



Qeye 200
Qeye 800

OPTICAL ANALYZER - INVERSE COAXIAL MACROSCOPE

WELD SEAM MEASUREMENT
FAST, HIGH-RESOLUTION AND EFFICIENT

Qeye 200



ZOOM SCROLL WHEEL

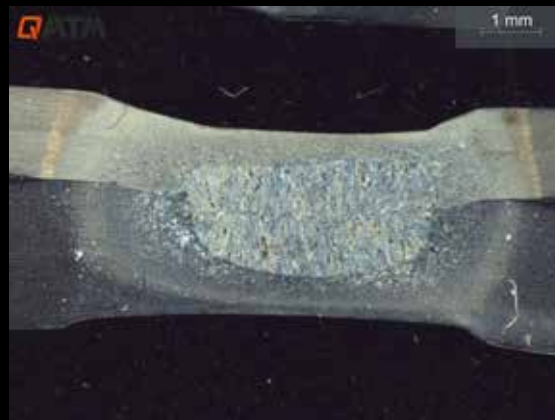
A handwheel allows for convenient and precise adjustment of the magnification range. Five pre-set steps ensure quick adaptation to different observation requirements.

COMPACT PRECISION FOR DETAILED MACRO-SECTION ANALYSIS

- | Quality inspection of laser welds in the automotive industry
- | Inspection of delicate welded joints in electronics and precision engineering
- | Analysis of narrow deep welds in series production
- | Process monitoring and optimisation in manufacturing
- | Research and development in the field of laser welding processes



14.9 x 11.2 mm
Field of view



9.3 x 7 mm
Field of view



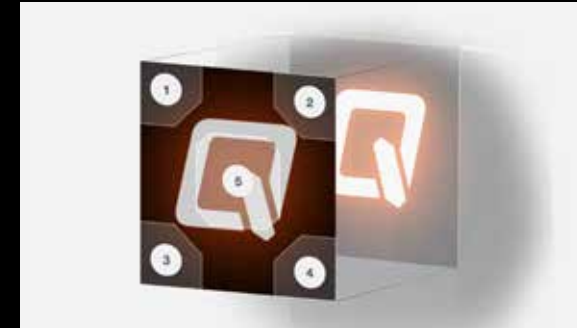
5.9 x 4.5 mm
Field of view

Qeye 800



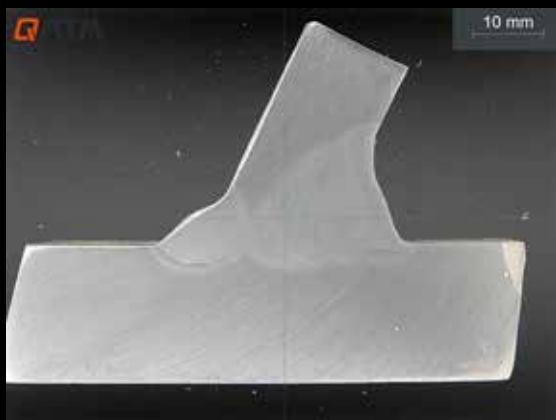
PRECISE MACRO-SECTION ANALYSIS FOR QUALITY AND SAFETY

- | Quality control of welds in series production
- | Material testing in testing laboratories
- | Analysis of weld penetration, weld shape and potential defects
- | Applications in the automotive industry, steel construction and plant engineering
- | Research and development in the field of joining technology

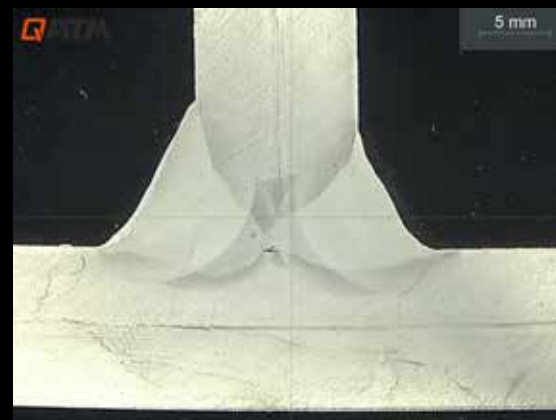


PROGRAMMABLE TOUCH PANEL

The touch panel can be programmed with the following five functions as required: zoom in, zoom out, turn all lights off, turn all lights on, and start analysis.



