

A Bühler Case Study DeRuosi Nut

- Processing 25,000 tonnes of walnuts - faster
- Colour grading kernels, removing defects & FM
- Meeting stringent quality and safety standards with BioVision™ technology



The challenge

Leading US walnut processor DeRuosi Nut, operating out of California's Central Valley, processes a range of both in-shell and shelled walnuts, including varieties such as Chandler, Hartley, Vina, and Howard. Originally launched in 1947, the business is now riding a growth wave, expecting to produce around 25,000 tonnes of walnuts in 2017.

However, the dramatic rise in demand for walnuts comes with its own challenges. Safety and quality specifications are becoming increasingly stringent – particularly when it comes to processing kernels, which must be free of shells, foreign materials (FM), product defects and consistently light in colour. And the phenomenal rise in production also demands technology capable of handling larger-than-ever volumes in shorter periods, with unprecedented accuracy.



The solution

To help tackle the different walnut processing challenges as global demand for walnuts soars, DeRuosi brought in Bühler SORTEX E BioVision™ technology – a combination of proprietary Bühler detection technologies - BioCam™, high definition InGaAsHD and colour cameras. It efficiently removes colour defects, shells and FM that other industry technologies have struggled to cope with, meaning it is regarded as one of the most technologically advanced in the industry, achieving enormous success in reducing foreign material and defects in end products.

It is also specifically designed to be heavily loaded at high-processing speeds, so can easily cope with the high capacities required by DeRuosi.



Benefits

- Accurately removes shell, FM, defective and discoloured product at high speeds
- Processes high volumes at speed and within a small footprint.
- Precision sorting has improved safety and quality of DeRuosi's end product
- Currently processing 25,000 tonnes of walnuts per annum with spare capacity as volumes increase by 10 per cent yearly.



Feedback

“We haven't needed a lot of help because the machine takes care of itself – it's sort of 'set it and forget it'. That's one of the things we love about it. But whenever we do have a question, the team has been amazing and this has been a great partnership. I would definitely recommend SORTEX BioVision™ technology to anyone who doesn't have it yet.”

Mike DeRuosi, DeRuosi Nut, California, USA

Technology highlight

- **SORTEX E BioVision™** – high capacity, high speed, colour, shell and FM detection in a single compact sorter
- **High definition InGaAs^{HD}** - detects the smallest pieces of hazardous materials that cannot be seen in the visible spectrum
- **BioCam™ technology** – designed to detect shell fragments as small as 2mm and up to 50 per cent smaller than current industry solutions

