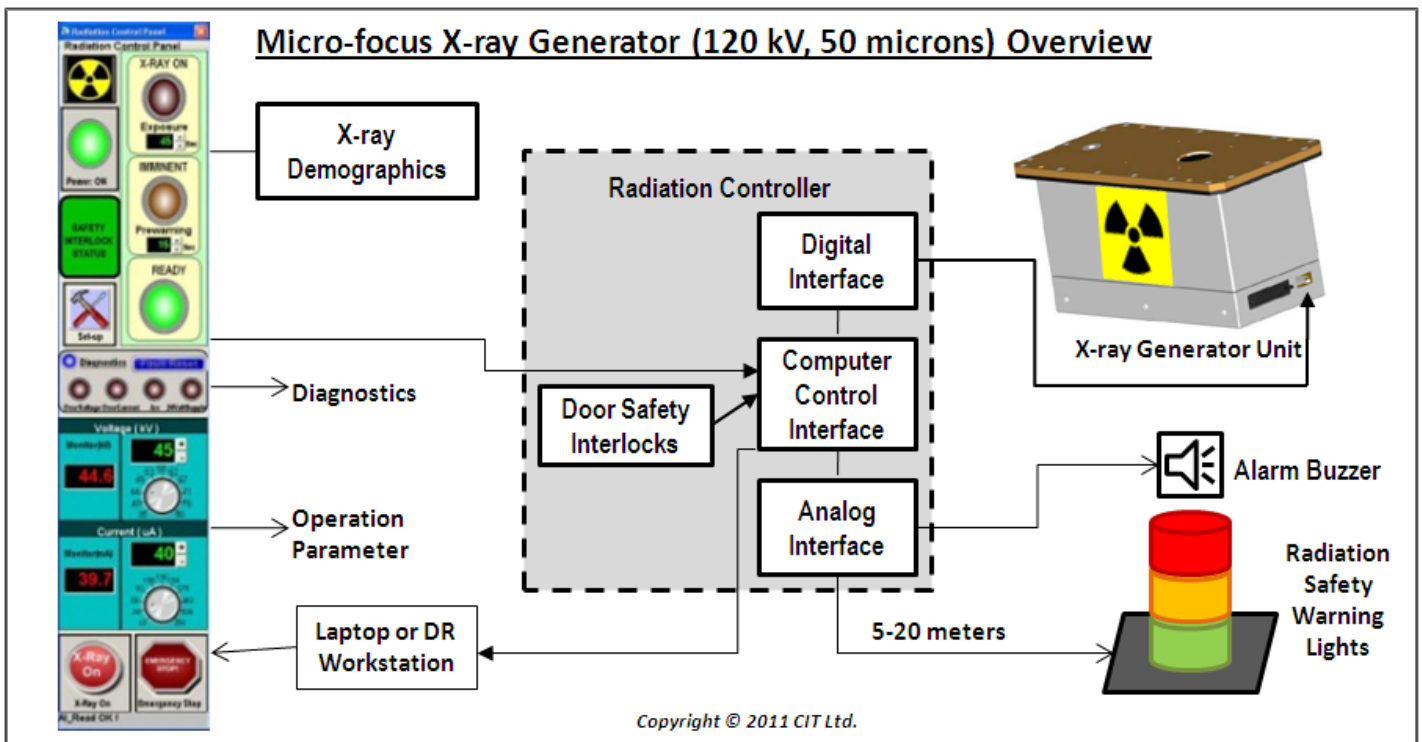


## CIT / 120kV (Be window) Compact Micro-focus X- Ray Generator

Product Code: CIT/120kV-50um x-ray unit

The latest NDT Digital Radiography trends require **high definition radiographic images** to be achieved. This compact micro-focus x-ray generator offers high stability x-rays with **50 microns** focal spot. The operation of the x-ray generator is computer controlled and integrated into software application making it fulfill the **U.K. ionisation radiation safety requirements**. Hence, the end customers can use this technology by integrating it into their NDT department.



The latest CIT/120kV X-ray unit is a completely revolutionary innovation that integrates the x-ray tube, the filament supplies, control circuitry and the digital interface into a single assembly.

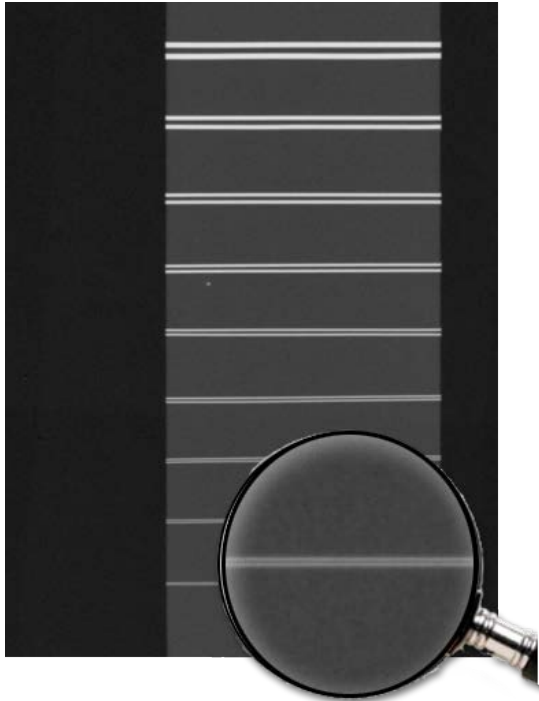
The CIT/120kV source block comes with a digital control interface, which along with the basic controls provides the feature of **Automatic Tube Conditioning**. The x-ray tube needs conditioning in case it is unused for duration of over 90 days. The Automatic Tube Conditioning feature performs the necessary operations to recondition the x-ray tube.

