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HEUFT pulsed X-ray technology – *inspection beyond visible*





There are already many established inspection procedures and technologies that focus on the visible quality aspects of products and packaging.

- Colour inspections
- Assembly inspections
- Detection of cosmetic defects
- Detection of visible foreign objects
- ...



inspection of visible quality aspects

The inspection technology presented today enables a look behind the surface and makes visible what is invisible to the human eye and cameras.



Several critical features can be inspected in this way

- component presence & position
- component integrity
- complex primary packing materials
- ...

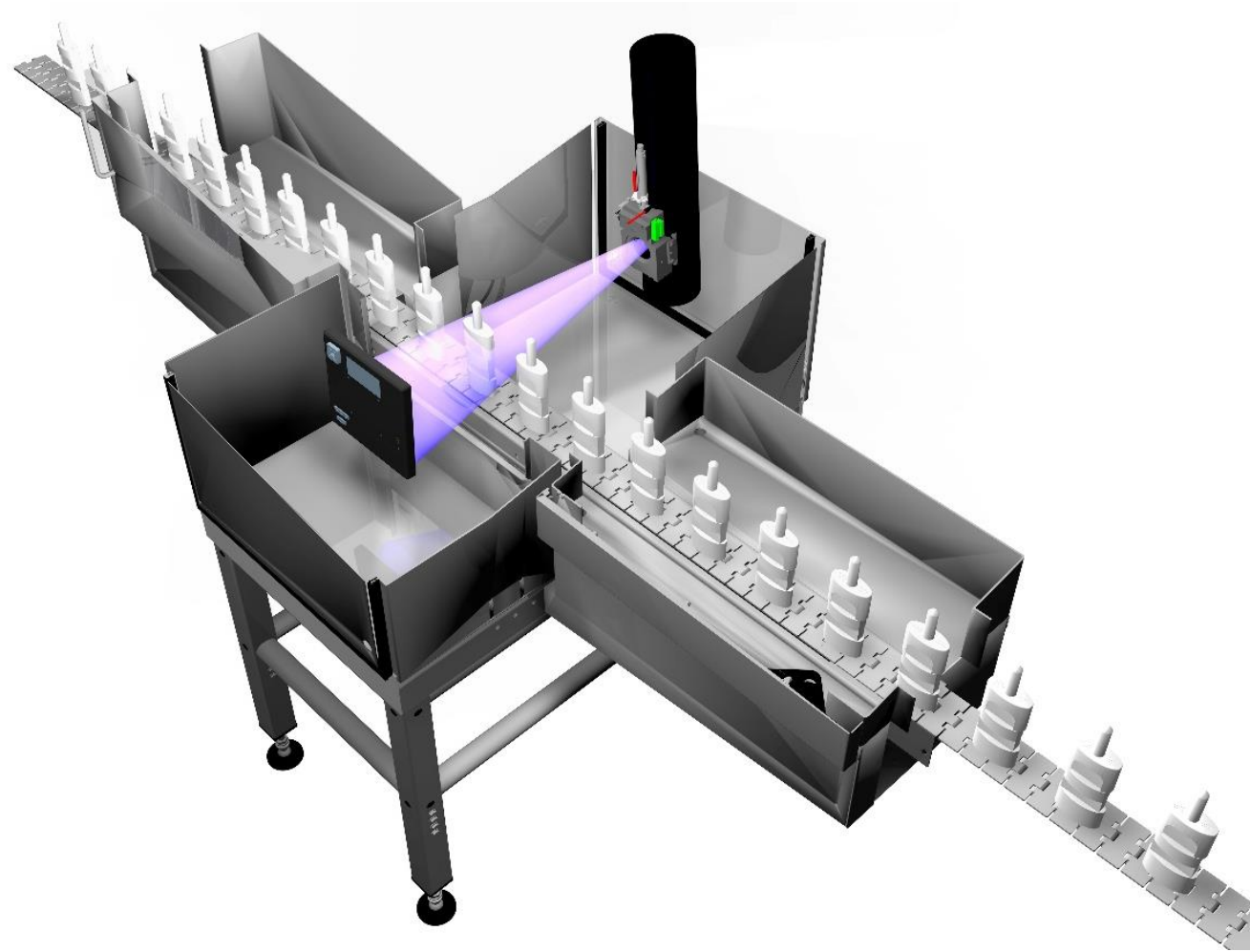


X-ray technology is a real alternative!