80 x 60 mm
Field of view



40 x 30 mm
Field of view



32 x 24 mm
Field of view

Qeye 800 4K ULTRA HD

INVERSE MACROSCOPE

- | 8.5 megapixel camera system
- | Zoom levels: 1x – 1.5x – 2x – 2.5x – 4x – 5x
- | Field of view 80 x 60 mm – 16 x 12 mm
- | Integrated automatic focus and brightness control
- | Focus plane manually adjustable for measuring non-planar components



Qeye 200 4K ULTRA HD

INVERSE COAXIAL MACROSCOPE

- | 12 megapixel camera system
- | Zoom levels: 0.63x – 1x – 1.6x – 2x – 4x
- | Field of view ranging from 23.7 x 17.8 mm to 3.7 x 2.8 mm
- | Integrated automatic brightness control
- | Manual fine-tuning



AREAS OF APPLICATION FOR

INVERSE MACROSCOPY

AREAS OF APPLICATION

Qeye 800**Qeye 200**

Macro welds



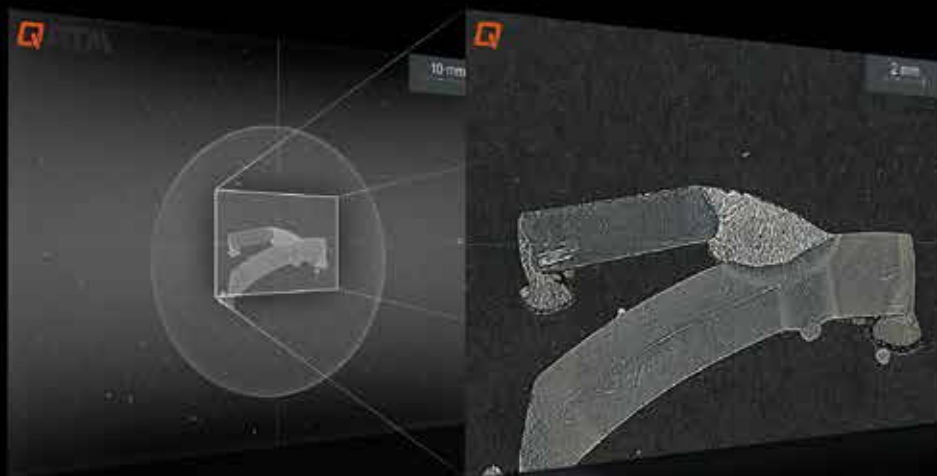
Laser welds



Visual inspection for surface defects

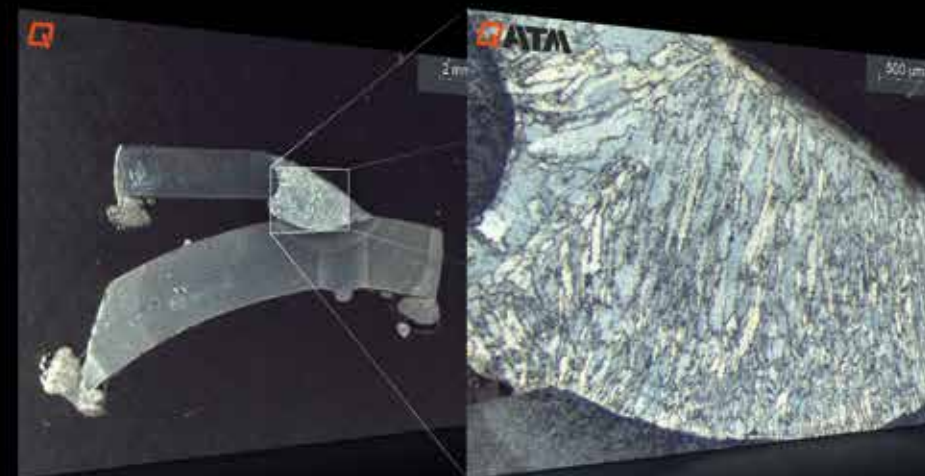


Visual inspection of components/PCB assessment

**Qeye 800**

80 x 60 mm
Field of view

20 x 15 mm
Field of view

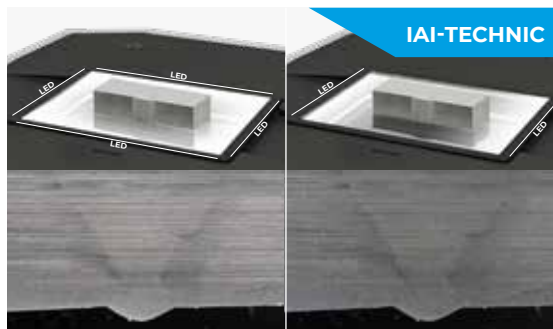
**Qeye 200**

23,7 x 17,8 mm
Field of view

3,7 x 2,8 mm
Field of view

APPLICATIONS

BENEFITS OF PRACTICAL EXPERIENCE



OPTIMIZED SPECIMEN ILLUMINATION

IAI = Intelligent Area Illumination. The Qeye system features innovative LED analysis area illumination. Each of the 4 illumination profiles (right, left, front, rear) can be switched on or off smoothly and individually. This now enables faster and more precise testing, without the disturbance of light influences or grinding reflections.



TOUCH CONTROL PANEL

