

# Welcome To Allround Vegetable Processing B.V.

A culture and level of technology.

INDIA



HOLLAND



# ALLROUND BULK STORAGE

- Storage in bulk is an effective and economical way of storage.
- Effective because it is a direct ventilation system.
- With a good engineered bulk system all the product will receive the same amount of air, what creates a perfect temperature and humidity balance all over the pile.
- Products to be stored: Table potatoes, Onions, Industrial potatoes, Redbeet etc.

## Advantages

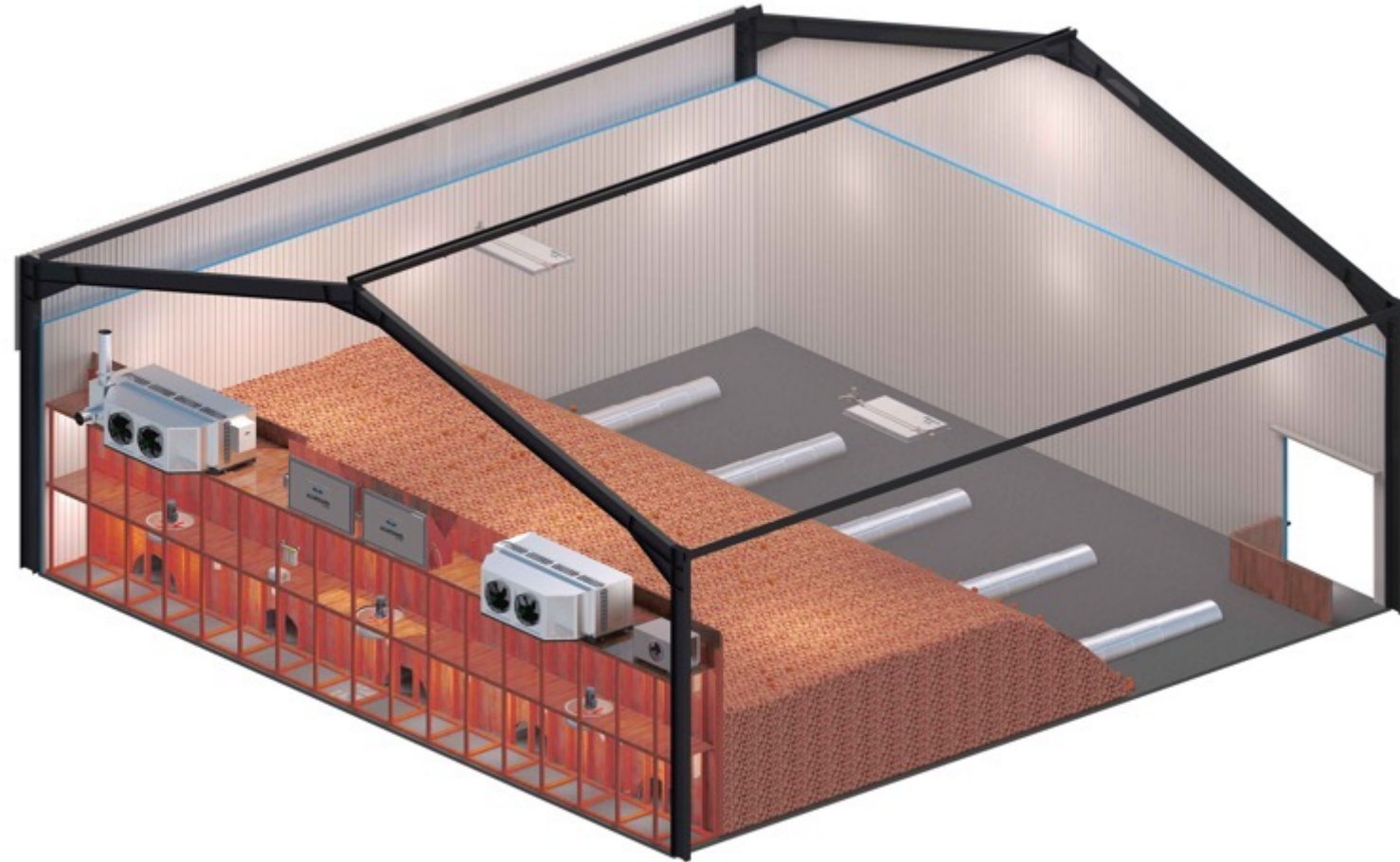
- Effective drying and cooling
- Equal temperature, humidity and CO<sub>2</sub> in the pile
- Optimal distribution of anti-sprouting agents
- Very cost-effective method of storage

## Disadvantages

- Not possible to separate different lots or varieties in the same room.

