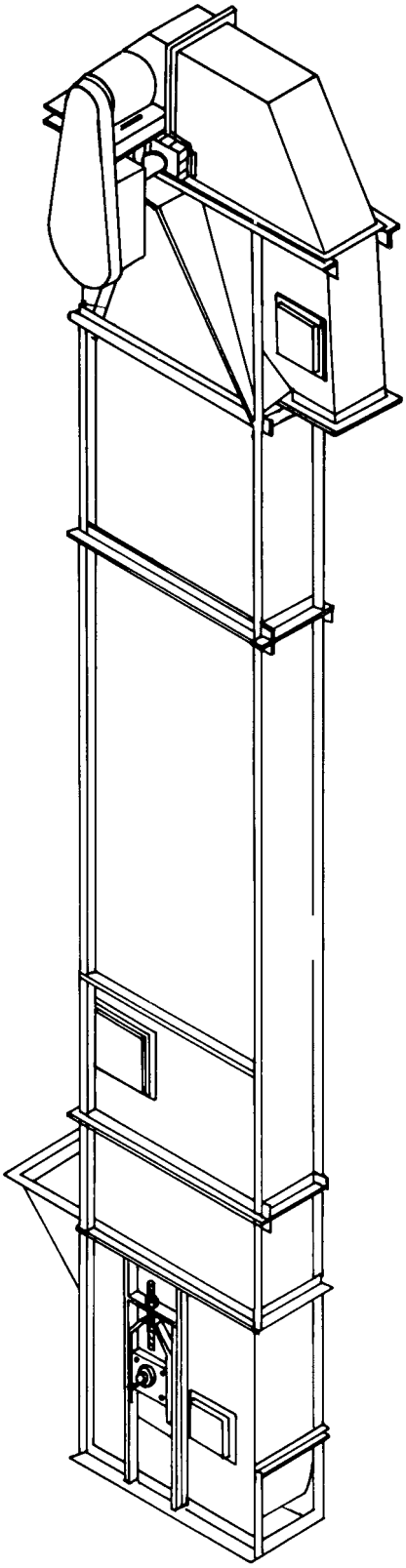
Bucket Elevators

SECTION VI



Safety

Safety must be considered a basic factor in machinery operation at all times. Most accidents are the result of carelessness or negligence. The following safety instructions are basic guidelines and should be considered as minimum provisions. Additional information shall be obtained by the purchaser from other sources, including the American Society of Mechanical Engineers, Standard ANSI B20.1, Standard ANSI B15.1; Standard ANSI Z244.

It is the responsibility of the contractor, installer, owner and user to install, maintain and operate the bucket elevator and elevator assemblies manufactured and supplied by Martin Conveyor Division, in such a manner as to comply with the Williams-Steiger Occupational Safety and Health Act and with all state and local laws and ordinances and the American National Standards Institute Safety Code.

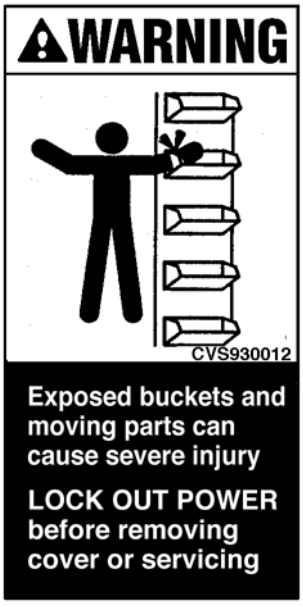
Precautions:

1. Maintain a safety training and safety equipment operation/maintenance program for all employees.
2. Bucket elevators shall not be operated unless the elevator housing completely encloses the elevator moving elements and power transmission guards are in place. **If the elevator is to be opened for inspection, cleaning or observation, the motor driving the conveyor is to be locked out electrically in such a manner that it cannot be restarted by anyone, however remote from the area, unless the elevator housing has been closed and all other guards are in place.**
3. If the elevator must have an open housing as a condition of its use and application, the entire elevator is then to be guarded by a railing or fence.
4. RUGGED gratings may be used where necessary. If the distance between the grating moving elements is less than 4 inches, the grating opening must not exceed ½ inch by 2 inches. In all cases the openings shall be restrictive to keep any part of the body or clothing from coming in contact with moving parts of the equipment. SOLID COVERS should be used at all points and must be designed and installed so that personnel will not be exposed to accidental contact with any moving parts of the equipment.
5. All rotating equipment such as guards, drives, gears, shafts and couplings must be guarded by the purchaser/owner as required by applicable laws, standards and good practice.
6. SAFETY DEVICES AND CONTROLS must be purchased and provided by the purchaser/owner as required by applicable laws, standards and good practices.
7. Practice good housekeeping at all times and maintain good lighting around all equipment.
8. Keep all operating personnel advised of the location and operation of all emergency controls and devices. Clear access to these controls and devices must be maintained.
9. Frequent inspections of these controls and devices, covers, guards and equipment to ensure proper working order and correct positioning.
10. Do not walk on elevator covers, gratings or guards.
11. Do not poke or prod material in the elevator.
12. Do not place hands, feet or any part of the body or clothing in the elevator or opening.
13. Do not overload elevator or attempt to use it for other than its intended use.
14. Inlet and discharge openings shall be connected to other equipment in order to completely enclose the moving elements of the elevator.
15. Before power is connected to the drive a pre-start up check shall be performed to ensure the equipment and area are safe for operation and all guards are in place and secure.
16. Bucket Elevators are not manufactured or designed to handle materials that are hazardous to personnel unless specially designed. These materials which are hazardous include those that are explosive, flammable, toxic or otherwise dangerous to personnel. Elevators may be designed to handle these materials. Elevators are not manufactured or designed to comply with local, state or federal codes for unfired pressure vessels. If hazardous materials are to be conveyed or if the elevator is to be subjected to internal or external pressure, Martin Conveyor Division should be consulted prior to any modifications.
17. Removal of backstop may cause unexpected machine movement. Remove or block all external loads before servicing unit. Failure to observe these precautions could result in bodily injury.

All equipment shall be checked for damage immediately upon arrival. **Do not attempt to install a damaged item or elevator.**

All bucket elevators shop assembled by Martin Conveyor Division, have warning labels affixed in many easily seen locations. If the equipment exterior is painted, coated or altered in any way or if the material conveyed is in excess of 175°F or if a change in the original intended use of the equipment is considered, the factory shall be consulted before modifications are made. Additional stickers are available upon request.

CHR930001
CHS930001
(5" Wide x 2 1/2" High)



CVS930012
(3" Wide x 6" High)

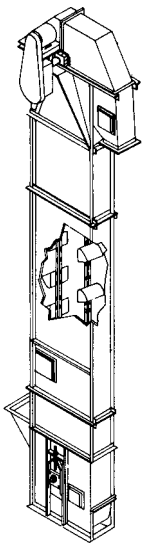
Introduction

The Martin Conveyor Division designs and manufactures various types of bucket elevators to efficiently handle most varieties of dry, free-flowing bulk materials. High design standards, quality manufacturing, the best possible service through many branch locations and an excellent distributor network assure many years of economical, trouble-free service.

This catalog is designed to make a preliminary selection of a bucket elevator. It shows the variety of elevators manufactured by the Martin Conveyor Division. Contact your local Martin Service Center or Martin Conveyor Division distributor for a recommendation.

Types

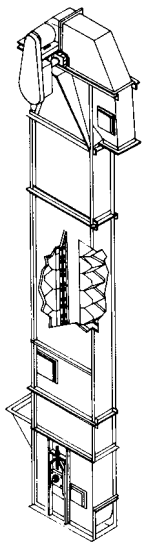
Centrifugal Discharge



Centrifugal discharge type elevators are offered as: Series 100 (boot take up) and Series 200 (head take up). Either series is available with buckets mounted on chain or belt and will handle free-flowing materials with small to medium size lumps. The standard inlet chute and standard curved bottom plate direct the material into the buckets and reduce the “digging” action. The speed of the elevator is sufficient to discharge the material by centrifugal force.

Many types of drives and elevator materials of construction are available.

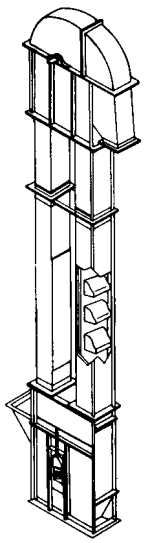
Continuous Discharge



Continuous discharge elevators are offered as: Series 700 (boot take up) and Series 800 (head take up). Either series is available with buckets mounted on chain or belt and will handle free-flowing material, sluggish material or materials that are abrasive. The closely spaced fabricated buckets, with extended sides, form a “chute” to direct material into the bucket. At the discharge, the bucket configuration allows the material to discharge by gravity over the back of the proceeding bucket.

Various materials of construction and thicknesses are available.

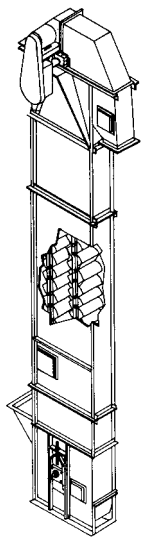
High-Speed Centrifugal Grain



Series 500 (double leg) and Series 400 (single leg) high-speed centrifugal discharge bucket elevators are specially designed to economically handle grain and other free-flowing materials. These elevators are not self-supporting; therefore, intermediate supports must be provided by others.

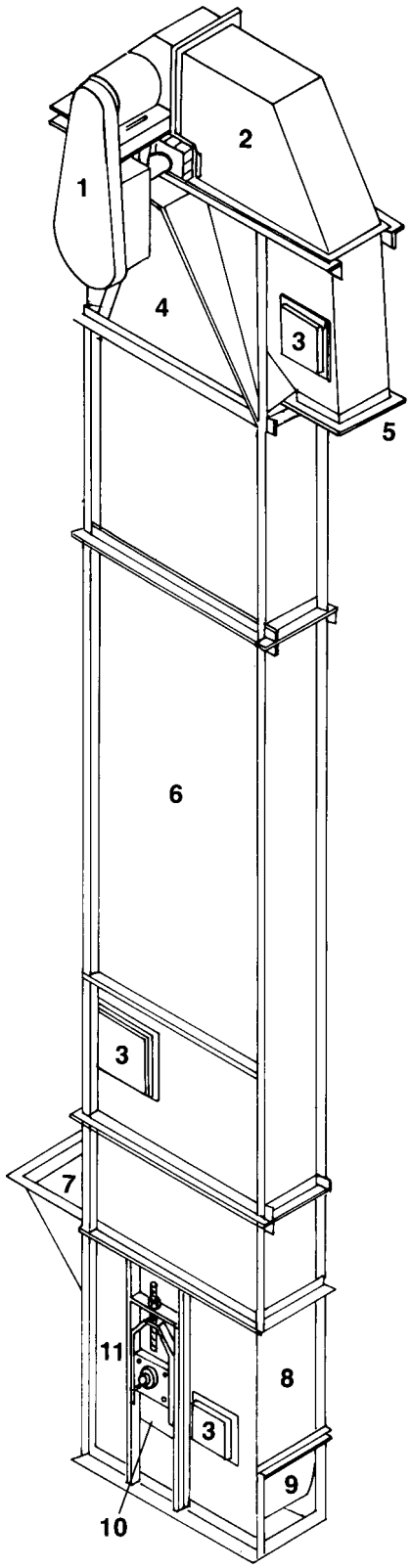
Although the charts in this catalog are based on one type of bucket, many other styles are available. For specific recommendations contact your local Martin Service Center or Martin Conveyor Division distributor for a recommendation.

Super Capacity



Series 1000 (super capacity) bucket elevators are a continuous discharge type with buckets mounted between two strands of chain. This type of elevator is used where higher capacities, severe service or higher shaft centers are required. Super Capacity type elevators are not listed in this catalog since they are custom designed for each application. Contact your local Martin Service Center or Martin Conveyor Division distributor for a recommendation.

Standard Features
Series 100 and Series 700



1. Shaft Mount Type Drive . . . . . Furnished as standard. Other types available. Backstops are required to prevent reverse rotation. Various types are available.

2. Split Hood . . . . . 14 gauge

3. Inspection Door . . . . . Near side

4. Head Section . . . . . Fabricated of 12 gauge steel with bearing pedestal structurally reinforced

5. 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.

6. 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.

7. Inlet . . . . . Fabricated of 3⁄16 inch thick plate steel

8. Clean Out Door . . . . . Bolted for easy removal

9. Curved Bottom Plate . . . . . Reduces build-up in boot

10. Take-Up Ball Bearing Screw Type . . For positive take-up tension. Available with roller bearings. Internal gravity type also available.

11. Boot . . . . . Fabricated of 3⁄16 inch thick plate steel.

Elevator Number

Example — B43-139

Mounting	Bucket Size	Series	Unit No.
B	43	1	39
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	Unit 39

B43-139 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-125–H-126.

Elevator Selection

General

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

1. **Volumetric Capacity** — in cubic feet per hour. Bucket elevators must be uniformly and continuously fed. The volumetric capacity used for selection must be the maximum the elevator will experience. Use 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** — Conditions affecting operation include location (indoors, outdoors), number of hours per day operation, etc.

TABLE 1-1

To convert	To cubic feet per hour (CF or 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, (pages H-122–H-133) 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 Conveyor Division 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** — Refer to the horsepower chart for the elevator number selected, go to the line representing the actual centers and read the motor horsepower and head shaft diameter to the right.
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 Conveyor Division, distributor for a recommendation.

Material Classification Code Chart

Major Class	Material Characteristics Included		Code Description
Density	**Bulk Density, Loose**		**Actual Lbs/CF**
Size	Very Fine	No. 200 Sieve (.0029″) and Under	A_{200}
		No. 100 Sieve (.0059″) and Under	A_{100}
		No. 40 Sieve (.016″) and Under	A_{40}
	Fine	No. 6 Sieve (.132″) and Under	B_6
	Granular	½″ and Under (6 Sieve to ½″)	$C_{½}$
		3″ and Under (½ to 3″)	D_3
		7″ and Under (3″ to 7″)	D_7
	Lumpy	16″ and Under (0″ to 16″)	D_{16}
		Over 16″ To Be Specified	
		X = Actual Maximum Size	D_X
	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
	Very Light and Fluffy — May Be Windswept		Y
	Elevated Temperature		Z

Materials Table

Material	Density LBS/FT³	Material Code	Recommended Elevator Series*
Alfalfa Meal	14-22	B6-45WY	F, H
Almonds, Broken	27-30	C½-35Q	C, F, H
Almonds, Whole Shelled	28-30	C½-35Q	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
Asphalt, Crushed — ½″	45	C½-45	A, C, F
Bakelite, Fine	30-45	B6-25	F
Baking Powder	40-55	A100-35	F
Bauxite, Crushed — 3″	75-85	D3-36	A, C, F
Beans, Castor, Whole Shelled	36	C½-15W	A, C, F, H
Beans, Navy, Dry	48	C½-15	A, C, F, H
Bentonite, Crude	34-40	D3-45X	A, C
Bentonite — 100 Mesh	50-60	A100-25MXY	A, C
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
Bran, Rice-Rye-Wheat	16-20	B6-35NY	A, C
Brewer's Grain, spent, dry	14-30	C½-45	A, C
Brewer's Grain, spent, wet	55-60	C½-45T	A, C
Buckwheat	37-42	B6-25N	E
Calcium Oxide (See Lime, unslaked)	—	—	—
Cast Iron, Chips	130-200	C½-45	F
Cement, Clinker	75-95	D3-36	A, F
Cement, Portland	94	A100-26M	A, F
Chalk, Crushed	75-95	D3-25	A, F
Chalk, Pulverized	67-75	A100-25MXY	A, F
Charcoal, Lumps	18-28	D3-45Q	F
Cinders, Coal	40	D3-36T	A, F
Clay, Brick, Dry, Fines	100-120	C½-36	B
Coal, Anthracite, Sized — ½″	49-61	C½-25	A, F
Coal, Bituminous, Mined, Slack	43-50	C½-45T	A, F
Coffee, Green Bean	25-32	C½-25PQ	A, F
Coffee, Roasted Bean	20-30	C½-25PQ	A, F
Coke, Breeze	25-35	C½-37	B, D
Coke, Loose	23-35	D7-37	D
Coke, Petrol, Calcined	35-45	D7-37	D
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	C½-35JY	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	C½-25	E
Corn Sugar	30-35	B6-35PU	A, C
Cottonseed, Cake, Lumpy	40-45	D7-45HW	A, C
Cottonseed, Dry, Delinted	22-40	C½-25X	B, D
Cottonseed, Dry, Not Delinted	18-25	C½-45XY	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	C½-36	A, F
Ebonite, Crushed	63-70	C½-35	F
Feldspar, Ground	65-80	A100-37	A, C, F,

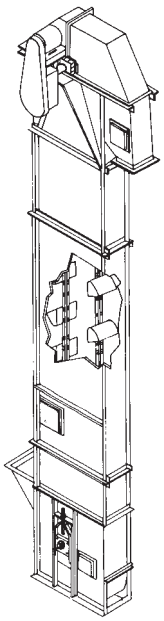
Material	Density LBS/FT³	Material Code	Recommended Elevator Series*
Feldspar, Powder	100	A200-36	F, H
Flaxseed	43-45	B6-35X	E
Flaxseed Cake (Linseed Cake)	48-50	D7-45W	C
Flaxseed Meal (Linseed Meal)	25-45	B6-45W	A, C
Fuller's Earth, Dry, Raw	30-40	A40-25	B, D
Fuller's Earth, Oily, Spent	60-65	C½-450W	B, D
Glass, Batch	80-100	C½-37	B, D
Granite, Fine	80-90	C½-27	F
Gypsum, Calcined	55-60	B6-35U	A, C, F, H
Gypsum, Calcined, Powdered	60-80	A100-35U	A, F
Gypsum, Raw — 1″	70-80	D3-25	F
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
Lime, Ground, Unslaked	60-65	B6-35U	A, C, F, G
Lime, Hydrated	40	B6-35LM	F
Lime, Pebble	53-56	C½-25HU	A, F
Limestone, Agricultural	68	B6-35	A, C, F, H
Limestone, Crushed	85-90	DX-36	F, H
Malt, Dry, Ground	20-30	B6-35NP	A, C
Malt, Meal	36-40	B6-25P	A, C
Malt, Dry Whole	20-30	C½-35N	A, C
Marble, Crushed	80-95	B6-37	F
Milk, Malted	27-30	A40-45PX	A
Oats	26	C½-25MN	E
Oats, Rolled	19-24	C½-35NY	A, C
Oxalic Acid Crystals — Ethane Diacid Crystals	60	B6-35QS	B, D
Phosphate Rock, Broken	75-85	DX-36	A, C, F, H
Phosphate Rock, Pulverized	60	B6-36	A, C, F, H
Potash (Muriate) Dry	70	B6-37	A, C, F
Pumice — ⅛″	42-48	B6-46	F
Rice, Bran	20	B6-35NY	E
Rice, Grits	42-45	B6-35P	A, C
Rice, Hulled	45-49	C½-25P	E
Rye	42-48	B6-15N	E
Salt Cake, Dry Coarse	85	B6-36TU	A, C, F, H
Salt, Dry Fine	70-80	B6-36TU	F, H
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	C½-36	B, H
Slag, Blast Furnace Crushed	130-180	D3-37Y	F
Slate, Crushed — ½″	80-90	C½-36	F
Soda Ash, Heavy	55-65	B6-36	A, C
Soda Ash, Light	20-35	A40-36Y	F, H
Sodium Phosphate	50-60	A-35	A, F
Soybean, Cake	40-43	D3-35W	C
Soybean, Cracked	30-40	C½-36NW	A
Soybean, Flake, Raw	18-25	C½-35Y	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	C½-26NW	E
Sugar Beet, Pulp, Dry	12-15	C½-26	F, H
Sugar Beet, Pulp, Wet	25-45	C½-35X	F, H
Sugar, Raw	55-65	B6-35PX	A, C
Trisodium Phosphate, Granular	60	B6-36	A, F
Wheat	45-48	C½-25N	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

*** Elevator Series Designation**

A = Series 100 Chain
B = Series 100 Belt
C = Series 200 Chain
D = Series 200 Belt
E = Series 500 Belt
F = Series 700 Chain
G = Series 700 Belt
H = Series 800 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.

Capacity																	
Elevator Number	Capacity in Cubic Feet per Hour ◂	Buckets[1]		Chain	Speed in F.P.M.	Max[1] Lump Size		Nominal[1] Casing Size	Head Sprocket			Boot Sprocket			Approx. Wt. (Lbs.)		Elevator Number
		Size	Spacing			100%	10%		Number of Teeth	Pitch[1] Diameter	RPM	Number of Teeth	Pitch[1] Diameter	Shaft[1] Diameter	Terminals Including Machinery	Intermediate* per Ft.	
C43-101	95	4 × 3	9¼	C-477	163	½	1	8 × 18	10	7½	76	10	7½	1 7/16	515	41	C43-101
C64-102	279	6 × 4	13	C-188	224	½	2½	9¾ × 35	24	20	43	18	15	1½	698	57	C64-102
C85-103	480			C-102B	203			11¾ × 35	14	18	43	10	13	1½	794	73	C85-103
C85-104	545			C-102B	231			11¾ × 39	16	20½	43	10	13	1½	825	73	C85-104
C85-105	545	8 × 5	16	SS-102B	231	¾	3	11¾ × 39	16	20½	43	10	13	1½	825	72	C85-105
C85-107	615			C-102B	260			11¾ × 42	19	24¼	41	14	18	2	930	80	C85-107
C85-108	615			SS-102B	260			11¾ × 42	19	24¼	41	14	18	2	900	83	C85-108
C106-110	935		16	C-102B	231			13¾ × 42	16	20½	43	12	15½		910	89	C106-110
C106-111	935		16	SS-102B	231			13¾ × 42	16	20½	43	12	15½		980	90	C106-111
C106-112	965	10 × 6	18	C-110	268	1	3½	13¾ × 48	13	25	41	11	21¼	2	1055	90	C106-112
C106-113	965		18	SS-110	268			13¾ × 48	13	25	41	11	21¼		1160	93	C106-113
C106-116	1053		16	C-102B	260			13¾ × 48	19	24¼	41	16	20½		1175	94	C106-116
C127-117	1530		18	SS-110	268			15¾ × 48	13	25	41	9	17½	2	1155	97	C127-117
C127-119	1667	12 × 7	16	C-102B	260	1¼	4	15¾ × 48	19	24¼	41	14	18	2	1090	102	C127-119
C127-120	1745		18	SS-110	306			15¾ × 54	16	30¾	38	12	23¼	2 7/16	1480	107	C-127-120
C127-122	1945		16	C-102B	303			15¾ × 54	24	30½	38	19	24¼	2 7/16	1385	104	C127-122
C147-123	1699		19	C-111	260			17¾ × 48	16	24½	41	12	18¼		1390	107	C147-123
C147-124	1850		18	SS-110	268			17¾ × 48	13	25	41	9	17½		1367	102	C147-124
C147-126	2018	14 × 7	16	C-102B	260	1¼	4	17¾ × 48	19	24¼	41	14	18	2 7/16	1255	103	C147-126
C147-127	1980		19	C-111	303			17¾ × 54	20	30½	38	16	24¼		1600	110	C147-127
C147-128	2092		18	SS-110	306			17¾ × 54	16	30¾	38	12	23¼		1560	107	C147-128
C147-130	2352		16	C-102B	303			17¾ × 54	24	30½	38	19	24¼		1405	108	C147-130
C168-131	2512		19	C-111	260			19¾ × 48	16	24½	41	11	17		1454	116	C168-131
C168-132	2520	16 × 8	18	SS-110	247	1½	4½	19¾ × 48	12	23	41	9	17½	2 7/16	1489	122	C168-132
C168-133	2928		19	C-111	303			19¾ × 54	20	30½	38	14	21¼		1658	124	C168-133
C168-134	3122		18	SS-110	306			19¾ × 54	16	30¾	38	11	21¼		1783	119	C168-134

◂ Based on 75% full bucket
* Includes casing, chain and buckets
[1] Dimensions are in inches

Centrifugal Discharge Chain Series 100

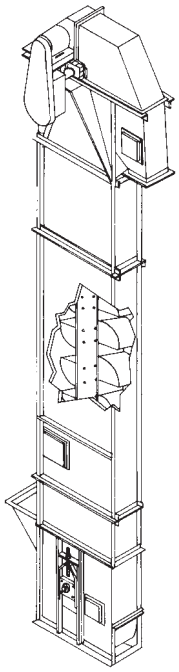
Horsepower*													
Elevator Number	Material Density (Pounds per Cubic Feet)												Elevator Number
	35			50			75			100			
	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	
C43-101	0-100	1 7/16	1	0-100	1 7/16	1	0-100	1 7/16	1	0-80	1 7/16	1	C43-101
										81-100	1 7/16	1½	
C64-102	0-61	1 15/16	1	0-59	1 15/16	1	0-57	1 15/16	1	0-54	1 15/16	1½	C64-102
	62-100	2 7/16	1	60-83	2 7/16	1½	57-85	2 7/16	1½	55-75	2 7/16	2	
				84-100	2 7/16	2	86-100	2 15/16	2	76-90	2 15/16	3	
										91-100	2 15/16	3	
C85-103	0-35	1-15/16	1	0-34	1 15/16	1	0-29	1 15/16	1½	0-27	1 15/16	1½	C85-103
C85-104	36-71	2 7/16	1½	35-60	2 7/16	1½	30-54	2 7/16	2	28-40	2 7/16	2	C85-104
C85-105	72-100	2 15/16	2	61-80	2 15/16	2	55-81	2 7/16	3	41-60	2 7/16	3	C85-105
C85-107 and C85-108				81-100	2 15/16	3	82-100	2 15/16	5	61-100	2 15/16	5	C85-107 and C85-108
C106-110	0-28	1 15/16	1	0-27	1 15/16	1½	0-21	1 15/16	1½	0-25	2 7/16	2	C106-110
C106-111	29-53	2 7/16	1½	28-50	2 7/16	2	22-33	2 7/16	2	26-34	2 7/16	3	C106-111
C106-112	54-71	2 15/16	2	51-75	2 15/16	3	34-50	2 7/16	3	35-62	2 15/16	5	C106-112
C106-113	72-100	3 7/16	3	76-100	3 7/16	5	51-83	2 15/16	5	63-93	3 7/16	7½	C106-113
and							84-100	3 7/16	7½	94-100	3 7/16	10	and
C106-116													C106-116
C127-117	0-20	1 15/16	1½	0-27	2 7/16	3	0-23	2 7/16	3	0-23	2 7/16	5	C127-117
C127-119	21-33	2 7/16	2	28-48	2 15/16	5	24-39	2 15/16	5	24-34	2 15/16	7½	C127-119
C127-120	34-40	2 7/16	3	49-58	3 7/16	5	40-58	2 15/16	7½	35-58	3 7/16	10	C127-120
and	41-69	2 15/16	5	59-87	3 7/16	7½	59-78	3 7/16	10	59-100	3 15/16	20	and
C127-122	70-100	3 7/16	7½	88-100	3 15/16	10	79-100	3 15/16	15				C127-122
C147-123	0-34	2 7/16	3	0-23	2 7/16	5	0-21	2 7/16	5	0-34	2 15/16	7½	C147-123
C147-124	35-58	2 15/16	5	24-41	2 15/16	5	22-37	2 15/16	7½	35-47	3 7/16	10	C147-124
C147-126	59-68	2 15/16	5	42-71	3 7/16	7½	38-63	3 7/16	10	48-71	3 15/16	15	C147-126
C147-127	69-95	3 7/16	7½	72-95	3 15/16	10	64-94	3 15/16	15	71-91	3 15/16	20	C147-127
C147-128 and C147-130	96-100	3 15/16	7½	96-100	3 15/16	15	95-100	3 15/16	20	92-100	3 15/16	25	C147-128 and C147-130
C168-131	0-44	2 15/16	5	0-37	2 15/16	5	0-27	2 15/16	7½	0-37	3 7/16	10	C168-131
C168-132	45-73	3 7/16	7½	38-55	3 7/16	7½	28-36	3 7/16	7½	38-55	3 15/16	15	C168-132
C168-133	74-100	3 15/16	10	56-74	3 15/16	10	37-48	3 7/16	10	56-66	3 15/16	20	C168-133
and				75-87	3 15/16	15	49-73	3 15/16	15	67-74	4 7/16	20	and
C168-134				88-100	4 7/16	20	74-100	4 7/16	20	75-100	4 7/16	25	C168-134

*Based on 100% full bucket

*For nominal dimensions see page H-131.

