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#### ALLROUND VEGETABLE PROCESSING B.V.

- Family company over 65 years.
- Exports to over 80 countries.
- Two production facilities, Andijk, Holland and Ambala, India.
- Total 11000 m<sup>2</sup>, over 120 employees.
- Approx. 1000 machines sold annually.
- Partnerships with optical grading and electronic sorter manufactures.
- Initiator of Dutch Distribution Centres(DDC). Visit: www.dutchdc.com.





# PROVEN WORLDWIDE INNOVATION

#### ALLROUND PROCESSING SOLUTIONS FOR:

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- TABLE POTATOES
- INDUSTRY POTATOES
- SWEET POTATOES
- CARROTS
- ONIONS
- SET ONIONS

- TURNIPS
- PARSNIPS
- CELERY
- CABBAGE
- BRUSSELS SPROUTS
- RED BEET
- FLOWER BULBS

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# **ALLROUND CUSTOM DESIGNED SOLUTIONS**

Allround Vegetable Processing B.V. has a specialized department for making 3D drawings for any inquiry made. We strive to make you the first drawings in 2D and 3D within two days after receiving the inquiry.

We distinguish three types of drawings to make:

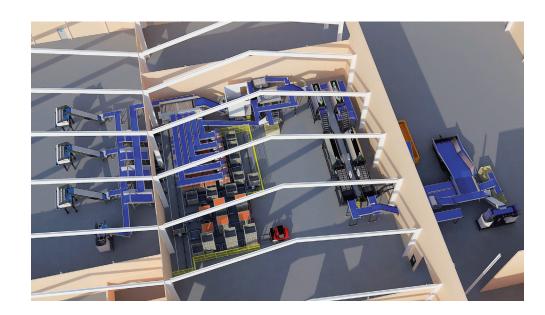
- Complete layout with new building or in existing building with processing lines. With or without cold storage.
- Complete processing lines.
- Stand alone machines.
- Machines compatible with existing standard infrastructure.
- All lines and machines compatible with all brands of weighing and packing machines as Newtec, Sorma and Manter/Volm etc.
- We can integrate all our machines with any optical grader as: Elisam, Mafroda and Compac etc.

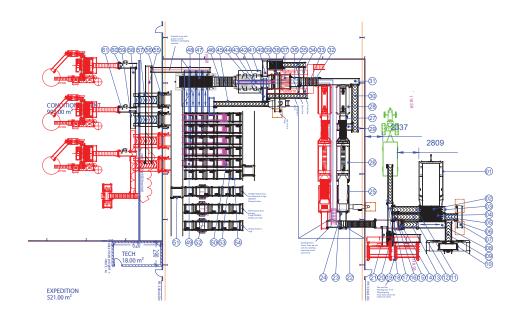
In order to serve you as good as possible, we usually need the following information:

- Product: Potatoes, Onions, Carrots etc.
- Required capacity tons per hour
- New building/existing building
- Space available for line or machine
- Product receiving to the line: trucks/boxes
- Packaging type of finished product

All capacities are indications based on experience from the past and depend on the agro climatic, soil and logistic conditions of the product, Allround VP does not quarantee any of these.

#### Complete project design





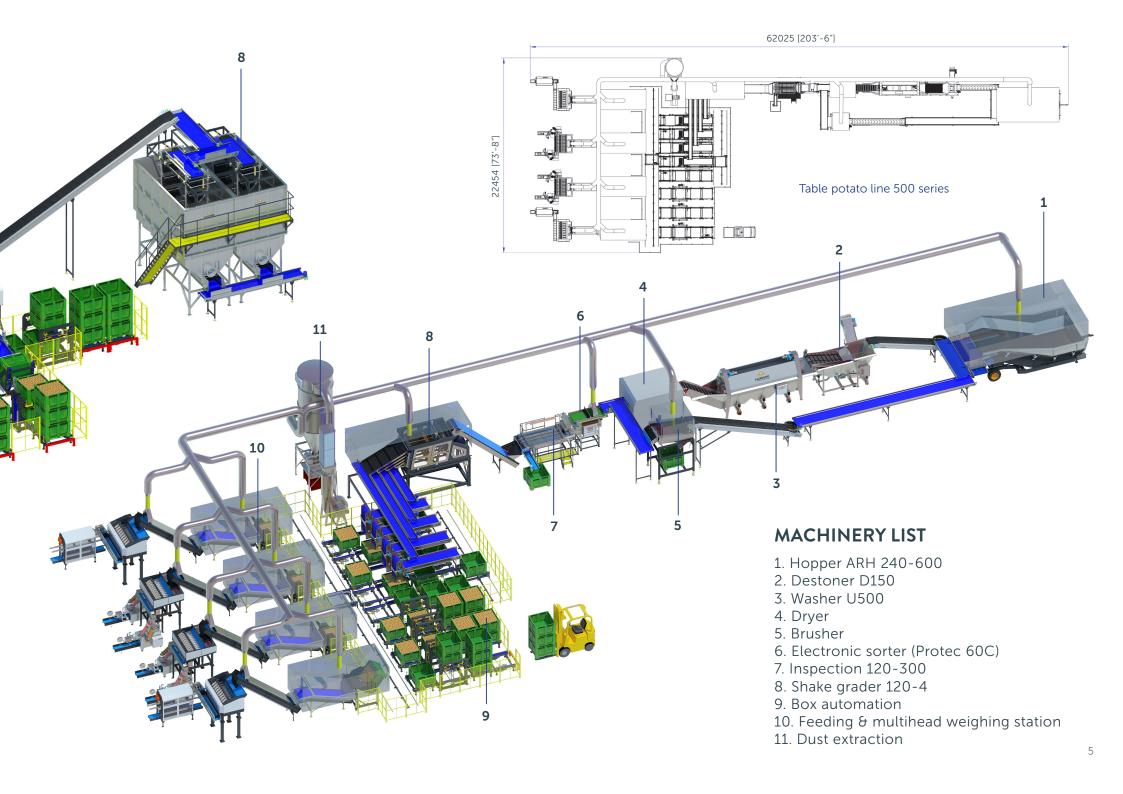
# **POTATO LINES**

#### **ALLROUND POTATO LINES**

Every company that handles potatoes has a different need when it comes to washing and grading. Allround offers solutions for all types of companies, ranging from seed potato grading installations to large industrial washing lines.

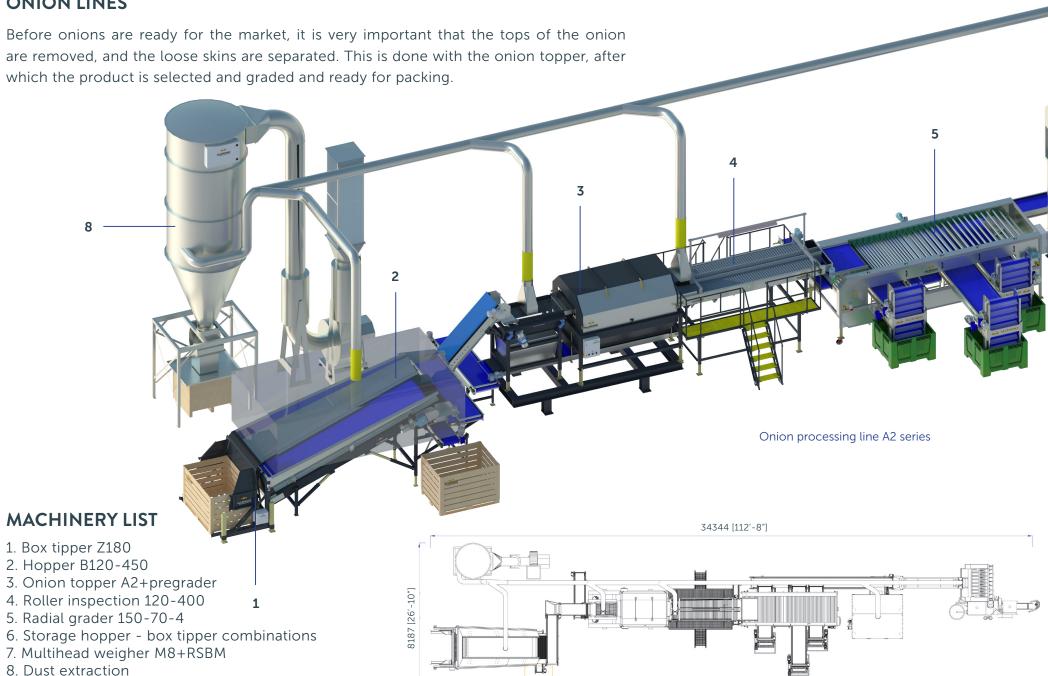
ESTIMATED CAPACITIES OF THE POTATO LINES HEAVY & LIGHT SOIL						
	170 SERIES	300 SERIES	450 SERIES	500 SERIES		
Table Potatoes	2 - 3	6 - 8	15 - 20	25 - 35		
Industrial potatoes	-	6 - 10	20 - 25	30 - 50		

