



INTEGRATED & INDEPENDENT QUALITY ASSURANCE

Discover the QA Solutions Overview

NEW

High-Resolution Patient QA with myQA® SRS
and MatriXX Resolution™

IBA Dosimetry – Who We Are



Innovating and Evolving Quality Assurance

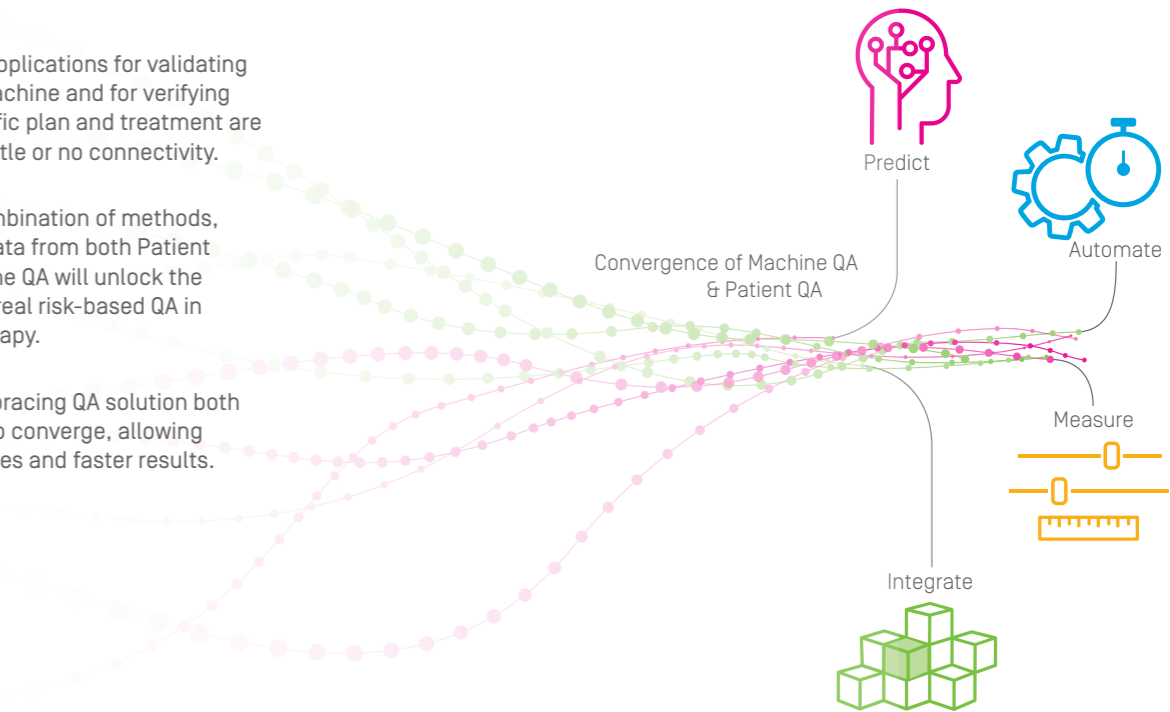
Leading Innovations in Quality Assurance

Through cutting-edge innovations, IBA Dosimetry has a long history of advancing Quality Assurance in Radiation Therapy, Proton Therapy and Medical Imaging. As we continue on this path, we are convinced that three drivers are essential to further innovate QA:

- Independence of QA solutions.
- Convergence of Machine QA and Patient QA.
- Smart synthesis of these four QA pillars: Measurement, Integration, Automation, and Prediction.

Today, most QA applications for validating the treatment machine and for verifying the patient specific plan and treatment are separated with little or no connectivity.

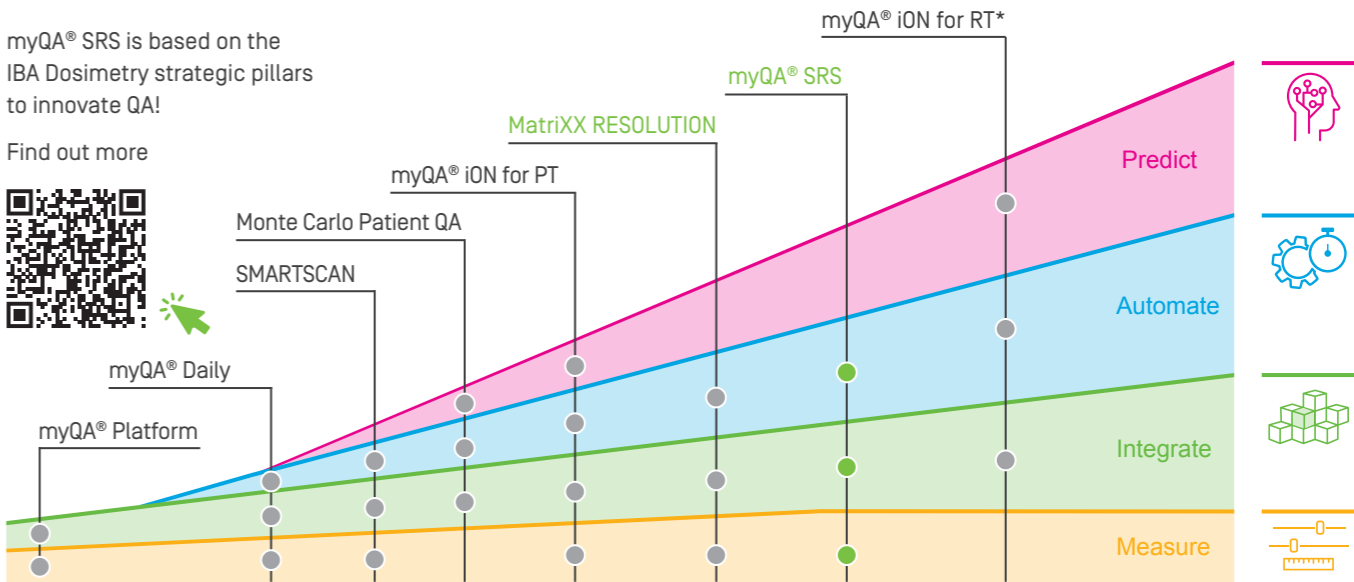
- The smart combination of methods, results, and data from both Patient QA and Machine QA will unlock the potential of a real risk-based QA in Radiation Therapy.
- For an all-embracing QA solution both strings need to converge, allowing better outcomes and faster results.



Innovation & Evolution of Quality Assurance

myQA® SRS is based on the IBA Dosimetry strategic pillars to innovate QA!

Find out more



* myQA iON for RT is currently not available for sale in the USA. The product may not be available in your area. For availability, please contact to your local IBA Dosimetry Sales organization.



Protect, Enhance and Save Lives

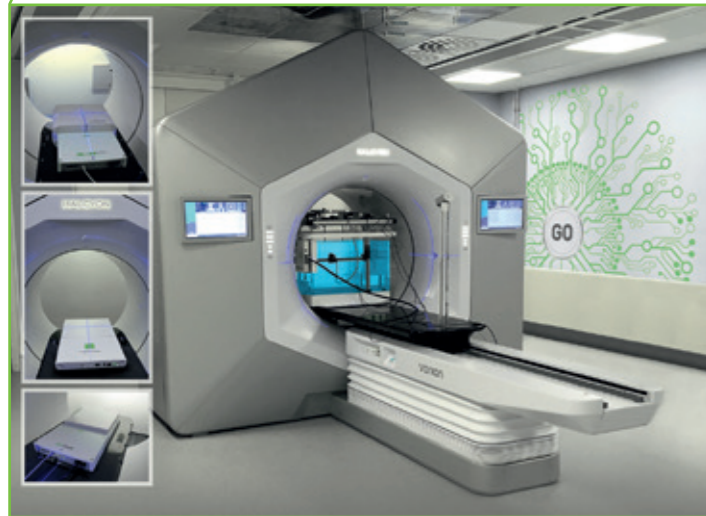
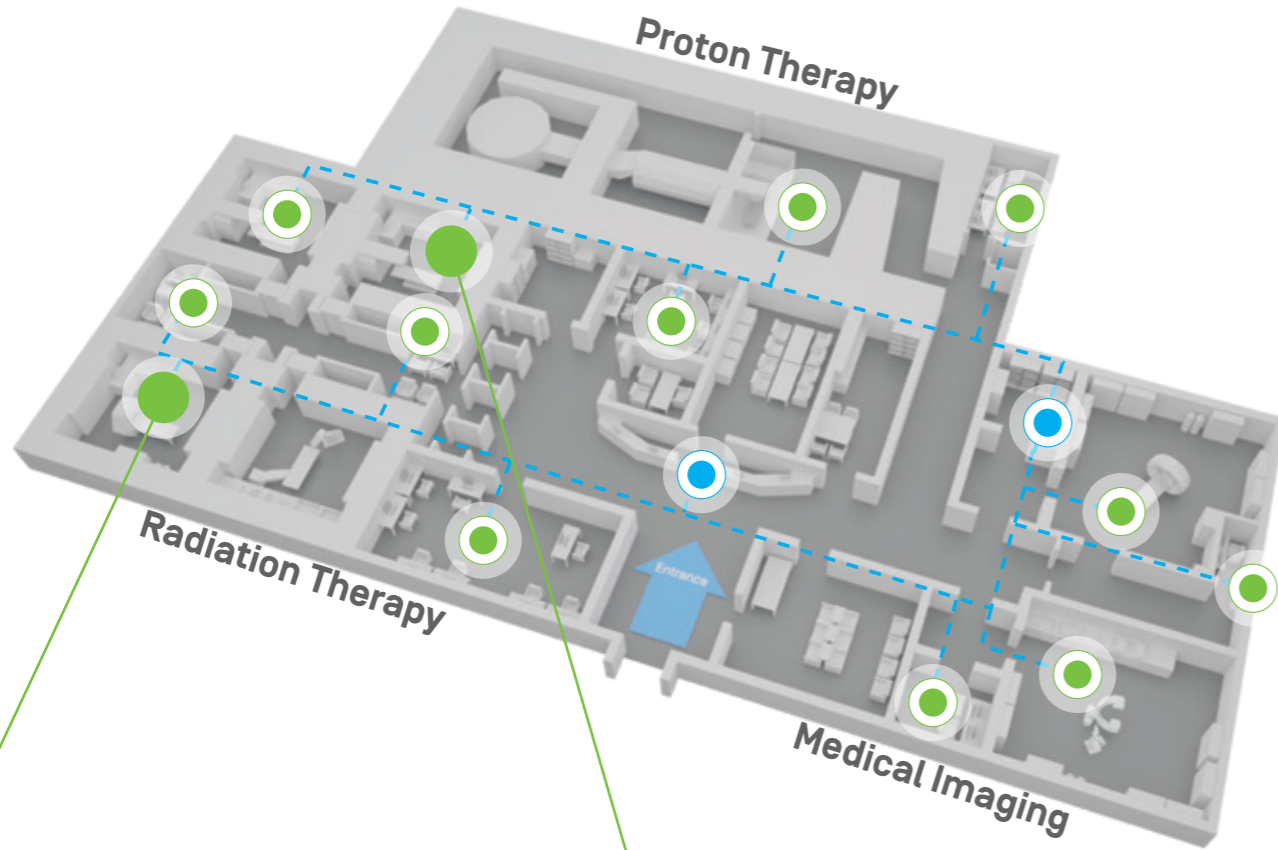
At IBA we share ideas and know-how with our customers and partners to provide innovative solutions for the diagnosis and treatment of cancer. Patient safety and the safe and efficient work of healthcare professionals are our top priorities. Together we achieve our mission to Protect, Enhance, and Save Lives.

