

USER MANUAL

Raysafe P 3D Fluoro Phantom



ABOUT THE RAYSAFE P 3D Fluoro Phantom

The RaySafe P 3D is used to test the cone beam functionality of fluoroscopic x-ray systems. After carrying out image quality test on 2D image acquisition with the RaySafe P Fluoro, you evaluate the 3D capability of 3D reconstruction module.

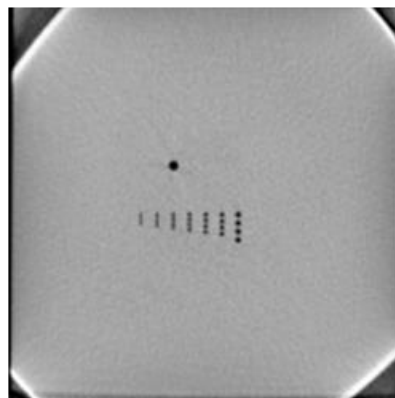
TECHNICAL SPECIFICATION

Product No. 1921052

- Dimensions: 120 x 120x x 60 mm
- Weight: 1.0 kg
- Material: PMMA, 3 plates assembled together where the inner plate holds drillings for spatial resolution tests with diameters at 0.50, 0.60, 0.70, 0.80, 0.90, 1.00, 1.30 mm
- One extra drilling 2.5 mm diameter through all 3 plates.
- Delivered in hard case

PARAMETERS TO TEST WITH RAYSAFE P 3D:

- spatial resolution of 3D image
- homogeneity in 3D image
- noise in 3D image
- artefacts in 3D image



TEST PROCEDURE

This is an example. Be sure to comply with your local regulations.

The test setup for the DIGITAL VOLUME TOMOGRAPHY is shown below.

The phantom is placed on the table or with other supports in the isocentre. The z axis of the phantom is parallel to the axis of rotation of the system. The test is carried out in the largest format used for the 3D mode, whereby the phantom should be displayed. The phantom scanned at an X-ray tube voltage of $75 \text{ kV} \pm 7 \text{ kV}$ without the use of an additional attenuator while using the Automatic Exposure control (if available). The X-ray tube voltage, mAs, additional filtration, the number of projections and the dose area product (if appropriate displays are available) as well as the imaging geometry (FFA, FOA) must be documented. The device settings used here (e.g. dose level, number of projections, exposure geometry) must correspond to the settings used for the dose measurement. If necessary, differences in the additional filtration set automatically must be taken into account when measuring the image receiver dose (radiation quality correction factor of the dosimeter).