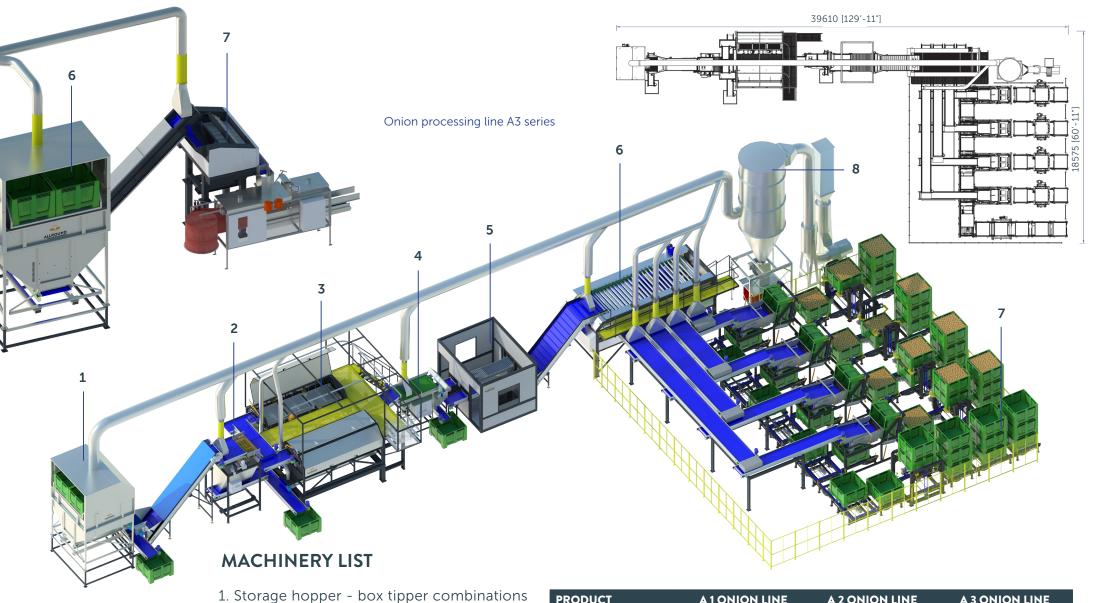
potato grading installations to large industrial washing lines. All capacities are indications based on experience from the past and depend on the agro climatic, soil and logistic conditions of the product, Allround VP does not guarantee any of these. **MACHINERY LIST** 1. Hopper ARH 240-600 2. Destoner D 150 3. Skin separator SKD 150 4. Washer U600 5. Electronic sorter (Protec 60C x 2) 6. Radial grader R 200-70-3 7. Box automation 8. Storage hopper 2 x 32 m<sup>3</sup> Industrial potato line 600 series 58000 [190'-3"]



# **ONION LINES**

#### **ONION LINES**





- 2. Belt grader
- 3. A3 onion topper-fully open door
- 4. Electronic sorter (Protec 40c)
- 5. Roller inspection table with cabin
- 6. Radial grader 170-70-4
- 7. Box automation
- 8. Dust extraction

PRODUCT	A 1 ONION LINE	A 2 ONION LINE	A 3 ONION LINE
Onions	3 - 4 tons / hour	6 - 8 tons / hour	9 - 12 tons / hour
Set onions	2 - 3 tons / hour	4 - 6 tons / hour	6 - 9 tons / hour

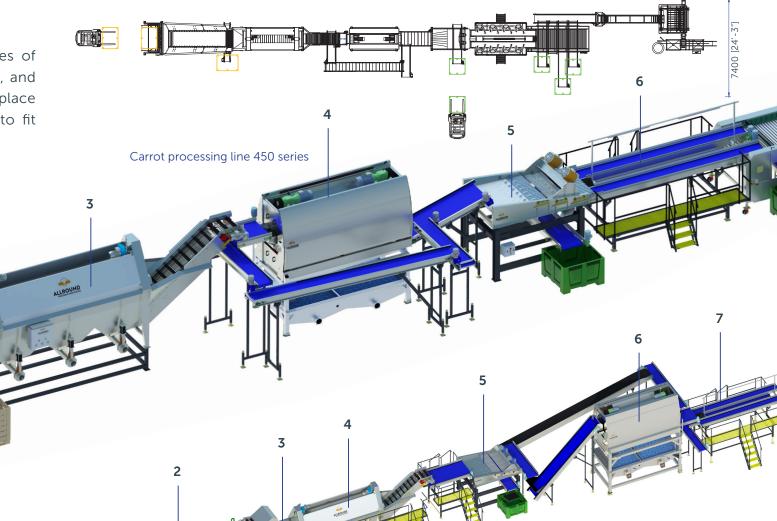
#### LARGER CAPACITIES CAN BE OFFERED ON DEMAND

All capacities are indications based on experience from the past and depend on the agro climatic, soil and logistic conditions of the product, Allround VP does not guarantee any of these.

# **CARROT LINES**

#### **CARROT LINES**

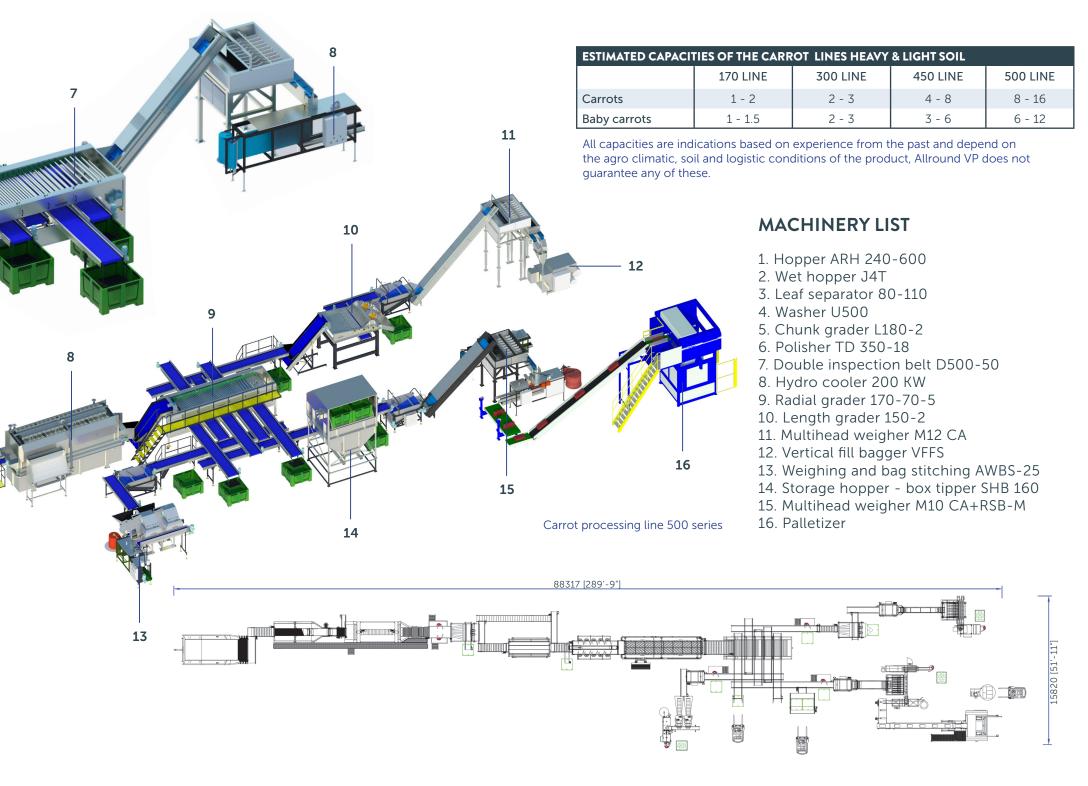
Carrots are grown in many different types of soil. Allround has different machine types, and the experience and knowledge of how to place the correct machine in your carrot line to fit your specific needs