What to do if the quality aspect is not visible?



Enormous product variety

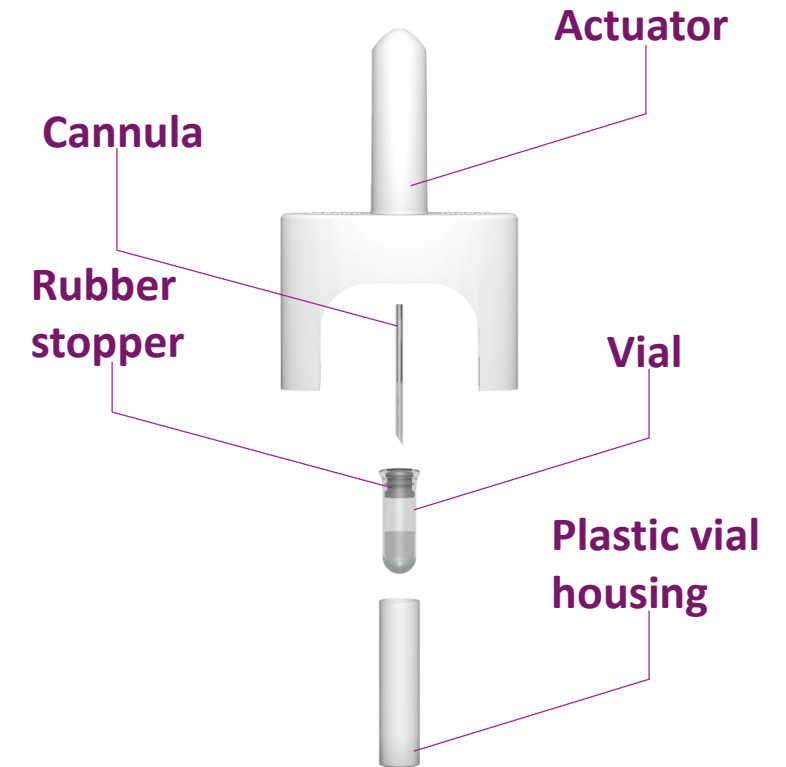


Unidose Systems (UDS) inspection

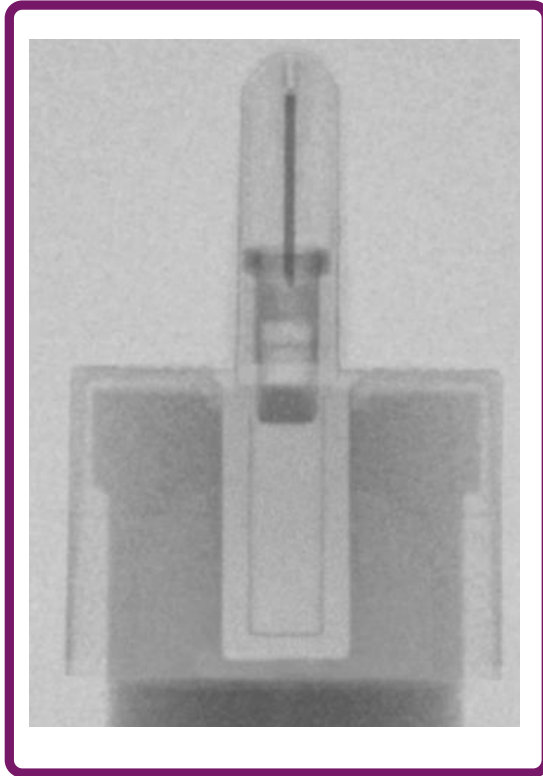


Unidose (UDS) Systems
Single-Dose Nasal Solution

Unidose Systems (UDS) are used for intranasal therapies where a small and very precise amount of drug formulation is required in a single shot.



