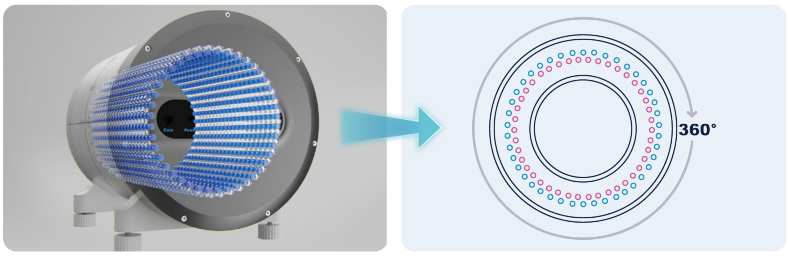
ArcMap

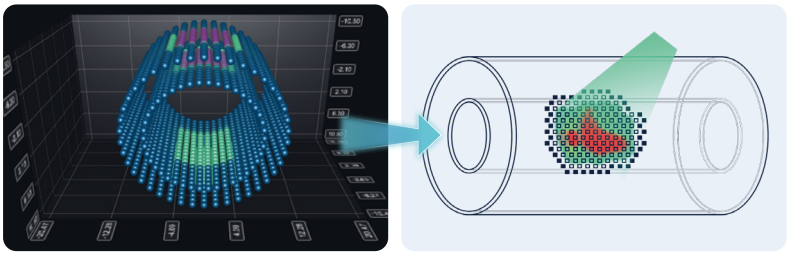
reddot winner 2023
medical devices and technology design

RAYDOSE®

1,764 ion chambers are arranged in a dual-layer ring configuration, accurately presenting spatial dose distribution information.

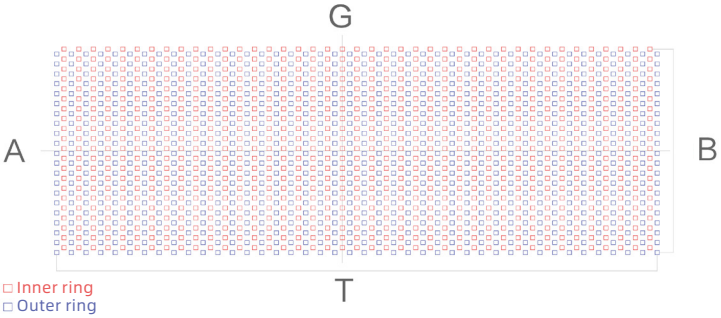


Optimize space usage with a double-layer ring staggered layout, facilitating three-dimensional dose measurement of both high and low dose areas (inner and outer rings).



Achieve 360° full coverage in 3D space, effectively reducing deviations caused by energy and angle responses.

Ion chamber arrangement plan view: layer arrangement, staggered layout



Ion chamber spacing (center to center)	AB Direction ≤ 7.85mm	
	GT Direction ≤ 5.4mm	
Ion chamber margins	AB Direction ≤ 2.85mm	
	GT Direction ≤ 0.4mm	

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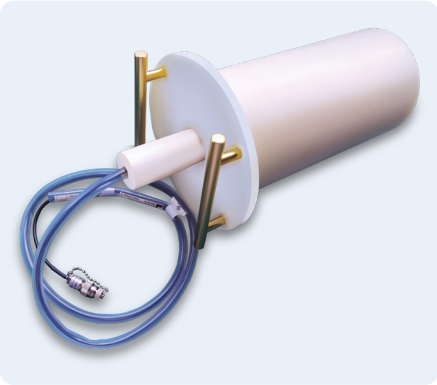
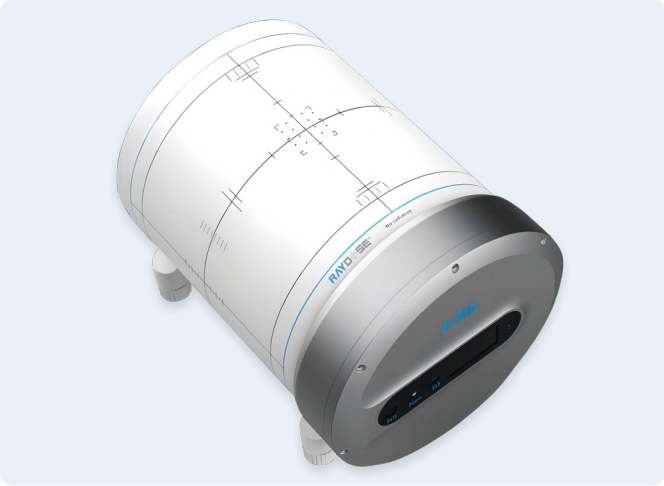
- Supports LINAC models, including Halcyon, Edge, VitalBeam, Infinity, Synergy, and Tomo.
- Compatible with TPS such as Eclipse, Monaco, Pinnacle, and Raystation.
- Supports RT techniques, including IMRT and VMAT.



Equipped with solid water insert and ion chamber insert, supporting 3D dose verification and point dose measurement.




The surface is printed with guide lines to assist in positioning and measurement.
The LCD screen can display information such as angle, temperature, and air pressure in real-time.

Technical Parameters

Detector Type **Ion chamber**	Detector Quantity **1,764**	Detector Volume **0.094cc**	Nominal Sensitivity **3.6nc/Gy±0.2nc/Gy**
Weight **18.5kg**	Repeatability **≤±0.5%**	Non-linearity **≤±0.5%**	Dimensions(L×W×H) **373.4mm×309mm×280mm**
Field Size **21cm×21cm**	Insert Cavity Radius **6.7cm**	Inner Ring Radius **9.5cm**	Outer Ring Radius **10.5cm**
Material **PMMA**	Detector Volume(R×H) **2.5mm×4.8mm**		