43250 [141'-11"]

# **MACHINERY LIST**

- 1. Box tipper Z180
- 2. Hopper B120-450
- 3. Washer U450
- 4. Polisher TD 300-14
- 5. Length grader 150-2
- 6. Inspection belt 500-40
- 7. Radial grader 150-70-4
- 8. Multihead weigher M12+RSB-P



# **INTEGRATED LINES**

**MACHINERY LIST** 

4. Polisher TD 250-12
5. Potato brush 100-13
6. Onion toppe A1
7. Length grader 120-2
8. Potato dryer 100-12

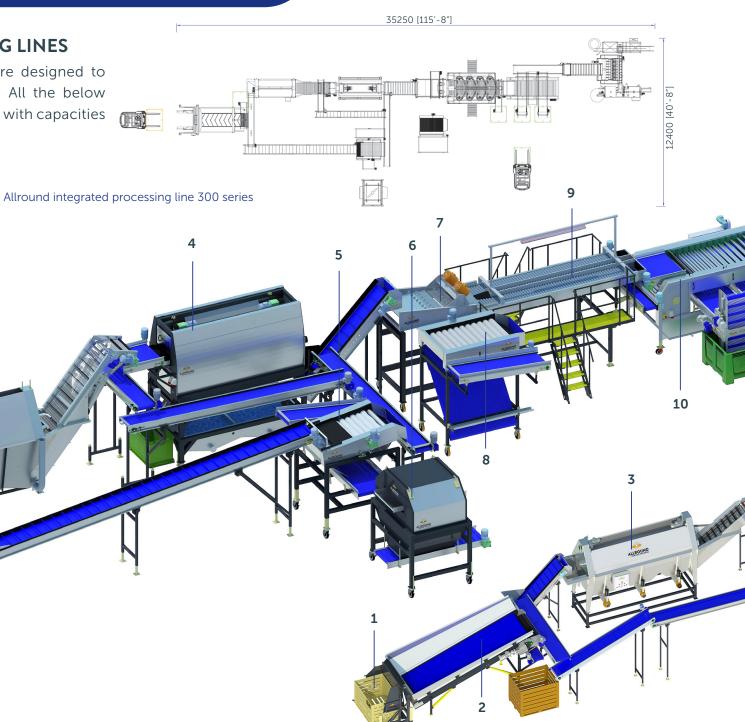
9. Roller inspection 100-400

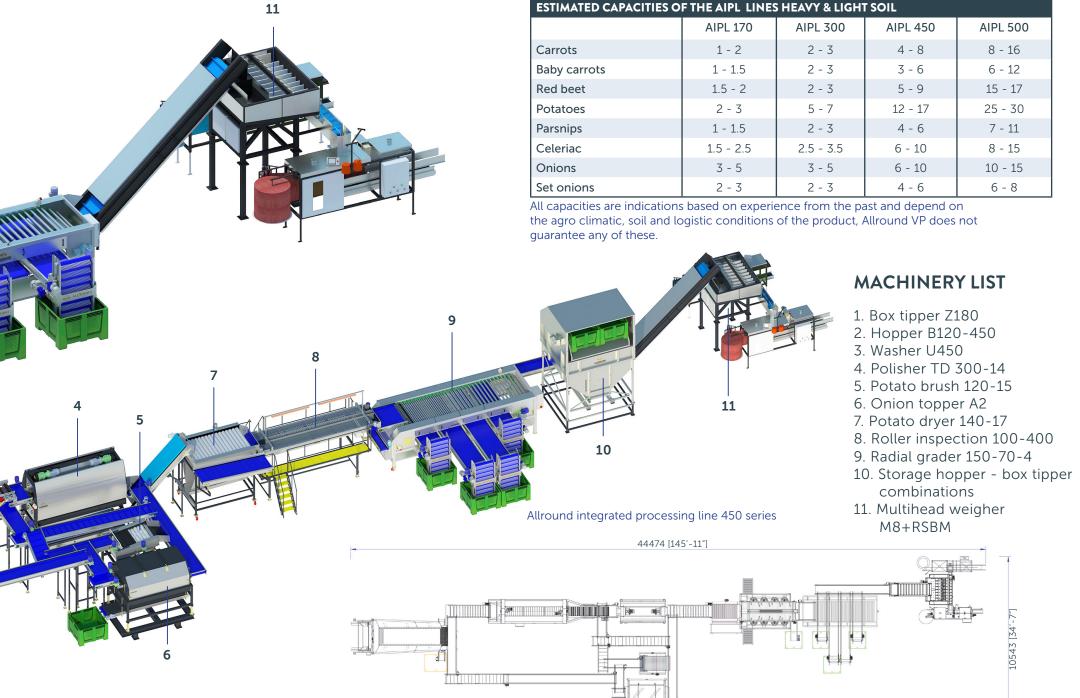
10. Radial grader 120-70-311. Multihead weigher M8+RSBM

Box tipper Z180
 Hopper B100-300
 Washer U300

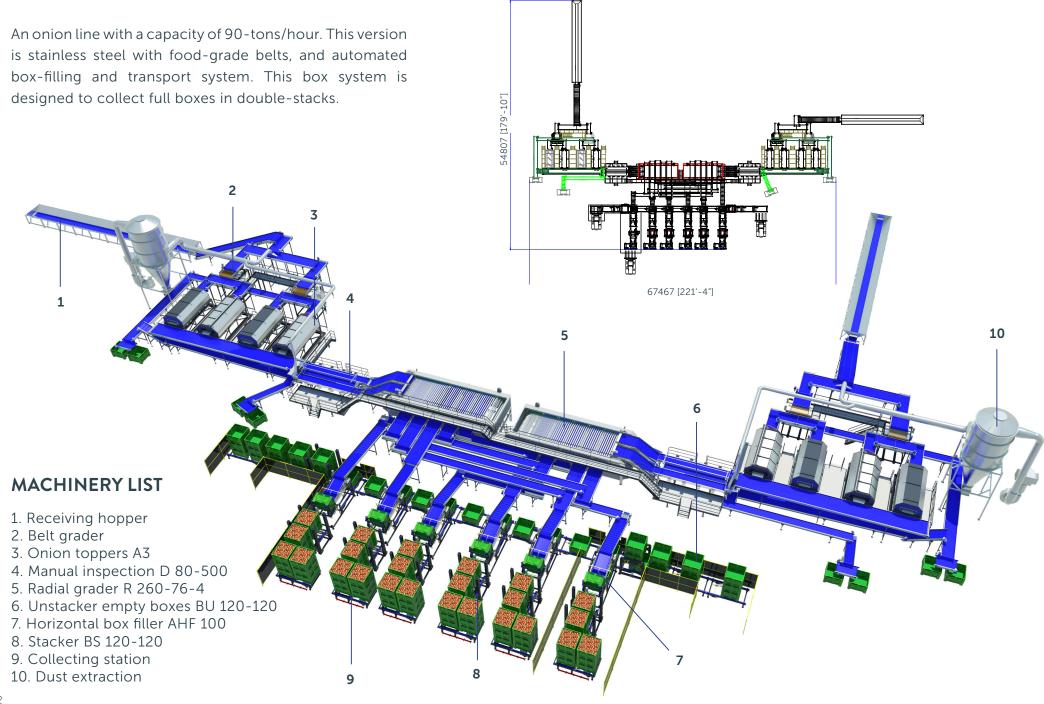
# **ALLROUND INTEGRATED PROCESSING LINES**

Allround Integrated Processing lines (AIPL's) are designed to process different types of products on 1 line. All the below mentioned products can be combined on a AIPL with capacities ranging from 1 to 30 tons / hour.

