



see. control. automate.



TAVI Glass Table Inspection System

Glass table-based inspection systems are perfectly suited for a fully automatic and non-destructive geometrical and defect inspection, thread inspection, and classification of serial parts for a broad range of applications. Since glass tables guarantee a very stable

inspection and measurement process, these systems are recommended for sophisticated inspection tasks with tight tolerances or complex geometries.



Quality is Everything


Benefits for Your Production:



Parts
Suited for parts made of different materials such as metal, plastics, rubber & other elastomeric compounds, silicone, sintered metal.



Glass Table
The parts are transported on glass turntables underneath/over the relevant measurement or surface inspection sensors.



Optical Inspection
High-resolution image capture for a reliable inspection of surfaces and geometric elements, as well as threads.



Feeder
Fully automated feeding and separation of parts, for example with ascending conveyors or bowl feeders.



Bunker
Bunkers with different capacities are available for extended autonomous run times.



Turn-over Function
When parts have to be inspected from top and bottom they will be turned over carefully and guided to a second inspection table.



Customized Solutions
Pick and place units combined with measurement sensors, 360° rotation.



Sorting
Parts are classified and sorted as OK or NOK parts. Statistics include data for the entire system, as well as for individual sensors.



Packaging
OK-parts can be diverted automatically to a box changer or packaging system.



Technical Information:

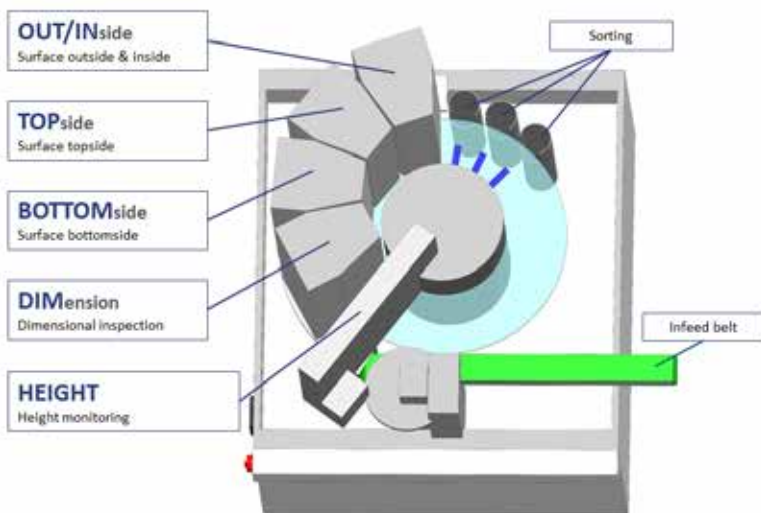
- Glass table system with / without component turning
- Dimensional accuracy inspection and defect inspection on front and side surfaces as well as lateral surface
- Equipped with 5 to 9 customised sensor units
- Throughput of up to 100,000 parts per hour (TAVI.01-XL)
- Optimised for part size: OD 1mm - 80 mm (TAVI.01-XL up to 120 mm)
- Measuring accuracy: from $\pm 1\mu\text{m}$
- Robust machine design with high-quality technological components
- Powerful multi-core processors for maximum inspection speeds
- Closed system design for maximum purity
- Glass disc calibration and temperature compensation for maximum measuring accuracy

Specifications:

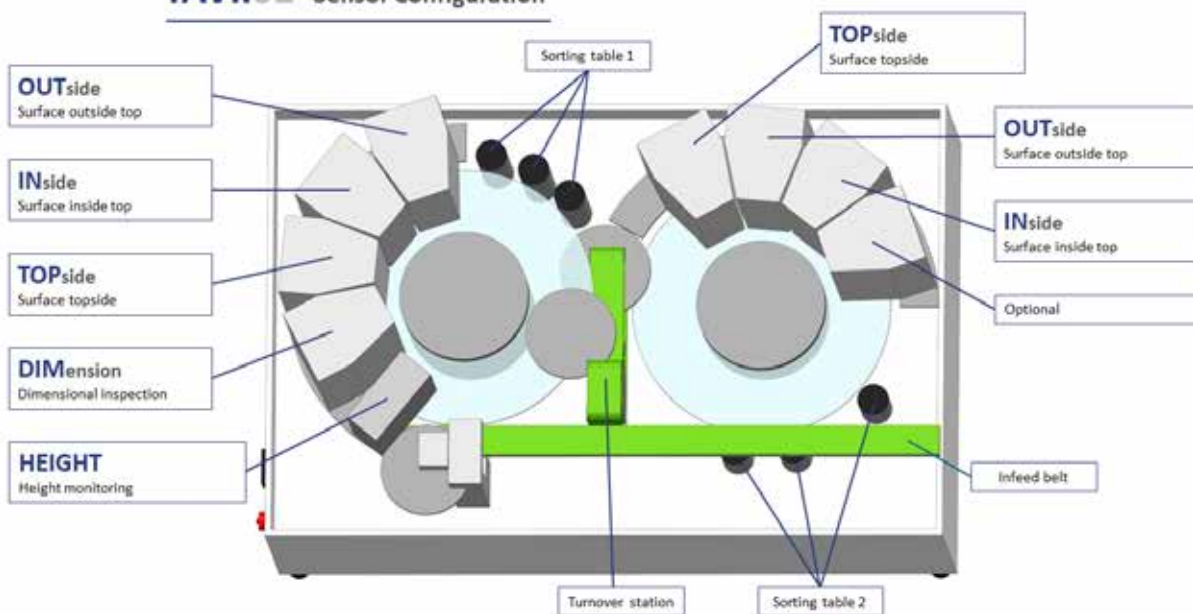
	TAVI.01	TAVI.01 XL	TAVI.02
	One glass table	One glass table XL	Two glass tables
Dimensions (L x W x H) without feeder	1400 x 1600 x 1950 mm	2420 x 2015 x 1950 mm	2420 x 1600 x 1950 mm
Electrical power supply	3/N/PE 400V/50 Hz 16 A	3/N/PE 400V/50 Hz 16 A	3/N/PE 400V/50 Hz 16 A
Compressed air supply	6 – 10 bar	6 – 10 bar	6 – 10 bar
Throughput	Up to 50.000 parts / hour	Up to 100.000 parts / hour	Up to 36.000 parts / hour
Number of sensor units	Up to 6	Up to 10	Up to 10
Adjustment of sensor units	Manual or automatic	Manual or automatic	Manual or automatic
Dimension of parts (standard)	3 – 80 mm	3 – 120 mm	3 – 80 mm
Repeatability	$\pm 1\mu\text{m}$	$\pm 1\mu\text{m}$	$\pm 1\mu\text{m}$
Interfaces (optional)	DCE, SPC, OPC-UA	DCE, SPC, OPC-UA	DCE, SPC, OPC-UA
Image processing software	NELA VisionCheck	NELA VisionCheck	NELA VisionCheck

Models of NELA Glass Table Inspection Systems

TAVI.01 Sensor Configuration



TAVI.02 Sensor Configuration



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