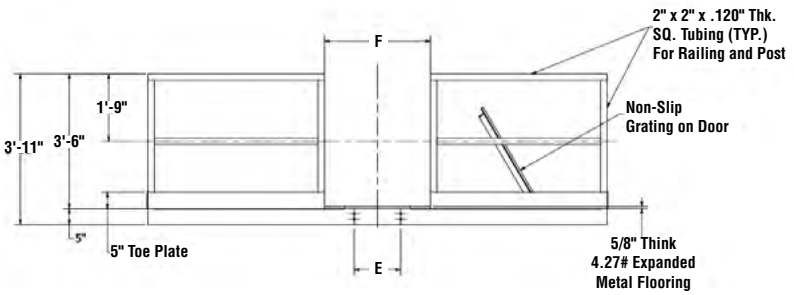
- Heavy structural steel frames
- Square tube handrail
- Heavy non-skid grating
- Toe plates

The platform is entirely supported by the elevator casing. Drives should be mounted on an integral support or be of a shaft mounted type. **Drives should not be mounted on the service platform.**

Martin ladders / safety cages are designed to bolt to the elevator housing. They are constructed of heavy gauge steel and sized to provide easy access to platforms. Rest platforms are also available and required at 30' intervals.







Casing Size		C	D	E	F	G	H
A	B						
11.75"	39"	8' - 0"	11' - 9"	A + 2.5"	A + 12.75"	A + .5"	B + .5"
13.75"	39"						
13.75"	42"						
15.75"	48"	8' - 0"	11' - 9"				
17.75"	48"						
19.75"	48"						
22.75"	48"						
24.75"	48"						
17.75"	54"	10' - 0"	11' - 9"				
19.75"	54"						
22.75"	54"						
24.75"	54"						
26.75"	54"	10' - 0"	12' - 0"				
28.75"	48"						
30.75"	54"						

Dimensions shown in the above table are for standard platforms only.
Platforms for elevators having large shafts, bearings, backstops or uselessly large drives will need to be designed and are made-to-order.
Note: Dimensions are subject to change and not for construction.
Casing Thickness: Casing thickness will vary with casing size and application.

Buckets

For more than 50 years, Martin has specialized in bucket elevators and other material handling solutions. Martin elevator buckets may be fabricated from many readily available materials such as mild steel or, stainless steel. They may also be cast in ductile iron or produced from a variety of non-metallic materials such as nylon, uhmw, polyurethane, or urethane. Whether you have a centrifugal elevator, continuous elevator, super capacity elevator, or a high speed grain elevator, we can provide the right bucket, at the right price, right when you need it.

Martin builds replacement buckets for existing bucket elevator equipment:

Standard Buckets:

- Direct from our catalog
- Built to industry standards for a precise fit
- Custom or specialty buckets built to exact specification:
- Our knowledgeable sales engineers and specialists will assist you in finding the best custom solution for your specific application and help you navigate the many factors that may affect your final design and cost.

Reverse Engineered:

- Send us your bucket, our team of engineers, designers, and manufacturing experts will reverse engineer and build an exact duplicate for your application

Frequently Asked Questions:

Why a fabricated metallic bucket?

- They resist flexing and bending under load.
- They have much greater heat resistance.
- Resistant to damage from extremely sharp materials
- Fabricated metallic buckets are versatile, easy to modify for specific applications.
  - » A double thick front lip may be added for longer life when scooping or digging material.
  - » Available in wide range of long-lasting materials including abrasion resistant front plate and corrosion resistant alloys.
  - » Hard surfacing such as tungsten carbide or chromium carbide may be applied to wear faces and edges.
  - » Vent holes and mounting holes may be precut into the body before forming.
- Martin fabricated buckets are typically laser cut and continuously welded for precision, strength, and durability.
- Fabricated metallic buckets are lighter weight than cast ductile iron, which may allow use of less expensive drive units and lighter components, lowering overall cost.

Why a molded non-metallic bucket?

- Light weight
- Lower initial cost
- Flexible body, good for sticky products or material that may tend to pack.
- Abrasion and corrosion resistant varieties available.

Why use a cast iron elevator bucket?

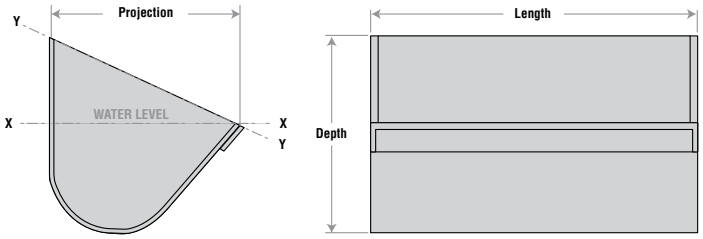
- Good abrasion and impact resistance.
- Typically used as "digger buckets" to loosen material in the bottom of a bucket elevator.
- Digger buckets are frequently spaced at uniform intervals between standard buckets. They have larger overall dimensions than standard buckets and help loosen material in the boot section and clear the way for the standard buckets.
- Ductile iron has good general corrosion and rust resistance.

What items are commonly purchased with buckets?

