

## About Quetzal

Since it was established in 1963, the golden rule of **Quetzal Esterilización S.A.** has been: to apply state-of-the-art technology not only to maintain a presence in the market but to remain at the forefront.

With this goal, **Quetzal** developed its main line of business: design, manufacture, installation and start-up of:

A) High complexity EtO sterilizers for the Medical Device Industry and pharmaceutical Companies.

B) Hospital sterilizers including steam autoclaves, dry heat ovens, pure ethylene oxide sterilizers, depyrogenation ovens (Class 100), ethylene oxide cartridges, preventive maintenance programs (P.M.P.).

**Quetzal's** constant effort to improve sterilizers, results in high quality products with cutting edge technology, at a fair price.

The advanced technology of **Quetzal** products has made the company a player in the international market with sterilizers installed in over 20 countries. The Company holds 15 patents and has exported turn-key EtO sterilization Plants with state-of-the-art technology to several countries including:

- EE.UU.
- Ireland
- China
- Brazil
- Korea
- Australia
- Chile
- Pakistan
- Chile
- etc.

These achievements are in line with its constant search for:

A) Work efficiency

B) Productivity

C) Adequate cost/service ratio

D) Simple validation and environmentally clean processes.

With this technological background and its many years of experience, **Quetzal** is proud to offer the best solution for your sterilization needs.

**Quetzal, technology at the service of life.**

## Some projects developed by Quetzal

### **EtO sterilizers for the Medical device and pharmaceutical Industry**

Quetzal's line of products includes sterilizers starting from 200 lts in chamber volume up to 80 cum with the following features:



- Water jacket heated chamber ( $\pm 1^{\circ}\text{C}$ )
- Chamber material: AISI 304 L, 316L Sanitary polished
- Jacket Material: Carbon Steel or AISI 304L
- Gas-Room including:
  - scales,
  - automatic change-over,
  - Pneumatic actuated manifolds.
  - Gas volatilizer.
  - EtO conditioning
- Loading / Unloading automatic system
- Control panels.
- Magnetically driven gas recirculation system
- In line ETO / RH% sensor (Infrared absorption)
- Vacuum plant including:

- Water ring vacuum pump
- Mechanical boosters
- Dry mechanical vacuum pump
- Cold traps
- Proportional valves to control vacuum rate.
- Stainless Steel piping including double Block and Bleed arrangement (DBB)
- Intelligent instrumentation
- Quetzal's exclusive user friendly Control system.
- Comprehensive Documentation package.

Photos:

**Manufacturing process at Quetzal's facilities:**



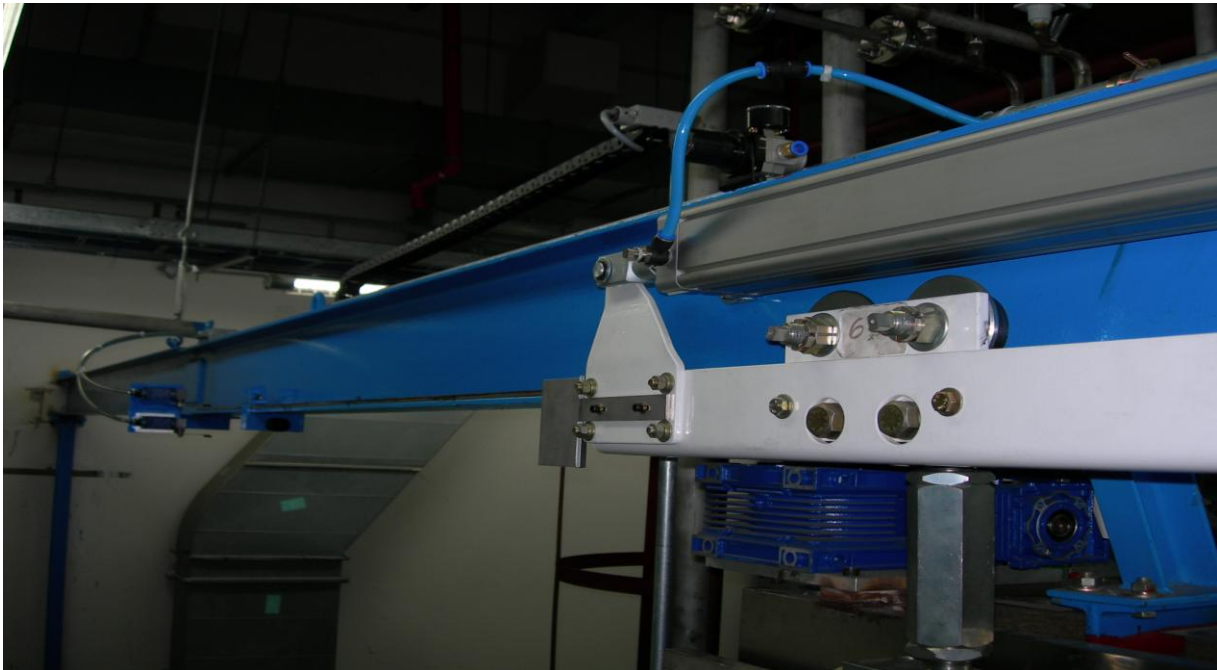
**Vacuum system , Jacket heating system plus piping**



