For centuries, food producers have used simple techniques to sort out physical contaminants from bulk agricultural products. A screen, for example, allows bigger items to stay on one side while smaller ones fall to the other side. Separating magnets and gravity have been exploited as well to remove ferrous metals and dense materials, respectively. The original detection equipment-trained workers can visually inspect for just about anything, but can be costly and less accurate than machines as people can tire.

More recent inventions can have limitations, too. Optical sorters can only detect and reject objects that look different than the product being inspected. High-sensitivity food-grade metal detectors only find metal. This is why advanced bulk flow X-ray inspection systems are being used to augment other inspection techniques. Here are several things to consider when selecting a bulk x-ray machine for your plant.

### 5 FEATURES To Consider When Selecting Bulk X-ray Equipment

1. **Flexible Placement**
   - You should be able to accept product from the front, back or side in a flexible manner. The system should accommodate your requirements, not vice versa.

2. **Stack Metering**
   - The metering system should help ensure that the product isn’t stacked too high on the belt because that would potentially allow hidden material to be out of the range of the detectors.

3. **Belt Guides**
   - The belt should have suitable guides so the product stays in the inspection area and doesn’t get trapped under the belt, on the rollers or over the detector (which avoids frequent cleaning.)

4. **Multi-Lane Monitoring**
   - A multilane software and rejection system that monitors the flow through each lane and helps minimize the amount of food rejected, maximizing throughput.

5. **Interlock Safety**
   - The system should include door and cover interlocks to assure that the X-ray source is turned off when undergoing maintenance, cleaning or repair.