

# Autosort MC C Series

*Fully automated  
sorting system for  
whole carrots*



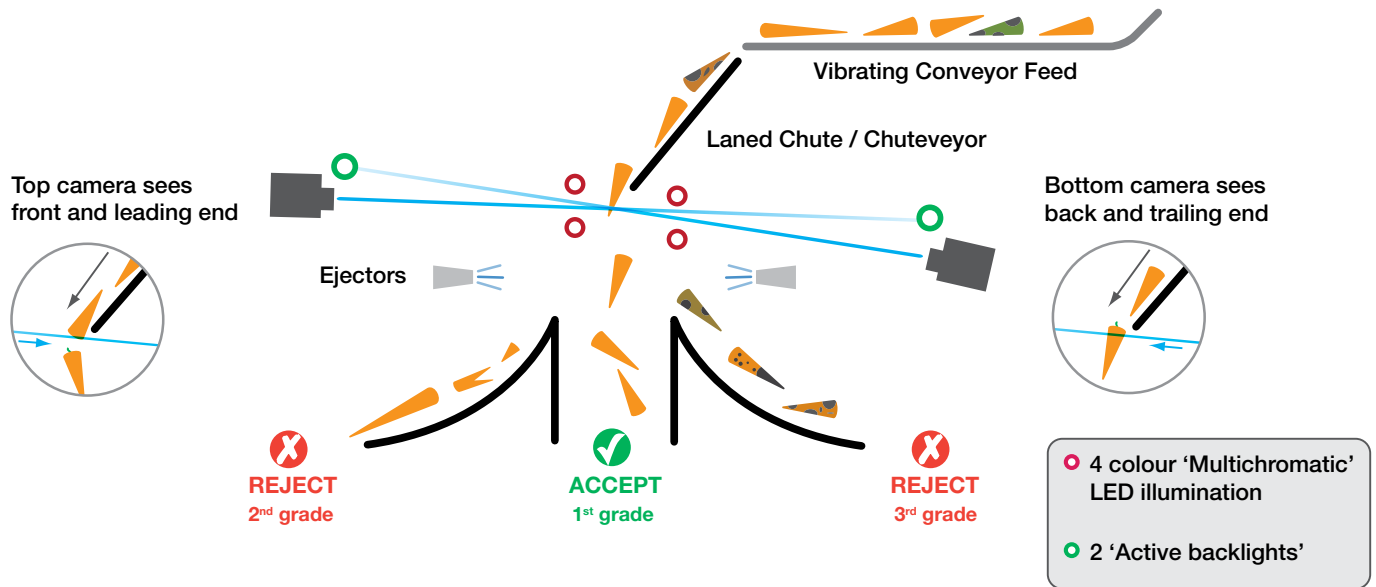
## C Series features:

- > Specifically designed for carrot sorting
- > High capacity
- > 3 sizes to suit most processors
- > High resolution cameras
- > Very few moving parts
- > Colour vision plus infrared for soft rot, brown and green defects
- > Software specific to carrots
- > Individual crown, tip and body parameters
- > Size check for length and diameter
- > Shape inspection for broken, forked and twisted
- > Minimised good product losses
- > Gentle product handling
- > Small piece removal
- > Two and three way sorting
- > Open construction – easy to keep clean
- > Clean-in-Place system
- > Long life-time lighting system
- > Low maintenance
- > Compact footprint



# Autosort MC - C Series

## All-Round Vision with 3-Way Sort



## 3 way sorting options

### 2<sup>nd</sup> Grade e.g. shape and size defects

Accept:



1<sup>st</sup> Grade

Reject:



2<sup>nd</sup> Grade



2<sup>nd</sup> Grade



2<sup>nd</sup> Grade



2<sup>nd</sup> Grade

### 3<sup>rd</sup> Grade e.g. colour defects

Accept:



1<sup>st</sup> Grade

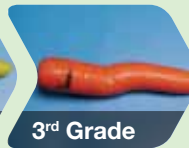
Reject:



3<sup>rd</sup> Grade



3<sup>rd</sup> Grade



3<sup>rd</sup> Grade



3<sup>rd</sup> Grade

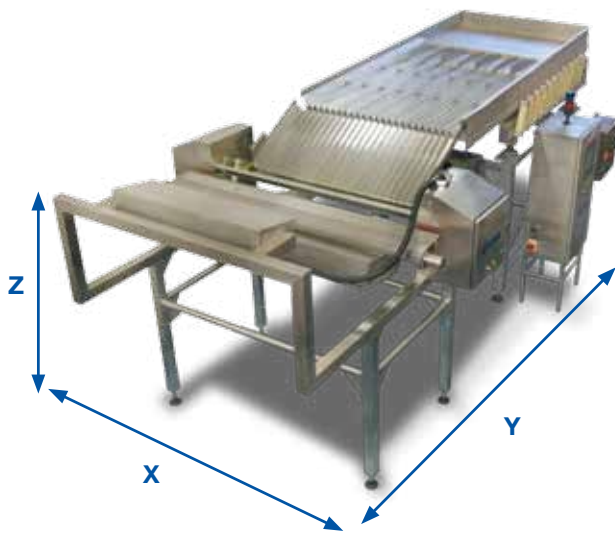
## Operation

Human inspectors can only see the carrots from one viewpoint and they often miss rot defects that are facing away from them on the inspection belt. Installing a Radix Autosort typically gives major inspection labour savings, because the defects are seen by the machine on all sides and a simple final check is all that may be required.

The Radix Autosort C Series has a laned vibratory conveyor to feed the washed carrots into the sorter. Up to six fast-scanning cameras inspect the colour and shape of every carrot from above and below, just after they leave the end of the laned chute, as explained in the diagram above. The cameras can see defects all round the carrots. Crown and tip defects are identified separately. Similar colours can be differentiated and the infra-red improves detection of soft rot and foreign bodies.

The ultra-fast Radix 'Snapshot' processors activate the pneumatic ejectors to remove individual defect carrots into the correct reject stream. When using three-way sorting, the rot and black spot defects can be collected in a separate conveyor from bent, broken or twisted carrots for example. All the colour, size and shape parameters can be set by the user, or individually turned on or off.

Typical sorting parameters include: single black or brown, total black or brown, green, crown and foreign (colour defects); maximum and minimum width, maximum and minimum length, the ratio of length to width, bend, broken and forked (shape defects).



## Model specifications

MODEL	C1	C2	C3
No. of Lanes	12	24	36
Lighting	4 colours – R,G,IR and Background		
Cameras <i>Double Sided Viewing</i>	2	4	6
Inspection Width (mm)	672	1344	2016
Dim X (m)	1.80	2.30	3.00
Dim Y (m)	5.20	5.20	5.20
Dim Z (m)	2.20	2.20	2.20
Sort Options	2 way or 3 way sort		

## Capacities kg/hr

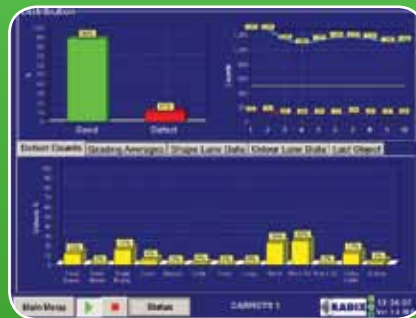
Capacities carrots	7.5 T/hr	15 T/hr	22 T/hr
--------------------	----------	---------	---------

