

CT Dose Profiler

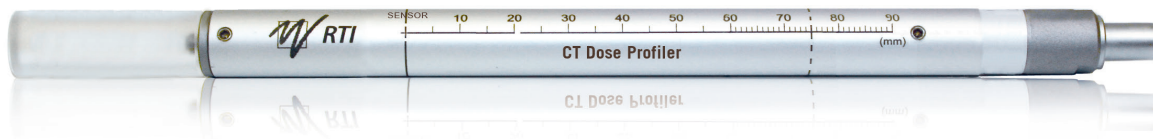


RTI

From Radiation
to Information

A Pioneer at Measuring CT Dose

The RTI CT Dose Profiler has taken the CT quality assurance to the next level. Because of its revolutionary design it has transformed the CTDI measurement from being inaccurate due to underestimation of the dose for wide beams to be more exact. It also has the ability to further analyze the result – all in one shot.



RTI – World Headquarters

Flöjelbergsgatan 8 C
SE-431 37 Mölndal
SWEDEN

Phone: + 46 31 746 36 00
E-mail: sales@rtigroup.com
www.rtigroup.com

RTI – US Office

33 Jacksonville Road, Bldg. 1
Towaco, NJ 07082
USA

Phone: 1-800-222-7537
E-mail: sales.us@rtigroup.com
www.rtigroup.com

No Limitations

The rapid advancements in CT technology are placing new demands on methods and equipment used for quality assurance. The wide beam widths found in CT scanners with multiple beam apertures make it difficult to use existing CT dose ionization chambers to measure the total dose given to the patient. Using a standard 10 cm CT ionization chamber may result in inaccurate measurements due to underestimation of the dose profile for wide beams. The CT Dose Profiler was developed to solve this problem.

The dose is measured in every point of the X-ray beam and the total dose profile is acquired regardless of how wide the beam is. There is no limitation of the beam width. This makes it possible to measure without the drawbacks of traditional CT probes.

With the CT Dose Profiler you can avoid more expensive methods that require both preparation before and read-out after each scan (like TLD and X-ray film). The CT Dose Profiler is also ideal for measuring point dose and dose rate in the CT beam.

The CT Dose Profiler is based on solid-state technology. It is robust and it fits into existing standard phantoms used for CTDI measurements.

Measure and Analyze

Following parameters are achieved from a single exposure

- CTDI100
- Point Dose
- CT dose profile
- CTDI_w
- CTDI_{vol}
- DLP
- Performance of the AEC
- FWHM (Full width at half maximum of the dose profile)
- Geometric efficiency%



Simple In One Shot

Specifications

With Black Piranha

Dose rate:	40 nGy/s-760 mGy/s 0.26 mR/min-5200 R/min
Inaccuracy:	±5 % or ±10 nGy/s
Spatial resolution:	0.25 mm

With Cobia Flex / Sense

Dose rate:	3.5 μGy/s to 3.3 Gy/s
Inaccuracy:	±5 % or ±0.4 μGy/s