Radiology Oncology SYSTEMS

CT Scanner X-ray Tube

Comparison chart

This chart compares X-ray tubes for various CT scanner models, providing key information on lifespan and pricing, including estimated new Original Equipment Manufacturer (OEM) and used tube options. It aims to assist healthcare professionals and administrators in making informed decisions about CT equipment and maintenance. Understanding the potential options for service maintenance and choices for replacement CT tubes can have a large impact on the Total Cost of Ownership (TCO) of your CT system.

CT Manufacturer	CT Model	Original Tube Model	Bearing Type	EoI (Scan seconds/ slices/mAs)	Average US $ List Price (New)	Average US $ Retail Price (New)	Average US $ Price (Used/Refurb)	Replacement Tube Options
GE	HiSpeedCT/e, HiSpeed CT/e dual, Brivio CT315, Brivio CT 325, Brivio CT 385	MX-135	Ball bearing	50M-60M mAs	$65k-$75k	$40k-$35k	$20k-$35k	Chronos DA135 CT/e, Varex GS2276, GE MaxiRay 135
	Brightspeed Edge, Brightspeed Elite, Brightspeed Excel, Discovery NM/CT 670, Discovery NM/ CT670Pro, Discovery ST, Discovery STE, Discovery RX, Lightspeed 16, Lightspeed Plus, Lightspeed Ultra, Optima CT540	Performix (MX200)	Ball bearing	120M-150M mAs	$100k	$65k-$85k	$25k-$40k	Chronos AU200, Varex MCS6074, GE Maxiray MX200
	VCT 64, Discovery NM/CT570c, Discovery VCT, Lightspeed Pro, Lightspeed VCT, Lighspeed VCT Select, Lightspeed VCT XT, Lightspeed VCT Xte, Lightspeed Pro 32 & 16, Optima CT580	Performix VCT100, MX240, Hercules, VCT Pro	Ball bearing	150M-180M mAs	$150k	$80k-$125k	$60k-$80k	Chronos AU240, Varex MCS8064, GE Maxiray MX240
	Optima CT660	Performix 40 Plus	Ball bearing or LMB	180M-250M mAs	$135k-$210k	$70k-$140k	$70k-$100k	Chronos AU200-C40, GE Maxiray MX240
	Lightspeed RT4	Performix Pro (Mini Hercules "Snowbird" 7.5 MHU)	Ball bearing	8M-10M mAs	$225k	$100k-$130k	$80k-$110k	Chronos AU240, GE MX 240 or Varex MCS7079, but note they are not interchangeable
	Brightspeed Edge Select, Brightspeed Elite Select, Brightspeed Excel Select, HiSpeed DX/I, HiSpeed FX/I, HiSpeed, LX/I, HiSpeed NX/I, Optima CT520, Optima CT520 Pro	MX165NP, Solarix	Ball bearing	60M-80M mAs	$65k-$75k	$50k-$60k	$25k-$50k	Chronos DA165NP, Varex GS3576S, GE Maxiray MX165
	Discovery HD750	Performix Pro (Perseus)	Ball bearing	150M-180M mAs	$200k	$140k-$170k	$60k-$90k	OEM propritary or pre-owned
	Revolution EVO	Performix HD	Ball bearing	250M-300M mAs	$225k	$180k-$210k	$80k-$110k	Dunlee DA200P40+LMB, Varex CTX91-6180

