

Technical parameters FLEX-3A



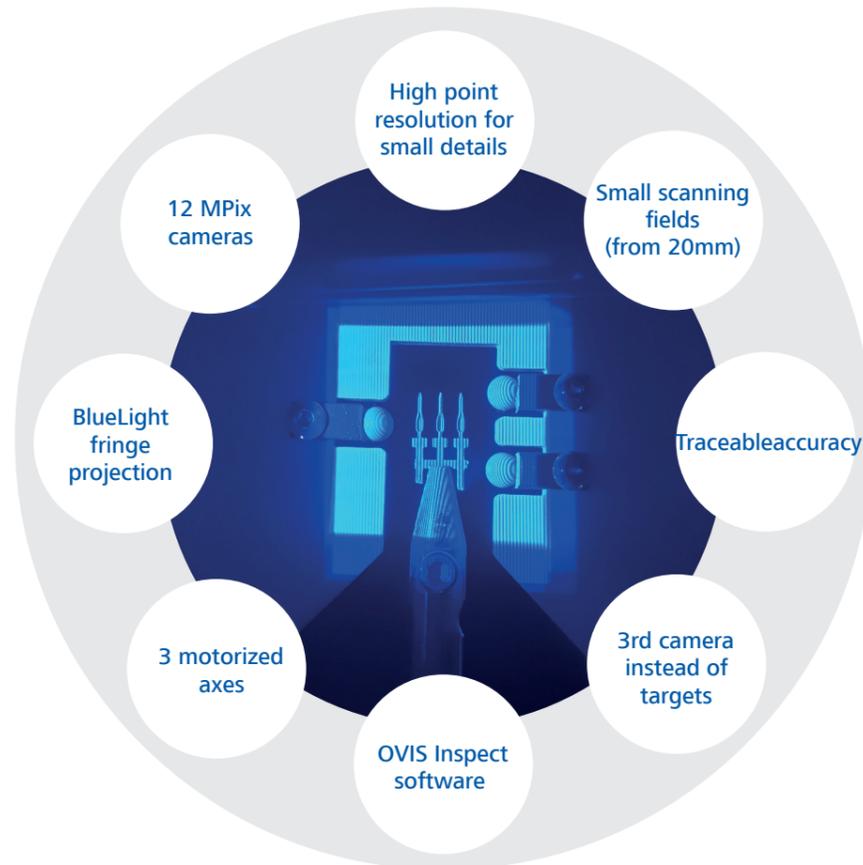
	FLEX-3A
3D sensor	2x stereo camera, 12 MPix; LED structured light projector, blue
Multi image calibration	3rd reference camera
Messvolumes (L x W x H)	20 mm x 15 mm x 5 mm to 230 mm x 172 mm x 100 mm
Smallest point spacing	down to 5 µm
Automatization	3 motorized axes
PC	Desktop, XEON MultiCore, Windows 10, 64 Bit
Dimensions (L x W x H)	822 mm x 785 mm x 1.600 mm (high 832 mm without table)
Weight	145 kg
Extra	Vibration isolation, air suspension



Visit us on YouTube.