## Most suitable for

- Large quantities of the same product and variety
- Industrial products

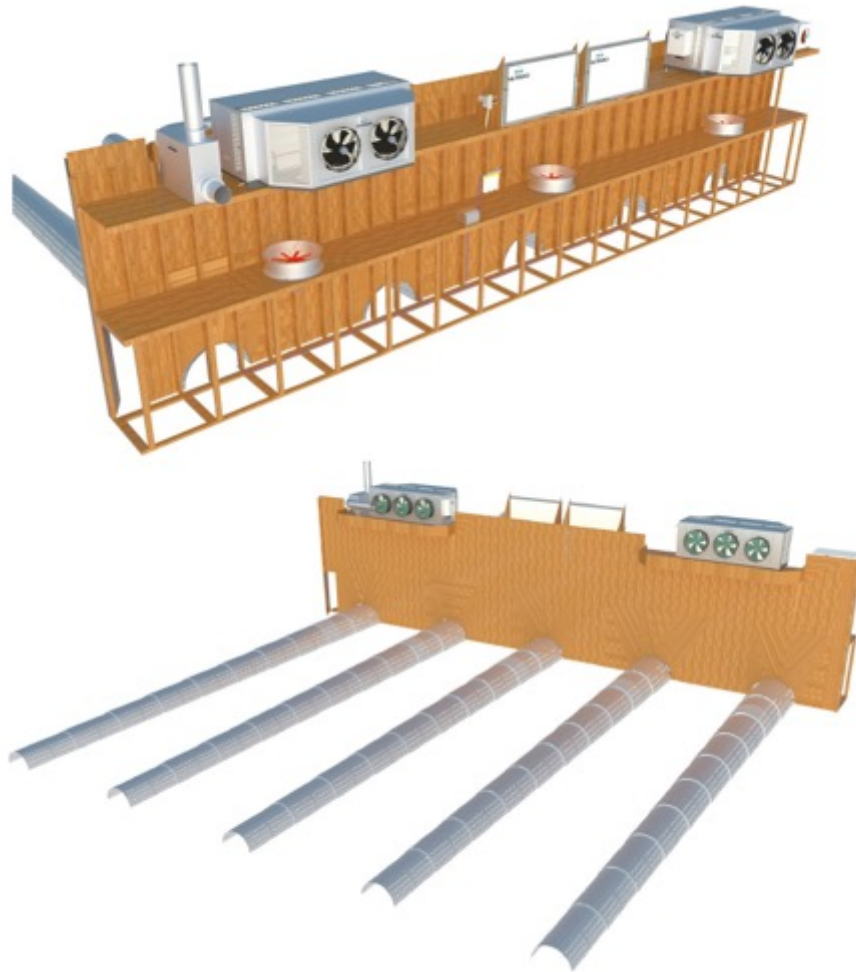


# COOLING SYSTEM

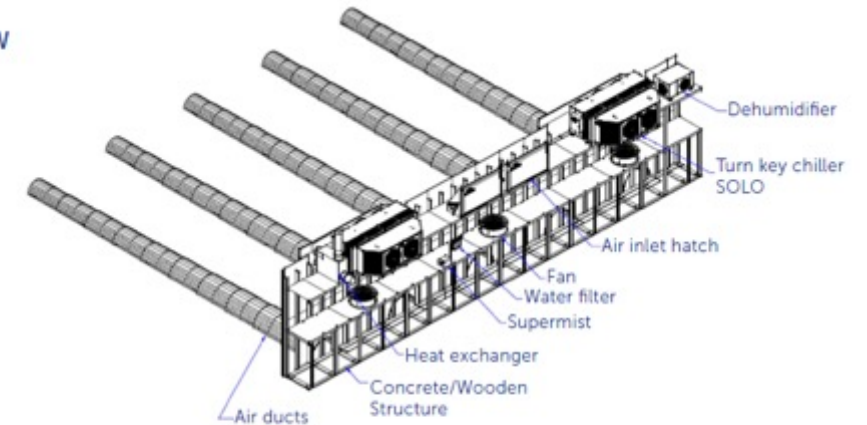
When storing potatoes or onions in bulk, the product is placed amass up to 3.5 to 4.5 meters high depending on the products and the conditions. This system is highly effective because it is a direct ventilation system which means that 100% of the air distribution is forced through the product. This means that with the right equipment the temperature, humidity and CO<sub>2</sub> level through the complete store are controlled.