Unidose Systems (UDS) inspection

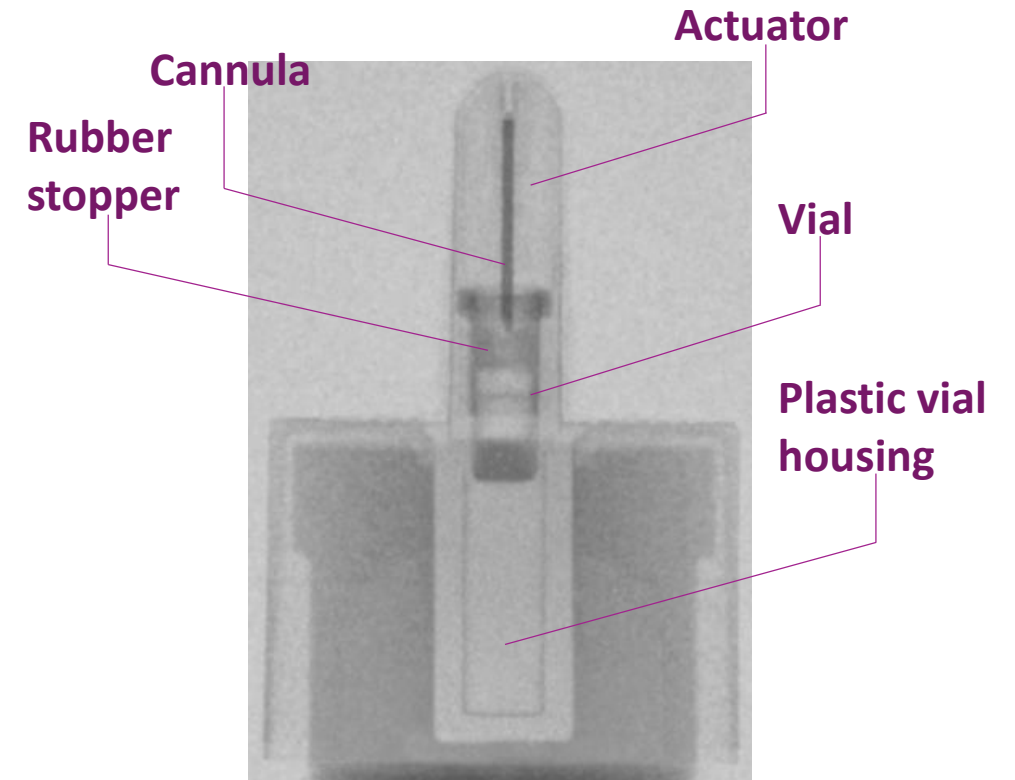
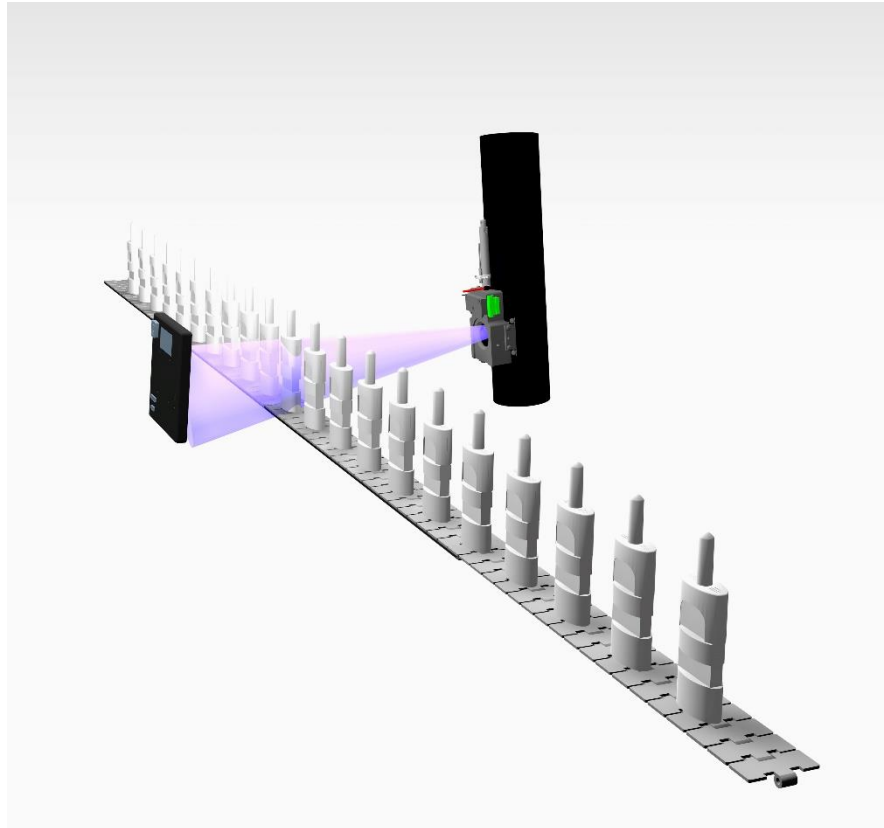