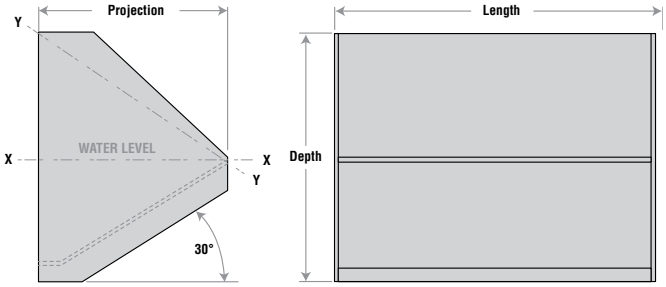
- Belt installations:
  - » Saber-tooth norway bolts with fender washer and lock nut.
  - » Belt splice kit to bind the ends of the belt.
  - » Belt punch to produce holes for mounting the belt splices.
- Chain installations:
  - » Hex head assembly bolts with double flat washer and hex nut.

Nomenclature

CENTRIFUGAL STYLE



CONTINUOUS STYLE



AA	–	8	5	5	–	10	–	B6	–	
Type		Length	Projection	Depth		Thickness		Punching		Material

Bucket Nomenclature definitions:

Bucket Type

- Centrifugal – **AA, AC, C**
- Continuous – **MF, HF, SC**

Dimensions – Whole numbers only, rounded down. Examples:

- 5.5" would be 5
- 7 5/8" would be **7**

Thickness – Only for metal buckets. Do not call out thickness on plastic buckets.

- Sheet metal gauge – **16, 14, 12, 10**
- Sheet metal plate
  - » 3/16" = **7**
  - » 1/4" = **3**
  - » > 1/4" = thickness x 64 (Ex. 3/8 = **24**)

Punching

- Belt Punching* – **B1, B3, B4, B5, B6, B7, B8**
- Chain Punching – Chain and attachment (ex. **R110K2**)

** See Bucket Punching on page H-152*

Material – Carbon steel is the default. You do not have to designate carbon steel.

- Material other than carbon steel:

  SS = 304 Stainless

  S6 = 316 Stainless

  NY = Nylon

  UR = Urethane

  Poly = Polyurethane

  DI = Ductile Iron

Style AA
Centrifugal

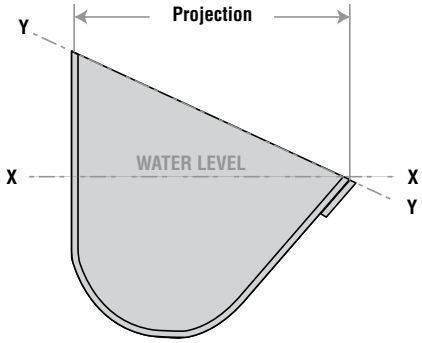
What is the Martin AA Bucket?

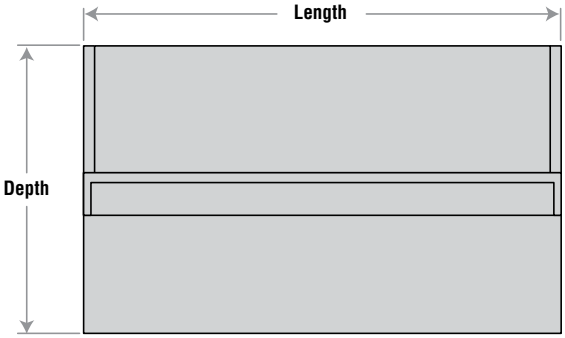
AA Style Buckets are centrifugal style generally used for dry, moderately free-flowing material that is not easily damaged. The smooth, curved bottom and angled front face of the AA Style Bucket provides efficient product discharge. AA Buckets typically do some "digging" during operation and therefore have a reinforced front edge for longer life. AA Buckets often mount to a reinforced multi-ply elevator belt but may also mount to chain.

Some common materials of construction are mild steel, stainless steel, AR plate and molded plastic models.

Typical Applications:

- Sand
- Rock
- Aggregate
- Stone
- Fertilizer
- Clay
- Salt
- Coal
- Other Similar Granular Material





STANDARD BUCKET SIZE **	LENGTH (In)	PROJECTION (In)	DEPTH (In)	X-X (WATER LEVEL) CAPACITY ft³	Y-Y (100% FILL) CAPACITY ft³	EMPTY WT.* (lb)		
						10GA	3/16"	1/4"
4 X 3	4	2 3/4	3	.006	.01	1.50	1.95	-
6 X 4	6	4	4 1/4	.02	.03	3.02	3.96	5.27
8 X 5	8	5	5 1/2	.04	.07	5.33	7.06	9.39
10 X 6	10	6	6 1/4	.07	.12	7.37	9.79	13.02
12 X 7	12	7	7 1/4	.12	.19	10.42	13.93	18.53
14 X 8	14	8	8 1/2	.20	.32	13.90	18.64	24.80
16 X 7	16	7	7 1/4	.16	.26	13.03	17.47	23.24
16 X 8	16	8	8 1/2	.23	.34	15.41	20.67	27.49
18 X 8	18	8	8 1/2	.26	.40	16.92	22.70	30.19
18 X 10	18	10	10 1/2	.33	.63	21.48	28.88	38.41
20 X 10	20	10	10 1/2	.45	.70	22.19	30.35	40.20
24 X 10	24	10	10 1/2	.54	.84	25.67	35.10	46.52

** Contact Martin for sizes not listed
* Estimated weight based on welded steel.
Price is affected by material type and thickness.

