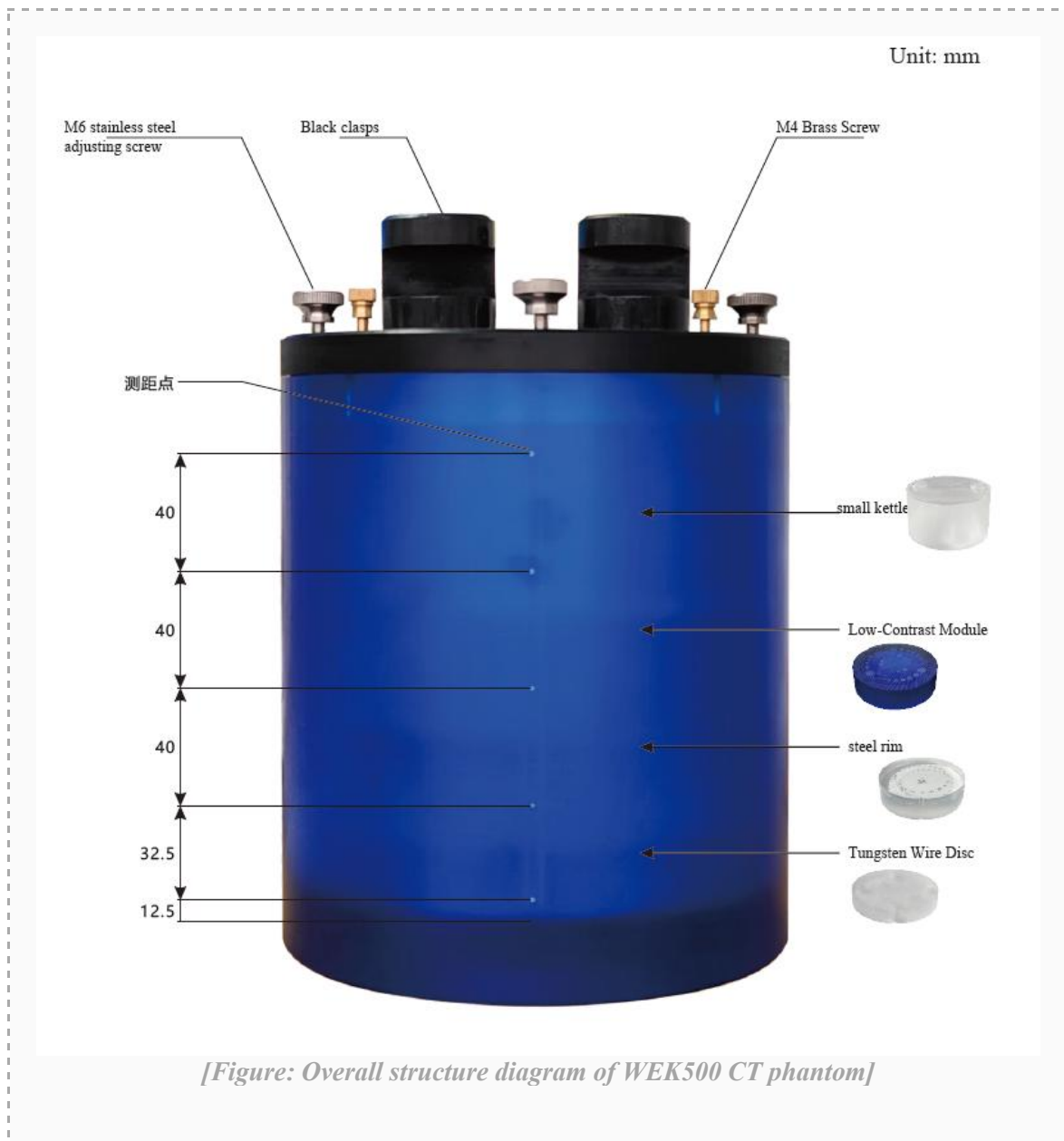


# WEK500 CT Performance Phantom

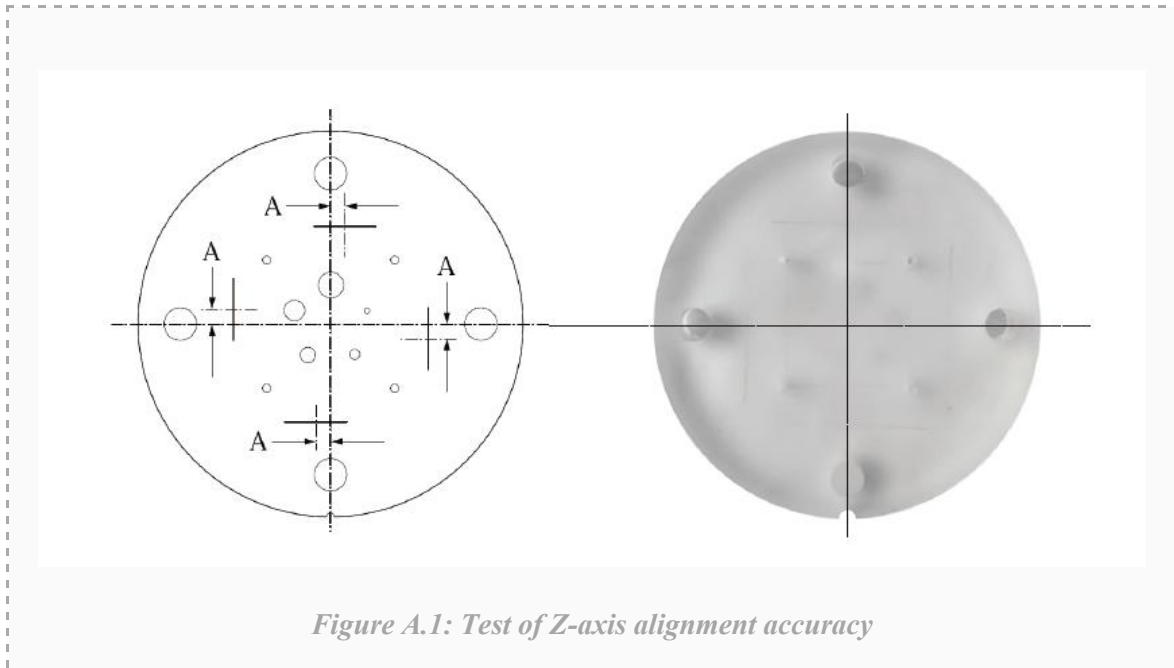
## 1. Product Introduction and Structure

The WEK500 CT Performance Phantom has the same functionality as the CTP500 model, enabling optimal performance characterization