

COMPANY PROFILE

PASSION THAT DRIVES PERFORMANCES.









THE GROUP FEDEGARI AUTOCLAVI SPA

Is the holding company of an Italian industrial group manufacturing customized machines, plants and the relevant components for the bio-/pharmaceutical and food industry worldwide. The know-how of the group lies in the field of sterile and clean processes and encompasses different technologies and products.

Fedegari Autoclavi SpA was created by the will of brothers Giampiero and Fortunato Fedegari in the early Fifties in Pavia, Italy, as a small handicraft business dedicated to the manufacture of miscellaneous sheet metal products. It then developed into the production of sterilizers, progressively specializing in the design of these machines for applications in the pharmaceutical field.



Today, Fedegari is an industrial group controlling 9 companies worldwide with more than 500 employees and constantly growing revenues, 85-90% of which is exported mainly towards Western Europe, the USA, India and China.





A unique feature of Fedegari is the extreme verticalization of the company, which always rejected the idea of assembling sophisticated machines with standard components (designed for a variety of applications) but always sought to develop and produce components and technologies in-house, so as to acquire always deeper knowledge of the machines and innovate them always better than anybody else. Today Fedegari is a highly dynamic industrial group controlled by the family, ready to tackle the challenges of a global technological scenario. Fedegari is capable of offering **innovative solutions for clean and sterile processes** in terms of products and in terms of pre- and after-sales support all over the world.

Besides Fedegari Autoclavi SpA, the group is composed of the following companies:

Fedegari (SUISSE) SA

Originally established in the Seventies near Lugano (Switzerland), in 2001 the company moved into the current headquarters in Bedano, with 3500 m₂ of indoor production floor-space and about 30 personnel employed.

Fedegari GmbH

Founded in 2011 in Munich, Fedegari GmbH is the official distributor for all Fedegari products (industrial & laboratory) in Germany and supports all German-speaking markets. Fedegari GmbH provides all the support (sales and after-sales) for any Fedegari product in these countries. In 2019, Fedegari GmbH moved to Frankfurt Am Main.

Fedegari Technologies Inc.

In 2007, Fedegari established a commercial branch in the United States to support North American customers with commercial and technical personnel.

In 2014, Fedegari Technologies moved into a new facility in Sellersville (PA) with a state-of-the-art technology center. The center enables customers to simulate processes using dedicated equipment and provides specialized technical training.

Fedegari Asia Pte. Ltd. | Shanghai Fedegari Trading Co., Ltd

Fedegari Asia was founded in 2008 in Singapore in order to offer direct support to this market, which is currently the most dynamic one with the fastest growth rate. Other than commercial support, Fedegari Asia guarantees the presence of skilled technical personnel for after-sales support and a spare parts warehouse.

In 2017, Fedegari Asia opened a new branch in Shanghai, China.

Fedegari RUS OOO

In 2019 Fedegari Group opened a new branch office in Moscow, Russia. In this way the company can be closer to Russian customers for sales and after sales assistance.

Fedegari Tech Service Pvt. Ltd.

In 2019 Fedegari Group consolidated its role in the Asian market with the opening of a new Technical Support Center in Hyderabad, India. The new branch provides technical assistance to the many local customers who have been working with Fedegari process equipment for years.

Qualitech Srl

Established in 1999 with two experienced partners, the company provides all after-sales services for Fedegari products worldwide. Every single technician or engineer is exclusively trained on Fedegari products . Qualitech provides a complete range of services from installation to qualification/validation to any customized service agreement.

New Inox Srl

New Inox was opened in 2003 as a joint venture with partners of Fedegari with the goal of providing specialized field services where structural works are needed. This specialization is requested where special machines and plants are installed or where structural modifications (like those typical of a revamp) are carried out.

FEDEGARI (SUISSE) SA

FEDEGARI TECHNOLOGIES, INC.



FEDEGARI ASIA PTE. LTD.







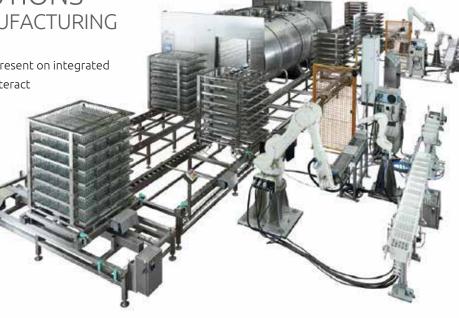
SHANGHAI FEDEGARI



COST-EFFECTIVE INTEGRATED SOLUTIONS FOR STERILE MANUFACTURING

The recent evolution of Fedegari Group is present on integrated projects where various process machines interact with robotized handling systems for fully automatic high-throughput manufacturing lines.

