

# QRM-oval-CTDI-CTWATER®

## 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.

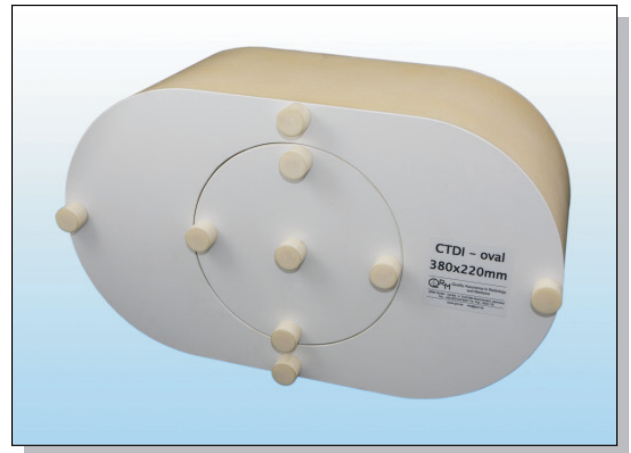
### Specifications

Base material ..... CTWATER®  
 diameter body ..... 38 x 22 cm<sup>2</sup>  
 diameter head ..... 16 cm  
 depth ..... 15 cm  
 hole positions according to [2, 3]

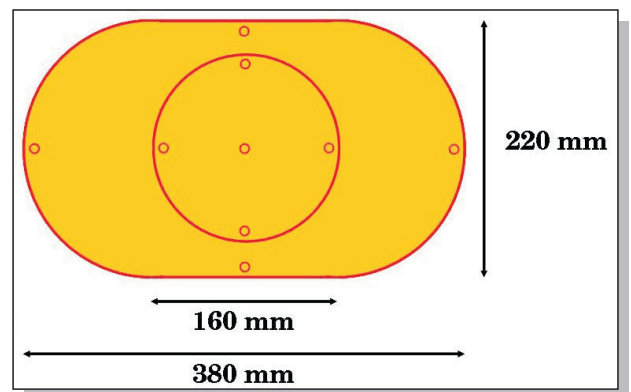
*A separate plug housing your preferred ion chamber will be included!*

### 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



Oval-CTDI-Dosimetry-Phantom



Schematic view of the phantom