## Storage components

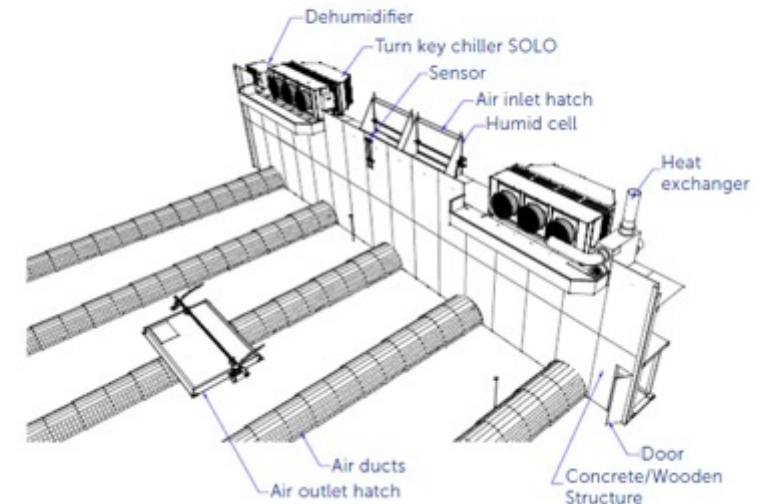
- Air ducts
- Heat exchanger
- Supermist humidifier
- Humid cell
- Air inlet hatch
- Turn key chiller
- Dehumidifier
- Air outlet hatch
- Sensors



BACK VIEW

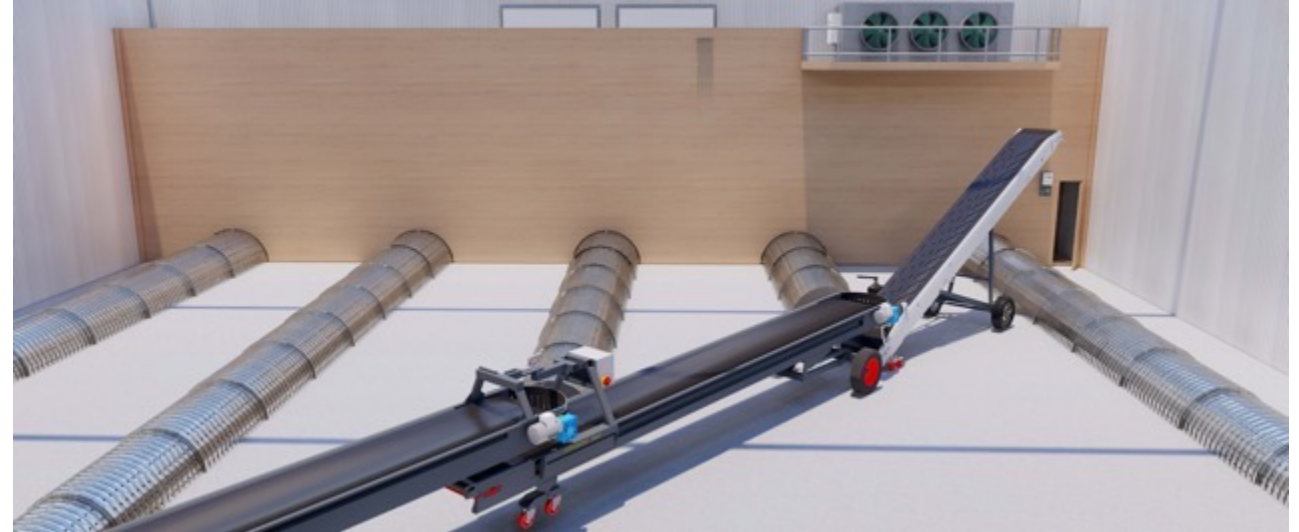


FRONT VIEW



# ALLROUND VENTILATION SYSTEM

- Effective drying, cooling and heating up product without condensation
- Highly controllable storage conditions
- Inexpensive cooling during pull down of temperature with the help of outside air
- More cooling effect can be achieved with outside air with the help of Humidi pad
- Equal distribution of temperature, humidity and antisprouting agents
- Very effective CO<sub>2</sub> removal system
- Complete data control and protection
- Double backup of data, local as well in our data center
- Data from field and logistic can be handled in the same system
- Highly energy efficient motors
- Proven construction
- Strong and reliable systems
- Highly accurate sensors with 4 wire system to eliminate cable resistance fluctuations