Qeye offers impressive ease of use via freely programmable capacitive buttons. Once centered, the Q lights up to indicate the current status, and used to trigger imaging. The buttons located in the corners can be configured to control LED illumination, zoom, field of view and brightness. The soft-touch control panel is responsive, even when used with gloves.



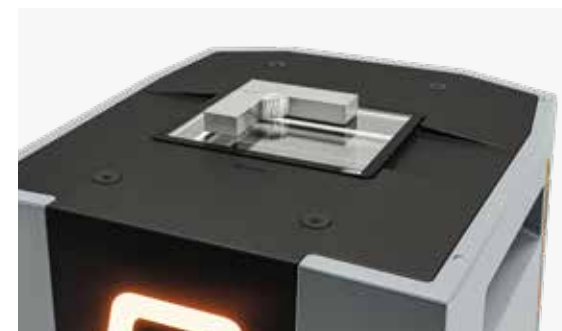
QPIX CONTROL2 SOFTWARE

Operated by tried and trusted Qpix Control2 software. Combination of hardness testing and optical analysis in a familiar user interface using just one PC. Efficient measurement and inspection of weld specimens in seconds, live image, 3D Smartview and a uniform reporting system for hardness testing and macro analysis.



FEATURES AND BENEFITS

Qeye saves time, providing detailed analysis and measurement with supreme accuracy. Robust modern industrial design. Easy replacement of the glass sample carrier. Absolutely dust-tight due to assembly in a clean room.

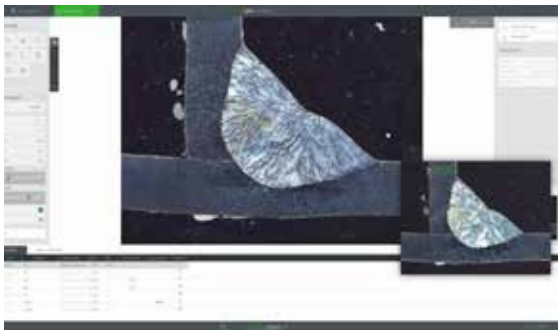


WELDING SAMPLES

Qeye guarantees fast, simple, precise, standardized weld inspection, and displays all irregularities. Documentation of abnormalities can be added to a measurement at any time. The use of template systems in reporting ensures unlimited precise repeatability and reliability in regard of procedures, measurement sequences and limit values.

APPLICATIONS

FROM PRACTICAL EXPERIENCE



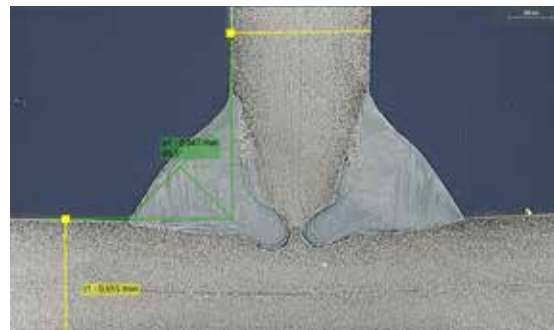
TEMPLATE MODE INCLUDING REFERENCE IMAGE

Customised client templates can be saved along with a reference image of the survey and accessed at any time. Predefined survey elements and the QATM standard catalogue are also pre-installed in the system



