

universal **ELEVATOR**



Powder and Granulate

# Conveying Powder and Granulate

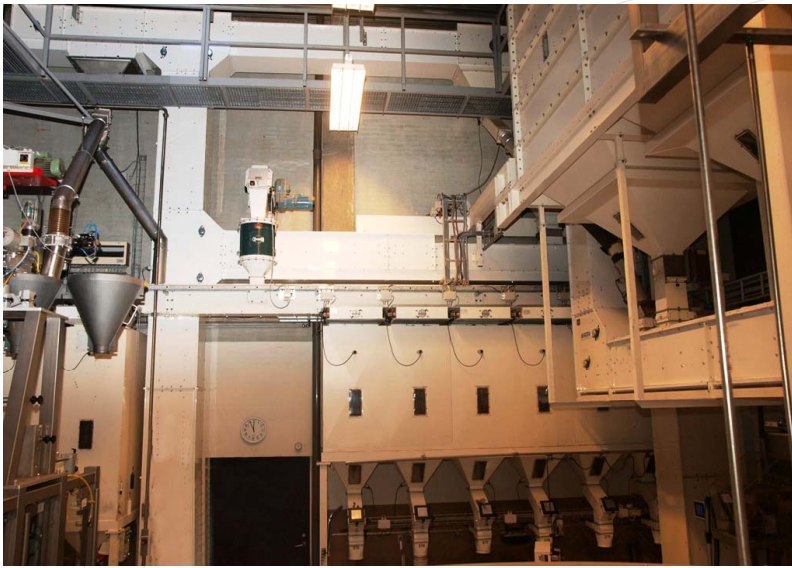
Simatek Bulk Systems A/S is a company specialised in the mechanical conveying of fragile products. A long-running development process on the elevators has resulted in a broad variety of pendulum bucket elevators which have been customised according to the comprehensive demands of the industry to in-house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

## Processing plant

Simatek Universal Elevators are unique for the conveying of fragile products, taking particular consideration to the quality and structure of the product.

The minimum mechanical impact on the product reduces the development of dust which in combination with the closed design secures a very clean conveying solution.

Dust aspiration is only necessary when filling and emptying the elevator.

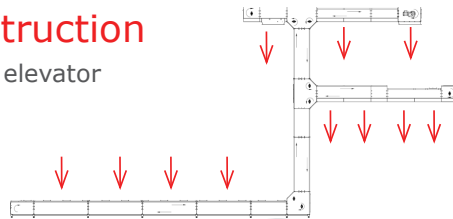


**BKI, Denmark**

*Simatek Universal Elevators conveying coffee*

## Customized construction

Construction form for BKI elevator pictured above.



## Execution

Simatek Universal Elevators may be delivered in an open or closed design and with a choice of materials according to customer requests.

The elevator parts touching the product are offered in food approved materials and finish.

To avoid product contamination the elevators are delivered in a design eliminating internal product sediments.

## Applications

- Drying
- Packing
- Milling
- Granulating
- Coating
- Toasting

## Ingredients and foodstuffs

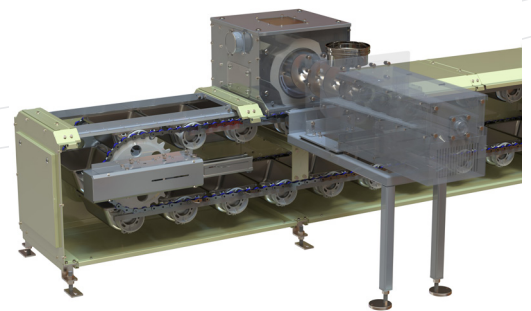
Aromatic products will maintain their volatile aromas during this gentle conveying, contrary to pneumatic handling.

## Complex Powder Handling

Simatek Bulk Systems has introduced a new Forced Feeding System which in combination with the Simatek Drum Feeder and Free Rotating Buckets makes our elevators very suited for conveying complex powders with poor flow properties.

## Controlled atmosphere

As an option, Simatek Universal Elevators may be delivered in a heated and isolated execution with internal humidity control.



**Processing industry**

*Simatek Universal Elevator with Drum Feeder and Forced Feeding System*

# Simatek Universal Elevator – Pendulum Bucket Elevator

The Simatek Bulk Systems series of modular pendulum bucket elevators offers space-saving and energy-efficient 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.