# 500 MT STORAGE SOLUTION

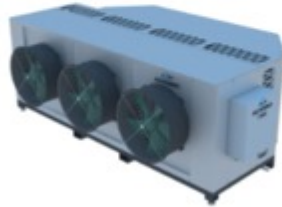
- Bulk storage for onions.
- Total capacity: 500 MT



# STORAGE COMPONENTS



Heat exchanger



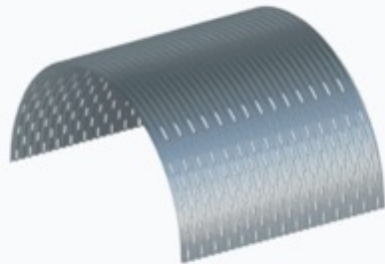
Turn key chiller 38H



Dehumidifier



Switch panels



Air ducts



Air hatch

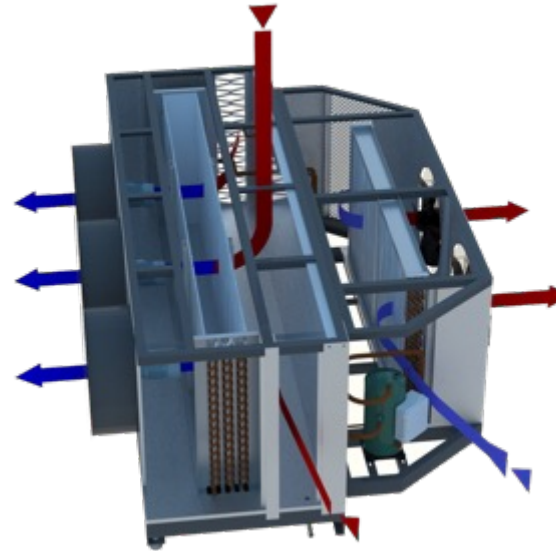


Allround sensors

# TURN KEY CHILLER

## Advantages Allround Cooling System

- A system with plug-and-play machines
- No pipelines required
- No machine room required
- No special operator required
- 100% Online monitoring and data protection
- Zero use of water in our cooling system (No water wastage)
- No use of harmful gases
- Almost maintenance free system
- R 410A gas for cooling.
- Bitzer latest series compressor which has the possibility to use R 513A (Low SWP) gases when required because of efficiency or government laws
- No need to refill gases or change oil
- Every room has its own independent cooling system
- Long term storage
- Most of the spare parts easily available worldwide
- Full after sale and training backup
- Lowest energy use in comparison with other suppliers
- Minimum of weight loss to product



# AIR DUCTS

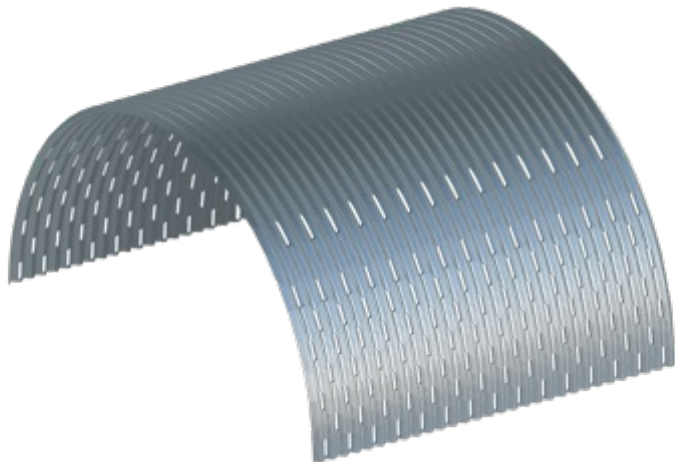
Bulk storage of agricultural product require air ducts where the conditioned air can be blown into to be divided throughout the heap. The most practical and hygienically option is to use semicircular air ducts. The ducts are produced in our own factory

## Made of

- Galvanised perforated curved steel plates
- Thickness 1.2 mm, 1.4 mm or 1.6 mm depending on size
- Depending on size

## Important Features

- Can placed by one person
- Easy and compact stacking when not in use
- Extremely strong
- Clear type marking on each element
- Product friendly location of the perforations



