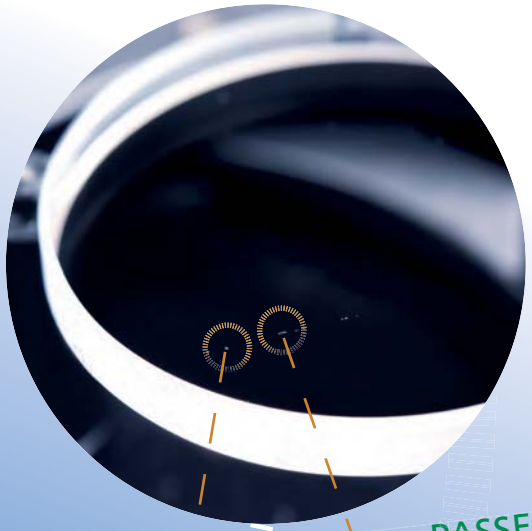
DIOPTIC
thinking your optics

ARGOS

Objective and reproducible inspection of optical surfaces according to ISO 10110-7

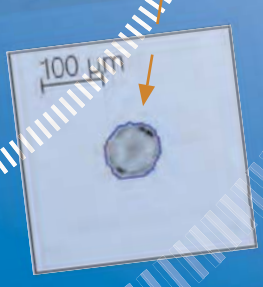


TEST REPORT

PASSED

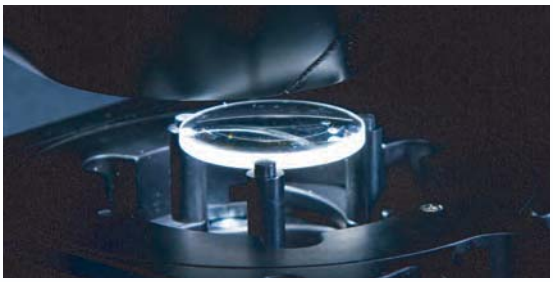
Largest Defects

No.	Position from center	Type	Grade
1	-7.43 mm, -5.24 mm	D	0.10 mm
2	-5.20 mm, -4.78 mm	D	0.10 mm

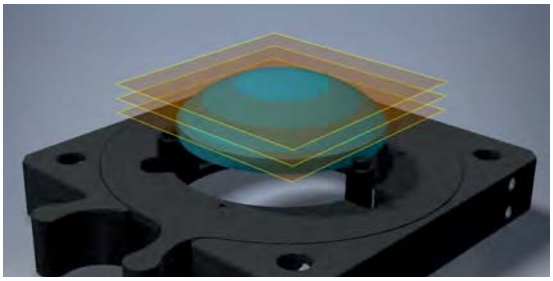


Surface 1 Summary

	Specification	Detected	Result
S/T 3x0.16			
Largest dig grade	0.1000 mm	0.1000 mm	Passed
Effective area	0.0768 mm²	0.0384 mm²	Passed
Imperfection concentration	ISO 10110-7	1.0	Passed

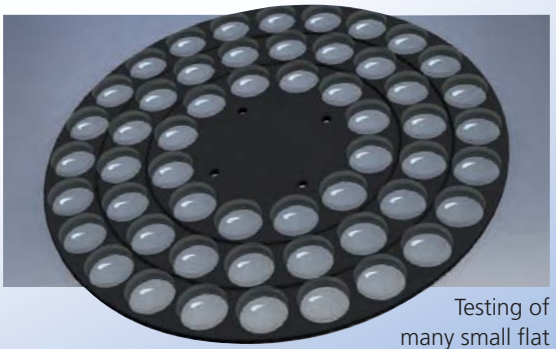


Fast and objective testing with reproducible results



Focus stacking for testing curved surfaces in multiple scans

Optional extension to testing of 200 mm wafers



Testing of many small flat samples with the 200 mm extension

Testing of fiber cable endfaces

VERSATILE IN TESTING OF

FLATS

- Scanning of samples with diameter of 45 mm in only 2 seconds
- Specifications down to 5/1x0.016, e.g. for high power laser applications
- Reliable detection of defects, particles and contamination

WAFERS

- Glass or silicon wafers up to 200 mm (8“) in diameter, capturing the entire surface through multiple ring scans
- Statistical evaluation of the particle and defect size distribution

CURVED SURFACES / VOLUMES

- Automatic focus stacking for curved surfaces
- Volume scan for detection of inclusions or air bubbles
- Combined scan of surfaces and volume

MICRO-OPTICS

- Optimized system for quick testing of small optics up to 10 mm in diameter
- Automated testing of whole batches

FIBER CABLE ENDFACES

- Fast, high-resolution scanning of the endfaces of fiber optic cables with standardized connectors (e.g. QBH)
- Detection of contamination and defects down to 1 µm

QUALITY ASSURANCE WITH ARGOS

OBJECTIVE · REPRODUCIBLE · FAST

PROCESS SAFETY

- Automated testing according to ISO 10110-7
- Classification of defects down to 2.5 µm
- Testing of specifications down to 5/1x0.016

