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BULK MATERIAL HANDLING

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TYPE 750 BUCKET ELEVATOR DATA SHEET CONTINUOUS DISCHARGE WITH BELT

Bulletin 300.005

Standard Type 750 elevators include head shaft machinery, pillow block roller bearings, discharge spout, casing, belt, "MF" style buckets, boot terminal and screw take-ups with ball bearings. Capacities are based on buckets filled to 75% of theoretical capacity and are proportional to the weight and volume of the material carried and the belt speed. Horsepower information is based on buckets filled to 100% theoretical capacity. Fluffy or lightweight materials may require slower belt speeds, and wet or sticky materials may need different buckets.

CAPACITY DATA

Model	Max. Lump Size		Buckets		Belt	Cu. Ft. Hr.	CAPACITY* TPH			
	% of Lumps		Size	Ctrs.	Speed		Material Weight, Lbs. / Cu. Ft.			
	10%	100%			FPM		35	50	75	100
751	2-1/2	3/4	8 x 5	8	125	680	12	17	25	34
752	2-1/2	3/4	10 x 5	8	125	840	15	21	32	42
753	3	1	10 x 7	12	125	1080	19	27	41	54
754	3	1	12 x 7	12	125	1300	23	32	49	65
755	3	1	14 x 7	12	125	1520	26	38	57	76
756	4	1-1/4	12 x 8	12	125	1560	27	39	58	78
757	4	1-1/4	14 x 8	12	125	1820	32	45	68	91
758	4-1/2	1-1/2	16 x 8	12	125	2080	36	52	78	104
759	4-1/2	1-1/2	18 x 8	12	125	2340	41	58	88	117

* Based on buckets filled to 75% theoretical capacity

HORSEPOWER CALCULATION

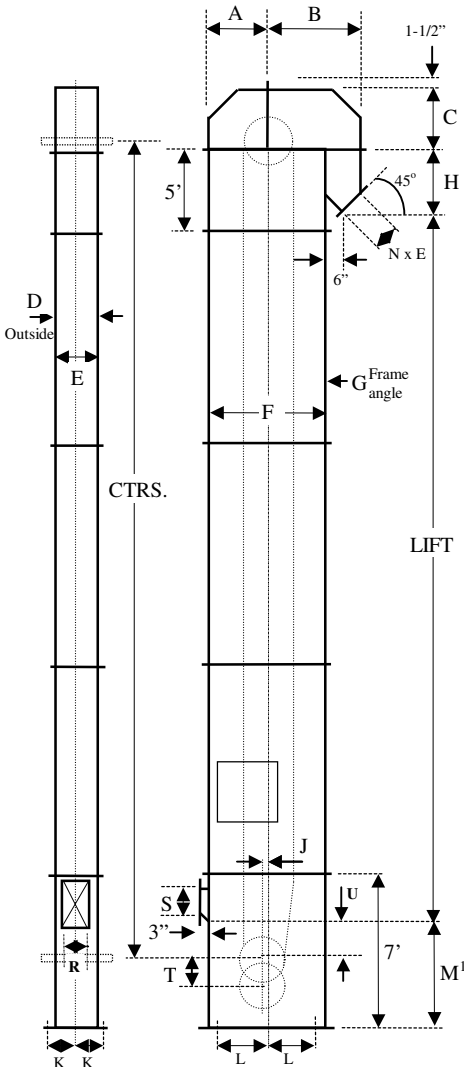
The horsepower required at the head shaft can be calculated with the following equation. The values required in the formula are listed in the following tables:

$$SHP = \frac{THP + (CHP \times C)}{0.85}$$

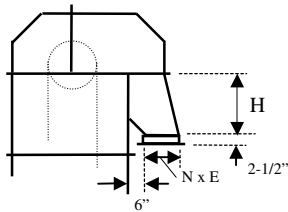
Legend: SHP = Horsepower at the head shaft CHP = Horsepower per foot of centers
 THP = Terminal horsepower C = Center distance in feet
 0.85 = Drive efficiency factor, to compensate for power loss in drive train

Model	Material Weight per Cubic Foot								Head Shaft		Boot Shaft	
	35 PCF		50 PCF		75 PCF		100 PCF		Pulley		Pulley	Shaft
	Terminal	Per Ft. Centers	Terminal	Per Ft. Centers	Terminal	Per Ft. Centers	Terminal	Per Ft. Centers	Dia.	RPM	Dia.	Dia.
751	.100	.016	.100	.023	.100	.034	.100	.045	20	23.4	14	1-15/16
752	.100	.020	.100	.028	.100	.043	.100	.057	20	23.4	14	1-15/16
753	.125	.025	.136	.036	.155	.055	.173	.073	24	19.1	18	1-15/16
754	.131	.031	.144	.044	.165	.065	.187	.087	24	19.1	18	1-15/16
755	.135	.035	.151	.051	.177	.077	.210	.102	24	19.1	18	1-15/16
756	.236	.036	.252	.052	.278	.078	.304	.104	24	19.1	18	2-3/16
757	.243	.043	.261	.061	.292	.092	.323	.123	24	19.1	18	2-3/16
758	.252	.052	.270	.070	.305	.105	.340	.140	24	19.1	18	2-3/16
759	.255	.055	.278	.078	.319	.119	.358	.157	24	19.1	18	2-3/16

