



FEDEGARI
AUTOCLAVI SPA



FOD • Class 100

STERILIZATION & DEPYROGENATION OVENS

Sterilization and depyrogenation ovens represent an important product line with Fedegari, introduced in the late 1980s thanks to an agreement with Vismara, followed by thirty years of technical and business cooperation.

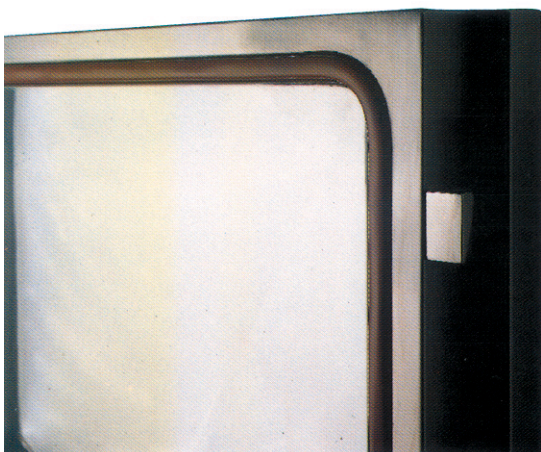
FOD ovens, like autoclaves, develop a discontinuous (batch-type) process and are intended for sterilizing different solids, such as glassware, parts of filling machines and stainless steel tanks and containers in general; they represent the ideal solution for any production when the variability of products, batches and formats does not allow the use of continuous sterilizers, such as tunnels.

The distinctive feature of these sterilizers lies in particle contamination class. In order to ensure that both machine and process comply with the requirements of Federal Standard 209 E, Fedegari, as usual, has broken down the oven into its main elements for understanding the technology and the relevant limits.

Then, Fedegari has developed appropriate solutions for each of them. The results are innovative and original.

Detail view of the door.

Note the tubular silicone gasket, which is seated in its slot without any locking device; the corners have a wide bending radius. Also note one of the wedge-shaped locking lugs.



Detail view of the chamber. Note one of the three locking rollers which, by sliding upward, engage the three wedge-shaped lugs.

At the same time, Fedegari has cooperated with a leading Italian research center in the development of a special high temperature air sampling device. Thanks to these activities, the measurements taken are, from a scientific standpoint, absolutely reliable and such a critical result has not been invalidated by a primitive and inadequate detection system.

The company has thus ensured a particle contamination level in the chamber that does never exceed the values prescribed by the class 100 – not even during transient phases (the most critical), such as heating and cooling, during which the filters release considerable amounts of particles, due to temperature-related deformations.

What characterizes Fedegari ovens compared to alternative products? Process performance (particle contamination, temperature uniformity, process repeatability), the specific features of these sterilizers and other details common to all Fedegari machines!

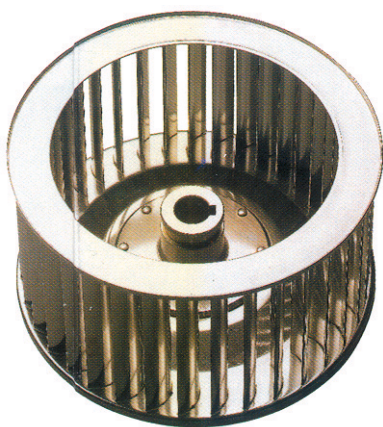
The winning cards of FOD ovens are represented by uniform performance, regardless of dimensional variables. The use of design and production models ensure reproducible performances also with machines of very different size.

Considering the constructional variability, typical of custom manufacturing, design and production models are a critical factor which will save a lot of time during installation and validation, when no emergency, and usually makeshift, solutions are required to face any shortcoming, such as door tightness, process times other than those estimated or lack of temperature uniformity with real product batches.

The use of common components, such as the process controller (i.e. hardware and software) or other electrical and piping devices, ensure a more economical operation-characteristics emerging from any machine manufactured by Fedegari.

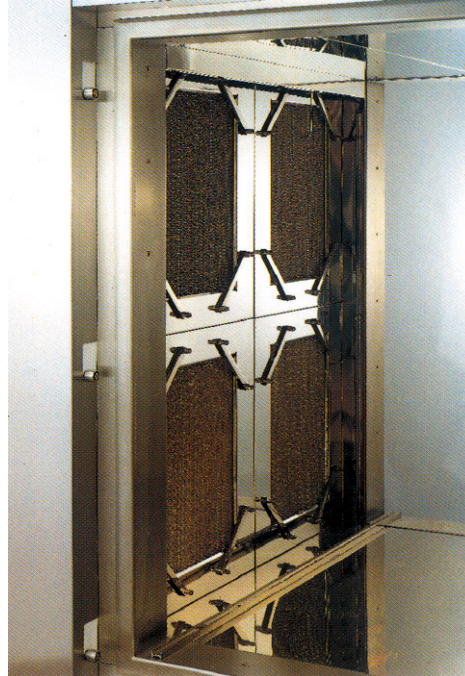
From a technical standpoint, Fedegari ovens are the most performing and value for money solution to discontinuous sterilization problems in the pharmaceutical industry.

Don't you believe it? Ask us to prove it!



Stainless steel fan, manufactured in-house.

