

Iba



dolhin[®]

Online Treatment Monitoring*

Online Care, Online Control, Online Confidence

iba-dosimetry.com

dolphin® Online Treatment Monitoring and much more!

dolphin® provides you with online control and online confidence of treating your patients exactly as planned – until the last fraction delivered. Dolphin is your unique solution for better patient care and maximized treatment safety.

High-resolution, high-accuracy detector array

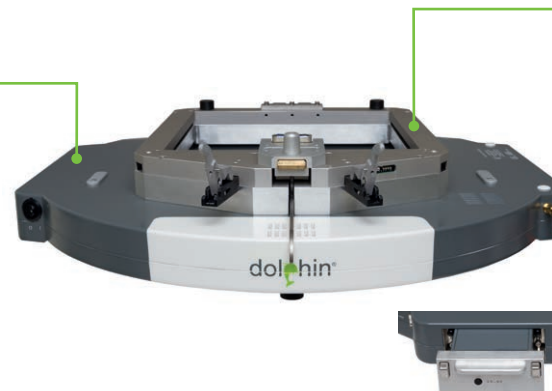
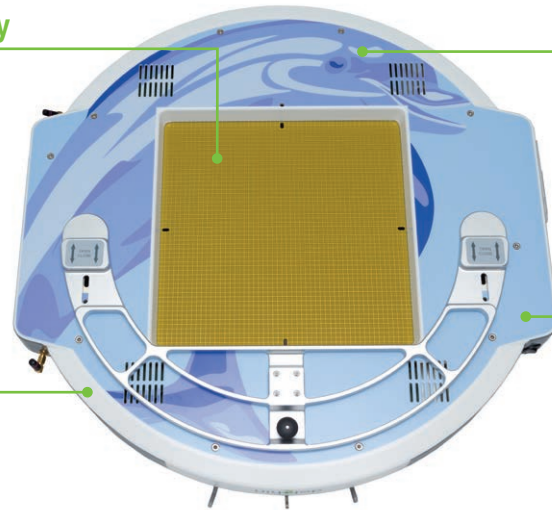
- Measures the actual treatment instead of pre-treatment beam
- Detector is perpendicular to the beam, no angular dependence

Optimized for rotational treatments

- Built-in angle sensor
- Measure beam segments per gantry angle and time (4D)

Slim design

- Maximum clearance
- Supports SRS / SBRT cases with non-coplanar beams



Unique patient-friendly design

- Higher patient comfort and peace of mind for better treatment compliance
- More relaxed and stable patient which leads to a better outcome

Unique: Online confidence from the plan to the last fraction

- **Online** patient treatment monitoring during each fraction
- **Pre-treatment** TPS plan verification supported

Easy attachment

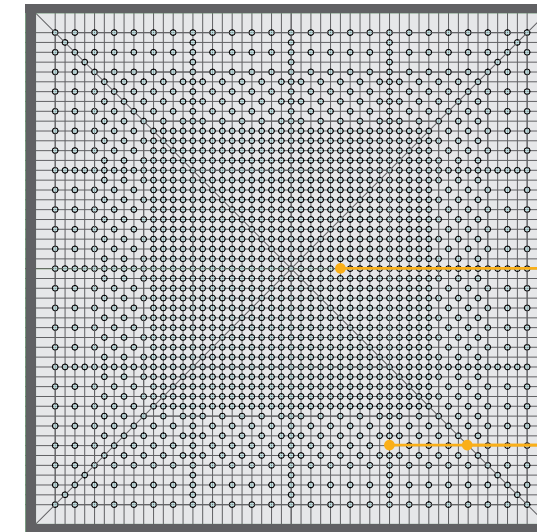
- Linac head accessory mounts supported
- Accessory mounted coding supported

