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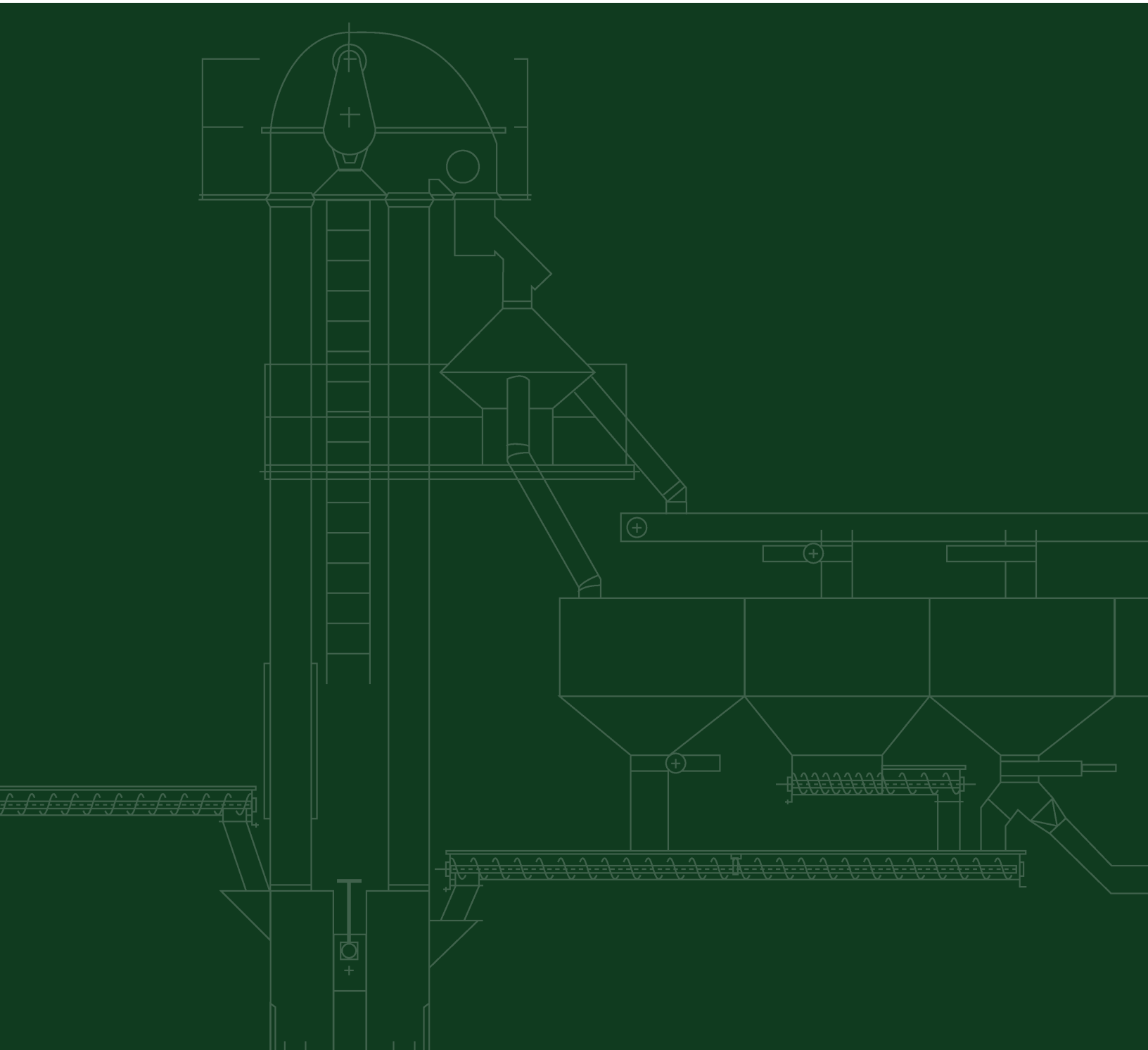
Bucket Elevators