Unidose Systems (UDS)
Single-dose nasal Solution

Product inspection of various aspects

- Presence of all components
- Correct assembly
- Integrity of all components

You can look **inside** the product
with X-ray technology!



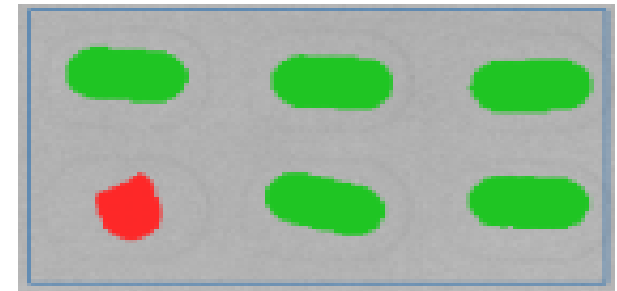
Unidose Systems (UDS) inspection



Blister strip inspection

Single blister strip inspection

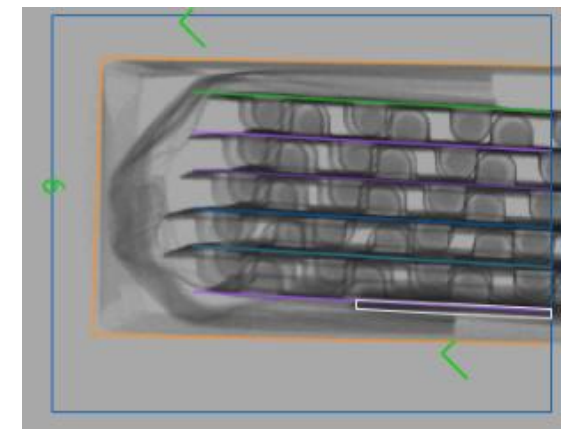
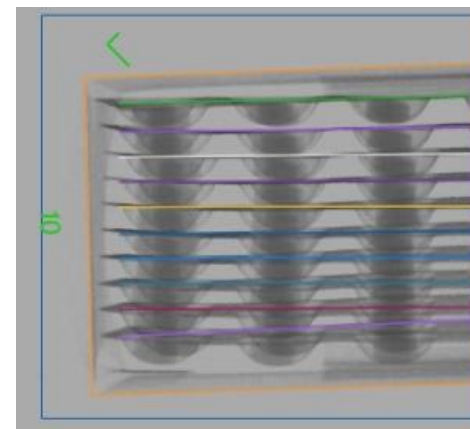
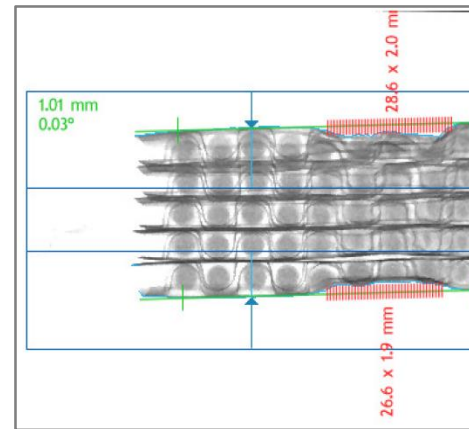
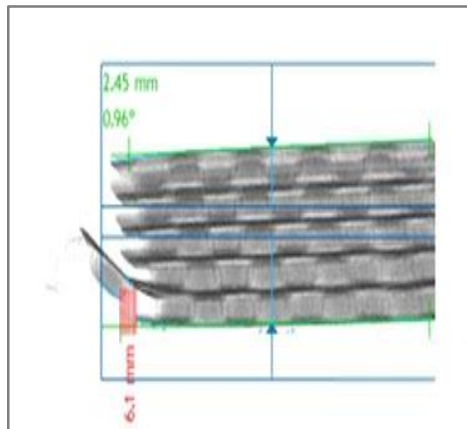
- Missing tablets, pills or capsules
- Partially missing tablets, pills or capsules
- Damaged tablets, pills or capsules



