

**Process & Sterilization Solutions since 1949** 



## **MAIN PRODUCTION**



### **CERTIFIED QUALITY**

### **WORLDWIDE DISTRIBUTION**

### TAILOR MADE SOLUTIONS





DE LAMA design, engineering and manufacturing

are according to the highest quality standards (UNI

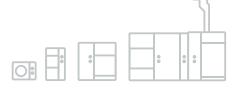
EN ISO 9001 and 13485), pharma rules (GMPs, GAMP,

FDA) and rigorous pressure vessels regulation (PED,





DE LAMA "100% Italian manufacturing company" is worldwide present through a well established network, granting a prompt and reliable support of local agents and after sales representatives.



The wide experience, the long established presence on international markets and the proven design flexibility are the core elements of De Lama to fulfill the widest variety of client needs.



ASME, RTN, ML/SELO).





Medical Devices industry



Laboratories & Research Centers



**Cosmetic** industry



Food industry



www.delama.it



## **STERILIZERS**

## **Autoclaves**

## **Compact monobloc vertical steam sterilizers**

Configurations ranging from the basic steam sterilization to the combined air/steam mixture suitable for deformable containers or High Pathogen materials



**DLV-CAB** 

#### Air/steam mixture sterilizers

To perform sterilization of large volume infusional/parenteral solutions (LVP) in non-deformable on in deformable containers



**DLOAV** 

### **Steam sterilizers**

Configurations ranging from the basic steam sterilization to the combined air/steam mixture suitable for deformable containers or High Pathogen materials



**DLOV & DLOV/HP** 

### **ETO** sterilizers

For the low temperature sterilization of temperature sensitive products throught Ethyelene Oxide steirlizing agent



**DLOG & DLOG/V** 

## **Superheated water sterilizers**

To perform sterilization of large volume infusional/parenteral solutions (LVP) in non-deformable on in deformable containers



## HyPerPure® Hydrogen Peroxide under deep vacuum & zero air

For the low temperature sterilization of medical devices, and terminal sterilization of packaged thermosensitive products



### Ovens

### **Dry Heat sterilizers**

For dry heat sterilization



DLST

### **Dry Heat sterilizers ISO 5**

For the sterilization and depyrogenation by dry heat



DLST/L

# **DECONTAMINATION UNITS** (PASS-BOXES)

H<sub>2</sub>O<sub>2</sub> Pass-box with *HyPerDecon Air* technology H<sub>2</sub>O<sub>2</sub> Pass-box with *HyPerDecon Vacuum* technology

For product surface decontamination with Hydrogen Peroxide H,O,



DLVHP/DE AIR

DLVHP/DE VACUUM

### **WASHING UNITS**

### Washing, disinfection and drying

For bins, machine parts, tools 'and glassware washing



DLWM

DLWD

# COMBO STERILIZATION + DECONTAMINATION

### **Saturated Steam and Hydrogen Peroxide**

2 processes in 1 single equipment: sterilization & decontamination by  $\rm H_2O_2$ 



DLOV/DE

### Air/steam mixture and Hydrogen Peroxide

2 processes in 1 single equipment: sterilization & decontamination by H<sub>2</sub>O<sub>3</sub>



DLOAV/DE

## **DRYERS**

#### **Hot air static dryers**

For drying of powders and grains

**DLDR & DLDR/EX** 

#### **Static Vacuum Dryers**

For drying by vacuum of thermo sensitive powders and grains



DLDR/V & DLVR/V/EX

### **COMBO WASHING + STERILIZATION**

Washing & steam sterilization (or other sterilization techologies)

For the washing and sterilization of bins, machine parts and tools



DLOV/W

# AUTOCLAVES FOR LOW TEMPERATURE & HIGH PRECISION TREATMENTS

With a unique precision for a maximum variation of +-0.5 degrees. Operate in a variable temperature band, from 40 ° to 85 degrees. DLTI/S uses steam, DLTI/A uses just air in case the product can't get in contact with humidity.



DLTI/S

DLTI/A

## **STEAM GENERATORS**

## Clean, pure & ultra-pure pyrogen free steam generators

Steam heated or electrically heated generators for the production of steam, stand-alone or built-in with the autoclave



DLSG

De Lama has developed a new sliding door concept where the door movement is achieved through magnetic coupling. This design minimizes the dirt retention areas in the bioseal and allows the access to the inner side of door. Magnetodoor® is a registred trademark and patent model.

### The advantages of such technology are:

- full direct integrability with an isolator
- accessibility to whole door inner side for cleaning
- door sliding mechanism is minimized to the essential parts, reducing the number of components and their future possible replacement and maintenance costs





## INTEGRATION WITH ISOLATOR

De Lama is the only manufacturer in the world to present the door sliding mechanism with magnet (Magnetodoor®). Such design is the perfect solution for a direct integration with an isolator where cleanability, reduced footprint and sanitization with  $H_2O_2$  are a paramount.

### The main advantages are:

- door sliding instead of hinged design minimizes the isolator space devoted to the integration with the equipment (no clearance for the door swinging)
- the magnetic sliding minimizes the number of components and materials positioned on the isolator side reducing the risk of dirt retention
- the limited number of components and the clean design of the door allow the full sanitization and compatibility with H<sub>2</sub>O<sub>2</sub> during the isolator inner treatment



De Lama sterilizer (or De Lama combo unit autoclave + washer)

Isolator (any brand)





### INTEGRATION WITH ROBOTS

De Lama has a great experience in the integration of anthropomorphic robots for loading and unloading of equipment and handling of loads.

## **INTEGRATION WITH SOFTWARE**

Industry Standard Architecture for easy IT integration and best compliance to the 'Data Integrity' and CFR21 Part 11 requirements, in particular:

- Direct connection to PLC through OPC server
- MES system integration
- Easy centralized SCADA integration
- Historical GMP data collecting
- Domain connection for centralized password handling
- SCADA interface from major worldwide SCADA producer