AA Buckets are NOT continuous buckets.

Style AC Centrifugal

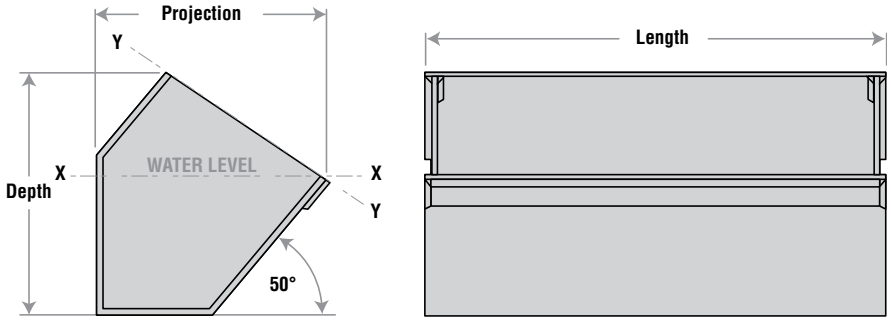
What is the Martin AC Bucket?

AC or Added Capacity style buckets are centrifugal style used for dry, free flowing to moderately free flowing, material that is not easily damaged. AC style elevator buckets have a high front for increased capacity. The angled front face and hooded back allows for closer mounting. Optional vent holes can help efficiently fill and discharge material. AC buckets may perform some "digging" of product in the elevator boot during operation. They can mount to a reinforced multi-ply elevator belt, or to a chain

Some common materials of construction are mild steel, stainless steel and AR plate.

Typical Applications:

- Asphalt
- Aggregate
- Ore
- Shale
- Cement
- Clinker
- Coal
- Other Similar Material



STANDARD BUCKET SIZE **	LENGTH (In)	PROJECTION (In)	DEPTH (In)	X-X (WATER LEVEL) CAPACITY ft³	Y-Y (100% FILL) CAPACITY ft³	EMPTY WT.* (lb)	
						3/16"	1/4"
12 X 8 X 8	12	8	8 1/2	.231	.303	18.25	24.30
14 X 8 X 8	14	8	8 1/2	.271	.356	20.30	27.00
16 X 8 X 8	16	8	8 1/2	.311	.408	22.48	29.98
18 X 10 X 10	18	10	10 1/2	.488	.691	31.15	38.95
20 X 10 X 10	20	10	10 1/2	.542	.768	33.68	42.10
24 X 10 X 10	24	10	10 1/2	.651	.921	39.67	52.69
27 X 12 X 12	27	12	12 1/2	1.072	1.474	53.84	71.46

** Contact Martin for sizes not listed
* Estimated weight based on welded steel.
Price is affected by material type and thickness.

AC Buckets are NOT continuous buckets.

Style C
Centrifugal

What is the Martin C Bucket?

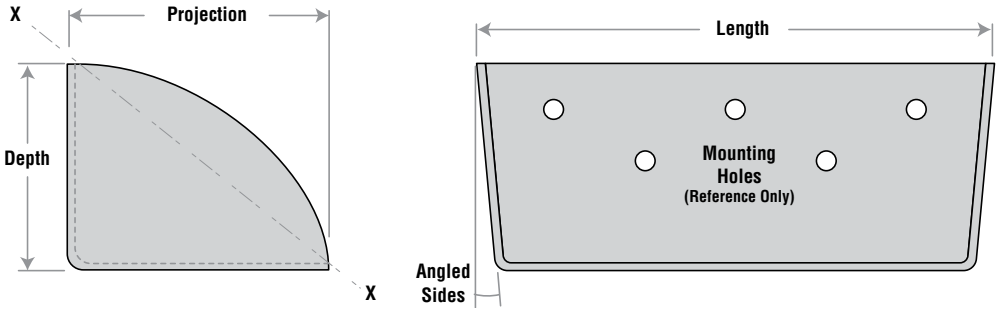
C Style Elevator Buckets are a centrifugal style bucket. They typically handle wet or sticky products, finely pulverized material, or products that easily pack. The open front face and angled sides allow the discharge of materials trapped by other bucket designs. C Style Buckets are low profile, permitting more buckets per foot than some other styles.

C Style buckets commonly mount on a multi-ply elevator belt.

Some common materials of construction are mild steel, stainless steel and AR plate

Typical Applications:

- Sugar
- Salt
- Wet Grains
- Clay
- Powders
- Chemicals
- Similar Products



STANDARD BUCKET SIZE **	LENGTH (In)	PROJECTION (In)	DEPTH (in)	X-X CAPACITY ft³	EMPTY WT.* (lb)		
					12GA	10GA	3/16"
6 X 4 X 4	6	4 1/2	4	.026	2.00	2.63	3.58
8 X 4 X 4	8	4 1/2	4	.035	2.80	3.25	4.44
10 X 5 X 4	10	5	4	.052	3.23	4.10	5.67
12 X 5 X 4	12	5	4	.061	3.75	4.80	6.59
14 X 7 X 5	14	7	5 1/2	.138	6.38	8.14	11.21
16 X 7 X 5	16	7	5 1/2	.158	7.11	9.08	12.50

** Contact Martin for sizes not listed
* Estimated weight based on welded steel.
Price is affected by material type and thickness.

