

for use with: Accu-Gold+ / Accu-Dose+

## ACCU-GOLD+







### 10X6-6

#### General Purpose In Beam Chamber

A well documented wide dynamic range chamber with many dose and rate applications. Also recommended for measuring exposure time in Auto Dose mode.



#### 10X6-6M

#### **Dedicated Mammography Chamber**

A world standard for mammography, ready for any mammographic tube track-filter combination. Extraordinary flat energy response over 10 - 40 keV has been documented in technical papers and makes corrections unnecessary. Also recommended for measuring exposure time in Auto Dose mode.



#### 10X6-10

#### General Purpose In Beam Chamber

This 10cc multi-purpose ion chamber is suitable for measuring R&F as well fluoro. It's small size (5cm diameter x 1cm thick), excellent energy response and x-ray transparency makes it ideal for those difficult measurements where space is at a minimum.



#### 10X6-60

#### Service and Image Intensifier Chamber

The dynamic range and thin profile is ideal for Input Dose at the Image Intensifier, High dose rates encountered in Fluoroscopy and Cine, spot film devices & other special procedures.



#### 10X6-3CT

## Computed Tomography Dose Index (CTDI) and DWP or DLP Chamber

Although designed specifically for CT X-ray beam measurements, either free-in-air or mounted in a head or body phantom, it can be used for DWP and DLP applications such as Dental x-ray measurements, due to the chambers excellent energy and partial volume response as well as uniformity along its entire 10 cm active length.



#### 10X6-180

#### Leakage and Low Level Measurements Chamber

Designed for leakage measurements. Cross-section of 100 cm² and volume of 180 cm³. Also for very low dose to image receptor.



#### 10X6-1800

#### **Radiation Protection Chamber**

For low-level radiation measurements such as shielding leakage, irradiator and environmental. Unlike typical survey meters, the 1800 cm<sup>3</sup> volume chamber offers improved accuracy over a wider dynamic range.



#### 10X6-0.18

#### High Dose Rate Chamber

For in-beam measurements of high-intensity gamma radiation. Gamma irradiators and beam type irradiators. The fully guarded chamber is mounted at the end of a 3 m low noise triax cable.



#### 10X6-0.6

#### High Dose Rate Chamber

This high dose rate chamber provides an excellent response at therapy and other high energy, high dose rate applications. The fully guarded chamber is mounted at the end of a 12 m low noise triax cable. Can be used with or without build up cap depending upon the application.



#### 10X6-0.6CT

# Modern Wide Beam Multi-Slice CT Chamber

0.6cc thimble chamber as described in the AAPM Report No. 111 "Comprehensive Methodology for the Evaluation of Radiation Dose in X-ray Computed Tomography." Ideal for dose measurements in modern wide beam multi-slice CT. Calibrated using X-rays @ 150 kVp, Phantom adapter included.



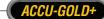
## 10X6-500

## Leakage Measurement Chamber

A single sensor leakage measurement solution for very low-level radiation measurements such as shielding, leakage, irradiators and environmental that is part of the Accu-Gold family of systems. Equivalent to the Fluke® 96010A Ion Chamber used in the Fluke® Radiation Leakage Detection System, this chamber meets 21 CFR 1020.30(k) for leakage measurement requirements.



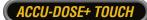
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#### **SPECIFICATIONS / TECHNICAL DATA:**

All specifications subject to change.