Bucket Elevators

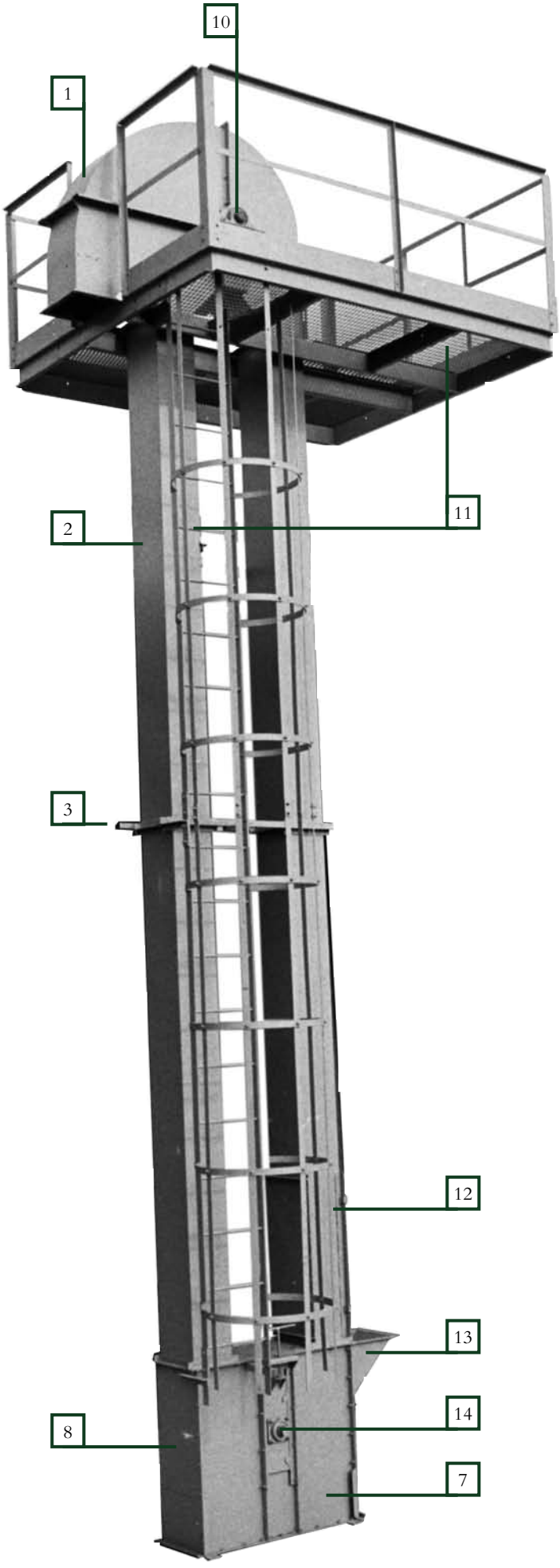
These features are standard on all Bucket Elevators.

1. Contoured head design to allow clean product discharge.
2. Self supporting dual leg construction (Model 12000 single leg) with jig welded angle flanges assures alignment of legging sections.
3. Horizontal cross braces at each leg joint.
4. Elevator buckets:
   NU-HY - fabricated
   Calumet - fabricated
   Starco - pressed steel and plastic
   Style 'CC' - plastic
   J Style - pressed steel and plastic.
5. Elevator belting.
6. Bucket bolts.
7. Sides bolted to boot for accessibility.
8. Clean-out doors.
9. Dust control connections.
10. Pillow block bearings, ball or roller.
11. Optional service platform and safety caged ladder.
12. Leg inspection doors securely clamped to leg with dust proof gaskets.
13. Intake pocket in boot. Can be fitted or supplied loose.
14. Dust-tight boot screw take-up.
15. Standard finish: 1 coat primer.

Standard Vertical Leg Illusatrated

Other Options Available

Back leg idler available.
Gravity boot take-up system.
Self cleaning boot with screw or gravity take-up.
Boot shaft motion detector.
Up-draft head vent.
Diagonal bracing.
Removeable boot side panel.
1/4" UHMW lined hood.