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Siemens	Sensation 16	Akron Q	Ball bearing	500k-600k slices	$75k	$45k-$60k	$20k-$40k	Chronos S532Q
	Volume Access, Volume Zoom, Sensation 4	AkronB	Ball bearing	400k-500k slices	$70k	$40k-$55k	$25k-$40k	OEM propritary or pre-owned
	Somatom Sensation 40, 64	Straton Z	Ball bearing	900k-1.2M scan seconds	$225k	$150k-$200k	$70k-$100k	OEM propritary or pre-owned
	Emotion, Somatom Emotion 1, 2, 4, 6, 16	Dura 181 MV, Dura 202, Dura O, Z, Dura 422	Ball bearing	500k-1M scan seconds	$125k	$60k-$80k	$25k-$40k	OEM propritary or pre-owned
	Somatom Perspective 64, 128	Dura 688 MV	Ball bearing	800k-1.5M scan seconds	$135k	$70k-$90k	$35k-$55k	OEM propritary or pre-owned
	Definition AS, AS+, Edge, Flash	Straton MX P46	Ball bearing	600k scan seconds	$225k	$150k-$200k	$35k-$55k	OEM propritary or pre-owned
	SOMATOM go.Now, go.Up	Chronon X-ray tube	LMB	150M-200M mAs	$200k	$150k-$180k	$70k-$100k	OEM propritary or pre-owned
Toshiba/ Canon	Aquilion 4, 8, 16, Large Bore 16, 64, CXL, RXL, VeloCT, Prime | Gen 1	CXB-750D/2A or 4A	Ball bearing	600k-800k scan seconds	$175k	$100k-$125k	$40k-$80k	Richardson ALTA750D
	Aquilion ONE™, ONE™Premium, ONE™ ViSION, PRISM | GENESIS	CXB-750E/2A, CXB-750F/2A	Ball bearing	1M-1.5M scan seconds	$190k	$110k-$150k	$60k-$100k	OEM propritary or pre-owned
	Aquilion Prime, Prime SP, Exceed LB	CXB-750G/4A	Ball bearing	800k-1M scan seconds	$200k	$120k-$160k	$50k-$80k	Richardson Alta 750G
	Aquilion Precision	CXB-750U/1A	Ball bearing	600k-800k scan seconds	$225k	$120k-$180k	$80k-$120k	OEM propritary or pre-owned
	Aquilion Lightning™ Series	CXB-500B/1A, CXB-500B/1A HeliCool V	Ball bearing	600k-800k scan seconds	$225k	$150k-$200k	$70k-$100k	OEM propritary or pre-owned
Philips	Brilliance 6, 16	MRC 600 (6), MRC 800 (16)	LMB	1M-1.5M scan seconds	$175k	$100k-$150k	$40k-$80k	Varex GS-5172
	MX8000 IDT 10, 16	Akron Q	Ball bearing	400k-500k slices	$75k	$45k-$60k	$20k-$40k	Chronos S532Q
	MX8000 Dual, MX8000 4	Akron B	Ball bearing	400k-500k slices	$70k	$40k-$55k	$25k-$45k	Chronos S532B
	Brilliance Big Bore 6, 16, 64	MRC 800	LMB	1M-1.5M scan seconds	$175k	$100k-$150k	$40k-$80k	OEM propritary or pre-owned
	Brilliance iCT	iMRC CT XS	LMB	1.5M-2M scan seconds	$275k	$160k-$250k	$90k-$125k	OEM propritary or pre-owned
	Incisive	iMRC	LMB	200M-300M mAs	$225k	$160k-$200k	$90k-$125k	OEM propritary or pre-owned

Understanding CT Tube Life (EOL) CT tubes will eventually fail due to high voltage operation and heat production.
Manufacturers use different metrics to measure tube life and set warranties:

- mAs (milliamp seconds) – GE's metric: measures tube usage based on power and time
- Scan Seconds – Used by Toshiba/Canon, Siemens, and Philips: measures active scanning time
- Total Patient Exams – Used by some manufacturers to track overall usage

Additional Notes:

1. The lifespan (EoL) metrics are based on typical usage patterns. Actual tube life can vary based on specific usage conditions and maintenance practices.
2. Prices can fluctuate based on market conditions, supply chain issues, and technological advancements.
3. Alternative new OEM tubes are not available for all models. Where available, they can offer significant cost savings compared to new OEM tubes, reducing TCO for the Provider.
4. Pre-Owned tubes may be categorized as "Low-Use" (typically less than 50% of expected lifespan used) and "Moderate-Use" (typically 50-75% of expected lifespan used).
5. Always consult with the manufacturer or a qualified service provider for the most accurate and up-to-date information specific to your CT scanner model and intended usage.
6. Bearing type can affect tube performance, lifespan, and cost. Consider this factor when evaluating replacement options or new CT scanner purchases.

Feedback and Updates:
This data herein is maintained to provide the most current and accurate information possible. However, given the rapidly evolving nature of CT technology and the medical equipment market, we recognize that there may be recent developments or specific details that we haven't captured.
If you have any additional information, corrections, or updates that could improve this chart, we welcome your input. Please feel free to contact us with any information you'd like to contribute.

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