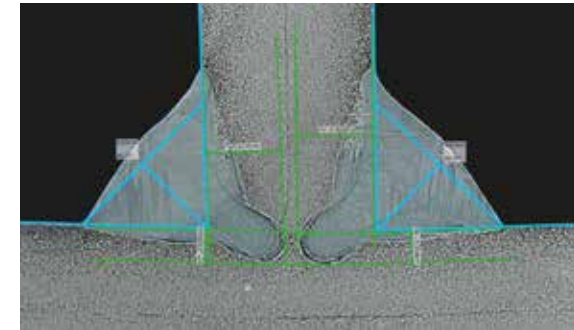
MEASURING TOOLS

Precise measurement tools ensure the fast and easy measurement of specimens. Lengths, angles, circle, polygons for area or perimeter calculations. Zoom and brightness can be calibrated individually.



SNAPPING MEASUREMENT LINES

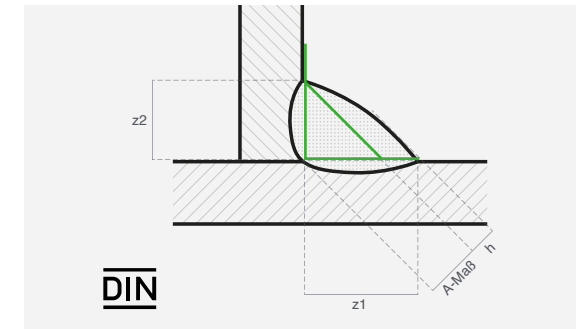
Different measurement lines can be linked together individually and precisely aligned with one another. This allows complex measurement tasks to be carried out in a structured and efficient manner.



WELDING SEAMS

Fillet weld measurement with full range of intuitively operated measurement tools

- | Easy adjustment of measuring lines
- | Seam quality evaluation
- | Recordable notes

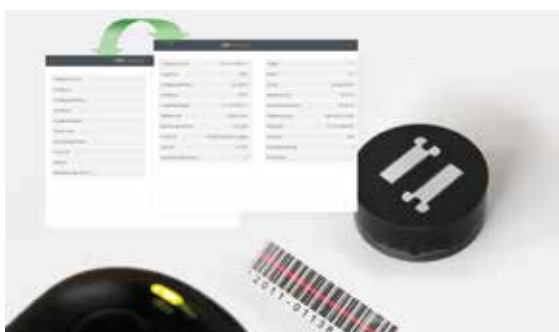


STANDARD-COMPLIANT TEST EQUIPMENT

All necessary measuring tools are, of course, a basic component of the software for inspections according to DIN EN ISO 5817. For example: the A dimension, the depth of burn-in, evaluation limits and a standard-compliant inspection report.

INDUSTRY 4.0

EQUIPPED FOR THE PRESENT AND THE FUTURE



BARCODE/QR-CODE/DMC-READER

Qpix software platforms support the use of barcode and QR code readers, simplifying workflows for inspectors and preventing operator error. Populating header data is simple (standard), and readers can be fully integrated to automatically select templates or retrieve data from higher-level systems (optional).



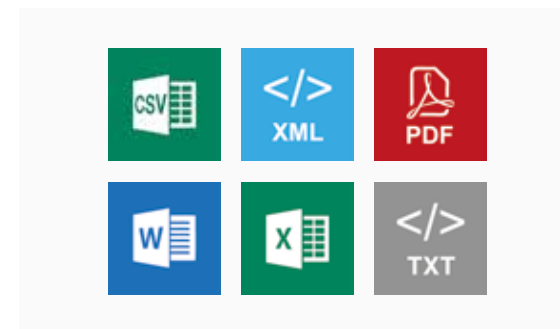
PROFESSIONAL DATA MANAGEMENT

Benefit from clearly-structured batch management, the effective template use of various test projects, well-organised measurement results and all job information in the background. Once created, templates receive all requisite information about test samples, including test methods, designations and user-field information.



QCONNECT

Qconnect is the interface in the QATM Qpix Control2 software that combines all connectivity options for our customers. From the standard, open XML interface (bi-directional), to pre-specified plug-in solutions such as the QDAS Plug-In+, to fully customized connectivity solutions implemented by QATM - we find a professional solution for every application.