CHAMBERS	10X6-6		10X6-6M		10X6-10		10X6-60		10X6-3CT *		10X6-180		10X6-1800		10X6-0.18		10X6-0.6/0.6CT		10X6-500	
Min Rate	2 μR/s	20 nGy/s	2 μR/s	20 nGy/s	2 μR/s	20 nGy/s	200 nR/s	2.0 nGy/s	2 μR/s	20 nGy/s	100 nR/s	1 nGy/s **	0.1 mR/hr	0.1 μGy/hr	50 μR/s	500 nGy/s	20 μR/s	200 nGy/s	62 nR/s	0.6 nGy/s
Max Rate	17 R/s	149 mGy/s	10 R/s	88 mGy/s	17 R/s	149 mGy/s	2 R/s	19 mGy/s	40 R/s	350 mGy/s	0.6 R/s	4.9 mGy/s	18 mR/s	0.2 mGy/s	720 R/s	6.31 Gy/s	133 R/s	1.17 Gy/s	0.25 R/s	2.1 mGy/s
Min Dose	10 μR	100 nGy	10 μR	100 nGy	10 μR	100 nGy	1 µR	10 nGy	20 µR	200 nGy	200 nR	2 nGy	1 nR	0.01 nGy	200 μR	2 μGy	100 μR	1 μGy	-	_
Max Dose	59 kR	516 Gy	59 kR	516 Gy	59 kR	516 Gy	5.9 kR	52 Gy	118 kR	1 kGy	2.0 kR	17 Gy	196 R	1.7 Gy	2 MR	17 kGy	589 kR	5 kGy	-	_
Calibration Accuracy	±4% using X-rays @ 60kVp and 2.8 mm AL HVL		±4% using X-rays @ 30kVp and 0.50 mm AL HVL		±4% using X-rays @ 150 kVp & 10.2 mm Al hvl		±4% using X-rays @ 150kVp and 10.2 mm AL HVL		±4% using X-rays @ 150kVp and 10.2 mm AL HVL		±4% using X-rays @ 150kVp and 10.2 mm AL HVL		±4% using X-rays @ 150kVp and 10.2 mm AL HVL		±4% @ <sub>60</sub> Co		<b>0.6</b> ±4% @ <sub>60</sub> Co	0.6CT ±4% using X-r ±4% using X-rays @ 100 kVp & 3.96 150 kVp and 10.2mm Al HVL		
Exposure Rate Dependance	$\pm 5\%$ , 0.4 mR/s to 80 R/s, up to 500 R/s for 50 us pulses		/		$\pm 5\%$ , 0.4 mR/s to 80 R/s, up to 500 R/s for 50 us pulses		±5%, 2 mR/min to 199 R/min		±2%, 2mR/s to 40 R/s		±5%, 20 mR/hr to 2000 R/hr		+0%, -5%, 0.1 mR/hr to 20R/hr, -10% to 65 R/hr		. ,		±2%, 10 mR/s to 100 R/s		±5% up to 5 Gy/hr (570 R/hr)	
Energy Dependance	±5%, 30 keV to 1.33 MeV (with build-up material)		±5%, 10 keV to 40 keV		±5%, 1.5 mm Al to 15 mm Al hvl		±5% 20 keV to 1.33 MeV (with build-up material)		±5%, 3 to 20 mm AL HVL		±5%, 30 keV to 1.33 MeV (with build up material)		±5%, 33 keV to 1.33 MeV (with build up material)		±5%, 45 keV to 1.33 MeV		0.6		±5%, 40-150kVp (RQR and RQA Beam Qualities)	
Active Length / Area	27.6 mm		N/A		N/A		N/A		100 mm		100 cm <sup>2</sup> ***		165 mm		8.1 mm		19.7 mm		200 mm	
Construction	Polycarbonate walls and electrode conductive graphite interior coating; 6 cm³ active volume; 0.05kg				Polycarbonate walls and electrode. Conductive graphite exterior coating. 10.3 cm³ active volume. 1.5m low noise triax cable. 0.05kg		Polycarbonate walls; conductive graphite exterior coating; 60 cm <sup>3</sup> active volume, 0.5 m low-noise triax cable; 0.13kg		C552 air-equivalent walls and electrode: polyacetal exterior cap; 3 cm³ active volume; 1.5m, low noise triax cable; 0.11kg		Polycarbonate walls and electrode; conductive graphite exterior coating; 180 cm <sup>3</sup> active volume; 0.11kg		Polycarbonate walls and electrode; conductive graphite exterior coating; 1800 cm³ active volume; 0.54 kg		C552 air-equivalent walls and electrode; polyacetal exterior cap, 0.18 cm³ active volume, 3m triax cable				Truncated cylinder, polycarbonate walls and electrode; conductive graphite exterior coating; 522 cm3 active volume; 0.54 kg	

<sup>\*</sup> Uniformity Along Length & Partial Volume Exposure: ±5%, to within 0.25 cm of chamber ends for a constant volume slice. Active length of 10 cm.

<sup>\*\* 0.3</sup> nGy/s with waveform analysis

<sup>\*\*\*</sup> Complies with CFR 21