

# Steam Purity vs. Steam Quality

STEAM STERILIZATION EXPERT SERIES

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Joel Schafer, CRCST  
VP of Sterile Services, LLC

*Beyond Clean Steam Sterilization Expert Series:*

## STEAM PURITY VS. STEAM QUALITY

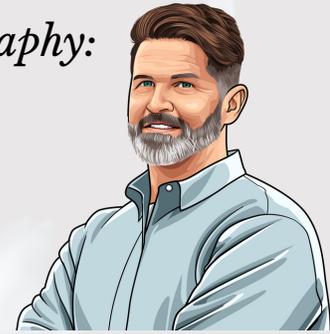
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Steam purity and steam quality. These seem like pretty interchangeable terms, right? According to AAMI ST79:2017, they most definitely are not. ST79 defines steam purity as the, “degree to which steam is free of dissolved and suspended particles, water treatment chemicals, and other contaminants.” It defines steam quality as, “steam characteristic reflecting the dryness fraction (weight of dry steam present in a mixture of dry saturated steam and entrained water) and the level of noncondensable gas (air or other gas that will not condense under the conditions of temperature and pressure used during the sterilization process).” To oversimplify the definition of both terms, steam quality means how wet or dry the steam is and steam purity is how free of contaminants that the steam is. The document later recommends that both steam quality and steam purity be monitored and documented by each facility. Fortunately for SPD, these requirements are for Facilities Engineering. Whew! We’re in the clear, right? Non-compliance with the AAMI standards for steam quality and purity can lead to issues for SPD such as staining and pitting of instrumentation and stainless equipment to devices not being properly sterilized. Further, some of the additives that are used to maintain boilers and steam lines can damage surgical devices and equipment. Start a dialogue with your FE team and make sure that you’re getting the steam that you need.

Have more steam sterilization questions? Contact Joel at: [joel@hhstx.com](mailto:joel@hhstx.com)

*Beyond Clean Steam Sterilization Expert Biography:*

## JOEL SCHAFER, CRCST VP OF STERILE SERVICES, LLC



Joel Schafer is the Vice President of Engineering and Product Development for Sterile Services, LLC. Based in Houston, Sterile Services evolved from its parent company Houston Hospital Services, Inc. from an ever-growing need for sterilization consultative services throughout the Texas Medical Center. While Sterile Services began in Houston with the Texas Medical Center, the company's reputation has grown beyond Texas and has led Joel into some of the most prestigious hospital institutions nationwide. Joel has over 15 years' experience working alongside sterile processing department staff and management. Growing from an onsite instrument repair technician into a consultative sales representative, Joel was able to personally design and manufacturer Sterile Services proprietary autoclave validation tools, including an inner-lumen sensor unique to surgical instrumentation validation. Joel is CRCST and a founding member of the Houston IAHCSSM chapter. With the increased awareness of the steam sterilization processes, Joel's ambition is to highlight the role of every hospital's sterile processing department and the steam sterilization process.

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