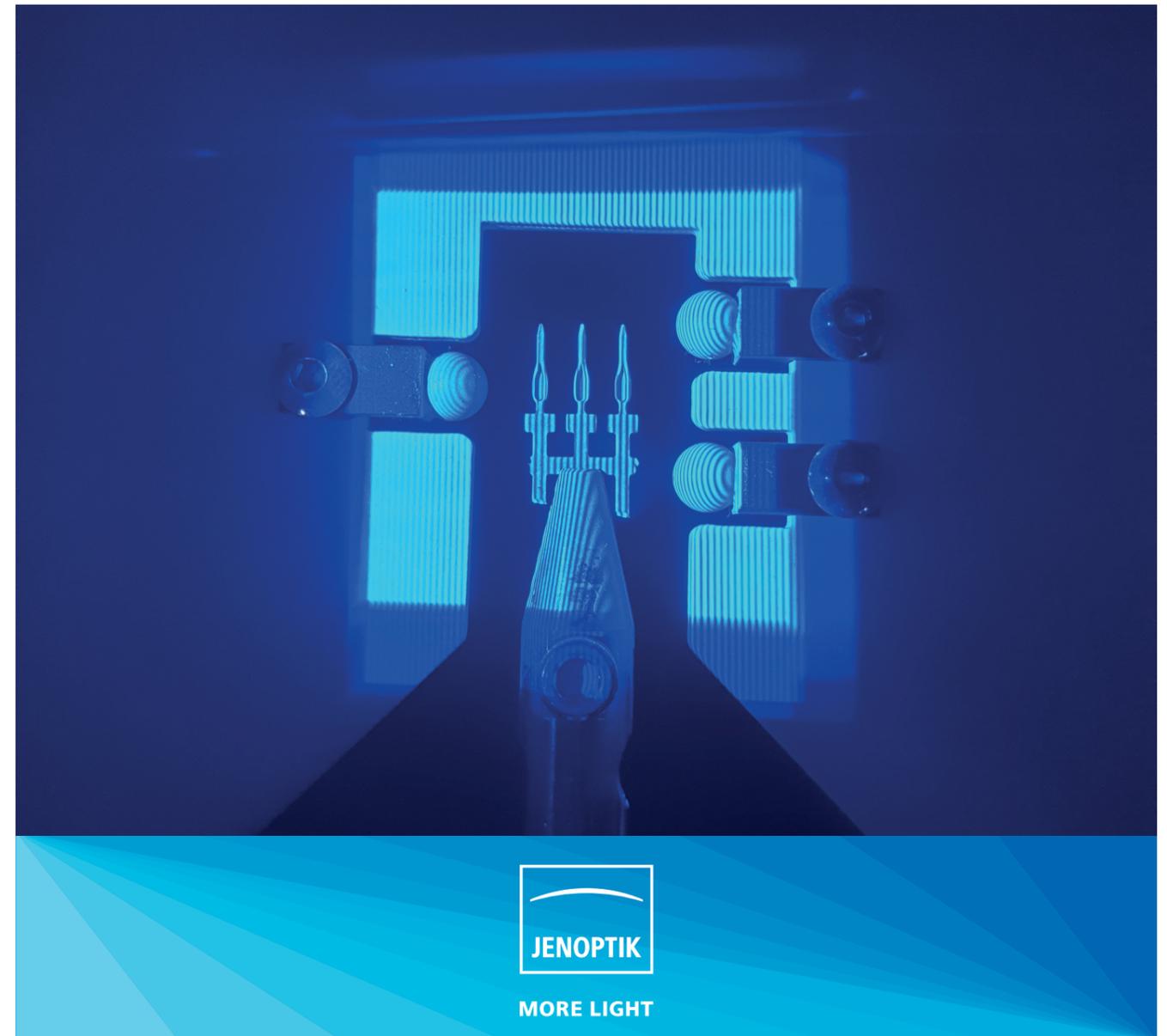
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It is our policy to constantly improve the design and specifications.
Accordingly, the details represented herein cannot be regarded as final and binding.
The items may be subject to the German and European Union Export Control Regulations/Laws.

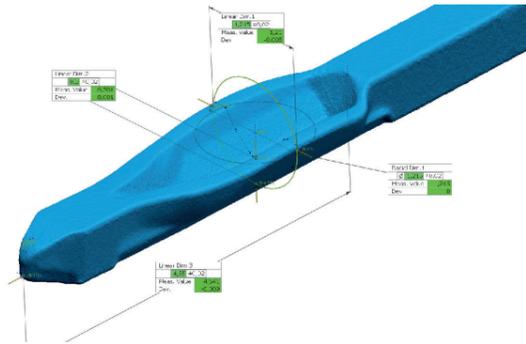
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Optical Inspection • Press Fit Contacts • en • 2022-05