IBA Dosimetry offers a full range of integrated and independent solutions for Quality Assurance, calibration procedures, as well as services that maximize efficiency and patient safety in Radiation Therapy and Medical Imaging.

IBA Dosimetry is the trusted partner of over 10,000 healthcare professionals to ensure better diagnosis and safer patient treatments.

Virtual Clinic

Experience your new QA solutions in a clinical environment



Clinical Presentations Hub

Learn from peers and experts on medical physics and dosimetry

Resolution and Algorithm problems

	kVAC		Carbonized Core			
	Beam 2%	Beam 5%	Beam 2%	3 mm	2 mm	1 mm
3mm line	89.2%	89.5%	82.8%	82.3%	81.0%	81.0%
2mm line	89.8%	89.6%	89.2%	89.9%	81.6%	81.2%
1.5mm line	89.8%	89.6%	89.2%	79.0%	78.1%	82.3%

TRS483 - The Formalism (Alfonso et al. Med Phys 35 (2008))

1 REFERENCE DOSIMETRY

$$D_{w,Q_{ref}}^{f_{ref}} = M_{Q_{ref}}^{f_{ref}} N_{D,w,Q_0} k_{Q,Q_0} k_{Q_{ref},Q} k_{Q_{ref},Q}^{f_{ref}}$$

Broad beam reference field f_{ref}

Machine specific reference field f_{msr}

Relative Dosimetry

$$D_{w,Q_{clin}}^{f_{clin}} = D_{w,Q_{msr}}^{f_{msr}} \Omega_{Q_{clin},Q_{msr}}^{f_{clin},f_{msr}}$$

Clinical f_{clin}

e.g. a GammaKnife clinical plan

Measurement Resolution: Accuracy needed for SRS QA

Standard SRS Detector: ± 30 point, No lead date, 3 mm Stereotactic Cone (z-axis)

myQA SRS Detector: ± 400 point, No gaps between points

10x10 mm² Stereotactic Field (zoom)

UNITED STATES OF AMERICA ONE CENT

Dr. Lutz Müller & Dr. Hui Khee Loee
 Dr. Lutz Müller, Senior Physicist & Director ICC, IBA Dosimetry
 Dr. Hui Khee Loee, Deputy Head of Medical Physics, University Oldenburg, Germany

3 min, (open access preview)
 28 min, (full presentation, logged-in members)

This first part focuses on the physical aspects and the challenges encountered during the dosimetry of small photon fields.

Discover the complete overview of QA solutions and user experiences interactively.

Visit the Virtual Clinic



Best Practices and Experience with Dosimetry & QA Solutions. Watch the teasers (open access).

Register to discover all presentations.



Independent & Integrated QA ...

... Fundamental for Patient Safety



1 Relative Dosimetry
Highest quality beam scanning for perfect Linac and TPS commissioning and annual QA

2 Machine QA
Daily, monthly, and annual treatment system checks ensure safe delivery

3 Patient QA
Accurate planning and dose calculation ensure best and safest patient-individual treatment plans

4 Treatment Safety
Peace of mind

Deficiencies in Radiation Therapy QA

Your Solution: Dosimetry Efficiency and Quality

- Suboptimal QA precision and accuracy#
- Lack of efficiency / time consuming
- Limited confidence in QA tools and processes

QA Quality

QA Efficiency

QA Peace of Mind

IBA Dosimetry is your most trusted partner for Integrated & Independent QA

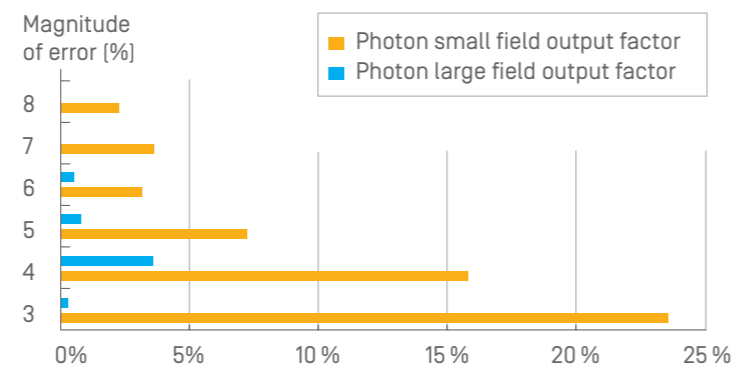
- ✓ **> 10,000 satisfied customers worldwide trust**
IBA Dosimetry solutions in Radiation Therapy and Medical Imaging
- ✓ **> 45 years of experience**
in dosimetry and QA
- ✓ **Leading Linac vendors rely on IBA Dosimetry**
for their Linac production and in their service organizations
- ✓ **1st high-end clinical training center ICC [International Competence Center]**
- ✓ **Secondary Standard Dosimetry Laboratory** accredited by SSDL / DAkkS / ADCL
- ✓ **1973: First computer-controlled water phantom**
introduced by Wellhöfer (predecessor of IBA Dosimetry)
- ✓ **2019: SMARTSCAN™**
the first automated and guided beam scanning
- ✓ **2020: Monte Carlo**
3D Patient QA and Beam Data Verification Audit
- ✓ **2021: myQA® SRS**
Film-class resolution digital detector
- MatriXX RESOLUTION™**
Highest resolution for IMRT & VMAT Patient QA
- 24/7 Help Center**
Instant access to service and support

Dosimetric Issues in Radiation Therapy

Radiation Therapy Deficiencies Identified During On-Site Dosimetry...

S. Kry et al.: IJROBP, Vol 99, 5, 2017 P1094-11000

Conclusions: "There is substantial room for improvement of dosimetric issues in RT. Particularly relevant was **suboptimal beam modeling** in the treatment planning system and **a failure to detect these errors ...**"



% institutions with errors in output factor



Click here

Independent Global QA Platform



All-in-One. All Connected. All Secure.

myQA is the proven solution for Integrated and Independent Quality Assurance. Nearly 1,700 healthcare centers in the world trust myQA as their global QA platform.

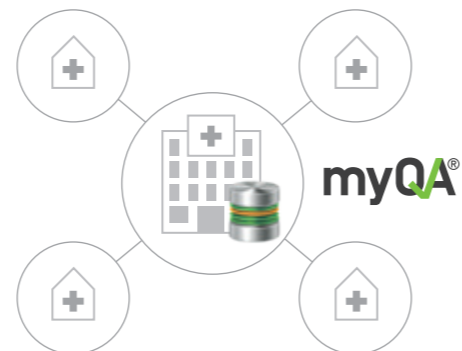
myQA is a complete Quality Assurance infrastructure consisting of advanced software applications that integrate tasks and protocols as well as phantoms and measurement hardware.

Additionally, the following service components ensure your clinic functions at peak QA performance, maximizing throughput and patient safety:

- myQA Coverage service packages for 24/7 phone & online support and frequent software and protocol updates.
- The RSS feed keeps you up to date with access to QA know-how, protocols, and information.
- Trainings (online and on-site at your facility).
- More information can be found on the Service & Support page of this brochure.

Integrating and Connecting People

- myQA integrates your QA across departments & sites.
- Connect all your department-wide QA for all your applications.
- Integrate your satellite hospitals. Maintain consistency and keep your full QA overview.
- Keep a record of all your QA data on one central server database.



myQA Suite. All-in-One.

myQA is the first of its kind QA platform that integrates your QA applications, processes, workflow, people, and data into one QA framework.

- **myQA Platform.** The central software connects all QA modules, people, and sites.
- **myQA Accept.** The beam commissioning and annual QA module.
- **myQA Machines.** The complete range of machine QA modules including imaging checks. This module includes individual tests to integrate any of your hospital specific tests in myQA.
- **myQA Patients.** The Patient QA and plan verification module.
- **myQA FastTrack.** For instant measurements, real-time results & analysis.
- **myQA Cockpit.** Overview of all essential QA data and status.
- Proton Therapy QA now connected to myQA!
- **New:** trending and tracking of myQA Daily tests in myQA Machines and myQA Cockpit.

All Connected.

- Integrate all your data and applications into one software platform and one Central Database (SQL).
- Accessible throughout your department and even satellites.
- Gain QA workflow efficiency including instant status management and due dates.

All Secure.

- Patient safety: myQA enables a fully holistic QA from your patients to your TPS and Linac validation.
- Full control of your QA data from one interface.
- Data safety and compliance with administration rights, central approvals, and reporting.
- Data integrity and traceability through a single central database.
- Reliable reporting of your QA for documentation and audits.

