

In our workshops we also produce any kind of vessels and fittings to implement the process installation, such as product containers, special grating, coils, internal supports, hydraulic platforms... this allowing to produce turn-key plants including total supply of machinery, its automation, fittings and final start-up.

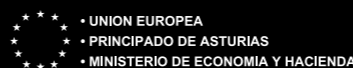
Also bear in mind our after-sales technical staff that will assist you in a record time with any supply, maintenance or unforeseen event that could occur as the different pieces of equipment keep on running, thus certifying a full attention to our clientes from the first contact for a future production to the constant service for the life of the plant.

GRUPO OLMAR



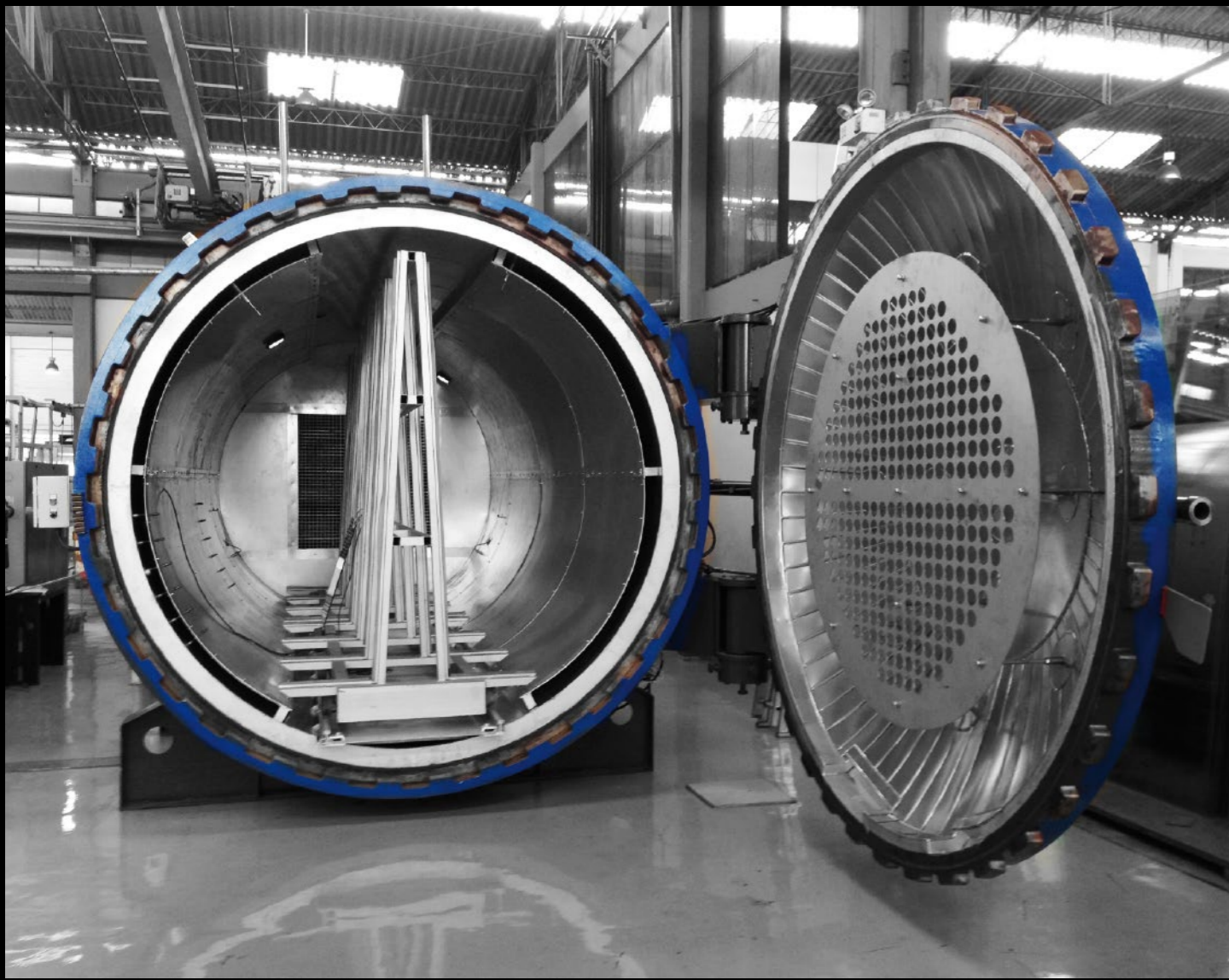
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N.º 330. 33393 Gijón (España)
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PROYECTO COFINANCIADO POR:



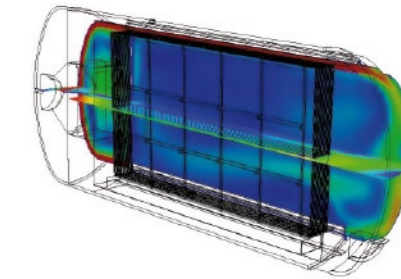
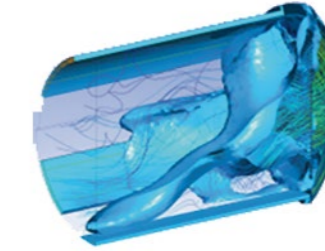
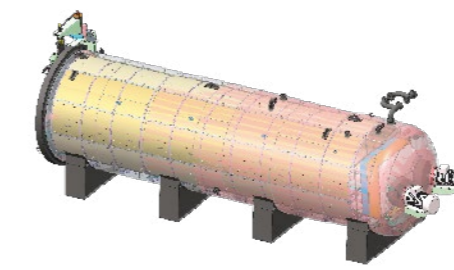
Autoclaves GLASS LAMINATION





GLASS LAMINATION

The most advanced technology in Autoclaves | Ovens | Control systems.



CFX (Fluid dynamics analysis)
CFD (Control dynamic fluids)
[m s⁻¹]



All the referred process, as may be varied and/or repeated depending on the industry is used for and the process to be carried out, will be developed in a completely automatic way. A microprocessor will be in charge of receiving the inputs that, during the cycle, will be transmitted by the data receivers, immediately sending commands to the relevant valves and actuators so that they can regulate the process as per the preset data. There is the possibility to include internal probes informing us in real time about the pressure/vacuum and/or temperature values of the product under treatment. As one could imagine, should

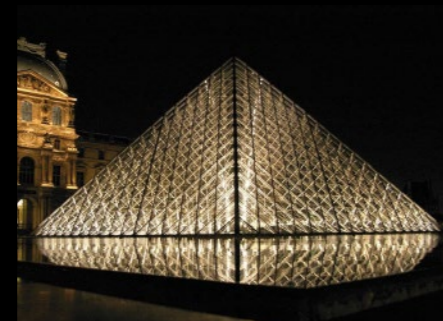
any anomaly occur during the process, the equipment will release the relevant alarms for the system failure or, in the event of fluid supply, for the immediate action in order to correct the problem.

These autoclaves can be built in different materials, usually carbon steel and austenitic stainless steel and under international codes like ASME, ADMERKBLÄTTER, CODAP, PD 5500... in order to supply the equipment according to the rules that our clients have required and, thus, determined in any country of the world. For this purpose, OLMAR autoclaves are CE approved, as per directive

97/23/CE, relating to pressure devices, and duly credited by EU approved entities.

Our units are tailored to our clients' desired particulars, with diameters ranging up to five meters, lengths of up to tenths of meters and pressures of up to 20 bar.

To this respect, INDUSTRIAL OLMAR, S.A. offers to our clients all our technical staff in order to analyse the type of autoclave, heat soak test oven, auxiliary equipment, complete plants and technical solutions for any kind of process. Ask about any kind of sizes.



The continuous market evolution and, thereto related, the appearance of new materials has combined a mixture of measures devoted to state-of-the-art industrial equipment, which are nowadays involved in an amazing technological progression.

For this purpose, the glass has drastically changed in different industrial sectors like: automotive, construction, safety, etc. The treatment and its interaction with polymers has led to the need of using equipment with a technological level that was out of mind only a few years ago.

Ranging from the automotive industry, where windscreens fabricated on the basis of glass and polyvinylbutiral (PVB), resins laminates are used, to the construction industry with laminates of all kinds and thicknesses, we can see clear examples of the technology that is being used in the 21st Century industry, which gets more and more solid day by day.

Facing this deep transformation, and thanks to the experience accumulated in pressure vessels for over sixty years, INDUSTRIAL OLMAR, S.A. has developed autoclaves intended for these industries, featuring the state-of-the-art technology.

On this respect, it is very important to point out that our equipment, as an option, may have independent connections for a different number of vacuum bags to be put inside the autoclave. This, together with the supply of nitrogen or compressed air in order to be able to regulate pressure according to the requirements of the product to be treated, allows for the equipment to be fully independent for the regulation of the necessary pressure/vacuum grades. In the same way, variables in different points in the autoclave and in the pieces inside are controlled by means of thermocouples and sensors.

Glass lamination, depending on the industry, is achieved by heating air inside the equipment, either by means of electric strengths, either by means of steam or thermal oil through a heat-exchanger. A powerful electric fan circulates the inside air, thus allowing for the achievement of temperature values inside the equipment with minimal variations from one point to another. Cooling is achieved by circulating cold water or cooling fluids, through a purpose-designed exchanger with forced ventilation inside its plates, diminishing the inside temperature of the desired values.