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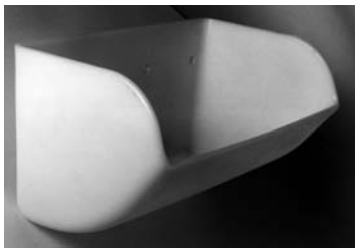
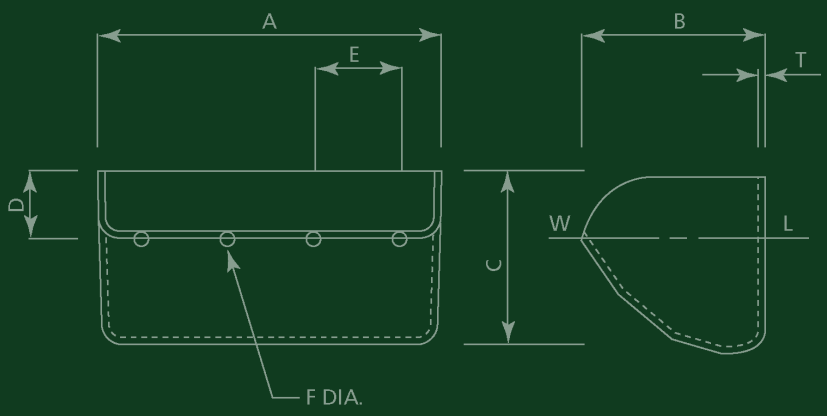


Polyethylene Buckets



Style CC Polyethylene

Elevator Capacities Using Style CC Polyethylene Buckets

Head Pully Dia.	Bucket Size	Mimimum Bucket Spacing (ins.)	Headshaft RPM	Belt Speed (FPM)	Capacity FT³/hr 75% Load	Capacity FT³/hr Water Level	Capacity bu/hr 75% Load	Capacity bu/hr Water Level
12	6 x 4	5″	103	326	1040	962	832	769
12	6 x 5	6″	103	326	1614	1546	1291	1236
24	7 x 5	6″	65	408	2317	2147	1854	1718
24	9 x 5	6″	65	408	2997	2773	2398	2219
30	9 x 6	7″	56	440	3918	3550	3135	2840
30	11 x 6	7″	56	440	4801	4530	3841	3624
36	12 x 7	8″	56	528	7548	6825	6039	5460
36	14 x 7	8″	56	528	8786	8302	7029	6642
48	12 x 7	8″	56	700	10007	9048	8006	7239
48	14 x 7	8″	56	700	11648	11006	9318	8805
48	14 x 8	9″	56	700	15162	13918	12130	11135

★ Elevator bucket loading varies depending on product elevated and mrthod of feeding the elevator.
Capacities are based on whole wheat 48#/FT^3

FORMULA USED FOR CAPACITIES

$$\frac{\text{SELECTED BUCKET LOADING (CU. IN.) X (12 ÷ BUCKET SPACING IN INCHES) X BELT SPEED (FPM) X 60}}{1728} = \text{FT}^3\text{/HR.}$$

FOR BUSHELS PER HOUR DIVIDE FT^3/HR. BY 1.25 (APPROX.)

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Heavy Duty Polyethylene Syle CC Elevator Bucket Sizes Available

