

universal **ELEVATOR**



## Gentle Conveying of Fragile Grain and Seeds

Simatek Bulk Systems A/S is a company specialised in the mechanical conveying of fragile products. A long-running development process on the elevators focusing on reliability and maintenance has resulted in a broad variety of pendulum bucket elevators which have been customised according to the comprehensive demands of the industry to in-house transportation of grain and seeds.



*Simatek Universal Elevators conveying sunflower seeds in China. Photo: Sunshine Produce Ltd., China*

### Proper handling

Simatek Universal Elevators are the optimum conveyers for process lines within the seed processing industry.

Seeds tend to be fragile and germination can be significantly reduced if the seeds are handled improperly.

Therefore, Simatek Universal Elevators are the optimum solution for conveying fragile seeds and grain.

Typical areas of application are husking, drying, cleaning, sorting, pickling, coating and packing.

### Worldwide

Simatek Universal Elevators are applied all over the world by leading seed processing plants ensuring a careful handling of all sorts of fragile seeds.



*Simatek Universal Elevators conveying various sorts of seeds. Photo: Limagrain, France*

### Product examples (seeds):

- Maize
- Soybeans
- Rape
- Beet
- Flower
- Cumin
- Caraway
- Grass
- Clover
- Radish



### Application

- Sorting
- Cleaning
- Toasting
- Pickling
- Oil extraction
- Storing
- Mixing
- Drying
- Sifting
- Cooling
- Coating
- Packing

### Grain and Seeds

# Simatek Universal Elevator – Pendulum Bucket Elevator

The Simatek Bulk Systems series of modular pendulum bucket elevators offers space-saving and energy beneficial solutions for the conveying of bulk products.

Simatek Universal Elevators come in various forms and with two different pendulum bucket designs. The traditional design is with overlap and forced control of the buckets but an alternative design without bucket overlap and with reduced forced control is also available. The latter is primarily used for abrasive products.

## Intermediate outlet

Electric pneumatic intermediate outlets can be mounted on the horizontal sections as per request.

## Corner section

Corner section with shaft and sprockets. Double bearing construction of both shaft and free-running sprockets.

## Drive and emptying section

The drive section has an electric overload control to protect the elevator. An output control monitoring the elevator function is an option.

## Filling and tensioning section

Optimum operation requires a controlled filling of the elevator. For further information please see separate program on feeding and dosing systems.

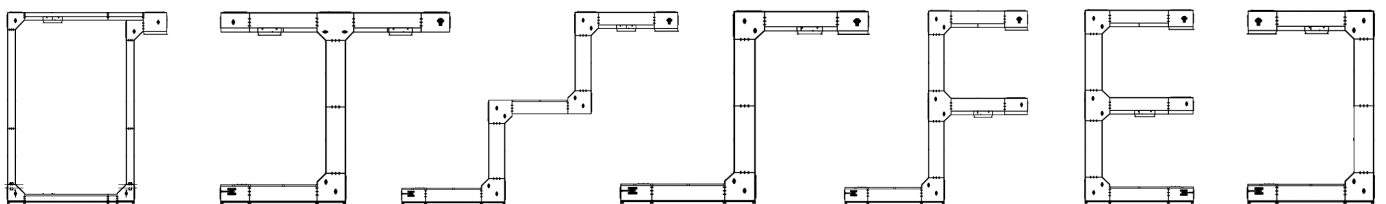
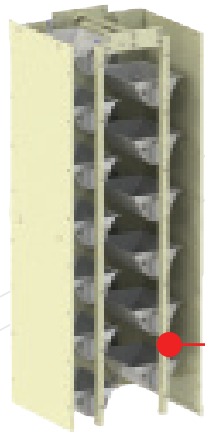
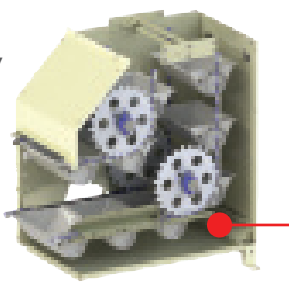
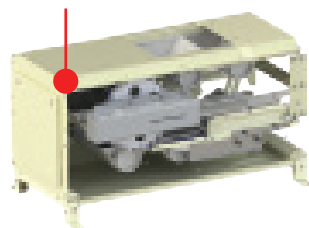
## Vertical and horizontal sections

As standard the intermediate sections come with a rail system for controlling the chains and buckets. The lower horizontal sections have an easily operated drawer system for easy cleaning.

The tension section has a unique pneumatic chain tensioner ensuring correct, parallel tensioning.