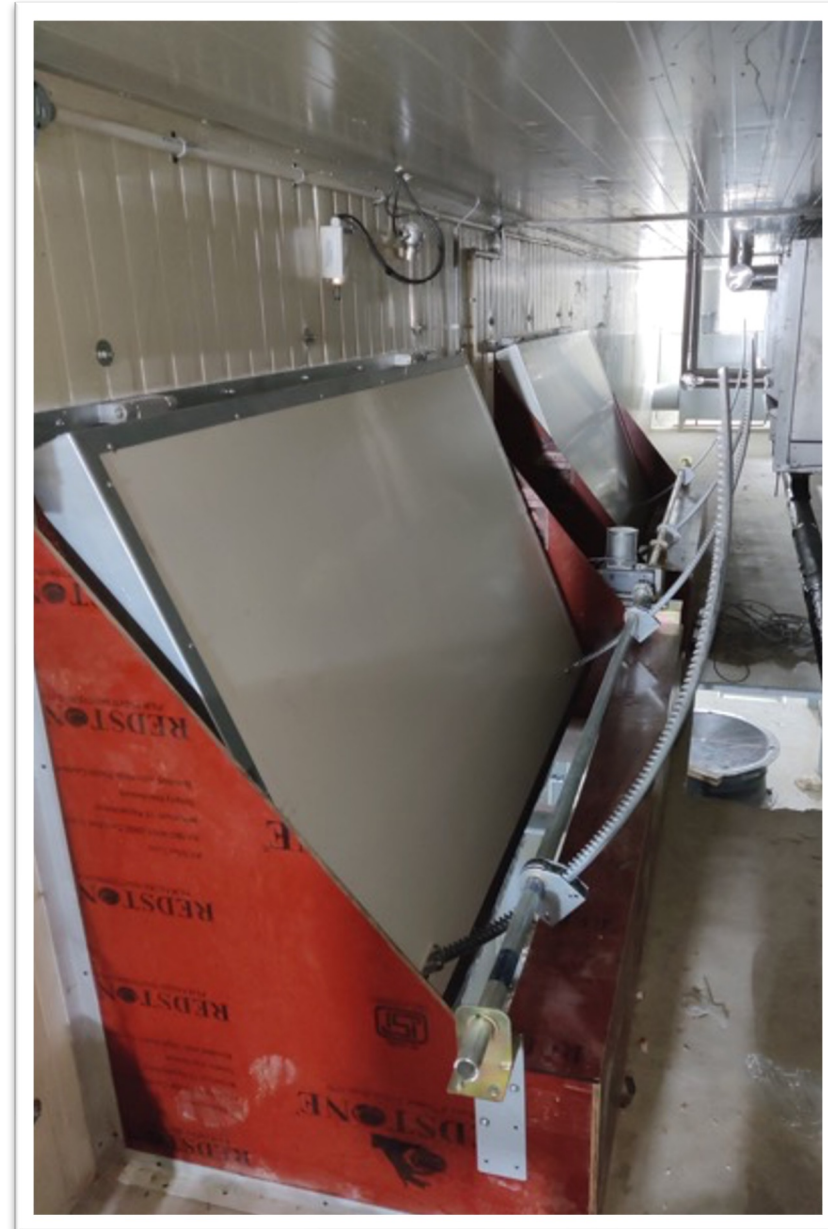
# AIR HATCH

## Made of

- Flap made of first class PIR sandwich panels
- Very durable and weather proof sealing rubber
- Galvanized steel frame and hatch cover

## Important Features

- Nearly indestructible cool door hinges
- Hatch flap overlaps the gap in the wall to avoid thermal bridges
- Many colors possible to fit the storage appearance.
- Motorization by western-Europe geared motors
- Sealing rubber can be accommodated with heating wire to avoid freezing of the flap to the frame during cold periods



# A-GATE AND SWITCH PANELS

## A-Gate User Interface

- Easy-to-use interface for the customer to monitor and control
- storage parameters
- Designed for the storage of agricultural products.
- Easy to use with smart phone or tablet.
- Shows relevant data online on phone and over internet.
- Unlimited number of rooms in one system.



## Switch Panels

- Durable enclosure of the panel made by Rittal
- Components are Schneider Electric
- Leaves the factory thoroughly tested
- HMI touch screens



# LOADING & UNLOADING EQUIPMENTS

## Receiving hopper

The receiving hopper is designed to feed machines or product lines and acts as a buffer. After the machine is filled a belt transports the product diagonally up towards the outfeed. This type got a low infeed height.



## Duo telescopic conveyor

The duo telescopic conveyor is designed for transporting. Two belts on top of each other transports the produce. The produce starts on the belt on top which transports and drops it on the other belt which continues transportation.



