



VRU: Inspection in the Factory of the Future

The Vision Robot Unit (VRU) takes inspection to a new level. It is a robotic human-like inspection unit, combining flexibility with automation efficiency. It also features artificial intelligence (AI)-based machine learning capabilities.

Key Features

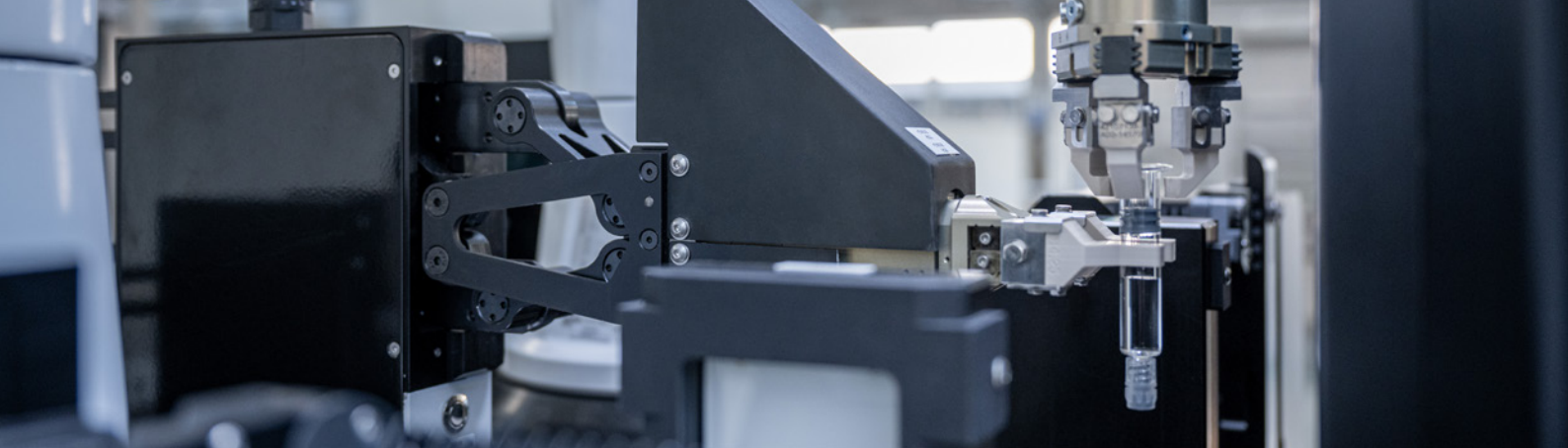
Applications

- Particle inspection
- Cosmetic inspection
- Reclassification of false positives for lyo
- Small batches of high-value drugs
- Ideal for monoclonal antibodies; vaccines; high-value products; lyophilized drugs

Advantages

- AI ready
- Optimized inspection performances
- Automated inspection: no human intervention required
- High flexibility: vials, syringes, cartridges
- Wide product range: lyo, suspensions and viscous products
- Modularity and scalability





Vision Robot Unit

Automatic Inspection Machine

VRU - AUTOMATIC INSPECTION MACHINE

Camera System	Technical Data
Standard configuration consists of 5 Inspection stations	Machine Speed: 600 pcs/h
Detectable defects:	Containers spinning system: Robot arm and one brushless motor with adjustable rotation speed from 0 to 9,000 rpm
- Cosmetic top: flip-off, crimping, scratches, needle-shield shape, neck, shoulder - Cosmetic bottom: scratches, cracks, flange, plunger - Cosmetic side: container body, scratches, cracks, plunger - Particle: bottom particles, meniscus, floating particles	Electric Supply: 400 V, 3 Ph+N+PE, 50 Hz standard, all other voltages possible through transformer
Optional: Additional camera for cosmetic inspection of Iyo products	PC: - Industrial PC with RAID array for simultaneous data back-up - Industrial PC with RAID array for simultaneous data back-up with integrated GPU for computational power
	PLC: Siemens with ethernet communication tech
	Control Panel: 21" colour touchscreen monitor with external keyboard
	SCADA System: Arctic database (compliance with 21CFR11)
	Vision system: Stevanato Group's proprietary programmable vision system interface (PVSI)
	Validation Documents: Machine in compliance with the most important standard regulations and guidelines. CFR21 Part 11 - audit trail - cGMP and GAMP5 regulations and guideline. CFR21 part. 11 - Audit Trail - cGMP and GAMP5