Note: Values based on buckets filled to 100% theoretical capacity



Anchor bolts :
 3/4" dia.
 2" projection



Optional Style 2 Discharge

Other BWSI Products:

- Screw conveyors
- Screw feeders
- Belt conveyors
- Flex-wall conveyors
- Diverter valves
- Roller gate valves
- Hoppers & bins
- Engineered systems

Model	A	B	C	D	E	F	G	H
751	19-1/2	32-1/2	21-1/2	15-1/8	13-3/4	39	1-1/2	29
752	19-1/2	32-1/2	21-1/2	17-1/8	15-3/4	39	1-1/2	29
753	24	40-5/8	27-1/2	18-1/8	15-3/4	48	2	33-1/4
754	24	40-5/8	27-1/2	20-1/8	17-3/4	48	2	33-1/4
755	24	40-5/8	27-1/2	22-1/8	19-3/4	48	2	33-1/4
756	24	40-5/8	27-1/2	20-1/8	17-3/4	48	2	33-1/4
757	24	40-5/8	27-1/2	22-1/8	19-3/4	48	2	33-1/4
758	24	40-5/8	27-1/2	24-1/8	22-3/4	48	2	33-1/4
759	24	40-5/8	27-1/2	26-1/8	24-3/4	48	2	33-1/4

Model	J	K	L	M ¹	N	R	S	T	U
751	3	7-3/4	16-1/2	37-1/2	10	6	12	6	17
752	3	8-3/4	16-1/2	37-1/2	10	8	12	6	17
753	3	8-3/4	21	49-1/2	15	8	15	9	21-1/2
754	3	9-3/4	21	49-1/2	15	10	15	9	21-1/2
755	3	10-3/4	21	49-1/2	15	12	15	9	21-1/2
756	3	9-3/4	21	49-1/2	15	10	15	9	21-1/2
757	3	10-3/4	21	49-1/2	15	12	15	9	21-1/2
758	3	11-3/4	21	51-1/2	15	14	15	9	23-1/2
759	3	12-3/4	21	51-1/2	15	16	15	9	23-1/2

Model	Casing Size ²	Belt		Casing Thickness (Ga.)			Weight (-)	
		Width	Hood	Case	Boot	Term ³	Ctrs ⁴	
751	13-3/4 x 39	9	14	12	10	862	83	
752	15-3/4 x 39	11	14	12	10	816	94	
753	15-3/4 x 48	11	14	12	10	1223	103	
754	17-3/4 x 48	13	14	12	10	1293	114	
755	19-3/4 x 48	15	14	12	10	1359	120	
756	17-3/4 x 48	13	14	12	10	1462	121	
757	19-3/4 x 48	15	14	12	10	1568	127	
758	22-3/4 x 48	18	14	12	10	1607	132	
759	24-3/4 x 48	20	14	12	10	1642	137	

- Notes:
1. "M" is the minimum height from material inlet point to bottom
 2. Dimensions are inside the casing enclosure
 3. Term = Weight of each terminal
 4. Ctrs. = Weight of casings, belt, and buckets, per foot of centers

Type 750 Elevators are recommended for the following products ...				Wt.
Material	Abrasion	Corrosion	Flowability	PCF
Alumina	Moderate	Low	Sluggish	60-95
Bauxite	High	Low	Moderate	75-85
Carbon black	Consult	Consult	Consult	20-40
Cement	Moderate	Low	Moderate	75-85
Clinker	High	Low	Moderate	75-80
Coal	Low	Moderate	Sluggish	50-55
Dolomite	Moderate	Low	Moderate	80-95
Flue dust	High	Low	Moderate	40-95
Granite	High	Low	Moderate	100
Gypsum	Moderate	Low	Sluggish	75-95
Ilmenite ore	High	Low	Moderate	140
Lime, pebble	Low	Low	Sluggish	55-60
Limestone	High	Low	Moderate	85-90
Phosphate	Moderate	Low	Moderate	75-85
Salt	Moderate	Moderate	Moderate	70-80
Soda ash	Moderate	Low	Moderate	55-65