## Pickup scooter

The pickup scooter is designed to empty bulk storage facilities. This machine on wheels is operated by a person. While driving the machine takes product from the floor and transport this onto a belt.



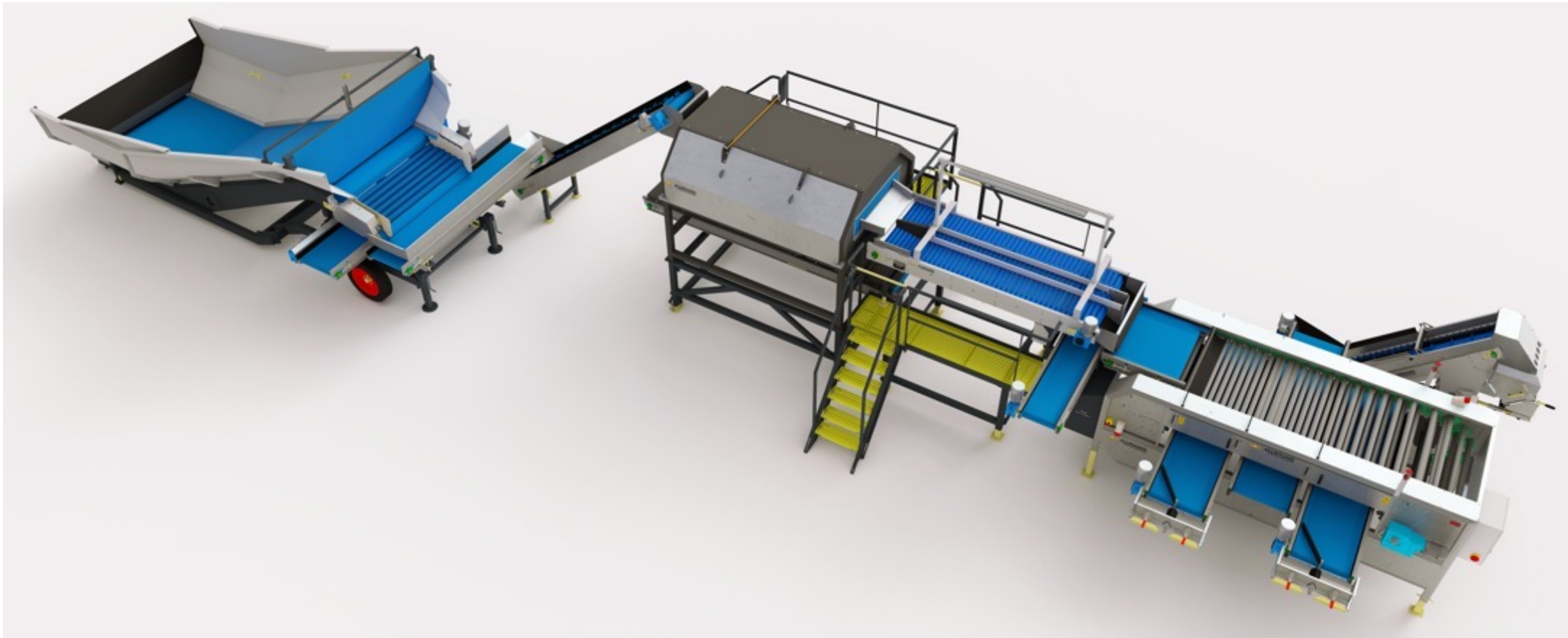
## Space finder

The space finder is designed for transporting. A belt is mounted on a frame with wheels which transports produce. The length of the belt can be increased or decreased to change the total length as well as the angle (2 directions) of the machine.



# ALLROUND TOPPING, INSPECTION AND GRADING LINE

- The onion topper is designed to remove tails. Product rolls on a sieve which is vibrating. The tail of the onions will fall through the vibrating sieve. It is then cut off by the knife which is rotating below. The A2 line is the topper of the range and can do up to 8 tons per hour.
- The radial grader is designed for grading. The product is transported and rotated over rollers. The distance between the rollers increases, so as the product being transported, it will fall from small to large between the rollers. The product falls onto a belt which continues transportation. Several belts are mounted for several grading sizes.



# ALLROUND WEIGHER

The weighing machine is designed for weighing. Produce is transported diagonally up by a belt towards a box. When the weight is reached, the bottom side of the box opens and products falls into a bag.





THANK YOU