Size	Av. Weight Each (Lbs.)	Length	Projection	Depth	Top To Hole Centre	Centre To Centre	Hole Dia.	Number Of Holes	Dia. Of Bolts	Thickness	Bucket Loading*		
		A	B	C	D	E	F			T	Gross (cu. in.) Capacity 100% Full	Gross (cu. in.) Capacity 100% Full	Gross (cu. in.) Capacity 100% Full
6 x 4	.51	6 - 1/4	4 1/8	4 - 1/16	1 1/8	4 - 3/8	9/32	2	1/4	13/64	51	51	51
7 x 4	.58	7 - 1/4	4 3/8	4 - 1/16	1 1/8	2 - 11/16	9/32	3	1/4	13/64	64	64	64
6 x 5	.80	6 - 5/16	5 1/2	5 - 1/16	1 7/8	4 - 3/8	9/32	2	1/4	1/4	95	95	95
7 x 5	.98	7 - 5/16	5 1/2	5 - 1/16	1 7/8	2 - 11/16	9/32	3	1/4	1/4	109	109	109
8 x 5	1.10	8 - 5/16	5 1/2	5 - 1/16	1 7/8	3 - 1/16	9/32	3	1/4	1/4	125	125	125
9 x 5	1.02	9 - 5/16	5 1/2	5 - 1/16	1 7/8	3 - 5/8	9/32	3	1/4	1/4	141	141	141
8 x 6	1.34	8 - 5/16	6 5/8	6 - 1/16	2 1/8	3 - 1/16	9/32	3	1/4	1/4	178	178	178
9 x 6	1.45	9 - 5/16	6 5/8	6 - 1/16	2 1/8	3 - 5/8	9/32	3	1/4	1/4	200	200	200
10 x 6	1.57	10 - 5/16	6 5/8	6 - 1/16	2 1/8	4 - 1/8	9/32	3	1/4	1/4	223	223	223
11 x 6	1.69	11 - 5/16	6 5/8	6 - 1/16	2 1/8	3	9/32	4	1/4	1/4	245	245	245
12 x 6	1.76	12 - 5/16	6 5/8	6 - 1/16	2 1/8	3 - 3/8	9/32	4	1/4	1/4	267	267	267
13 x 6	1.85	13 - 5/16	6 5/8	6 - 1/16	2 1/8	3 - 5/8	9/32	4	1/4	1/4	289	289	289
10 x 7	2.01	10 - 5/16	7 3/4	7 - 1/16	2 1/2	4 - 1/8	11/32	3	5/16	9/32	304	304	304
11 x 7	2.31	11 - 5/16	7 3/4	7 - 1/16	2 1/2	3	11/32	4	5/16	9/32	334	334	334
12 x 7	2.43	12 - 5/16	7 3/4	7 - 1/16	2 1/2	3 - 3/8	11/32	4	5/16	9/32	366	366	366
13 x 7	2.62	13 - 5/16	7 3/4	7 - 1/16	2 1/2	3 - 5/8	11/32	4	5/16	9/32	396	396	396
14 x 7	2.76	14 - 5/16	7 3/4	7 - 1/16	2 1/2	3	11/32	5	5/16	9/32	426	426	426
15 x 7	3.02	15 - 5/16	7 3/4	7 - 1/16	2 1/2	3 - 1/4	11/32	5	5/16	9/32	456	456	456
16 x 7	3.13	16 - 5/16	7 3/4	7 - 1/16	2 1/2	2 - 7/8	11/32	6	5/16	9/32	487	487	487
12 x 8	3.02	12 - 5/16	8 3/4	8	2 1/4	3 - 3/8	11/32	4	5/16	11/32	526	526	526
14 x 8	3.31	14 - 5/16	8 3/4	8	2 1/4	3	11/32	5	5/16	11/32	624	624	624
16 x 8	3.84	16 - 5/16	8 3/4	8	2 1/4	2 - 7/8	11/32	6	5/16	11/32	742	742	742
18 x 8	4.37	18 - 5/16	8 3/4	8	2 1/4	3 - 1/8	11/32	6	5/16	11/32	820	820	820

Style: CC-HD (Heavy Duty)
Design: High speed centrifugal discharge.
Material: Virgin high density linear polyethylene.
Method of Manufacture: Injection molded.
Color: White, other colors available on special order.
Temperature Range: - 60 degrees F to = 255 degrees F
Flamibility: High density polyethylene as used in these buckets is termed "slow burning". It has been tested under the Motor Vehicle Safety Standard No. 302 and Underwriters' Laboratory Bulletin No. 94. Combustion in an excess of air results in harmless by-products (fumes) which are non toxic.