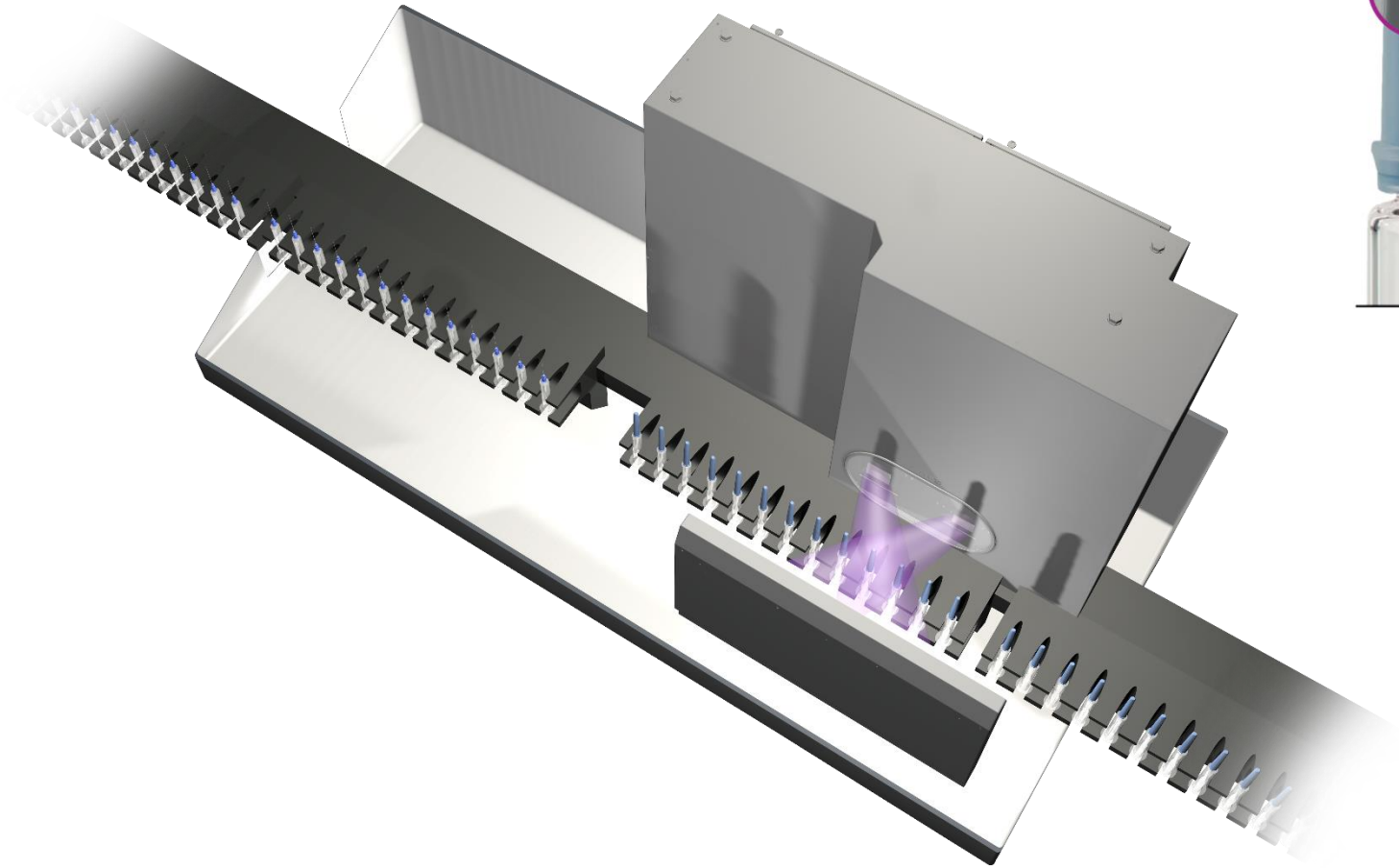
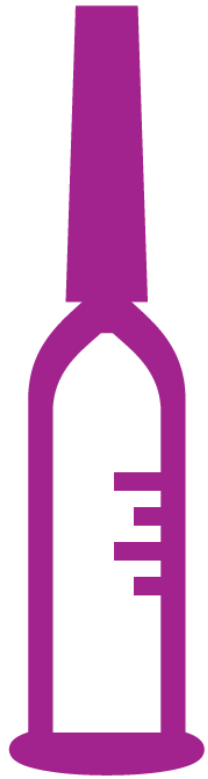
Single blister strip inspection