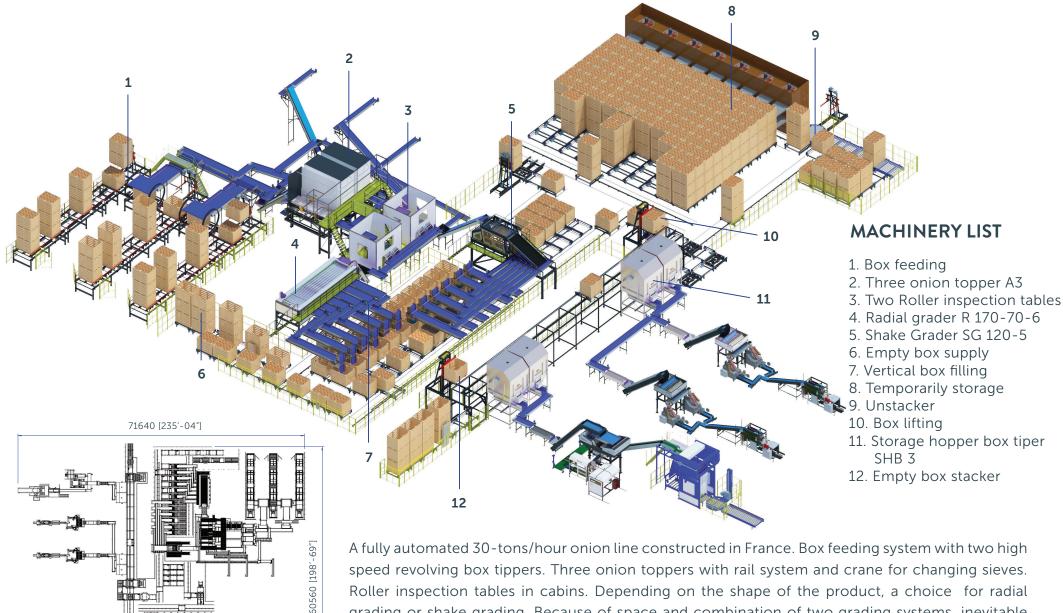




# ONION LINE - HORIZONTAL BOX AUTOMATION

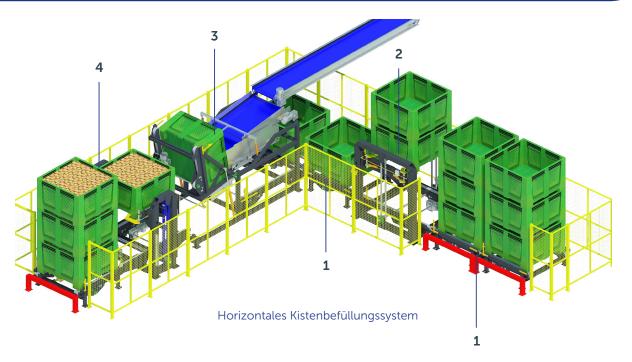


# ONION LINE - FULLY AUTOMATED BOX HANDLING



Roller inspection tables in cabins. Depending on the shape of the product, a choice for radial grading or shake grading. Because of space and combination of two grading systems, inevitable selection of vertical box filling system. Filled boxes to the temporary storage for even flow and conditioning. From storage automatically to the packaging stations.

# **BOX FILLING SYSTEMS**



#### **MACHINERY LIST**

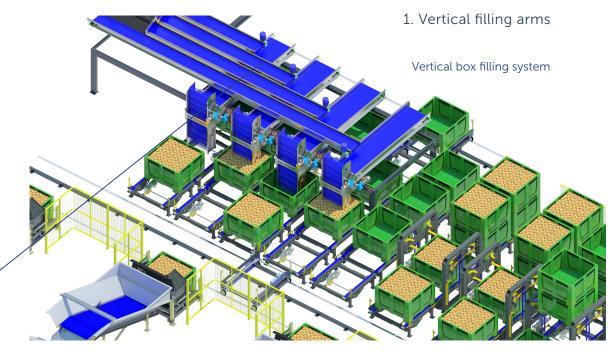
- 1. Empty box feading BTU 120-120
- 2. Unstacker BU 120-120
- 3. Horizontal box filler AHF 100
- 4. Stacker BS 120-120

Vertical and horizontal box filling system depends on:

- Box sizes
- Space available

### **MACHINERY LIST**

- Box unstacking, box tipping & box stacking
- Fully automatic box filling and transportation system
- Provides a logistic advantage by reducing forklift movements
- Very gentle filling of the boxes no leveling needed
- Central point to collect the boxes
- A complete Track & Trace system can be included
- Optionally with box unstacker so more boxes can be placed in one at a time
- Optionally with scale to weigh the boxes
- Can be added to existing lines
- Smaller footprint



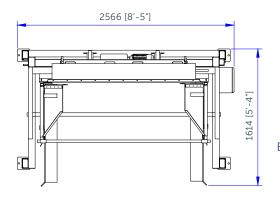
# **BOX TIPPERS**

#### **BOX TIPPER**

To tip boxes into a hopper or chute

Max. box width: 2500 mm

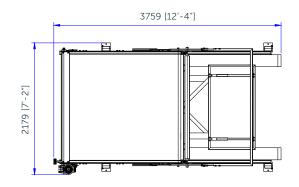
Models available: Z 160, Z 180, Z 250





#### **CABBAGE BOX TIPPER**

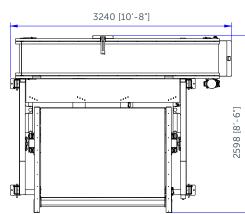
- For tipping cabbage onto the line with no drop
- Can also be used for other products

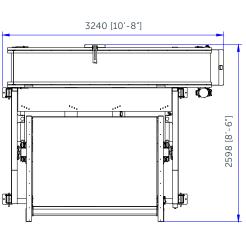


Cabbage Box Tipper ZC 160

# **DOSING BOX TIPPER**

- Models available: ZD 120, ZD 150, ZD 160, ZD 180.
- Constant adjustable flow of product.
- No drop height







Dosing Box tipper ZD 160



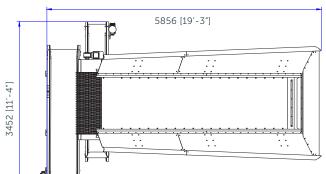
# **DOSING HOPPERS**

# Hopper B 120-450

#### **HOPPERS**

- Gentle feeding of the line
- Suitable for boxes and big-bags
- Models: B 100-300, B 120-450, B 160-500, B 230-800

HOPPERS CONTENT							
	TOTAL CONTENT (M³)	EFFECTIVE CONTENT (M <sup>3</sup> )					
B 100 - 300	2	1.5					
B 120 - 450	5.5	3.5					
B 160 - 500	11	7					
B 230 - 800	20	14					



Spiral Roller Set



• Removes a lot of dirt from the product

**FINGER ROLLER SET** 

are very product friendly

• Star shaped rubber rollers

- Adjustable Roller Sets for pre-cleaning and pre-grading
- Available with stainless steel rollers, spiral rollers and diabolic rollers
- Hoppers
- Models: VR 160-6, VD 160-6, VS 160-6, VR 240-6, VD 240-6, VS 240-6