Full automatic doors. Pneumatically operated, horizontal sliding. Rotasil Locking System (static "O"-Ring). Water heated.



**Door Pneumatic actuator and bridge**



**Gass-Room with automatic Change over system and scales.**



**Automatic Loading / Unloading system**

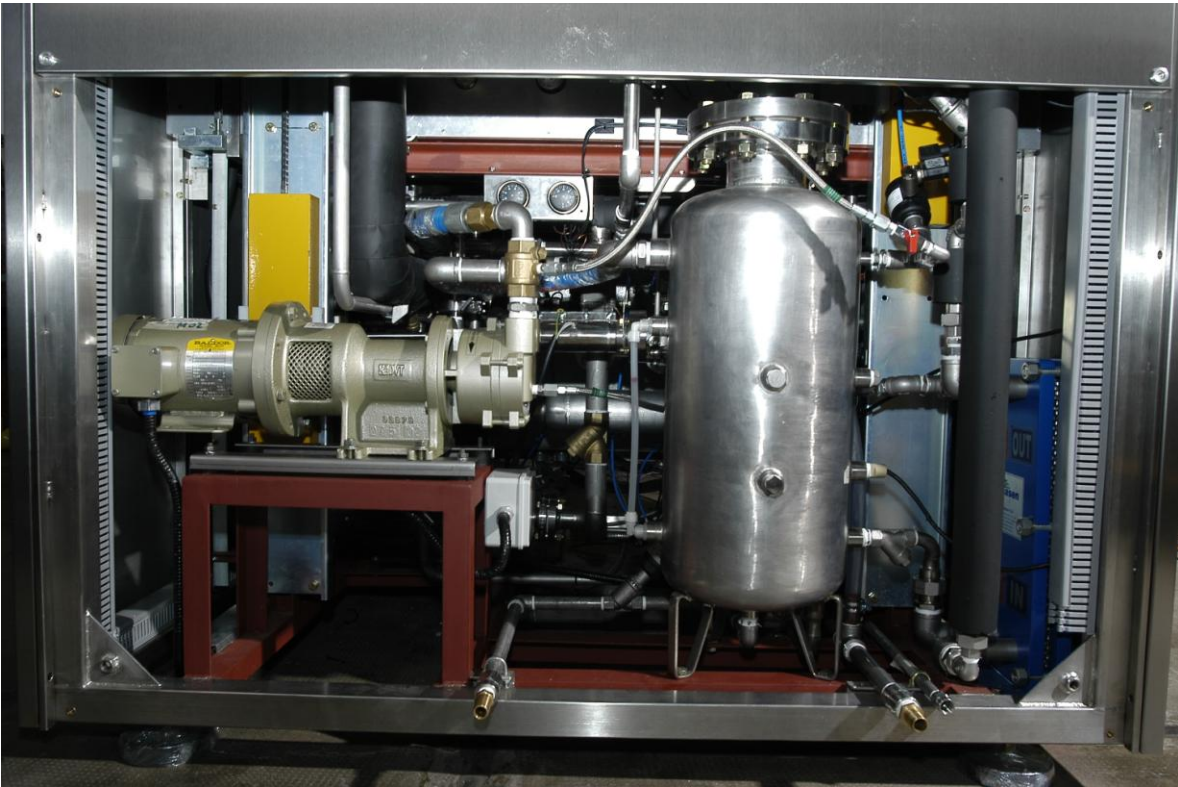


## Allen Bradley Field Display



## 200 Lts double door EtO Sterilizer





Electric panels including Allen Bradley PLC and Zener Barriers