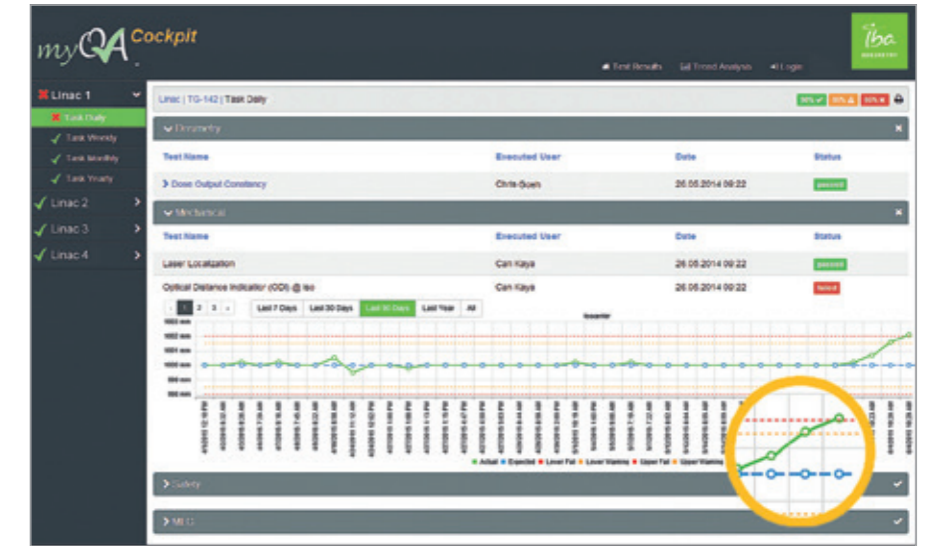




Machine QA Overview

Never Miss Any Key Information

- Have full confidence and control over all your Linacs, imaging devices, and other technology.
- In one view; verify which Machine QA tests have been completed or are still due for completion per schedule.
- Detect negative trends before major problems arise with Trend Analysis.



Your complete Machine QA status and overview for all Linacs and other machines, including trends and individual thresholds.

Patient QA Overview

Have Full Control and Confidence of Your Patient QA Status

- Immediately see which Patient QA tests are still due for completion per schedule.
- Use myQA Cockpit for Patient QA reviews and to put notes.
- Integrate Patient QA status overview from your satellite departments.

Patient ID	Family, First Name	Case	Due Date	Appr. Date	Approver	Appr. Status	Appr. Notes
1212	Jacobs Emilia	Breast	16.01.2016	15.01.2016 19:03	Smith	2 Approved	
1217	Middleton Barbara	H&N	22.01.2016			3 Open	
1214	Hilberts Kevin	H&N	21.08.2016	21.08.2016 16:24	Administrator	4 Declined	6
1216	Connermara Cathline	H&N	16.01.2016	15.01.2016 18:56	Holmes	5 Needs R	
1213	Smith John	Prostate	17.01.2016	15.01.2016 19:26	Miller	Approved	
1215	Hood Jeremy	Prostate	16.01.2016	15.01.2016 19:36	Smith	Approved	

Your complete Patient QA status: 1) Overview, 2) Status Approved, 3) Status open, 4) Status declined, 5) Plan revision needed, 6) Notes

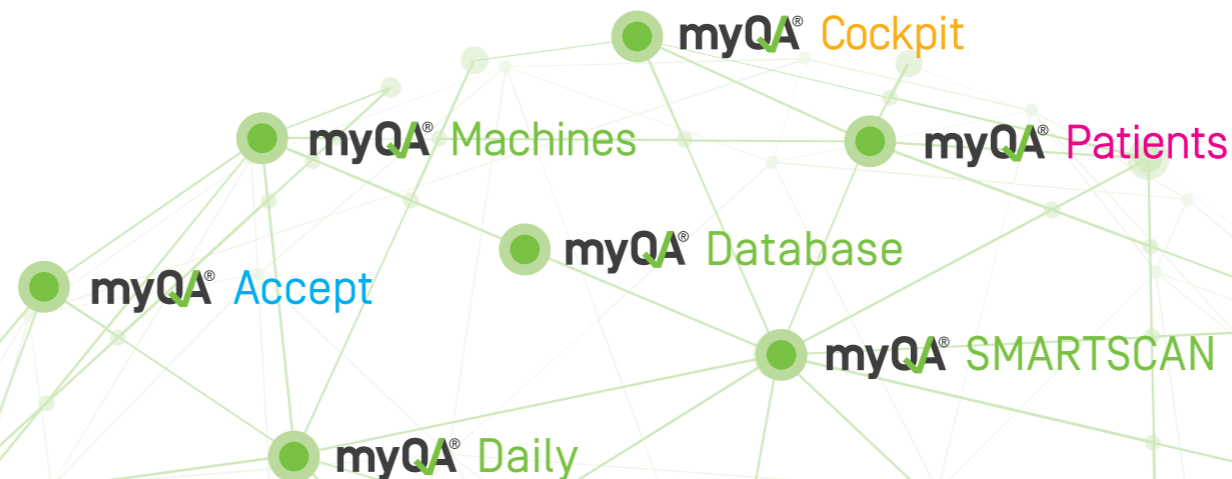
All Your QA Data at Your Fingertips. Anytime. Anywhere.

The myQA Cockpit is your browser-based interface that gives you all your essential QA data and status overviews in one intuitive application. Gain full transparency of your key information – in your department or even in your satellites!

- Instant QA overview with intuitive and clear reporting, accessible anytime and anywhere.
- Tracking of all QA applications.
- Quick access to your Patient & Machine QA status and test results.
- Track test execution and completion status per schedule.
- Confirm which QA checks passed or failed according to user applied filters.



Watch clinical user presentations
"Clinical experience with myQA"
James P. Nunn
Senior Medical Physicist, USA.



Integrated Beam Scanning & QA



SMARTSCAN™ transforms commissioning into a highly efficient, trouble-free user experience.

Automated and Guided Beam Commissioning & Annual QA

SMARTSCAN™ is the most precise and efficient solution to run your beam commissioning. SMARTSCAN™ is designed to give you the best possible beam data each time!



Quality. Automated.

- 100% Beam Data Quality.
- SMARTSCAN is designed to deliver optimal beam data quality.
- Every single scan is instantly checked to detect human errors.
- Suspicious measurements are flagged immediately.



Efficiency. Automated.

- 75% Less Commissioning Effort.
- Skip 98% of manual operations through SMARTSCAN automation.
- SMARTSCAN guides you safely through the entire commissioning.
- Enables faster clinical implementation of Linacs and TPS.



Peace of Mind. Automated.

- 100% Confidence in Your Commissioning.
- SMARTSCAN commissioning gives you the certainty that your TPS and Linac operate on a reliable database.
- Your foundation for the safe and accurate treatment of your patients.

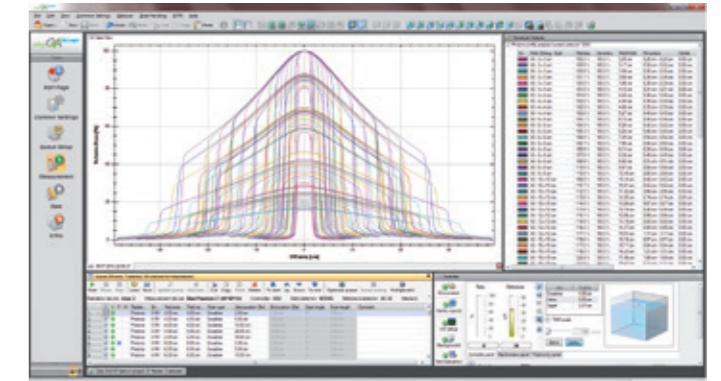
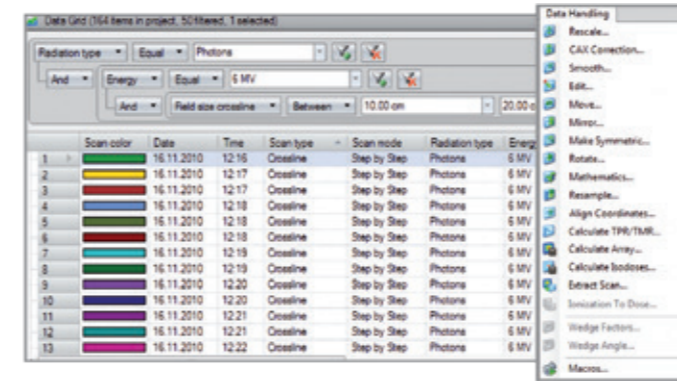


myQA® SMARTSCAN

- The software for scanning automation and user guidance throughout beam commissioning & annual QA.
- Software plug-in for myQA Accept.
- Compatible with the SMARTSCAN or Blue Phantom² water phantoms.

Integrated Software for Beam Scanning and Analysis

- Efficiency with menu-guided workflows.
- Use your commissioning scans as a reference with your other myQA applications [e. g. for Machine QA].
- Build your reference database of commissioning scans to compare with new installations and to match Linacs.



myQA Accept Workflow Efficiency

1. Queue Setup

- Automatic Queue Generation.
- Sorting, prioritizing, and optimization of scan queues to maximize efficiency.
- Intuitive setup of user specific queues.

2. Data Acquisition

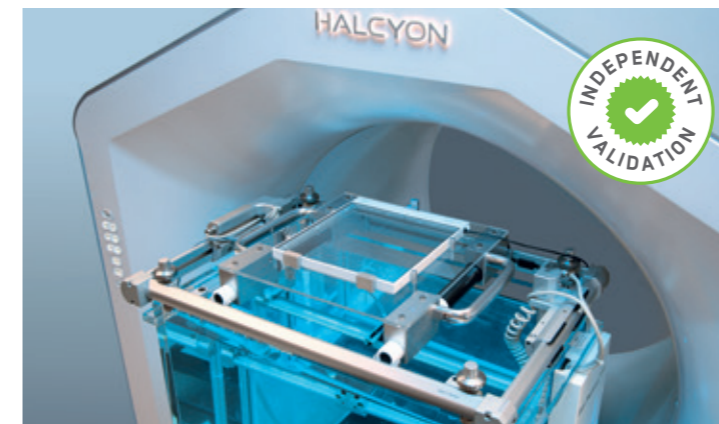
- Fast & automatic data acquisition with predefined queues for all major TPS.
- Fastest scanning with optimal resolution through scanning speed adaptation.