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 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.

Belt

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

Capacity															
Elevator Number	Capacity in Cubic Feet per Hour ◂	Buckets[1]		Belt[1] Width	Speed in F.P.M.	Max[1] Lump Size		Nominal[1] Casing Size	Head		Boot		Approx. Wt. (Lbs.)		Elevator Number
		Size	Spacing			100%	10%		Pulley Diameter[1]	Shaft RPM	Pulley Diameter[1]	Shaft Diameter	Terminals Including Machinery	Inter-mediate* per Ft.	
B43-139	107	4 × 3	8	5	159	¼	1	8 × 18	8	76	8	1 1/16	785	42	B43-139
B64-140	336	6 × 4	13	7	270	½	2½	11¾ × 39	24	43	16	1½	922	51	B64-140
B64-141	294	6 × 4	13	7	236			11¾ × 35	20	45	16	1½	892	51	B64-141
B85-142	558	8 × 5	16	9	236	¾	3	13¾ × 39	20	45	14	2	889	66	B85-142
B85-143	638	8 × 5	16	9	270			13¾ × 42	24	43	16	2	1120	78	B85-143
B106-144	956	10 × 6	16	11	236	1	3½	15¾ × 42	20	45	16	2	1130	76	B106-144
B106-145	1094	10 × 6	16	11	270			15¾ × 48	24	43	20	2	1292	82	B106-145
B127-146S Staggered	4938	12 × 7	16	24	385	1¼	4	28 × 64S	42	35	30	2 1/16	2345	141	B127-146S Staggered
B127-146	1540	12 × 7	18	13	270	1¼	4	17¾ × 48	24	43	20	2 1/16	1419	85	B127-146
B127-147	1791	12 × 7	18	13	314			17¾ × 54	30	40	24	2 1/16	1692	92	B127-147
B147-148	1864	14 × 7	18	15	270	1¼	4	19¾ × 48	24	43	20	2 1/16	1542	93	B147-148
B147-149	2168	14 × 7	18	15	314			19¾ × 54	30	45	24	2 1/16	1803	99	B147-149
B168-150	2409	16 × 8	18	18	236	1½	4½	22¾ × 48	20	45	18	2 1/16	1963	95	B168-150
B168-152	3204	16 × 8	18	18	314			22¾ × 54	30	40	24	2 1/16	2075	109	B168-152

◂ Based on 75% full bucket
* Includes casing, belt and buckets
[1] Dimensions are in inches

Centrifugal Discharge Belt Series 100

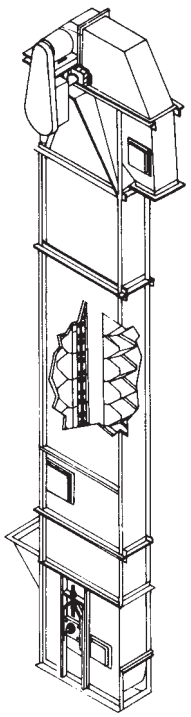
Elevator Number	Horsepower* — Material Density (Pounds per Cubic Feet)												Elevator Number
	35			50			75			100			
	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	
B43-139	0-100	1 7/16	1	0-100	1 7/16	1	0-100	1 7/16	1	0-80	1 7/16	1	B43-139
										81-100	1 15/16	1½	
B64-140 and B64-141	0-80	1 15/16	1	0-66	1 15/16	1	0-44	1 15/16	1	0-33	1 15/16	1	B64-140 and B64-141
	81-100	1 15/16	1½	67-80	1 15/16	1½	45-66	1 15/16	1½	34-50	1 15/16	1½	
				81-100	1 15/16	2	67-88	1 15/16	2	51-66	1 15/16	2	
							89-100	2 7/16	3	67-92	1 15/16	3	
										93-100	2 7/16	5	
B85-142 and B85-143	0-42	1 15/16	1	0-33	1 15/16	1	0-33	1 15/16	1½	0-25	1 15/16	1½	B85-142 and B85-143
	43-71	2 7/16	1½	34-50	2 7/16	1½	34-44	2 7/16	2	26-33	2 7/16	2	
	72-95	2 15/16	2	51-66	2 7/16	2	45-66	2 7/16	3	34-50	2 7/16	3	
	96-100	2 15/16	3	67-90	2 15/16	3	67-100	2 15/16	5	51-83	2 15/16	5	
				91-100	2 15/16	5				84-100	2 15/16	7½	
B106-144 and B106-145	0-25	1 15/16	1	0-24	1 15/16	1½	0-20	1 15/16	1½	0-30	2 7/16	3	B106-144 and B106-145
	26-42	2 7/16	1½	25-40	2 7/16	2	21-26	2 7/16	2	31-50	2 15/16	5	
	43-57	2 15/16	2	41-60	2 15/16	3	27-40	2 7/16	3	51-75	3 7/16	7½	
	58-85	2 15/16	3	61-100	3 7/16	5	41-66	2 15/16	5	76-100	3 7/16	10	
	86-100	3 7/16	5				67-100	3 7/16	7½				
B127-146S Staggered	0-27	2 15/16	5	0-34	3 7/16	7½	0-30	3 7/16	10	0-35	3 15/16	15	B127-146S Staggered
	28-44	3 7/16	7½	35-46	3 15/16	10	31-46	3 15/16	15	36-46	4 7/16	20	
	45-66	3 15/16	10	47-69	4 7/16	15	47-61	4 7/16	20	47-58	4 15/16	25	
	67-89	4 7/16	15	70-93	4 15/16	20	62-77	4 15/16	25	59-69	4 15/16	30	
	90-100	4 15/16	15	94-100	4 15/16	25	78-92	4 15/16	30	70-93	5 7/16	40	
B127-146 and B127-147	0-35	2 7/16	2	0-34	2 7/16	3	0-25	2 7/16	3	0-31	2 15/16	5	B127-146 and B127-147
	36-53	2 15/16	3	35-59	2 15/16	5	26-41	2 15/16	5	32-46	3 7/16	7½	
	54-89	3 7/16	5	60-93	3 7/16	7½	42-62	3 7/16	7½	47-62	3 7/16	10	
	90-100	3 7/16	7½	94-100	3 15/16	10	63-72	3 7/16	10	63-93	3 15/16	15	
							73-100	3 15/16	15	94-100	4 7/16	20	
B147-148 B147-149	0-27	2 7/16	3	0-20	2 7/16	5	0-17	2 7/16	5	0-15	2 7/16	5	B147-148 B147-149
	28-45	2 15/16	3	21-39	2 15/16	7½	18-34	2 15/16	5	16-33	2 15/16	7½	
	46-75	3 7/16	5	40-76	3 7/16	7½	35-52	3 7/16	7½	34-51	3 7/16	10	
	76-100	3 15/16	7½	77-100	3 15/16	10	53-69	3 15/16	10	52-76	3 15/16	15	
							76-100	4 7/16	15	77-100	4 7/16	20	
B168-150 B168-152	0-28	2 15/16	5	0-28	2 15/16	5	0-35	3 7/16	7½	0-29	3 7/16	10	B168-150 B168-152
	29-51	3 7/16	5	29-46	3 7/16	7½	36-47	3 15/16	10	44	3 15/16	15	
	52-76	3 15/16	7½	47-70	3 15/16	10	48-71	4 7/16	15	65	4 7/16	20	
	77-100	4 7/16	10	71-92	4 7/16	15	72-95	4 15/16	20	89	4 15/16	25	
				92-100	4 15/16	20	96-100	4 15/16	25	100	5 7/16	30	

*Based on 100% full bucket

*For nominal dimensions see page H-131.

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 and horsepower listed are for a 10 gauge 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.

Capacity

Elevator Number	Capacity in Cubic Feet per Hour◂	Buckets[1]		Chain	Speed in F.P.M.	Max[1] Lump Size		Nominal[1] Casing Size	Head Sprocket			Boot Sprocket			Approximate Wt. (Lbs.)		Elevator Number
		Size	Spacing			100%	10%		No. of Teeth	Pitch Dia[1]	RPM	No. of Teeth	Pitch Dia[1]	Shaft Dia[1]	Terminals Including Machinery	Intermediate* per Ft.	
C85-766	590	8 × 5 × 7¾	8	C-102B	125	¾	2½	11¾ × 39	16	20½	23	11	14¼	1½	902	82	C85-766
C85-767	590	8 × 5 × 7¾	8	SS-102B	125	¾	2½	11¾ × 39	16	20½	23	11	14¼	1½	899	83	C85-767
C105-768	750	10 × 5 × 7¾	8	C-102B	125	¾	2½	13¾ × 39	16	20½	23	11	14¼	2	889	93	C105-768
C105-769	750	10 × 5 × 7¾	8	SS-102B	125	¾	2½	13¾ × 39	16	20½	23	11	14¼	2	842	94	C105-769
C107-770	1080	10 × 7 × 11⅝	12	C-110	125	1	3	13¾ × 48	13	25	19	10	19½	2	1167	100	C107-770
C107-771	1080	10 × 7 × 11⅝	12	SS-110	125	1	3	13¾ × 48	13	25	19	10	19½	2	1271	103	C107-771
C127-772	1294	12 × 7 × 11⅝	12	C-110	125	1	3	15¾ × 48	13	25	19	10	19½	2 7/16	1230	113	C127-772
C127-773	1294	12 × 7 × 11⅝	12	SS-110	125	1	3	15¾ × 48	13	25	19	10	19½	2 7/16	1325	115	C127-773
C147-774	1519	14 × 7 × 11⅝	12	C-110	125	1	3	17¾ × 48	13	25	19	10	19½	2 7/16	1301	117	C147-774
C147-775	1519	14 × 7 × 11⅝	12	SS-110	125	1	3	17¾ × 48	13	25	19	10	19½	2 7/16	1399	121	C147-775
C128-776	1550	12 × 8 × 11⅝	12	C-110	125	1¼	4	15¾ × 48	13	25	19	9	17½	2 7/16	1295	116	C128-776
C128-777	1550	12 × 8 × 11⅝	12	SS-110	125	1¼	4	15¾ × 48	13	25	19	9	17½	2 7/16	1515	122	C128-777
C148-778	1817	14 × 8 × 11⅝	12	C-110	125	1¼	4	17¾ × 48	13	25	19	9	17½	2 7/16	1453	119	C148-778
C148-779	1817	14 × 8 × 11⅝	12	SS-110	125	1¼	4	17¾ × 48	13	25	19	9	17½	2 7/16	1600	126	C148-779
C168-781	2090	16 × 8 × 11⅝	12	SS-110	125	1½	4½	19¾ × 48	13	25	19	9	17½	2 7/16	1667	133	C168-781
C188-783	2340	18 × 8 × 11⅝	12	SS-110	125	1½	4½	22¾ × 48	13	25	19	9	17½	2 7/16	1701	140	C188-783

◂ Based on 75% full bucket
* Includes casing, chain and buckets
[1] Dimensions are in inches

Continuous Discharge Chain Series 700

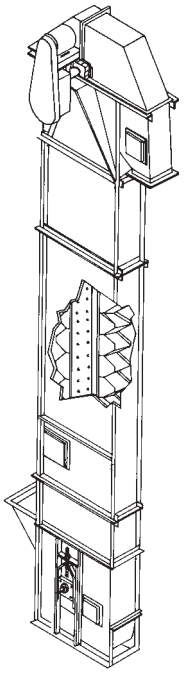
Elevator Number	Horsepower*												Elevator Number
	Material Density (Pounds per Cubic Feet)												
	35			50			75			100			
	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	
C85-776	0-16	1 15/16	1	0-15	1 15/16	1	0-14	1 15/16	1	0-16	2 7/16	1½	B85-776
C85-767	17-35	2 7/16	1	16-33	2 7/16	1	15-31	2 7/16	1½	17-29	2 15/16	2	B85-767
	36-61	2 15/16	1½	34-58	2 15/16	1½	32-53	2 15/16	2	30-60	3 15/16	3	
	62-100	3 7/16	2	59-80	3 7/16	2	54-71	3 7/16	3	61-100	4 7/16	5	
				81-100	3 7/16	3	72-100	3 15/16	5				
C105-768	0-13	1 15/16	1	0-27	2 7/16	1	0-25	2 7/16	1½	0-21	2 7/16	1½	C105-768
C105-769	14-28	2 7/16	1	28-42	2 15/16	1½	26-38	2 15/16	2	22-28	2 15/16	2	C105-769
	29-50	2 15/16	1½	43-57	3 7/16	2	39-57	3 7/16	3	29-42	3 7/16	3	
	51-81	3 7/16	2	58-81	3 7/16	3	58-90	3 15/16	5	43-71	3 15/16	5	
	82-100	3 15/16	3	82-100	3 15/16	5	91-100	3 15/16	7½	72-100	4 7/16	7½	
C107-770	0-24	2 7/16	1½	0-22	2 7/16	1½	0-20	2 7/16	1½	0-16	2 7/16	2	C107-770
C107-771	25-42	2 15/16	2	23-40	2 15/16	2	21-29	2 15/16	2	17-30	2 15/16	3	C107-771
	43-69	3 7/16	3	41-65	3 7/16	3	30-44	3 7/16	3	31-55	3 15/16	5	
	70-100	3 15/16	5	66-100	3 15/16	5	45-74	3 15/16	5	56-83	4 7/16	7½	
							75-100	4 7/16	7½	84-100	4 7/16	10	
C127-772	0-21	2 7/16	1	0-22	2 7/16	1½	0-16	2 7/16	2	0-25	2 15/16	3	C127-772
C127-773	22-38	2 15/16	1½	23-36	2 15/16	2	17-30	2 15/16	3	26-38	3 7/16	5	C127-773
	39-51	3 7/16	2	37-54	3 7/16	3	31-60	3 15/16	5	39-64	3 15/16	7½	
	52-77	3 15/16	3	55-90	3 15/16	5	61-90	4 7/16	7½	65-90	4 7/16	10	
	78-100	4 7/16	5	91-100	4 7/16	7½	91-100	4 7/16	10	91-100	4 15/16	15	
C147-774	0-20	2 7/16	1	0-25	2 15/16	1½	0-22	2 15/16	2	0-23	2 15/16	3	C147-774
C147-775	21-35	2 15/16	1½	26-33	2 15/16	2	23-33	3 7/16	3	24-35	3 7/16	5	C147-775
	36-47	3 7/16	2	34-50	3 7/16	3	34-55	3 15/16	5	36-59	3 15/16	7½	
	48-71	3 15/16	3	51-76	3 15/16	5	56-83	4 7/16	7½	60-83	4 7/16	10	
	72-100	4 7/16	5	77-100	4 7/16	7½	84-100	4 15/16	10	84-100	4 15/16	15	
C128-776	0-19	2 7/16	1	0-18	2 7/16	1½	0-20	2 15/16	2	0-22	2 15/16	3	C128-776
C128-777	20-32	2 15/16	1½	19-30	2 15/16	2	21-30	3 7/16	3	23-34	3 7/16	5	C128-777
	33-43	3 7/16	2	31-46	3 7/16	3	31-51	3 15/16	5	35-57	3 15/16	7½	
	44-65	3 15/16	3	47-73	3 15/16	5	52-76	4 7/16	7½	58-76	4 7/16	10	
	66-100	4 7/16	5	74-100	4 7/16	7½	77-100	4 15/16	10	77-100	4 15/16	15	
C148-778	0-17	2 7/16	1½	0-23	2 15/16	2	0-21	2 15/16	3	0-28	3 7/16	5	C148-778
C148-779	18-30	2 15/16	2	24-35	3 7/16	3	22-31	3 7/16	5	29-44	3 15/16	7½	C148-779
	31-49	3 7/16	3	36-58	3 15/16	5	32-53	3 15/16	7½	45-58	4 7/16	10	
	50-68	3 15/16	5	59-88	4 7/16	7½	54-75	4 7/16	10	59-88	4 15/16	15	
	69-100	4 7/16	7½	89-100	4 15/16	10	76-100	4 15/16	15	89-100	5 7/16	20	
C168-781	0-26	2 15/16	2	0-22	2 15/16	2	0-18	2 15/16	3	0-25	3 7/16	5	C168-781
	27-44	3 7/16	3	23-33	3 7/16	3	19-28	3 7/16	5	26-41	3 15/16	7½	
	45-61	3 15/16	5	34-55	3 15/16	5	29-46	3 15/16	7½	42-55	4 7/16	10	
	62-79	4 7/16	5	56-79	4 7/16	7½	47-67	4 7/16	10	56-83	4 15/16	15	
	80-100	4 15/16	7½	80-100	4 15/16	10	68-100	4 15/16	15	84-100	5 7/16	20	
C188-783	0-22	2 15/16	2	0-28	3 7/16	3	0-23	3 7/16	5	0-20	3 7/16	5	C188-783
	23-37	3 7/16	3	29-47	3 15/16	5	24-38	3 15/16	7½	21-34	3 15/16	7½	
	38-51	3 15/16	5	48-66	4 7/16	7½	39-55	4 7/16	10	35-47	4 7/16	10	
	52-68	4 7/16	5	67-95	4 15/16	10	56-77	4 15/16	15	48-69	4 15/16	15	
	69-100	4 15/16	7½	96-100	5 7/16	15	78-100	5 7/16	20	70-93	5 7/16	20	

*Based on 100% full bucket

*For nominal dimensions see page H-131.

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 and horsepower listed are for a 10 gauge 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 furnished with 100% polyester carcass PVC belting specifically designed for elevator service. Many other types of belt and covers are available.

Capacity															
Elevator Number	Capacity in Cubic Feet per Hour ◂	Buckets[1]		Belt Width[1]	Speed in F.P.M.	Max Lump Size		Nominal[1] Casing Size	Head		Boot		Approx. Weight (Lbs.)		Elevator Number
		Size	Spacing			100%	10%		Pulley Dia.[1]	Shaft RPM	Pulley Dia.[1]	Shaft Dia.[1]	Terminals Including Machinery	Inter-mediate* per Ft.	
B85-790	945	8 × 5 × 7¾	8	9	200	¾	2½	11¾ × 39	20	38.2	14	1½	650	75	B85-790
B105-791	1215	10 × 5 × 7¾	8	11	200	¾	2½	13¾ × 39	20	38.2	14	1½	660	81	B105-791
B107-792	1620	10 × 7 × 11⅝	12	11	200	1	3	13¾ × 48	24	31.8	20	2	915	93	B107-792
B127-793	1962	12 × 7 × 11⅝	12	13	200	1	3	15¾ × 48	24	31.8	20	2	1067	105	B127-793
B147-794	2277	14 × 7 × 11⅝	12	15	200	1	3	17¾ × 48	24	31.8	20	2	1246	117	B147-794
B128-795	2475	12 × 8 × 11⅝	12	13	200	1¼	4	15¾ × 48	24	31.8	20	2	1181	110	B128-795
B148-796	2925	14 × 8 × 11⅝	12	15	200	1¼	4	17¾ × 48	24	31.8	20	2 7/16	1297	117	B148-796
B168-797	3375	16 × 8 × 11⅝	12	17	200	1½	4½	19¾ × 48	24	31.8	20	2 7/16	1426	124	B168-797
B188-798	3780	18 × 8 × 11⅝	12	19	200	1½	4½	22¾ × 48	20	38.2	18	2 7/16	1819	140	B188-798

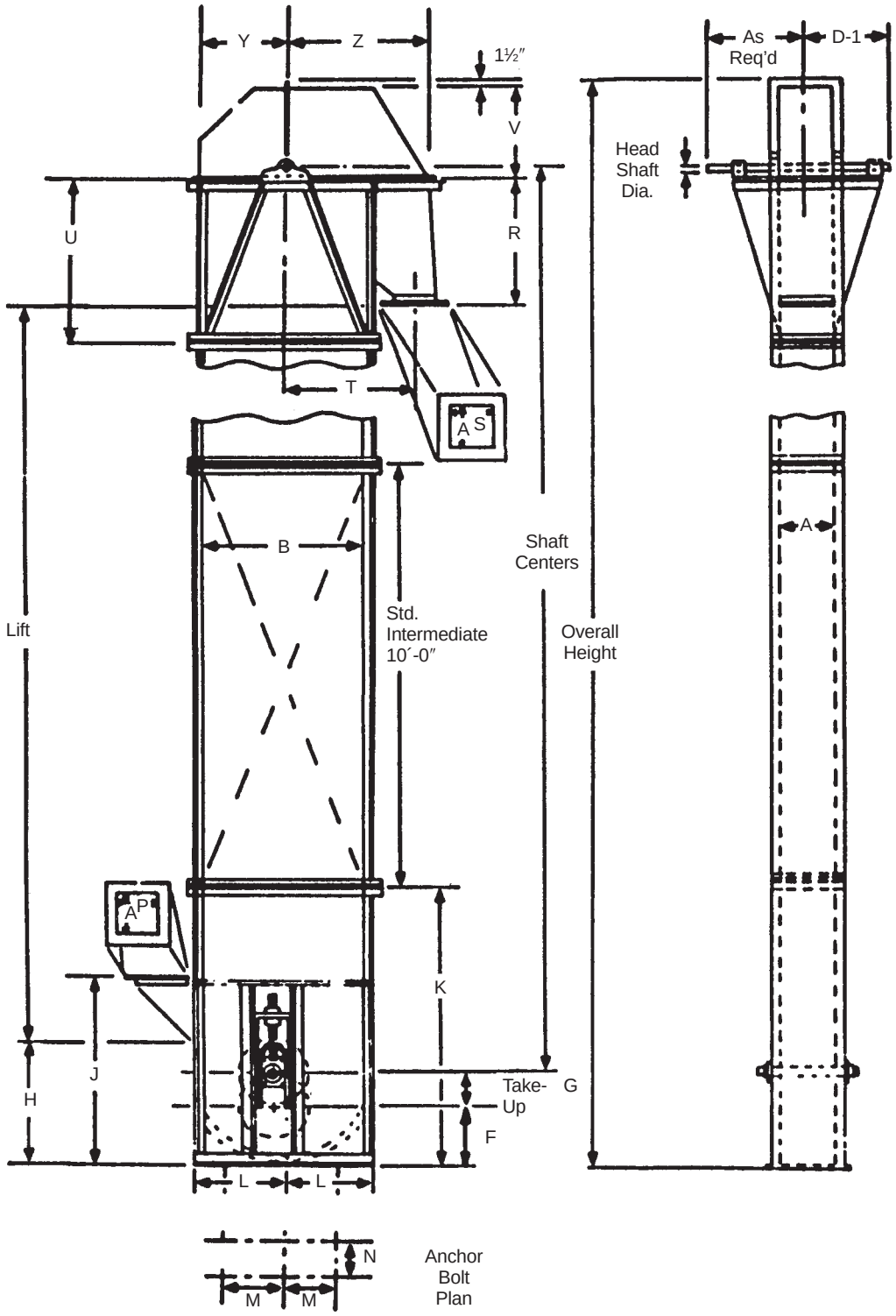
◂ Based on 75% full bucket
* Includes casing, belt and buckets
[1] Dimensions are in inches

Bucket Elevator Dimensions

Elevator Number	Horsepower*												Elevator Number
	Material Density									Pounds per Cubic Feet			
	35			50			75			100			
	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	Centers Feet	Head Shaft Diameter	HP	
B85-790	0-25	1 15/16	1	0-24	1 15/16	1	0-20	1 15/16	1½	0-25	2 7/16	2	B85-790
	26-54	2 7/16	1½	25-38	2 7/16	1½	21-33	2 7/16	2	26-37	2 7/16	3	
	55-71	2 15/16	2	39-49	2 7/16	2	34-50	2 15/16	3	38-62	2 15/16	5	
	72-89	2 15/16	3	50-75	2 15/16	3	51-83	3 7/16	5	63-80	3 7/16	7½	
	90-100	3 7/16	3	76-100	3 7/16	5	84-100	3 15/16	7½	81-100	3 15/16	10	
B105-791	0-19	1 15/16	1	0-13	1 15/16	1½	0-24	2 7/16	2	0-27	2 7/16	3	B105-791
	20-38	2 7/16	1½	14-36	2 7/16	2	25-36	2 15/16	3	28-45	2 15/16	5	
	39-51	2 15/16	2	37-54	2 15/16	3	37-60	3 7/16	5	46-68	3 7/16	7½	
	52-77	3 7/16	3	55-90	3 7/16	5	61-91	3 15/16	7½	69-90	3 15/16	10	
	78-100	3 7/16	5	91-100	3 15/16	7½	92-100	3 15/16	10	91-100	4 7/16	15	
B107-792	0-16	1 15/16	1	0-21	1 15/16	1½	0-28	2 15/16	3	0-18	2 7/16	3	B107-792
	17-30	2 7/16	1½	22-28	2 7/16	2	29-47	3 7/16	5	19-35	2 15/16	5	
	31-40	2 15/16	2	29-42	2 15/16	3	48-71	3 15/16	7½	36-49	3 7/16	7½	
	41-61	3 7/16	3	43-71	3 7/16	5	72-95	3 15/16	10	50-71	3 15/16	10	
	62-100	3 15/16	5	72-100	3 15/16	7½	96-100	4 7/16	15	72-100	4 7/16	15	
B127-793	0-14	1 15/16	1½	0-23	2 7/16	2	0-18	2 7/16	3	0-29	2 15/16	5	B127-793
	15-31	2 7/16	2	24-35	2 15/16	3	19-36	2 15/16	5	30-43	3 7/16	7½	
	32-51	2 15/16	3	36-58	3 7/16	5	37-48	3 7/16	7½	44-58	3 15/16	10	
	52-76	3 7/16	5	59-88	3 15/16	7½	49-78	3 15/16	10	59-88	4 7/16	15	
	77-100	3 15/16	7½	89-100	3 15/16	10	79-100	4 7/16	15	89-100	4 15/16	20	
B147-794	0-21	2 7/16	1½	0-20	2 7/16	2	0-15	2 7/16	3	0-25	2 15/16	5	B147-794
	22-28	2 15/16	2	21-30	2 15/16	3	16-31	2 15/16	5	26-37	3 7/16	7½	
	29-42	2 15/16	3	31-50	3 7/16	5	32-42	3 7/16	7½	38-50	3 15/16	10	
	43-68	3 7/16	5	51-75	3 15/16	7½	43-66	3 15/16	10	51-75	4 7/16	15	
	69-100	3 15/16	7½	76-100	4 7/16	10	67-100	4 7/16	15	76-100	4 15/16	20	
B128-795	0-25	2 7/16	2	0-17	2 7/16	3	0-30	2 15/16	5	0-33	3 7/16	7½	B128-795
	26-38	2 15/16	3	18-35	2 15/16	5	31-41	3 7/16	7½	34-45	3 15/16	10	
	39-64	3 7/16	5	36-46	3 7/16	7½	42-60	3 15/16	10	46-68	4 7/16	15	
	65-97	3 15/16	7½	47-87	3 15/16	10	61-90	4 7/16	15	69-90	4 15/16	20	
	98-100	4 7/16	10	88-100	4 7/16	15	91-100	4 15/16	20	91-100	4 15/16	25	
B148-796	0-21	2 7/16	2	0-14	2 7/16	3	0-25	2 15/16	5	0-38	3 15/16	10	B148-796
	22-32	2 15/16	3	15-29	2 15/16	5	26-33	3 7/16	7½	39-57	4 7/16	15	
	33-54	3 7/16	5	30-38	3 7/16	7½	34-51	3 15/16	10	58-76	4 15/16	20	
	55-82	3 15/16	7½	39-72	3 15/16	10	52-76	4 7/16	15	77-92	4 15/16	25	
	83-100	4 7/16	10	73-100	4 7/16	15	77-100	4 15/16	20	93-100	5 7/16	30	
B168-797	0-27	2 15/16	3	0-20	2 15/16	3	0-28	3 7/16	7½	0-33	3 15/16	10	B168-797
	28-47	3 7/16	5	21-33	3 7/16	5	29-44	3 15/16	10	34-50	4 7/16	15	
	48-71	3 15/16	7½	34-50	3 15/16	7½	45-66	4 7/16	15	51-66	4 15/16	20	
	72-95	4 7/16	10	51-66	4 7/16	10	67-88	4 15/16	20	67-83	4 15/16	25	
	96-100	4 15/16	15	67-100	4 15/16	15	89-100	5 7/16	25	84-100	5 7/16	30	
B188-798	0-25	2 15/16	3	0-30	3 7/16	5	0-23	3 7/16	7½	0-30	3 15/16	10	B188-798
	26-40	3 7/16	5	31-45	3 15/16	7½	24-40	3 15/16	10	31-45	4 7/16	15	
	41-60	3 15/16	7½	46-60	4 7/16	10	41-59	4 7/16	15	46-60	4 15/16	20	
	61-85	4 7/16	10	61-90	4 15/16	15	60-80	4 15/16	20	61-75	5 7/16	25	
	86-100	4 15/16	15	91-100	4 15/16	20	81-100	5 7/16	25	76-90	5 7/16	30	

*For nominal dimensions see page H-131.