### Applications

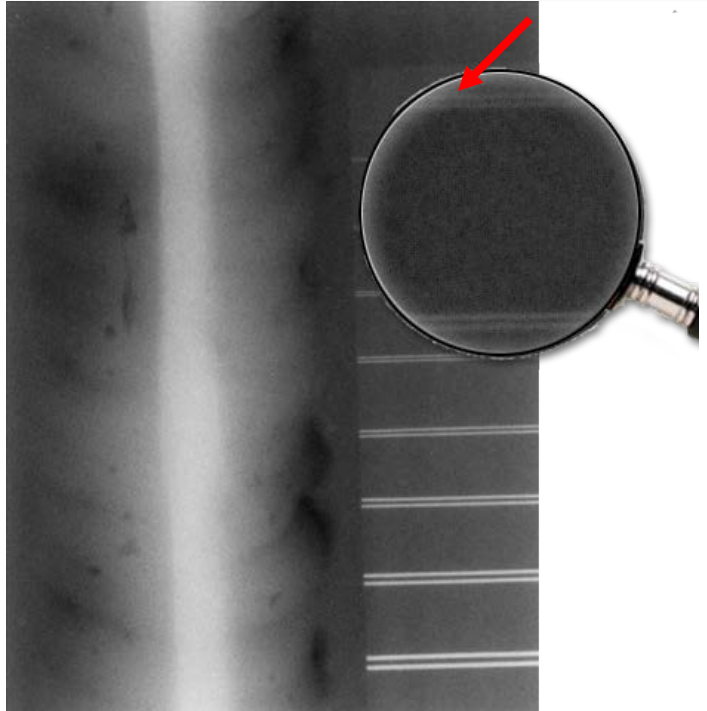
- Max. Thickness inspected – 4mm of Copper
- Other Material thickness can be calculated from above
- Composite Inspection
- Thin welds from 50µ to 4 mm thickness (Equivalent Cu thickness)
- Thin foils from thickness 30µ spheres and above

### Benefits

- Single pack design enables *CIT/120kV* to be turned on and set up within a matter of seconds on any type of terrain
- Light weight and single package makes it highly portable
- Minimum focal spot of 50µ provides very sharp images and possibility to make geometrical enlargement.
- Continuous operation and air cooled
- Configurable with analog or digital interfaces
- Highly compact form allows the operator to X-ray objects located in very confined spaces

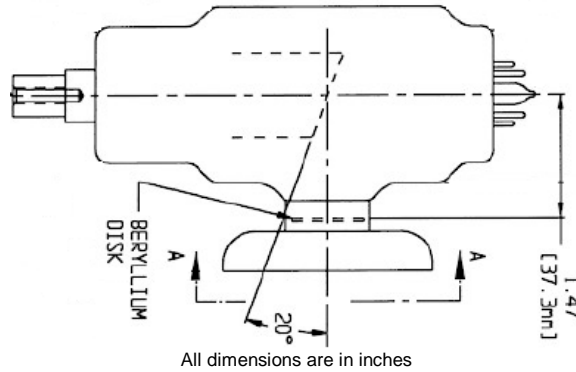


13<sup>th</sup> Line pair visible on Duplex IQI



12<sup>th</sup> Line pair visible on Duplex IQI

**Outline Dimensions of CIT/120kV X-ray Unit**



**Technical/Electrical Specifications**

|  |                                 |   |   |
|--|---------------------------------|---|---|
| Focal Spot (nominal)*<br>* IEC336, JISZ47045, NEMA | 50 micron                       | Dose rate                               | 52.28R/minute at SDD of 30cm                                      |
| Input Power  | 24VDC @ 4A                      | Line Regulation (emission current)      | 0.5% for a ±5% line change  |
| Duty Cycle   | CW (air cooled)                 | Load Regulation (emission current)      | 1% for KV changes 60-120 KV                                       |
| KVP Range  | 60-120 kV <sub>p</sub>          | Ripple (kV <sub>p</sub> )               | 1% RMS at 120KVP, 350µA   |
| A Range  | 10-350 µA max.                  | Rise Time (kV <sub>p</sub> )            | 250 ms from standby   |
| Line Regulation (KVP)                              | 0.1% for a ±5% line change      | Set-ability                             | 0.5%  |
| Load Regulation (KVP)                              | 0.1% for load changes 10-350 µA | Temp. Stability (after 30 min. warm-up) | 0.01%/°C per hr over 10-35°C<br>0.02%/°C per 8 hours over 10-35°C |

\*CIT is authorised system OEM distributors

*CIT can provide a tripod or heavy duty articulated arm on request*

**Computerised Information Technology Limited**

20, Potters Lane, Kiln Farm, Milton Keynes, Buckinghamshire, United Kingdom MK113 HF  
Tel: +44(0)1908260082, Fax: +44(0)1908260084, Email: info@cituk.com  
Website: www.cituk.com | Regd. Office England: 2149641