Cleaning and sterilization solutions
serving the biopharmaceutical industry worldwide

Exceed expectations through innovation.
Solutions for the global bio-pharmaceutical industry

Located in modern factories near Venice in Italy, Steelco Group is a major global supplier for cleaning and sterilization solutions for the global pharmaceutical industry as well as healthcare and laboratory. Steelco’s success is demonstrated by its strong growth, becoming the partner of choice for many of the world’s leading pharmaceutical companies who appreciate the company’s:

Experience and knowledge
• Strong track record of establishing long term global partnerships.
• Integrated in-house operations in more than 52,000 sq.mt. manufacturing sites. Equipment totally manufactured in Italy.
• Fully certified quality systems with knowledge of pharmaceutical manufacturing standards.

Extensive product range
• Over 3000 installations worldwide.
• Innovative washing equipment with customized loading racks.
• Diversified sterilization equipment.
• Fully automated closure processing equipment.
• Drying and depyrogenation ovens.
• Automation systems to maximize productivity and safety.

Global footprint
• Global HQ in Italy with regional customer support centres in the Americas and Asia.
• Network of factory trained agencies in over 100 countries worldwide with after service capabilities.

Quality engineering process
Technical consulting, design, engineering, project management, as well as commissioning and qualification services of our equipment is offered, with customers appreciating the cost effective high performance solutions offered to resolve complex washing and sterilization challenges.

Customers are always welcome to visit Steelco factories to see design and manufacturing methods and audit our processes.

Flexible solutions
• Ability to meet the most challenging processing needs.
• Only proven, non-proprietary, globally available components and automation systems.
**Compliance and guidelines**

The planning and the production of our washing, drying and sterilization systems is based on globally recognised standards as well as applicable regulations in the final installation country.

**Quality system certification**

We constantly strive to improve on our high standards to enable us to deliver optimal solutions for our partners in the biopharmaceutical industry: Process certifications (ISO 9001, ISO 14001), Product certifications.

**Extensive customer support services**

Customer service excellence is Steelco Group’s commitment to our clients and a cornerstone of our success with emergency service support if needed available, 24 hours, 7 days a week.

**Validation documents**

Equipment is developed and validated according to the latest GAMP and cGMP standards. Steelco “know-how” allows the client's to benefit from optimal solutions for their individual requirements, in order to perform effectively and reproducibility cleaning, sterilization and validation of pharma production components.

Design qualification (DQ), Installation qualification (IQ), Operational qualification (OQ), and Performance qualification (PQ) are provided in standard version or customized according to the final scope of supply.

Steelco Group is available anytime to support customers during all acceptance on site including process development and mapping.

**Integrated architecture**

Steelco can install new equipment into an existing automation system through the adoption of a simple (HMI) or more sophisticated (SCADA) man-machine interface.

User friendly control systems developed according to the latest GAMP and design for 21 CFR Part 11 available, sourced from the best available suppliers avoiding customized electronics.
Cleaning systems

DS PH range
Pharma Grade Parts Washers

Steelco understands the particular critical cleaning and drying requirements of equipment and components used in pharmaceutical production including: Glassware, filling line components and tools, tubing, TC fittings, valve and pump bodies, filter housings, punches and dies, reactor vessels and diverse equipment, bulk containers, tanks and carboys.

Main features
- Highest cleaning performance
- Protection of processed items
- Low water consumption
- Efficient drying system
- Repeatable and validatable process
- Globally available components and technical support

Chamber volume
from 230 litres / 8 cu.ft
to 2,400 litres / 85 cu.ft
Available in different dimensions and configurations.

LC PH Series
Pharma Grade Cabinet Washer

LC PH is a versatile system to treat large volume of items such as wash containers, large components, ultracentrifuges, bulk chemicals. Easily adjustable floor guides for different carts with access to filter. Spray nozzles on oscillating arms for perfect washing results. High performance efficiency with steam heater versions available.

Main features
- Easy cart connections
- Continuous moving spray arms and 360° constant internal bin cleaning for bulk loads
- Double drying unit
- Rotating washing arms to assure an adequate cleaning of loaded items
- Repeatable and validatable cycle
- Automatic loading and unloading system available upon request

Chamber volume
from 4,250 litres / 150 cu.ft
to 10,500 litres / 370 cu.ft
Available in different dimensions and configurations.

