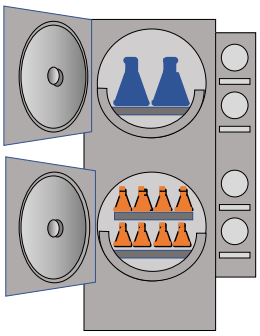
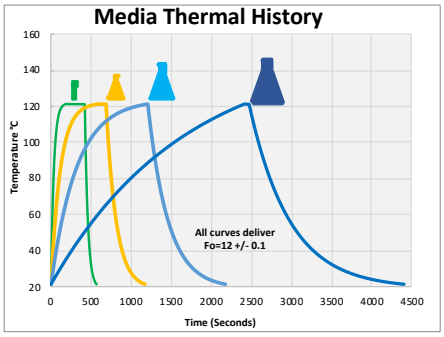
CASE STUDY

Media Sterilization:
Autoclave Vs Continuous Thermal Sterilization…CTS

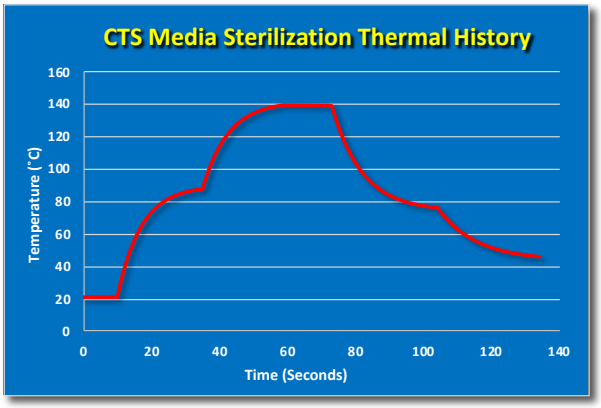


A global media manufacturer faced frustrating and costly problems from inconsistent media performance. Despite standardizing their ingredients, the problems persisted and were not improved by costly ingredient enrichment. The problem was that different size vessels produced different media performance and failures from contamination. Even after optimizing the autoclave cycles for each size vessel, variation in media performance remained. This complicated scale-up and significantly increase costs and timetables.



The Problem:
Larger vessels took longer to heat and sterilize than smaller ones. Even at the same sterility assurance level, media in large vessels were often browned and underperformed. This impaired production and downline activities for some media. Many promising but fragile media failed when sterilized in larger vessels, frustrating development and scale-up.

The Simple Solution:
Continuous Thermal Sterilization (CTS) from MTI BioScience was an excellent solution. It sterilized with one steady-state thermal exposure and eliminated the variation in media performance. With CTS, the media were sterilized using conditions that were optimized for media performance and sterility assurance. This gentle process allowed thermal sterilization and scale-up of many fragile media that were not possible before. Ingredient costs were reduced because of less processing damage. Handling procedures were improved as manual labor was reduced. Failure rates also dropped, improving production efficiencies.



Added Benefits:
After implementing MTI BioScience CTS systems, they were able to increase production because of reduced handling. They also recognized that multipart media requiring separate sterilization could be produced using CTS. Separate media components were sterilized in series and quantitatively combined using MTI BioScience specialty automation and fill valve controls. This expanded their processing and production capabilities and saved expenses over previous manual methods.

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