3. Data Handling & Analysis

- Accurate data analysis via standard and customizable protocols.
- Overlaying profiles for quantitative comparison.
- Library of mathematical smoothing and interpolation functions.

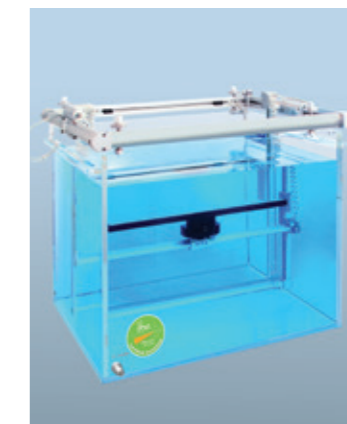
Integrated Hardware for Your Comprehensive Beam Scanning, Commissioning, and Annual QA.

- All water phantoms with certified positioning accuracy +/- 0.1 mm.
- Long-term mechanical stability and reliability.
- Unique 1 minute micro-leveling technology for accurate setup.



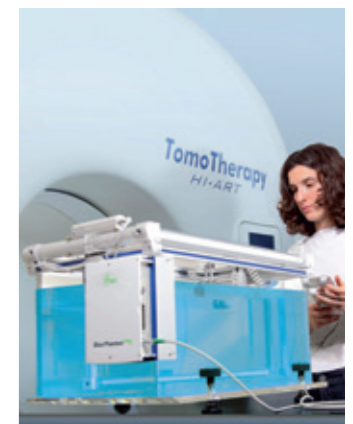
myQA HALO™ Integrated QA for Varian® Ethos™ / Halcyon™¹⁾

- The Commissioning & Beam Data Collection package for Halcyon™.
- Relies on the same beam scanning technology Varian® uses in the factory and for developing the Halcyon™.



Blue Phantom 2

- The world's most widely used 3D water phantom for faster highly accurate scanning.
- For complete Linac commissioning & QA.



Blue Phantom HELIX

- Commissioning & QA for TomoTherapy®.¹⁾

Blue Phantom COMPACT

- Compact footprint 2D high-end water phantom with minimized weight for easy transportation and for annual checks.

Integrated Machine & Imaging QA



myQA Daily – Fast and easy wireless setup and morning QA test results.

Integrated software and hardware for your comprehensive Machine and Imaging QA needs and for your individual tests execution and management.

myQA Daily

The Only Solution for Fast, Easy, and High-Quality Morning Linac QA.

- The largest number of ionization chambers of any morning QA detector provides more beam data for more accurate beam quality verification.
- The web-browser-based myQA Daily application allows flexible test execution from any network PC or tablet and easy access to test results.
- Compatible with Varian[®] Ethos[™]/Halcyon[™].¹⁾
- Rotating Holder: Measurements with Linac at 0°, 90°, 180°, and 270°.



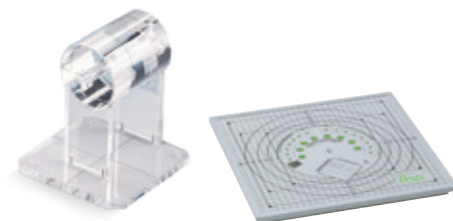
StarTrack

The Universal Machine QA Solution

- For advanced monthly & annual Machine QA.
- 453 air-vented ionization chambers.
- Compatible with Varian[®] Ethos[™]/Halcyon[™].¹⁾

Detectors for Machine QA dosimetry

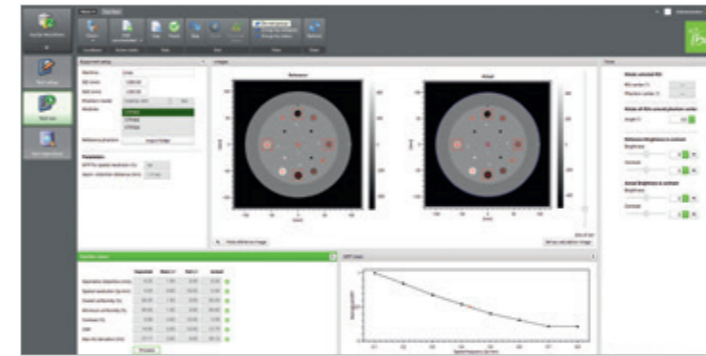
- Connect StarTrack, MatriXX or Dolphin detectors to myQA.
- All main tests in one shot: dose, profiles, diagonals, energy verification, etc.



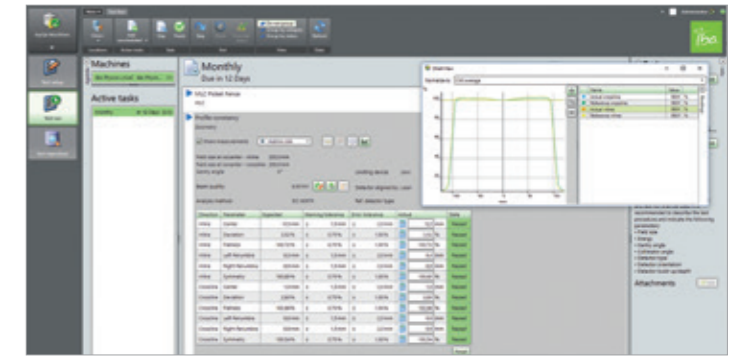
Multiple phantoms integrated

Integrated Software for All Imaging and Machine QA Needs

- Full test coverage: Dosimetry, imaging, MLC QA ... and more.
- Protocol-based and workflow-optimized tests.
- Easy access to all QA results and trends in myQA Cockpit.
- Reference your Machine QA data with your commission data.
- TG-142 and many more protocols included.
- Comprehensive analysis, archiving, and reporting tools.
- Flexible scheduling tool to manage your tasks, resources & time.



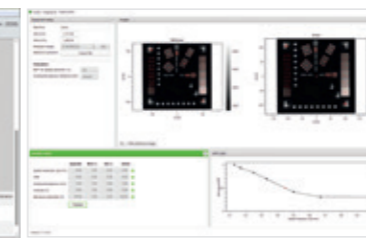
3D imaging QA (CT/CBCT)



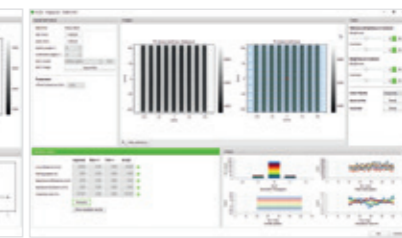
Dosimetry plug-in



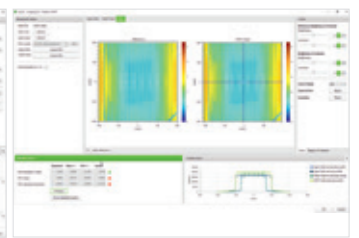
Winston Lutz Isocenter Check



2D imaging QA



Stripe tests ('picket fence test')



Dynamic MLC QA and VMAT QA

Individual QA Test: Integrate Any of Your Specific Tests



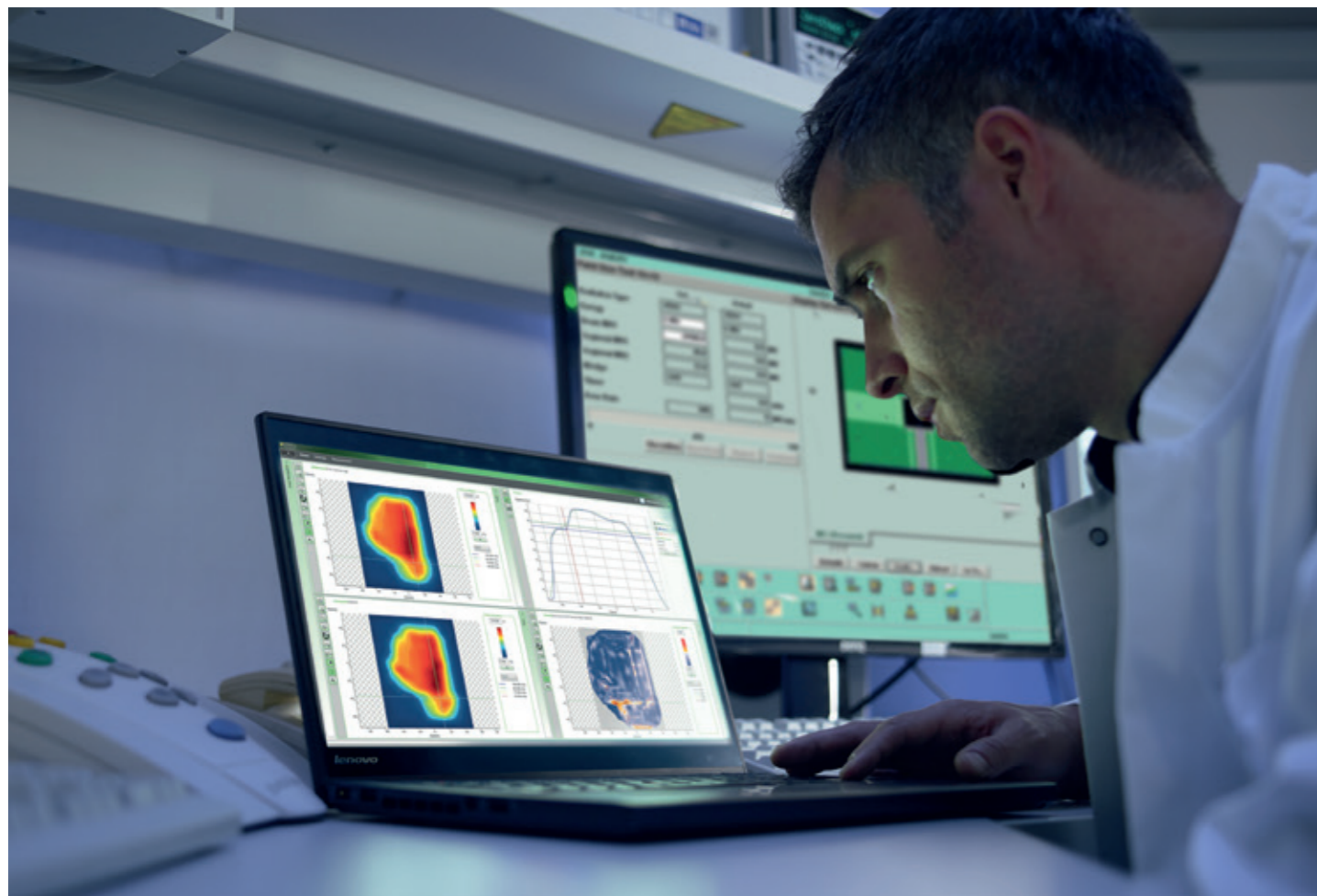
Doors? Check! Lasers? Check! ...

