



SERETOULIS V. - PROKOPIDIS S. G.P.

*DEVELOPMENT & MANUFACTURING COMPANY
OF ELECTROMECHANICAL INSTALLATIONS*



Belt Bucket Elevator

SP - BBE Belt Bucket Elevators

Centrifugal belt bucket elevator know - how

Presentation

A bucket elevator is a conveyor for carrying bulk materials in a vertical or inclined path. Bucket elevators for the mechanical, vertical transportation of materials have become a crucial link in the production process in many industrial sectors. They are made in a variety of shapes, weights and sizes according to material and productivity rates.

Operation is too simple. Material is fed into an inlet hopper. Buckets are fed directly from inlet special chute and convey the material up and over the head pulley, then throwing it out of the discharge throat by centrifugal forces. The empty buckets then continue back down to the boot to continue the cycle.

Bucket elevator is a very simple yet reliable equipment for lifting of bulk material and enjoys plenty of advantages, which include simplicity of design and fabrication, requires minimum floor space, low initial investment and extremely low electrical consumption comparing to air lifts and air transportation systems.

Installation

Our company has designed bucket elevators that are simple to dismantle, transport, assembled and erect. Assembling is required less time. During erection the need for stuff and handling equipment is reduced. We provide assembly manual for each part of bucket elevator and erection guide for the whole bucket elevator at project location.

Moreover, all parts of our bucket elevators are being subjected to quality control (measurements, welding, materials supply), during construction and before loading. In this way we ensure a reliable control of your parts when receive on site.

Finally, all components and materials we use are from certificated European Companies.



Features & Benefits

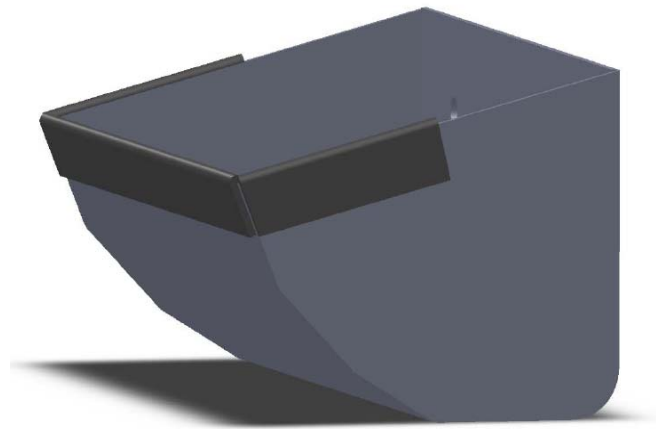
Steel construction

- Columns manufactured by sheet steel, appropriate profile to receive all forces.
- Horizontal sheet plates to ensure vertical straight.
- Oversized removable access doors which makes belt and bucket installation and maintenance more efficient and easy to follow.
- Buckets from sheet steel or plastic with double thickness in front and part sides. Special shape and design to achieve maximum individual bucket capacity while still maintaining perfect fill and discharge characteristics.



Belting

- Wide range to suit all applications from standard SBR belt to high heat belt up to steel Web belts.
- Holes punched by precise equipment for excellence of bucket installation.
- Belt fasteners to suit all applications. Special shape and design according to trajectory of movement.
- Special flat head Euro bolts for bucket perfect installation.



Boot Assembly

- Fully assembled boot components assure you of a trouble free operation from start up.
- Heavy steel construction.
- Tensioning with variety of solutions. From individual screw, parallel solutions up to full automatic to a pre set tension.
- Winged conical perforated pulley, in order tricking material to be removed, avoiding belt contact and misalignment..
- Double roller bearing for lifetime operation.
- Drop down oversized removable panels to provide easy access and clean out.
- Large boot inlet hopper - directs material flow for proper bucket fill.
- Galvanised steel plates and high molecular weight polypropylene plate facilitate tensioning for ease of movement.
- Double labyrinth and felt seals gaskets for absolute sealing between inner and outer area.
- Special curved plate on bottom for minimising stationary material agglomeration.
- Special top cover with rubber sealing for eliminating contact between material and tail - boot pulley.



Features & Benefits

Head Assembly

- Fully assembled head components assure you of a trouble free operation from start up.
- Heavy sheet steel construction.
- Rubber lagged conical pulley, ensures excellent belt tensioning, increasing friction factor. Possibility of exchangeable friction linings without dismantling.
- Engineered head shaft - supported by externally mounted double roller bearings for maximum service life and safe operation.
- Oversized removable panels provide easy access for inspection and maintenance.
- Oversized discharge (according to centrifugal discharge trajectory) for smoother way out of material, lined for longer time wear resistance.
- Special rubber sealing for avoiding material recirculation.
- Replaceable head and hood lining.
- Bearing bolts with adjustable bearing height for easy belt alignment.
- Heavy duty motor mounting.
- Multiple piece hood assembly allows for easy installation and replacement of head liners.
- Double labyrinth and felt seals gaskets for absolute sealing between inner and outer area.
- Peripheral access platform of different kinds according to customer needs.
- Variety of drive solutions according to the design engineering and to customer needs.



Features & Benefits

Safety

Top priority is people's safety and well - being. The risk of an accident is always present during maintenance, inspection and operation of bucket elevator. Therefore, at our bucket elevators we use a range of safety devices to assure operator's protection. Standard includes walkways around head with anti-skid flooring and handrails, in order to permit the access to all machine parts, fender to motor & gear reducer and electrical safety devices as safety switch, belt misalignment switch. Additional safety devices is also systematically proposed.