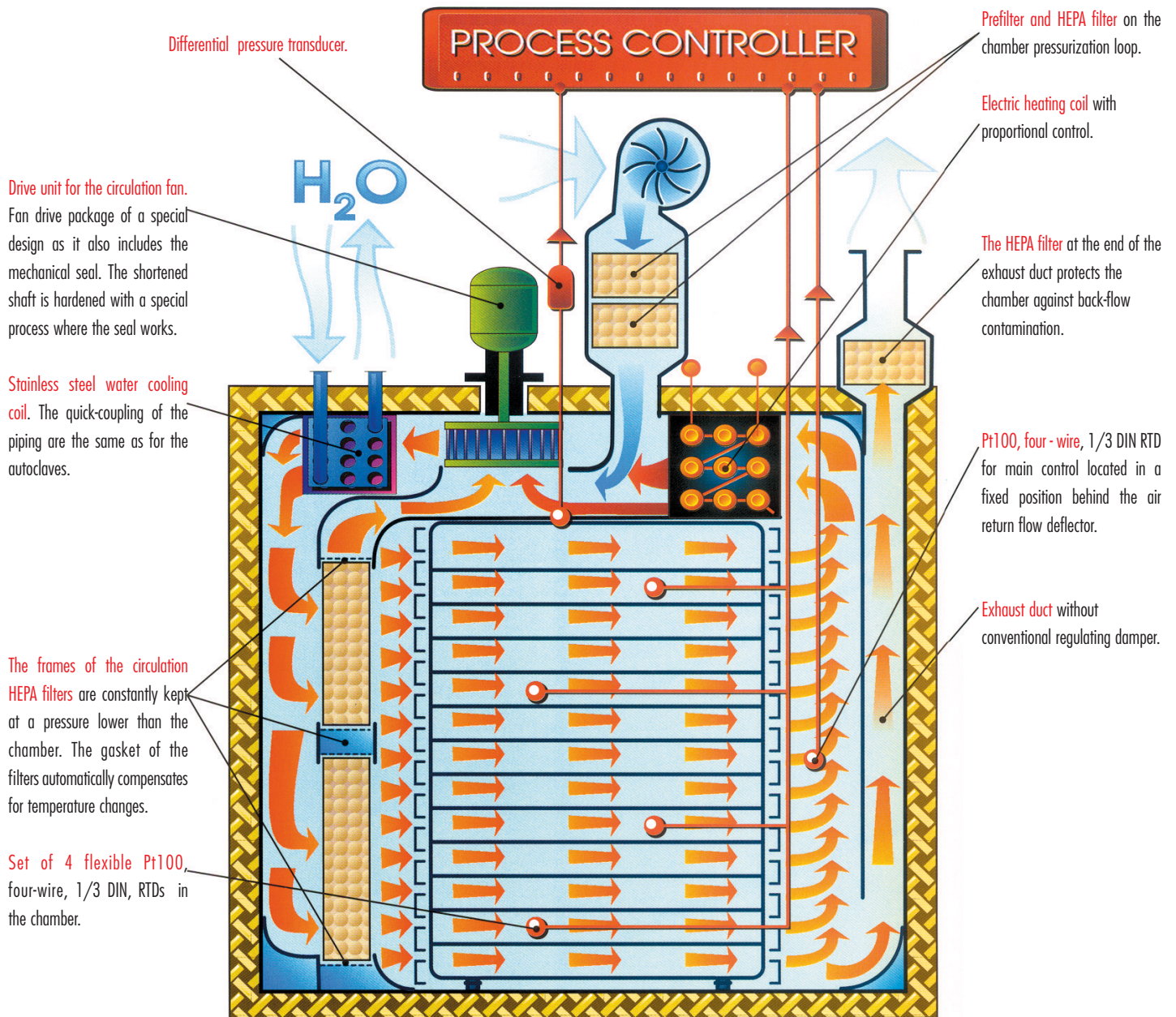
The vanes are force-fitted and then continuously welded to the two supporting disks; the hub is fixed to the base disk without using threaded devices. This allows to reduce the weight of the fan by 40%, increases its efficiency and keeps it constant in time, simplifies balancing and drastically reduces noise.



A view of the batteries of HEPA circulation filters with 99.97% retention. The air flow deflector has been removed. Note one of the two pressure sampling devices (the one located downstream) for measuring the pressure loss across the HEPA circulation filters.

Detail view of the air flow deflector individually adjustable.





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FOD		2 DOOR VERSION					
MODEL	USEFUL CHAMBER DIMENSIONS			USEFUL CHAMBER CAPACITY	OVERALL EXTERNAL DIMENSIONS		
	WIDTH (cm)	HEIGHT (cm)	DEPTH (cm)	LITERS	WIDTH (cm)	HEIGHT (cm)	DEPTH (cm)
FOD 1/1	80	80	80	512	183	188	120
FOD 2/1	80	100	110	880	183	208	150
FOD 4/1	100	100	110	1100	203	208	150
FOD 5/1	100	115	125	1440	203	223	165
FOD 6/1	100	145	145	2100	203	253	185
FOD 6/2	100	145	180	2610	203	253	220
FOD 6/3	100	145	210	3050	203	253	250
FOD 8/3	110	160	210	3700	213	268	250
FOD 6/4	100	145	280	4060	203	253	320
FOD 8/6	110	160	280	4930	213	268	320

The above mentioned data are to be intended as indicative. The manufacturer reserves itself the right to change them without notice.

The dimensions of the process controller and of the electric panel board must be added to the unit overall external dimensions.

Contact the factory for non standard dimensions.