C Buckets are NOT continuous buckets.

Style MF
Continuous

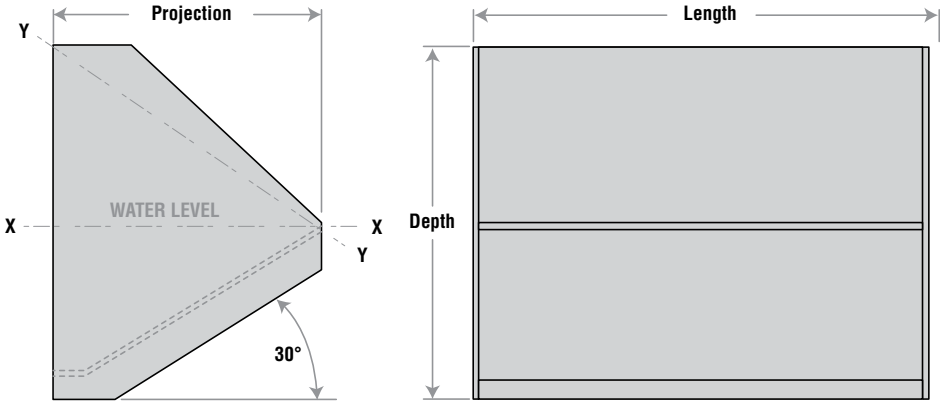
What is the Martin MF Bucket?

MF Style Elevator Buckets are continuous style with a medium front for slow speed product discharge. They gently handle dry, fragile, powdery, dusty, or abrasive materials. The angled face aids in product discharge and extended side panel bottom edges create a chute to direct product pouring from the previous bucket into the discharge. Optional vent holes can help provide maximum fill and product discharge. MF Buckets are not designed to "dig" through material in the elevator boot (bottom) during operation. MF style buckets can mount to a reinforced multi-ply elevator belt, or to a chain.

Some common materials of construction are mild steel, stainless steel, AR plate and molded plastic models.

Typical Applications:

- Gypsum
- Cement
- Pellets
- Grain
- Salt
- Sand
- Aggregate
- Fertilizer
- Other Similar Granular Material



STANDARD BUCKET SIZE **	LENGTH (In)	PROJECTION (In)	DEPTH (In)	X-X (WATER LEVEL) CAPACITY ft³	Y-Y (100% FILL) CAPACITY ft³	EMPTY WT.* (lb)		
						10GA	3/16"	1/4"
8 X 5 X 7	8	5	7 3/4	.04	.07	6.30	8.70	-
10 X 5 X 7	10	5	7 3/4	.05	.09	7.40	10.20	-
10 X 7 X 11	10	7	11 5/8	.103	.180	11.90	16.50	-
12 X 7 X 11	12	7	11 5/8	.125	.218	13.40	18.60	24.80
12 X 8 X 11	12	8	11 5/8	.163	.275	14.40	20.00	26.10
14 X 7 X 11	14	7	11 5/8	.145	.253	14.90	20.70	27.60
14 X 8 X 11	14	8	11 5/8	.190	.325	16.00	22.20	29.10
16 X 8 X 11	16	8	11 5/8	.220	.375	17.60	24.50	32.00
18 X 8 X 11	18	8	11 5/8	.250	.420	19.20	26.70	35.00
20 X 8 X 11	20	8	11 5/8	.270	.470	20.80	29.00	38.00
24 X 10 X 11	24	10	11 5/8	.512	.850	27.40	38.20	50.00

** Contact Martin for sizes not listed

* Estimated weight based on welded steel.
Price is affected by material type and thickness.

MF Buckets are not centrifugal buckets.

Style HF
Centrifugal

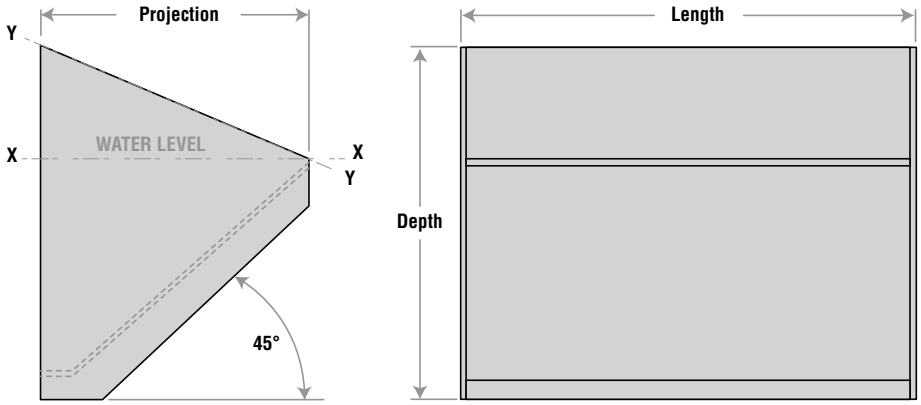
What is the Martin HF Bucket?

HF Style Elevator Buckets are continuous style with a high front place for greater capacity. Designed for slow speed product discharge, they gently handle dry, fragile, powdery, dusty, or abrasive materials. The angled front face aids in product discharge and extended side panel bottom edges create a chute to direct product pouring from the previous bucket into the discharge. Optional vent holes can provide maximum fill and product discharge. HF buckets do not "dig" material in the elevator boot (bottom) during operation. HF style buckets mount to a reinforced multi-ply elevator belt, or chain.