Cable-free design

- Wireless data connection
- Battery powered, easy to exchange in seconds



dolphin® Designed for Efficiency



Designed for online verification and pre-treatment QA

Detector hardware ready for Machine QA

Use Dolphin measurements for machine QA with future release of *myQA Machines***

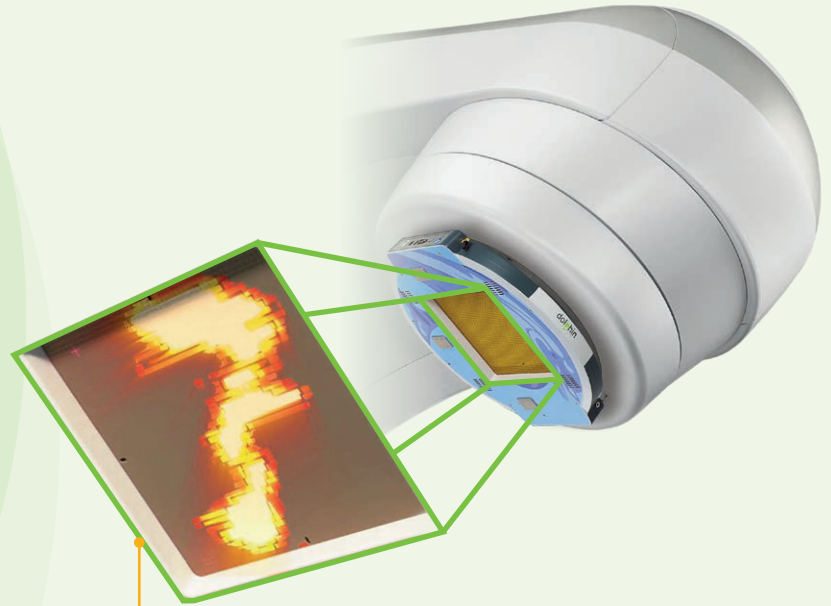
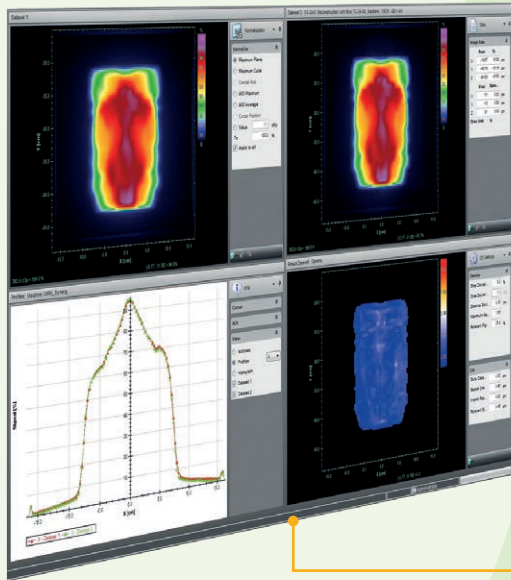
dolphin® High sensitivity:

- 1513 ionization chambers, 5 mm center to center spacing in the central area
- Fluence generated from the detector response
- High resolution Monte Carlo modelling of the detector response (learn more from White Paper on iba-dosimetry.com)

dolphin® Designed for efficiency:

- Multifunctional detector for
 - pre-treatment QA
 - online treatment monitoring per fraction
 - Machine and Morning QA in the future**
- Dolphin is ready anytime for your QA without the typical hardware setup
- Full 40 x 40 cm² treatment field size coverage

dolphin[®] Pre-Treatment Verification



dolphin[®] – Your efficient solution for pre-treatment verification

- No detector setup required: Dolphin QA measurements are possible at anytime
- Avoid after hours QA measurements
- Transmit your measured data wirelessly for efficient verification at your QA console



ONLINE Care™

Online measurement of treatment



dolphin® provides Online Care by enabling a safer and more positive treatment experience

- Dolphin's friendly design supports the therapist in comforting the patient for more compliant and accurate treatment delivery
- Dolphin measures the actual delivery during the patient treatment
- Measured detector response is transmitted wirelessly to the Dolphin workstation at the treatment console