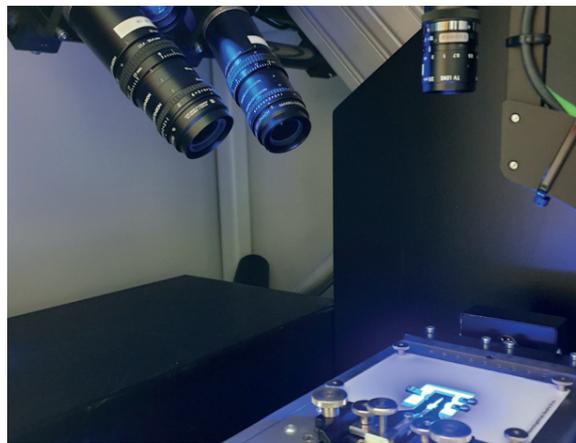


Optical inspection of press fit contacts

Non-destructive 3D inspection with industrial scanner FLEX-3A



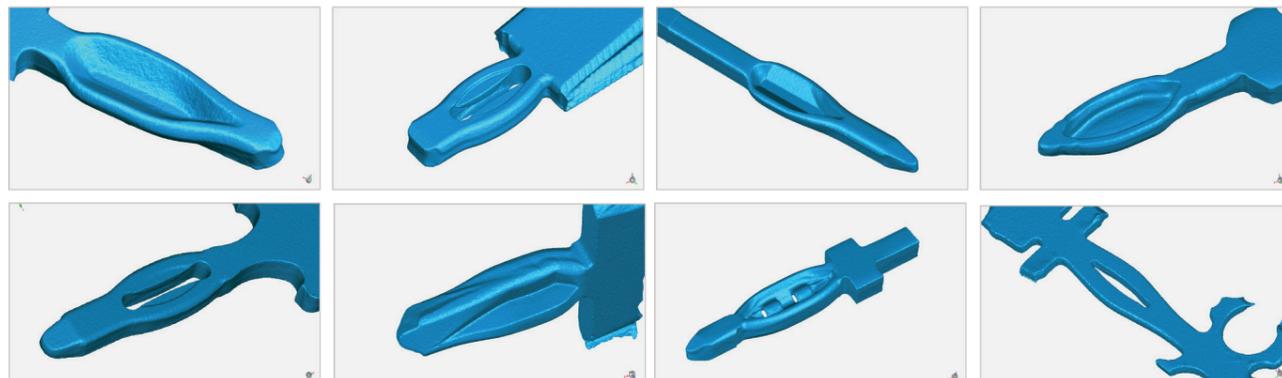
- Non-destructive 3D scanning of complete press fit geometry
- Huge time savings compared to destructive micrograph sectioning
- Automated inspection process < 6 min
- Significant increase in test cycles compared to conventional, manual testing
- Error-free production through early intervention in the event of process errors or tool wear



- Testing directly in production
- High point density and measurement accuracy by unique combination of 3x HiRes cameras and small fields of view
- Patented, photogrammetric multi-image scanning technology
- No complex part pre-alignment necessary

3D scanning of all typical press fit variants with high accuracy

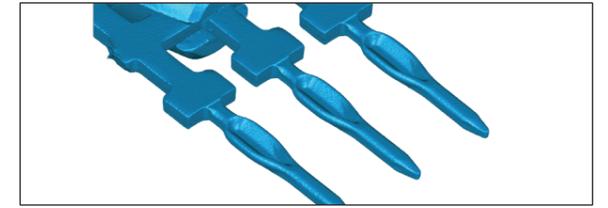
- Holistic scanning of all relevant outer and inner dimensions by object and sensor movement with 3 motorized axes
- Object point resolution down to 5 µm for detection and inspection of smallest details like radii, burr and edge indents
- Repeatability up to 1 µm
- Traceable measuring accuracy according to VDI 2634, sheet 3
- Simple, long-term stable calibration



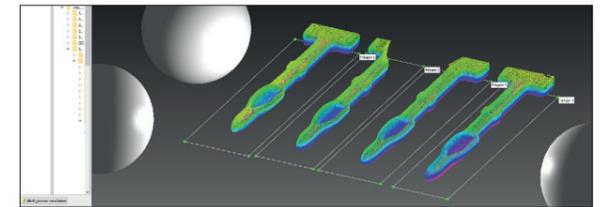
Scan data of different press fit contacts