Some common materials of construction are mild steel, stainless steel and AR plate.

Typical Applications:

- Gypsum
- Cement
- Pellets
- Grain
- Salt
- Sand
- Aggregate
- Fertilizer
- Other Similar Granular Material



STANDARD BUCKET SIZE **	LENGTH (In)	PROJECTION (In)	DEPTH (in)	X-X (WATER LEVEL) CAPACITY ft³	Y-Y (100% FILL) CAPACITY ft³	EMPTY WT.* (lb)		
						10GA	3/16"	1/4"
8 X 5 X 7	8	5	7 3/4	.05	.08	6.20	8.50	-
10 X 5 X 7	10	5	7 3/4	.065	.100	7.30	10.00	-
10 X 7 X 11	10	7	11 5/8	.130	.190	11.60	16.00	20.90
12 X 7 X 11	12	7	11 5/8	.155	.240	13.20	18.20	23.90
12 X 8 X 11	12	8	11 5/8	.205	.295	14.30	20.00	26.00
14 X 7 X 11	14	7	11 5/8	.184	.280	14.80	20.40	26.70
14 X 8 X 11	14	8	11 5/8	.240	.350	16.00	22.40	28.10
16 X 8 X 11	16	8	11 5/8	.275	.395	17.70	24.70	32.20
18 X 8 X 11	18	8	11 5/8	.315	.453	19.20	26.28	34.67

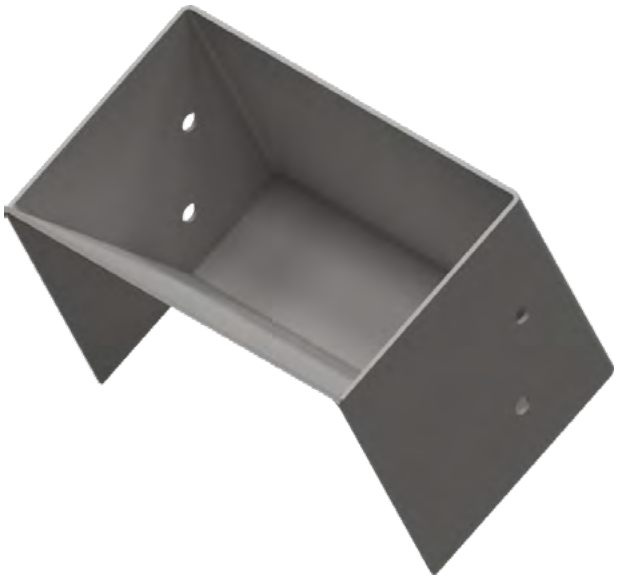
** Contact Martin for sizes not listed
* Estimated weight based on welded steel.
Price is affected by material type and thickness.

HF Buckets are not centrifugal buckets.

Style SC
Continuous

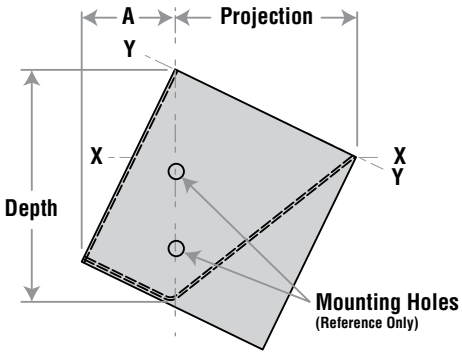
What is the Martin SC Bucket?

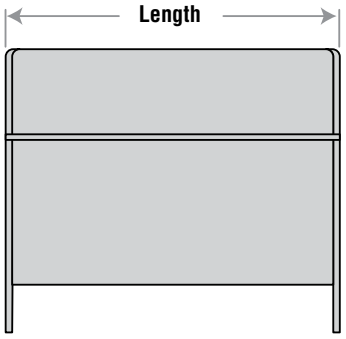
SC style elevator buckets are continuous style for use with super capacity elevators and have increased capacity. They are designed for slow speed product discharge and very heavy materials. The angled front face aids in product discharge and extended side panels create a chute to direct product pouring from the previous bucket into the discharge. Optional vent holes can help provide maximum fill and product discharge. SC buckets do not "dig" material in the elevator boot during operation. SC style buckets mount between two strands of elevator chain.



Typical Applications:

- Gypsum
- Cement
- Sand
- Fertilizers
- Clay
- Salt
- Coal
- Rocks
- Other Similar Material