AUTOMATIC EXPORT FUNCTIONS

Many professional export functions are available as standard with QATM: raw data export in CSV/TXT and XML; report export in MS Word, Excel, PowerPoint and PDF - output part-related or as a single export. All export configurations can be stored individually for templates.

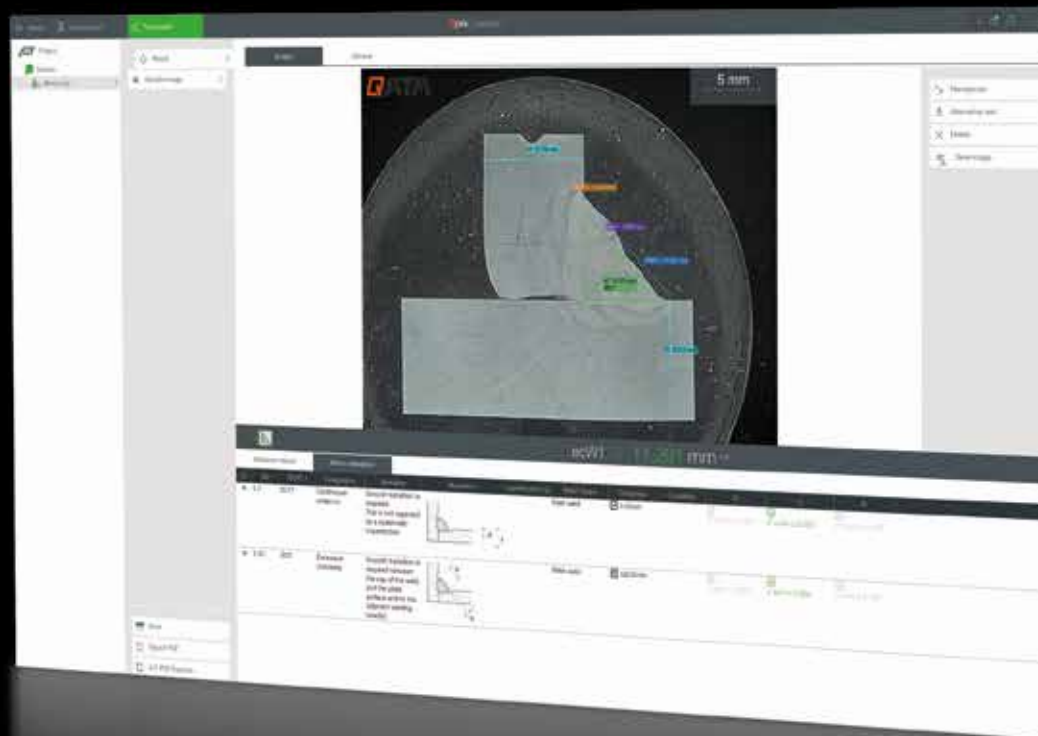


FIND OUT MORE ABOUT THE INTERCOMPATIBILITY OF THE QATM PRODUCT FAMILY

#QATMCONNECTEDFUTURE




APPLICATIONS

STANDARD ASSESSMENT OF WELDS





Customer Standard

DIN EN ISO 5817 2023-07 DE DIN EN ISO 5817 2023-07 EN 

6525-1	Designation	Remarks	Illustration	Irregularities
5012	Intermittent undercut (short imperfection)	Smooth transition is required. This is not regarded as a systematic imperfection.		
500	Excessive convexity	Smooth transition is required between the cap of the weld and the plate surface and/or the adjacent welding bead(s).		
505	Incorrect weld toe			

No.	Type	Name	Description	Value	Min.	Max.
1	Throat thickness	a1	Thickness of weld	5,127 mm		
2	Length	t1	Wall or plate thickness	9,714 mm		
3	Length	t2	Wall or plate thickness	9,615 mm		
4	Length	uactH1	Continuous undercut height	0,250 mm		0,9
5	Length	uactH1	Excessive convexity height	0,999 mm		2,094
6	Length	uactW1	Excessive convexity width	11,291 mm		

DIN EN ISO 5817 2023-07 EN Level: C						
No.	6525-1	Designation	Illustration	Thickness D	C	B
1	501	Intermittent undercut		50 mm	0,5 mm	0,5 mm
2	500	Excessive convexity		50 mm	0,5 mm	0,5 mm

CREATE CUSTOM STANDARDS

Design standards exactly as you want them – directly within our software. This allows you to implement standards efficiently and adapt them flexibly to your specific requirements.

