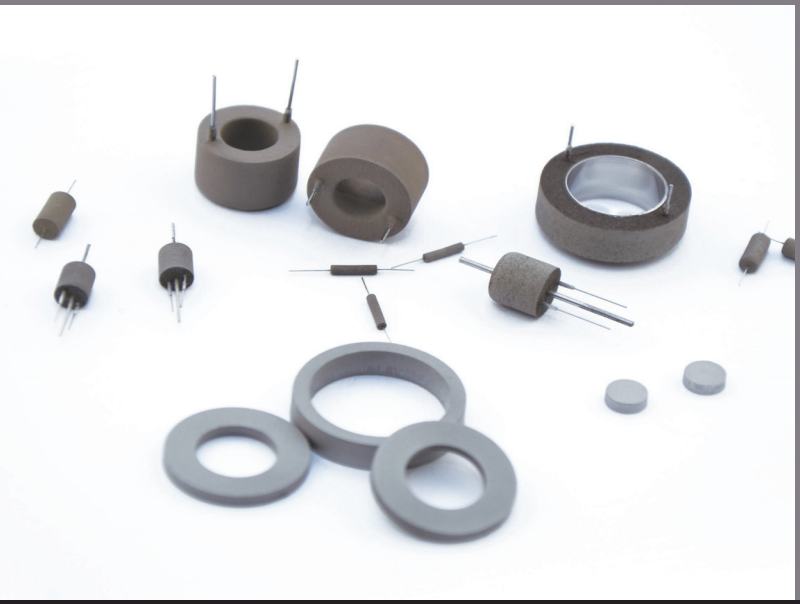


Solutions for X-ray Tubes

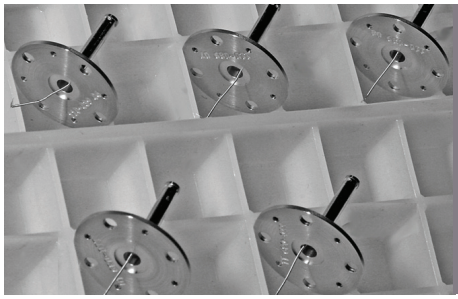
saes group

making innovation happen, together

Solutions for X-ray Tubes

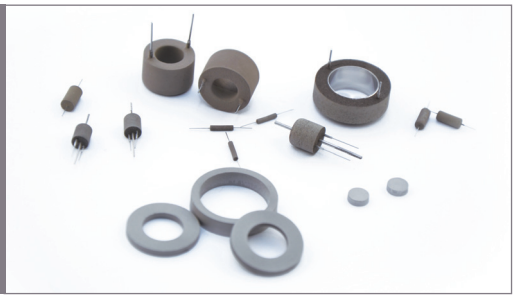
High Reliability Cathodes and Getters

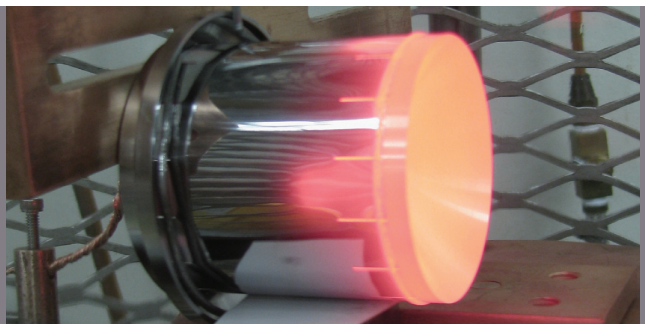
An X-ray tube requires a long-lived, stable and uniform electron emission source to guarantee an output radiation of the desired performance. This in particular is valid for X-ray devices with micro focus capabilities for medical, industrial and scientific applications who require a highly focused and small diameter electron beam generated by a suitable dispenser cathode.
Improving and maintaining the vacuum environment inside X-ray tubes are fundamental requirements to ensure lifetime, reliability and performance. High porosity getters are high capacity mini pumps which ensure the required level of vacuum in last generation devices and enable the device performance.



