



UltraSort Sizer

UltraSort Vision System Powered by Ellips

- Ellips has been offering easy to use vision systems for fruit and vegetable packers around the world since 1987
- Just point and click to pick out blemishes
- Blemish settings are set in percentage of acceptance
- Types of blemishes can be named
- Last piece recognition - by going to this screen the system will outline the blemish and display why each piece of fruit was rejected.
- Multiple cameras - both color and infrared cameras see the fruit from wide angles side to side to ensure the entire piece of fruit can be seen
- 70 photos per piece of fruit is taken, ensuring nothing is missed on the surface
- If the human eye can see the defect on the fruit, then the Ellips Vision System can detect it
- The Ellips Vision System is very fast and powerful, it can view 10 pieces per second with accuracy
- Apples - system benefits: scab, hail damage, bruises, bird pecks, stem punctures and any irregular color
- Citrus - system benefits: density, skin blemish, clear rot, rotten spots on fruit, puff and crease
- Ellips has a team of software engineers constantly improving the system and always available to assist

Product Options

- Exit control
- Product labeling
- Accurate fill
- Dynamic exits
- Software Driver API

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Durand-Wayland has been the industry leader in fruit and vegetable equipment since 1934. In 1980, we introduced the technologically advanced and highly accurate MicroSizer with its patented "Smart Cup" design. With the "Smart Cup," we brought to market the first weight sizer where the position of the fruit within the cup did not affect the true weight of the fruit being weighed. Prior to this, all weight sizers had built-in flaws which produced inaccurate weights.

The UltraSort continues our tradition of innovative Packinghouse technology. The UltraSort has the versatility to handle a wide variety of fruit and vegetables. In fact, the UltraSort combines high speeds and gentle handling with blemish grading, weight sizing, optical sizing and color sorting. Enlongated fruit can be sized by the long or short dimension or a combination of both. The UltraSort has the unique ability to accommodate both rollers and cups on four different centers. The rollers are available in various sizes to enhance the rotation of different size fruits and vegetables.

Singulation and Rotation

- A pre-singulator or "V" belt feed system precedes the roller singulator which singulates the fruit into a single file row and increases cup fill
- Roller singulator provides maximum cup fill, plus excellent fruit orientation and rotation for camera viewing
- Soft rubber singulator wheels ensure gentle and positive rotation
- Variable speed forward and reverse wheel rotation in singulation area provides high cup fill rates and superior fruit orientation
- Camera viewing is not distorted by misplaced labels, because labels are applied AFTER fruit leaves roller singulator

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The UltraSort's optical system is another industry first. It uses precision progressive scan digital cameras with precise and dependable optics. In our many years of color sorting experience, we've found these cameras are not only the most stable, but also by far the easiest to set up and calibrate. Multiple lanes of sizing easily stay calibrated exactly alike to deliver the most uniform color sorting available. With the use of LED lighting, this creates the perfect array for the cameras to pick out all of the color ranges. This unique color sorting system, when combined with our proven weighing technology, will give you years of unmatched performance.

Integrated VistaScan Imaging System

- High resolution progressive scan digital cameras provide packers with more accurate color, shape, size and blemish sorting
- LED lighting is used to optimize lighting, reduce energy cost and increase bulb life
- The camera box provides optimum lighting for fruit inspection
- UltraSort Optical System can see 16 million distinct colors allowing you to define up to 15 color groups
- Multiple images are captured of each piece of fruit to ensure no area is missed
- Positive variable speed wheel rotation under camera box to enhance and control fruit rotation

UltraSort Options

- Pre-size control for flumes and hydro fillers
- Stainless steel frame
- Missing cup table notifies operator when replacement is needed
- Full and empty bin weighing system
- Product inventory system
- Automatic volume distribution system
- SECS (Sizer Exit Communication System)
- Labeler interface for fruit labeling systems
- Carton labeling systems that will work directly off of the sizer drop schedule
- Carton check weighers



Weighing System

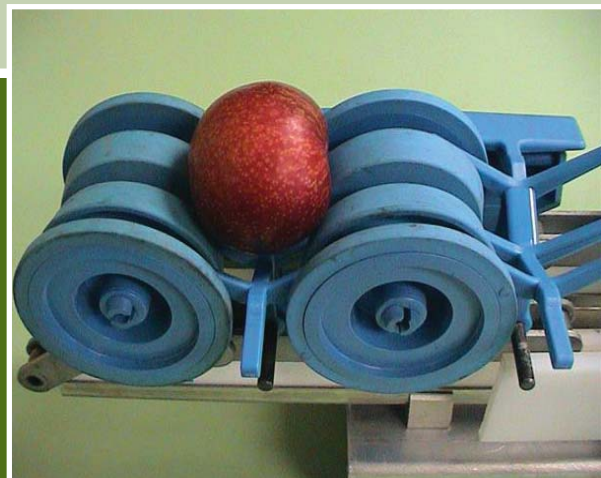
- Unique floating carrier design guarantees highly accurate weighing
- Rugged glass-reinforced molded plastic fruit carriers
- Automatic and continuous cup tare so only actual fruit is weighed
- Batch weighing for bag, carton and bulk filling
- Fruit carriers provide stability for the fruit as it passes over load cells

Other Features and Specifications

- Accurate and flexible operating system
- Blemish optics and software available
- Multiple sizers can be operated from a single operator station
- Remote Administrative Technical Assistance via Internet - Direct communication from DW technician to packinghouse sizer operator
- Operator programs run under Microsoft Windows
- By using 4 wheels per axle, the wheels can be placed closer together to rotate even the smallest fruit, while the large outside wheels increase the stability of large fruit
- Label interface for single or multiple banks of label applicators 0-600 fruit pieces of fruit per minute
- UltraSort sizers can be made from one lane up to ten lanes wide
- Sizer lengths up to 200 feet
- Oversized drive shafts and sprockets with individual lane tensioners
- Sturdy tubular steel-frame construction
- Anodized aluminum sides and combination plastic-stainless steel cup carrier tracks eliminate the need for scraping and painting



Gentle handling throughout



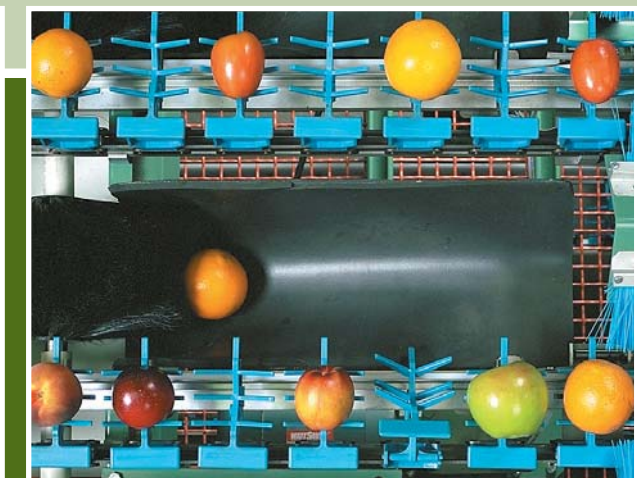
Soft rubber rollers for singulation and fruit rotation under cameras



Gentle nylon brush letdowns deliver fruit to crossover conveyor



Stable structure for large or small items



Overhead view of padded fruit outlet with brush show gentle fruit transfer