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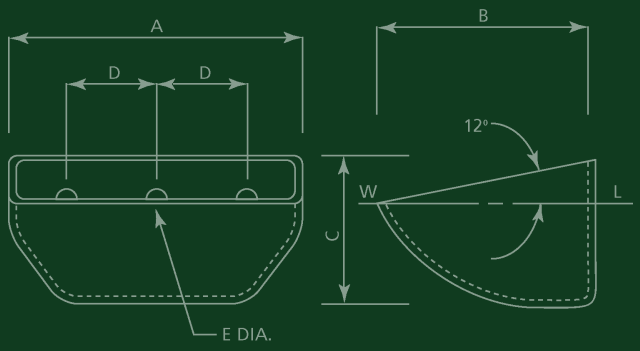
Starco Buckets



Style "S" Low Profile Pressed Seamless Steel, HD Polyethylene. Pressed Stainless Steel

Elevator Capacities Using Starco Buckets*

Head Pully Dia.	Bucket Size	Mimimum Bucket Spacing (ins.)	Headshaft RPM	Belt Speed (FPM)	Capacity FT³/hr 100% Load	Capacity FT³/hr Water Level	Capacity bu/hr 100% Load	Capacity bu/hr 75% Load
12	5 x 4 1/2	3 - 5/16	103	326	1516	1024	1212	819
12	6 x 4	3 - 5/16	103	326	1803	1229	1442	983
24	7 x 5 1/2	3 3/4	65	408	3581	2493	2865	1994
24	9 x 5	3 3/4	65	408	4624	3218	3699	2575
24	9 x 6 1/2	4 3/8	65	418	5317	3920	4254	3136
30	9 x 6 1/2	4 3/8	56	440	5735	4227	4587	3382
30	11 x 6 1/2	4 3/8	56	440	7451	5316	5961	4253
30	12 x 7	4 7/8	56	440	8381	5637	6705	4510
36	13 x 8 1/2	5 1/2	56	528	13428	9552	10743	7641
36	14 1/2 x 8 1/2	5 1/2	56	528	15067	10191	12054	8153
48	13 x 8 1/2	5 1/2	56	700	17803	12663	14242	10130
48	14 1/2 x 8 1/2	5 1/2	56	700	19975	13511	15980	10809
48	18 x 8 1/2	5 1/2	56	700	25857	18121	20685	14497

Note: 6 x 4 and 9 x 5 plastic only. 12 x 7 and 13 x 8 1/2 steel only.

* Elevator bucket loading of 100% can be achieved on most products. Water level loading should be used on products such as canola seed and whole wheat soya beans. Method of feeding elevator is important. Comprehensive capacity figures are available on request from Strongco Engineered Systems Inc.

FORMULA USED FOR CAPACITIES

$$\frac{\text{SELECTED BUCKET LOADING (CU. IN.) X (12 ÷ BUCKET SPACING IN INCHES) X BELT SPEED (FPM) X 60}}{1728} = \text{FT}^3/\text{HR.}$$

FOR BUSHELS PER HOUR DIVIDE FT^3/HR. BY 1.25 (APPROX.)

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Comparison between Starco buckets and conventional buckets on various elevator pulleys (comparison using similar belt speeds with buckets at minimum spacing) +

12" Dia. Pulley at 103 RPM (326 FPM)		24" Dia. Pulley at 65 RPM (408 FPM)		30" Dia. Pulley at 56 RPM (440 FPM)		36" Dia. Pulley at 56 RPM (528 FPM)		48" Dia. Pulley at 56 RPM (700 FPM)	
Bucket	FT^3/hr	Bucket	FT^3/hr	Bucket	FT^3/hr	Bucket	FT^3/hr	Bucket	FT^3/hr
5 x 4 Calument	860	7 x 5 Calument	2059	9 x 6 Calument	3666	14 x 7 Calument	8015	14 x 7 Calument	10626
5 x 4 NU-HY	1095	7 x 5 NU-HY	2453	9 x 6 NU-HY	4285	14 x 7 NU-HY	9922	14 x 7 NU-HY	13154
5 x 4 1/2 Starco	1516	7 x 5 Starco	3581	9 x 6 1/2 Starco	5735	14 1/2 x 8 1/2 Starco	15067	14 1/2 x 8 1/2 Starco	19975

+ Starco capacities are based on similar belt speeds to those of conventional buckets. These speeds may be increased by as much as 15% to give actual capacity. Unlike conventional buckets, 100% loading will still be achieved at minimum spacing.