STANDARD BUCKET SIZE **	LENGTH (In)	PROJECTION (In)	BACK (A) PROJECTION (In)	DEPTH (in)	X-X (WATER LEVEL) CAPACITY ft³	Y-Y (100% FILL) CAPACITY ft³	EMPTY WT.* (lb)		
							10GA	3/16"	1/4"
12 X 8 X 11	12	8 3/4	4 9/16	11 5/8	.35	.54	22.00	29.00	39.00
14 X 8 X 11	14	8 3/4	4 9/16	11 5/8	.41	.63	23.00	31.00	41.00
16 X 8 X 11	16	8 3/4	4 9/16	11 5/8	.46	.72	25.00	34.00	45.00
16 X 12 X 17	16	12	6 1/2	17 5/8	1.11	1.55	43.00	58.00	76.00
18 X 8 X 11	18	8 3/4	4 9/16	11 5/8	.52	.81	27.00	36.00	48.00
20 X 8 X 11	20	8 3/4	4 9/16	11 5/8	.58	.90	29.00	39.00	52.00
20 X 12 X 17	20	12	4 9/16	17 5/8	1.40	1.94	49.00	67.00	88.00
24 X 12 X 17	24	12	4 9/16	17 5/8	1.68	2.33	55.00	75.00	104.00
30 X 12 X 17	30	12	6 1/2	17 5/8	2.11	2.91	65.00	88.00	117.00
36 X 12 X 17	36	12	6 1/2	17 5/8	2.53	3.49	73.00	99.00	132.00

** Contact Martin for sizes not listed

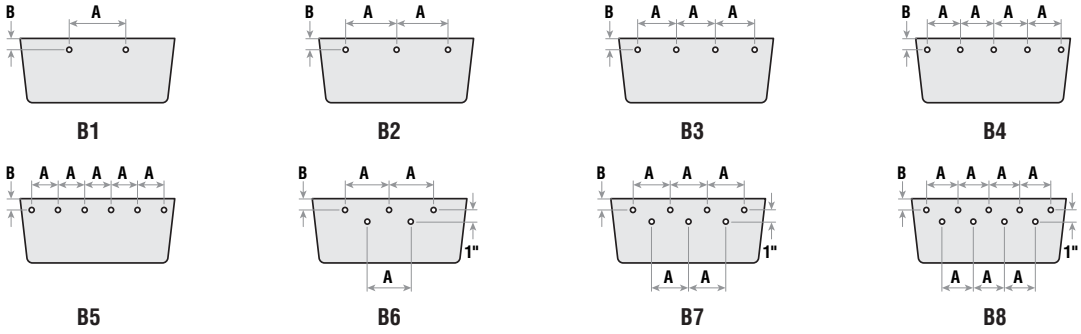
* Estimated weight based on welded steel.
Price is affected by material type and thickness.

SC Buckets are not centrifugal buckets.

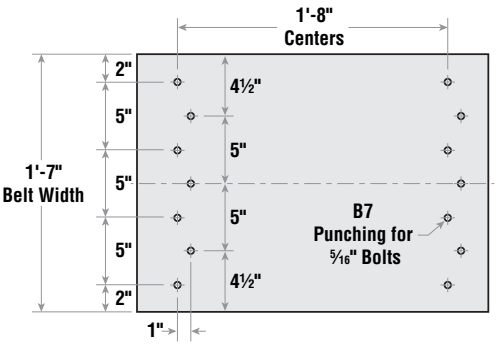
Bucket Punching (Belt)

CEMA Standard (Formerly P1 thru P9)

Bucket Punching – Belt (CEMA Standard (Formerly P1 thru P9))



Bucket Length	Salem and Other Similar Light Buckets			
	Punch	A	B	Bolt Dia.
6	B-1	4 3/8	5/8	1/4
8	B-2	3 1/16	7/8	1/4 - 5/16
10	B-2	4 1/8	7/8	1/4 - 5/16
12	B-3	3 3/8	7/8	1/4 - 5/16
14	B-4	3	7/8	1/4 - 5/16
16	B-5	2 7/8	7/8	1/4 - 5/16
18	—	—	—	—



Centrifugal Bucket Belt Punching Patterns

Bucket Size	Style AA & C			
	Punch	A (In)	B (In)	** Bolts
4 X 3	B1	2 5/16	1	1/4
6 X 4	B1	4 3/8	1	1/4
8 X 4	B6	3	1	1/4
8 X 5	B6	3	1	1/4
10 X 5	B6	3 1/2	1	5/16
10 X 6	B6	3 1/2	1	5/16
12 X 5	B6	4 1/2	1	5/16
12 X 7	B6	4 1/2	1	5/16
14 X 7	B7	4	1	5/16
14 X 8	B7	4	1	5/16
16 X 7	B7	4 1/2	1	5/16
16 X 8	B7	4 1/2	1	5/16
18 X 8	B7	5	1	5/16
20 X 10	B8	4	1	5/16
24 X 10	B8	5	1	5/16

Continuous Bucket Belt Punching Patterns

Bucket Size	Style LF & MF			
	Punch	A (In)	B (In)	** Bolts
8 X 5 X 7	B6	3	3 3/8	1/4
8 X 5 X 8	B6	3	3 3/4	1/4
10 X 5 X 7	B6	3 1/2	3 3/8	5/16
10 X 7 X 11	B6	3 1/2	5 5/16	5/16
12 X 7 X 11	B6	4 1/2	5 5/16	5/16
12 X 8 X 11	B6	4 1/2	5 5/16	5/16
14 X 7 X 11	B7	4	5 5/16	5/16
14 X 8 X 11	B7	4	5 5/16	5/16
16 X 8 X 11	B7	4 1/2	5 5/16	5/16
18 X 8 X 11	B7	5	5 5/16	5/16
20 X 8 X 11	B8	4	5 5/16	5/16
24 X 10 X 11	B8	5	5 5/16	5/16

* For bucket sizes or punching patterns not listed, contact Martin.