of multi-slice CT and enhanced sensitivity measurements required for radiotherapy.



## 2. Modules and Features

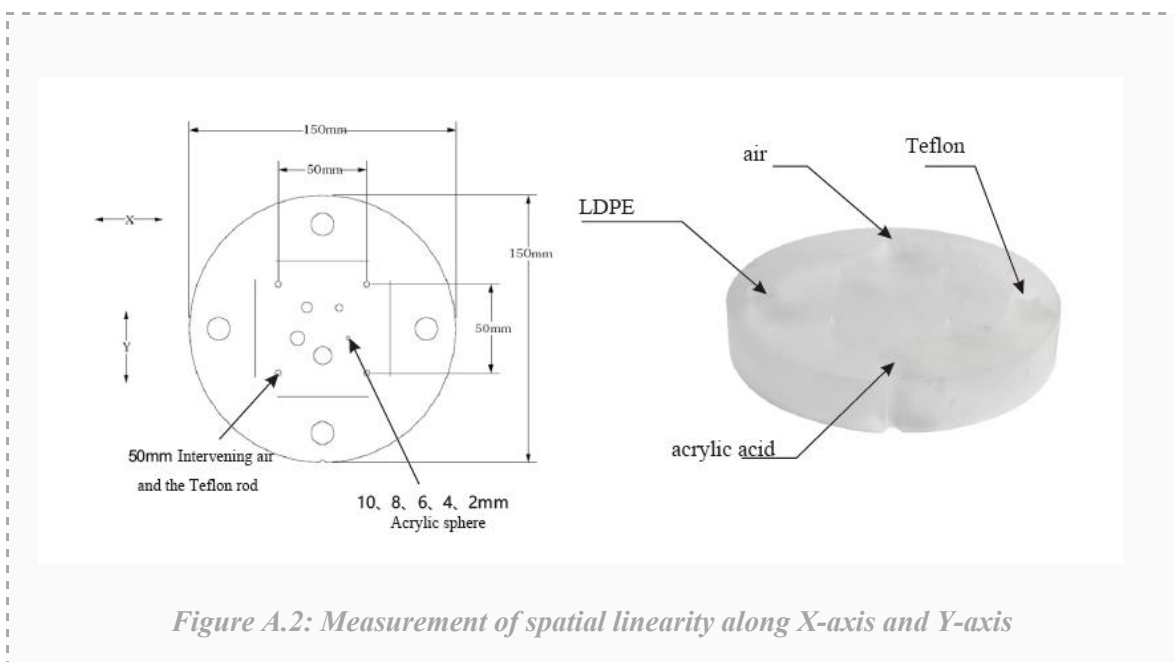
The module has two pairs of 230 metal oblique lines: one pair parallel to the X-axis; the other pair parallel to the Y-axis.