Blank Roller Set

Finger roller set

# **RECEIVING HOPPERS**



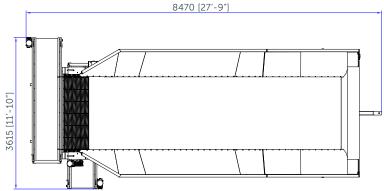


#### **RECEIVING HOPPERS**

- They are suitable for dump trailers because of the flat-bottom.
- Best value-for-money Receiving Hoppers
- Models: ARH 160-500, ARH 240-600

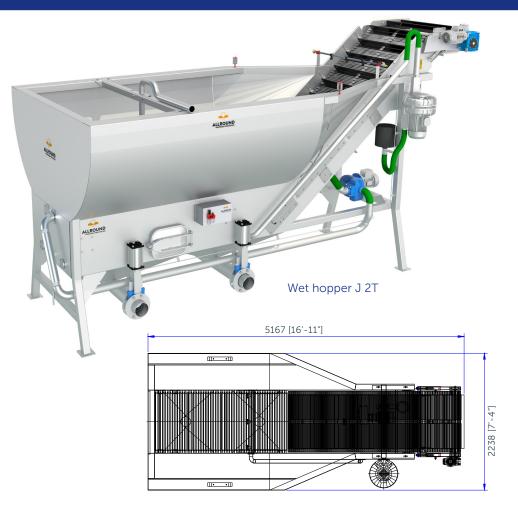
# **Options:**

- Pre-grading and pre-cleaning
- Flat bottom part for side-tipping trailers





# **WET HOPPERS**



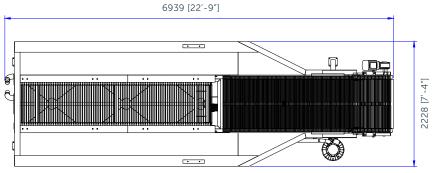


# **WET HOPPERS**

- Pre-soaking method for product from heavy soil
- Water with air forced through for agitation

# Optional:

- Integrated Destoner
- Models available with 6 and 12 m<sup>3</sup> content
- Models: J 2T, J 4T



# **DESTONERS, SKIN SEPARATOR**

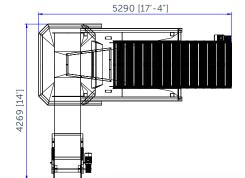


# **DESTONERS**

• To remove stones and clods from your products!

• Capacity: 25 - 80 tons / hour

Models: D 110, D 150, D 200

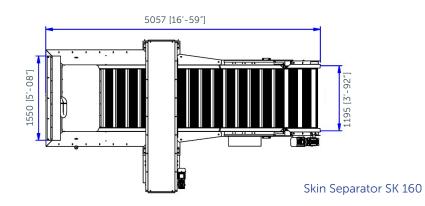


Destoner D 200

• To remove floating waste from your poduct

Capacity: 25 - 80 tons / hour

Models: SK 100, SK 160





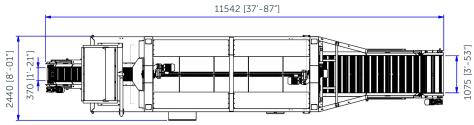
# **WASHING MACHINES**



Optional brush and pintle rubber



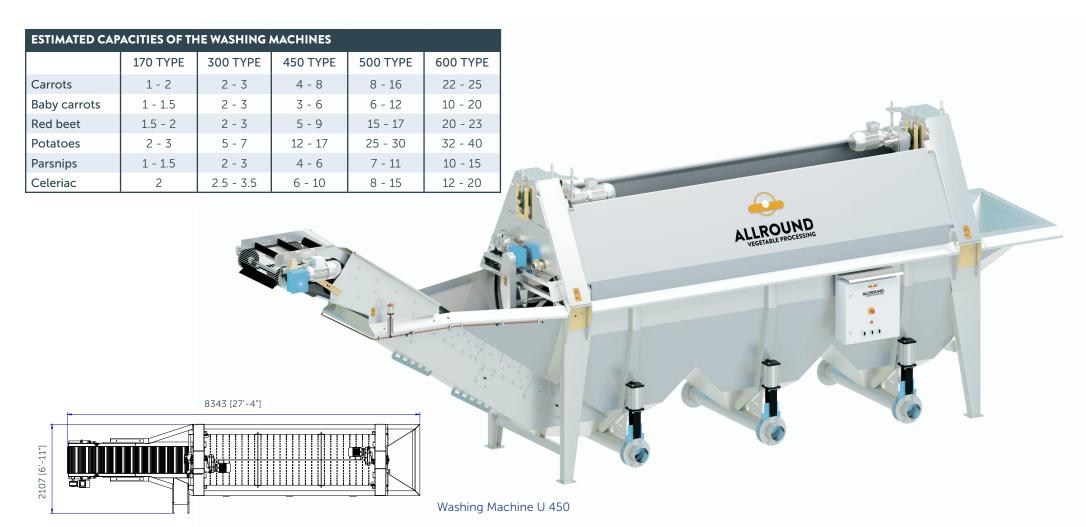




DRUM LENGTH X Ø	170X80 CM	300X100 CM	450X120 CM	500X160 CM	600X190 CM
	170 TYPE	300 TYPE	450 TYPE	500 TYPE	600 TYPE
Drum content	0.83 m <sup>3</sup>	2.36 m <sup>3</sup>	5.09 m <sup>3</sup>	10.05 m <sup>3</sup>	17 m <sup>3</sup>
C-type (carrots only)	Available	Available	Available	X	X
U-type	Available	Available	Available	Available	Available
UK-type	X	Available	Available	Available	X
PD-type	X	Available	Available	Available	X
PDK-type	X	Available	Available	Available	X



Optional Sieve Bow for Washing Machine



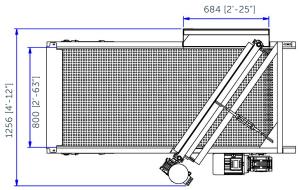
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WASHING MACHINES	C-TYPE (CARROTS ONLY)	U - TYPE	UK - TYPE	PD - TYPE	PDK - TYPE
Recirculation system	-	Option	Option	Option	Option
Recirculation system 'dirty washing'	-	Option	Option	Option	Option
Recirculation system 'sieve bow'	-	Option	Option	Option	Option
Brush in the drum	Option	Option	Option	Option	Option
Pintle rubber in the drum	Option	Option	Option	Option	Option
Water level adjustable	-	Standard	Standard	Standard	Standard
Automatic water level adjustment	-	Option	Option	Option	Option
Integrated Destoner	-	-	-	Standard	Standard
Stainless steel drum	Standard	Standard	Standard	Standard	Standard

# **LEAF SEPARATOR**

#### **LEAF SEPARATOR**

- Hedgehog belt removes leaves from the product
- Models: LS 60, LS 80, LS 100, LSH 200-80





Leaf separator LSH 200-80









# **POLISHER**



#### **POLISHERS**

- Half-round and round drum types available
- Brushes available: 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.60, 0.70
- Brushes and shafts are easy to mount and dismount

# **Options:**

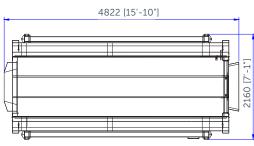
- Legs
- Water cleaning system

• Water recirculation system

Stainless steel

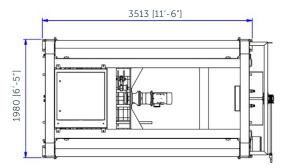


Polisher	TD	750	10
Polisher	טו	330	-TC



	RM 300-8	TD 250-12	TD 300-14	TD 350-18
Brush segments	8 segments	12 segments	14 segments	18 segments
Drum length	3000 mm	2500 mm	3000 mm	3500 mm
Potatoes	8 ton - 10 ton	10 ton - 14 ton	15 ton - 17 ton	25 ton
Carrots	3 ton - 5 ton	6 ton - 8 ton	8 ton - 10 ton	15 ton - 20 ton
Baby carrots	2 ton - 4 ton	5 ton - 7 ton	6 ton - 8 ton	10 ton - 15 ton