Starco Elevator Bucket Sizes Available

Steel

Size	Av. Weight Each (Lbs.)	Length A	Projection B	Depth C	Centre To Centre D	Hole Dia. 'E'	Dia. Of Bolts	Number Of Bolts	Bucket Gauge	Min. Spacing on Belt (ins.)	Actual Cap (cu. ins.) 100% Full	Capacity (cu. ins.) Water Level
5 x 4 1/2	.78	5 - 1/2	4 - 1/2	3 1/8	2 - 3/4	9/32	1/4	2	16	3 - 5/16	37	25
7 x 5 1/2	1.16	7 - 1/4	5 - 1/2	3 5/8	3 - 15/16	11/32	5/16	2	16	3 - 3/4	79	55
9 x 6 1/2	2.23	9 - 7/16	5 - 1/2	4 1/4	4 - 3/4	11/32	5/16	2	14	4 - 3/8	137	101
11 x 6 1/2	2.90	11 - 3/8	6 - 1/2	4 1/4	3 - 3/16	11/32	5/16	3	14	4 - 3/8	178	127
12 x 7	3.97	12 - 1/8	7 - 1/8	4 5/8	4	11/32	5/16	3	14	4 - 7/8	223	150
13 x 8 1/2	5.90	13 - 3/8	8 - 7/16	5 1/8	4 - 3/4	13/32	3/8	3	12	5 - 1/2	366	239
14 1/2 x 8 1/2	6.58	15	8 - 7/16	5 1/8	3 - 9/16	13/32	3/8	4	12	5 - 1/2	377	255
18 1/2 x 8 1/2	7.50	18 - 1/4	8 - 7/16	5 1/8	3 - 1/2	13/32	3/8	5	12	5 - 1/2	488	342

H-D Poly

Size	Av. Weight Each (Lbs.)	Length A	Projection B	Depth C	Centre To Centre D	Hole Dia. 'E'	Dia. Of Bolts	Number Of Bolts	Bucket Gauge	Min. Spacing on Belt (ins.)	Actual Cap (cu. ins.) 100% Full	Capacity (cu. ins.) Water Level
5 x 4 1/2	.27	5 - 1/2	4 - 1/2	3 - 3/16	2 - 3/4	9/32	1/4	2	13/64	3 - 5/16	35	24
6 x 4	.39	6 - 1/4	4 - 7/16	3 - 1/16	3 - 1/2	9/32	1/4	2	13/64	3 - 5/16	44	30
7 x 5 1/2	.53	7 - 1/2	5 - 3/4	3 - 11/16	3 - 15/16	11/32	5/16	2	1/4	3 - 3/4	74	51
9 x 5	.75	9 - 1/4	5 - 1/2	3 - 11/16	4 - 3/4	11/32	5/16	2	1/4	3 - 3/4	102	71
9 x 6 1/2	.84	9 - 7/16	6 - 16/16	4 - 7/16	4 - 3/4	13/32	3/8	2	1/4	4 - 3/8	136	100
11 x 6 1/2	1.08	11 - 7/16	6 - 13/16	4 - 7/16	3 - 3/16	13/32	3/8	3	1/4	4 - 3/8	178	125
14 1/2 x 8 1/2	1.96	15	8 - 11/16	5 - 7/16	3 - 3/16	13/32	3/8	4	9/32	5 - 1/2	382	269
18 1/2 x 8 1/2	2.30	18 - 1/2	8 - 11/16	5 - 7/16	3 - 1/2	13/32	3/8	5	9/32	5 - 1/2	490	350