**Magnaflux x 3: Magnetically driven gas recirculation System on equipment's roof**



**Jacket heating System: Heat exchanger, Water pump and valving**



## Installation in Brazil



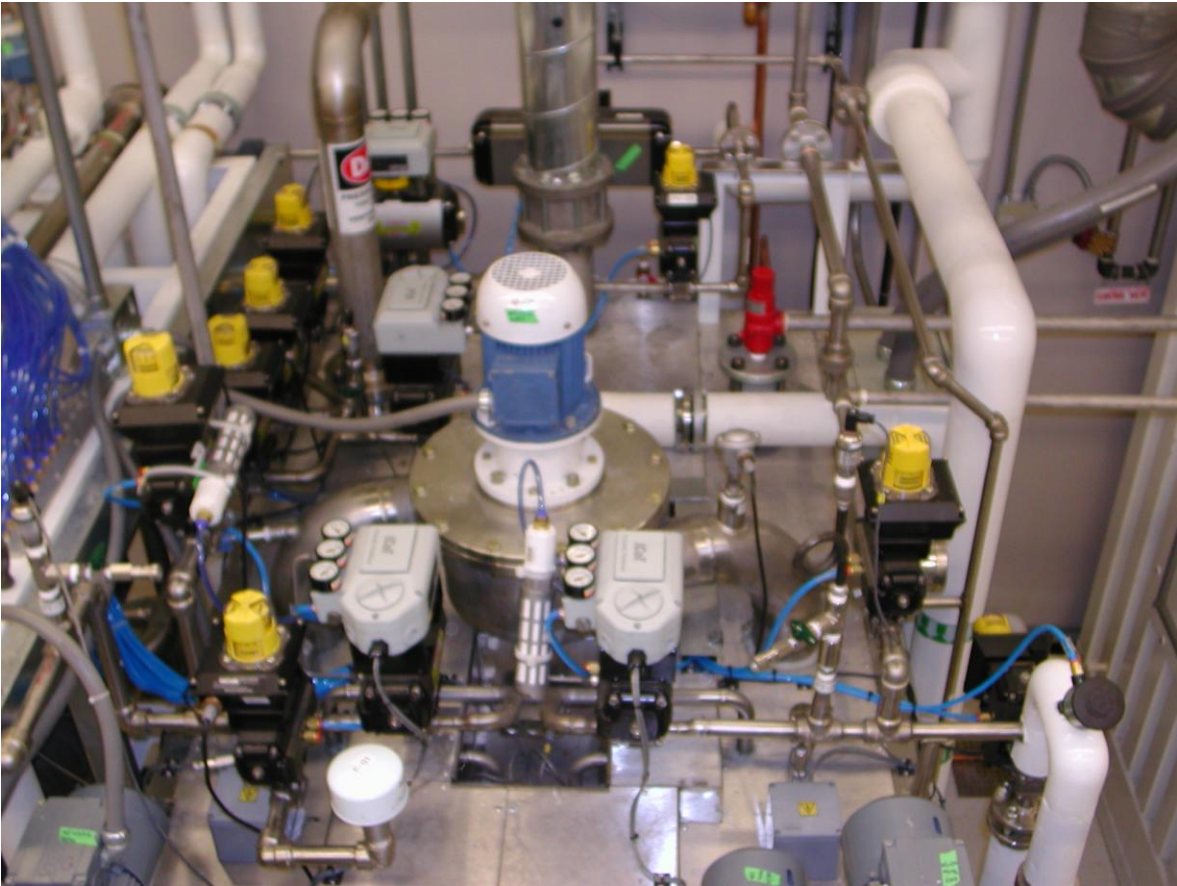
Research sterilizer EtO dispenser installed inside a sealed container.



1 Cum Research EtO sterilizer with two degassing cabinets.



Top View of 1 cum research sterilizer including Ferrofluidic driven fan and full stainless Steel Piping



## Control Room in a Sterilization facility

