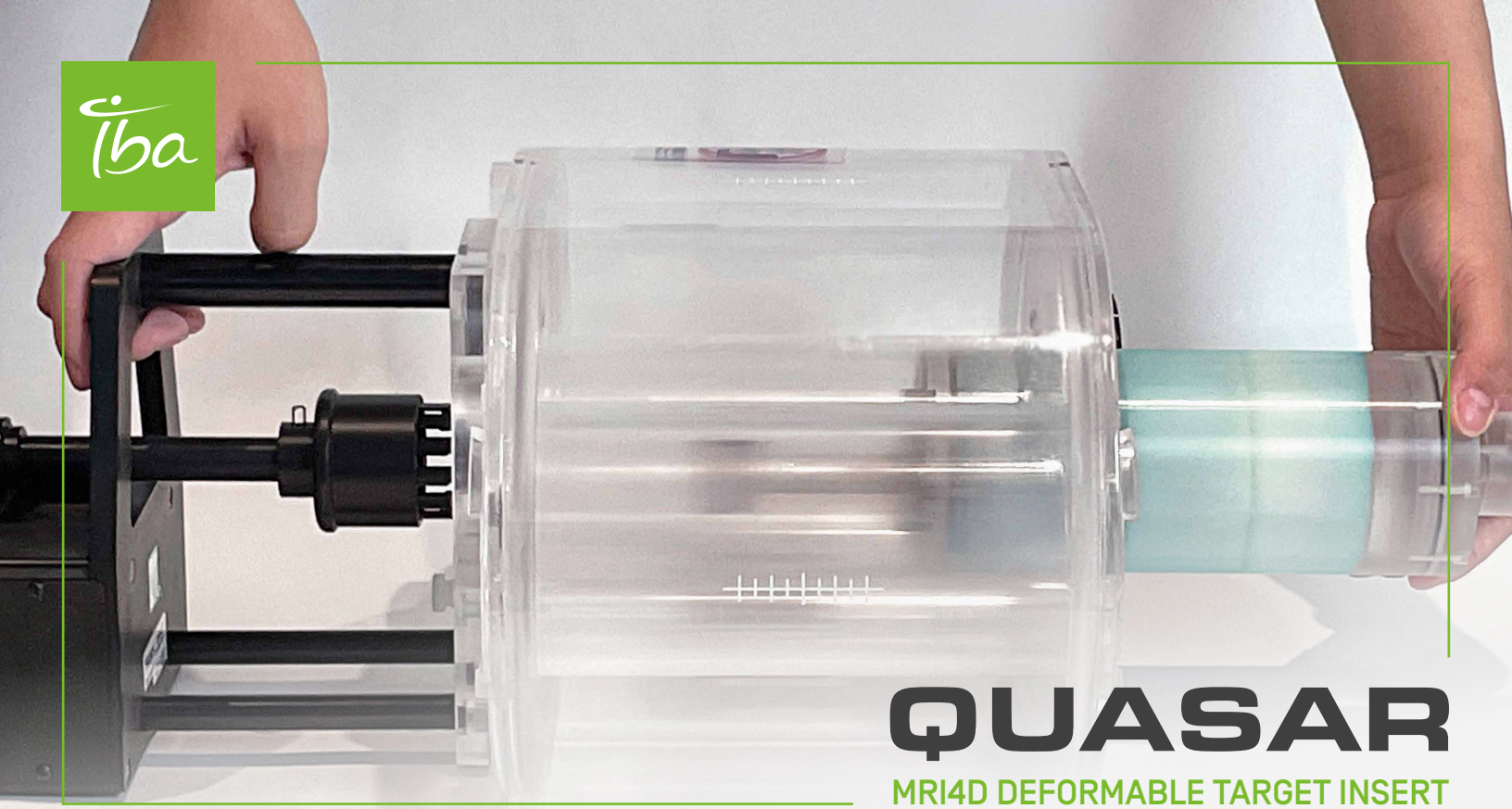
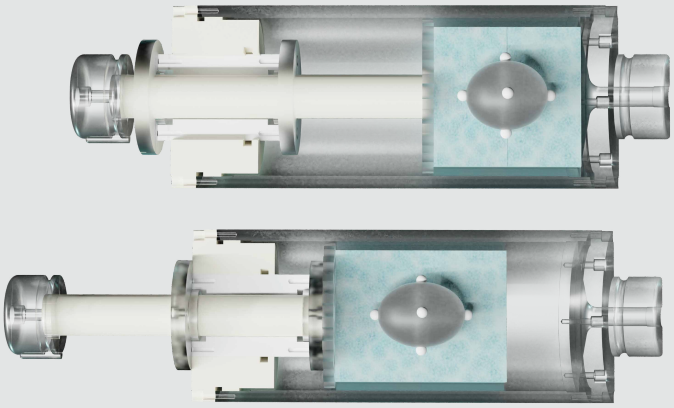