- Your individual QA checks and any other tests can easily be integrated with the myQA customizable generic tests functionality.
- Easily compose any test you need to check and document.
- Example: Check the temperature of your medicine fridge, check your room lighting or security locks ...

With the myQA's Individual Test feature we even integrate and track checks such as "Doors Locked" or "Oxygen Off".



James P Nunn, MS, CHP, DABR
Senior Medical Physicist
LewisGale Regional Cancer Center, Pulaski, USA



Smartly designed measurement tools and advanced integrated verification software are your basis for efficient & precise Patient QA. IBA Dosimetry offers dedicated solutions to ensure your independent patient plan verification is the fastest, most accurate and most reliable.

Patient QA Hardware

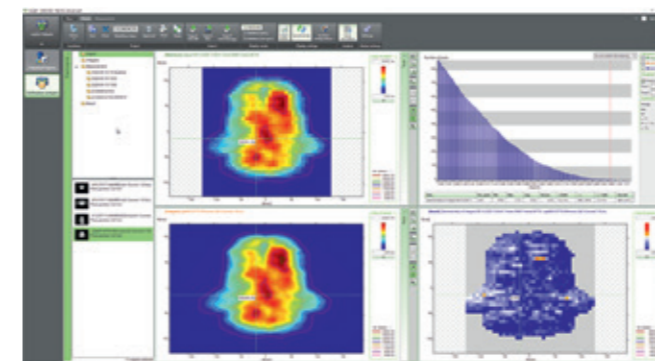
- Select from a wide range of dedicated solutions to ensure your patient plan verification is performed efficiently.
- MatriXX detectors support FF and FFF beams and support energies of all standard linac types.



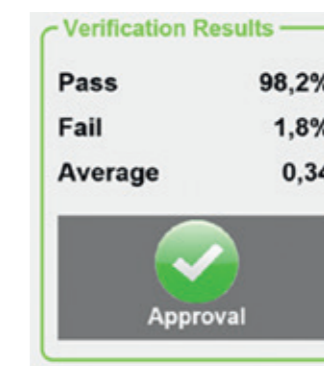
MatriXX detectors

Integrated Software for Patient QA

- 2D Patient QA application for IMRT, rotational, and FFF treatments. Patient QA workflow efficiency, including instant status management and due dates.
- Reliable reporting of your Patient QA for documentation and audits.
- Multichannel Film Dosimetry supported: Accuracy for IMRT, VMAT, and SBRT/SRS. Eliminates films/scanner artifacts. Supports high doses.



myQA Patients plan QA verification window



Automatic instant gamma results

1. Import & Manage Patients → 2. Measure → 3. Verify → 4. Approval & Report on the Database

Import & Full DICOM Interface

- Support of DICOM Listener, Query/Retrieve, file-based import, and DICOMDIR.
- Variety of supported dose & fluence map formats.

Quick Patient Overview

- Patient list filter by case or approval status.

Easy Measurements

- Intuitive operation with visual confirmations.
- Beam trigger mode.
- Field-by-field mode and combine fields.

Interface for Measurements

- MatriXX detectors: IMRT / VMAT measurements.
- myQA SRS: SRS / SBRT measurements.
- Film-based measurements.

Verification Efficiency

- One click workflow with automated Gamma results.

Verification Power

- Single/composite IMRT.
- Relative/absolute dose.
- Local & global gamma.
- Film analysis.

Approval Efficiency

- Electronic approvals with personalized comments.

Fast Reporting and Archiving

- Export your report as RTF, HTML or PDF file.
- Data export via ASCII/CSV.

myQA® Cockpit

Instant status overview of your Patient QA

The patients view of the myQA Cockpit provides full control over your Patient QA.

Gain a complete status overview with browser-based access – anytime, anywhere!

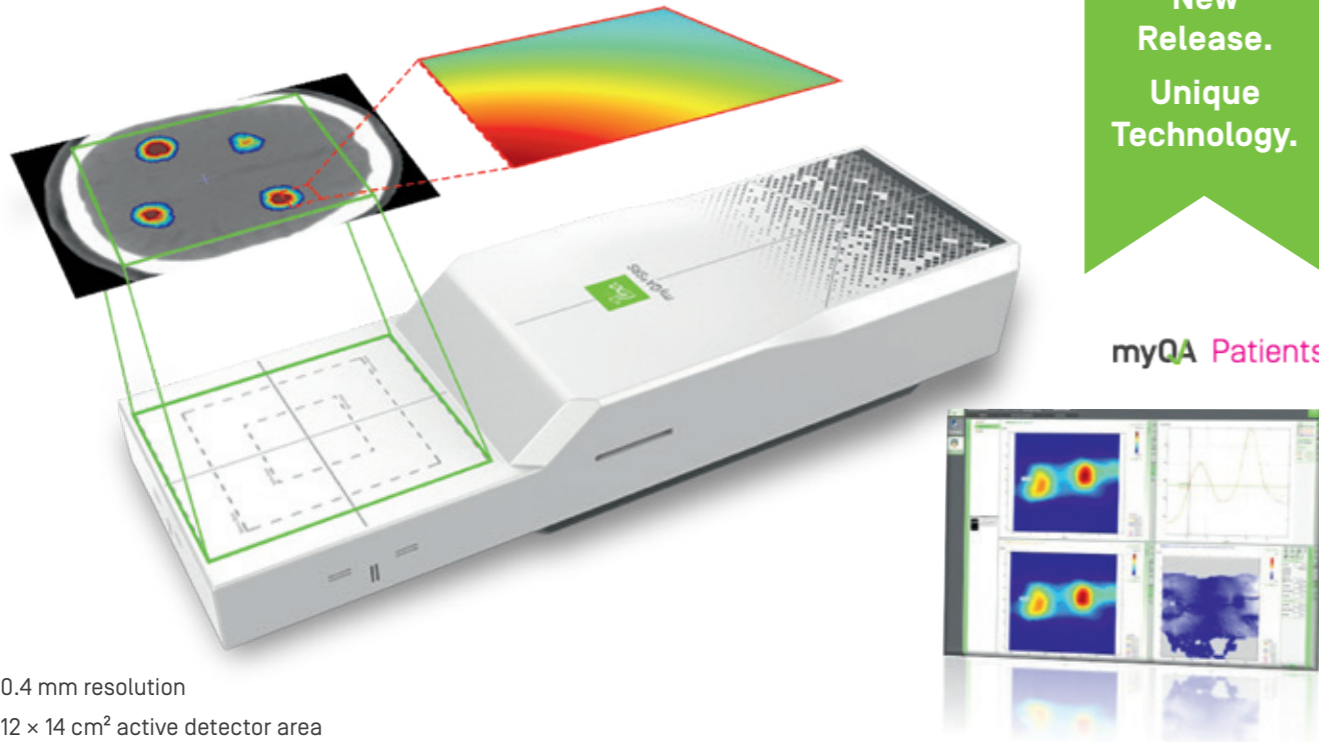
miniphantom R

Solid phantom with elliptical geometry used for optimal Patient and Machine QA.

Easy setup and handling for the MatriXX RESOLUTION, film, and ionization chambers.



SRS / SBRT Patient QA



New Release. Unique Technology.

myQA Patients

- ✓ 0.4 mm resolution
- ✓ 12 × 14 cm² active detector area

myQA® SRS

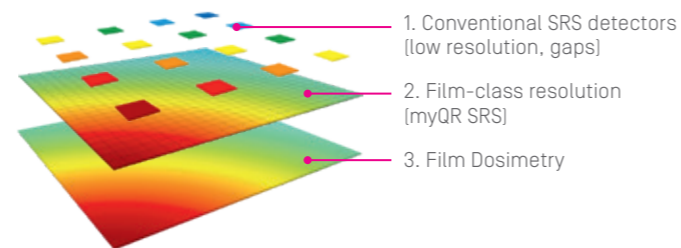
The power of SRS revealed!

The new myQA SRS for filmless digital patient plan verification combines the best of both worlds:

- Unrivaled resolution and accuracy of film QA,
- Proven efficiency of digital detector array workflow.

Film-Class Accuracy

- The unique digital solid-state pixel array provides submillimeter high-definition measurement resolution for all stereotactic cases.
- 105,000 pixels total with a 0.4 × 0.4 mm² center to center resolution.
- 12 × 14 cm² active detector area.
- Real measurements: No dose interpolations required.
- No missing data between measurement points.
- Avoids false QA results even for steep dose gradients.



Digital Detector Workflow Efficiency

- Straightforward SRS / SBRT QA workflow as easy as your proven IMRT QA procedures.
- Avoid time-consuming film dosimetry.
- Fast and straightforward SRS QA implementation.
- Easy and accurate detector setup with dedicated SRS QA phantom.
- Avoid "false results" as reported with standard detectors and save time by avoiding remeasuring and searching for source of errors.



IMRT & VMAT Patient QA



Now Available. 50% more data points.

myQA Patients

- ✓ 6.5 mm resolution
- ✓ 1,521 ionization chambers
- ✓ Battery operated, cable-free design

MatriXX RESOLUTION™

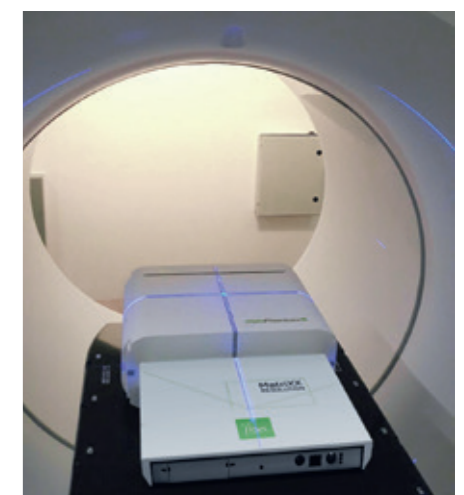
Highest resolution detector array in the market for IMRT & VMAT Patient QA accuracy and for Machine QA.

