

QRM-oval-CTDI-CTWater®

A WATER-equivalent dosimetry phantom, traced back on the standards for CTDI evaluation in Computed Tomography specially designed to mimic the human body shape.

QRM-oval-CTDI-CTWater® dosimetry phantom is manufactured from CTWater®, a proprietary resin which exhibits the same x-ray attenuation characteristics as liquid water in the range of 80 kV to 140 kV tube voltage.

The phantom is constructed in a modular fashion with a smaller inner cylinder which tightly fits into a larger outer oval cylinder. Both cylinders offer four through holes near the perimeter to accomodate standard CT dose probes. Supplied are nine massive rods, made from CTWater®, to plug the holes not in use, and adapter plugs to house diverse pencil shaped ion chambers. Further adapter plugs can be manufactured on customers specification.

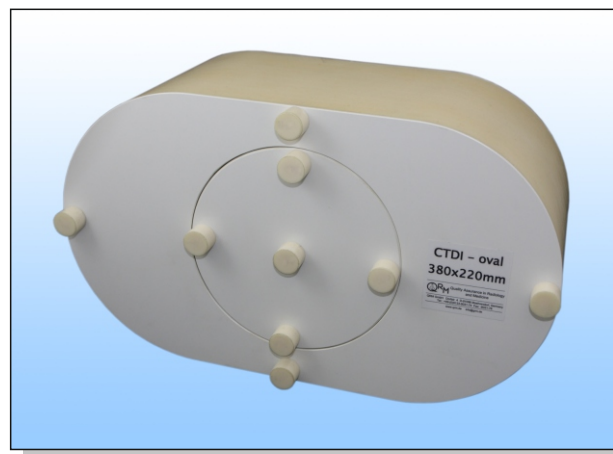
Specifications

Base material CTWater®
diameter body 38 x 22 cm²
diameter head 16 cm
depth 15 cm
hole positions according to [2, 3]

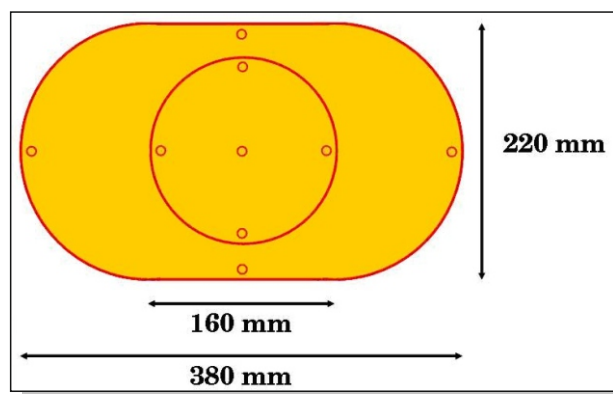
A sepearte plug housing your preferred ion chamber will be included!

References

- [1] Evaluation and comparison of water-equivalent CTDI dosimetryphantoms
Erb, J.; Schmidt, M.; Schmidt, B.; Kalender, W.A.
Engineering in Medicine and Biology Society, 2000. Proceedings of the 22nd Annual International Conference of the IEEE
Volume 1, Issue , 2000 Page(s):102 - 105
- [2] Department of Health and Human Services, Food and Drug Administration. 21 CFR Part 1020: Diagnostic x-ray systems and their major components; amendments to performance standard; Final rule. Federal Register, 49, 171 (1984)
- [3] IEC 1223-2-6
Evaluation and routine testing in medical imaging departments. Part 2-6: Constancy tests - X-ray equipment for computed tomography



Oval-CTDI-Dosimetry-Phantom



Schematic view of the phantom