This module has four holes (one with a Teflon insert). These holes are 3mm in diameter, spaced 50mm apart, and located around the center.

The acrylic contrast sphere target module contains five acrylic spheres located in a 30mm diameter circular module. The sphere diameters are 2, 4, 6, 8, and 10mm.

Surrounding the metal slice thickness ramp are four high-contrast CT number linearity targets. Three of these materials are: Teflon, acrylic, and low-density polyethylene (LDPE); the fourth material is air.



### 3. High Resolution Module and Point Sources

The 21 line pairs/cm high resolution module and point source module has a high-resolution test card from 1 to 21 line pairs/cm and two point sources (beads) made of the same material. The point beads are located on the Y-axis, 20mm above and below the center of the phantom, and at distances of 2.5mm and 10mm in the Z-axis direction from the center of the line pair card.



Figure A.3: Schematic diagram of the steel ring

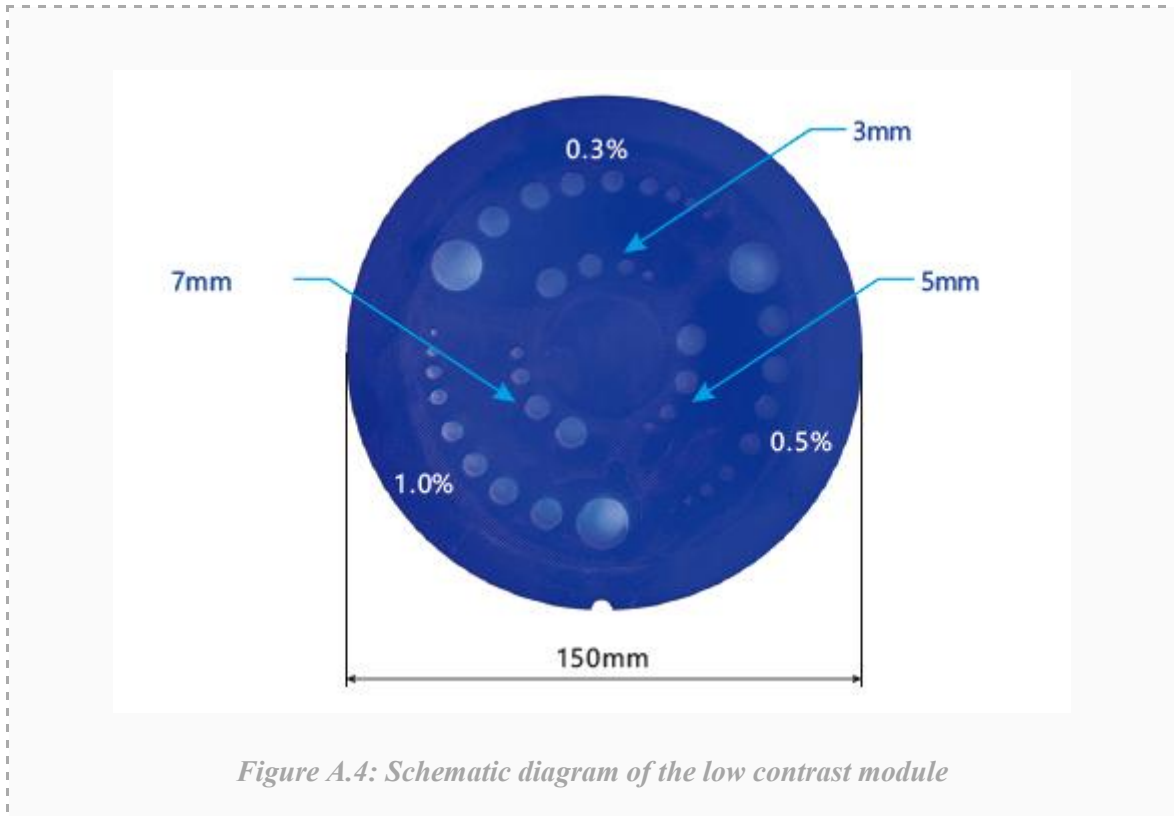
### A.3. Low Contrast Module (with outer and inner rings)