Bucket Elevator Dimensions



Index/Bucket Elevator Dimensions

Elevator Number Chain	Elevator Number Belt	Elevator Number Belt	Elevator Number Chain	Dimensions[1] (In Inches)																		
				Casing		Boot									Head							
				A	B	F	G	H	J	K	L	M	N	P	R	S	T	U	V	Y	Z	D-1[2]
C43-101		B43-139		8	18	9	6	27¼	36¾	42	9	6	10	6	15	8	17½	36	14	9	20¼	13
C64-102				9¾	35	13	9	26½	43	72	17½	14½	13½	13	29¾	10	28½	42	19½	17½	30½	13
		B64-140		11¾	39	14	9	26½	43	72	19½	16½	15½	13	31½	10	30½	42	21½	19½	32½	14
C85-103		B64-141		11¾	35	13	9	26½	43	72	17½	14½	15½	13	29¾	10	28½	42	19½	17½	30½	14
C85-104 C85-105	B85-790		C85-766 C85-767	11¾	39	14	9	26½	43	72	19½	16½	15½	13	31½	10	30½	42	21½	19½	32½	14
C85-107 C85-108				11¾	42	16	9	32½	50	72	21	18	15½	13	32¾	10	33¼	42	24	21	36¼	14½
	B105-791	B85-142	C105-768	13¾	39	14	9	26½	43	72	19½	16½	17½	13	31½	10	30½	42	21½	19½	32½	15
C106-110 C106-111		B85-143		13¾	42	16	9	32½	50	72	21	18	17½	13	32¾	10	33¼	42	24	21	36¼	15½
C106-112 C106-113 C106-116	B107-792		C107-770 C107-771	13¾	48	19	9	40½	60	72	24	21	17½	15	35¾	13	36½	48	27½	24	40⅝	16
		B106-144		15¾	42	16	9	32½	50	72	21	18	19½	13	32¼	10	33¼	42	24	21	36¼	17
C127-117 C127-119	B127-793 B128-795	B106-145	C127-772 C127-773 C128-776 C128-777	15¾	48	19	9	40½	60	72	24	21	19½	15	35¾	13	36½	48	27½	24	40⅝	17
C127-120 C127-122				15¾	54	21	10	39	60½	72	27	24	19½	17	38¼	17	41½	48	31	27	45	18¼
		B127-146 S		28	64	26	10	29¾	60½	72	32	29	30½	26¼	36	17	46½	48	36½	32	53	24
C147-123 C147-124 C147-126	B147-794 B147-796	B127-146	C147-774 C147-775 C148-778 C148-779	17¾	48	19	10	40½	60	72	24	21	21½	15	35¾	13	36½	48	27½	24	40⅝	18
C147-127 C147-128 C147-130		B127-147		17¾	54	21	10	39	60½	72	27	24	21½	17	38¼	17	41½	48	31	27	45	19¼
C168-131 C168-132	B168-797	B147-148	C168-780 C168-781	19¾	48	19	10	40½	60	72	24	21	23½	15	35¾	13	36½	48	27½	24	40⅝	19
C168-133 C168-134		B147-149		19¾	54	21	10	39	60½	72	27	24	23½	17	38¼	17	41½	48	31	27	45	20
	B188-798	B168-150	C188-782 C188-783	22¾	48	19	10	40½	60	72	24	21	26½	15	35¾	13	36½	48	27½	24	40⅝	21
		B168-152		22¾	54	21	10	39	60½	72	27	24	26½	17	38¼	17	41½	48	31	27	45	22

[1]NOT certified for construction.
[2]Normal maximum for largest headshaft listed.

High Speed Grain Centrifugal Discharge Belt Series 500

Series 500 Belt

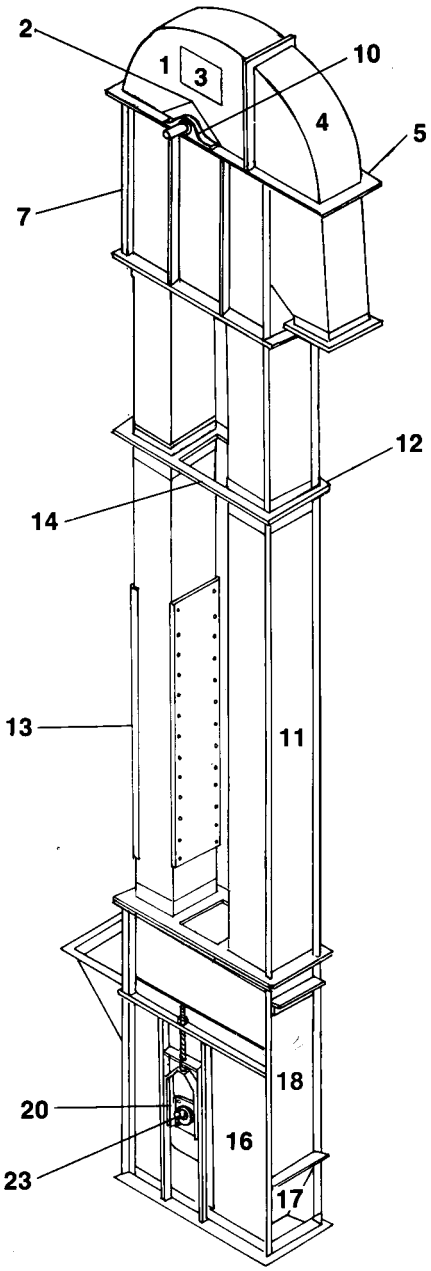
High speed centrifugal discharge grain type elevators are specifically designed to handle very free-flowing, dry, small particle size materials such as grains efficiently and economically. A variety of bucket sizes and belt speeds are available. Consult the factory for specific recommendations on size, speed and horsepower requirements.

Buckets

Buckets are available in various styles and materials of construction such as fabricated steel and non-metallic.

Belt

High-speed centrifugal discharge belt type elevators are normally furnished with 100% polyester carcass PVC belting specifically designed for elevator service. Many other types of belts and covers are available.



Head Housing Features
1. Split hood: 14 gauge is standard. Lower head: 12 ga. is standard. (10 gauge on elevators with 11 × 6, 12 × 6 and 14 × 7 buckets)
2. Head shaft panels — remove hood without disturbing bearings
3. Quick opening inspection door in hood
4. Heavy gauge front hood scroll and discharge
5. Full throw head
6. Adjustable belt bibb in discharge (not shown)
7. Angle and channel reinforced housing
8. Rain proof construction (not shown)
9. Crown face head pulley (not shown)
10. Ball bearing head bearings

Intermediate Housing
11. Rigid 14 gauge intermediate leg construction
12. Angle and flanges
13. Access doors in one section
14. Sway braces at each connection
15. Jig aligned for straightness (not shown)

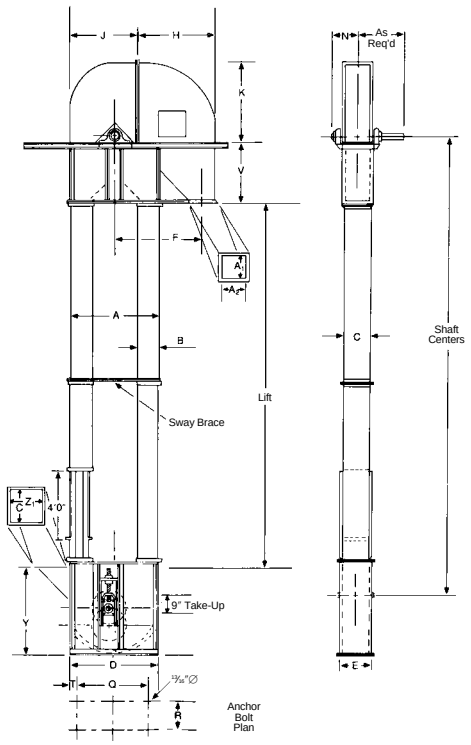
Boot Housing Features
16. Heavy gauge with angle reinforcement: 12 gauge is standard (10 gauge on elevators with 11 × 6, 12 × 6 and 14 × 7 buckets)
17. Clean out slide plates
18. Removable side panel
19. Quick opening inspection doors (not shown for clarity)
20. Ball bearing take-ups
21. Crown face pulley (not shown)
22. Female rain-tight cover between intermediate housing connection (not shown)
23. Boot shaft keyed to pulley (not shown)

Optional Equipment (not shown)
1. Double boot pocket
2. Vent in hood
3. Ladder with cage
4. Intermediate rest platforms
5. Motor base plate
6. Work platforms
7. Roller bearing, head bearings
8. Lagged head pulley (furnished when required)
9. Galvanized construction
10. Discharge transition, valves and turnheads

High Speed Grain Centrifugal Discharge Belt Series 500

Elevator Number	Maximum Capacity		Bucket[1]		Head Shaft RPM	Pulley		Belt		Maximum Centers (Ft.) Head Shaft Diameter[1]				
	BPH ◄	CFH[2]	Size	Spacing		Dia.[1]	Face[1]	Width[1]	FPM	1 15/16	2 3/16	2 7/16	2 15/16	3 7/16
B75-506	1580	1965	7 × 5	8	80	24	9	8	502	65	85	112	—	—
B75-508	1800	2240	7 × 5	7	80	24	9	8	502	60	85	112	—	—
B95-514	2438	3033	9 × 5	8	75	30	11	10	589	40	75	88	140	—
B95-515	2779	3458	9 × 5	7	75	30	11	10	589	40	65	85	130	—
B96-526	3969	4937	9 × 6	8	70	36	11	10	659	34	70	90	110	—
B96-528	4524	5628	9 × 6	7	70	36	11	10	659	30	60	80	95	—
B116-536	4372	5438	11 × 6	9	70	36	13	12	659	—	—	52	83	140
B116-538	4930	6134	11 × 6	8	70	36	13	12	659	—	—	50	80	130
B126-546	4800	5971	12 × 6	9	70	36	14	13	659	—	—	45	75	125
B126-548	5413	6734	12 × 6	8	70	36	14	13	659	—	—	45	75	125
B147-556	7111	8846	14 × 7	10	63	42	16	15	659	—	—	30	50	90
B147-558	7881	9805	14 × 7	9	63	42	16	15	659	—	—	25	40	85

[1]Dimensions are in inches. [2]BPH × 1.24 = CFH. ◄ Based on 75% full bucket.



Elevator Number	A	B	C	D	E	F	H	J	K	N*	Q	R	T	V	W	Y	Z_1	A_1	A_2	Boot Shaft Diameter
B75-506 and B75-508	41	9½	11	44	14	38½	33½	30⅝	34⅞	9	32	12¾	6	23½	20	40	12½	11	10	1½
B95-514 and B95-515	47	11	13	50	16	46½	41	35⅝	41⅝	10	38	14¾	6	29½	22	45	15½	13	13	1½
B96-526 and B96-528	49	11	13	52	16	47½	42	36⅝	42⅝	13	40	14¾	6	29½	22	45	15½	13	13	1½
B116-536 and B116-538	56	12½	15	59	18	56⅛	47⅛	44⅝	49¾	13	47	16¾	6	35½	27	51	19	15	15	2
B126-546 and B126-548	56	12½	16	59	19	56⅛	47⅛	44⅝	49¾	13	47	17¾	6	35½	27	51	19	16	15	2
B147-556 and B147-558	63	13	18	65	21	68⅝	53	55⅝	57¾	15	52	19¾	6	41½	33	57	25½	18	17	2

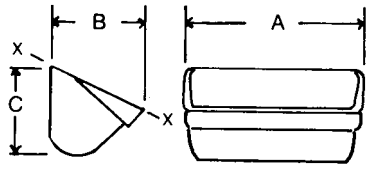
Dimensions[1] (In Inches)

*Approximate. [1]Not certified for construction.

Buckets and Chain

Style AA

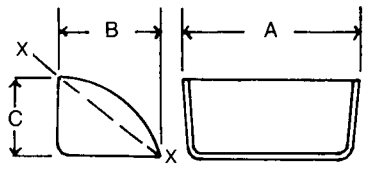
Malleable iron buckets for general use with most types of relatively free flowing material in centrifugal discharge elevators. Can be mounted on chain or belt and furnished in heat-treated malleable iron or fabricated from various materials.



Bucket Size			Weight Lbs.	Capacity cu. ft. X — X
A	B	C		
4	2¾	3	1.0	.01
6	4	4¼	2.7	.03
8	5	5½	4.8	.07
10	6	6¼	7.7	.12
12	7	7¼	12.0	.19
14	7	7¼	13.9	.23
16	8	8½	21.8	.34

Style C

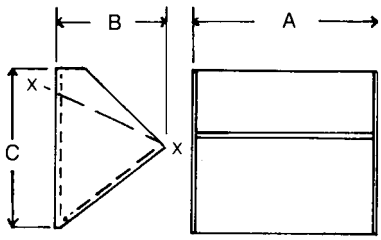
Malleable iron buckets are used in centrifugal discharge elevators to handle materials that tend to pack or stick, such as sugar, clay, salt or wet grains. Can be furnished or fabricated steel.



Bucket Size			Weight Lbs.	Capacity cu. ft. X — X
A	B	C		
6	4½	4	2.0	.026
8	4½	4	2.8	.035
10	5	4	4.0	.052
12	5	4	4.8	.061
14	7	5½	8.5	.138
16	7	5½	10.5	.158

Continuous

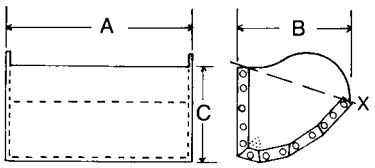
Medium front non-overlapping fabricated steel buckets are used in continuous discharge elevators for general service. Heavier gauges should be used when handling abrasive materials. Available fabricated from various materials. High front continuous buckets are available also.



Bucket Size			Weight Lbs.				Capacity cu. ft. X — X
A	B	C	12 Ga.	10 Ga.	3/16″	¼″	
8	5	7¾	5.1	6.3	8.7	—	.070
10	5	7¾	5.9	7.4	10.2	—	.090
10	7	11⅜	9.3	11.9	16.5	—	.180
12	7	11⅜	10.4	13.4	18.6	—	.218
14	7	11⅜	11.6	14.9	20.7	—	.253
12	8	11⅜	11.2	14.4	20.0	26.1	.275
14	8	11⅜	12.4	16.0	22.2	29.1	.325
16	8	11⅜	13.7	17.6	24.5	32.0	.375
18	8	11⅜	14.9	19.2	26.7	35.0	.420

High-Speed Grain

Designed specifically to handle materials, such as grains, efficiently without premature discharge.

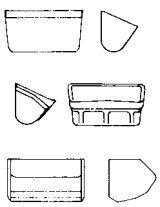


Bucket Size			End Gauge	Body Gauge	Wt. lbs.	Capacity cu. ft. X — X
A	B	C				
7	5	4½	16	18	1.8	.071
9	5	4½	16	16	2.5	.091
9	6	5⅜	14	16	3.4	.131
11	6	5⅜	14	16	3.8	.160
12	6	5⅜	14	16	4.0	.175
14	6	5⅜	14	16	4.8	.203

Salem

AA-RB

Non-Metallic



Consult Factory

Chain

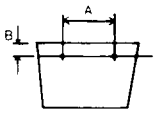
Combination chains, C-, have cast block links and steel connecting side bars. All steel (steel knuckle), SS, are fabricated of steel. Attachments are available either on the connecting side bars or block link.

Chain No.	Pitch in Inches	Average Ultimate Strength Lbs.	Rated Working Value Lbs.	Wt. Per Ft. Lbs. Attachment Every Other Pitch	Attachment Number	Dimension in Inches		
						Pin Diameter	Side Bar	Barrel or Knuckle Diameter
C-977	2.308	11,000	1830	2.2	K-1	7/16	3/16 × 7/8	7/8
C-188	2.609	14,000	1950	4.8	K-2	½	¼ × 1⅛	⅞
C-102B	4.0	24,000	4000	7.8	K-2	⅝	⅜ × 1½	1 1/32
C-110	6.0	24,000	4000	7.3	K-2	⅝	⅜ × 1½	1 5/16
C-111	4.76	36,000	5,950	10.7	K-2	¾	⅜ × 1¾	1 15/32
SS-102B	4.0	40,000	6,290	9.0	K-2	⅝	⅜ × 1½	1
SS-110	6.0	40,000	6290	8.6	K-2	⅝	⅜ × 1½	1¼

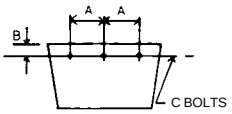
NOTE: All dimensions are inside to inside of bucket.

Bucket Punching (Belt)

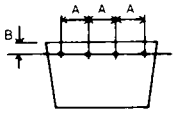
CEMA Standard (Formerly P1 thru P9)



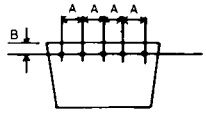
B1



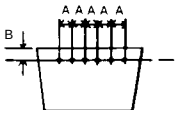
B2



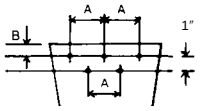
B3



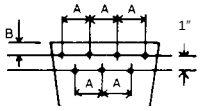
B4



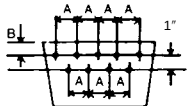
B5



B6



B7

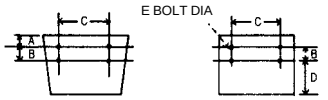


B8

Bucket Length	Salem and Other Similar Light Buckets				M.I. & Steel Buckets Style A, AA, AA-RB, B, C, etc.				Continuous Buckets			
	Punch	A	B	C*	Punch	A	B	C*	Punch	A	B	C*
6	B-1	4⅜	⅝	¼	B-1	4-⅜	1	¼	—	—	—	—
8	B-2	3 1/16	⅞	¼-5/16	B-6	3	⅞	¼ -5/16	B-6	3	B = DEPTH – 1/2	¼-5/16
10	B-2	4⅞	⅞	¼-5/16	B-6	3½	⅞	¼ -5/16	B-6	3½		¼-5/16
12	B-3	3⅜	⅞	¼-5/16	B-6	4½	⅞	¼ -5/16	B-6	4½		¼-5/16
14	B-4	3	⅞	¼-5/16	B-7	4	⅞	5/16	B-7	4		5/16
16	B-5	2⅞	⅞	¼-5/16	B-7	4½	⅞	5/16	B-7	4½		5/16
18	—	—	—	—	—	—	—	—	B-7	5		5/16

*C = Bolt Diameter. See Chart on Page H136.

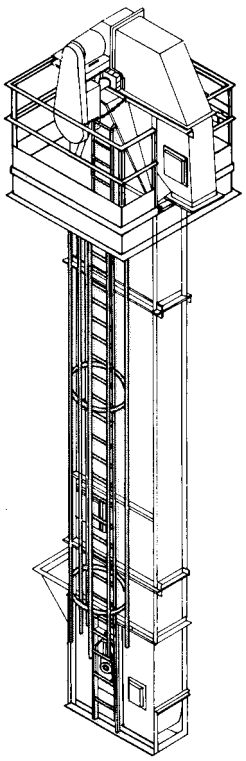
Bucket Punching — Chain



Style AA, C, SC, etc. Continuous

Chain Number	Attachment Number	A	B	C	D	E
C-977	K-1	1	—	3	—	⅜
C-188	K-2	1	1¼	4 3/16	2¾	⅜
C-102B	K-2	¾	1¾	5 5/16	2	⅜
C-110	K-2	⅞	1¾	5 5/16	3⅜	⅜
C-111	K-2	¾	2 5/16	6¼	2⅛	⅜
SS-102B	K-2	¾	1¾	5 5/16	2	⅜
SS-110	K-2	⅞	1¾	5 5/16	3⅜	⅜

Bucket Size	High Speed Grain			
	Punch	A	B	C
7 × 5	B2	2 11/16	1¾	¼
9 × 5	B2	3⅜	1¾	¼
9 × 6	B2	3⅜	2	¼
11 × 6	B3	3	2	¼
12 × 6	B3	3⅜	2	¼
14 × 7	B4	3	2	5/16



Platforms

Head section service platforms are of structural steel, angle hand rails and heavy non-skid grating. The platform mounts securely to the elevator head section. Various sizes and configurations are available. Rest platforms are also available and required at 30´ intervals.

Ladders/Safety Cages

Ladders with safety cages are available. They are constructed of heavy gauge steel and sized to provide easy access to platforms. Ladders with safety cage are easily bolted to the elevator casings.

Formulas for Calculating Number of Buckets, Bucket Bolts, Washers and Length of Chain or Belt

Centrifugal Discharge Chain Series 100

Number of Buckets, Bucket Bolts, Washers and Length of Chain.

Elevator Number	Buckets Style AA Malleable			Bucket Bolts and Lock Washers Hex Head Cap Screws		Chain		
	Size (Inches)	Spacing (Inches)	☆ Quantity	Size (Inches)	Quantity	Number	Attachment Every _ Link	Length (Feet)
C43-101	4 × 3	9¾	1.5 + (2.58 × Shaft Ctrs)	¼ × 1	2 × (No. of Buckets)	C-77	K1- 4th	2.31′ + (2 × Shaft Ctrs)
C64-102	6 × 4	13	4.4 + (1.85 × Shaft Ctrs)	¼ × 1	2 × (No. of Buckets)	C-188	K1-5th	4.79′ + (2 × Shaft Ctrs)
C85-103	8 × 5	16	2.75 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2-4th	3.66′ + (2 × Shaft Ctrs)
C85-104	8 × 5	16	3.5 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2-4th	4.66′ + (2 × Shaft Ctrs)
C85-105	8 × 5	16	3.5 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-102B	K2-4th	4.66′ + (2 × Shaft Ctrs)
C85-107	8 × 5	16	4.25 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2 - 4th	5.66′ + (2 × Shaft Ctrs)
C85-108	8 × 5	16	4.25 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-102B	K2 - 4th	5.66′ + (2 × Shaft Ctrs)
C106-110	10 × 6	16	3.75 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2 - 4th	5.0′ + (2 × Shaft Ctrs)
C106-111	10 × 6	16	3.75 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-102B	K2 - 4th	5.0′ + (2 × Shaft Ctrs)
C106-112	10 × 6	18	4.33 + (1.33 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-110	K2 - 3rd	6.5′ + (2 × Shaft Ctrs)
C106-113	10 × 6	18	4.33 + (1.33 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 3rd	6.5′ + (2 × Shaft Ctrs)
C106-116	10 × 6	16	4.5 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2 - 4th	6.0′ + (2 × Shaft Ctrs)
C127-117	12 × 7	18	4.0 + (1.33 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 3rd	6.0′ + (2 × Shaft Ctrs)
C127-119	12 × 7	16	4.25 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2 - 4th	5.66′ + (2 × Shaft Ctrs)
C127-120	12 × 7	18	5.0 + (1.33 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 3rd	7.5′ + (2 × Shaft Ctrs)
C127-122	12 × 7	16	5.5 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2 - 4th	7.33′ + (2 × Shaft Ctrs)
C147-123	14 × 7	19	3.79 + (1.26 × Shaft Ctrs)	½ × 1½	4 × (No. of Buckets)	C-111	K2 - 4th	6.0′ + (2 × Shaft Ctrs)
C147-124	14 × 7	18	4.0 + (1.33 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 3rd	6.0′ + (2 × Shaft Ctrs)
C147-126	14 × 7	16	4.25 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2 - 4th	5.66′ + (2 × Shaft Ctrs)
C147-127	14 × 7	19	4.74 + (1.26 × Shaft Ctrs)	½ × 1½	4 × (No. of Buckets)	C-111	K2 - 4th	7.5′ + (2 × Shaft Ctrs)
C147-128	14 × 7	18	5.0 + (1.33 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 3rd	7.5′ + (2 × Shaft Ctrs)
C147-130	14 × 7	16	5.5 + (1.5 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2 - 4th	7.33′ + (2 × Shaft Ctrs)
C168-131	16 × 8	19	3.48 + (1.26 × Shaft Ctrs)	½ × 1½	4 × (No. of Buckets)	C-111	K2 - 4th	5.55′ + (2 × Shaft Ctrs)
C168-132	16 × 8	18	3.66 + (1.33 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 3rd	5.5′ + (2 × Shaft Ctrs)
C168-133	16 × 8	19	4.51 + (1.26 × Shaft Ctrs)	½ × 1½	4 × (No. of Buckets)	C-111	K2 - 4th	7.13′ + (2 × Shaft Ctrs)
C168-134	16 × 8	18	4.66 + (1.33 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 3rd	7.0′ + (2 × Shaft Ctrs)

Centrifugal Discharge Belt Series 100

Number of Buckets, Bucket Bolts, Washers and Length of Belt.

Elevator Number	Buckets Style AA Malleable			Bucket Bolts and Lock Washers (Norway Elevator Bolts)		Belt (Including 3 Buckets Overlap)	
	Size (Inches)	Spacing (Inches)	☆ Quantity	Size (Inches)	Quantity	No. of Holes to be Punched in Belt	Length (Feet)
B43-139	4 × 3	8	3.12 + (3 × Shaft Ctrs)	¼ × 1	2 × (No. of Buckets)	6 + (No. of Bolts)	5′ + (2 × Shaft Ctrs)
B64-140	6 × 4	13	4.85 + (1.85 × Shaft Ctrs)	¼ × 1	2 × (No. of Buckets)	6 + (No. of Bolts)	9′ + (2 × Shaft Ctrs)
B64-141	6 × 4	13	4.34 + (1.85 × Shaft Ctrs)	¼ × 1	2 × (No. of Buckets)	6 + (No. of Bolts)	9′ + (2 × Shaft Ctrs)
B85-142	8 × 5	16	3.34 + (1.5 × Shaft Ctrs)	¼ × 1¼	5 × (No. of Buckets)	15 + (No. of Bolts)	9′ + (2 × Shaft Ctrs)
B85-143	8 × 5	16	4.13 + (1.5 × Shaft Ctrs)	¼ × 1¼	5 × (No. of Buckets)	15 + (No. of Bolts)	10′ + (2 × Shaft Ctrs)
B106-144	10 × 6	16	3.53 + (1.5 × Shaft Ctrs)	5/16 × 1¼	5 × (No. of Buckets)	15 + (No. of Bolts)	9′ + (2 × Shaft Ctrs)
B106-145	10 × 6	16	4.34 + (1.5 × Shaft Ctrs)	5/16 × 1¼	5 × (No. of Buckets)	15 + (No. of Bolts)	10′ + (2 × Shaft Ctrs)
B127-146	12 × 7 Staggered	18	3.86 + (1.33 × Shaft Ctrs)	5/16 × 1½	5 × (No. of Buckets)	15 + (No. of Bolts)	11′ + (2 × Shaft Ctrs)
B127S-146S	12 × 7	16	6.28 + (3 × Shaft Ctrs)	5/16 × 1½	5 × (No. of Buckets)	15 + (No. of Bolts)	15′ + (2 × Shaft Ctrs)
B127-147	12 × 7	18	4.72 + (1.33 × Shaft Ctrs)	5/16 × 1½	5 × (No. of Buckets)	15 + (No. of Bolts)	13′ + (2 × Shaft Ctrs)
B147-148	14 × 7	18	3.86 + (1.33 × Shaft Ctrs)	5/16 × 1½	7 × (No. of Buckets)	21 + (No. of Bolts)	11′ + (2 × Shaft Ctrs)
B147-149	14 × 7	18	4.72 + (1.33 × Shaft Ctrs)	5/16 × 1½	7 × (No. of Buckets)	21 + (No. of Bolts)	13′ + (2 × Shaft Ctrs)
B168-150	16 × 8	18	3.31 + (1.33 × Shaft Ctrs)	5/16 × 1½	7 × (No. of Buckets)	21 + (No. of Bolts)	10′ + (2 × Shaft Ctrs)
B168-152	16 × 8	18	4.72 + (1.33 × Shaft Ctrs)	5/16 × 1½	7 × (No. of Buckets)	21 + (No. of Bolts)	13′ + (2 × Shaft Ctrs)

Continuous Discharge Chain Series 700

Number of Buckets, Bucket Bolts, Washers and Length of Chain.