Automated scanning of multiple parts on the strip

- Automated inspection of multiple press fits on the strip for multiple punching dies
- Huge time savings by eliminating time-consuming processes such as part separation, clamping and unclamping, multiple measurements and results documentation
- Free design of cutting patterns for part separation
- Parallel or sequential inspection of all pins with up to 5 parts / s
- Typically up to 5 pins in one clamping, expandable via integration of a linear axis

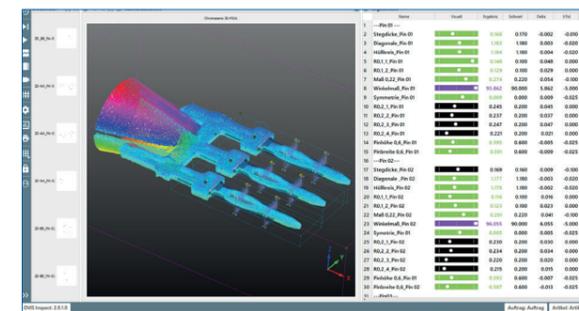


Scan data of multiple pin inspection

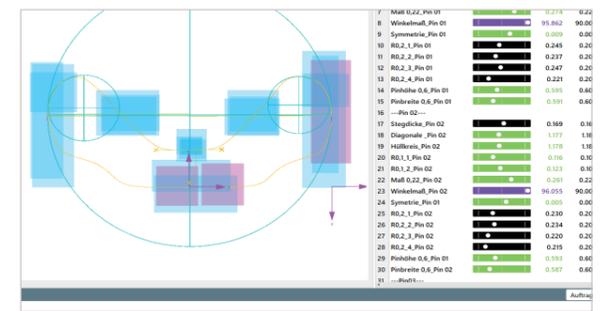


Cutting pattern of multiple pin separation

Flexible inspection with OVIS Inspect software

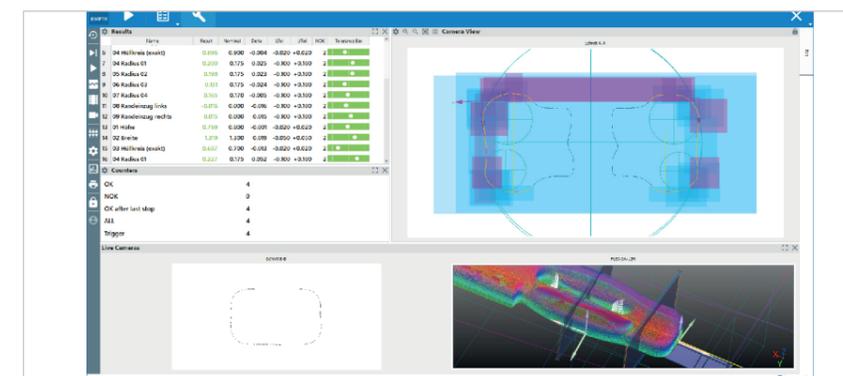


Inspection of two section per pin (3x)



Inspection of width, diagonal, angle, radii, MCC etc.

- Start working right from the beginning- easy selection of preconfigured test jobs for typical Press fit shapes
- Inspection time in PJX software < 1s per press fit
- Free choice of position and number of sections
- Dimensioning of all typical features (material thickness, width, MCC, radii, angle of attack etc.)
- Exact determination of maximum circumscribed circle (MCC)
- Contour deviation to CAD in section
- 3D coordinate measuring directly on the point cloud
- Flexible alignment (bestfit to master/CAD, 3-2-1, RPS, feature-based, hierarchical)
- Statistical process control (MSA 1 & 3)
- Individual result output with information on batch, tool no. etc., interfaces to CAQ



ELo®-Pin press fit inspection in PJX software inkl. dimension of edge indent, radii and maximum