Multiple blister strip inspection

- Completeness check (strips, leaflet etc.)
- Alignment check (strips)
- Damage detection



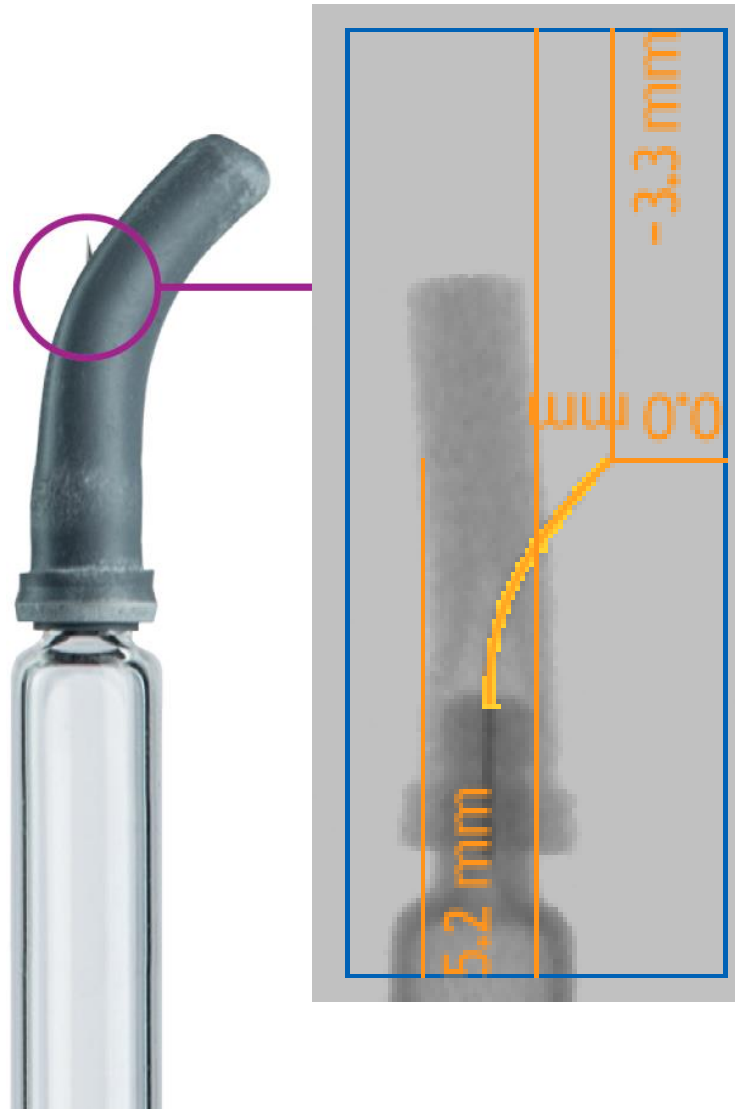