Elevator Number	Buckets Medium Front Continuous Steel Buckets			Bucket Bolts and Lock Washers Hex Head Cap Screws		Chain		
	Size (Inches)	Spacing (Inches)	☆ Quantity	Size (Inches)	Quantity	Number	Attachment Every _ Link	Length (Feet)
C85-766	8 × 5 × 7¾	8	6.57 + (3 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2 - 2nd	4.66′ + (2 × Shaft Ctrs)
C85-767	8 × 5 × 7¾	8	6.57 + (3 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-102B	K2 - 2nd	4.66′ + (2 × Shaft Ctrs)
C105-768	10 × 5 × 7¾	8	8.25 + (3 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-102B	K2 - 2nd	5.0′ + (2 × Shaft Ctrs)
C105-769	10 × 5 × 7¾	8	8.25 + (3 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-102B	K2 - 2nd	5.0′ + (2 × Shaft Ctrs)
C107-770	10 × 7 × 11⅜	12	6.06 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-110	K2 - 2nd	6.5′ + (2 × Shaft Ctrs)
C107-771	10 × 7 × 11⅜	12	6.06 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 2nd	6.5′ + (2 × Shaft Ctrs)
C127-772	12 × 7 × 11⅜	12	5.60 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-110	K2 - 2nd	6.0′ + (2 × Shaft Ctrs)
C127-773	12 × 7 × 11⅜	12	5.60 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 2nd	6.0′ + (2 × Shaft Ctrs)
C147-774	14 × 7 × 11⅜	12	5.60 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-110	K2 - 2nd	6.0′ + (2 × Shaft Ctrs)
C147-775	14 × 7 × 11⅜	12	5.60 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 2nd	6.0′ + (2 × Shaft Ctrs)
C128-776	12 × 8 × 11⅜	12	5.60 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-110	K2 - 2nd	6.0′ + (2 × Shaft Ctrs)
C128-777	12 × 8 × 11⅜	12	5.60 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 2nd	6.0′ + (2 × Shaft Ctrs)
C148-778	14 × 8 × 11⅜	12	5.60 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	C-110	K2 - 2nd	6.0′ + (2 × Shaft Ctrs)
C148-779	14 × 8 × 11⅜	12	5.60 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 2nd	6.0′ + (2 × Shaft Ctrs)
C168-781	16 × 8 × 11⅜	12	5.33 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 2nd	5.5′ + (2 × Shaft Ctrs)
C168-783	18 × 8 × 11⅜	12	5.33 + (2 × Shaft Ctrs)	⅜ × 1¼	4 × (No. of Buckets)	SS-110	K2 - 2nd	5.5′ + (2 × Shaft Ctrs)

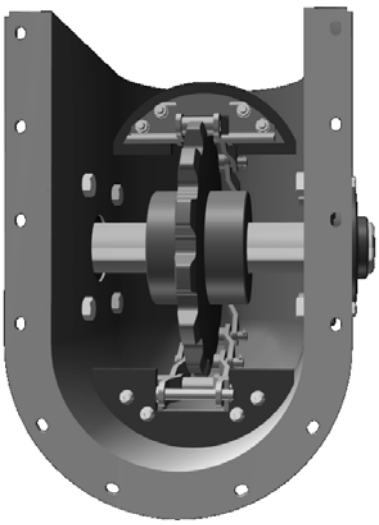
Continuous Discharge Belt Series 700

Number of Buckets, Bucket Bolts, Washers and Length of Chain.

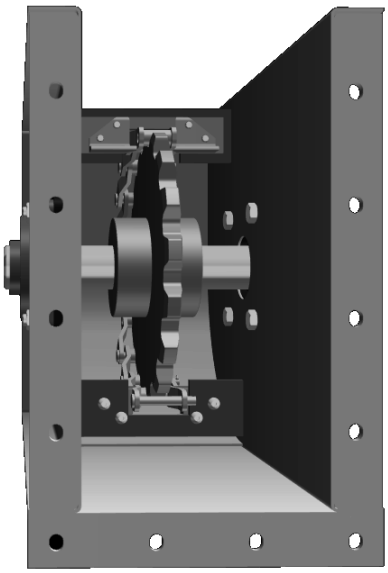
Elevator Number	Buckets Medium Front Continuous Steel Buckets			Bucket Bolts and Lock Washers (Norway Elevator Bolts)		Belt (Including 3 Buckets Overlap)		
	Size (Inches)	Spacing (Inches)	☆ Quantity	Size (Inches)	Quantity	Width (Inches)	No. of Holes to be Punched in Belt	Length (Feet)
B85-790	8 × 5 × 7¾	8	7.88 + (3 × Shaft Ctrs)	¼ × ¾	5 × (No. of Buckets)	9	15 + (No. of Bolts)	8′ + (2 × Shaft Ctrs)
B105-791	10 × 5 × 7¾	8	6.5 + (3 × Shaft Ctrs)	5/16 × 1	5 × (No. of Buckets)	11	15 + (No. of Bolts)	7′ + (2 × Shaft Ctrs)
B107-792	10 × 7 × 11⅜	12	5.75 + (2 × Shaft Ctrs)	5/16 × 1	5 × (No. of Buckets)	11	15 + (No. of Bolts)	10′ + (2 × Shaft Ctrs)
B127-793	12 × 7 × 11⅜	12	5.75 + (2 × Shaft Ctrs)	5/16 × 1¼	5 × (No. of Buckets)	13	15 + (No. of Bolts)	10′ + (2 × Shaft Ctrs)
B147-794	14 × 7 × 11⅜	12	5.75 + (2 × Shaft Ctrs)	5/16 × 1¼	7 × (No. of Buckets)	15	21 + (No. of Bolts)	10′ + (2 × Shaft Ctrs)
B128-795	12 × 8 × 11⅜	12	5.75 + (2 × Shaft Ctrs)	5/16 × 1¼	5 × (No. of Buckets)	13	15 + (No. of Bolts)	10′ + (2 × Shaft Ctrs)
B148-796	14 × 8 × 11⅜	12	5.75 + (2 × Shaft Ctrs)	5/16 × 1¼	7 × (No. of Buckets)	15	21 + (No. of Bolts)	10′ + (2 × Shaft Ctrs)
B168-797	16 × 8 × 11⅜	12	5.75 + (2 × Shaft Ctrs)	5/16 × 1¼	7 × (No. of Buckets)	17	21 + (No. of Bolts)	10′ + (2 × Shaft Ctrs)
B183-798	18 × 8 × 11⅜	12	4.96 + (2 × Shaft Ctrs)	5/16 × 1¼	7 × (No. of Buckets)	19	21 + (No. of Bolts)	9′ + (2 × Shaft Ctrs)

☆ If answer is a fraction, go to next whole number

Drag Conveyors Section VII



Round Bottom Drag Conveyor



Flat Bottom Drag Conveyor

*Conveyors showh without cover for illustration purposes only. Please follow manufacturing safety guidelines when operating conveyors.

Safety

Safety must be considered a basic factor in machinery operation at all times. Most accidents are the result of carelessness or negligence. The following safety instructions are basic guidelines and should be considered as minimum provisions. Additional information shall be obtained by the purchaser from other sources including the latest editions of American Society of Mechanical Engineers. Standard ANSI B20.1; Standard ANSI B15.1; CEMA Standard 350; Standard ANSI Z535.4-1992; Standard ANSI Z244.1.4.

It is the responsibility of the contractor, installer, owner and user to install, maintain and operate the conveyor components and conveyor assemblies manufactured and supplied by Martin Conveyor Division, in such a manner as to comply with the Williams-Steiger Occupational Safety and Health Act and with all state and local laws and ordinances and the American National Standards Institute Safety Code.

Precautions:

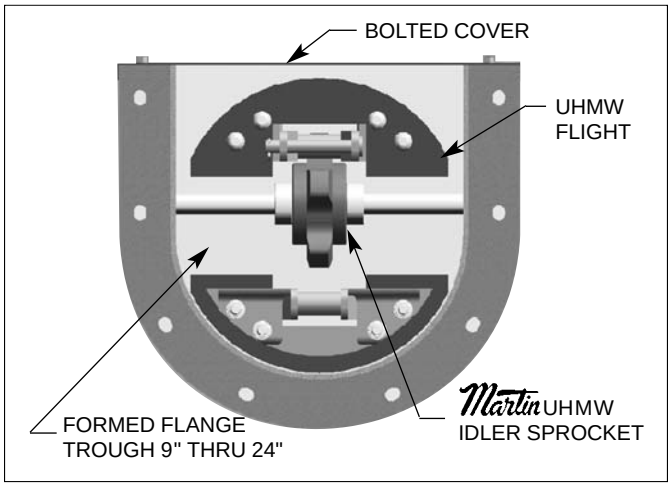
1. Maintain a safety training and safety equipment operation/maintenance program for all employees.
2. Drag Conveyors shall not be operated unless the conveyor housing completely encloses the conveyor moving elements and power transmission guards are in place. **If the conveyor is to be opened for inspection, cleaning or observation, the motor driving the conveyor is to be locked out electrically in such a manner that it cannot be restarted by anyone, however remote from the area, unless the conveyor housing has been closed and all other guards are in place.**
3. If the conveyor must have an open housing as a condition of its use and application, the entire conveyor is then to be guarded by a railing or fence in accordance to ANSI standard B20.1.
4. RUGGED gratings may be used where necessary. If the distance between the grating moving elements is less than 4 inches, the grating opening must not exceed ½ inch by 1 inch. In all cases the openings shall be restrictive to keep any part of the body or clothing from coming in contact with moving parts of the equipment. SOLID COVERS should be used at all other points and must be designed and installed so that personnel will not be exposed to accidental contact with any moving parts of the equipment.
5. All rotating equipment such as drives, gears, shafts and couplings must be guarded by the purchaser/owner as required by applicable laws, standards and good practice.
6. SAFETY DEVICES AND CONTROLS must be purchased and provided by the purchaser/owner as required by applicable laws, standards and good practices.
7. Practice good housekeeping at all times and maintain good lighting around all equipment.
8. Keep all operating personnel advised of the location and operation of all emergency controls and devices. Clear access to these controls and devices must be maintained.
9. Frequent inspections of these controls and devices, covers, guards and equipment to ensure proper working order and correct positioning must be performed.
10. Do not walk on conveyor covers, gratings or guards.
11. Do not poke or prod material in the conveyor.
12. Do not place hands, feet or any part of the body or clothing in the conveyor or opening.
13. Do not overload conveyor or attempt to use it for other than its intended use.
14. Inlet and discharge openings shall be connected to other equipment in order to completely enclose the conveyor.
15. Before power is connected to the drive, a pre-start up check shall be performed to ensure the equipment and area are safe for operation and all guards are in place and secure.
16. Drag conveyors are not normally manufactured or designed to handle materials that are hazardous to personnel. These materials which are hazardous include those that are explosive, flammable, toxic or otherwise dangerous to personnel. Conveyors **may** be designed to handle these materials. Conveyors are not manufactured or designed to comply with local, state or federal codes for unfired pressure vessels. If hazardous materials are to be conveyed or if the conveyor is to be subjected to internal or external pressure, Martin Conveyor Division should be consulted prior to any modifications.

All equipment shall be checked for damage immediately upon arrival. **Do not attempt to install a damaged item or conveyor.**

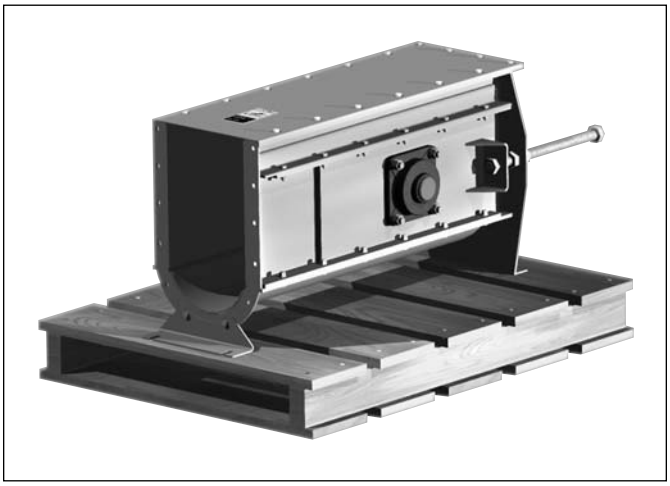
All drag conveyors shop assembled by the Martin Conveyor Division, Martin Sprocket and Gear Inc., have warning labels affixed in many easily seen locations. If the equipment exterior is painted, coated or altered in any way or if the material conveyed is in excess of 175°F or if a change in the original intended use of the equipment is considered, the Conveyor Division shall be consulted before modifications are made. Additional stickers are available upon request.

The Conveyor Equipment Manufacturer's Association (CEMA) has produced an audio-visual presentation entitled "Safe Operation of Screw Conveyors, Drag Conveyors, and Bucket Elevators." Conveyor Division encourages acquisition and use of this source of safety information.

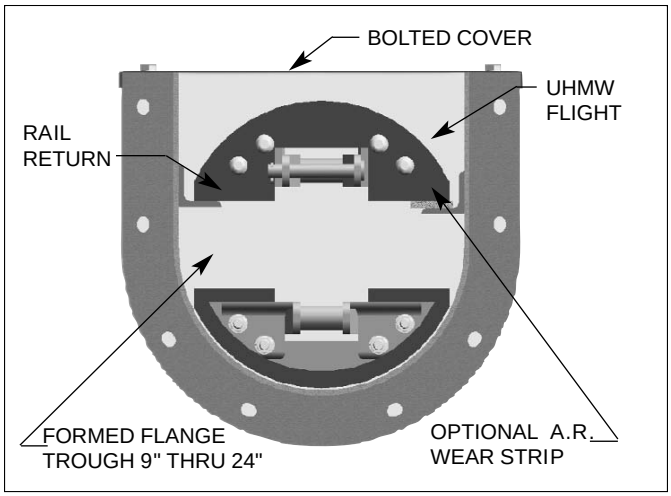
Round Bottom Drag Conveyor



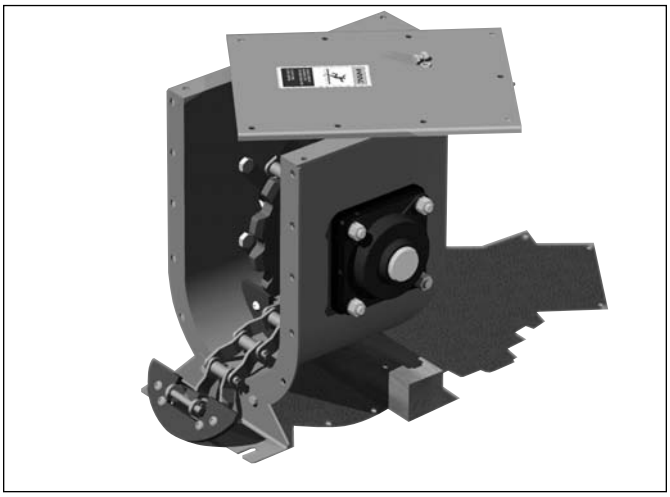
Idler Return



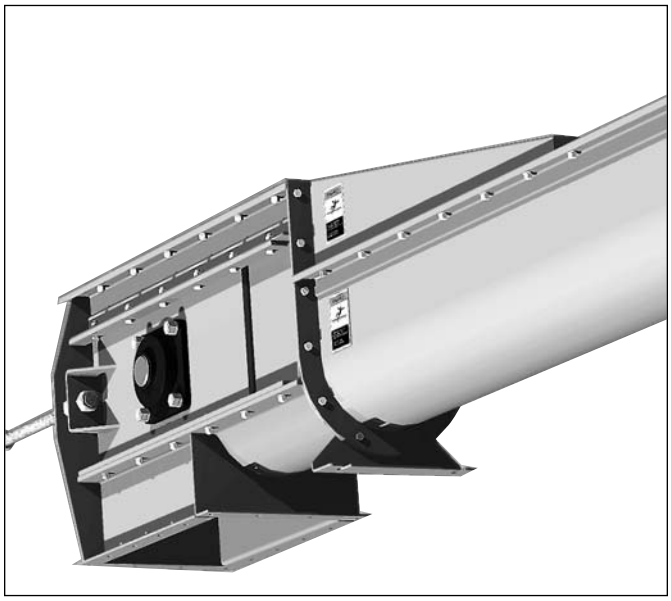
Round Bottom Tail Take-up



Rail Return



Self-Cleaning Tail



Head Take-up

Standard Features

- Bolted Flanged Covers
- Welded Steel Chain
- Jig Welded Flight Attachment
- UHMW Flights
- Heavy Duty Form Flange Trough
- Heat Treated Sprockets
- Rail Return System
- Flow Through Inlets
- Heavy Duty Backing Plate

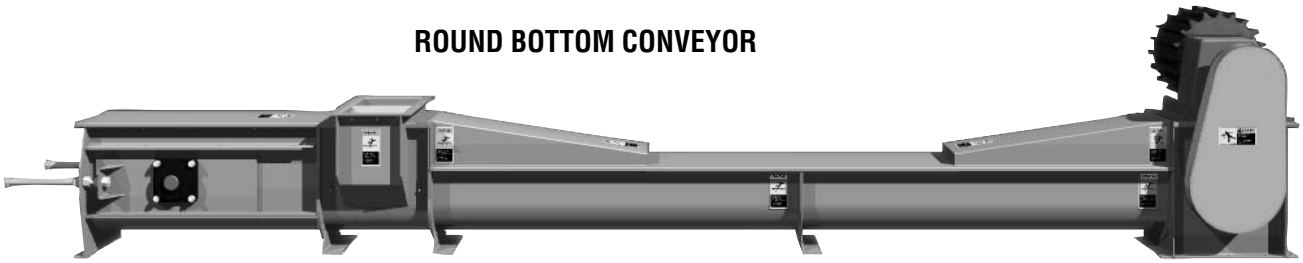
Popular Options

- By-Pass Inlets
- Hip Roof Cover
- Self-Cleaning Tail Section
- Intermediate Discharge
- Bend Section
- Flight Saver Idler Return System
- Optional A.R. Wear Strip
- Split Sprockets

*Conveyors showh without cover for illustration purposes only. Please follow manufacturing safety guidelines when operating conveyors.

Round Bottom Drag Conveyor

ROUND BOTTOM CONVEYOR



Capacity FPM/RPM

Series	Size	100 FPM		125 FPM		150 FPM		175 FPM		200FPM	
		CFH	RPM	CFH	RPM	CFH	RPM	CFH	RPM	CFH	RPM
900	9″	2040	33	2600	41	3050	50	3500	58	4080	66
1200	12″	3475	33	4300	41	5200	50	6075	58	6950	66
1400	14″	4750	33	5900	40	7100	50	8300	58	9500	66
1600	16″	6050	32	7600	40	9150	48	10600	56	12100	64
1800	18″	8100	32	10150	40	12300	48	14300	56	16200	64
2000	20″	10500	23	13000	29	15650	35	18200	40	21000	46
2400	24″	14800	23	18150	29	22000	35	25750	40	29600	46

Note: Dimensions not certified for construction.

NOTES:

1. *Capacities are based on 100% loading with free-flowing grains at 48 pounds per cubic foot.*
2. *Selection of conveyors should be based upon material characteristics.*
3. *Capacities and speeds will vary for other types of materials and for materials conveyed at an incline.*

Please consult Martin if you have any questions concerning your application.

Material Thickness and Approximate Shipping Weights

Series	Adj. Tail	Weight[1]	Bypass	Weight	Fixed Head	Weight	Intermediate				Cover
							Standard Duty	Weight[2]	Specific Duty	Weight[3]	
900	3/16	367	3/16	89	3/16″	187	14 ga.	185	3/16	255	14 ga.
1200	3/16	394	3/16	127	3/16″	210	12 ga.	285	3/16	420	14 ga.
1400	3/16	412	3/16	140	3/16″	221	12 ga.	310	3/16	460	14 ga.
1600	3/16	475	3/16	160	3/16″	257	12 ga.	365	3/16	520	14 ga.
1800	3/16	575	3/16	238	3/16″	281	10 ga.	507	3/16	640	12 ga.
2000	1/4	856	3/16	295	3/16″	486	10 ga.	578	3/16	705	12 ga.
2400	1/4	899	3/16	370	3/16″	665	10 ga.	742	3/16	870	12 ga.

NOTES:

1. *Tail and head weights shown include bearings, shafts, and standard sprockets.*
2. *Intermediate weights include return rails and bolted bottoms and covers.*

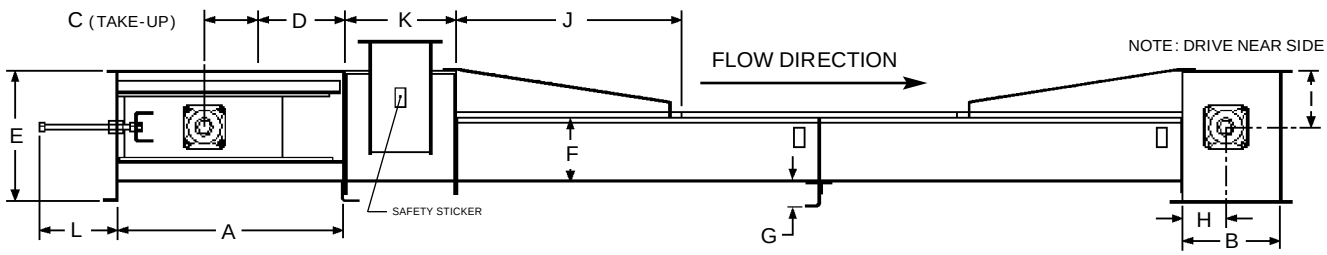
6" Drag conveyors are also available upon request. Please contact Martin Conveyor for quote.

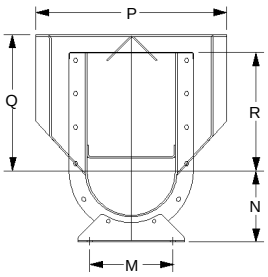
Martin has designed its Round Bottom with the user in mind. We have incorporated larger heat-treated sprockets into our designs to reduce noise, vibration and chordal action while increasing chain and sprocket life. Our goal is to reduce maintenance and operating costs for the user.

We offer the Martin Round Bottom Drag with either a rail return or optional Flight Saver Idler return system. Both systems assure long life and quiet operation.

All drag flights are a (food safe) white UHMW polyethylene material attached to welded steel chain, with exception of the 6" drag conveyor which uses combination chain.

Round Bottom Drag Conveyor

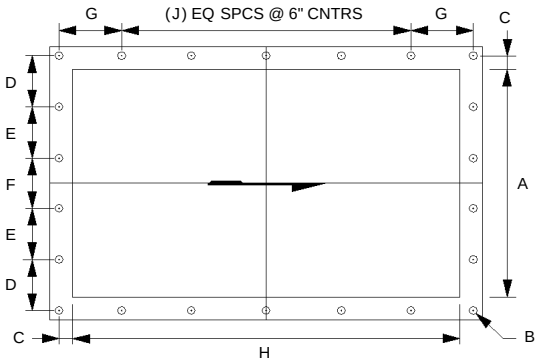




BY-PASS INLET

SERIES	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R
900	38	18	9	14¼	21⅝	11⅛	3 3/16	9	9 5/16	36	18	13	9⅜	8⅜	20⅞	15⅓	13 5/16
1200	38	20	9	14¼	23¾	14¼	2 15/16	10	9 13/16	36	21	13	12¼	9½	24⅜	15⅓	13 5/16
1400	38	20	9	14¼	24	16¾	3 1/16	10	10 5/16	36	23	13	13½	10¾	24⅜	15⅓	13 5/16
1600	38	24	9	14¼	26	19⅛	3 5/16	12	11 5/16	36	25	13	14⅞	11⅞	28⅜	16¼	14¼
1800	38	24	9	14¼	27½	21⅝	3 11/16	22	11 13/16	24	27	13	16	13¼	29	16	14¼
2000	41	29	12	16	33¼	24	4¼	14½	14⅞	24	29	16	19¼	14⅞	34	20½	18½
2400	41	34	12	16	36½	29	5 7/16	17	15 13/16	24	33	16	20	18 1/16	39	20⅝	18⅝

SERIES	A	B	C	D	E	F	G	H	J
900	10	7/16	1	4	—	4	4	18	2
1200	13	7/16	1¼	5⅛	—	5¼	5¼	20	2
1400	15	7/16	1¼	3½	3½	3½	5¼	20	2
1600	17	7/16	1¼	3¾	4	4	3⅝	24	2
1800	19	7/16	1¼	4 5/16	4⅜	4⅜	3⅝	24	2
2000	21	9/16	1½	4⅞	4¾	4¾	4	29	4
2400	25	9/16	1½	5⅝	5⅝	5½	6½	34	4



BY-PASS INLET, HEAD & INTERMEDIATE DISCHARGE

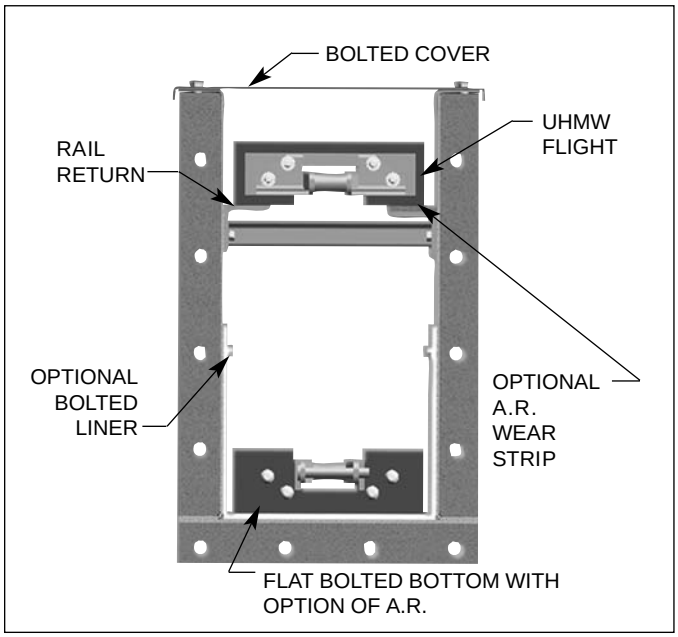
WARNING AND SAFETY REMINDER

LOCK OUT POWER before removing covers, guards or before servicing. Exposed moving parts can cause severe injury.

