

Micro-CT Multi Disk

The MicroCT Multi Disk Phantom is designed to test cone beam artifacts from Micro-CT scanners caused by reconstruction algorithms.

The Micro-CT Multi Disk Phantom is THE test object for demonstrating artifacts occurred by all kind of approximate reconstruction algorithms.

The Micro-CT-Multi Disk Phantom consists of eight high-density circular disks equally spaced at 3 mm apart parallel to the axis of rotation. These disks are separated by low-density disks showing up as darker material.

The phantom is completed on either side by 10 mm of PMMA.

Specifications

Phantom size:

diameter 20 mm

length 48.5 mm

Phantom weight 19 g

High-density disk:

diameter 20 mm

thickness/mm 1 +0.1 /+ 0.05

density 1.38 g/cm³

Low-density disk:

diameter 20 mm

thickness/mm 3 0/+ 0.05

density 1.18 g/cm³

Flanging outer cylinders:

material pmma

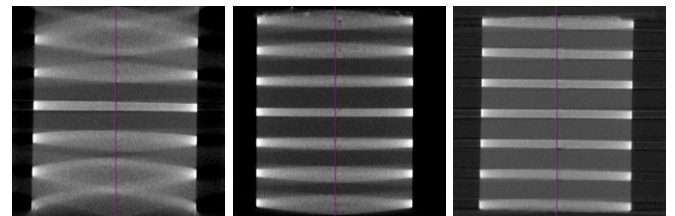
thickness 10 mm

References:

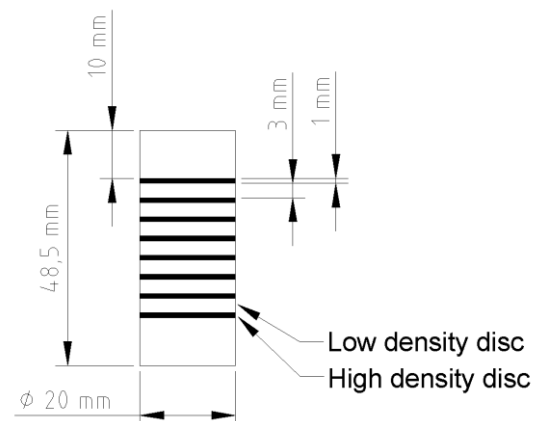
Feldkamp L. A., Davis L.C., Kress, J. W.:
Practical cone-beam algorithm, J. Opt. Soc. Am. A6
(1984) 612-619



Micro-CT Multi Disk (after Defrise)



Reconstructions at 30, 11 and 5 degree



Dimensions of the phantom