StereoPHAN™
End-to-End Stereotactic Commissioning & QA
End-to-End Quality

StereoPHAN™ 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®
SRS Patient QA, No Film

Designed to insert into the StereoPHAN, the SRS MapCHECK® 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
Ion Chamber
Measures dose with active volume positioned at geometric center of the phantom; drill to fit Ion Chambers as specified.

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

CT/MRI
Verifies accuracy of an image fusion algorithm

Universal Spacer
Precisely positions the measurement inserts in phantom cylinder

MRI Signal Generator
Aids in MRI image acquisition (optional)

MultiFilm/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