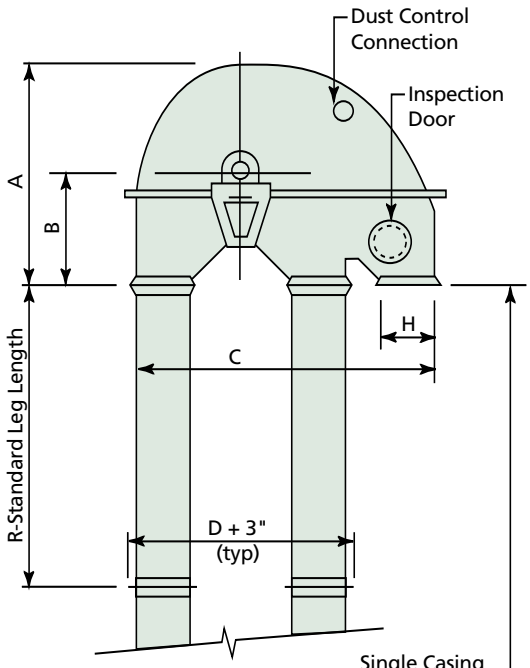
Material Specifications: High Density Polyethylene. Temperature Range: Polyethylene Buckets - 60°F to + 225°F.

Capacity

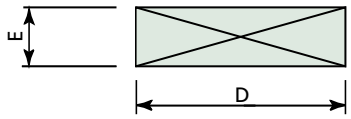
True Bucket Capacities you can rely on. Capacity figures for 'S' style buckets are actual and not based on theoretical percentages of gross bucket capacity.

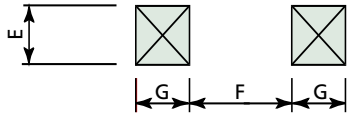
Increase in Elevator Throughtput

'S' syles buckets give a substantial increase on the existing capacity simply by replacing existing bucksts with similar size Starco buckets at minimum spacing.

