

QUASAR

IBA QUASAR™ Lineup Overview

At IBA QUASAR™, we are unwavering in the pursuit of absolute quality assurance because pinpoint precision means life-saving treatment.

Through meaningful innovation, flexible solutions and a customer-first approach, our focus on MR-Guided Radiation Therapy, Geometric Distortion, Motion Management, Surface-Guided Radiation Therapy (SGRT) and Machine Targeting allow us to deliver unparalleled accuracy with confidence beyond measure.

Trusted by world-class OEMs and thousands of medical physicists worldwide, our comprehensive and independent QA solutions protect, enhance and save lives.

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APPLICABLE MACHINES TO IBA QUASAR™ PRODUCTS

Туре	Example Systems*	Suggested IBA QUASAR™ Phantom	
Tomotherapy	Accuray Radixact/ TomoTherapy System	Penta-Guide, Platform HD + MP Body	
CT-SIM	_Siemens Somatom _Philips Brilliance _GE Discovery RT CT Scanner _Toshiba Large Bore	Penta-Guide, MP Body, pRESP, Platform HD	
MR-SIM	_Philips Ingenia and Achieva _Canon Vantage Galan, Orian _Siemens Aera, Skyra, Prisma, Sola, Verio _GE Signa	MRID ^{3D} , MRI ^{4D} , MRgRT Insight, GRID ^{3D}	
Gamma Knife	_Elekta Leksell Gamma Knife Perfexion & Icon	GRID ³⁰ Note: phantom is not compatible with the Vantage headframe	
Conventional LINAC	_Varian TrueBeam, Halcyon, Ethos, Edge _Elekta Versa HD, Infinite, Harmony	Penta-Guide & Tilt-plate (if includes 6DoF couch), pRESP, Platform HD, MP Body, Winston-Lutz Wand, Isocentre Cube	
MR-LINAC	_Elekta Unity _ViewRay MRIdian	MRID ^{3D} , MRI ^{4D} , MRgRT Insight	
PET/CT	Reflexion	Penta-Guide, pRESP, MRI ^{4D} , Platform HD	

*Modus QA phantoms are also compatible with several other vendor systems not listed in the table above. Please contact your regional representative for questions regarding specific systems' compatibility.

Conventional LINAC

Phantom	Area of Utility	How does it fit	
Penta-Guide	Machine Targeting	Physicists perform Daily QA and image quality performance metrics, main testing capabilities include: laser alignment, 6DoF Couch correction QA (with tilt-plate), 2D/3D image matching, isocenter coincidence,	
pRESP (Programmable Respiratory Motion Phantom)	_Machine Targeting _Motion Management & SGRT (compatible with PET/CT)	It is suggested that cancer centers have motion management protocols in place to ensure they're performing accurate radia- tion treatments. Motion QA phantoms are used to commission systems, check CT imaging accuracy, facilitate point or 2D dosimetry measure- ments, simulate tumor motion; all of which allows physicists to check their TP and delivery protocols. pRESP – simulates tumor motion within a body oval Platform HD – applies motion to large-scale phantoms	DUADAT
Platform HD (Heavy Duty Respiratory Motion Platform)	_Machine Targeting _Motion Management & SGRT [compatible with PET/CT]		
MP Body (Multi-Purpose Body Phantom)	_ Machine Targeting _ Motion Management & SGRT [compatible with PET/CT]*	Physicists can use the Multi-Purpose Body Phantom as a ver- satile tool to perform end-to-end QA on simulation, treatment planning and treatment delivery systems for emerging markets. [•] Utility is accessible with addition of QUASAR™ Respiratory Motion Assembly or Platform HD	
Isocenter Cube	Machine Targeting	A cost-effective phantom to perform Winston-Lutz tests in order to validate the LINAC's isocenter accuracy	
Winston-Lutz Wand	Machine Targeting	A precise wand designed for true Winston-Lutz tests. Each axis can be precisely adjusted to the submillimeter to verify the true radiation isocenter of the LINAC.	the second se

MR-LINAC

Phantom	Area of Utility	How does it fit	
MRI ^{4D}	_Motion Management & SGRT [compatible with MR/CT/PET] _MR Guided Radiation Therapy _Machine Targeting	The MRI ⁴⁰ is the world's first 100 % MR-safe programmable motion phantom used to test motion management protocols on: MR-LINACs (ViewRay & Elekta), MR-SIMs, and PET/CT. Used to commission MR or MR-LINAC systems, facilitate dosimetric measurements, simulate tumor motion; all of which allows physicists to check their planning and delivery protocols. ViewRay-specific : evaluate total system gating latency	Fo
MRID ^{3D}	_MR Guided Radiation Therapy _Geometric Distortion	Geometric distortion is an undesirable image artifact that affects the accuracy of MR-guided RT. The MRID ^{3D} automated- ly quantifies geometric distortion for large field-of-view MRI systems, allowing physicists to adjust system parameters to minimize GD.	
MRgRT Insight	_MR Guided Radiation Therapy _Geometric Distortion _Machine Targeting	A comprehensive all-in-one image quality phantom designed for end-to-end QA on any MR-LINAC and MR-SIM. Used for time-saving automated Daily or Periodic tests including: uniformity, spatial resolution, GD, laser & table positioning accuracy, slice thickness.	
Phantom	Area of Utility	How does it fit	
GRID ^{3D}	Geometric Distortion	The GRID ^{3D} is designed to evaluate both MR and CT geometric distortion on Elekta Leksell Gamma Knife systems – PERFEXION and ICON. Use to assess the system's spatial accuracy for SRS, and optimize imaging sequences on planning systems.	