## Key Features

- > 12, 24 or 36 lanes; 3 sizes to suit most processors
- > Vibratory feeder with optional short piece removal
- > Double-sided, top, bottom, crown and tip inspection
- > Cameras well away from product – remain clean
- > Multi-chromatic high stability LED lighting
- > Efficient air ejectors
- > Soft landing for product and rejects
- > Self-cleaning system
- > 12" colour touch-screen user interface
- > Powerful "Snapshot" Processors
- > Alarms – on board and external to management systems
- > Remote operation via internet – see in the office what is happening in the factory
- > Remote support via internet – on-line support, diagnostics and training
- > Sorting statistics – including capacity, reject rates, shift information

## Options

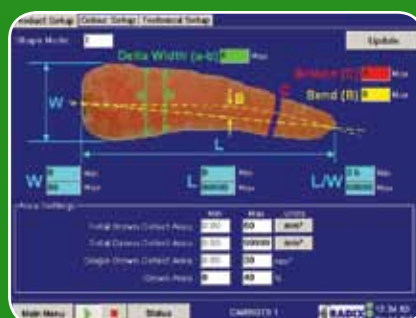
- > Dewatering infeed
- > Adjustable small piece removal
- > Two or three-way sorting
- > Take-away conveyors
- > Product and reject conveyors can be installed in many configurations
- > Suitable for different positions in the line: after washing, polishing or hydrocooler



Production statics



Colour training



Sorting parameters

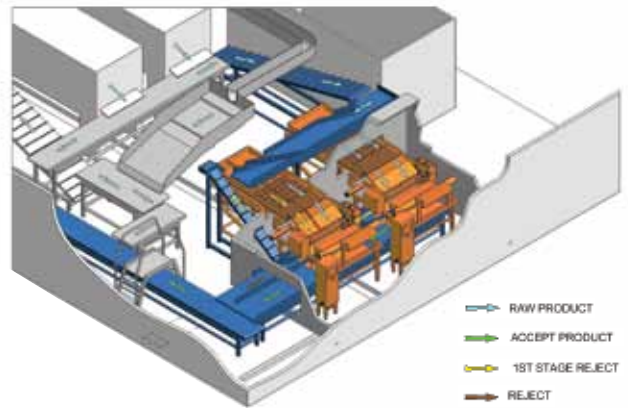


# Autosort MC - C Series

## Installations and Customer Comments

Radix offers a complete turnkey service, from individual sorters to complete lines. Autodesk Inventor 3D drawings enable the customer to visualise an Autosort in their factory. Working with partner companies we can provide auxiliary equipment including conveyors, elevators, vibratory feeders and other process equipment.

With over 22 years' experience, Radix has covered a wide range of installations. We have had many accolades from satisfied customers, including:-



*"We have had no customer returns since installation 18 months ago, previously 2 - 3 loads returned every year."*

*"I bought spares with the machine, but they have not yet come out of the box. We have not used a single spare part in 18 months."*

*"We now have the ability to run the line at full capacity, regardless of input carrot quality – no need to slow down as we had to with manual inspection."*



*"The machine, lights and camera windows only require a wash at the end of our 14 hr day."*

*"I used to check the Radix sorters every day but, like checking the car engine oil every day only to find it is always at same level, I now only visit the sorters occasionally, they just run, but I do retrain for different parts of the season."*



Radix Systems Limited, founded in 1988, is a member of the Fowler Westrup Group, specialists in post-harvest processing and is committed to improving quality within the food processing industry. Operating from modern premises in Winchester, southern England, most of our staff are professional engineers. All our sorting and inspection systems carry the 'CE' marking and are technologically advanced, whilst remaining simple to install, operate and maintain. Full back-up and training is available from the company and from our international agents.

### Radix Systems Limited

A member of Fowler Westrup Group

1 Moorside Place, Moorside Road, Winchester  
Hampshire SO23 7FX, United Kingdom

Tel: +44 (0)1962 892530 Fax: +44 (0)1962 813354

Email: [info@radixsystems.co.uk](mailto:info@radixsystems.co.uk) Web: [www.radixsystems.co.uk](http://www.radixsystems.co.uk)

Represented by:

A Series

C Series

D Series

E & P Series

Blue Alert