IDENTIFICATION OF IRREGULARITIES

Once the survey has been completed, any irregularities can be assessed in accordance with DIN EN ISO 5817.

STANDARD TEST REPORT

To ensure comprehensive documentation, all results can be included in a complete test report, including the evaluation groups.

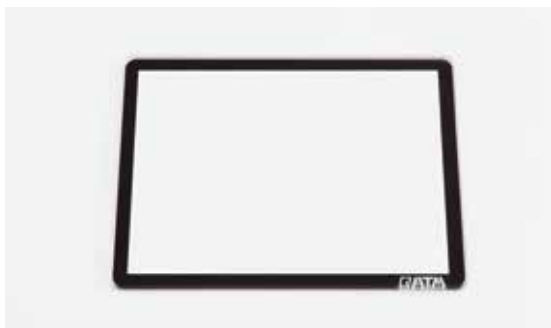
ACCESSORIES & TOOLS

PRECISE, CLEAN AND UNCOMPROMISING



OBJECT MICROMETER

A 50 mm object micrometer with a resolution of 0.1 mm guarantees easy and accurate control of optical magnification. Optionally available with a UKAS certificate.



SAMPLE CARRIER

Small but extremely important tools for analytical purposes are sample holders. Available in sets of five, made from aluminium silicate glass (Gorilla Glass).



FULLY-INTEGRATED SYSTEM SOLUTION

The new Qeye can also be integrated into a test lab table. Adapted to individual requirements, height-adjustable and optionally available with a hardness tester for every laboratory.



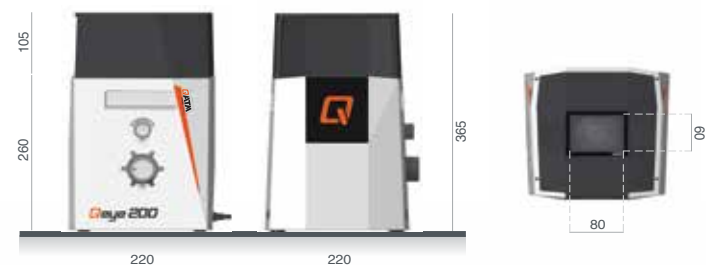
QEYE COVER

The Qeye shielding hood absorbs extraneous light and reflections are completely eliminated. Included as standard with every Qeye.



QATM CLEANING MATERIALS

High-quality microfiber cloths, cleaning cloths and special glass cleaners for a perfect shine. We recommend the use of specially-developed QATM cleaning material only.

Qeye 800**Qeye 200****INCLUDED IN THE SCOPE OF DELIVERY OF THE QEYE 200/800**

- I Set of 5 glass sample holders
- I Qeye cover
- I QATM microfiber cloth
- I QATM cleaner
- I Power supply and USB connection cable
- I Instruction manual
- I Accessories case

Qeye 800

	Qeye 800	Qeye 200
Field of view	80 x 60 mm - 16 x 12 mm (3.1 x 2.4" - 0.091 x 0.067")	23,7 x 17,8 mm - 3,7 x 2,8 mm (0,933 x 0,7" - 0,146 x 0,11")
Zoom levels	1x - 1.5x - 2x - 2.5x - 4x - 5x	0.63x - 1x - 1.6x - 2.5x - 4x
Camera	4K Ultra HD - 8.5 megapixel - USB 3.0	4K Ultra HD - 12 megapixel - USB 3.0
Illumination	IAI - LED unit (Intelligent Area Illumination)	IAI - LED unit (Intelligent Area Illumination)
Software	Qpix CONTROL²	Qpix CONTROL²
Machine operation	external PC system (Windows 11 64-bit)	external PC system (Windows 11 64-bit)
Dimensions glass sample carrier (L x W x H)	95 x 75 x 2 mm (3.7 x 3.0 x 0.08")	95 x 75 x 2 mm (3.7 x 3.0 x 0.08")
Max. sample weight	5 kg (11 lbs)	5 kg (11 lbs)
Interface	1 x USB 3.0	1 x USB 3.0
Power supply	100 - 240 V ~1/N/PE, 50 - 60 Hz	100 - 240 V ~1/N/PE, 50 - 60 Hz
Power consumption	Idle: ~35 W Operation: ~60W Max. ~100 W	Idle: ~35 W Operation: ~60W Max. ~100 W
Dimensions	220 x 220 x 260/365* mm (8.7 x 8.7 x 10.2/14.3") *inkl. Qeye cover	
Space requirement (L x W)	300 x 300 mm (11.8 x 11.8")	300 x 300 mm (11.8 x 11.8")
Weight	16 kg (35.3 lbs)	16 kg (35.3 lbs)
Ambient temperature	18 - 28 °C (64 - 82 °F)	18 - 28 °C (64 - 82 °F)
Humidity	maximum 70 % - non-condensing	maximum 70 % - non-condensing