## Intermediate outlet

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

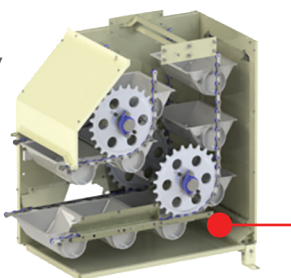
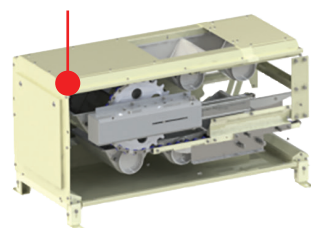
## Corner section

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

## 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.

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

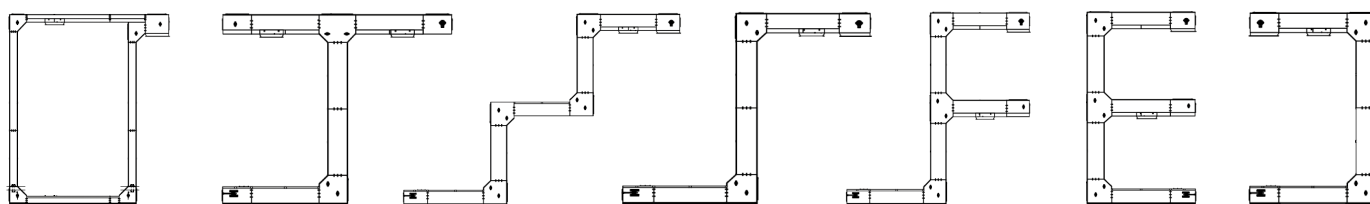


## Vertical and horizontal sections

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.

## Service

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



**A Gentle and Flexible Solution**

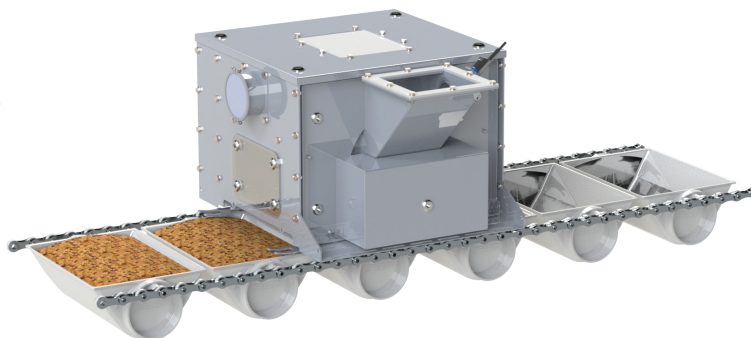
## Continuous Batch Feeding System

The patented Simatek Drum Feeder is mechanically synchronised with the elevator and ensures a consistent and controlled filling of the buckets.

The buckets are filled separately without spillage.

The slow pace enables gentle conveying at a high filling degree.

With the Simatek Drum Feeder there is no overlap nor mechanical contact between the buckets which is a significant advantage.

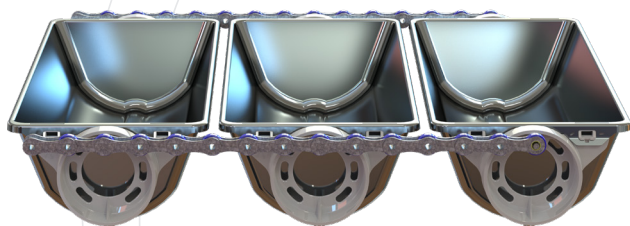
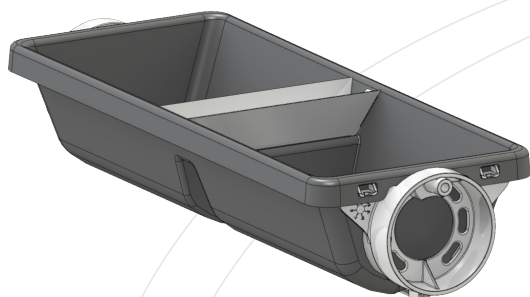


## Elevator buckets

Simatek Universal Elevators may be delivered with a variety of bucket qualities in consideration of:

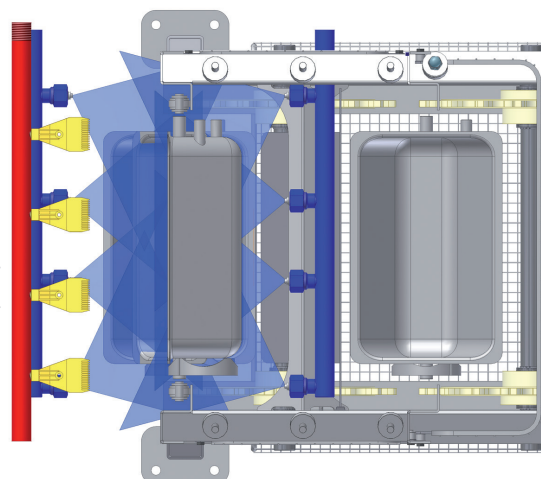
- Types of product
- Temperature
- Static electricity
- Detectability
- Foodstuff contact

When using split buckets as well as the drum feeder the elevator may convey more product fractions at the same time.



## Cleaning In Place (CIP)

As an option the elevator may be delivered with an integrated washing system for the cleaning of chains and buckets.



## Powder and granulate (examples)

### Foodstuff

- Coffee, tea
- Cocoa powder
- Ingredients
- Sugar & salt
- Spices
- Flour
- Milk powder

### Fine Chemicals

- Enzymes
- Detergents
- Pigments
- Active coal

### Industrial

- Catalysts
- Fertilizer
- Minerals
- Metalloxyd