



THE TO-DO ABOUT CLEAN STEAM

WATER QUALITY EXPERT

BEYOND
CLEAN



Jeffrey Paquet | President & CEO
VERDA Water Quality Systems & mmic™

Beyond Clean Water Quality Expert™:

THE TO-DO ABOUT CLEAN STEAM

Jeffrey Paquet | President & CEO

VERDA Water Quality Systems© & mmic™

If your department is looking at new Vacuum Gravity Steam Sterilizers, you are probably being offered the choice of a Clean Steam Sterilizer. Why is this different than what you have now? To understand this, we must examine the basic theory of how these automated devices work. Water is a very good conductor of heat, while air is a good insulator and does not conduct heat well. The sterilizer removes air through vacuum and introduces water and heat in the form of water vapor. This vapor penetrates the wrapping, transfers heat to the instruments, and destroys virtually all biological contaminants. The water is then removed from the instruments by “boiling” it off.

To perform this function without contaminating the instruments or leaving water behind, “wet packs,” the steam must be clean and dry. Dry steam contains no water droplets, only water vapor. Clean steam is produced from Critical Water through an RO or DI process and contains virtually no ionic contaminants, which are electrically charged particles that attract water molecules to form droplets that make steam wet. The ions are molecules such as heavy metals or salts that can be deposited on sterilized instruments. This can cause corrosion and eventually a place for biological contaminants to hide and survive the sterilization process.

It is important to understand that Clean Steam Sterilizers do not produce clean steam. They can use Clean Steam. Clean Steam is produced from deionized water using an RO system or DI tanks. Deionized water is very corrosive to many typical plumbing materials such as copper, brass, and carbon steel. Clean Steam Sterilizers contain components manufactured from stainless steel and other materials to use Clean Steam. This means that supplying typical house steam or facility water to a Clean Steam Sterilizer defeats the purpose of having this equipment.

Have more questions for this expert? Contact Jeffrey at jpaquet@mmicmedical.com

Beyond Clean Water Quality Expert™ Biography:

JEFFREY PAQUET

PRESIDENT & CEO
VERDA WATER QUALITY SYSTEMS®
& MMIC™ MEDICAL SYSTEMS



Jeffrey Paquet is the CEO of MMIC Medical Systems and its VERDA Water Quality Systems. Mr. Paquet is an expert in Product Realization and Commercialization that stems from his career that spans nearly 30 years in various industries including Healthcare, Automotive, and Aerospace. Jeffrey has a Bachelors of Science in Aerospace Engineering from UCLA with his career focused on design, product development, and manufacturing. His experience in the Aerospace industry has driven his belief that the technology and operational systems employed to monitor processes and provide the ability for rapid response to dynamic situations have direct and valuable application in the healthcare environment.

 **BEYOND**CLEAN 