## Service

The vital parts of the elevator have service doors for easy service and inspection access.



**A Gentle and Flexible Solution**

## Gentle filling of the buckets

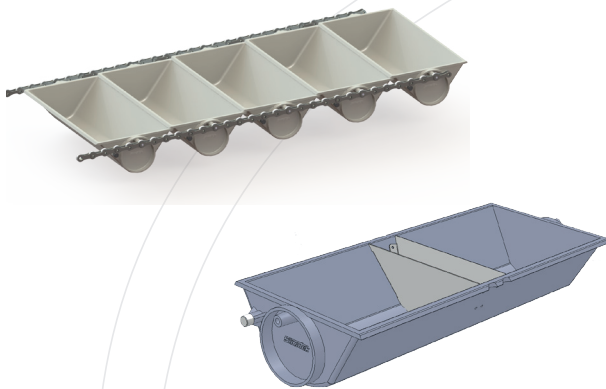
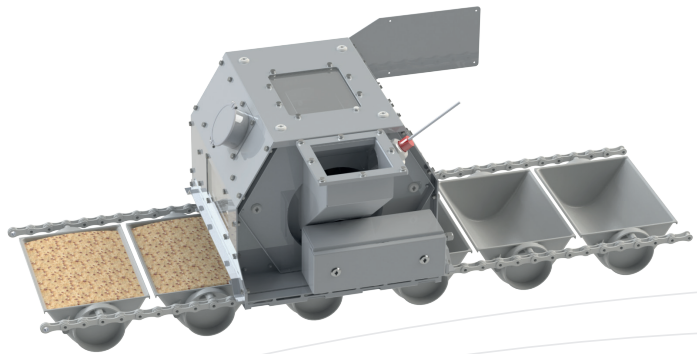
### Simatek Drum feeder – Continuous Batch Feeding System (CBFS)

CBFS is mechanically synchronised with the elevator and ensures a consistent and controlled filling of the buckets.

The buckets are filled separately with very little product waste.

The slow pace enables gentle and less abrasive conveyance and a high filling degree.

With CBFS there is no overlap nor mechanical contact between the buckets which is a significant advantage, especially when conveying abrasive products.



## Elevator buckets

In connection with sorting plants Simatek Universal Elevator can be supplied with split buckets for simultaneous conveying of two different seed qualities without the risk of product contamination.

## Capacity & Products

Simatek Universal Elevators are available with five different bucket sizes depending on capacity requirements. The elevators are offered in capacities from 5.0 m<sup>3</sup>/h to 120.0 m<sup>3</sup>/h.

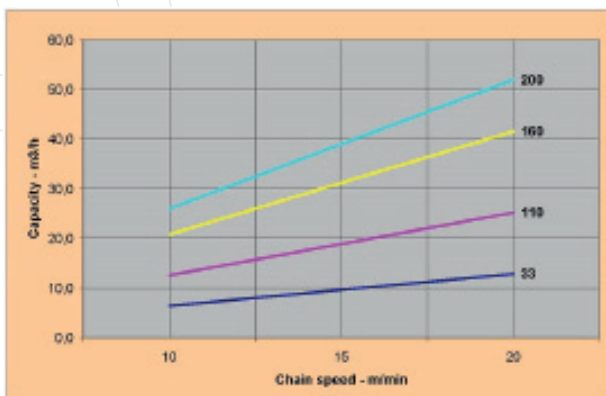


Fig. Capacity: Simatek Universal Elevator type 33-200  
Bucket filling degree: 70%

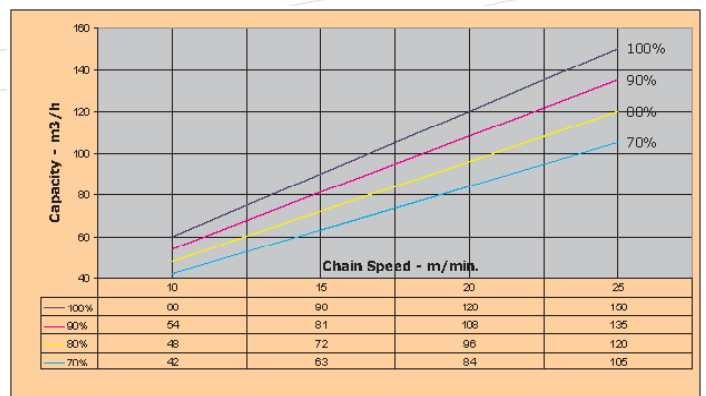


Fig. Capacity: Simatek Universal Elevator type 400