

X-Ray Processing at STERIS

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STERIS

X-ray irradiation is used in a wide variety of materials processing applications for sterilization and materials modification. Continuing development of the x-ray irradiation processing aligns with STERIS AST's goal of providing technology neutral offerings. The benefits of x-ray processing include improved penetration through Customer products for optimized uniformity, fast and efficient processing, flexibility of treatment, and reduced material degradation with reduced processing times. An overview of the x-ray irradiation processes at STERIS will be presented. Parallel to the development of x-ray irradiation processes, research is underway to understand processed material responses when varying operating parameters of an x-ray processing system. A sensitivity study has been performed on a range of parameters considered constant during x-ray irradiation to understand their impact on dose delivered. In this presentation, we will cover what change in the magnitude of operating scan width is required to bring a product's treatment to process capable and review the importance of reproducibly placing dosimetry within a certain area for repeatable dosimetric measurements. The results of this study will further our knowledge and understanding of routine processing.