



## ISIS QA-1 Geometric QA Phantom

The ISIS QA-1 Phantom was designed to provide an easy, low-cost approach to the daily, monthly and annual QA tasks for the Physicist and Therapists. The ISIS QA-1 phantom will aid in verifying the geometric laser position accuracies with multiple laser systems within your department. The ISIS QA-1 also provides the Physicist and Dosimetrist the ability to verify electron beam density values produced by your CT/CT-Simulator. Staff members scan the four unique density value inserts, then transfer this image to the RTP system for verification of the electron density values of the Bone, Water, Inhale and Exhale Lung density inserts. Comparing the individual value for each known density value, the user can quickly verify CT image electron density values for treatment planning image QA.

Additionally, the ISIS QA-1 provides an internal known object insert that is scanned with the CT/CT-Simulator. With this multiple image slice set you can create a Treatment Plan/Virtual Simulation plan of the known object for size and location verification through your RTP and Virtual Simulation system. The ISIS QA-1 then goes one step further to use these known geometric phantom positions for verification of the laser positions as verified with the scanned ISIS QA-1 phantom. This QA process provides a geometric QA of the processed RT Plan for use with IMRT treatment machine lasers and mechanical treatment field setup verifications. The dose chamber insert provided will provide the physicists the ability to quickly measure single-point expected dose values without using additional phantom devices. This removable insert is matched to your existing standard dose chamber.\*

The ISIS QA-1 helps standardize the QA program for the installation engineer, maintenance engineer, therapist, dosimetrist and or physicist. These QA tasks are accomplished by using a common single QA alignment/verification tool, thus producing a common geometric theme within the radiation therapy department prior to implementation of an IMRT or standard external beam treatment program. The continuing review of the geometric accuracy between all department systems is important in using today's high-quality and technical treatment protocols.

### Features

- ▶ Two millimeter wide alignment verification grooves for quick alignment checks
- ▶ Can be used with multiple QA machine programs within the therapy department
- ▶ Precision 10 cm x 10 cm and 5 cm x 5 cm fixed fields for QA verification
- ▶ Easy leveling base to duplicate set up from machine to machine
- ▶ Single slice check for laser-offset verification for CT

### The ISIS QA-1 package includes the following items:

- ▶ ISIS - QA 1 Quality Assurance Phantom Cube
- ▶ Quality Assurance Leveling Platform
- ▶ Alignment Bar
- ▶ Two inserts: Chamber Insert; \*2.54 cm Object Insert
- ▶ Tungsten Pins, set of 20
- ▶ 50 cm Ruler
- ▶ Magnetic Gantry Level with light
- ▶ Round Bubble Level
- ▶ Protective Case

### Specifications

Material .....	Acrylic
Density .....	1.18 g/cm <sup>3</sup>
Thickness tolerance .....	±0.01 cm (0.0254 in)
Electron Density Inserts .....	Bone (+800), Inhale Lung (-800), Exhale Lung (-500), Water (0)
Phantom Dimensions .....	14 x 14 x 14 cm, +/-0.005 in
Weight .....	3.6 kg (8 lbs)
Case Dimensions .....	82.6 x 54.6 x 29.2 cm (32.5 x 21.5 x 11.5 in)
Total Shipping Weight .....	20.4 kg (45 lbs)

### Accessories

<b>681-160</b> .....	Adjustable Table Centering Bar, for proper alignment of phantom cube
<b>681-106</b> .....	Tungsten Ball Insert, 5.5 mm diameter
<b>681-107</b> .....	Multi-Density Insert, holds 8 density plugs
<b>681-108</b> .....	Liquid-fillable Insert with two fill holes
<b>681-105</b> .....	CT Beam Width Insert
<b>681-130</b> .....	Film Phantom Assembly