# **INSPECTION UNITS**



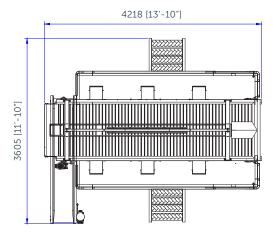
# ALLROUND Sitting Inspection

# **INSPECTION UNITS**

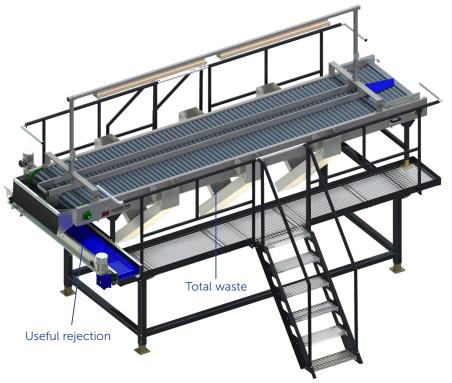
• Roller inspection table and inspection belts available

# **Options**

- Single platform
- Double platform
- Frequency inverter
- Aisle in the middle
- Waste belt
- Waste chute
- Adjust roller speed
- Stainless steel

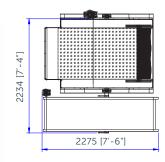


Inspection unit RI 400-100



# BRUSH, DRYER, CHUNK/LENGTH GRADER

Potato brush BR 100-13



POTATO BRUSH	
BR 60-9	6 tons / hour
BR 100-13	10 tons / hour
BR 120-15	15 tons / hour

Potato brush BR 120-15

# **POTATO BRUSH**

- Soft brush for cleaning dry dirt
- Optional by-pass and dirt belt
- Models: BR 60-9, BR 100-13, BR 120-15

#### **CHUNK / LENGTH GRADER**

- To separate broken carrots
- Grades carrots in two or three lengths + oversize
- Saves at least 1 2 people at the inspection table
- W-shaped infeed bed to spread the carrots on the machine
- Opening is adjustable
- Models: L 100, L 120, L 150, L180, L 200

# **Option:**

Waste belt

#### **POTATO DRYER**

- Felt dryer for potatoes
- Optional by-pass belt
- Models: DR 60-10, DR 100-12, DR 140-17

7		<b>35</b>
2502 [8'-2"]		
25	• 🗓	

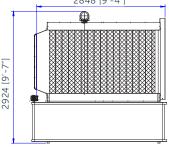
Chunk grader L 150-2

2931 [9'-7"]

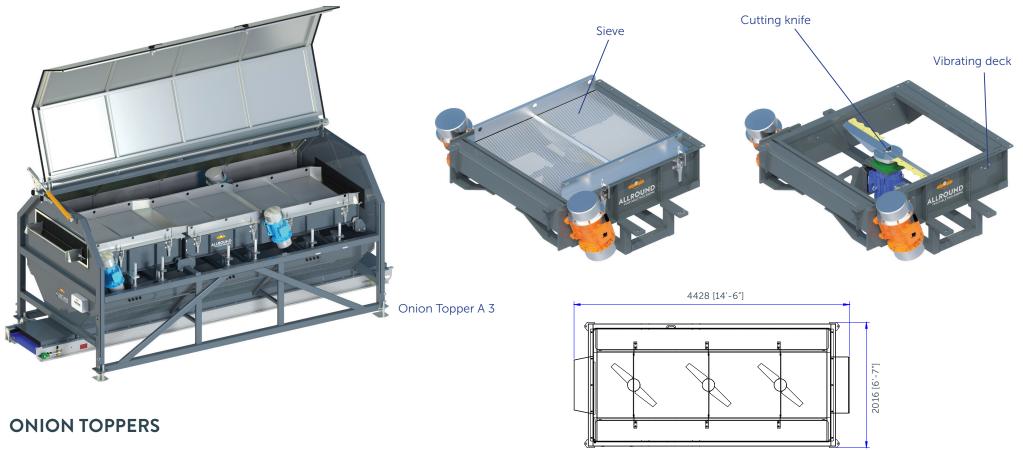
CHUNK/LENGTH	GRADER CAPACITY
L 100	2 - 3 tons / hour
L 120	3 - 5 tons / hour
L 150	4 - 7 tons / hour
L 180	6 - 9 tons / hour
L 200	8 - 11 tons / hour

POTATO DRYER	
DR 60-10	6 tons / hour
DR 100-12	10 tons / hour
DR 140-17	20 tons / hour





# **ONION TOPPERS & PREGRADERS**



- Air circulation caused by a propeller in the machine drags the onion tops through a sieve
- The knife on the propeller cuts the tops of the onion
- Waste is collected on a waste belt
- New adjustable blade height control
- One, two and three blade models

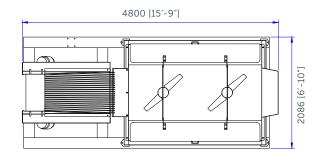
#### **Options:**

 New design with hydraulic open-top hatch for easy changing of sieves All capacities are indications based on experience from the past and depend on the agro climatic, soil and logistic conditions of the product, Allround VP does not guarantee any of these.

ONION TOPPERS	NUMBER OF PROPELLORS	WASTE BELT	DUST HOOD	ON WHEELS	CAPACITY ONIONS	CAPACITY SET-ONIONS
A 1	1	Standard	Standard	Option	3 - 4 tons / hour	2 tons / hour
A 1+pregrader	1	Standard	Standard	-	3 - 4 tons / hour	2 tons / hour
A 2	2	Standard	Standard	-	6 - 8 tons / hour	4 tons / hour
A 2+pregrader	2	Standard	Standard	-	6 - 8 tons / hour	4 tons / hour
A 3	3	Standard	Standard	-	9 - 12 tons / hour	6 tons / hour
A 3+pregrader	3	Standard	Standard	-	9 - 12 tons / hour	6 tons / hour

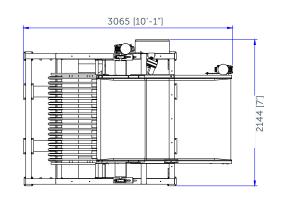


#### Onion Topper A 2 + Pregrader



# **STRING GRADER**

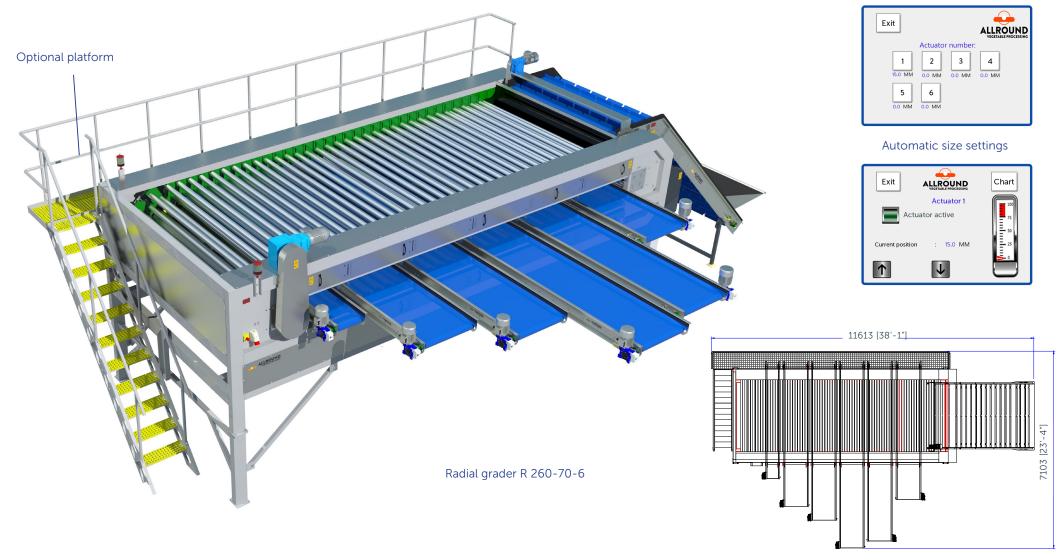
- High capacity pre grader
- To remove stones or under size
- Size-range 40 mm to 100 mm.
- Ideal for removing stones and undersize product prior to topping
- Great for separating oversize product
- Grading size set electronically
- Extremely gentle