Outstanding Accuracy

- 50 % more measurement points compared to previous MatriXX detectors for highest IMRT & VMAT measurement resolution.
- 1,521 ionization chambers and 6.5 mm highest resolution for VMAT / IMRT.
- 39 ionization chambers for each centerline offer greater accuracy, especially in the penumbra regions.
- Wireless Gantry Sensor+ enables precise QA of rotational cases.

Unrivaled Efficiency

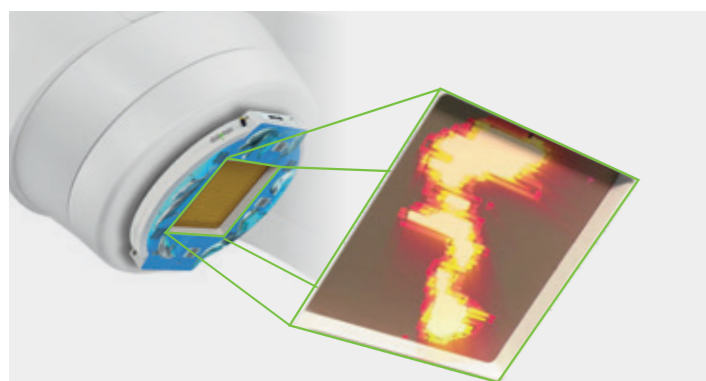
- MatriXX RESOLUTION is optimized for your workflow efficiency and ease of use.
- Fast and straightforward detector setup without cables.
- Complete wireless and battery-powered design.
- miniPhantom R: Solid phantom with elliptical geometry used for optimal Patient and Machine QA with the MatriXX RESOLUTION, film, and ionization chambers.
- Efficient measurements and verification with myQA® software.
- Support of FF/FFF beams. For standard C-arm Linacs, Varian® Ethos™ & Halcyon™ TomoTherapy®/Radixact®. ¹⁾



3D Patient QA



Image courtesy of Praxis für Strahlentherapie, Dortmund, Germany

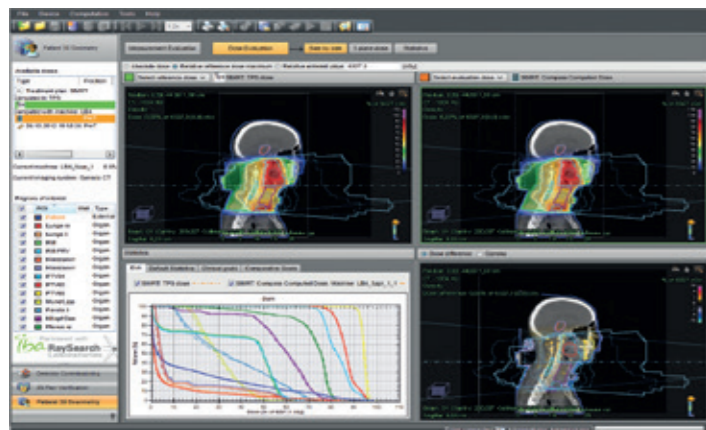


Real patient dose measurements and QA

DOLPHIN® Most Advanced 3D Patient QA Measurements

DOLPHIN real Linac output measurements for 2D and/or 3D plan QA for pre-treatment QA.

- High accuracy: 1513 ion chambers, 5 mm spacing (central area).
- Full field size: 40 x 40 cm² measurements in one setup.
- High efficiency: 60 sec. setup & readiness for QA measurement.
- 6MV and 10MV photon beams, flattened and FFF.
- Use DOLPHIN for Machine QA with myQA Machines.



COMPASS - 3D Patient Dose QA Software

Verification Certainty

- Reconstruct the real patient dose in the patient's anatomy based on DOLPHIN or MatrixX measurements.
- Understand the source of deviations and the clinical impact of the actual delivery.
- High accuracy powered by independent TPS-class dose engine.

Efficiency

- Instant automatic verification.
- TPS proven intuitive analysis tools (DVH/comparative Doselines).

Monte Carlo 3D Plan QA & Dose Check



SciMoCa provides the full overview whether the treatment plan is within constraints or not.

Monte Carlo 3D Patient QA Accuracy. Ensured.

SciMoCa™ establishes a new standard for accuracy and efficiency in secondary dose check and independent plan QA.

- Accuracy Ensured: Monte Carlo QA dose calculation accuracy.
- Performance Ensured: Workflow efficient and automated 3D dose calculations in < 2 minutes.##
- Confidence Ensured: Independent QA of the whole treatment planning process.

Accuracy

- SciMoCa achieves an accuracy of < 1% # and matches the precision of Varian's Acuros® Algorithm. 1
- Sophisticated Monte Carlo implementation and custom machine-specific Linac beam model.

Calculation Speed

- Truly impressive Monte Carlo calculation speed with optimized dose engine for full 3D calculations.
- Background calculation time example: Head & Neck VMAT (2 Arcs, 293 control points) is calculated in < 1 minute.##

Patient QA for all major Linacs

- SciMoCa supports: Elekta™, Siemens™, CyberKnife®, TomoTherapy®, and all Varian® Linacs including Halcyon™ and Ethos™.1

Metric Values	TPS	SMC	% Difference
Desophagus (Esophagus)			
D40% (< 50.00 Gy)	3.25 Gy	3.26 Gy	-0.31 %
DMean (< 34.00 Gy)	3.22 Gy	3.30 Gy	-2.58 %
Heart			
D33% (< 60.00 Gy)	3.71 Gy	3.81 Gy	-2.69 %
D67% (< 45.00 Gy)	1.33 Gy	1.38 Gy	-3.75 %
D100% (< 40.00 Gy)	0.11 Gy	0.11 Gy	0.00 %
DMean (< 26.00 Gy)	3.26 Gy	3.33 Gy	-2.29 %
Spinal Cord (SpinalCord)			
D0.01cc (< 48.00 Gy)	5.13 Gy	5.46 Gy	-4.44 %
DMax (< 45.00 Gy)	5.25 Gy	5.54 Gy	-5.58 %
Lunge lds (Lungs)			
D30% (< 20.00 Gy)	5.25 Gy	5.37 Gy	-2.29 %
DMean (< 20.00 Gy)	5.73 Gy	5.88 Gy	-2.62 %
PTV (PTV_1)			
D95% (< 95.00 % Rx)	84.15 % Rx	87.06 % Rx	-2.96 %
DMax (< 110.00 % Rx)	105.91 % Rx	98.47 % Rx	2.44 %

Automatic analysis and display of dose verification results



DVH & dose difference of TPS vs. independent Monte Carlo dose

SciMoCa published results: Gamma 2%/2 mm pass > 97%, with deviation SciMoCa vs. Acuros® of mean dose in patients < 1%; Hoffmann et al., Validation of the Acuros® XB dose calculation algorithm versus Monte Carlo. Med Phys. 2018
Calculation times on dual 8-core Intel Xeon E5-2690 server with hyperthreading (32 logical cores) for dose calculation with final statistical uncertainty of 1%.

Absolute Dosimetry Solutions



IBA Dosimetry offers a complete range of products including reference class electrometers, water phantoms and radiation detectors for dosimetry of photon and electron beams and radioactive stability check devices.

Reference Class Electrometers

Dose1

- Single Channel high-performance Reference Class Electrometer.
- Significantly exceeds the recommendations of the IEC 60731.
- Dose, dose rate, average dose rate, charge, current, and dose per monitor unit are measured and displayed simultaneously.

Dose2

- Dual-channel, high-performance reference class electrometers for measurements of absorbed dose.



Phantoms for Absolute Dosimetry

WP1D

- 1D stand-alone water phantom.
- For absolute dose measurements according to TG-51 and IAEA TRS-398 dosimetry protocols.
- Available as motorized or manual version.

WP34

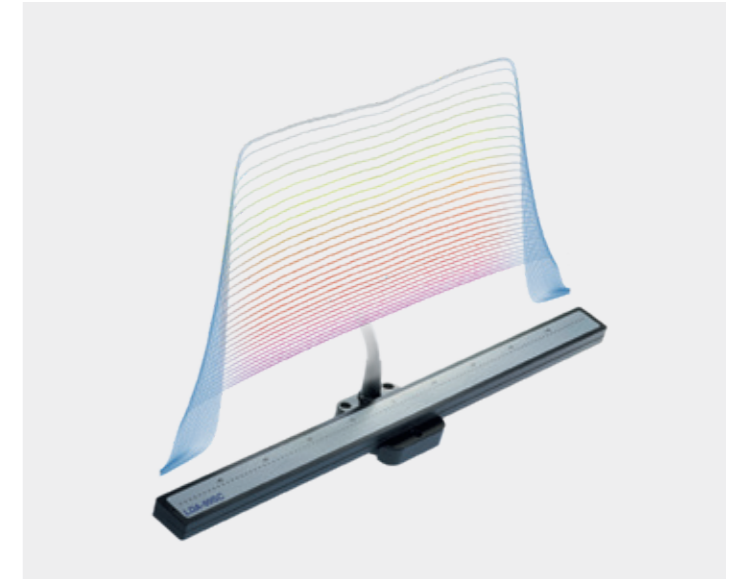
- Calibration Water Phantom.
- Absolute dose measurements with horizontal beam arrangement. For calibration of ionization chambers in RT.

Solid phantoms for absolute dosimetry

- Discover more on iba-dosimetry.com



Detectors



IBA Dosimetry offers a full range of ionization chambers and diode pSi semiconductor detectors for various 2D and 3D water phantom systems and solid phantoms.

Ion Chamber detectors are from our in-house production and have been extensively tested to meet the highest criteria in radiotherapy dosimetry.