The dimensions and contrast of the low-contrast targets in the module are as follows:

Outer Ring Target Size (mm)	Inner Ring Target Size (mm)
2.0	3.0
3.0	5.0
4.0	7.0
5.0	9.0
6.0	—
7.0	—
8.0	—
9.0	—

Outer Ring Target Size (mm)	Inner Ring Target Size (mm)
15.0	—

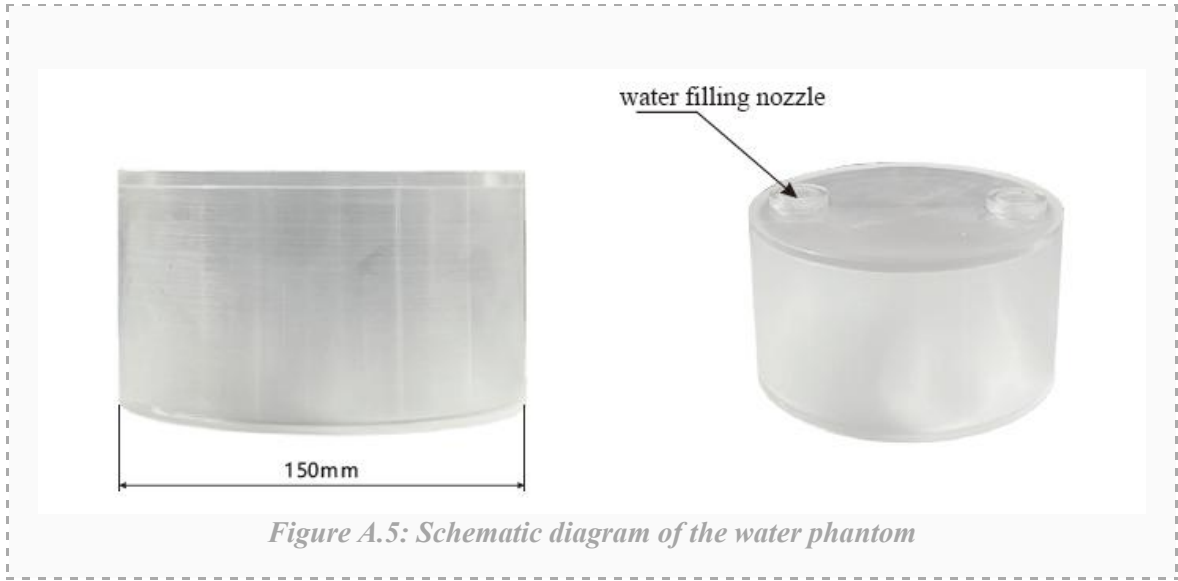
The outer and inner ring targets each have three contrast levels: 0.3%, 0.5%, and 1.0%.



*Figure A.4: Schematic diagram of the low contrast module*











## 4.4. Water Phantom



The water phantom has a diameter of 150mm and two water filling ports. The solution inside can be replaced according to actual requirements.



## Phantom Accessory Parameters

Name	Picture	Diameter	Thickness	Quantity
Main Body (Barrel)		200mm	220mm	1pc
Black Lid		200mm	150mm	1pc
Small Water Jug		150mm	90mm	1pc
Low Contrast Module		150mm	40mm	1pc
Steel Ring		150mm	40mm	1pc
Tungsten Wire Disc		150mm	25mm	1pc

Name	Picture	Diameter	Thickness	Quantity
Black Buckle		46mm	50.5mm	2pcs
Transparent Column		13mm	24.5mm	1pc
PE Column		13mm	24.5mm	1pc
PTFE Column (Plastic King)		13mm	24.5mm	1pc
Transparent Screw		29mm	20mm	2pcs
Transparent Nut		30mm	6mm	2pcs
Sealing Ring		24mm	3mm	2pcs
M6 Buckle Screw		9mm	19mm	4pcs
M6 Stainless Steel Adjustment Screw		19.5mm	30mm	2pcs
M4 Brass Screw		10mm	34mm	4pcs

Name	Picture	Diameter	Thickness	Quantity
Plastic Strip		3mm	25mm	4pcs
Spirit Level		200mm	50mm	1pc