ONLINE Control™

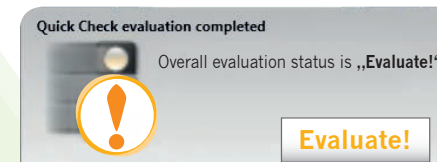
Fraction by fraction online control



Therapist confirms correctness of each fraction

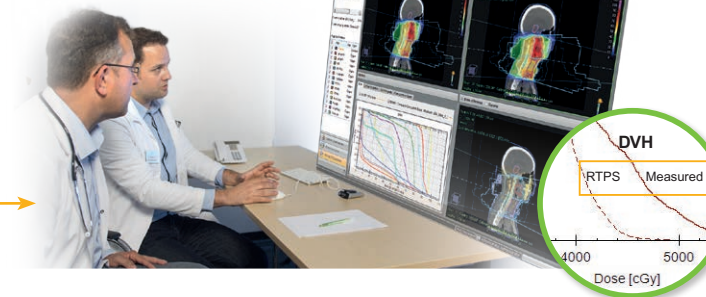
dolphin® QuickCheck: Online treatment evaluation immediately after each fraction

- Gain full online control that each fraction was delivered as planned
- The QuickCheck functionality automatically analyzes the delivered fraction vs. the plan
- Automatic verification results for "OK" and "Evaluate" can be set according to your individual thresholds
- Seamless integration into therapist's workflow



- The QuickCheck functionality automatically detects fraction discrepancies
- A notification message is displayed within seconds after the treatment
- Notifications can be sent automatically via email for further evaluation

The Physicist and Radiation Oncologists evaluate the case using IBA's comprehensive 3D / 4D verification software



- Proven TPS tools support quick evaluation and decision making
- Determine when re-planning or plan adaptation is required, or if machine specific tests are necessary
- Understand the clinical relevance of discrepancies with DVH and 3D patient anatomy



ONLINE Confidence™



dolphin® provides you with full confidence until the last fraction!

- Have confidence that the entire treatment was delivered safely
- Reporting: Document safe delivery with your detailed online treatment monitoring report





dolphin Online Control – detect errors after your pre-treatment QA

- Different plans used for pre-treatment check vs. patient delivery
- Detect data transfer errors within the treatment chain
- Errors of the Linac: Beam line issues, MLC deviations, dose rate changes, sudden flatness/ symmetry drifts, gantry / collimator positioning errors, etc.

dolphin Specifications

Outer dimensions	600 mm (Ø) x 57 mm (h)
Weight incl. battery	12 kg / 26.45 lbs (ca)
Detector field size	40 x 40 cm ² ; Full treatment fields supported (Detector size of 24.3 x 24.3 cm ²)
Detector resolution	5 mm high resolution in the inner 15 x 15 cm ² detector area (center to center distance). Chamber board layout with central detector and dedicated patterns to support future machine QA (diagonals, MLC check layout).
Ionization chamber specs	1513 air-vented plain parallel ionization chambers of 3.2 mm (Ø) x 2.0 mm (h); Chamber volume 0.016 cm ³
Sampling time	20 ms sampling time; Parallel readout of 1513 Ionization Chambers
Nominal sensitivity	1.8 nC/Gy (measured in transmission in central detector area with 1 Gy at isocenter at 5 cm depth with a 10 x 10 cm ² field and 6 MV photons)
Angle sensor resolution	+/- 1 °
Data connection	WiFi acc. to 802.11 g/b; Ethernet optional for test purposes
Battery life (max)	2 x 5 h for battery-powered function supporting a full treatment day; LED charge indicator included
Software	Dolphin is optimized to support pre-treatment as well as online plan verification using advanced software for comprehensive 3D patient anatomy based dose analysis



Find out more at iba-dosimetry.com or
at [YouTube.com/user/ibadosimetry](https://www.youtube.com/user/ibadosimetry)

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* Dolphin is pending release.

** myQA support of Dolphin detector measurements is works in progress. Currently not available for sale.

Protect,
enhance
and save
lives

iba