

Press release

Safety in glass-in-glass detection

With lifetime-optimised components the HEUFT eXaminer II XAC increases the sensitivity, coverage and reliability of pulsed X-ray inspection for precise glass-in-glass detection. The new deep learning for intelligent X-ray image processing with HEUFT *reflexx*^{A.I.} additionally increases the detection and rejection reliability.

HEUFT *SPECTRUM*'' alone, its comprehensive, highly automated device platform, ensures significantly better performance in the detection and rejection of filled food jars which are contaminated with dangerous glass splinters. In addition, lifetime-optimised new tubes, generators and full-field image converters increase the bandwidth, speed, reliability and sensitivity of pulsed X-ray inspection with the further developed HEUFT *eXaminer*'' XAC with a significantly higher resolution and lower radiation. With line outputs of up to 1,200 food jars per minute this alone halves the size of the foreign objects which can be reliably recognised. The new deep learning in X-ray image analysis with HEUFT *reflexx*^{A.I.} now finally makes the previously invisible visible.

This applies to the double bottom as well as the 360° side wall inspection. In combination they ensure full coverage when detecting foreign objects in jars and other food containers. Even if the products, which appear very inhomogeneous in the X-ray image, are filled with differently absorbent structures and irregular cavities between their components, glass and metal foreign bodies, among others, can now be identified for the first time with the new deep learning functionality of the consistently further developed hardware and software for intelligent image processing: the glass splinter in the red cabbage jar is detected and smartly marked just as reliably as the aluminium fragment in the cucumber jar. In addition, the selectivity in differentiating between critical and harmless objects increases, further reducing the false rejection rate.

This protects against unnecessary packaging and food waste and the resulting follow-up costs. At the same time, the total cost of ownership (TCO) of the HEUFT *eXaminer*'' XAC is also reduced because the new X-ray components are now even more durable. They also require less space so that the compact full container inspector offers more space and flexibility at the end of line with unchanged dimensions – for example for the reliable inspection of containers of different heights and also oversized containers.

Its HEUFT *CleanDesign* predestines it for use in hygienically sensitive areas. Inclined surfaces make cleaning easier and prevent the accumulation of stubborn dirt. Special channels and openings allow the liquid required for cleaning to drain away completely. Dangerous germs and bacteria therefore have no surface to attack.

The significantly increased automation and computing power of its HEUFT *SPECTRUM*'' head with self-explanatory HEUFT *NaVi* user guidance simplifies the safe operation of the HEUFT *eXaminer*'' XAC which now also makes the previously invisible visible with the further developed HEUFT *reflexx*^{A.I.} image processing.