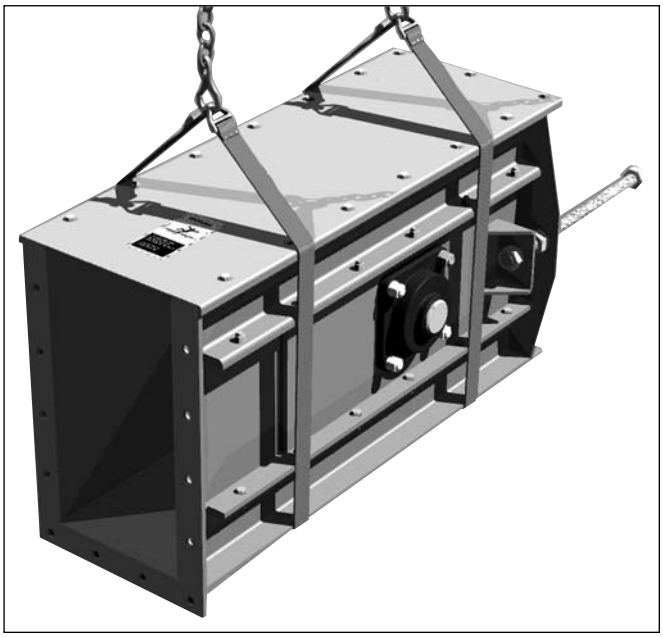
Note: Dimensions not certified for construction.

*Conveyors shown without cover for illustration purposes only. Please follow manufacturing safety guidelines when operating conveyors.

Flat Bottom Drag Conveyor



Rail Return



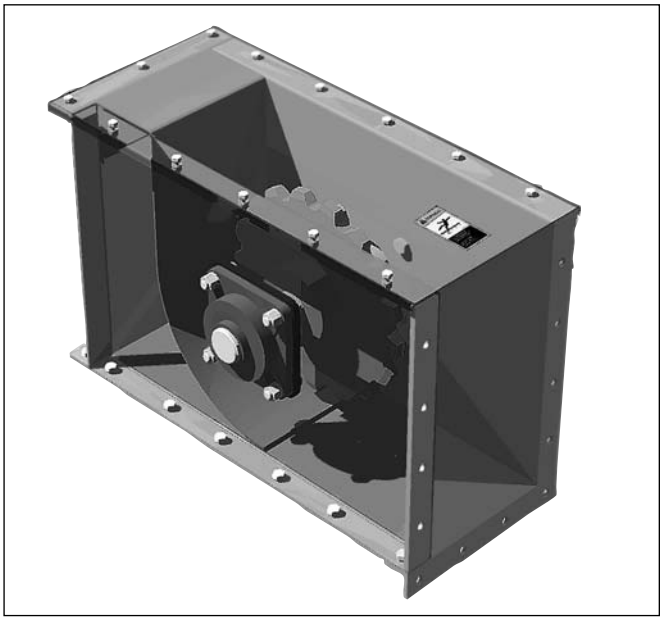
Flat Bottom Tail Take-Up

Standard Features

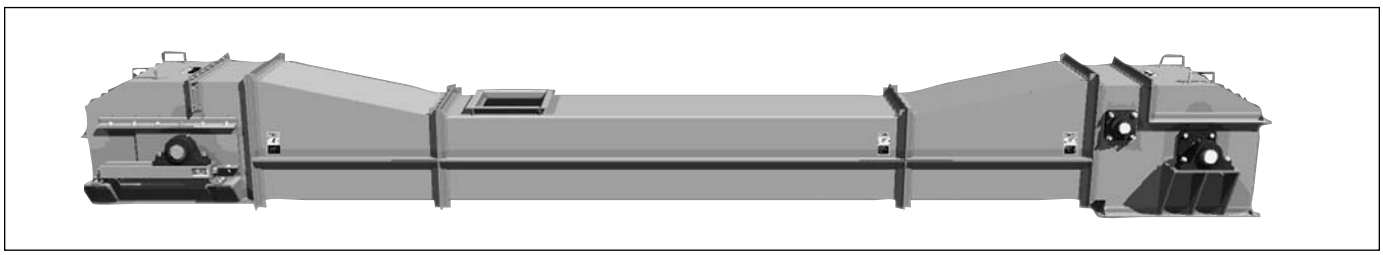
- Bolted Replaceable Bottom
- Bolted Flanged Covers
- Jig Welded Flight Attachment
- UHMW Flights
- Heat Treated Sprockets
- Rail Return System
- Flow Through Inlets
- Heavy Duty Backing Plate

Popular Options

- Intermediate Discharge
- Liners of Various Materials
- A.R. Steel Bottom Plate
- Controlled Feed Inlets
- Split Sprockets



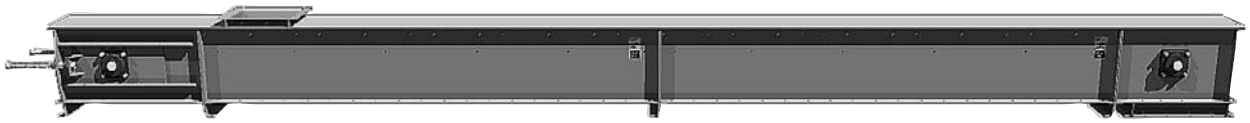
Self-Cleaning Tail



Super Duty Conveyor

*Conveyors shown without cover for illustration purposes only. Please follow manufacturing safety guidelines when operating conveyors.

Flat Bottom Drag Conveyor



Flat Bottom Conveyor

Series	1FPM	100 FPM		125 FPM		150 FPM		175 FPM		200 FPM	
	CFH	CFH	RPM	CFH	RPM	CFH	RPM	CFH	RPM	CFH	RPM
1809	34	3375	37	4220	46	5025	55	5900	65	6750	74
2409	60	6000	27	7500	34	9000	40	10500	47	12000	54
2412	78	7800	27	9750	34	11700	40	13650	47	15600	54
2414	90	9000	27	11250	34	13500	40	15750	47	18000	54
2416	102	10200	27	12750	34	15300	40	17850	47	20400	54
2418	114	11400	27	14250	34	17100	40	19950	47	22800	54
3016	124	12400	23	15500	29	18600	34	21700	40	24800	46
3018	139	13900	23	17375	29	20850	34	24325	40	27800	46
3020	154	15400	23	19250	29	23100	34	26950	40	30800	46
3024	183	18300	23	22875	29	27450	34	32025	40	36600	46

NOTES:

1. *Capacities are based on 100% load ing with free-flowing grains at 48 pounds per cubic foot.*
2. *Selection of conveyors should be based upon material characteristics.*
3. *Capacities and speeds will vary for other types of materials and for mate rials conveyed at an incline.*

Please consult Martin if you have any questions concerning your application.

Material Thickness and Approximate Shipping Weights

Series	Adj. Tail	Weight	Head	Weight	10´0″ Intermediate		Cover
					Standard Duty	Weight	
1809	10 ga.	333	10 ga.	206	10 ga.	403	14 ga.
2409	10 ga.	432	10 ga.	277	10 ga.	460	14 ga.
2412	10 ga.	454	10 ga.	306	10 ga.	492	14 ga.
2414	10 ga.	467	10 ga.	315	10 ga.	514	14 ga.
2416	10 ga.	482	10 ga.	322	10 ga.	532	14 ga.
2418	10 ga.	497	10 ga.	335	10 ga.	544	12 ga.
3016	3/16	642	3/16	438	10 ga.	655	12 ga.
3018	3/16	655	3/16	452	10 ga.	679	12 ga.
3020	3/16	690	3/16	485	10 ga.	703	12 ga.
3024	3/16	749	3/16	613	10 ga.	745	12 ga.

NOTES:

1. *Tail and head weights shown include bearings, shafts and standard sprockets.*
2. *Intermediate weights include return rails, and bolted covers.*

Warning And Safety Reminder

LOCK OUT POWER before removing covers, guards or before servicing. Exposed moving parts can cause severe injury.

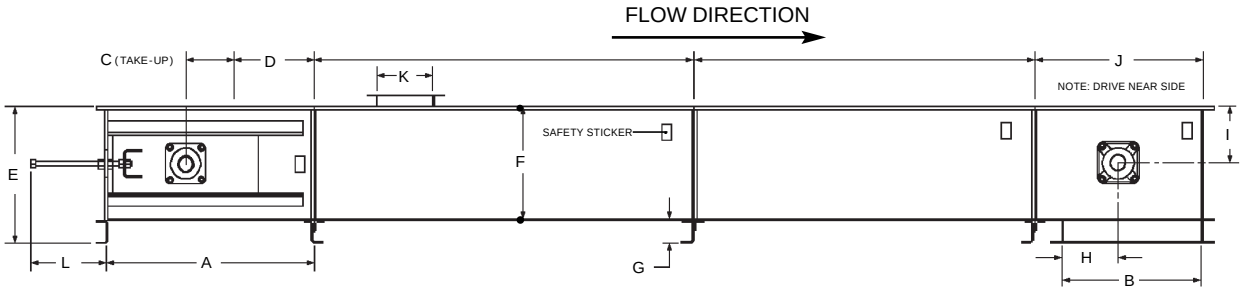
Martin offers a complete line of Flat Bottom Drags to handle capacities up to 36,600 CFH. Martin Super Duty Flat Bottom drags have been successfully used in applications with conveyors reaching lengths of over 660 feet.

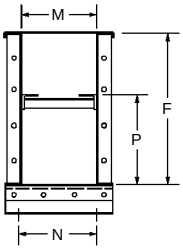
The Martin Flat Bottom drag conveyor is constructed with heavy-duty formed channel sides, with replaceable bolted bottoms and covers. The replaceable rail return system is offered with an optional rail liner when wear is a concern.

The Martin Flat Bottom drag conveyor is especially suited for handling free flowing grains. When heavier abrasive materials need to be conveyed, contact Martin about our Mill Duty Drag conveyor with Forged Chain.

Note: Dimensions not certified for construction.

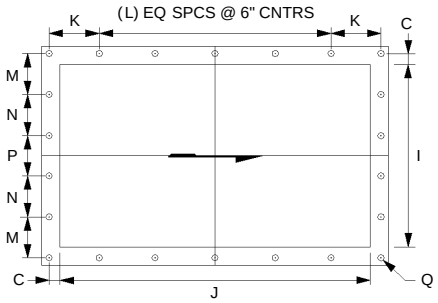
Flat Bottom Drag Conveyor



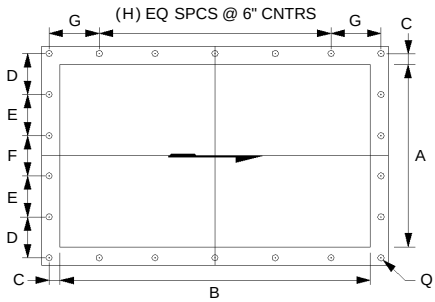


Flat Intermediate

SERIES	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
1809	37	25	9	14	18½	14¼	4	15	7¼	30	16	13	10	9⅜	9
2409	37	25	9	14	24½	20¼	4	15	10⅛	30	16	13	10	9⅜	16
2412	37	30	9	14	24½	20¼	4	17½	10⅛	35	18	13	13	12¼	16
2414	37	30	9	14	24½	20¼	4	17½	10⅛	35	20	13	15	13½	16
2416	37	30	9	14	24½	20¼	4	17½	10⅛	35	22	13	17	14⅞	16
2418	37	30	9	14	24½	20¼	4	17½	10⅛	35	25	13	19	16	16
3016	37	36	9	14	29½	25¼	4	20½	12⅝	41	22	13	17	14⅞	19½
3018	37	36	9	14	29½	25¼	4	20½	12⅝	41	25	13	19	16	19½
3020	37	36	9	14	29½	25¼	4	20½	12⅝	41	27	13	21	19¼	19½
3024	37	36	9	14	29½	25¼	4	20½	12⅝	41	31	13	25	20	19½



Head & Intermediate Discharge



Standard Inlet

SERIES	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q
1809	7	16	1	4½	***	***	3	2	10	25	3½	3	4	***	4	7/16
2409	7	16	1	4½	***	***	3	2	10	25	3½	3	4	***	4	7/16
2412	10	18	1¼	4	***	***	4¼	2	13	30	4¼	4	5⅛	***	5¼	7/16
2414	12	20	1¼	4½	***	***	5¼	2	15	30	4¼	4	3½	3½	3½	7/16
2416	14	22	1¼	3¾	3¾	3¾	3¾	3	17	30	4¼	4	3¾	4	4	7/16
2418	15	25	1½	3½	3½	3½	5	3	19	30	4¼	4	4 7/16	4⅜	4⅜	9/16
3016	14	22	1½	3¾	3¾	3¾	3¾	3	17	36	4½	5	3¾	4	4	7/16
3018	15	25	1½	3½	3½	3½	5	3	19	36	4½	5	4 7/16	4⅜	4⅜	9/16
3020	17	27	1½	4	4	4	6	3	21	36	4½	5	4⅞	4¾	4¾	9/16
3024	21	31	1½	3¾	3¾	3¾	5	4	25	36	4½	5	5⅝	5½	5½	9/16

Note: Dimensions not certified for construction.

Flat Bottom Drag Conveyor

Mill Duty Conveyor

Standard Features

- Forged Chain and Steel Flights
- A.R. Steel Return Tray
- Spring Loaded Take-up
- Split Sprockets

Popular Options

- A.R. Steel Side Liners
- By-pass Inlet
- Self-cleaning Tail

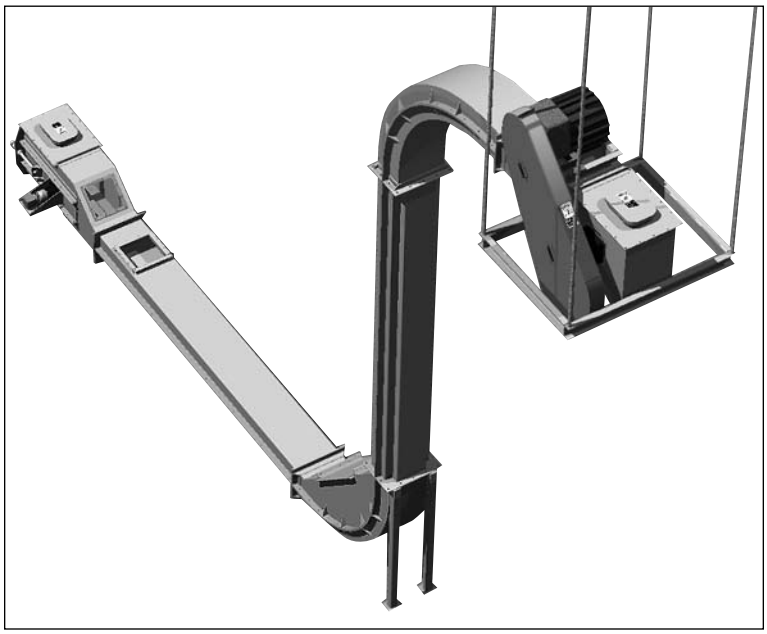
The Martin Mill Duty Drag is designed for handling heavy and abrasive materials, such as limestone, aggregate and sand.

Please consult Martin if you have any questions concerning your application.

Capacities and Speeds					
SERIES	FPM	25 FPM		50 FPM	
	CFH	CFH	RPM	CFH	RPM
1200 MD	56	1400	8	2800	16
1600 MD	96	2400	7.5	4800	15
2000 MD	130	3250	5	6500	10
2400 MD	192	4800	5	9600	10

Warning And Safety Reminder

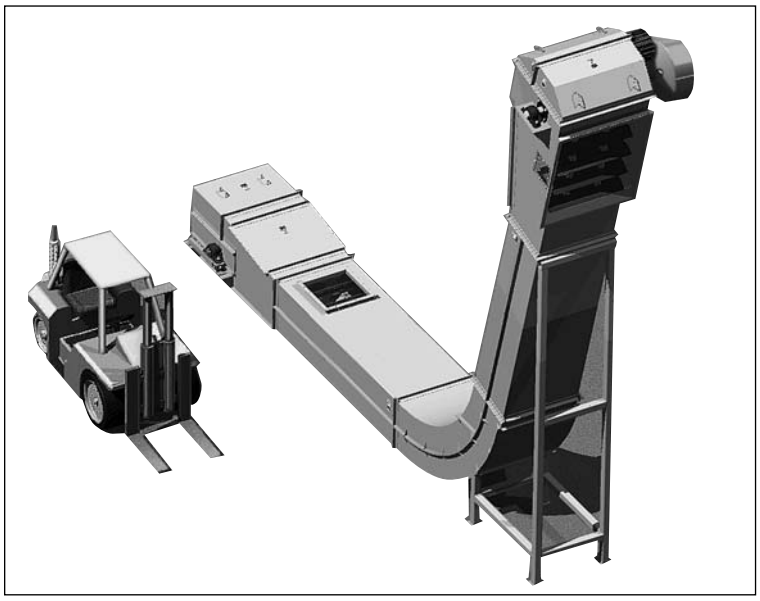
LOCK OUT POWER before removing covers, guards or before servicing. Exposed moving parts can cause severe injury.



Special Application Drag

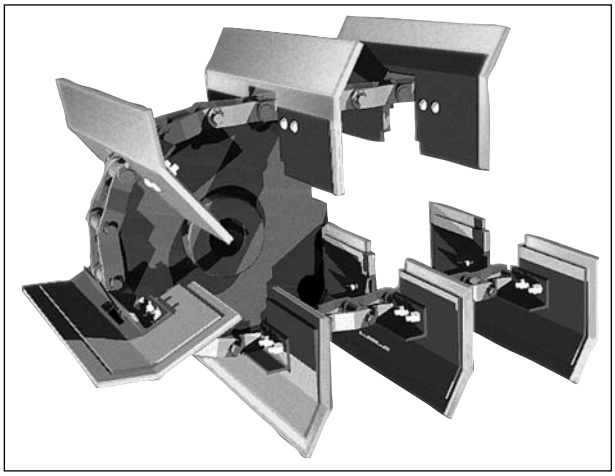
Martin-Built Take-up

L-Path
Drag Conveyor



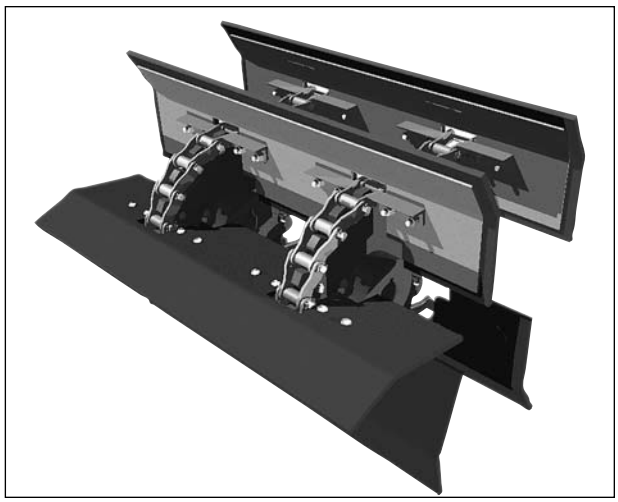
L-Path Conveyor

Series	1FPM	50 FPM		75 FPM		100 FPM	
	CFH	CFH	RPM	CFH	RPM	CFH	RPM
610	20	1000	11	1500	16-1/2	2000	22
913	35	1750	8	2625	12	3500	16
1020	58	2900	11	4350	16-1/2	5800	22
1224	87	4350	11	6525	16-1/2	8700	22
1236	129	6450	10	9675	15	12900	20
1342	150	7500	10	11250	15	15000	20



Single Chain Configuration

S-Path Conveyor



Double Chain Configuration

NOTES:

1. *Capacities are based on the handling of non-abrasive materials (as listed).*
   - *Cotton Seed Hulls • Cotton Seed Meal • Delinted Cotton Seed*
   - *Ground Feed • Whole Soybeans • Hot Soybean Meal*
   - *Whole Corn • Whole Rice*
2. ***CAUTION*** *should be observed when handling fine granular materials (as listed).*
   - *Wheat Flour • Sugar • Powdered Lime • Starch*
   - *Carbon Black • Soda Ash*

CHAIN FEATURES

- Welded Steel Chain
- UHMW Flights
- Jig Welded Attachments
- Heavy Duty Backing Plates

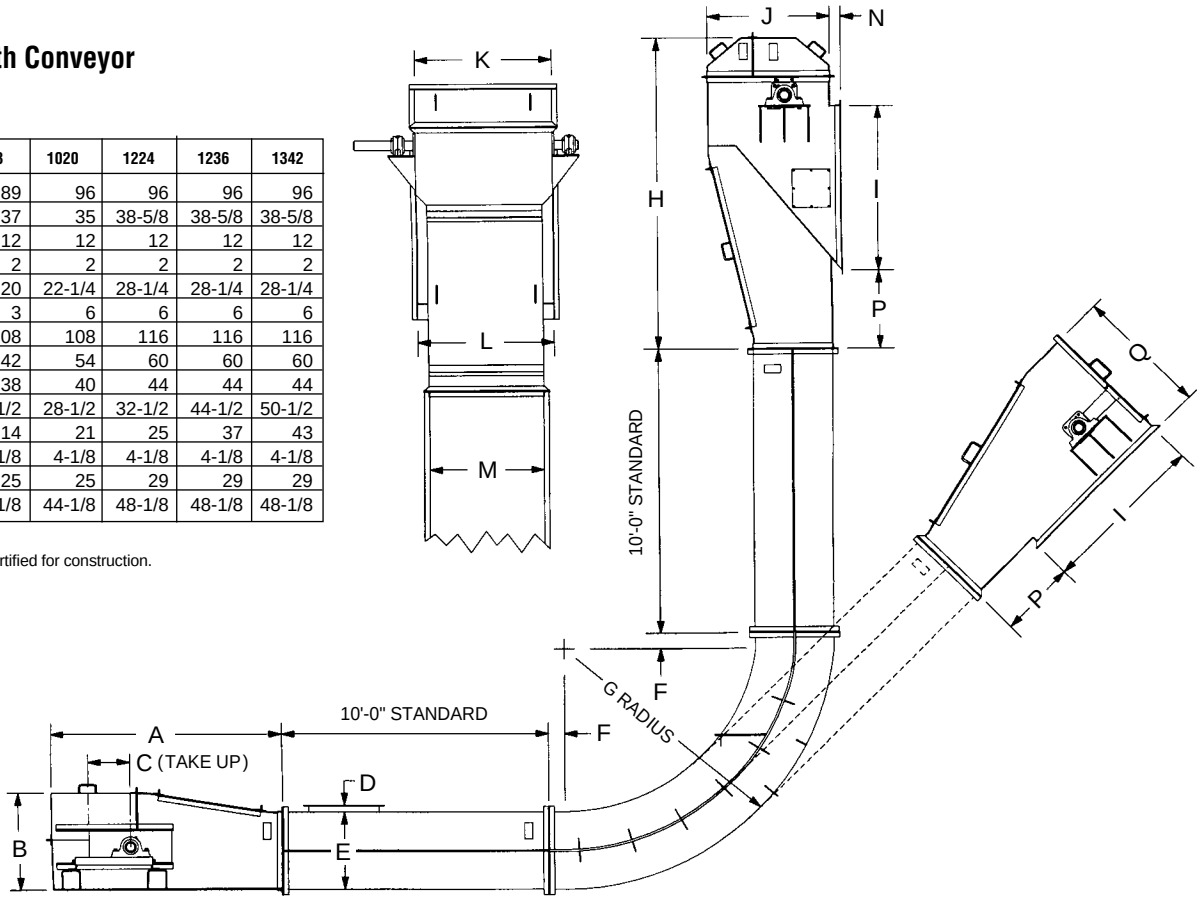
Please consult Martin if you have any questions concerning your application.

L-Path Drag Conveyor

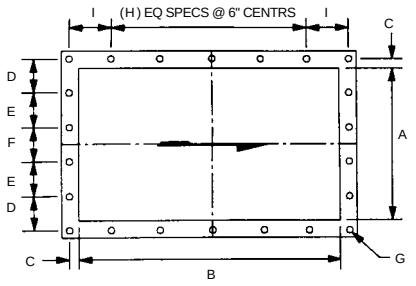
L-Path Conveyor

Series	610	913	1020	1224	1236	1342
A	68	89	96	96	96	96
B	29	37	35	38-5/8	38-5/8	38-5/8
C	12	12	12	12	12	12
D	2	2	2	2	2	2
E	14-1/2	20	22-1/4	28-1/4	28-1/4	28-1/4
F	3	3	6	6	6	6
G	82	108	108	116	116	116
I	36	42	54	60	60	60
J	32	38	40	44	44	44
K	18-3/4	22-1/2	28-1/2	32-1/2	44-1/2	50-1/2
L	11	14	21	25	37	43
N	4-1/8	4-1/8	4-1/8	4-1/8	4-1/8	4-1/8
P	21-1/2	25	25	29	29	29
Q	36-1/8	42-1/8	44-1/8	48-1/8	48-1/8	48-1/8

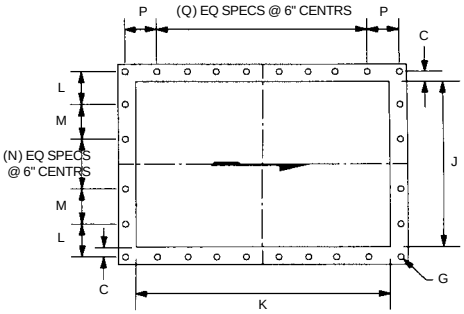
Note: Dimensions not certified for construction.



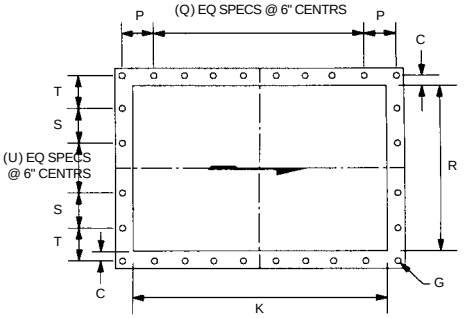
Standard Inlet



Head Discharge 45º–90º



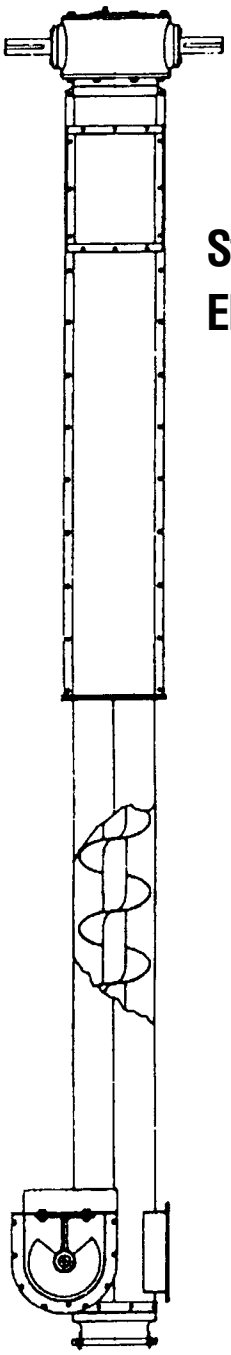
Head Discharge 0º–45º



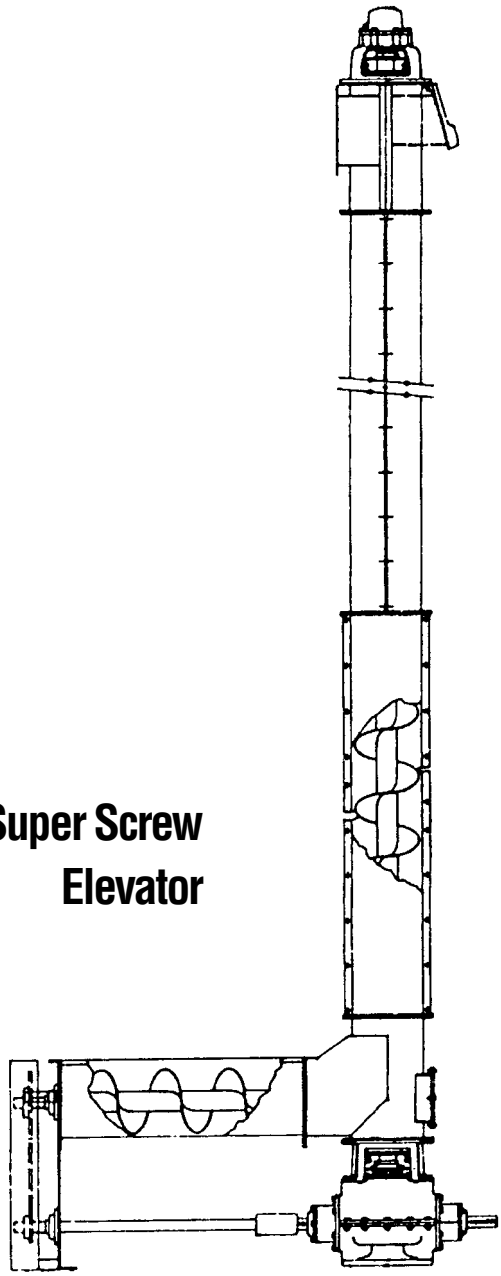
SERIES	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	U
610	7	16	1	4½	***	***	7/16	2	3	18¾	36	4⅜	***	2	4	5	11	***	3½	3½
913	10	18	1¼	4	***	4½	7/16	2	4¼	22½	42	4⅜	4¾	1	4¼	6	14	4¾	3½	1
1020	17	27	1½	4	4	4	9/16	3	6	29	54	4	***	4	4½	8	21	4½	4½	1
1224	21	31	1½	4¾	4¾	5	9/16	4	5	33	60	***	***	6	4½	9	25	***	5	3
1236	33	43	1½	4½	6	6	9/16	6	5	45	60	***	***	8	4½	9	37	***	5	5
1342	38	48	1½	5½	6	6	9/16	7	4½	51	60	4½	4½	6	4½	9	43	4	4	5

Note: Dimensions not certified for construction.