The processes are totally managed and controlled by Thema4 and can be integrated with the customer SCADA system.



PROCESS INTEGRATION



FOFxx + FCISxx Saturated steam sterilizer + Isolator



FOFxx + FCDVxx Saturated steam sterilizer + Chemical bio-decontamination unit



Thema4 PROCESS CONTROLLER

One process controller for all Fedegari machines

First delivered at the beginning of 2004, Thema4 is

today the most reliable and fastest-developing process controller in the industry.

Thema4 is defined as a completely configurable standard product (classified by GAMP 5 as Category 4 - Configured Products) and is managing all industrial machines manufactured by Fedegari.

This achievement is the logical consequence of almost three decades of painstaking work on process controllers combined with infrastructure investments, close collaboration with strategic partners and uncompromised values because there is no easy shortcut to durable success.

Thema4 in fact, is the natural evolution of the previous generation of controllers (like Thema3 and SuperSpectra before that), that were based on custom-made hardware. While Thema4 has inherited the process management principles of its predecessor, it is absolutely different in terms of hardware components (COTS), software architecture, HMI and general and integration functions.

With Thema4, Fedegari assures the commercial availability of standard components, the integration levels required in modern pharmaceutical plants together with functions and performances to meet quality and safety standards of those production processes for which the application is intended.







PRODUCT RANGE

Fedegari offers a wide range of products and innovative solutions to meet the most demanding requirements in the field of sterilization, cleaning and decontamination.

Industrial Moist-heat sterilizers

FOF Series Saturated steam sterilizers

FOA Series Steam-air mixture sterilizers

FOW Series Water-cascade sterilizers

Washing solutions

FOWS Series Washer-sterilizers

FSW Series Eco-steam Washer

Bio-decontamination and contamination control solutions

FCDV Series Chemical bio-decontamination units with Hydrogen Peroxide

FCTS Series Sterility Test Isolators















Contamination control solutions



FCIS Series Isolators

FCP Series Down flow booths

FHC Series Laminar flow mobile safe-carts





Dry-heat sterilizers

FOD Series Sterilization & depyrogenation ovens





FOT Series

Integrated solutions for pharmaceutical closures processing

Special applications

Sterilizers with rotating loads





Laboratory

FOB5/FOB4/FOB Steam sterilizers with horizontal chamber





FVA/FVG/FVS Steam sterilizers with vertical chamber

BIER Biological Indicator Evaluation Resistometer







FGW Glassware Lab Washer

Healthcare

FELDAUTOKLAV H2000M2 Steam sterilizers for mobile field applications





FEDEGARI | Tech Centers

Our *Tech Centers* are the perfect environment for end-users and experts to meet and exchange experiences for the development of new and cost-effective solutions to real-world problems.

Through state-of-the-art centers, Fedegari aims to increase the interaction with partners and customers for continuous education in the field of sterilization and contamination control. To accomplish that, our company have invested more than \$10 million in process equipment installed in the facilities in USA, Italy and UK (in partnership with Steritech).



Fedegari offers different technical courses in the fields of sterilization, bio-decontamination and cleaning.

Contact: fedegari@fedegari.com These courses cover the science behind the processes with practical advices on cycle development, performance and validation activities.



Locations

Albuzzano (PV) - Italy Sellersville (PA) - USA Salfords (Surrey) - UK

Contact: fedegari@fedegari.com

Delivering a unique experience

Developing completely customized solutions is our passion and our Training & Education division is also oriented in the same direction.

Fedegari provides customized technical trainings and seminars tailored to address customers' specific needs. Each course is developed to be a unique experience. We design custom programs focusing on the application of theory in practice to support customers on achieving the highest process performances.

Our courses will be held at Fedegari Tech Center or at your company site.





