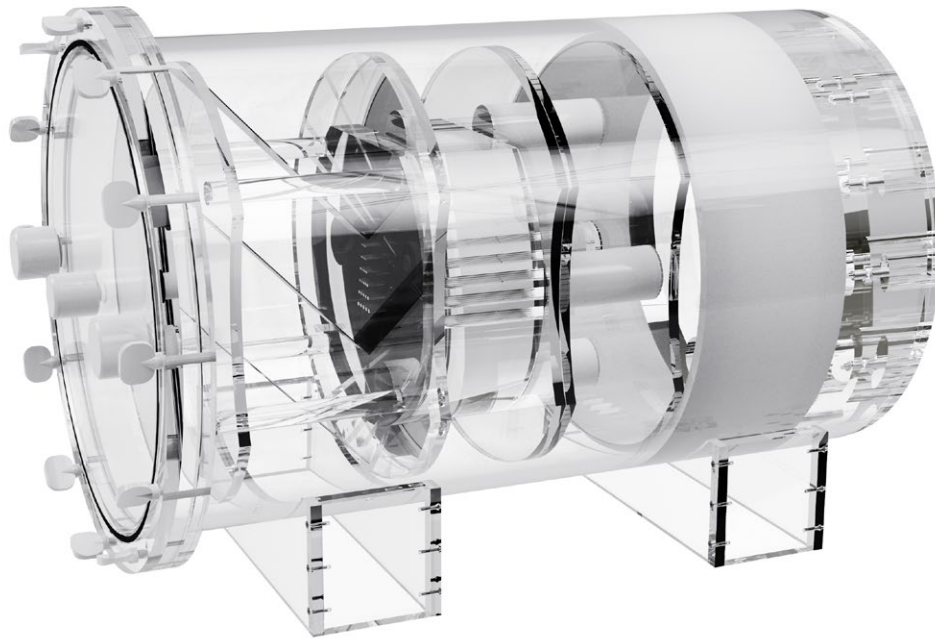




Pro-CT AAPM

04-501



The Pro-CT AAPM phantom can be used for **carrying out tests of computed tomography systems** according to **Report no. 1 of the AAPM** (American Association of Physicists in Medicine).

Technical data (can be modified to customer specifications):

PMMA water tank



- inside cylinder diameter: 214 mm
- outside cylinder diameter: 220 mm
- lid has quick disconnect valves for ease of filling and draining
- aluminum alignment pin (\varnothing 6.3 mm x 76 mm) or a polystyrene TLD insert (for dose measurements) can be attached to the lid

Low contrast section



- placed at one end of the water tank
- 12 fillable cavities 40 mm deep
- two pieces of each cavity with diameters: 25.4, 19.0, 12.7, 9.5, 6.4 and 3.2 mm
- spaced twice their diameter apart from the centerline
- cavities can be easily filled from the outside with dextrose or sodium chloride solutions of various concentrations

Bone insert



- PTFE annulus
- wall thickness 6.4 mm, 70 mm long
- fits over all inserts to harden the beam



CT number linearity insert



- five 25 mm rods
- material: polyethylene, PMMA (acrylic), polycarbonate, polystyrene and nylon
- density values (g/cm³): 0.95, 1.19, 1.20, 1.05 and 1.1 respectively

Resolution insert



- eight sets / rows of air thru holes (five holes per set)
- diameters of holes: 1.75, 1.5, 1.25, 1.00, 0.75, 0.61, 0.50 and 0.40 mm
- distance between each hole is equal to the hole diameter
- distance between rows 5mm
- 0.2 mm stainless steel wire positioned longitudinally for calculation of line-spread function

Slice thickness insert



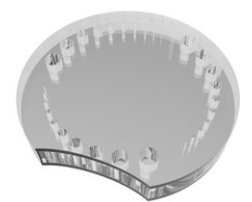
- three aluminum strips, 0.5 mm thick and 25 mm wide angled at 45°, positioned at the centre and aligned vertically

Geometry insert (optional)



- contains two pairs of aluminium wire ramps whose slope angle tangent is equal to 0.5
- middles of ramps intersect on the same plane allowing for very precise evaluation of the slice location
- contains two sets of four PMMA rods (Ø 10mm) placed in vertexes of two squares (sides 100 mm long)

Triple low contrast insert (optional)



- contains three groups of low-contrast objects. In each group, there are rods of the same density, 20 mm in height and with a diameter ranging from 2 to 15 mm. Density difference between groups and surrounding material is exactly 0.3%, 0.6% and 1.0%
- made of PMMA

Filling tubes

Optional heavy duty carrying case (04-502)

Product features:

- complies with:
 - ICRU report 87
 - AAPM TG-200
- the Manual provides detailed guidelines for carrying out each test, results assessment and registration