Linear Diode Array – LDA99

- 5 times faster beam scanning, dramatically shorter commissioning times.
- Scans the complete profile at once.
- High resolution measurements down to 0.5 mm.

Small Field Dosimetry Detectors

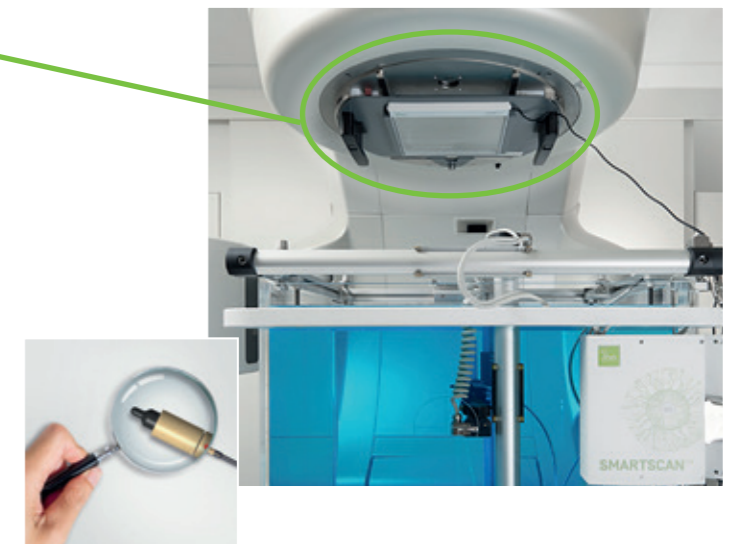
The ideal solution for SRS and SBRT beam commissioning and annual QA

Stealth Chamber – Unique Reference Chamber

- Patented “perturbation-free” design attached to the gantry for excellent reference signal quality.
- Eliminates frequent reference chamber repositioning and therefore dramatically reduces the need to enter the Linac room.

RAZOR – Ion Chamber and Diode Detectors Family

- Beam data accuracy for extremely small SRS/SRT field scanning.
- RAZOR NanoChamber: Smallest ionization chamber on the market with active cavity of 0.003 ccm.
- RAZOR Chamber: Compact air ionization chamber. Cavity volume 0.01 ccm.
- RAZOR Detector: High-performance diode detector.



Best Practices and Experience with Dosimetry & QA Solutions. Watch the teasers (open access).



Register to discover all presentations.

Independent Proton Therapy QA



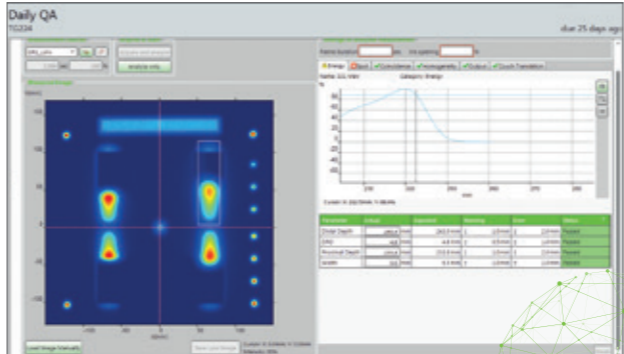
Select from a full range of dosimetry equipment tailored to the needs of your Proton Therapy center:

- Dedicated high-end solutions designed for PT treatment safety and QA efficiency.
- Unique innovations to minimize commissioning and QA times and maximize patient throughput.
- QA solutions designed for and used with all major Proton Therapy machines and vendors.

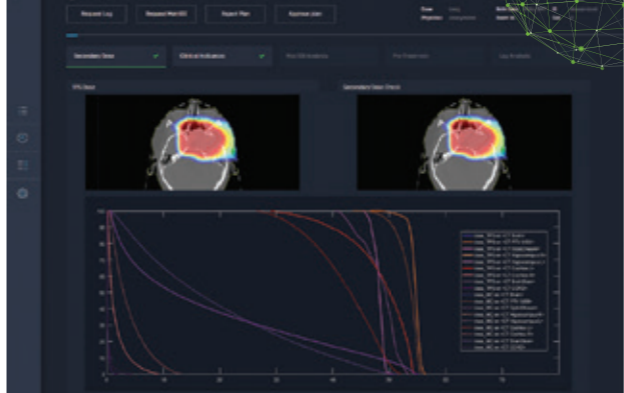
Integrated Machine QA for Proton Therapy

Analyze your machine parameters comprehensively in myQA:

- Visual pass-fail analysis.
- Trend analysis to detect deviations early and to ensure maximum machine uptime.
- Save all your QA data in a central database.



myQA interface for straightforward and efficient Machine QA verification using Lynx measurements.



Integrated Patient QA for Proton Therapy

myQA iON: The unique web-based Patient QA environment

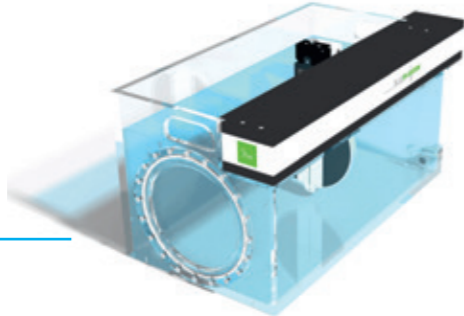
- 5 times faster Patient QA with PT log file QA.
- Independent Monte Carlo QA accuracy.
- Automation, background processing, and task based workflow management.



myQA® Phoenix – high-resolution digital detector array with > 4 million pixels and 0.2 mm resolution



Blue Phantom PT – water phantom with **Stingray** large integral chamber for PBS



Blue Phantom² – 3D water phantom

Zebra – single-shot Bragg peaks & SOBP measurement



Giraffe – single-shot Bragg peak measurement



Sphinx/Sphinx Compact – your daily QA in one shot

Lynx PT – daily machine parameter verification



DigiPhant PT – fast 2D/3D dose measurement in water



MatriXX PT/ONE – your ultimate high-dose-rate detector arrays

Machine Log File – 3D analysis with myQA iON



QA for Imaging in Diagnostics & RT



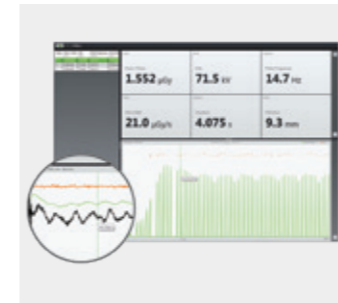
Advanced Image and Beam QA Solutions for CT-sim Systems in Radiation Therapy.

IBA Dosimetry is your full QA solution partner for quality control in Medical Imaging:

- Better image quality for improved diagnosis and therapy.
- Advanced imaging dose control for patient safety.

Safer Imaging, Better TPS Contouring

- Innovative Quality Assurance (QA) devices for x-ray dose and image quality checks, as well as QA of diagnostic displays.
- Patient dose monitoring solutions for x-ray imaging systems.



Beam QA

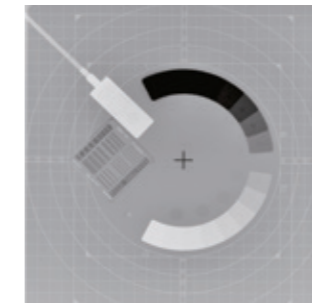
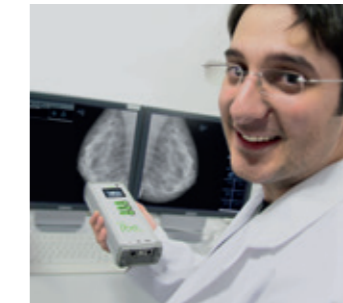


Image QA



Display QA



Patient Dose Monitoring

Multimeter MagicMaX Universal

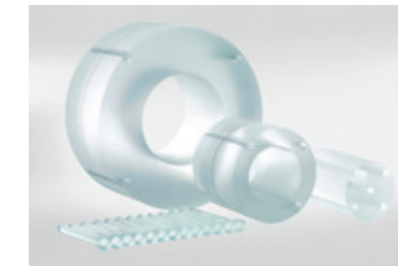
High-end multimeter solution for Beam QA in all x-ray modalities and for CT/CBCT

- Supports all x-ray modalities through exchange of detectors and ionization chamber.
- Complete solution kits available.



Imaging phantoms and test plates

- Test plates for 2D image quality checks.
- CT/CBCT Phantoms.



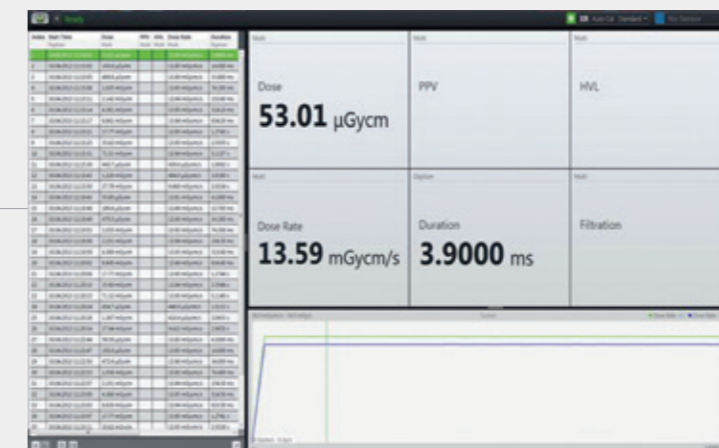
QA Application for RT Imaging Devices

- Beam dosimetry and kV imaging QA for applications in RT (e. g. for CBCT, OBI, and CT-Sim. 2D/3D imaging).
- Linac imaging: In a single exposure, evaluate your kV beam, flat-panel imager, and imaging dose.
- CyberKnife®: Unique efficiency through support of serial exposures.



1) Setup test plate & MagicMaX XR multidetector for QA of kV imager

1 exposure



2) Comprehensive instant analysis of imaging dose

Name	Expected	Actual	State
100 kV	6,56	6,56	Passed
130 kV	10,25	10,30	Passed
150 kV	13,00	13,20	Passed
50 kV	1,60	1,60	Passed
70 kV	3,30	3,34	Passed

3) Reporting in myQA

Service and Support



24/7 global telephone support by trained & certified engineers

24/7 Support When YOU Need it!