TECH CENTER SERVICES

Microbiological trials

 Microbiological assessment of sterilization effectiveness
 Microbiological assessment of depyrogenation effectiveness

 Microbiological assessment of decontamination effectiveness (with hydrogen peroxide)
 Microbiological assessment of washing cycles (Endotoxins reduction, microorganisms reduction)
 Microbiological assessment of washing/disinfecting cycles
 Microbiological assessment of washing/sterilizing cycles

Washers

Cycle development of a washing cycle
Cycle development of a washing/sterilizing cycle
Cycle development of a washing/disinfecting cycle
Cleaning validation protocol
Spray coverage test

Sterilizers

- Cycle development according to customer's URS
- Evaluation of chemical, microbiological quality of the product at the end of the cycle
- Evaluation of package integrity/quality at the end of the cycle
- Primary packaging stress test
- Cycle time optimization

Bio-decontamination units

- Decontamination cycle development according to customer's URS
- Evaluation of chemical, microbiological quality of the product at the end of the cycle
- Evaluation of package integrity/quality at the end of the cycle
- Decontamination cycle time optimization

Isolators

- Decontamination cycle development
- Process validation support
- Package integrity verification support





AFTER-SALES SERVICES

Responsible for any issue that arises after the delivery of any machine, the After-Sales department may support the final end-user or the local representatives by providing any part or service needed during the entire life cycle of Fedegari equipment.

According to the specific operation requirements of every end-user, all services can be customized with the aim of assuring the highest level of productivity. Through this department proposals can be prepared for revamping older machines or for upgrading process controllers to the latest generations.

All these services extend the operating life of the machines to the limits of the most critical components (such as the pressure vessels for the autoclaves) thus increasing the return of the original investment.

One of the services with the highest added value is the assistance to the customers in the final phase of validation. Often in fact, sterilizers are validated by personnel that has no deep experience with the specific sterilizer and once all processes and load configurations have been validated nobody is willing to do any effort to optimize process performances.

In several cases we have helped – thanks to the expertise of our service personnel – to optimize their processes before validation is complete, thus achieving the highest performances. This little investment pays big dividends during the entire life cycle of the sterilizer.

SERVICES OFFERED

Installation/startup/commissioning

 Qualification (IQ/OQ/PQ)
 FAT & SAT
 Process/load optimization

 Validation
 Validation
 On-demand maintenance services
 Revamping of old machines
 Process controller updating (SW e HW)



CONTACTS

For any further information, do not hesitate to contact us at the following addresses:

Italy

New Inox Srl Via Europa, 3/5 27010 Filighera (PV) Italy T +39 0382 583132 F +39 0382 583528 newinox@fedegari.com

Switzerland

Fedegari (SUISSE) SA Via alla Gerra, 11 6930 Bedano Switzerland T +41 91 9352090 F +41 91 9352099 info@ch.fedegari.com

Headquarter, Italy

Fedegari Autoclavi SpA SS 235 km 827010 Albuzzano (PV) Italy T +39 0382 434111 F +39 0382 434150 fedegari@fedegari.com

Italy

Qualitech Srl SS 235 km 82 7010 Albuzzano (PV) Italy T+39 0382 480016 F +39 0382 481126 info@qualitechsrl.com

Germany

Fedegari GmbH Corneliusstr. 18 60325 Frankfurt Am Main Germany T + 49 (0) 69 907466200 F + 49 (0) 69 97145299 info@de.fedegari.com

China

Shanghai Fedegari Trading Co., Ltd SML Center, Room 3005 XuJiaHui Road 610 Xuhui District, Shanghai 200025 China T +86 021 60390739 info@cn.fedegari.com

USA

Fedegari Technologies, Inc. 1228 Bethlehem Pike Sellersville, PA 18960 USA T +1 215 453 0400 F +1 215 453 0406 info@fedegariusa.com

Singapore

Fedegari Asia Pte. Ltd. 16, Boon Lay Way #01-50 - Tradehub 21 609965 Singapore Singapore T +65 6 3164761 F +65 6 8967365 info@fedegariasia.com

Russia

Fedegari Rus OOO Varshavskoe Chaussee 125D, corp. 2, of. 3 117587 Moscow Russian Federation T +7 (495) 258 3706 F +7 (495) 258 3706 i.ovchnnikov@eastconsult.eu

India

Fedegari Tech Service Pvt. Ltd. #506, Fifth Floor Shangrila Plaza Road #2 Banjara Hills Hyderabad 500034 India T +91/(040) – 38324500 info.india@fedegariasia.com