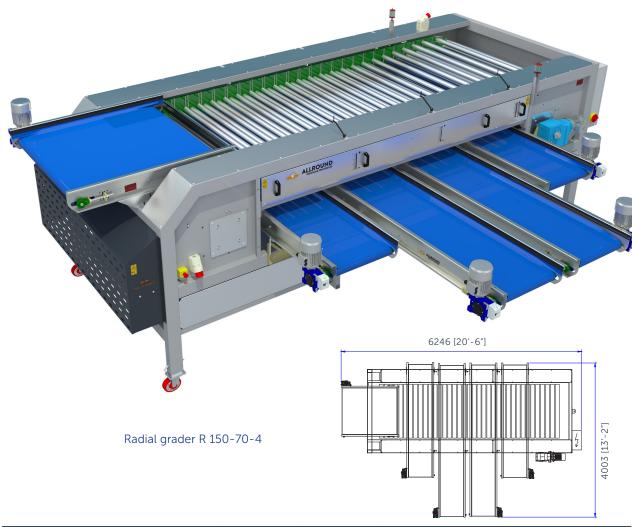


String grader PS 70-17

# **RADIAL GRADERS**



GRADING SIZE MIN - MAX							
Roll diameter	Pitch 63	Pitch 76.2	Pitch 80	Pitch 90	Pitch 100	Pitch 110	Pitch 125
57 mm	6 - 69 mm	-	-	-	-	-	-
70 mm	-	6.2 - 82.4 mm	10 - 90 mm	20 -110 mm	30 - 130 mm	40 - 150 mm	-
76 mm	-	-	-	14 - 104 mm	-	-	-
84 mm	-	-	-	-	16 - 116 mm	-	40 - 165 mm



ESTIMATED MAXIMUM CAPACITIES OF THE RADIAL GRADERS						
	R 80 TYPE	R 120 TYPE	R 150 TYPE	R 180 TYPE	R 200 TYPE	R 260 TYPE
Carrots	3 - 4	8	14	20	25	35
Baby carrots	3 - 4	5 - 8	10 - 12	14 - 16	18 - 22	25 - 30
Red beet	5 - 6	8 - 10	14 - 16	22 - 30	35	45
Potatoes	6 - 7	8 - 10	15 - 18	22 - 30	35 - 40	45 - 50
Parsnips	2 - 3	3 - 4	6 - 8	12	18	24
Onions	6 - 7	8 - 10	15 - 18	22 - 30	35 - 40	60
Set onions	3 - 5	6 - 8	10 - 12	14 - 16	18 - 22	25 - 30

#### RADIAL GRADERS

Allround Radial Graders are the most effective way of grading round and root-shaped product. The Radial Grader seperates the smallest size first. With the receding rollers the product is not damaged during grading. Furthermore, the system gives very high capacities.

# **Options**

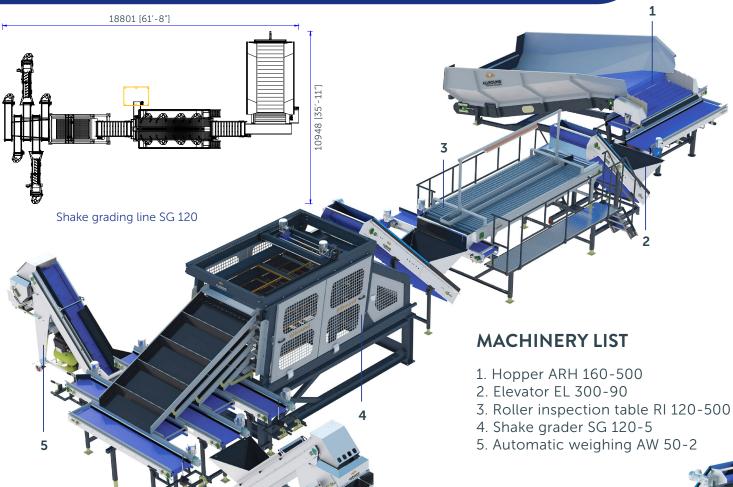
- Brush
- Electrical size adjustment
- Fully stainless steel



Optional Brush

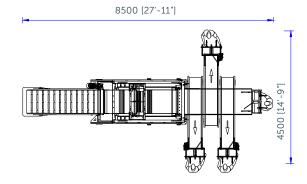
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# **SHAKE GRADING / WEB GRADING LINES**



# SHAKE GRADER

- Capacity up to 30 tons / hour
- Grades on the square size of the product
- Shake Grader separates the biggest size first
- Models: SG 60-4, SG 80-4, SG 120-5



Shake grading line SG 80 (1)

# **MACHINERY LIST**

- 1. Elevator EL 350-60
- 2. Shake grader SG 80-4

PRODUCT	SG 80 SERIES	SG 120 SERIES	SG 160 SERIES
Potatoes	10 - 15 tons / hour	20 - 30 tons / hour	40 - 45 tons / hour
Onions	8 - 10 tons / hour	20 - 25 tons / hour	30 - 35 tons / hour

All capacities are indications based on experience from the past and depend on the agro climatic, soil and logistic conditions of the product, Allround VP does not guarantee any of these.

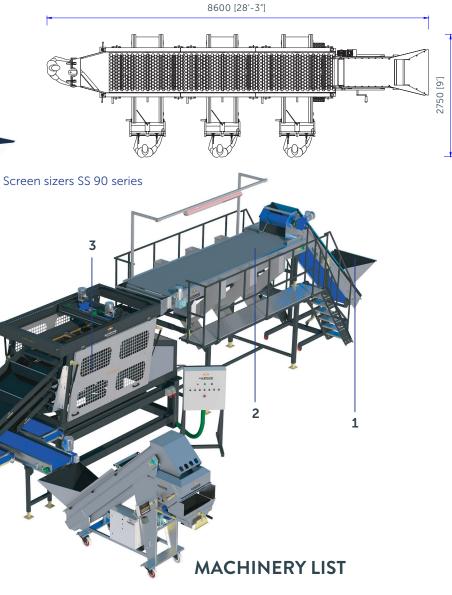


PRODUCT	SS 90 SERIES	SS 120 SERIES	SS 180 SERIES
Potatoes	8 - 10 tons / hour	12 - 14 tons / hour	18 - 20 tons / hour
Onions	6 - 8 tons / hour	10 - 12 tons / hour	15 - 18 tons / hour

All capacities are indications based on experience from the past and depend on the agro climatic, soil and logistic conditions of the product, Allround VP does not guarantee any of these.

13500 [44'-3"]

Shake grading line SG 80 (2)



- 1. Elevator EL 400-60
- 2. Roller inspection table RI 100-400
- 3. Shake grader SG 80-4
- 4. Automatic weighing AW 50-2

# **HYDROCOOLERS**



Hydrocoolers cool down carrots fast by spraying ice cold water over the produce to mostly 3-4 degrees Celsius right before the product is cold stored or transported.

Which machine you will need completely depends on the temperature gap and required capacity per hour. The formula is as follows:

( $\triangle$  T/°C x tons product/hour) x 1.36 = kW

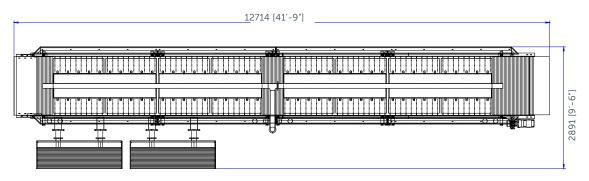
#### FOR SPECIFIC ADVICE PLEASE CONTACT US.