Dispensers Cathodes

High Porosity Getters



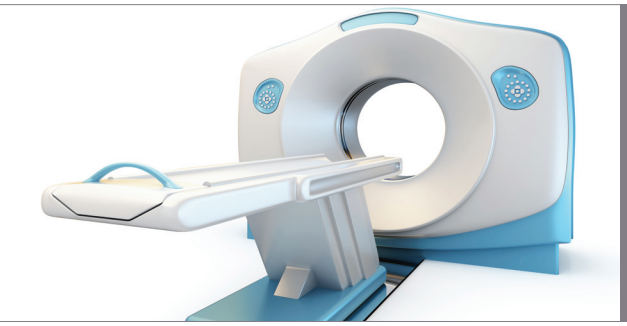


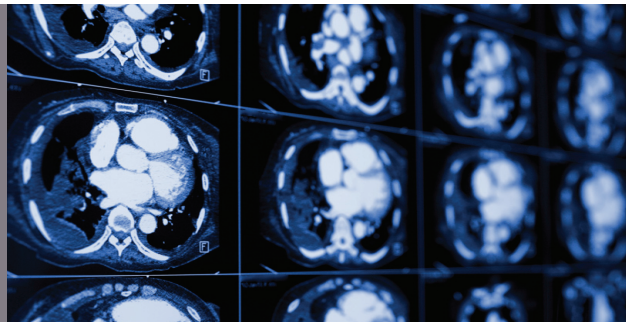
Dispenser Cathodes

SAES is supplying dispenser cathodes leveraging the 50 years experience in manufacturing and technology of Spectra-Mat Inc. Our vertically integrated manufacturing line assures full quality control of every manufacturing step. These cathodes are used throughout the world in klystrons, traveling wave tubes, gyrotrons, magnetrons and ion lasers.
Spectra-Mat's latest series of X-ray cathodes extend our long heritage with tens of thousands of cathodes built successfully into X-ray devices.
The experienced engineering team at Spectra-Mat will assist customers technically for the mounting of dispenser cathodes inside the tubes, for the activation of cathode and for its integration inside the X-ray device manufacturing process.

Getters

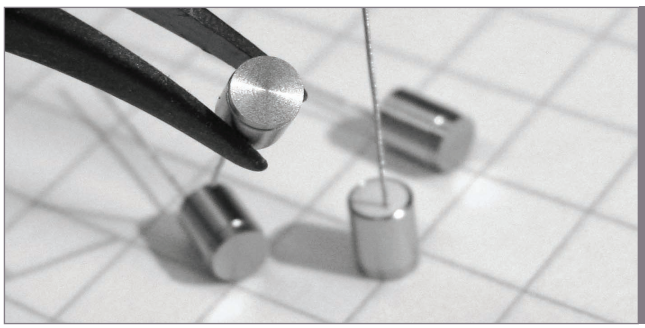
Getter materials manufactured by SAES have represented the industry standard for decades and, originally developed also in cooperation with customers, enable the highest functionalities of the device.
Among the huge varieties of getter families, the non evaporable sintered getters offer the highest sorption capacity in the smallest volume. Specific surface treatments guarantee that particles do not escape from the getter body even in the strong vibration conditions typical of medical CT scanners.
SAES performs Residual Gas Analyses and Outgassing Tests to measure getter properties in the actual tube and process, and in order to support the customer in the determination of device lifetime.





Our competitive advantages :

- Long lifetime dispensers cathodes
- Electron gun manufacturing capability
- High capacity getters for high vacuum requirements
- Extremely high and controlled purity materials
- Bespoke configurations for cathodes and getters
- Residual gas analyses capability



X-ray emitters

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The SAES Group manufacturing companies are ISO9001 certified, the Asian and Italian companies are ISO14001 certified also. Full information about certifications for each company of the Group is available on the corporate website at: www.saesgroup.com

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