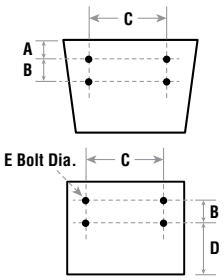
* For belt punching drawings call out pattern and bolt size.

** Bolt clearance hole diameter on metal fabricated buckets to be 1/16" larger than bolt size.

"P" to "B" Belt Punching Pattern Interchange Guide

"P" Callout	"B" Callout
P1	B1
P2	B2
P3	B3
P4	B4
P5	B5
P7	B6
P8	B7
P9	B8

Bucket Punching – Chain



Bucket Size	High-Speed Grain			
	Punch	A	B	C
7 × 5	B2	2 11/16	1 3/4	1/4
9 × 5	B2	3 5/8	1 3/4	1/4
9 × 6	B2	3 5/8	2	1/4
11 × 6	B3	3	2	1/4
12 × 6	B3	3 3/8	2	1/4
14 × 7	B4	3	2	5/16

Consult Martin for AC and SC Bucket Punching.

Chain Number	Attachment Number	B	C	D	E
C-977	K-1	—	3	—	3/8
C-188	K-2	1 1/4	4 3/16	2 3/4	
C-102B	K-2	1 3/4	5 5/16	2	
C-110	K-2	1 3/4	5 5/16	3 3/8	
C-111	K-2	2 5/16	6 1/4	2 1/8	
SS-102B	K-2	1 3/4	5 5/16	2	
SS-110	K-2	1 3/4	5 5/16	3 3/8	

Engineering Class Sprockets and Traction Wheels

Engineering Class Steel Sprocket with C Hub

Rex Chain #	Jeffrey Chain #	Webster Chain #	# Teeth	Pitch Diameter	Chain Pitch	Hub Diameter	LTB	Max Bore	Face Width	Weight lbs.
		N102B	14	18	4	6.5	6	3.94	1.75	152
		N102B	16	20.5	4	6.5	6	3.94	1.75	190
S102B	6102R	HSB102B	10	13	4	6.5	6	3.94	1.75	92
S102B	6102R	HSB102B	14	18	4	6.5	6	3.94	1.75	152
S102B	6102R	HSB102B	16	20.5	4	6.5	6	3.94	1.75	190
S102B	6102R	HSB102B	19	24.25	4	6.5	6	3.94	1.75	260
S110	6110R	HSB110	10	19.1	6	7	6	4.44	1.75	171
			11	21.25	6	7	6	4.44	1.75	204
			13	25'	6	7	6	4.44	1.75	271
			16	30.75	6	7	6	4.44	1.75	397
ES833	6138R	HSB833	9	17.5	6	8	6	5	2.25	187
			11	21.25	6	8	6	5	2.25	260
			13	25	6	8	6	5	2.25	346
			16	30.75	6	8	6	5	2.25	507

Engineering Cast Sprocket with Hub

Rex Chain #	Jeffrey Chain #	Webster Chain #	# Teeth	Pitch Diameter	Chain Pitch	Hub Diameter	LTB	Max Bore	Weight lbs.
		N102B	14	17.98	4	7	5	4.56	110
		N102B	16	20.5	4	7	5	4.56	135
S102B	6102R	HSB102B	10	13	4	7	5	4.56	68
S102B	6102R	HSB102B	14	18	4	7	5	4.56	110
S102B	6102R	HSB102B	16	20.5	4	7	5	4.56	135
S102B	6102R	HSB102B	19	24.25	4	7	5	4.56	170
S110	6110R	HSB110	10	19.1	6	7.50	5	5	88
			11	21.25	6	7.50	5	5	121
			13	25''	6	7.50	5	5	152
			16	30.75	6	8	6	5	181

See page F-25 of Martin Catalog.

Segmented Traction Wheel Rims (Available Cast)

Rex Chain #	Jeffrey Chain #	Webster Chain #	Outside Diameter	Use Body #	Face Width	Weight
S102B	6102R	HSB102B	24	16	1.75	115
S110	6110R	HSB110	24	16	1.75	115
S111	6111M	HSB111	22	16	2.25	125
		HSB833	24	16	2.25	125
			26	20	2.25	140
ES856	6956PB	HSB956	22	16	2.75	115
ER857	6867R	HSB857A	26	20	2.75	155
			28	20	2.75	170
			30	20	2.75	185
ER859	6859R	HSB859B	24	16	3.50	165
			26	20	3.5	175
ER864	6864R	HSB864B	30	20	3.5	175
			36	20	3.5	175
ER984			42	35	3.5	235

Always specify chain number and manufacture when ordering traction wheels and sprockets
Fabricated steel rims are readily available for most chains.