Maintenance

Our bucket elevators are designed in order to reduce maintenance and servicing time. All our components are selected from respectable European suppliers ensure the most best terms of operation. Walkways with anti-skid flooring are used to facilitate inspection and servicing conditions. Alike, the full accessibility to different components reduces the maintenance time.

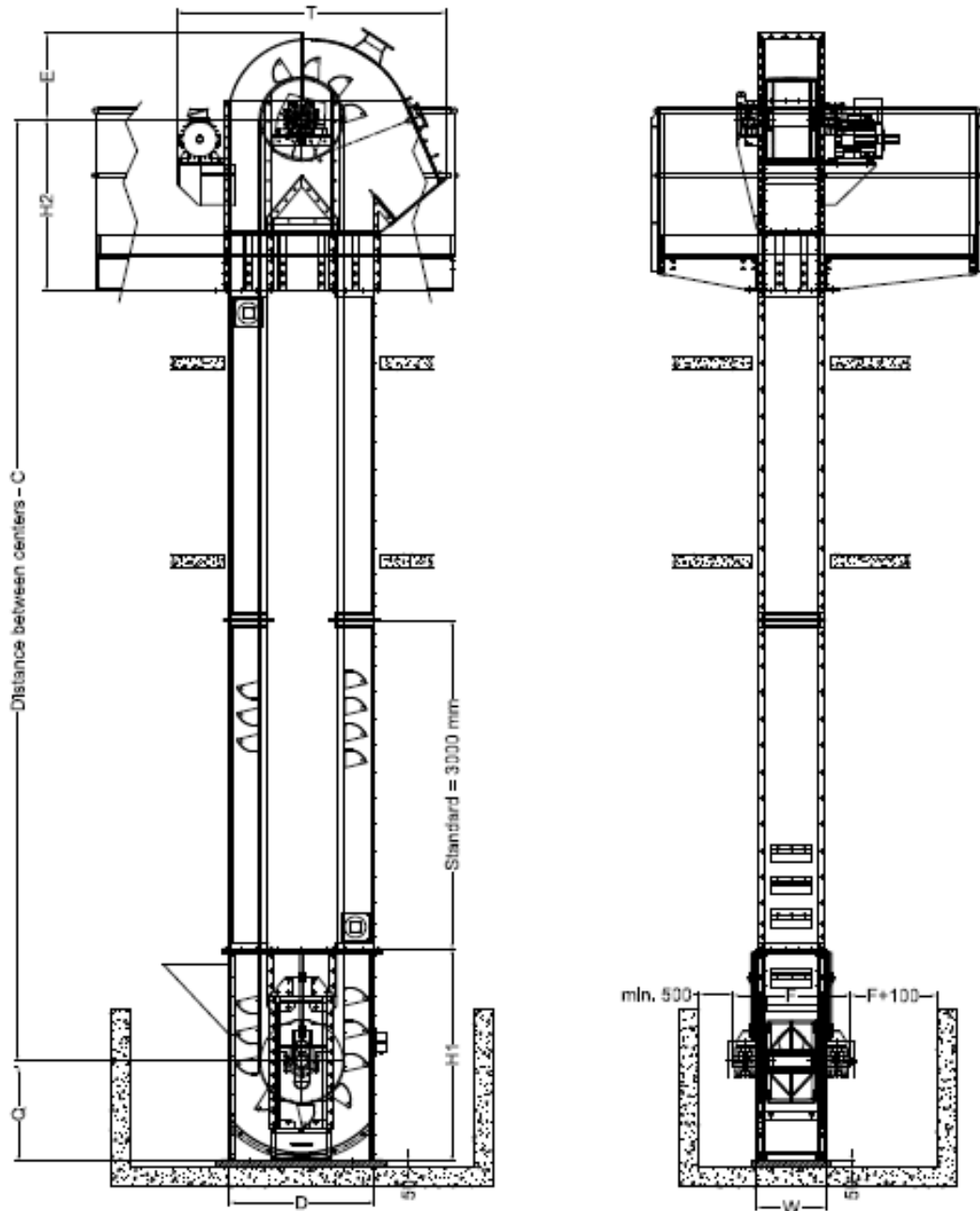
Electrical accessories

Our belt bucket elevators cooperate with the best and heaviest duty electronic gadgets of European market. Usual cases are the following:

- Speed monitoring.
- Belt misalignment sensors.
- Choke membrane sensors.
- Screw tension operator.



General Dimensions



Bucket with normal design (mm)	200	250	315	400	500	630
Length of boot housing - D	920	980	1100	1390	1530	1850
Width of boot housing - W	330	410	530	680	800	930
Height of tension pulley - Q	610	670	755	920	955	1250
Height of boot housing - H1	1195	1315	1605	1715	1755	2120
Overall width of bucket elevator boot - F	730	820	890	1075	1185	1415
Height of drive pulley above column - H2	1120	1200	1300	1470	1750	2050
Height above bucket elevator head - E	535	585	660	870	940	1020
Length of head - T	1725	875	2045	2555	2780	3160

References

Greece / Pella

50 tn/h Cement Plant



Cyprus / Limassol

25 tn/h Limestone Process Plant



Greece / Pella

20 tn/h Lime & Hydrated Lime Plant





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