The new IBA Dosimetry Help Center:

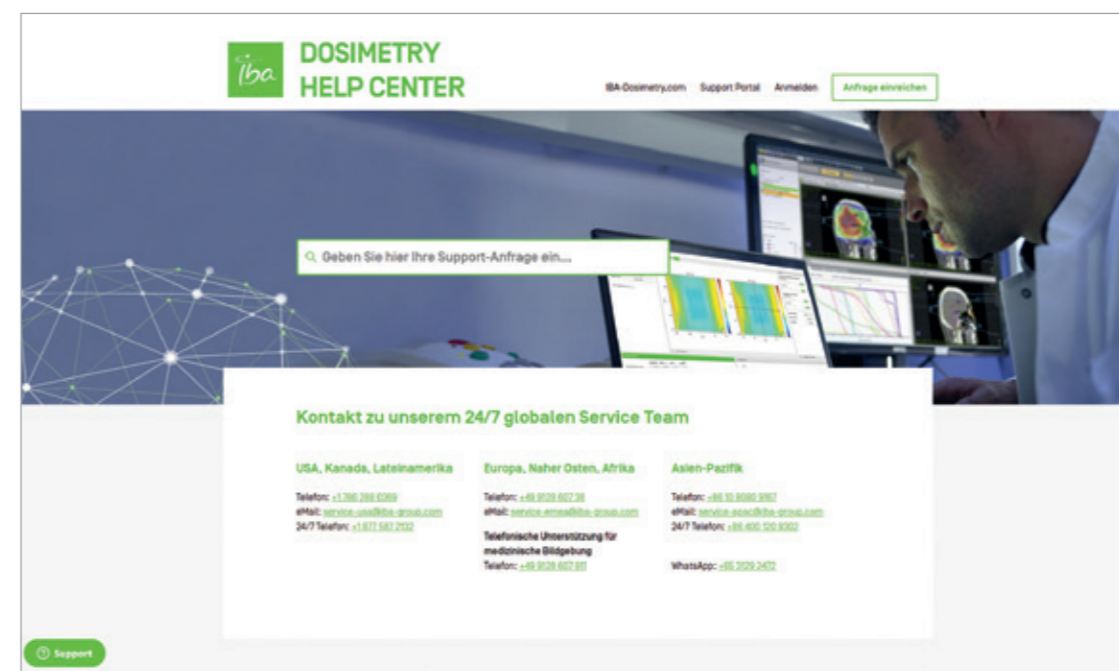
Connect with our 24/7 Global Support Team, whenever and wherever you are!

Your direct access

- to our global customer support team
- to your support ticket status
- to our knowledge base with more than 800 support articles

Manage the list of your IBA equipment, view service reports, and view information related to warranty and contract expiration.

Free for contract customers. Contact your IBA service organization for more information and availability.



Your IBA Dosimetry Help Center: helpcenter.iba-dosimetry.com

The new IBA Dosimetry Help Center gives me direct access to customer support at any time: I can easily check the status of my support tickets and directly comment on them. In addition, the knowledge base provides me and my colleagues with fast access to product information and many helpful support articles.

Mathias Dierl,
Chief Medical Physicist,
Klinikum Bayreuth, Germany

Service Accessibility. Service Quality. Service Assurance.

At IBA Dosimetry, service is about how we care for our customers. It is our aim to deliver the utmost service quality, service accessibility, and service assurance! Discover how our team supports you to ensure your equipment's peak performance and to protect your investment.

With over 45 years of experience keeping clinics running efficiently and safely, you can be assured that our 3 service teams and additional service partners around the globe are there to support you when you need help.



Education & Trainings

Gain leading QA knowledge and ensure best practices!

- The Clinical Presentations Hub: Learn from peers and experts.
- IBA Academy and the International Competence Center (ICC).
- Expert led workshops with hands-on practices.
- Training webinars and videos.
- Remote and on-site coaching services.



Service Accessibility

- Online Help Center.
- Expert telephone support.
- Trained & certified technical engineers.



Service Quality

- Customizable and affordable service packages.
- Onsite installations & commissioning services.
- Calibration services (IBA Secondary Standard Dosimetry Lab).
- Factory-based precision preventative maintenance & certification.



Service Assurance

Secure your convenient service program with our coverage contracts. Enjoy a maintenance schedule planned in advance, so you can focus your time where it is needed the most. Ensure years of peak performance of your QA hardware and software right from the start.

- Customizable coverage contracts tailored to your needs.
- 24/7 expert hotline.
- Regular software updates with myQA Coverage.



Visit our Help Center at helpcenter.iba-dosimetry.com



IBA Dosimetry

Notes



IBA Dosimetry GmbH headquarters in Schwarzenbruck near Nuremberg, Germany

Improving patient treatment safety through innovative, integrated & independent Quality Assurance solutions

At IBA Dosimetry, we innovate Radiation Therapy and diagnostics through integrated and independent Quality Assurance solutions that are efficient, intuitive, and provide peace of mind to you and your clinic!

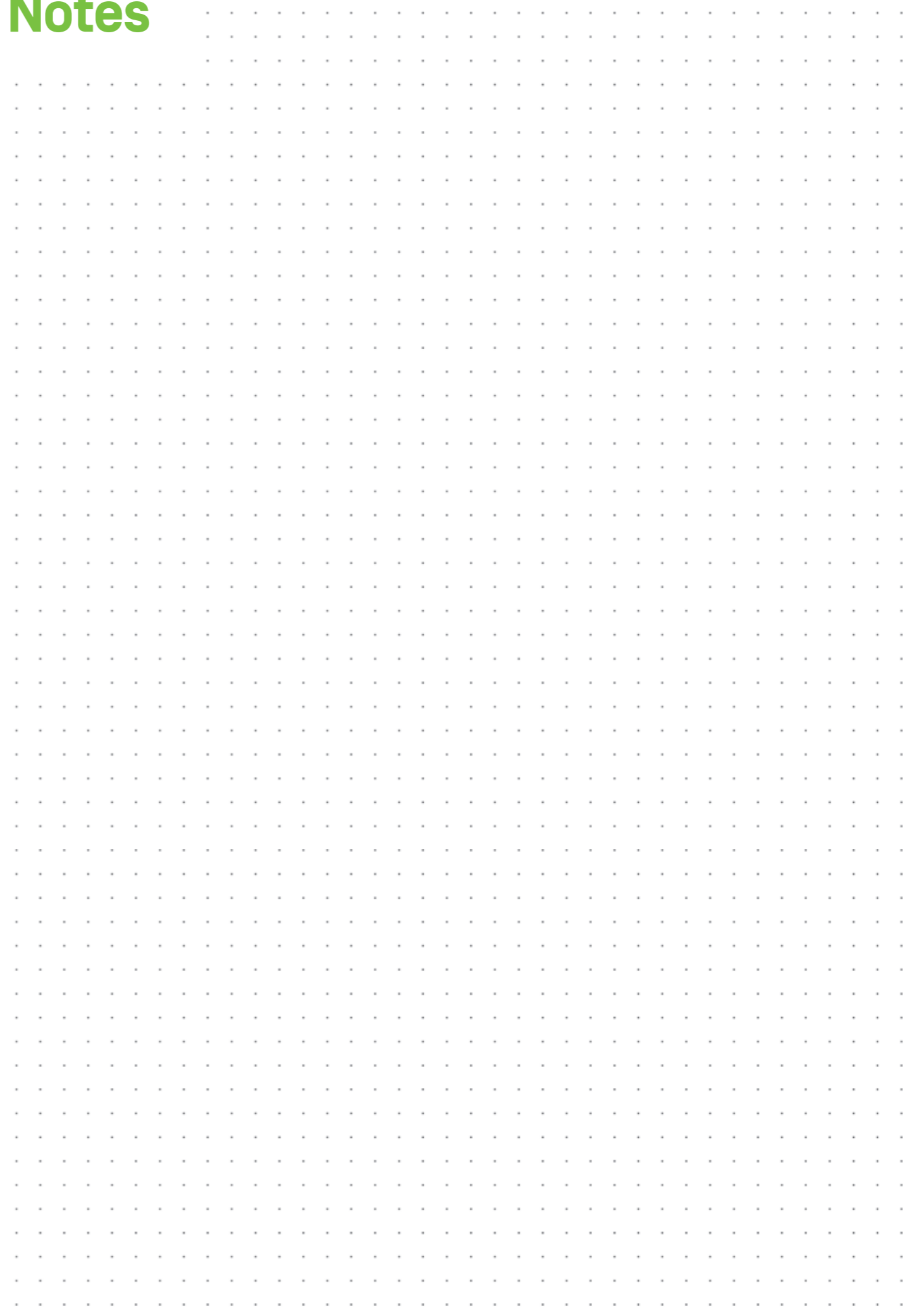


Secondary Standard Dosimetry Laboratory

IBA Dosimetry operates a Secondary Standard Dosimetry Laboratory accredited by SSDL/DAkks/ADCL:

The basis for highest quality IBA Dosimetry products and services.

Through the SSDL we offer high-end calibration services of dosimeters & detectors, electrometers, and metrological control for Linac and ⁶⁰Co irradiations.



PROTECT +
ENHANCE +
SAVE LIVES






Join Us in the Fight Against Cancer

IBA Dosimetry has worldwide recognition in its field by developing and supplying the world's top healthcare institutions with precise, efficient, and reliable Quality Assurance solutions. If you are passionate and cause-driven, you can make this quest yours.



FOLLOW AND STAY UP TO DATE

-  [Linkedin.com/company/iba-dosimetry-gmbh](https://www.linkedin.com/company/iba-dosimetry-gmbh)
-  [Twitter.com/ibadosimetry](https://twitter.com/ibadosimetry)
-  [YouTube | youtube.com/user/ibadosimetry](https://www.youtube.com/user/ibadosimetry)

IBA Dosimetry

Independent & Integrated Quality Assurance
Europe, Middle East, Africa | +49-9128-6070
North America and Latin America | +1 786 288 0369
Asia Pacific | +86-10-8080-9288
dosimetry-info@iba-group.com | iba-dosimetry.com


DOSIMETRY