Do not use traction wheels where ambient conditions are flammable

Bodies (Without Bolts) – Solid – Steel

Body #	Outside Diameter	Bore Range	Length Thru Bore
MUS16	18.5	1.94 to 8.44	3.25 to 8
MUS20	22.5	1.94 to 9.94	5 to 9.5
MUS25	27.5	1.94 to 8.44	5.5 to 11
MUS35	38.0	1.94 to 8.44	5.50 to 11

Bodies (Without Bolts) – Split – Steel

Body #	Outside Diameter	Bore Range	Length Thru Bore
MUS16S	18.5	1.94 to 8.44	3.25 to 8
MUS20S	22.5	1.94 to 9.94	5 to 9.5
MUS25S	27.5	1.94 to 8.44	5.5 to 11
MUS35S	38.0	1.94 to 8.44	5.50 to 11

Bodies (Without Bolts) – Solid – Cast

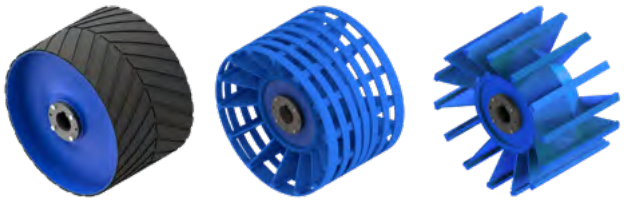
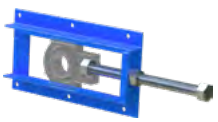
Body #	Outside Diameter	Bore Range	Length Thru Bore
MUS16C	18.5	1.94 to 6.94	3.25 to 8
MUS20C	22.5	2.44 to 6.94	5 to 9.5

Bodies (Without Bolts) – Split – Cast

Body #	Outside Diameter	Bore Range	Length Thru Bore
MUS16CS	18.5	1.94 to 4.94	6.5 to 8.25
MUS20CS	22.5	1.94 to 7.44	4.375 to 11.12

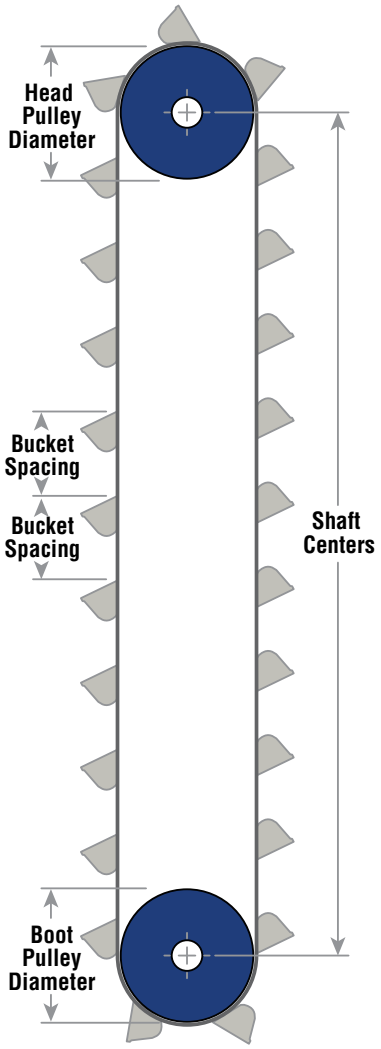
Complete Offering For Your Bucket Elevator Needs

CENTRIFUGAL DISCHARGE				CONTINUOUS DISCHARGE		
STANDARD		AC STYLE	HIGH-SPEED GRAIN	STANDARD		SUPER CAPACITY
CHAIN	BELT	BELT/CHAIN	BELT	CHAIN	BELT	CHAIN

COMPONENTS & ACCESSORIES			
			
CONVEYOR PULLEYS		ENGINEERED CLASS SPROCKETS & TRACTION WHEELS	
			
ELEVATOR BOLTS	ELEVATOR BELT SPLICE KITS	ASSEMBLY HARDWARE	CUSTOM SHAFTING
			
ELEVATOR BELTING	SHAFT SEALS	SHAFT BEARINGS	TAKE-UP FRAMES

Calculations and Required Information

How many Buckets do you need?



a) Calculate estimated **Vertical Length** using **Shaft Centers** distance.

Vertical Length = **Shaft Centers** x 2 = _____ **in**

b) Calculate estimated **Wrap** around pulleys/sprockets.

C_1 = Head Pulley/Sprocket Diameter x **π** = _____ **in**

C_2 = Head Pulley/Sprocket Diameter x **π** = _____ **in**

Wrap = (**C_1** + **C_2**) ÷ 2 = _____ **in**

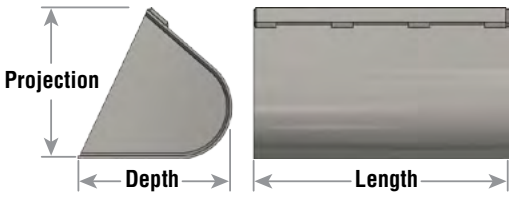
c) Determine the **Total Loop** of the belt/chain (in inches):

_____ **in**	+	_____ **in**	=	_____ **in**
Vertical length		**Wrap**		**Total Loop**

d) Divide the **Total Loop** of the belt/chain by the **Bucket Spacing**.

_____ **in**	÷	_____ **in**	=	_____
Total Loop		**Bucket Spacing**		**Buckets Needed**

CONVENIENT CONVERSIONS	
Cubic Inches to Cubic Feet	Divide By 1,728
Cubic Inches to Bushels	Divide By 2,150
Cubic Inches to Cubic Meters	Divide By 61,023.74
Pounds to Short Tons	Divide By 2,000
Pounds to Metric Tons	Divide By 2,204.62
π = 3.1416	



How to Measure a Bucket

See the specific bucket style page for bucket capacity. Lay the bucket on its back for easy measuring.