## Stereo**PHAN**™

## End-to-End Stereotactic Commissioning & QA





# **End-to-End Quality**

StereoPHAN<sup>™</sup> is designed for end-to-end commissioning and quality assurance testing on all parts of the SRS process. StereoPHAN inserts and configurations are quickly exchanged with no tools or change in setup.

### Features & Benefits

- Stereotactic (SRS/SRT/SBRT) end-to-end testing and patient-specific QA
- Adapters for Head-Frames and CyberKnife
- Image fusion
  - Quality assurance of image fusion algorithms for CT and MRI imaging modalities
- Dosimetry
  - Absolute, relative and point dose dosimetry QA measurements at isocenter with ion chambers; relative dose distribution using film
  - Dosimetry detector cabling remains outside of beam for interference-free dose measurement regardless of measurement setup
- Geometric accuracy
  - Optical and geometric isocenter
  - Laser alignment
  - Indexed table positioning alignment and positioning coordinates
  - CBCT and MV/kV isocenter alignment

- Easy setup and assembly
  - No tools required for assembly
  - Can be mounted in 7 different positions using Lok-Bar™ System
- Inserts
  - Single cube insert tests CT and MRI imaging, including slice position, thickness and alignment
  - MultiMet-WL Cube verifies accuracy of Single-Isocenter Multiple-Target (SIMT) SRS treatments
  - Multi-Film insert supports relative dosimetry measurements and features three planes for placement of radiochromic film
  - Target volumes in CT/MRI cube eliminate need for CT/MRI markers
  - Flat surface of ion chamber insert enables easier cross-calibration to water than the curved surface of a spherical geometry
- All components fit into a durable rolling case suitable for storage and air travel



## SRS MapCHECK<sup>®</sup> SRS Patient QA, No Film

Designed to insert into the StereoPHAN, the SRS MapCHECK<sup>®</sup> supports patient-specific QA for linac-based and CyberKnife treatment machines

- Replaces film, providing absolute and relative dose measurement in a single measurement.
- Detector spacing and resolution specifically designed for stereotactic applications
  - Array size: 77 mm x 77 mm
  - Measures field sizes as small as 5 mm
  - 5 diodes in 5 mm cone
- Easy-to-use and efficient software



### **StereoPHAN Inserts**



MultiMet-WL Cube

error — Gantry, Couch or Collimator — in 6 degrees of freedom



**CT/MRI** Verifies accuracy of an image fusion algorithm



MRI Signal Generator Aids in MRI image acquisition (optional)



**Ion Chamber** Measures dose with active volume positioned at geometric center of the phantom; drill to fit Ion Chambers as specified.



Universal Spacer Precisely positions the measurement inserts in phantom cylinder



Multi-Film/Film Measures dose profiles and relative dosimetry at a single or multiple planes

## **StereoPHAN Inserts for CyberKnife® Support**



Perpendicular Film Measure dose profiles and features 24k fiducial markers and orientation marks (same film as Accuray® Phantom)



**CT** Verifies accuracy of CT/MRI image fusion algorithm using three varying size cavities filled with mineral oil



Chamber Measures dose at the geometric center of the phantom.

#### SRS/SBRT Headframes



**Brainlab®** 



Elekta Fraxion®

Gamma Knife® Extend™

### **StereoPHAN Specifications**

Material:	Polymethyl methacrylate (PMMA)
Weight (cylinder, stand, slide):	6.6 kg (15 lbs)
Measurement cubes (mm):	85 x 85 x 85
Dimensions - L x W x H (mm):	522 x 276 x 229

### SRS MapCHECK Specifications

Detector Type:	SunPoint® 2 Diode Detectors
Detector Quantity:	1,013
Detector Spacing (mm):	2.47
Detector Resolution:	0.48 mm diameter
Array Size (mm):	77 x 77

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