Pharma carts and trolleys
Standard and Customized Solutions

Using sophisticated 3D tools, Steelco’s engineering department optimizes cart design in order to reduce process time and water consumption whilst maximizing process effectiveness.
Sterilization solutions
AV Series
Saturated Steam Sterilizers

Main features
- Only Stainless Steel material: AISI 316L chamber, door, jacket, piping.
- AISI 304: control board and frame.
- "Unique" design of door gasket with standard warranty three years without replacement.
- PLC with copy of source code.
- Open architecture Siemens or Allen Bradley.

Versatile cGMP Steam Sterilizers, available in single or pass-through versions, with hinged or sliding doors. Built to a high standard, each unit is tailored to the customer’s individual specifications. Cart guides are welded into chamber floor for easy loading. Components from the market.

Chamber volume
from 195 litres / 7 cu.ft
to 10,000 litres / 353 cu.ft
SD or EG Series
Depyrogenation Oven & Hot Air Drying

The SD series is used to sterilize and depyrogenate of heat resistant materials including bottles, vials, glass containers, metal trays and production equipment, laboratory glassware and instruments, materials sensitive to humidity, thermostable basic pharmaceutical products, chemical compounds and non aqueous liquid materials such as oils, glycerines, etc.

Chamber volume
from 330 litres / 12 cu.ft
to 10,000 litres / 353 cu.ft

The EG series is used for drying by hot air of materials such as granulates, powders and porous loads.
For the treatment of granules with the presence of solvents, the dryer can be equipped to monitor flammability hazard by controlling LEL.

Chamber volume
from 330 litres / 12 cu.ft
to 10,000 litres / 353 cu.ft

SPE Series
Stopper Processing Equipment

Innovative customized stopper processor solutions for highly cost-effective projects. Process validated with major suppliers of stoppers and multinational pharma companies. Simultaneous processing of different types of stoppers.

Complete treatment of closure devices such as: rubber stoppers, plastic stoppers, syringes plungers, aluminium cap and other similar components.

Where continuous sterility has to be maintained, the SPE Series offers washing, rinsing, siliconizing, sterilizing, drying and cooling all in one solution.

Chamber volume
from 40 litres / 1.4 cu.ft
to 490 litres / 17 cu.ft

Main features
- Elimination of excessive accumulation of material during treatment phases
- Enhanced surface exposure to process fluids
- Optimized washing process, with effective endotoxin and particle reduction
- Uniform silicone distribution on individual stoppers and the entire batch
- Optimization of the CIP phase
- High productivity and efficiency
- Compatible with different loading/unloading systems, with the option of interfacing with vaporized hydrogen peroxide isolators.
- Automatic unloading into Sartorius Stedim Biotech clean & pre-sterilized Biosafe® Bags through the Biosafe® Biosteam S Port

MAL Series
Material Air Lock

MAL is manufactured to provide a validated turnkey solution for the biodecontamination of heat and moisture sensitive equipment to be introduced into a facility or to be processed through a permanent barrier. This device is available both in hinged stainless steel door version or with an hinged full glass door. It can be provided with an integrated or standalone hydrogen peroxide or nitrogen dioxide vapour generator.

Chamber volume
from 230 litres / 8 cu.ft
to 2,400 litres / 85 cu.ft

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Terminal sterilization

AMS & ASW Series
Steam Air Mixture sterilizer & Superheated-Water Sterilizer

Used to sterilize liquids in sealed or heat-sensitive containers such as: bottles, ampoules, vials, semi-open containers, bags, blister packs, prefilled syringes, pouches, contact lenses, large and small volume parenterals (LVP and SVP) etc, and also for the pasteurization of products like blood plasma.

Air-Steam or Superheated Water Process?
Selection depends on products thermal properties, process time - ASW is usually faster than AMS; level of dryness to be reached - AMS ensures cool & dry product on completion of process ready for downstream processing, running costs and utilities available on site.

Chamber volume
from 830 litres/ 29 cu.ft
to 25,000 litres/ 883 cu.ft

Chemical sterilization

AGS & AGS-E Series
Ethylene Oxide Sterilizer

AGS and AGS-E series are used for a low temperature sterilization of heat-sensitive products such as: plastic syringes, perfusion sets, dialysis cartridges, heat-sensitive rubber products and special surgical instruments.

AGS series
Pressure sterilization program up to 10% of Ethylene Oxide, with the remaining 90% made of inert gas.

AGS-E series
Vacuum sterilization program up to 90% or 100% of Ethylene Oxide, with the residual 10% made of inert gas.

Chamber volume
from 1 to 32 pallets