SECTION VIII



Standard Screw Elevator



Super Screw Elevator

Warning & Safety Reminder

Martin—Conveyor Division does not install conveyor; consequently it is the responsibility of the contractor, installer, owner and user to install, maintain and operate the conveyor, components and conveyor assemblies in such a manner as to comply with the Williams-Steiger Occupational Safety and Health Act and with all state and local laws and ordinances and the American National Standard Institute (ANSI) safety code.

In order to avoid an unsafe or hazardous condition, the assemblies or parts must be installed and operated in accordance with the following minimum provisions.

1. Conveyors shall not be operated unless all covers and/or guards for the conveyor and drive unit are in place. If the conveyor is to be opened for inspection cleaning, maintenance or observation, the electric power to the motor driving the conveyor must be LOCKED OUT in such a manner that the conveyor cannot be restarted by anyone; however remote from the area, until conveyor cover or guards and drive guards have been properly replaced.
2. If the conveyor must have an open housing as a condition of its use and application, the entire conveyor is then to be guarded by a railing or fence in accordance with ANSI standard B20.1-1993, with special attention given to section 6.12.
3. Feed openings for shovel, front loaders or other manual or mechanical equipment shall be constructed in such a way that the conveyor opening is covered by a grating. If the nature of the material is such that a grating cannot be used, then the exposed section of the conveyor is to be guarded by a railing or fence and there shall be a warning sign posted.
4. Do not attempt any maintenance or repairs of the conveyor until power has been LOCKED OUT.
5. Always operate conveyor in accordance with these instructions and those contained on the caution labels affixed to the equipment.
6. Do not place hands or feet in the conveyor.
7. Never walk on conveyor covers, grating or guards.
8. Do not use conveyor for any purpose other than that for which it was intended.
9. Do not poke or prod material into the conveyor with a bar or stick inserted through the openings.
10. Keep area around conveyor drive and control station free of debris and obstacles.
11. Always regulate the feeding of material into the unit at a uniform and continuous rate.
12. Do not attempt to clear a jammed conveyor until power has been **LOCKED OUT**.
13. Do not attempt field modification of conveyor or components.
14. Screw conveyors are not normally manufactured or designed to handle materials that are hazardous to personnel. These materials which are hazardous include those that are explosive, flammable, toxic or otherwise dangerous to personnel. Conveyors may be designed to handle these materials. Conveyors are not manufactured or designed to comply with local, state or federal codes for unfired pressure vessels. If hazardous materials are to be conveyed or if the conveyor is to be subjected to internal or external pressure, Martin—Conveyor Division should be consulted prior to any modifications.

Martin—Conveyor Division insists that disconnecting and locking out the power to the motor driving the unit provides the only real protection against injury. Secondary safety devices are available; however, the decision as to their need and the type required must be made by the owner-assembler as we have no information regarding plant wiring, plant environment, the interlocking of the screw conveyor with other equipment, extent of plant automation, etc. Other devices should not be used as a substitute for locking out the power prior to removing guards or covers. We caution that use of the secondary devices may cause employees to develop a false sense of security and fail to lock out power before removing covers or guards. This could result in a serious injury should the secondary device fail or malfunction.

There are many kinds of electrical devices for interlocking of conveyors and conveyor systems such that if one conveyor in a system or process is stopped other equipment feeding it, or following it can also be automatically stopped.

Electrical controls, machinery guards, railings, walkways, arrangement of installation, training of personnel, etc., are necessary ingredients for a safe working place. It is the responsibility of the contractor, installer, owner and user to supplement the materials and services furnished with these necessary items to make the conveyor installation comply with the law and accepted standards.

Conveyor inlet and discharge openings are designed to connect to other equipment or machinery so that the flow of material into and out of the conveyor is completely enclosed.

One or more caution signs (as illustrated below) are attached to conveyor housings, conveyor covers and screw elevator housings. Please order replacement caution labels should the labels attached to this equipment become illegible.

The label shown below has been reduced in size. The actual size is printed next to the label. For more detailed instructions and information, please request a free copy of our "Screw Conveyor Safety, Installation, Operation, Maintenance Instructions."

The Conveyor Equipment Manufacturer's Association (CEMA) has produced an audio-visual presentation entitled "Safe Operation of Screw Conveyors, Drag Conveyors, and Bucket Elevators." Martin—Conveyor Division encourages acquisition and use of this source of safety information.

ACTUAL SIZE 6" x 3"

PROMINENTLY DISPLAY IN WORK AREAS

ACTUAL SIZE 5" x 2½"

Screw Elevator

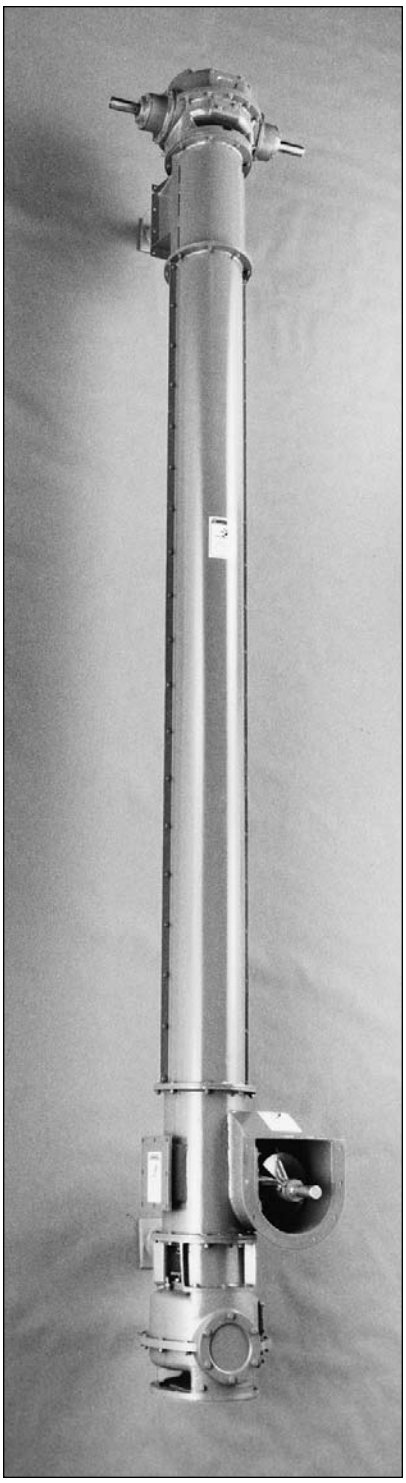
Martin Screw Elevators

For over fifty years, Martin Standard Screw Elevators have been successfully elevating a wide range of materials. In 1956, we added the heavier duty Superscrew Elevator, giving our customers the ability to elevate larger capacities to greater heights.

The Martin Screw Elevator is ideally suited to elevate a wide range of bulk materials in a relatively small space. If a material can be classified as very free flowing or free flowing, it can probably be elevated in a Screw Elevator.

We offer both our Standard and Superscrew Elevators with several different drive arrangements to meet our customers' individual requirements. Martin has an experienced staff in over twenty locations throughout the U.S.A. and Canada that can help you design the right screw elevator for your application. We have the capability of manufacturing our screw elevators in six locations in the U.S.A.

Contact your nearest Martin facility with your application information and we will design the right elevator for your needs.



Type 4
Superscrew Elevator

Partial Material List

Alfalfa Meal	Mixed Feeds
Barley, Malted	Mustard Seed
Bone Meal	Oats
Cement	Paper Pulp
Coffee	Peanuts
Corn Meal	Resin
Cotton Seed	Rubber, Ground
Cryolite	Salt
Flours	Sawdust
Grains	Screened Wood Chips
Hops	Shellac, Powder
Ice	Soda Ash
Kaolin Clay	Soybean Meal
Lead Oxide	Sugar
Lime	Sunflower Seeds
Malt	Tobacco
Mica	Wheat
Milk, Dried	Wood Flour

*Conveyors shown without cover for illustration purposes only. Please follow manufacturing safety guidelines when operating conveyors.

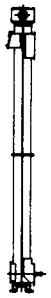
Martin Screw Elevators

To help better meet the needs of our customers, we offer both the Martin Standard and Superscrew Elevators in sixteen different types. The different types allow us to vary the drive location, discharge location and feed arrangement. We are also able to drive the feeder or take-away conveyor by the screw elevator drive.

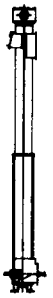
The Martin Screw Elevators are easy to install because they are factory assembled, match-marked and disassembled prior to shipment. All Martin Screw Elevators are of a sturdy self-supporting design and only need lateral support when installed.

The drives for the Martin Standard and Superscrew Elevators are manufactured by Martin and are specifically designed for use with our screw elevators. We can also offer a Screw Conveyor Drive arrangement for lighter duty applications.

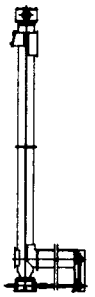
Standard Screw Elevator Types



Type B
Straight Inlet
Top Drive,
Pedestal Base



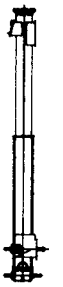
Type BO
Offset Inlet
Top Drive,
Pedestal Base



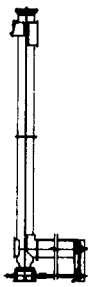
Type AF1
Straight Inlet Top
Drive, Bottom P.T.O.
w/4′-0″ Feeder
And Drive

Type AF2
Offset Inlet
Top Drive,
Bottom P.T.O.
With Drive

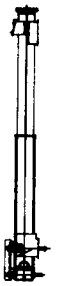
Type EAF1
Straight Inlet
Bottom Drive,
Thrust Head



Type HAF2
Offset Inlet
Bottom Drive,
Thrust Head
With Drive

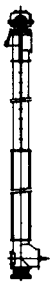


Type GAF1
Straight Inlet
Bottom Drive,
Thrust Head w/4′-0″
Feeder And Drive

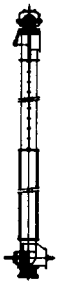


Type IAF-2
Offset Inlet
Bottom Drive,
Thrust Head

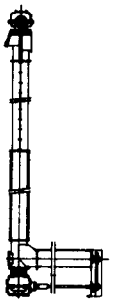
SuperScrew Elevator Types



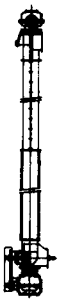
Type 1
Straight Inlet
Top Drive,
Pedestal Base



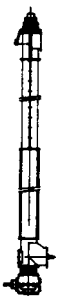
Type 2
Offset Inlet
Top Drive,
Pedestal Base



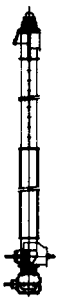
Type 3
Straight Inlet Top
Drive, Bottom P.T.O.
w/4′-0″ Feeder
And Drive



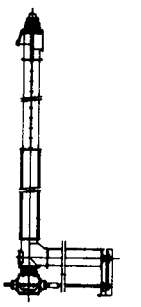
Type 4
Offset Inlet
Top Drive,
Bottom P.T.O.
With Drive



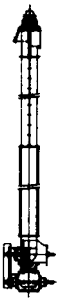
Type 5
Straight Inlet
Bottom Drive,
Thrust Head



Type 6
Offset Inlet
Bottom Drive,
Thrust Head



Type 7
Straight Inlet
Bottom Drive,
Thrust Head w/4′-0″
Feeder And Drive

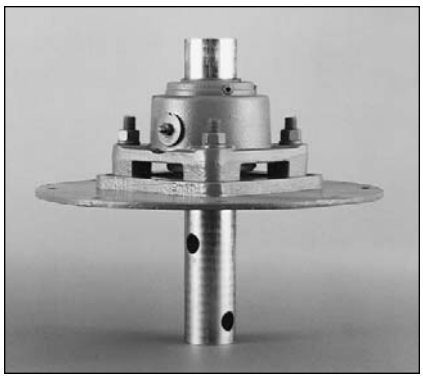


Type 8
Offset Inlet
Bottom Drive,
Thrust Head
With Drive

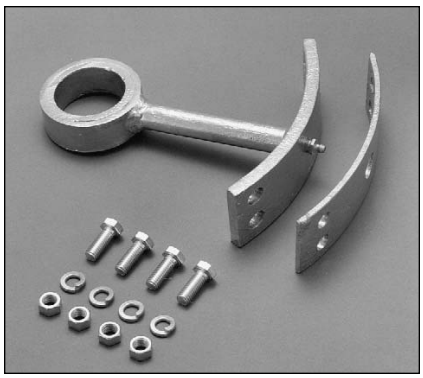
NOTE: All elevators are furnished less feeder and/or feeder drive unless otherwise specified.

CAUTION: Never operate without covers and guards. Always LOCKOUT/TAGOUT electrical power when working on equipment for inspection, cleaning, maintenance, or other purposes.

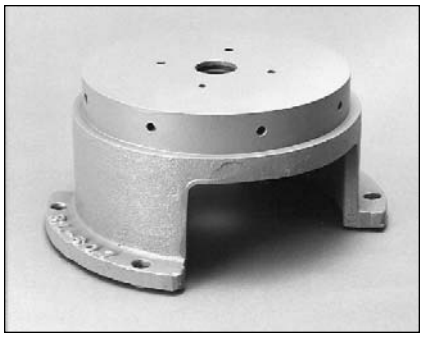
Screw Elevator



Standard Screw Thrust Unit



Stabilizer Bearing Used on Standard Screw Elevator



Standard Screw Pedestal Base

Standard Screw Thrust Head

All Martin Screw Elevators come with heavy duty helicoid or sectional screws which are checked for straightness and run-out to insure a smooth running elevator. When handling free flowing material, we add stabilizers as needed, as the height of the elevator increases. The stabilizer bearings are available in a wide range of bearing materials to meet our customers' requirements, including wood, hard iron, bronze, UHMW, and others.

Both the Martin Standard Screw and Superscrew Elevators are supplied with split intermediate housing to allow easier maintenance.

Martin's specially engineered inlet/bottom section assures a smooth transfer to conveyed material from the horizontal to vertical with a minimum of back-up and product degradation.

The bottom inspection panel is bolted to minimize any product leakage. It also has a shroud to assure that the conveyed material is moving smoothly through the area.

The drives for both the Standard Screw and the Superscrew Elevator are manufactured by Martin to guarantee their quality and availability.

Clearance Between Screw and Housing

Size	Type of Housing	Clearance	Gauge of Housing			
			Standard Elevator		Superscrew Elevator	
			Intermediate	Top and Bottom Sections	Intermediate	Top and Bottom Sections
6	Standard Clearance	½	14	14	14	10
	Close Fitting Clearance	5/16	14	14	14	10
9	Standard Clearance	½	12	12	12	3/16
	Close Fitting Clearance	5/16	12	12	12	3/16
12	Standard Clearance	½	10	10	10	3/16
	Close Fitting Clearance	5/16	10	10	10	3/16
16	Standard Clearance	½			10	3/16
	Close Fitting Clearance	5/16			10	3/16

Standard Screw Elevator

The Martin Standard Screw Elevator is designed to handle under normal conditions, capacities ranging from 360 CFH to 3600 CFH in 6″ dia., 9″ dia., and 12″ dia. sizes. With complete information, Martin engineering staff can help you design the right Screw Elevator for your application.

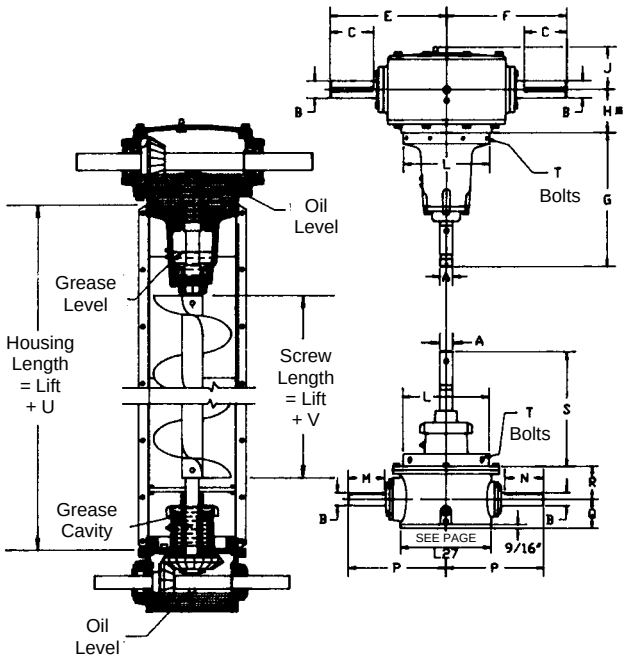
Martin Standard Screw Elevator Speed / Capacity

Size	Vertical Shaft Diameter	Ratio Top Drive	Ratio Bottom Drive	▲ Recommended Minimum and Maximum Speeds			RPM Horizontal Feeder Screw 45 Percent Loading	Capacity Cubic Foot per Hour
				Vertical Screw	Input Top Drive	Input Bottom Drive		
6	1½	2:1	1.4:1	200	400	280	165	360
				215	430	301	177	400
				275	550	385	226	500
9	1½	2:1	1.4:1	170	340	238	139	1100
				200	400	280	163	1300
				230	460	322	187	1500
12	2	2:1	2:1	155	310	310	147	2700
				165	330	330	156	3000
				200	400	400	189	3600

▲ For speeds in excess or less than shown, consult Martin.

The Standard Screw Elevator drive unit will function efficiently with the elevator erected at any angle of incline from horizontal to vertical. The input shaft can be driven in either direction, and the input shaft extension may be used to drive a horizontal feeder or discharge conveyor.

Both top and bottom drives are required when the elevator, feeder and discharge conveyor are all driven from one power source. A top drive and pedestal base are used when the elevator and discharge conveyor are driven from one source. A bottom drive and thrust unit are necessary if the elevator and feeder are driven from one power source. The drives are designed and constructed to withstand all radial and thrust loads and support the entire weight of a fully loaded elevator.



Dimensions in Inches

Size	Ratio		A	B		C	E	F	G	H	J	L	M	N	P	Q	R	S	T Bolts		U		V
	Top Drive	Bottom Drive		Top Drive	Bottom Drive														No. Rec'd	Size	B & BO	All Other Types	All Types
6*	2:1	1.4:1	1½	2	1½	5	13½	14	15¼	7⅞	4 15/16	7	4¼	4½	11 1/32	3⅜	3 13/16	13¼	4	⅜-16 NC	16⅞	23⅛	6⅝
9	2:1	1.4:1	1½	2	1½	5	13½	14	15¼	5	4 15/16	10	4¼	4½	11 1/32	3⅜	3 13/16	13¼	8	⅜-16 NC	21½	27¾	8¾
12	2:1	2:1	2	2	2	5	13½	14	15¼	4⅞	4 15/16	13	5	5 9/16	14 7/16	3⅞	4 9/16	13¼	8	½-13 NC	26	31¾	12¾

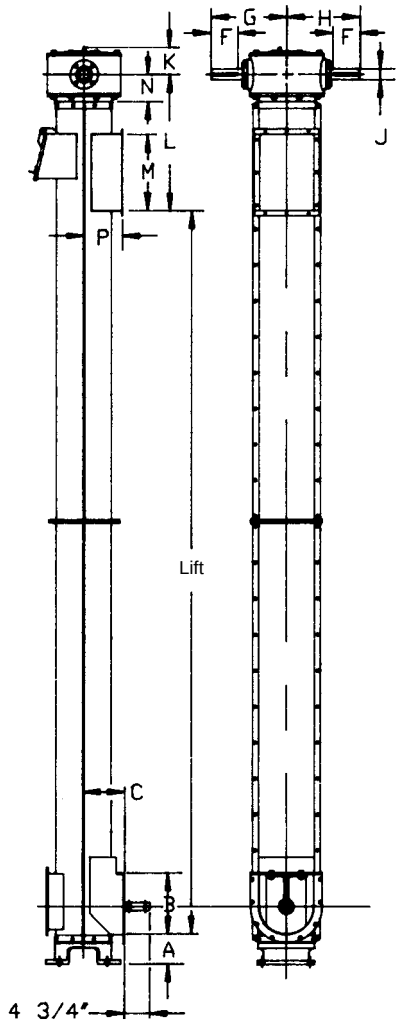
*2⅝″ lg. adapter for 6″ head not illustrated

CAUTION: Never operate without covers and guards. Always LOCKOUT/TAGOUT electrical power when working on equipment for inspection, cleaning, maintenance, or other purposes.

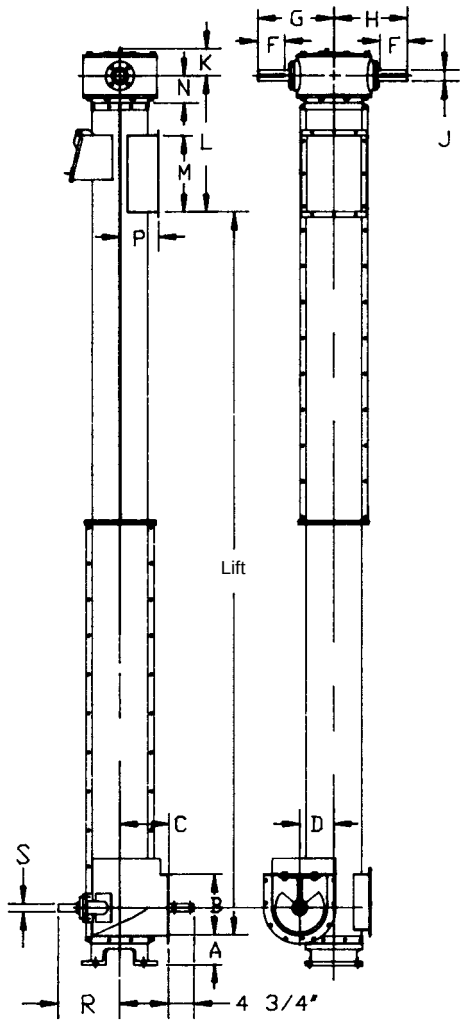
Note: Dimensions not certified for construction.

Standard Screw Elevator

Type B



Type BO



Screw elevator shown is offset to right for illustration purpose only. This elevator will normally be furnished offset to left, unless otherwise specified. See page H-149 for typical elevator arrangements.

Type BO

Size of Elevator	A	B	C	D	F	G	H	J	K	L	M	N	P	R	S
6	6	8	9	4¾	5	13½	14	2	4 15/16	23	12	7⅝	5½	11⅜	1½
9	5½	11⅛	9	6¼	5	13½	14	2	4 15/16	25	14	5	7⅛	11⅜	1½
12	8	14¼	15	8	5	13½	14	2	4 15/16	29	18	4⅞	8¾	14 7/16	2

Type B

Size of Elevator	A	B	C	F	G	H	J	K	L	M	N	P
6	6	8	9	5	13½	14	2	4 15/16	23	12	7⅝	5½
9	5½	11⅛	9	5	13½	14	2	4 15/16	25	14	5	7⅛
12	8	14¼	15	5	13½	14	2	4 15/16	29	18	4⅞	8¾

Dimensions in Inches

Note: Dimensions not certified for construction.

Super Screw Elevator

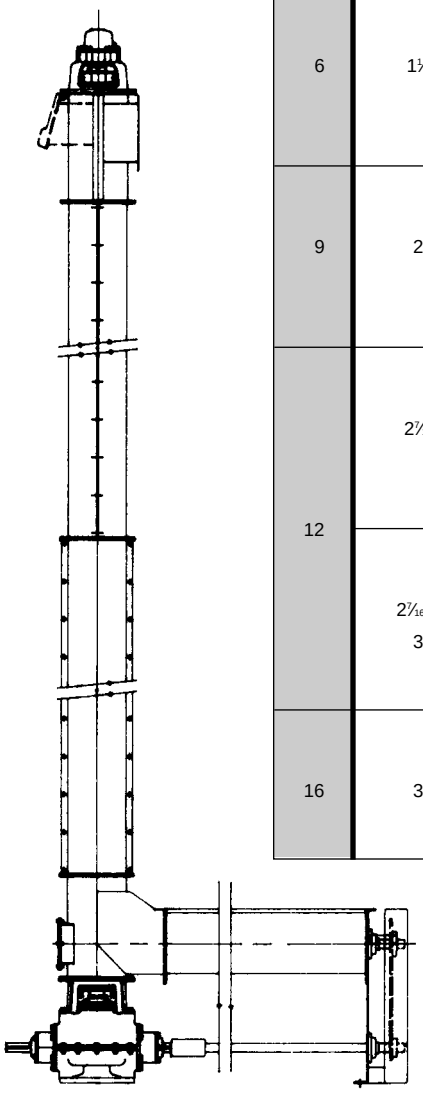
The Martin Superscrew Elevator is designed to handle capacities ranging from 360 CFH to 7000 CFH in 6″ dia., 9″ dia., 12″ dia., and 16″ dia. sizes.

Martin SuperScrew Elevator Speed / Capacity

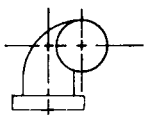
Size	Vertical Shaft Diameter	Ratio Top Drive	Ratio Bottom Drive	▲ Recommended Minimum and Maximum Speeds			RPM Horizontal Feeder Screw 45 Percent Loading	Capacity Cubic Foot per Hour
				Vertical Screw	Input Top Drive	Input Bottom Drive		
1	2	3	4	5	6	7	8	9
6	1½	2:1	2:1	200	400	400	165	360
				215	430	430	177	400
				275	550	550	226	500
				330	660	660	272	600
				Up to 425	Up to 850	Up to 850	★	★
9	2	2:1	2:1	170	340	340	139	1100
				200	400	400	163	1300
				230	460	460	187	1500
				240	480	480	196	1600
				Up to 425	Up to 850	Up to 850	★	★
12	2 7/16	2:1	2:1	155	310	310	147	2800
				165	330	330	156	3000
				200	400	400	189	3600
				210	420	420	199	3800
				Up to 425	Up to 850	Up to 850	★	★
	2 7/16★ 3	2.06:1	2.06:1	155	319	319	151	2800
				165	340	340	161	3000
				200	412	412	195	3600
				210	433	433	205	3800
				Up to 425	Up to 876	Up to 876	★	★
16	3	2.06:1	2.06:1	138	284	284	132	6000
				150	309	309	144	6500
				161	332	332	155	7000
				Up to 425	Up to 876	Up to 876	★	★

★ Consult Martin.

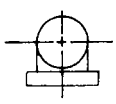
▲ For speeds in excess or less than those shown, consult Martin.



