# HOW DOES A CONTAINER WORK IN A STEAM STEAM

## STERILE CONTAINERS EXPERT BEYOND CLEAN Retired

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**Retired Regional Sales Director | Aesculap** 

#### Beyond Clean Sterile Containers Expert ™: HOW DOES A CONTAINER WORK IN A STEAM STERILIZER?

#### Mike Strand | Retired Regional Sales Director, Aesculap

An autoclave, or more commonly, a steam sterilizer is the conventional method of sterilization of medical devices in hospitals around the world. The speed to process, the relatively low cost, the safety for patient and healthcare worker, and the consistent/predictable end-results make prevacuum steam sterilization the gold standard.

Sterilization containers are one of several vessels that a hospital SPD can use to create the sterile barrier. Rigid containers may present several advantages including protection of contents, durability and costeffectiveness, heightened assurance of infection prevention as there are no wraps to be torn or punctured, and increased staff efficiency and throughput.

So, how does a rigid container function in a pre-vac steam sterilizer? When loaded, sealed, locked, and labeled, a rigid container is ready to be placed in the sterilizer. The pre-vac sterilizer will go through three phases in its cycle and the container will react accordingly:

**Conditioning** - In a pre-vac cycle, the 'Dynamic Air Removal' process removes the air and the chamber is heated. The rigid container, often constructed from anodized aluminum, will heat up to the recommended sterilization temperature.

**Exposure** - Once the air is removed and the chamber is heated to the specified level to achieve sterilization, steam is introduced into the chamber. The rigid container will feature a filter mechanism, often a single-use cellulous or polypropylene material, which the steam will penetrate under pressure and surround the contents of the container.

Exhaust - Once the prescribed exposure time is reached, the steam is removed from the chamber and the pressure is released. This is also commonly known as the 'dry time'. The aluminum rigid container will begin to cool down, which is an important process so as to not allow for condensation to accumulate within the contents of the container, thereby presenting a dry load at the end of the cycle.

When dried, the filter used in the rigid container becomes part of the sterile barrier system, preventing contamination until the next use.

Beyond Clean Sterile Containers Expert TM Biography:

### MIKE STRAND RETIRED REGIONAL SALES DIRECTOR AESCULAP

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Michael started his medical device journey in 1984 and spent most of his career in Sales and Sales Management in the Pacific Northwest. The past 31 years were with Aesculap, based in the Seattle area. Michael was also Aesculap's Northwest Healthcare Solutions Regional Sales Director, responsible for 9 Sales Representatives and company growth.

Now retired, Michael enjoyed solution-oriented projects that created efficiencies focusing on industry standards and best practices. A passion for education and teaching kept Michael engaged with Sterile Processing Departments and Operating Rooms, as well as new hires within his organization.

Aesculap is an industry leader in Surgical Instruments, Sterilization Containers and Technical Repair Services. Helping hospitals Operate with Greater Precision, Aesculap's products and services assist with enhanced Patient Outcomes, create Operational Efficiency, enable Sustainability initiatives, and provide Clinical and Staff Satisfaction.

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