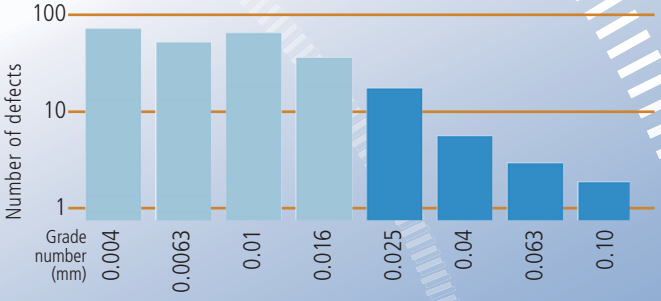
TEST REPORT

- Clear decision Pass/Fail
- Test report with images of important defects
- Output as a PDF file and in machine-readable formats

HANDLING

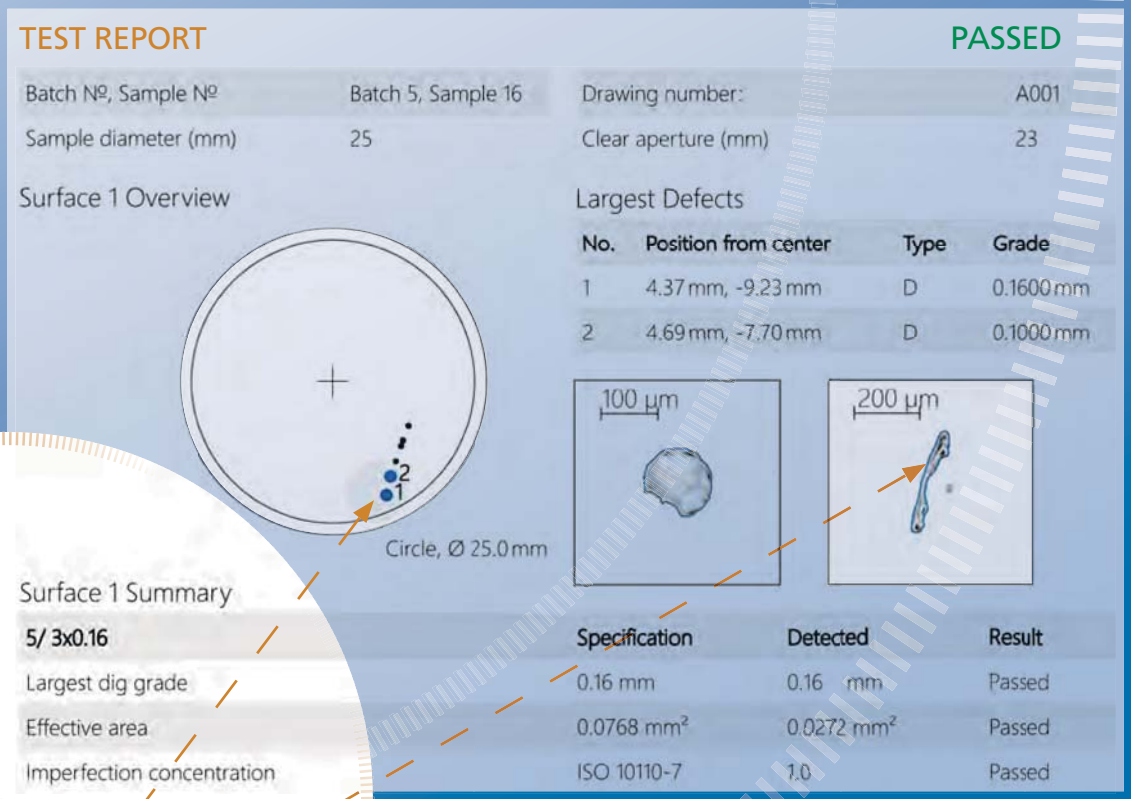
- Intuitive software interface with clear user guidance
- Predefined test profiles for specific test tasks

DEFECT HISTOGRAMM



PROCESS IMPROVEMENT THROUGH DATA ANALYSIS

- Simple process analysis through statistical evaluation of test results
- Defect size distribution of all defects and particles on the sample
- Connection to QS systems possible



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CATEGORY	VALUES	COMMENTS
smallest ISO specification*	5/ 1x0.016; L1x0.01; E 0.04	evaluates as required by the standard down to 16% of specified dig size (i.e. 0.004 mm) and 25% of specified scratch size (i.e. 0.0025 mm)
smallest visible defects*	< 1 µm	visible defects smaller than 2.5 µm are evaluated as grade number 0.004 due to optical resolution repeatability
precision of size measure-ment*	< 1 µm	standard deviation for 30 reinsertions of the same reference sample
surface material	glass, metal, semiconductor, plastics, crystals	required are polished, rotationally symmetrical non-scattering surfaces with optical quality
maximum sample diameter	45 mm / 200 mm	Expansion to 200 mm diameter is possible as an option
Scan and evaluation time (40 mm flat optic)	ca. 2 s + 5 s	The evaluation time depends on the quality of the sample and the specification to be tested.

* The achievement of these specifications can only be guaranteed with the original ARGOS calibration sample with known defects of defined width and depth.

DIOPTIC offers you:

- Quick reaction and short paths for project execution and customer service
- Flexibility in the adaptation of ARGOS to your specific needs
- A highly qualified and motivated team that finds solutions to your challenges in the field of optical, metrological or physical systems