

FOD – Dry-heat sterilization

Applications:

Bio-pharmaceutical

Loads:



Processes:

Depyrogenation Sterilization



The perfect solution for dry-heat sterilization and depyrogenation needs. FOD ovens, such as autoclaves, run batch processes and are the ideal solution for the sterilization of all those production lines in which the variability of products, batches and formats do not allow the use of continuous sterilizers such as tunnels. FOD ovens main advantage lies on its particle contamination class assurance.

Fedegari guarantees the contamination level to remain under the established standards values for 100 class. This accuracy is verified also during the most critical phases such as heating and cooling, when the thermal expansion of the filters may release a great amount of particles.

Particulate contamination control originates from complex fluid dynamic studies and a close collaboration with Camfil, the world's most respected filter manufacturer, with whom Fedegari works at the development of high-temperature filters.

The most peculiar features of the dry-heat sterilization and depyrogenation oven are extreme temperature uniformity – regardless of dimensional variables – and lowest particulate contamination. Temperature uniformity is the obvious consequence of Fedegari experience in thermal process control.

Powered by
Thema4

Key benefits

Process performance (particle contamination, temperature uniformity, process repeatability)

Specific engineering and manufacturing features of these sterilizers common to all Fedegari machines

The use of common components, electrical and piping actuators guarantees time and cost- savings on training and maintenance due to simplified standard procedures

Thema4 process controller pre-validated by Fedegari according to GAMP 5

Contact

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Design and technical features

- Sterilizing chamber: sealed welding, made of AISI 304 stainless steel 1,5 mm thick.
- Single-leaf flush door on both sides, internal surface in AISI 304 stainless steel.
- 100 mm thick rock-wool panels guarantee perfect thermal insulation: average temperature of 40°C on the external surfaces at operating temperature of 250°C.
- Electric heating through AISI 321 stainless steel heating elements, assembled on a sliding frame for easy removal and maintenance.
- Cooling by AISI 304 stainless steel heat exchanger.
- Continuous automatic control and regulation of pressurization of the sterilizing chamber.
- Continuous filtering of air in the sterilizing chamber, thanks to a system composed by 4 HEPA filters.
- 5 PT100 RTD probes.
- Safety thermometer on Non Sterile front to prevent door opening if chamber temperature exceeds set value.
- Stainless steel port for validation probe positioned on not sterile side.

