

# Bucket Elevators

Identify. Create. Resolve.



IBS Bucket Elevators have successfully been installed in a wide range of applications and capacities.

From process equipment, handling a few kg /hr to over 2000 t/hr with a vast range of materials. Whether your application requires a heavy-duty high capacity machine or an industrial process elevator for your factory.

IBS have a wealth of experience in designing the correct bucket elevator for your application and have a standard range of elevators, which can be specifically designed for, more specialised applications.

IBS elevators have conveyed high temperature, high wear, abrasive, large lumpy, sticky non-flowing materials, as well as free flowing powders and granules.

We supply a standard range of twin chain and belt elevators single or twin bucket design for high capacity applications such as grain, minerals and ore. The selection of the elevator depends on the material characteristics and IBS will be able to advise you and select the elevator most suited to your material and your application.

## IBS Standard Range of Elevators

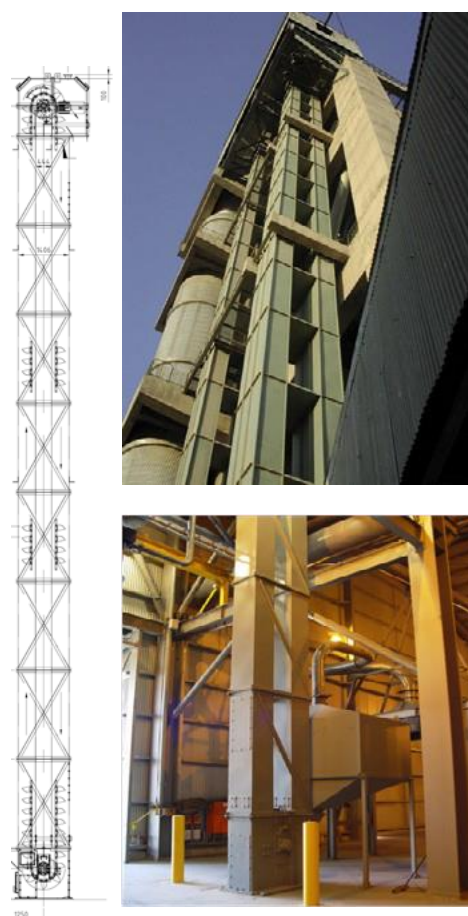
- Gravity elevators
- Positive discharge elevators
- Central discharge slow speed elevators
- Centrifugal elevators

## Gravity Type Bucket Elevator

IBS supply gravity discharge elevators and positive discharge elevators, supplied as close bucket discharge type, central discharge type, or Idler wheel discharge.

Generally a slow speed design gravity bucket elevator is primarily installed for elevating large lumpy & abrasive material. Our standard units are usually chain driven, either friction drive or toothed sprocket.

These elevators offer reliability with minimum wear & a positive discharge emptying of the bucket.



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## Centrifugal Type Bucket Elevators

IBS standard range of centrifugal elevators are the most common type of elevator installed to most industries supplied in both belt type or chain type depending on material characteristic and the capacity being elevated and in some case the feeding method of the elevator.

### Conveying type

- Segmented tooth sprocket chain type, twin chain or single dropped forged link chain
- Friction chain type elevators, European rolled chain
- Belt elevator. Using rubber belt or 100% polyester solid woven belt, nylon and steel woven belt

### Typical Construction

- We supply Single leg or Double leg elevators
- Lagged head pulley
- Slatted return pulley for sticky materials
- Segmented removable sprockets for chain elevators
- Segmented and removable friction pulleys for friction drive elevators
- Fabricated boot and head section assemblies
- Fabricated 3.0m long nominal casings c/w with self-supporting frame and lateral support frames
- Dust tight sealed flanges
- Screw or counterweight tail end take up

Whether the elevator is best suited for toothed sprocket design, friction wheel on conventional belt, IBS will be able to assist with correct selection for the most reliable, maintenance free and cost effective machine to suit your material characteristic and conveying capacity for your particular application.



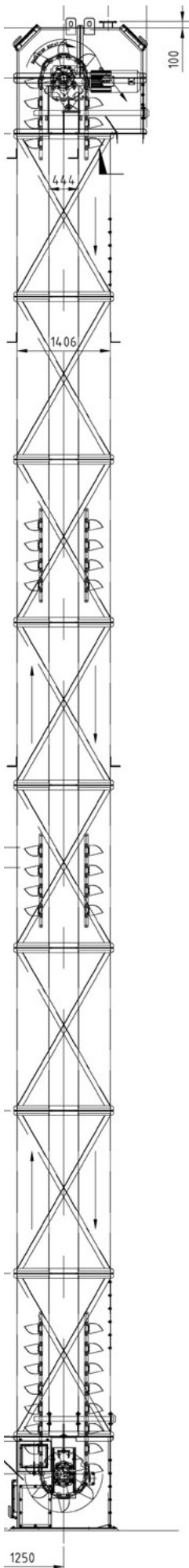
### Types of Buckets readily available

IBS Supply a range of standard off the shelf buckets in a variety of sizes and materials.

Selection of bucket type will depend on material, material characteristics and application. Typical IBS buckets would be plastic-nylon or polyurethane and can be provide FRAS, mild steel fabricated or pressed, stainless steel fabricated or pressed and wear tips for abrasive materials.