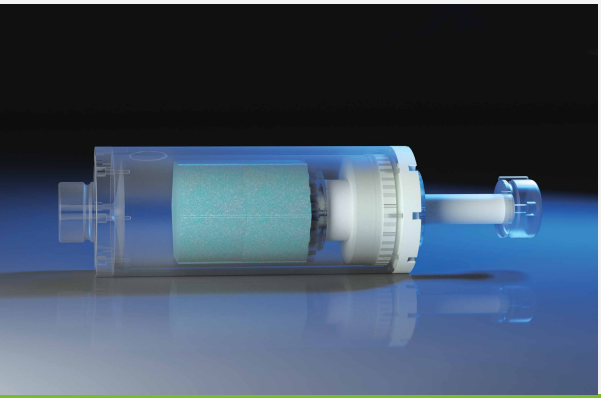
QUASAR

MRI4D DEFORMABLE TARGET INSERT

Integrate **Deformable 4D Tumor Motion Tracking** into your **ADAPTIVE MRgRT QA Protocol**

The QUASAR™ MRI 4D Deformable Target Insert is an advanced imaging tool that provides realistic tumor motion and deformation for the testing of today's leading-edge technology. The insert offers repeatable physiological 30 tumor motion in a sinusoidal or programmable pattern. This simulation is instrumental in creating and validating motion tracking protocols on all advanced systems, including: CT, MRI, and today's leading MR-LINACs.





The Deformable Target Insert consists of a primary piston that operates with the QUASAR™ MRI 4D motion phantom, to simulate tissue-like deformation in physiological motion breathing patterns. Containing a compressible ellipsoid target surrounded by healthy tissue-simulating material, the Deformable Target Insert provides a maximum motion range of 26-28 mm and a total deformation of 10-12 mm. Coupled with a twist of the translation axis, the MRI 4D system provides the most complex tumor model motion profile available on the market today, capable of challenging the most advanced tracking systems.

SPECIFICATIONS

Overall Insert Dimensions
25 cm long x 7.4 cm internal diameter, 1 kg (contrast-filled)

Deformable tumor model
42 mm x 28 mm x 28 mm ellipsoid target

Motion Accuracy
within 0.25 mm

Maximum range of motion
26-28 mm

Non-linear Motion
60 deg total twist range along X/Y axis (Rotational Mode), 30 deg (max) total twist range (Sinusoidal Mode, amplitude dependent), 11 deg (max) total twist range (Oscillation Mode, waveform dependent)

Total deformation range
10 -12 mm

Motion Frequency range
10-15 BPM

Pre-filled Insert Contrast Solution
anti-microbial Manganese Chloride

PROGRAMMABLE MOTION SOFTWARE

The QUASAR™ Respiratory Motion QA Software is compatible with the deformable insert, which allows the user to import, create, edit and save complex tumor motion patterns. Designed to smoothly operate at typical patient respiratory rates of 10-15 BPM, the insert works in tandem with the programmable software to playback user-customizable waveforms, with a high degree of accuracy in both twist or linear drive modes. Quickly create custom or import unique waveforms captured from various system sources.

MINIMUM TECHNICAL REQUIREMENTS

Operating System: Windows 10 and 11

ORDERING INFORMATION

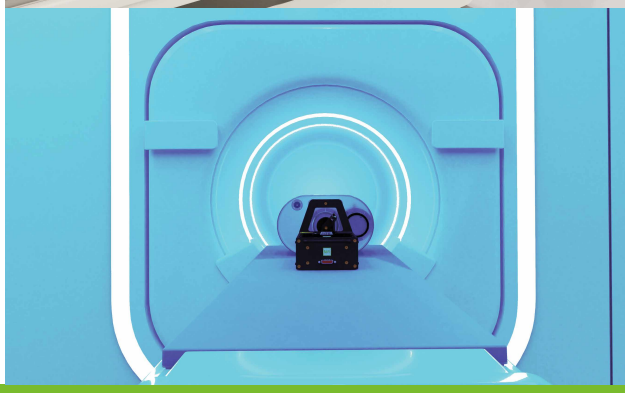
500-3633 QUASAR™ MRI 4D Deformable Insert

1 - MRI 4D Deformable Insert (pre-filled)
1 - Top up Manganese Chloride contrast solution
1 - Heavy Duty Storage Container
1 - Dovetail Clamp

THE WORLD'S EXPERTS IN MR-GUIDED RADIOTHERAPY ARE ALSO OUR PARTNERS.

IBA QUASAR™ is excited to be at the forefront of the next revolution in precision radiation delivery with groundbreaking MR image guidance. With nearly 20 years specializing in radiation therapy QA, our experience and expertise has earned us a global reputation with our collaborators as their partner of choice in providing cost-effective and innovative quality assurance tools. We are proud to be part of the STARLIT Elekta/Philips consortium (System Technologies for Adaptive Real-time MR image-guided Therapies) and ViewRay partner program to provide advanced capabilities related to 4D MRgRT QA and dosimetry.

Elekta STARLIT ITEA 3 VIEWRAY



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