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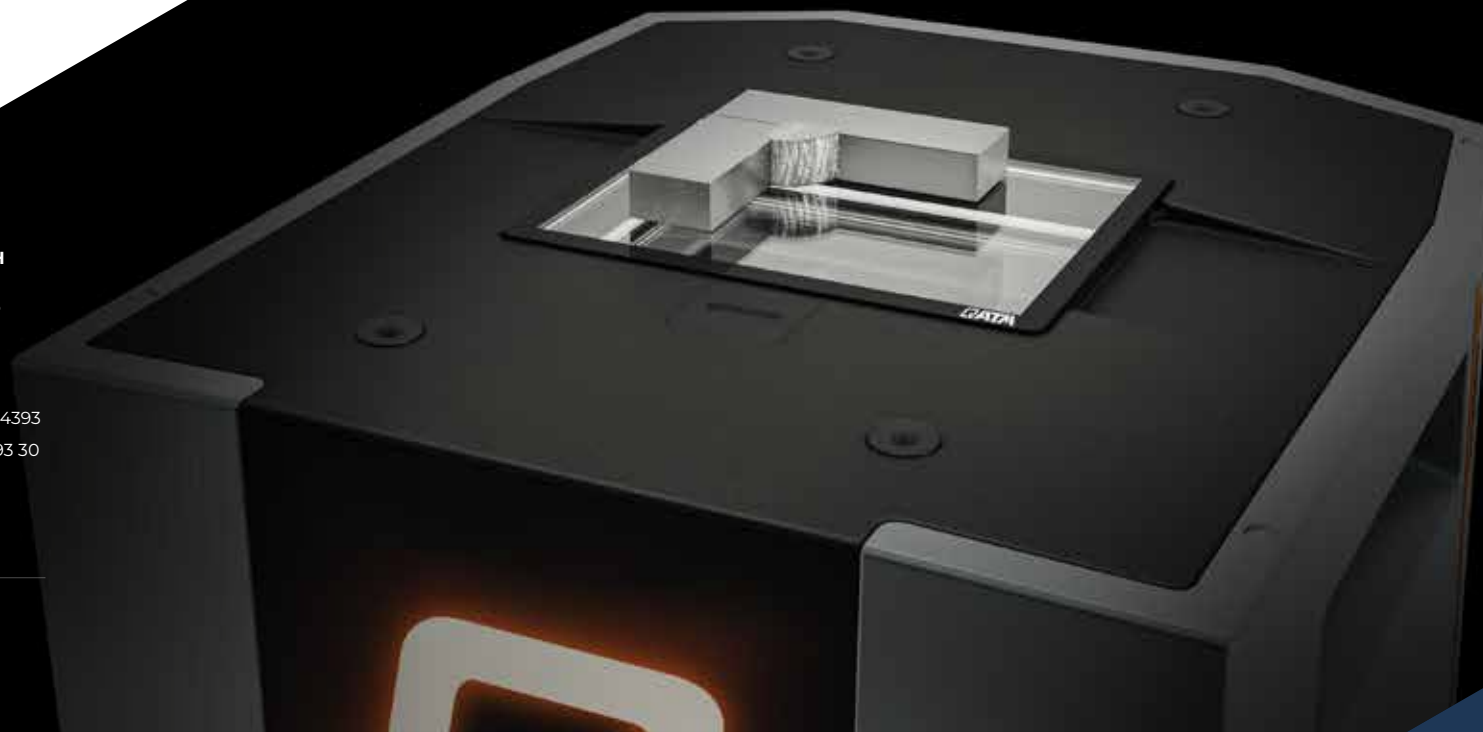
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