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## Safety and maintenance

- IBS equipment is supplied mandatory with anti-roll back device in full load condition
- All inspection doors are fitted with safety limit switches
- All elevators are supplied with safety motor isolating switch wired to drive and fitted with junction box
- Safety factor of minimum 12: 1 to rated chain pull to installed chain or belt pull under full load stall conditions

For some materials and specific applications IBS will design in accordance with Australian standards, suitable explosion venting and will design the structure of the elevator to suit the required application. Typical material that requires this consideration would be sugar, flour, grain and coal.

## Standard features for all IBS bucket elevators

- Qty2 1000mm long inspection doors in conveyor leg and return leg in twin leg elevators for easy inspection of belt or chain and replacement of buckets. Inspection hatch will be provided with bolted mesh screen and safety limit switch
- Qty 2 inspection doors in head section, fitted with safety limit switch
- Fully removable split head top section.
- Clean out and inspection doors in Boot section. Self cleaning boot section optional.
- Under speed sensor and flag disc
- Belt tracking sensor or switch for belt Bucket Elevators

## Design Criteria for IBS Bucket Elevators

- All IBS equipment is designed to meet Australian Standards
- Selection of correct conveying velocity and material trajectory for centrifugal elevators is critical to the successful operation of a bucket elevator
- Standard wear plates on boot in-feed and head chute discharge.
- Designed to operate no more than 70% water level of selected bucket at normal operation.
- Installed power capable of full load start up under full bucket surge capacity.
- IBS bucket elevators are designed for dust tight design, with suitable dust extraction points
- All IBS bucket elevators are designed to be self supporting and are provided with lateral support bracing at approx 10m centers

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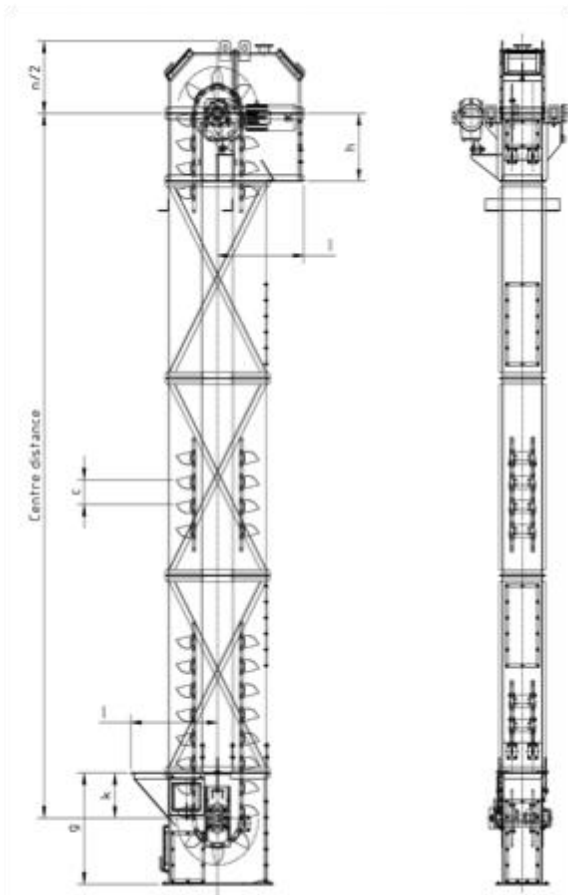
## Replacement parts service

IBS can provide a range of standard bucket elevator parts using our standard head and tail pulley assemblies, conveyor belting, elevator butt straps, conveyor bolts and fittings, belt-splicing fittings.

Coupled with our range of standard steel and plastic buckets, elevator chain and fittings, belt tracking switches and sensors we will keep your business moving.....

## After sales support

IBS can provide a customised service contract using experience technicians with many years experience in servicing and troubleshooting bucket elevators in most states. This service ensures that your equipment is functional to it's optimum capabilities and reduces down time parts replacement and potential damage. Our technicians have standard customer maintenance, checking and reporting procedure.



Typical Centrifugal  
Bucket Elevator

Typical Head  
Assembly



Typical Head Bearing  
Assembly & Anti  
Roll Back



Typical Boot  
Assembly



Typical Segmented  
Chain Wheel  
Sprocket



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Ask us how we can improve your processes today

IBS Bulk Handling Pty Ltd.  
Unit 205/75 Tulip St,  
Cheltenham Victoria, Australia 3192  
**Tel: +61 3 9585 6391**  
Fax: +61 3 9585 4349  
[info@ibsbulhandling.com.au](mailto:info@ibsbulhandling.com.au)  
[www.ibsbulhandling.com.au](http://www.ibsbulhandling.com.au)

IBS China  
Rm. No.413, Shouxi International Building,  
No.6 Wenchang Middle Rd.,  
Yangzhou City,  
China-225003  
**Tel: +86-514-82065058**  
Fax: +86-514-82065058

IBS Thailand,  
Fico Place Building, 3rd Floor, Room 305,  
18/8 Soi Sukhumvit 21 Rd. (Asoke),  
Wattana, Bangkok,  
Thailand 10110  
**Tel: +66 (0) 2 661 6778**  
Fax: +66 (0) 2 661 6776