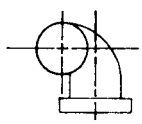
Type 7 Superscrew Elevator



Elevator Offset to the Right of Inlet



Straight Inlet

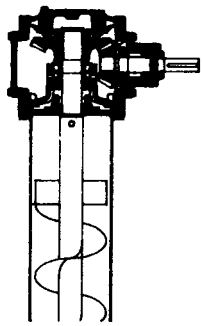


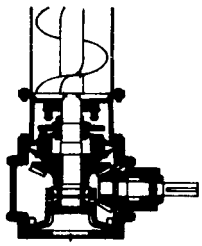
Elevator Offset to the Left of Inlet

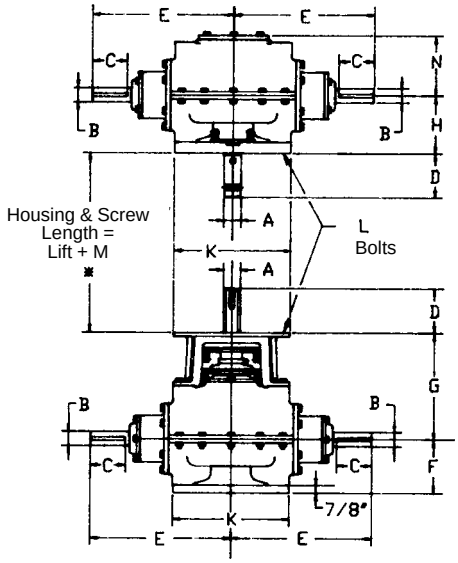
CAUTION: Never operate without covers and guards. Always LOCKOUT/TAGOUT electrical power when working on equipment for inspection, cleaning, maintenance, or other purposes.

Super Screw Elevator

SuperScrew Elevator D.S.D. (Dry Shaft Drive)







DSD (Dry Shaft Drive) is a completely new design and construction concept especially developed to enable the SuperScrew Elevator to broaden the application of screw elevators.

The DSD unit is designed to meet special conditions encountered in vertical installations and may be installed in the range of 70° to 90° incline. If a smaller angle of incline is required, special units may be furnished.

A patented lubrication system precisely “meters” the proper amount of lubricant to those points where needed with no danger of damaging seals.

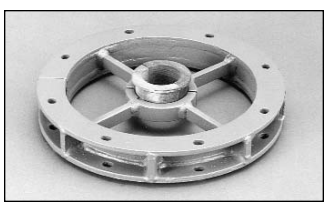
DSD units may be furnished at both the top and the bottom of the elevator. The top drive incorporates special design features to assure that no lubricant may pass into the elevator to contaminate the material being elevated. In the bottom drive unit other special features prevent entrance of foreign material into lubricant.

DSD units may also be furnished at the top only with a pedestal base or at the bottom only with a thrust head.

The compactness of the DSD requires a minimum of head room providing maximum lift with minimum overall elevator height.

DSD units are sturdily constructed to withstand all radial and thrust loads encountered and to support the entire weight of elevators and materials handled.

Size	Ratio	A	B	C	D		E	F	G	H	K	L		M
					Top	Bottom						No.	Size	
6	2:1	1½	1⅝	4	4¾	5	16	6⅛	12	7½	10⅛	8	⅜	12¼
9	2:1	2	1⅝	4	4¾	5	16	6⅛	12	7½	13¼	8	⅜	13¼
12	2:1	2 7/16	1⅝	4	4⅞	5	16	6⅛	12	7½	16¼	8	½	18¼
	2.06:1	2 7/16	1⅝	4¼	4⅞	5	18.1	6⅛	12⅝	7¼	17¼	8	½	18¼
	2.06:1	3	2 3/16	4¼	5	5	18.1	6⅛	12⅝	7¼	17⅜	8	½	18¼
16	2.06:1	3	2 3/16	4¼	5	5	18.1	6⅛	12⅝	7¼	20¼	12	½	24¼



Spider Type Stabilizer
Used on SuperScrew

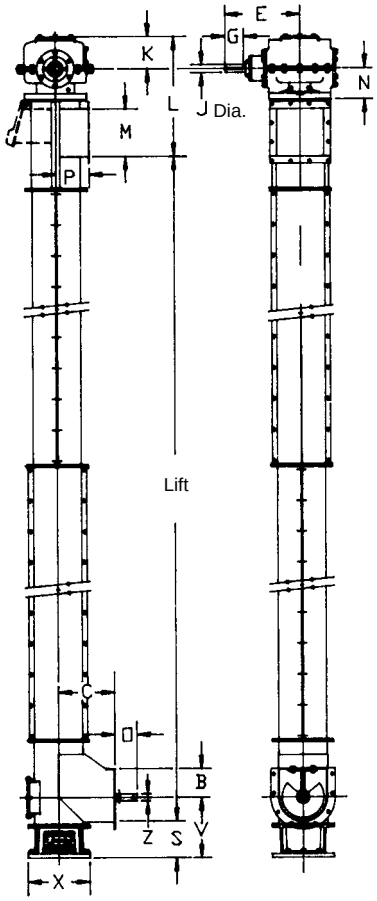
SuperScrew
Thrust Head

SuperScrew
Pedestal Base

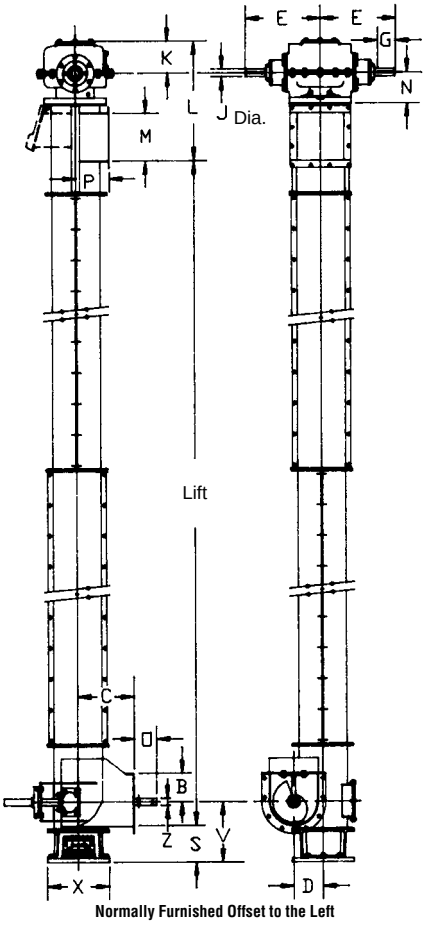
Note: Dimensions not certified for construction.

Super Screw Elevator Dimensions

Type 1



Type 2



Normally Furnished Offset to the Left

Type 1

Size of Elevator	Vert. Shaft Dia.	Ratio	B	C	E	G	J	K	L	M	N	O	P	S	V	X	Z ◇
6	1½	2:1	4½	10½	16	4	1⅝	6¾	26¾	7	6½	4¾	5	8⅜	11⅞	13¼	1½
9	2	2:1	6⅞	12	16	4	1⅝	6¾	28¼	10	6½	4¾	8⅞	7⅞	12⅞	13¼	1½
12	2 7/16	2:1	7¾	15	16	4	1⅝	6¾	32¼	13	6½	4¾	8⅞	8⅞	15⅜	13¼	2
	○ 2 7/16	2.06:1	7¾	15	18.1	4¼	2 3/16	7 15/16	34⅜	13	7¼	4¾	8⅞	9	15½	17⅜	2
	3	2.06:1	7¾	15	18.1	4¼	2 3/16	7 15/16	34⅜	13	7¼	4¾	8⅞	9	15½	17⅜	2
16	3	2.06:1	10⅝	20	18.1	4¼	2 3/16	7 15/16	39⅞	17	7¼	5	11⅛	9½	18	17⅜	3

Type 2

Size of Elevator	Vert. Shaft Dia.	Ratio	B	C	D	E	G	J	K	L	M	N	O	P	S	V	X	Z ◇
6	1½	2:1	4½	10½	4¾	16	4	1⅝	6¾	23¾	7	6½	4¾	5	8⅜	11⅞	13¼	1½
9	2	2:1	6⅞	12	6¼	16	4	1⅝	6¾	25¼	10	6½	4¾	8⅞	7⅞	12⅞	13¼	1½
12	2 7/16	2:1	7¾	15	8	16	4	1⅝	6¾	29¼	13	6½	4¾	8⅞	8⅞	15⅜	13¼	2
	○ 2 7/16	2.06:1	7¾	15	8	18.1	4¼	2 3/16	7 15/16	31⅜	13	7¼	4¾	8⅞	9	15½	17⅜	2
	3	2.06:1	7¾	15	8	18.1	4¼	2 3/16	7 15/16	31⅜	13	7¼	4¾	8⅞	9	15½	17⅜	2
16	3	2.06:1	10⅝	20	10½	18.1	4¼	2 3/16	7 15/16	36¾	17	7¼	5	11⅛	9½	18	17⅜	3

Dimensions in Inches

◇ Horizontal coupling diameter may vary upon length of feeder.

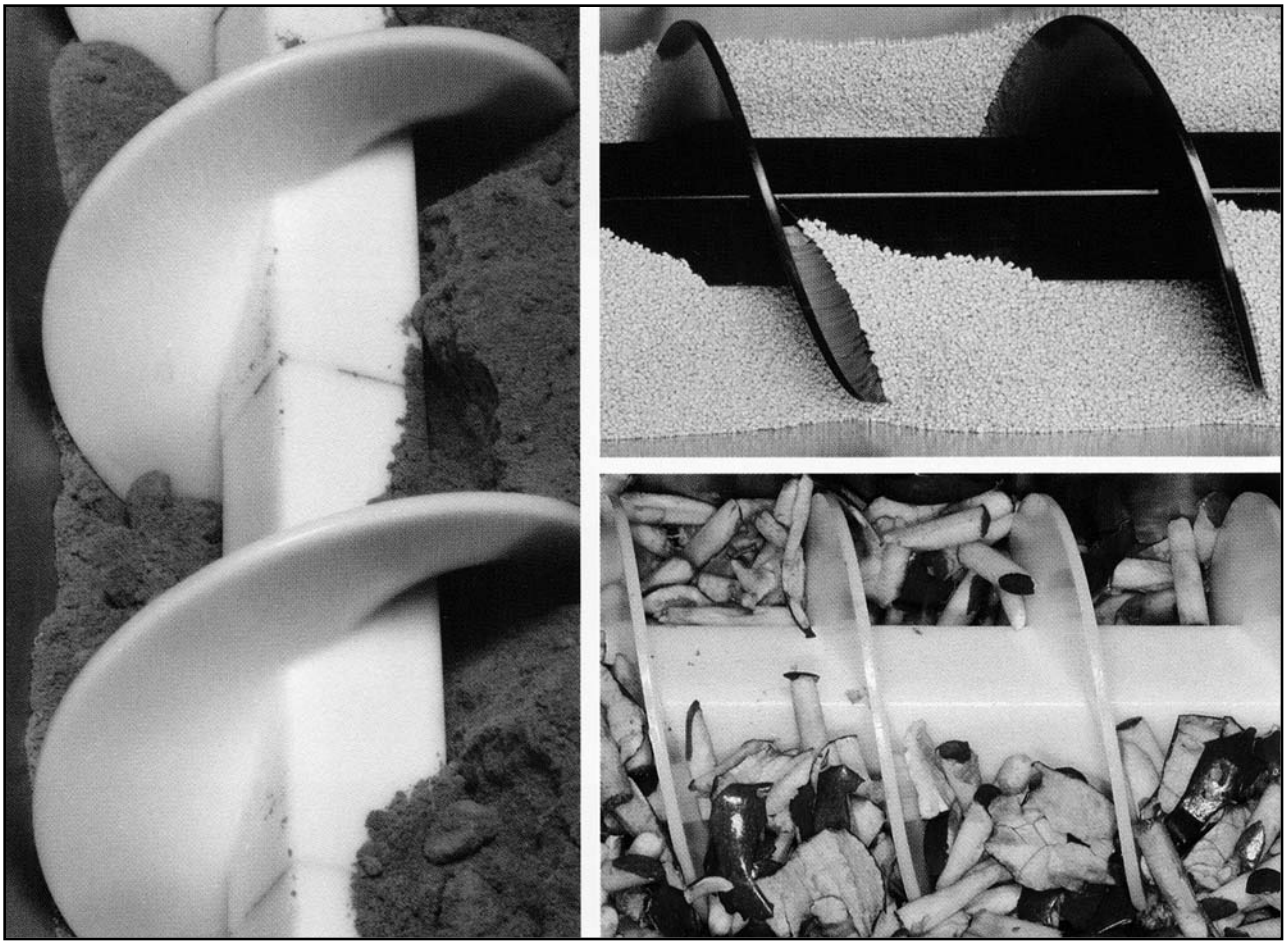
○ Consult Martin before using.

CAUTION: Never operate without covers and guards. Always LOCKOUT/TAGOUT electrical power when working on equipment for inspection, cleaning, maintenance, or other purposes.

Note: Dimensions not certified for construction.

Modular Plastic Screw Conveyors

Section VIV



Another Martin patented Innovation. We'll give your customers another reason to give you their business.

- Plastic modules consist of a helical flight spiraling once around a hollow square hub.
- Eliminates need to spot or continuously weld metal flights to shaft.
- Polyurethane - used where impact/abrasive wear is a problem. Lab tests show it up to 3 times more wear resistant than carbon or stainless steel in certain applications.
- All-plastic material does not corrode, is impervious to acids, caustics and other chemicals.
- Durable, lightweight injection-molded modules stack on square tube.
- Polypropylene - general purpose material for high temperature service.
- FDA approved for food contact.
- Highly resistant to corrosion.
- Modules are individually replaceable without welding or burning.
- Assembled conveyor is comparatively lightweight, easier to handle, and bearing life is prolonged.
- Polyethylene - general purpose material. FDA approved for food contact.
- Good abrasive and excellent corrosion resistance in a wide temperature range.
- Slick surface simplifies cleaning.

*Conveyors shown without cover for illustration purposes only. Please follow manufacturing safety guidelines when operating conveyors.

WARNING & SAFETY REMINDER

Safety must be considered a basic factor in machinery operation at all time. Most accidents are the results of carelessness or negligence. All rotating power transmission products are potentially dangerous and must be guarded by the contractor, installer, purchaser, owner, and user as required by applicable laws, regulations, standards, and good safety practice. Additionally specific information must be obtained from other sources including the latest editions of American Society of Mechanical Engineers; (ANSI) Safety Code. A copy of this standard may be obtained from the American Society of Mechanical Engineers at 345 East 47th Street, New York, NY 10017 (212-705-7722).

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate the parts or components manufactured and supplied by Martin Sprocket & Gear, Inc., in such a manner as to comply with the Williams-Steiger Occupational Safety Act and with all state and local laws, ordinances, regulations, and the American National Standard Institute Safety Code.

CAUTION

Guards, access doors, and covers must be securley fastened before operating any equipment.

If parts are to be inspected, cleaned, observed, or general maintenance performed, **the motor driving the part or components is to be locked out electrically in such a manner that it cannot be started by anyone**, however remote from the area. Failure to follow these instructions may result in personal injury or property damage.

WARNING

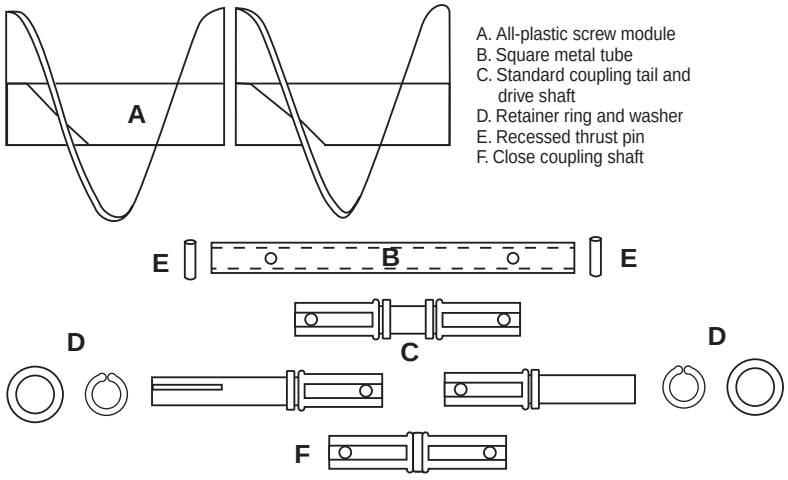
Warning: Static Electricity

Static Electricity may accumulate on modular plastic conveyor screws which carry non-conductive materials and may produce an electrical spark. **Do Not Use to Convey Non-Conductive Materials in a Combustible Environment.**

Modular Plastic Screw Conveyors - Design Data

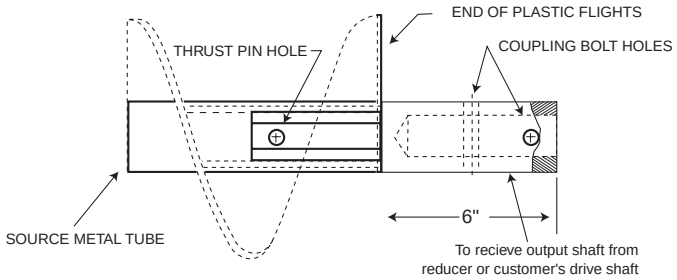
Martin Solutions to Screw Conveyor Problems

- Currently available in 6”, 9” and 12” diameters, in right hand only.
- Assembled conveyors compatible with CEMA standards; easily retrofitted.
- Flight modules available in polyethylene, polypropylene, and polyurethane, each with characteristics to fill specific needs (see Technical Data).
- Flights and hubs are integrally molded, resulting in consistent diameter, pitch and thickness with a uniform, smooth finish.
- Plastic modules eliminate metal contamination to food.
- Assembled conveyor is light in weight, is safe and easy to handle; bearing life is prolonged.
- Plastic flights may operate at close clearances, or when conveying many materials, directly on the trough without danger of metal contamination.
- Modules are individually replaceable.
- Balance is excellent allowing high speed operation.



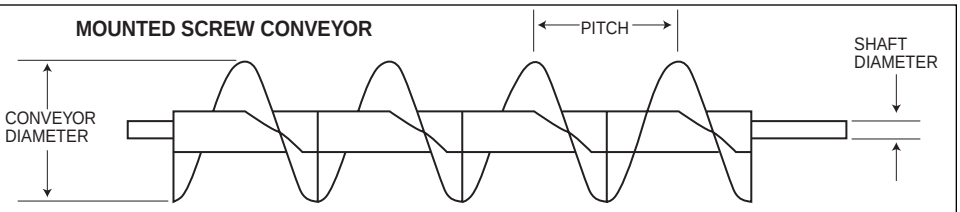
A. All-plastic screw module
B. Square metal tube
C. Standard coupling tail and drive shaft
D. Retainer ring and washer
E. Recessed thrust pin
F. Close coupling shaft

The Martin Screw Conveyor System consists of plastic modules stacked on a square metal tube. A shaft is inserted at each tube end and secured by a recessed pin. Modules are secured at tube ends by retainer rings and washers.



EXTERNAL ADAPTOR FOR STANDARD INDUSTRIAL CONSTRUCTION

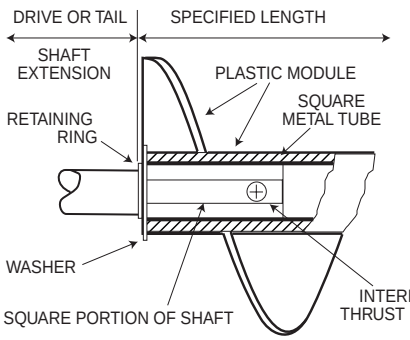
MOUNTED SCREW CONVEYOR



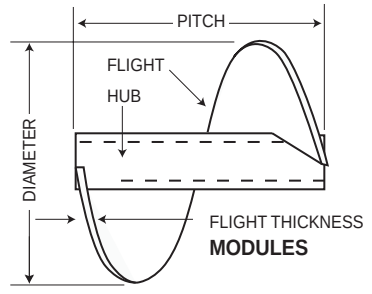
DIAMETER	AVAILABLE SHAFTS	WEIGHT PER FOOT FULL PITCH	WEIGHT PER FOOT SHORT PITCH
6"	1-1/2", 2"	4.1 lb	4.3 lb
9"	1-1/2", 2"	4.5 lb	5.2 lb
12"	2", 2-7/16"	8.0 lb	9.5 lb
14"	NOT CURRENTLY AVAILABLE		
16"	NOT CURRENTLY AVAILABLE		

Weights shown as for polyethylene or polypropylene on stainless steel tube, polyurethane approximately 10% heavier.

END CONSTRUCTION



DIAMETER	FULL PITCH	SHORT PITCH	FLIGHT THICKNESS	OUTSIDE HUB	INSIDE HUB
6"	9.05"	4.53"	.25"	2.51"	2.03"
9"	9.05"	4.53"	.25"	2.51"	2.03"
12"	11.72"	5.86"	.34"	3.17"	2.53"
14"	NOT CURRENTLY AVAILABLE				
16"	NOT CURRENTLY AVAILABLE				



MODULES

Technical & Design Data

Screw Conveyor Capacities

CUBIC FEET PER HOUR PER R.P.M. FULL PITCH HORIZONTAL				
DIAMETER	PITCH	CONVEYOR LOAD		
		FULL	45%	30%
6”	9”	5.72	2.75	1.72
9”	9”	16.73	7.53	5.02
12”	12”	39.27	17.67	11.78
14”	14”	NOT CURRENTLY AVAILABLE		
16”	16”	NOT CURRENTLY AVAILABLE		

Maximum Recommended Conveyor Speed / Horizontal Operation / R.P.M.

DIA.	SHAFT	TYPE OF INTERMEDIATE BEARING	
		WOOD, NYLATRON, BRONZE	CLOSE COUPLED*
6”	1-1/2”	165	90
9”	1-1/2”	165	80
9”	2”	150	80
12”	2”	145	70
12”	2-7/16”	140	70
14”	2-7/16”	NOT CURRENTLY AVAILABLE	
14”	3”	NOT CURRENTLY AVAILABLE	
16”	3”	NOT CURRENTLY AVAILABLE	

* Close coupled limitations apply to screw lengths over 12 ft. (for 6” and 9” dia.) or 15 ft. (for 12” dia). For longer lengths or units without intermediate bearing supports, locate end bearing no more than 3-1/8” (for 6” size); 4-5/8” (for 9” size); or 6-1/8” (for 12” size); centers above the inside bottom of the conveyor trough.

Horsepower Ratings

DIA.	SHAFT	RATINGS FOR CARBON STEEL SHAFT AND TUBE			
		50 R.P. M.	75 R.P.M.	100 R.P.M.	150 R.P.M.
6”-9”	1-1/2”	3.4	5.1	6.8	10.1
6”-9”	2”	5.6	8.4	11.2	16.8
12”	2”	8.0	12.0	16.0	24.0
12”	2-7/16”	9.1	13.6	18.2	27.3
14”	2-7/16”	NOT CURRENTLY AVAILABLE			
14”	3”	NOT CURRENTLY AVAILABLE			
16”	3”	NOT CURRENTLY AVAILABLE			

NOTE: The above limitations are based on Martin modular plastic construction throughout. The use of coupling bolts, as required for an external adaptor, may reduce horsepower capacity.

Materials of Construction

	POLYETHYLENE	POLYPROPYLENE	POLYURETHANE
FDA Approved	Yes	Yes	No
Abrasive Resistance	Good	Fair	Excellent
Corrosive Resistance	Excellent	Excellent	Good
Impact Resistance	Good	Fair	Excellent
Temperature Limit	-60° to +150° F	-40° to +220° F	-20° to +150°
Release	Excellent	Good	Good

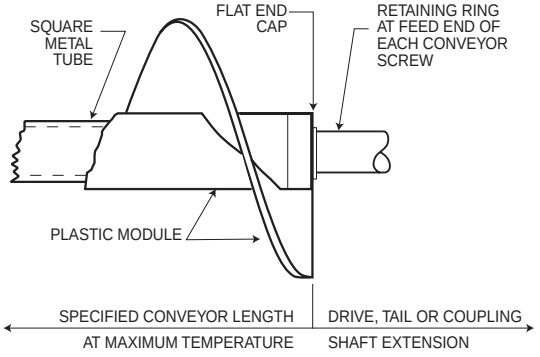
Note: Release pertains to the capability of conveying “sticky” products.

Design Data for Bonded Construction

Bonded Construction is used in the handling of a finished food product or for the conveying of any product in which it is necessary to guard against material entering the internal clearances between the modules or into the inside of the square tube.

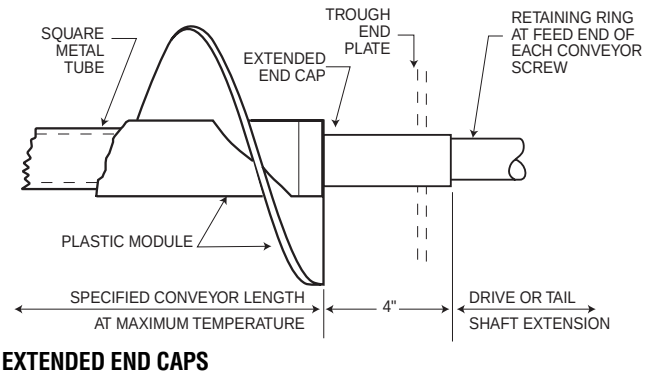
The hubs of the individual modules are heat fused together, the ends of the flights may be fused or may be cut to create a “clean out” gap, usually 1/8” to 1/4” wide. The ends are capped and fitted with an “O” ring to seal around the shaft. The cap may be of alternate construction as detailed below.

Bonded Construction has USDA acceptance for use as a component part of food processing equipment in federally inspected meat and poultry processing plants.



FLAT END CAPS

Flat End Caps are the basic construction for conveying finished food products. Drive and Tail End Shafts are shipped factory installed. If used with coupling shafts, the thrust bearing must be at the feed end of the conveyor assembly. Retaining ring may be eliminated in some applications depending upon length and temperature involved.

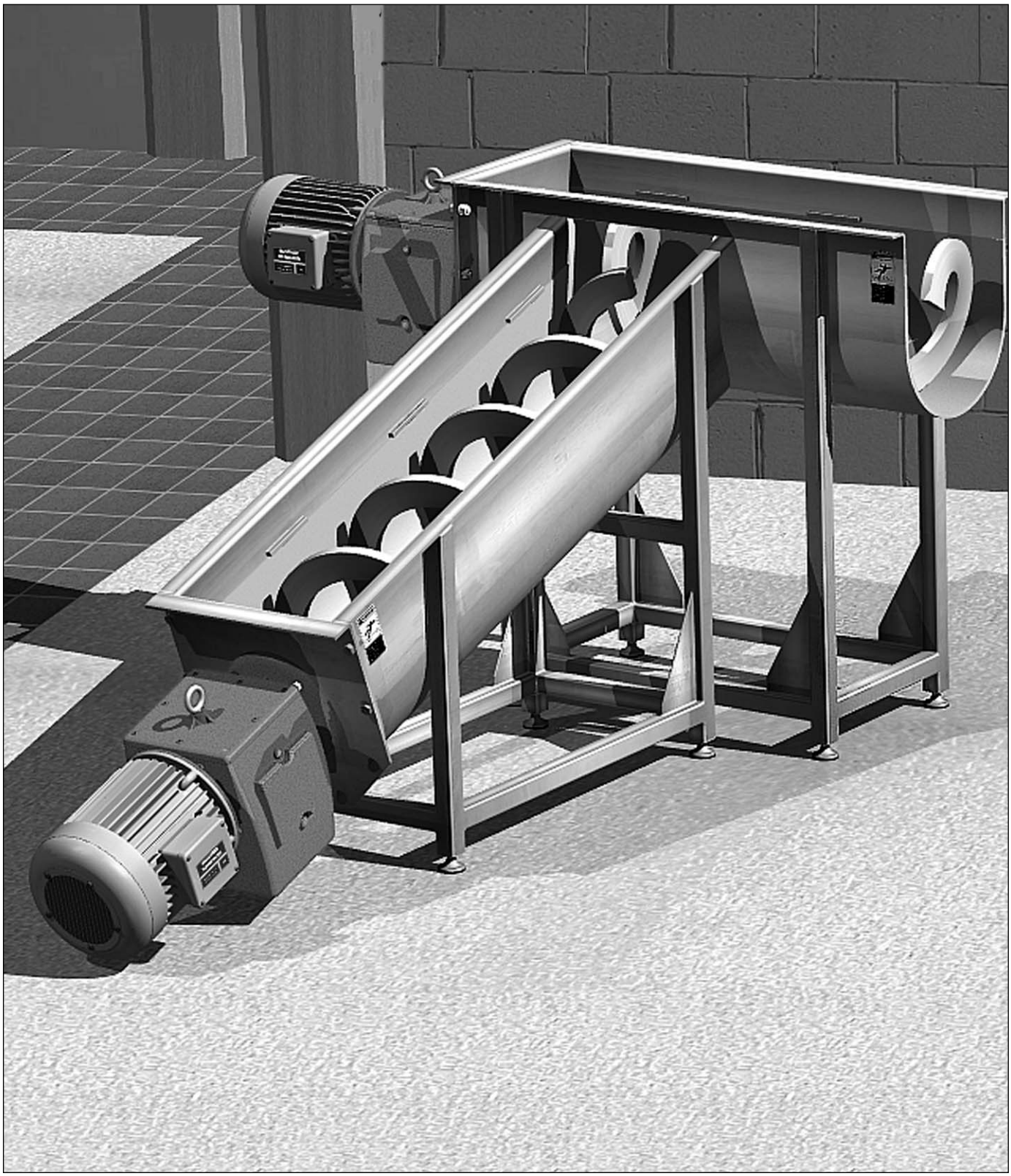


EXTENDED END CAPS

Extended End Caps are used in the handling of products which require a total elimination of cracks and crevices on the conveyor screw. This precludes the use of coupling shafts and therefore limits the unit to one conveyor length, a maximum of 20 feet. Retainer rings and shafts are entirely outside the product area. Drive and Tail End Shafts are shipped factory installed.