For example:

Incoming temperature: 16° C Outgoing temperature: 4° C

Tons per hour: 5 t/h

 $(16^{\circ}-4^{\circ}=)$  12° x 5 x 1,36 = 81,6 kW needed





# STAND ALONE ALLROUND CONVEYORS



# TIPPER-HOPPERS, EVEN-FLOW HOPPERS



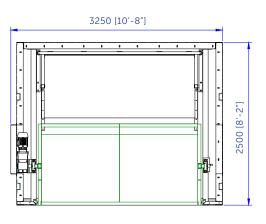


#### STORAGE HOPPER - BOX TIPPER COMBINATIONS

- Very space-efficient solutions to feed a line
- Suitable for potatoes, onions and red beet
- Models: SHB 160-1.5, SHB 160-3, SHB 180-3.5, SHB 180-7

# **Options:**

- Dust hood
- Remote control
- Stainless steel
- Big/Jumbo bags

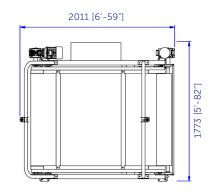


Storage hopper - Box tipper SHB 160-1.5



#### **EVEN-FLOW HOPPERS**

- To ensure an even flow in the line
- With lowering belt for buffering
- Models: EF 60-0.4, EF 100-0.7, EF 120-0.9
- Other models on request



# **STORAGE HOPPERS**

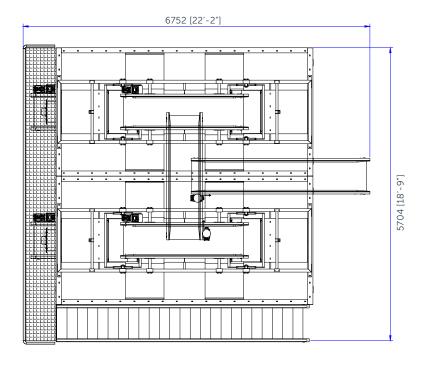


#### **STORAGE HOPPERS**

- For temporary storage of product
- Suitable for potatoes, onions and red beet
- Models: SH 25-25-4, SH 25-25-10, SH 25-25-16, SH 50-25-8, SH 50-25-20, SH 50-25-32

# **Options:**

- Ventilator
- Soft landing
- CCTV camera
- Platform



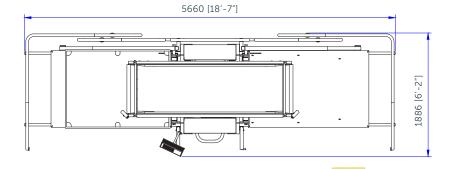
Storage hopper SH 50-25-20

# **BOX FILLERS**

# HORIZONTAL BOX FILLER

- Minimum product damage
- Pre set filling programmes
- For each 'product' and size suitable



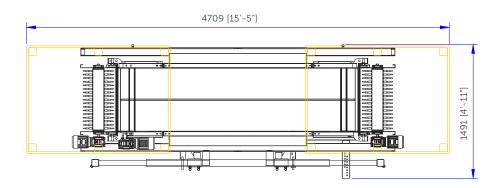






# **VERTICAL BOX/BIG BAG FILLER**

- Automatic box filler
- Belts lower into the box for gentle filling
- Also suitable for big-bags



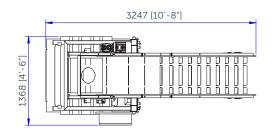
# **BIG-BAG FILLER**

# **BIG-BAG FILLER**

- Zig-zag chutes for gentle filling
- Chutes automatically retracts from the bag

# **Options:**

- Weighing system
- Single and Double filling system
- Models: BBF 01, BBF 02



Big-Bag filler BBF 01

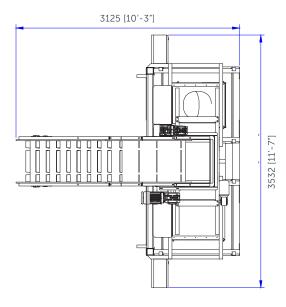




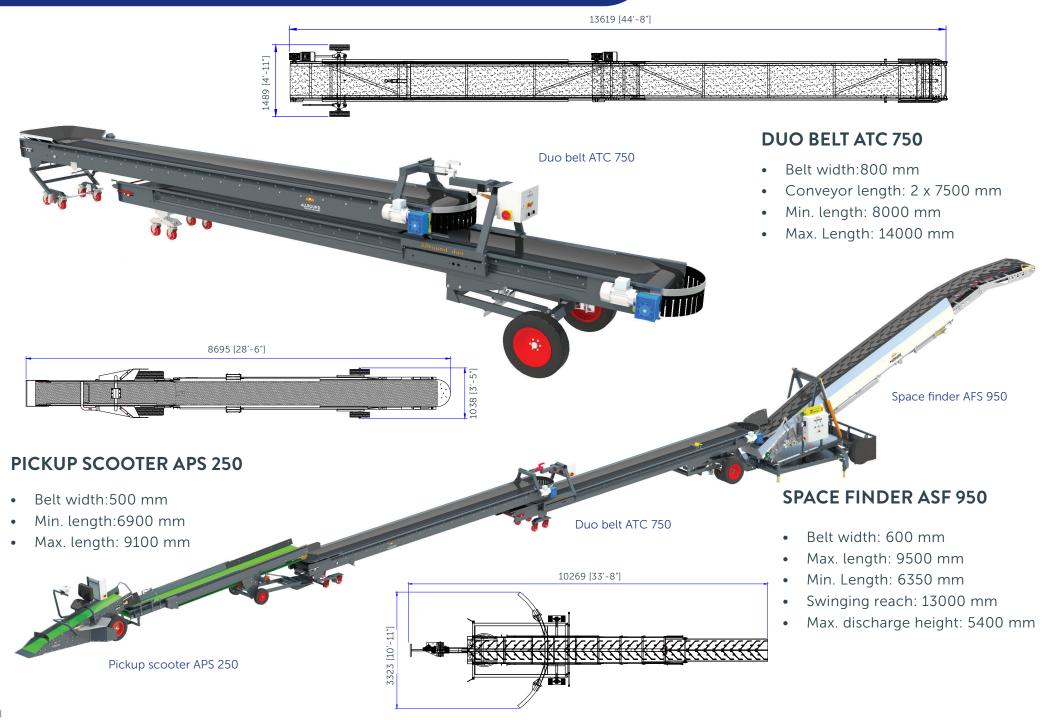








# LOADING AND UNLOADING



# WEIGHING, BOX AND CRATE FILLER

#### **BOX FILLER – BOX 3000**

- Destined for the whole of boxes currently used
- Integration at the end of packaging line
- Ranges 0-5 kg
- Easy touch-screen control
- Remote control system
- Program storage

#### **CHECK WEIGHER**

- For all kinds of lines and conveyors
- Continuous control of packaging weight
- Weighing ranges until 5 kg
- Ejection system for wrong weights
- Touchscreen control on the switch cabinet or with remote control
- Setting storage
- Possibility to export Data

#### **CRATES FILLERS**

- For plastic and net bags
- Destined for the whole of crates currently used
- Integration at the end of packaging line
- It aligns and shapes quickly products
- Ranges 0-5 kg
- Easy touch-screen control
- Program storage
- Remote control system



Box filler – Box 3000



Crate filler - RP 5000





Check weigher

# **STORAGE SOLUTIONS**

#### **BULK STORAGE**



The most effective and economical way of storage

Products to be stored: Industrial potatoes, Table potatoes, Onions, Red beet etc.





#### **BOX STORAGE**



# The most flexible way of storage

Products to be stored: Potatoes, Onions, Cabbage, Carrot, Red beet etc.



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