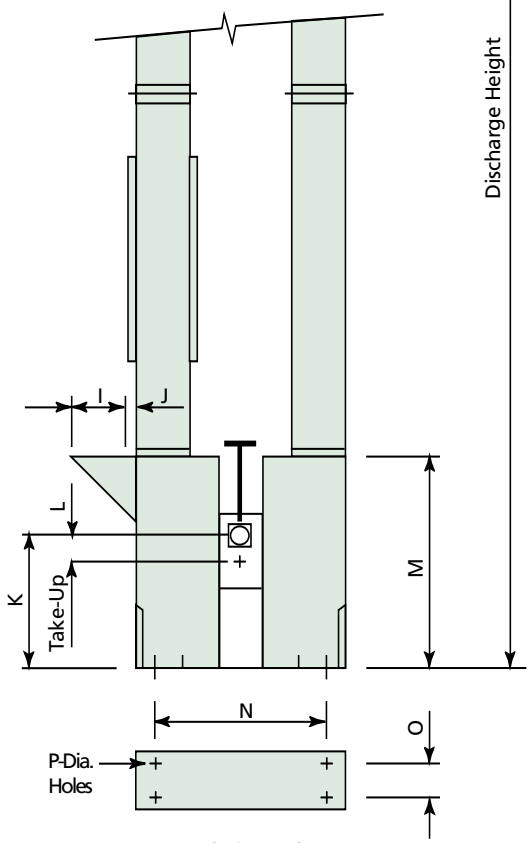


Single Casing 1200 Series

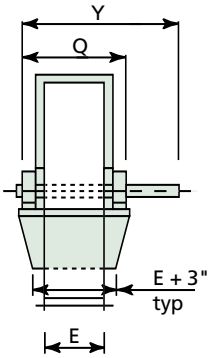


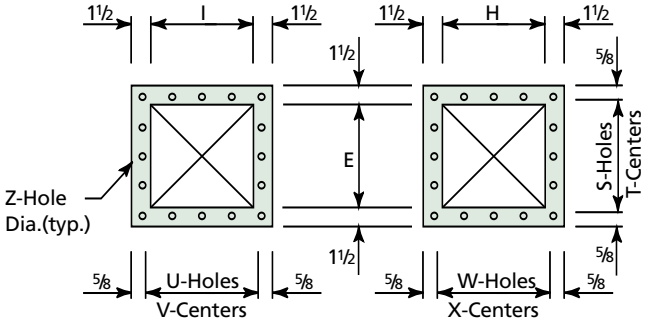


Double Casing



Foundation Bolts





Boot Inlet Detail

Head Inlet Detail

Elevator Capacities (MAX.)*

Elevator Size	Elevator Size	12000 Series	24000 Series	30000 Series	36000 Series	48000 Series
Max Bucket Size		6 x 5	9 x 6 1/2	11 x 6 1/2	14 1/2 x 8 1/2	14 1/2 x 8 1/2
Pulley Diameter		12	24	30	36	48
Belt Speed RPM		362	408	440	528	700
Heat Shaft RPM		103	65	56	56	56
Max. Cap. FT.3/Hr.*		1,900	5,300	7,500	15,000	20,000
Max. Cap. Bu/Hr.*		1,500	4,250	6,000	12,000	15,500
Hood/Head (Gauge)		14/12	14/12	14/12	14/12	12/10
Boot (Gauge)		12	10	10	10	3/16 R
Leg (Gauge)		16	14	14	14	14
Dimensions (Inches)	A	36	52	62	73	86
	B	17 1/4	24 3/8	29	34 1/2	41
	C	42	64 1/2	76 1/2	90	108
	D	28	43	51	60	72
	E	9	13	16	19	21
	F	N/A	22	27	33	44
	G	N/A	10 1/2	12	13 1/2	14
	H	9	16	18 1/2	21 1/2	21 1/2
	I	9	10 1/2	12	13 1/2	14
	J	3	3	3	3	3
	K	19	26 1/2	32 1/2	38 1/2	47 1/2
	L	6	6	7 1/2	9	12
	M	32	40	49	58	73
	N	25	40	48	57	69
	O	12	18 1/4	21 1/4	24 1/4	26 1/2
	P	9/16	3/4	3/4	3/4	3/4
	Q	19	26	30 1/2	35	41
	R	120	120	120	120	120
	S	3	3	4	4	5
	T	5 3/8	7 3/8	5 7/8, 6, 5 7/8	6 7/8, 7, 6 7/8	5 11/16
	U	3	3	3	3	4
	V	5 3/8	6 1/8	6 7/8	7 5/8	5 1/4
	W	3	4	4	4	4
	X	5 3/8	5 7/8, 6, 5 7/8	6 3/4	7 3/4	7 3/4
	Y	Length Determined by Type of Drive Selected				
	Z	7/16	7/16	7/16	7/16	7/16

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OPTIONS AND ACCESSORIES

DISTRIBUTORS
MANUAL- ELECTRIC

SPOUTING—FITTINGS

VALVES
MANUAL- PNEUMATIC

DRIVES

Elevator heads can be equipped with Shaft Mounted Worm Gear or Helical Gear Base Type Reducers. Shaft Mounted Reducers include an adjustable Torque Arm, Torque Arm Mounting Plate, V Belt Drive and Guard. Helical Gear Base Reducers are recommended for high horsepower applications. Mechanical or Clutch Type Backstops are available for all drives.

SERVICE PLATFORM AND CAGED LADDERS

Approved Service Platforms designed for maximum safety and ease of maintenance to Head Equipment, feature expanded Metal Decking, Guard Rails and Kick Plates. Heavy Gauge Steel Ladders and Safety Cages are available in welded or bolt-on styles.

RUBBER LAGGED PULLEYS

Rubber Lagging is commonly used on Pulleys to improve traction, resist abrasive conditions and to extend Belt and Pulley life. Lagging can be supplied as plain vulcanized, herringbone, diamond grooving or replaceable slide lagging.

WING PULLEYS

Wing Pulleys prevent material build-up under Pulley. Wing Pulleys feature a self cleaning cone design with wide rounded cross bars to prevent gouging of the belt while they assure positive traction.