Multiple blister strip inspection



Pre-fillable syringe inspection

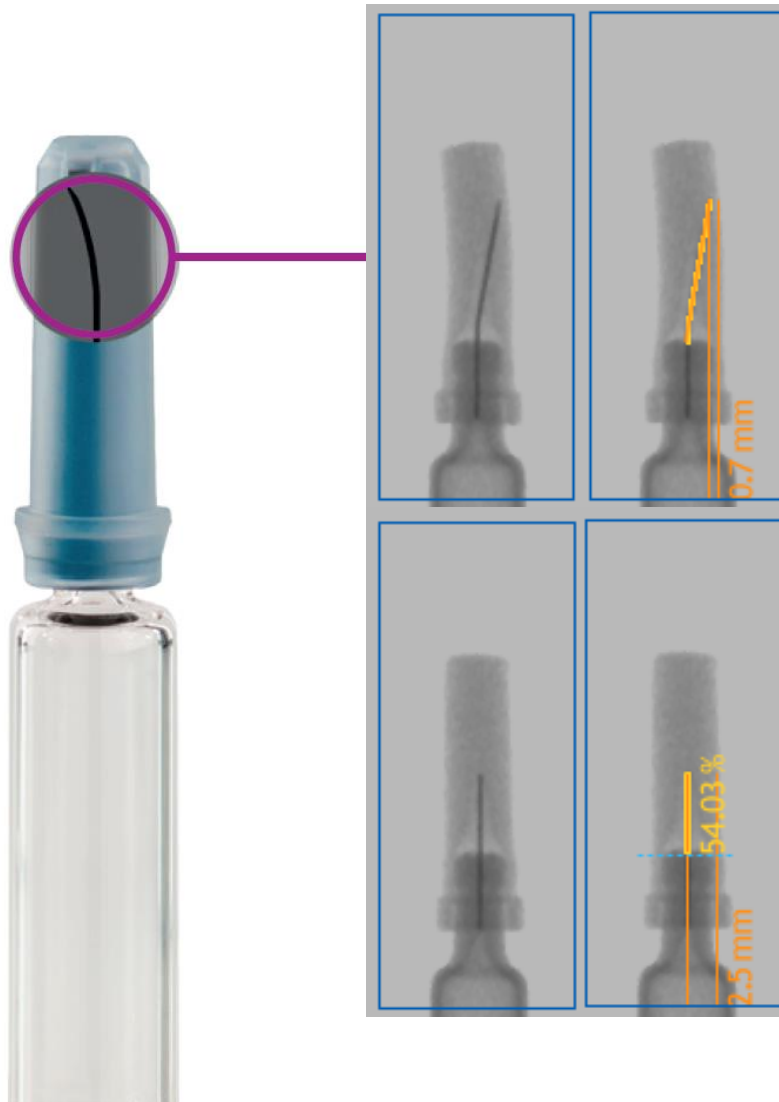


Pre-fillable syringe inspection



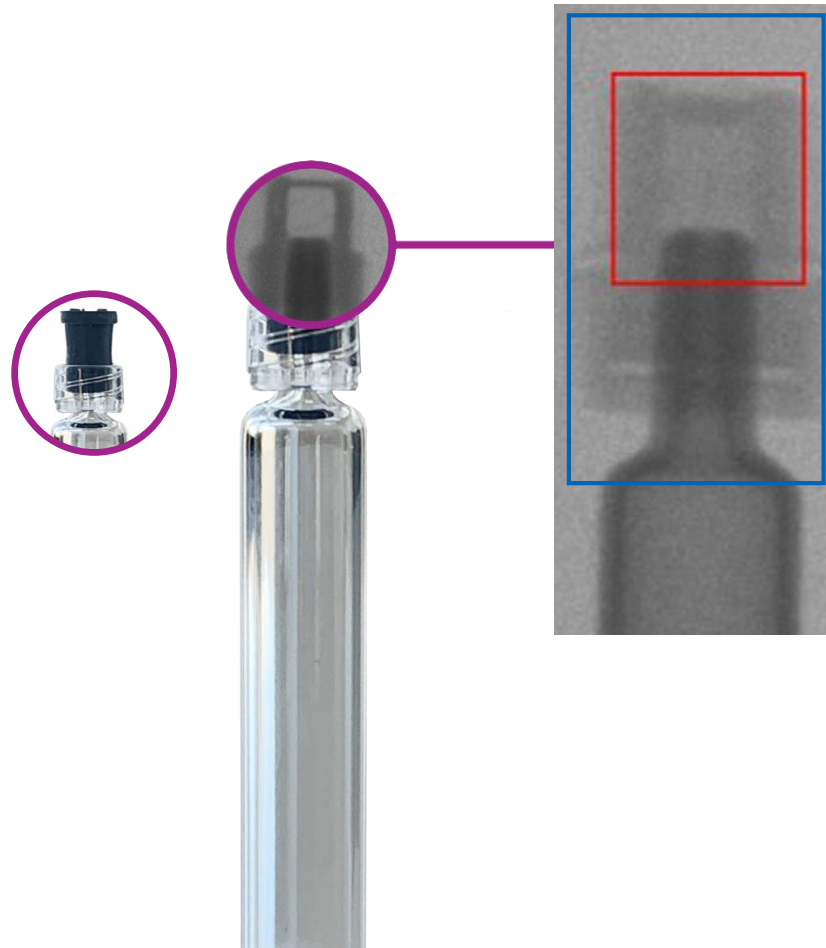
Puncture:

- Critical defect
- Impact on sterility
- Impact on usability of the syringe



Bent/deformed cannula:

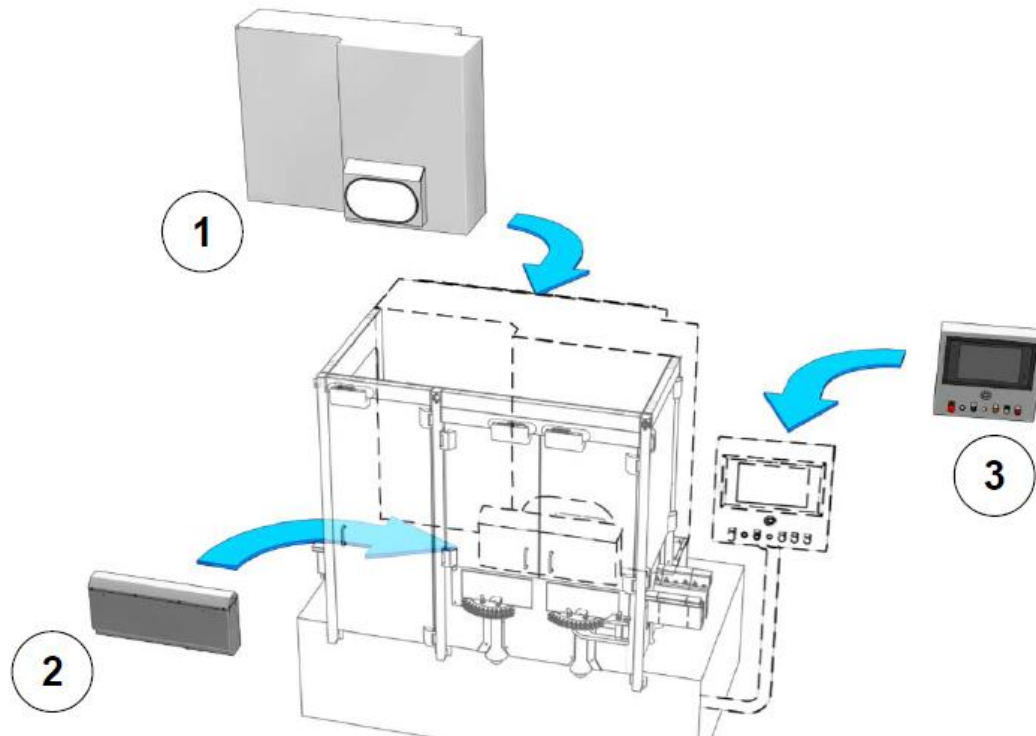
- Critical defect
- Not visible by camera
- Critical impact on syringe usability



Presence check (seal):

- Critical defect
- Product could get in contact with the secondary rubber cap

inspection module is fully integrated into an automated syringe assembly machine



1. Control cabinet with two X-Ray generators
2. Housing including two flat panel detectors
3. Operating terminal

Pre-fillable syringe inspection

Thank you...

We are glad to get in contact with you!

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