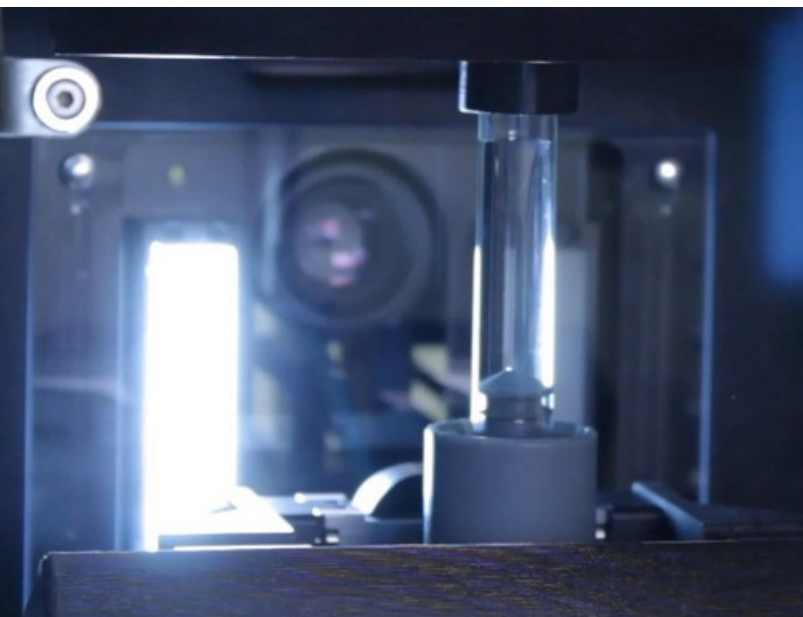


VI-Assist: flexible visual inspection for small batch sizes.

The core of every VI-Assist is our patented Vision Station. In this setup, the vial, ampoule or syringe is rotated, and different photos are taken. Using multiple light settings, all defects become visible. Each Vision Station can be used independently, but can also be incorporated in a machine where multiple Stations are used to increase the production speed.




The AI based detection software automatically finds defects on the photos taken by the Vision Station, thanks to the latest machine learning developments. The technique enables users to 'teach' the algorithms how (new) products need to be checked. This way, even the inspection of diverse product portfolios can be automated.



Automated visual inspection

Visual inspection is an essential component in the quality control of parenteral medicine. Currently, the containers are manually checked for contaminants, closure integrity and cosmetic defects. Our proven technology automates and improves this demanding task. With our unique modular approach, this technology is applicable for a wide range of small-scale batches.

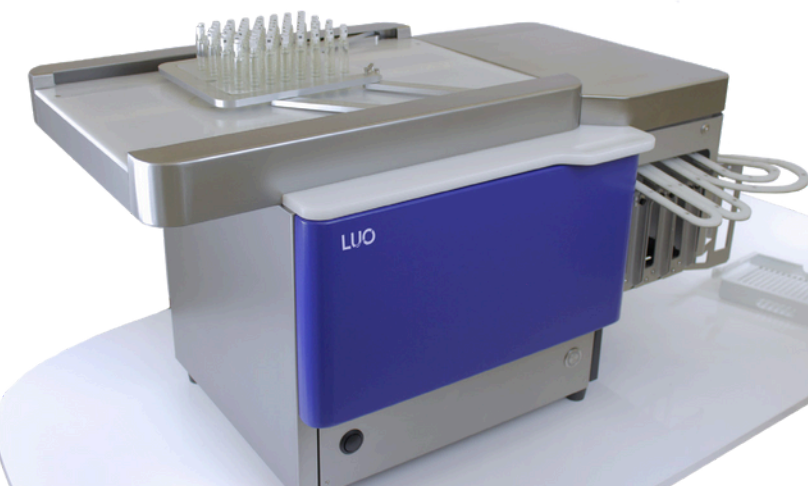


	VI-assist X1	VI-assist X2	VI-assist X4
Speed Containers/h	250	500	1.000
Container type	Syringes (1 - 50 mL) Ampoules (1 - 30 mL) Vials (1 - 100 mL)		
Dimensions LxWxH cm	50x30x40	90x50x60	110x80x62
Connections	230V, 2A	230V, 4A	230V, 16A
Number of stations	1 	2 	4 

High flexibility in speed and container type

To ensure that the VI-Assist meets your requirements, it is designed on a modular basis. This allows for adjusting the number of Vision Stations, thereby influencing the production speed and implementation costs. Each station is capable

of handling ampoules, vials and syringes, with parts for different containers being easily switchable in 5 to 20 minutes (depending on machine version). In addition to being a stand-alone solution, the VI-Assist can be integrated into small production lines.



Key Features

- Compact, tabletop design offers high flexibility in placement.
- Easy adaptation to new recipes or products.
- Low false rejection rate because of AI.
- Proven, validated technology compliant with US and EU Pharmacopeia, Gamp 5 and CFR Title 21 part 11.
- Modular design offers a wide range of production speeds.