Shaftless Screw Conveyors

Section X



*Conveyors shown without cover for illustration purposes only. Please follow manufacturing safety guidelines when operating conveyors.

Shaftless Screw Conveyors

Typical Applications

Rendering

• Poultry Processing • Meat Processing • Fish Processing

• Chicken Feathers • Whole Carcasses • Animal Waste • Fish/Animal Bones

Pulp & Paper, Gypsum Board, Particle Board

• Lime Mud • Oversized Wood Chips • Hogged Bark • Shavings

Agriculture

• Fertilizer • Corn Gluten • Sugar Beets/Cane Processing • Chopped Hay

Hospital Waste Processing, Recycle Plants

• Shredded Cans • Bottles • Paper • Medical Disposables

Wine & Beverage Industries

• Grape Skins • Stems • Pumice • Fruit Peels

Waste Water • Solid Waste Treatment

• Sludge • Grit • Screenings • Solids Removal

Chemical & Heavy Industrial

• Ash • Recycle Batteries • Carbon Black • Shredded Tires

FEATURE	FUNCTION	BENEFIT
Continuous Flight	Eliminate Hangers	Reduces Maintenance Costs
3/4”-1” Flight	Long Lasting	Increases Uptime
No Tail Seals or Tail Bearings	Use Blind End Plate	Reduces Maintenance Costs
Cold Formed Flight	High Brinell	Longer Life
No Center Pipe Required	Eliminate Buildup On Pipe	Lower Maintenance/ Operation Costs
	Can Handle Particle Sizes Up To 90% Of Spiral O.D.	Increases Screw Capacity
	Allows Higher Trough Loading (45%-95%)	
Side Inlet Feeding	No Vertical Transition Necessary	Lower Installation Cost Reduces Headroom

Warning & Safety Reminder

Martin—Conveyor Division does not install conveyor; consequently it is the responsibility of the contractor, installer, owner and user to install, maintain and operate the conveyor, components and conveyor assemblies in such a manner as to comply with the Williams-Steiger Occupational Safety and Health Act and with all state and local laws and ordinances and the American National Standard Institute (ANSI) safety code.

In order to avoid an unsafe or hazardous condition, the assemblies or parts must be installed and operated in accordance with the following minimum provisions.

1. Conveyors shall not be operated unless all covers and/or guards for the conveyor and drive unit are in place. If the conveyor is to be opened for inspection cleaning, maintenance or observation, the electric power to the motor driving the conveyor must be LOCKED OUT in such a manner that the conveyor cannot be restarted by anyone; however remote from the area, until conveyor cover or guards and drive guards have been properly replaced.
2. If the conveyor must have an open housing as a condition of its use and application, the entire conveyor is then to be guarded by a railing or fence in accordance with ANSI standard B20.1-1993, with special attention given to section 6.12.
3. Feed openings for shovel, front loaders or other manual or mechanical equipment shall be constructed in such a way that the conveyor opening is covered by a grating. If the nature of the material is such that a grating cannot be used, then the exposed section of the conveyor is to be guarded by a railing or fence and there shall be a warning sign posted.
4. Do not attempt any maintenance or repairs of the conveyor until power has been LOCKED OUT.
5. Always operate conveyor in accordance with these instructions and those contained on the caution labels affixed to the equipment.
6. Do not place hands or feet in the conveyor.
7. Never walk on conveyor covers, grating or guards.
8. Do not use conveyor for any purpose other than that for which it was intended.
9. Do not poke or prod material into the conveyor with a bar or stick inserted through the openings.
10. Keep area around conveyor drive and control station free of debris and obstacles.
11. Always regulate the feeding of material into the unit at a uniform and continuous rate.
12. Do not attempt to clear a jammed conveyor until power has been **LOCKED OUT**.
13. Do not attempt field modification of conveyor or components.
14. Screw conveyors are not normally manufactured or designed to handle materials that are hazardous to personnel. These materials which are hazardous include those that are explosive, flammable, toxic or otherwise dangerous to personnel. Conveyors may be designed to handle these materials. Conveyors are not manufactured or designed to comply with local, state or federal codes for unfired pressure vessels. If hazardous materials are to be conveyed or if the conveyor is to be subjected to internal or external pressure, Martin—Conveyor Division should be consulted prior to any modifications.

Martin—Conveyor Division insists that disconnecting and locking out the power to the motor driving the unit provides the only real protection against injury. Secondary safety devices are available; however, the decision as to their need and the type required must be made by the owner-assembler as we have no information regarding plant wiring, plant environment, the interlocking of the screw conveyor with other equipment, extent of plant automation, etc. Other devices should not be used as a substitute for locking out the power prior to removing guards or covers. We caution that use of the secondary devices may cause employees to develop a false sense of security and fail to lock out power before removing covers or guards. This could result in a serious injury should the secondary device fail or malfunction.

There are many kinds of electrical devices for interlocking of conveyors and conveyor systems such that if one conveyor in a system or process is stopped other equipment feeding it, or following it can also be automatically stopped.

Electrical controls, machinery guards, railings, walkways, arrangement of installation, training of personnel, etc., are necessary ingredients for a safe working place. It is the responsibility of the contractor, installer, owner and user to supplement the materials and services furnished with these necessary items to make the conveyor installation comply with the law and accepted standards.

Conveyor inlet and discharge openings are designed to connect to other equipment or machinery so that the flow of material into and out of the conveyor is completely enclosed.

One or more caution signs (as illustrated below) are attached to conveyor housings, conveyor covers and screw elevator housings. Please order replacement caution labels should the labels attached to this equipment become illegible.

The label shown below has been reduced in size. The actual size is printed next to the label. For more detailed instructions and information, please request a free copy of our "Screw Conveyor Safety, Installation, Operation, Maintenance Instructions."

The Conveyor Equipment Manufacturer's Association (CEMA) has produced an audio-visual presentation entitled "Safe Operation of Screw Conveyors, Drag Conveyors, and Bucket Elevators." Martin—Conveyor Division encourages acquisition and use of this source of safety information.

ACTUAL SIZE 6" x 3"

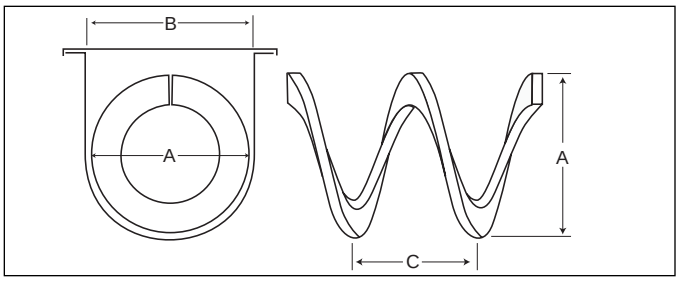
PROMINENTLY DISPLAY IN WORK AREAS

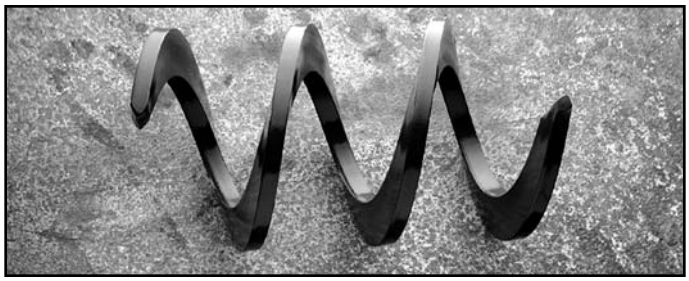
ACTUAL SIZE 5" x 2½"

Size and Capacity

Specifications:

Type of Steel	Carbon Steel • High Brinell Carbon Steel • Stainless Steel
Capacity	Up to 17,000 CFH
Diameter	6” to 30” (and Larger)
Pitches	Full, 2/3, 1/2
Trough	CEMA Standards
Options	UHMW Liners, AR Liners, Rider Bars, Drive End Seals
Advantages	Spanning longer distances without intermediate bearings Transport sticky products and large lumps.





45% Trough Loading

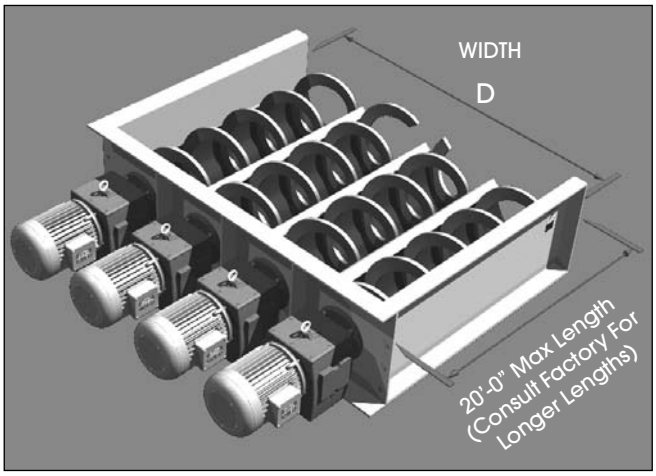
NOM. DIA.	A Dia.	B Inside	C Pitch	CFH* Full Pitch	CFH* 2/3 Pitch	CFH* 1/2 Pitch	MAX RPM
6	6	7	6	65	43	33	25
9	9	10	9	224	149	112	25
10	10	11	10	307	205	154	25
12	12	13	12	530	353	265	25
14	14	15	14	842	561	421	25
16	16	17	16	1256	837	628	25
18	18	19	18	1789	1193	895	25
20	20	21	20	2455	1637	1228	25
24	24	25	24	4240	2827	2120	25
30	30	31	30	8283	5522	4142	25

95% Trough Loading

NOM. DIA.	A Dia.	B Inside	C Pitch	CFH* Full Pitch	CFH* 2/3 Pitch	CFH* 1/2 Pitch	MAX RPM
6	6	7	6	140	93	70	25
9	9	10	9	472	315	236	25
10	10	11	10	648	432	324	25
12	12	13	12	1119	746	560	25
14	14	15	14	1777	1185	889	25
16	16	17	16	2652	1766	1326	25
18	18	19	18	3776	2517	1888	25
20	20	21	20	5180	3453	2590	25
24	24	25	24	8950	5967	4475	25
30	30	31	30	17485	11657	8743	25

*CFH = Cubic Feet per hour. -**ALL DIMENSIONS SHOWN IN INCHES.

Quad Screw Feeder



*Conveyors shown without cover for illustration purposes only. Please follow manufacturing safety guidelines when operating conveyors.

95% Trough Loading

NOM DIA.	WIDTH D	CFH* Full Pitch	CFH* 2/3 Pitch	CFH* 1/2 Pitch	MAX RPM
6	28	352	235	176	15
9	40	1192	795	596	15
10	44	1636	1091	818	15
12	52	2824	1883	1412	15
14	60	4488	2992	2244	15
16	68	6700	4467	3350	15
18	76	9540	6360	4770	15
20	84	13088	8725	6544	15
24	100	22612	15075	11306	15
30	124	44160	29440	22080	15

*CFH = Cubic Feet per hour. -**ALL DIMENSIONS SHOWN IN INCHES.

Screw Conveyor Data Sheet

CUSTOMER: _____ DATE PROPOSAL DUE: _____

ADDRESS: _____

CONTACT: _____ PHONE # _____

SCREW DESCR: ____ QTY. _____ ″ DIA. × LONG (C INLET TO C DISCH.) (OVERALL) ☐ HORIZ. ☐ INCL. _____° ☐ DECL. _____°

CAPACITY: _____ (CFH) (LBS/HR) (TPH) (MTPH) (BPH)

MATERIAL: _____ DENSITY _____ LBS/FT^3 TEMP _____°F MOISTURE _____%

LUMPS: MAX SIZE _____ IN LUMP CLASS: (Lump % of Total; I - 10%, II - 25%, III - 95%)

INSTALLATION: ☐ INDOORS ☐ OUTDOORS ☐ NEW ☐ REPLACEMENT ☐ MAT'L OF CONSTR.: ☐ MILD STEEL ☐ T304 ☐ T316 ☐ HD GALV ☐ OTHER _____

IS IT? ☐ FEEDER ☐ CONVEYOR IS FEED? ☐ FLOOD LOAD ☐ UNIFORM

FED BY: _____ INLET SIZE: _____ DISCHARGES TO: _____

DRIVE: (SCREW CONVEYOR DRIVE) (SHAFT MOUNT) (OTHER): _____

NOTES: _____

_____

THROUGH: STYLE _____ THK. _____

DISCHARGE: TYPE _____ QTY. _____

GATES: TYPE _____ QTY. _____

THROUGH END TYPE: TAIL _____

THROUGH END TYPE: HEAD _____

BEARING TYPE: TAIL _____ HEAD _____

SEAL TYPE: TAIL _____ HEAD _____

SCREW: DIA. _____ (RH) (LH) PITCH _____ THK. _____

_____

_____

_____

COUPL. BOLTS: _____

HANGER: STYLE _____

HANGER BRG.: TYPE _____

COVER: STYLE _____ THK. _____

COVER FASTENERS: TYPE _____

INLETS: STYLE _____ QTY. _____

GASKETS: TYPE _____ THK. _____

DRIVE _____ HP AT _____ RPM

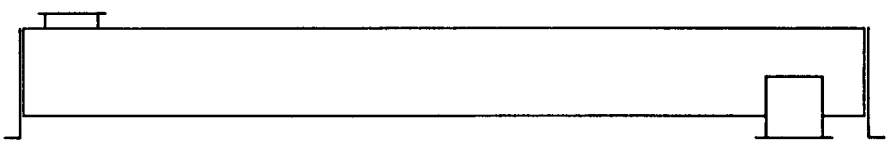
MOTOR: _____ MOTOR MOUNT _____

REDUCER: _____

V-BELT/CHAIN: _____

NOTES: _____

_____



SKETCH — (SHOW FEEDER INLET SIZE AND LOCATION, DRIVE LOCATION, ETC.)

PAGE _____ OF _____ PREPARED BY _____ DATE _____

Screw Conveyor Data Sheet

CUSTOMER: _____ DATE PROPOSAL DUE: _____

ADDRESS: _____

CONTACT: _____ PHONE # _____

SCREW DESCR: ____ QTY. _____ ″ DIA. × _____ LONG (C INLET TO C DISCH.) (OVERALL) ☐ HORIZ. ☐ INCL. _____° ☐ DECL. _____°

CAPACITY: _____ (CFH) (LBS/HR) (TPH) (MTPH) (BPH)

MATERIAL: _____ DENSITY _____ LBS/FT³ TEMP _____°F MOISTURE _____%

LUMPS: MAX SIZE _____ IN LUMP CLASS: (Lump % of Total; I - 10%, II - 25%, III - 95%)

INSTALLATION: ☐ INDOORS ☐ OUTDOORS ☐ NEW ☐ REPLACEMENT ☐ MAT'L OF CONSTR.: ☐ MILD STEEL ☐ T304 ☐ T316 ☐ HD GALV ☐ OTHER _____

IS IT? ☐ FEEDER ☐ CONVEYOR IS FEED? ☐ FLOOD LOAD ☐ UNIFORM

FED BY: _____ INLET SIZE: _____ DISCHARGES TO: _____

DRIVE: (SCREW CONVEYOR DRIVE) (SHAFT MOUNT) (OTHER): _____

NOTES: _____

_____

THROUGH: STYLE _____ THK. _____

DISCHARGE: TYPE _____ QTY. _____

GATES: TYPE _____ QTY. _____

THROUGH END TYPE: TAIL _____

THROUGH END TYPE: HEAD _____

BEARING TYPE: TAIL _____ HEAD _____

SEAL TYPE: TAIL _____ HEAD _____

SCREW: DIA. _____ (RH) (LH) PITCH _____ THK. _____

_____

_____

_____

COUPL. BOLTS: _____

HANGER: STYLE _____

HANGER BRG.: TYPE _____

COVER: STYLE _____ THK. _____

COVER FASTENERS: TYPE _____

INLETS: STYLE _____ QTY. _____

GASKETS: TYPE _____ THK. _____

DRIVE _____ HP AT _____ RPM

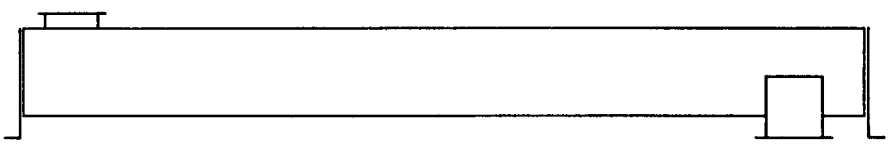
MOTOR: _____ MOTOR MOUNT _____

REDUCER: _____

V-BELT/CHAIN: _____

NOTES: _____

_____



SKETCH — (SHOW FEEDER INLET SIZE AND LOCATION, DRIVE LOCATION, ETC.)

PAGE _____ OF _____ PREPARED BY _____ DATE _____

Bucket Elevator Data Sheet

CUSTOMER:_____ DATE QUOTE DUE:_____

ADDRESS:_____

CONTACT: _____ PHONE # _____

BUCKET ELEVATOR: (CTRS/LIFT) _____ DESCR. _____

_____

CAPACITY: _____ (CFH) (LBS/HR) (TPH) (MTPH) (BPH)

MATERIAL:_____ DENSITY _____ LBS/FT^3 TEMP _____°F MOISTURE _____%

LUMPS: MAX SIZE _____ IN LUMP CLASS: (Lump % of Total; I - 10%, II - 25%, III - 95%)

FED BY: _____DISCHARGES TO: _____

MAT'L OF CONSTR: ☐ MILD STEEL ☐ T304 ☐ T316 ☐ H.D. GALV. ☐ OTHER

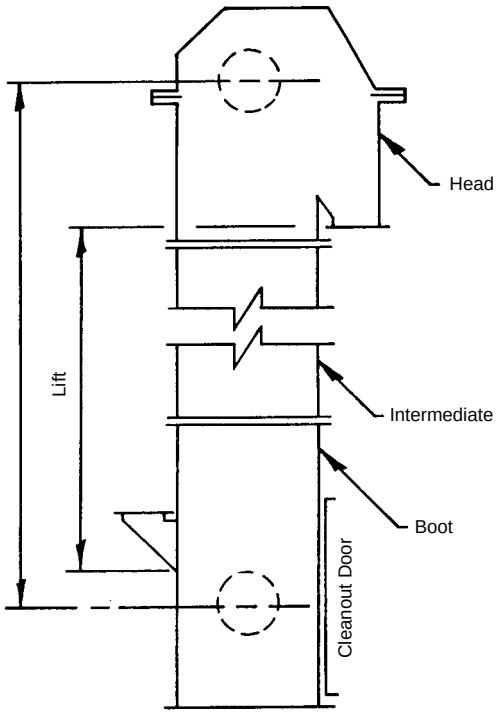
INSTALLATION: ☐ NEW ☐ REPLACEMENT ☐ INDOORS ☐ OUTDOORS

DRIVE: (SHAFT MOUNT) (FOOT MOUNTED GEAR REDUCER) (OTHER): _____ ☐ V-BELTS ☐ CHAIN ☐ GUARD

_____MOTOR: ☐ TEFC ☐ X-PROOF ☐ MAC ☐ OTHER _____BACKSTOP: ☐ SHAFT ☐ INTEGRAL TO REDUCER ☐ OTHER

_____NOTES: _____

_____



TYPE: ☐ CENTRIFUGAL ☐ CONTINUOUS ☐ GRAIN TYPE ☐ OTHER_____

☐ CHAIN ☐ BELT SPECS. _____

DRIVE: _____ HP AT _____ RPM REDUCER _____

SPKTS/SHEAVES _____ CHAIN/V-BELTS _____

_____ BACKSTOP _____

INLET: ☐ STANDARD ☐ SPECIAL _____

DISCHARGE: ☐ STANDARD ☐ 45°

SAFETY CAGE: ☐ YES ☐ NO LADDER: LGTH _____

HEAD PLATFORM: ☐ STANDARD SIZE ☐ SPECIAL _____

INT. PLATFORM ☐ STANDARD SIZE ☐ SPECIAL _____

THICKNESS: HEAD _____ BOOT _____ INT. _____

TAKEUP: ☐ HEAD ☐ BOOT ☐ SCREW ☐ GRAVITY

SEALS: ☐ STANDARD ☐ SPECIAL _____ VENTS: SIZE _____ QTY _____

_____PAINT: _____

PAGE _____ OF _____ PREPARED BY_____ DATE _____

Bucket Elevator Data Sheet

CUSTOMER:_____ DATE QUOTE DUE:_____

ADDRESS:_____

CONTACT: _____ PHONE # _____

BUCKET ELEVATOR: (HEIGHT) _____ DESCR. _____

_____

CAPACITY: _____ (CFH) (LBS/HR) (TPH) (MTPH) (BPH)

MATERIAL:_____ DENSITY _____ LBS/FT^3 TEMP _____°F MOISTURE _____%

LUMPS: MAX SIZE _____ IN LUMP CLASS: (Lump % of Total; I - 10%, II - 25%, III - 95%)

FED BY: _____DISCHARGES TO: _____

MAT'L OF CONSTR: ☐ MILD STEEL ☐ T304 ☐ T316 ☐ H.D. GALV. ☐ OTHER

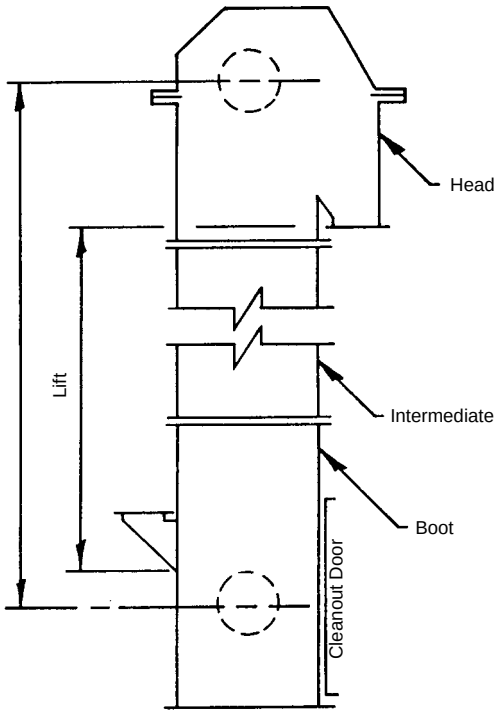
INSTALLATION: ☐ NEW ☐ REPLACEMENT ☐ INDOORS ☐ OUTDOORS

DRIVE: (SHAFT MOUNT) (FOOT MOUNTED GEAR REDUCER) (OTHER): _____ ☐ V-BELTS ☐ CHAIN ☐ GUARD

_____MOTOR: ☐ TEFC ☐ X-PROOF ☐ MAC ☐ OTHER _____BACKSTOP: ☐ SHAFT ☐ INTEGRAL TO REDUCER ☐ OTHER

_____NOTES: _____

_____



TYPE: ☐ CENTRIFUGAL ☐ CONTINUOUS ☐ GRAIN TYPE ☐ OTHER_____

☐ CHAIN ☐ BELT SPECS. _____

DRIVE: _____ HP AT _____ RPM REDUCER _____

SPKTS/SHEAVES _____ CHAIN/V-BELTS _____

_____ BACKSTOP _____

INLET: ☐ STANDARD ☐ SPECIAL _____

DISCHARGE: ☐ STANDARD ☐ 45°

SAFETY CAGE: ☐ YES ☐ NO LADDER: LGTH _____

HEAD PLATFORM: ☐ STANDARD SIZE ☐ SPECIAL _____

INT. PLATFORM ☐ STANDARD SIZE ☐ SPECIAL _____

THICKNESS: HEAD _____ BOOT _____ INT. _____

TAKEUP: ☐ HEAD ☐ BOOT ☐ SCREW ☐ GRAVITY

SEALS: ☐ STANDARD ☐ SPECIAL _____ VENTS: SIZE _____ QTY _____

_____PAINT: _____

PAGE _____ OF _____ PREPARED BY_____ DATE _____

Vertical Screw Data Sheet

CUSTOMER: _____ DATE QUOTE DUE: _____

ADDRESS: _____

CONTACT: _____ PHONE # _____

VERTICAL SCREW: LIFT _____ DISCH. HEIGHT. _____

_____

_____

INLET CONFIGURATION

(Indicate One) : ☐ **Elevator Offset to Left** ☐ **Straight Inlet** ☐ **Elevator Offset to Right**

CAPACITY: _____ (CFH) (LBS/HR) (TPH) (MTPH) (BPH)

MATERIAL: _____ DENSITY _____ LBS/FT^3 TEMP _____°F MOISTURE _____%

LUMPS: MAX SIZE _____ IN LUMP CLASS: (Lump % of Total; I - 10%, II - 25%, III - 95%)

FED BY: _____ DISCHARGES TO: _____

MAT'L OF CONSTR: ☐ MILD STEEL ☐ T304 ☐ T316 ☐ H.D. GALV. ☐ OTHER

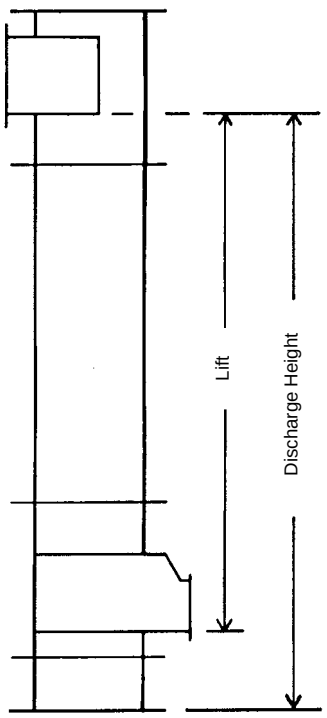
INSTALLATION: ☐ NEW ☐ REPLACEMENT ☐ INDOORS ☐ OUTDOORS

DRIVE: (DIRECT) (SCREW CONVEYOR DRIVE) (OTHER): _____ ☐ V-BELTS ☐ CHAIN ☐ GUARD

MOTOR: ☐ TEFC ☐ X-PROOF ☐ MAC ☐ OTHER _____ NOTES _____

NOTES: _____

_____



TROUGH: _____

SCREW: _____

SHAFT DIA: _____

HANGERS: _____

HRG. BRG.: _____

BOTTOM BRG.: _____

BOTTOM SEAL: _____

GASKETS: _____

DRIVE: _____ HP AT _____ RPM

REDUCER: _____

PAINT: _____

NOTES: _____

_____

_____

PAGE _____ OF _____ PREPARED BY _____ DATE _____