Some exclusive features of QE pressure vessels powered with ROTASIL™ 2000.

ROTASIL™ SYSTEM is the most reliable pressure vessel seal, especially in those applications where other seals principles based in inflatable, sliding, or Passive O'ring cannot be accepted.

The real unbeaten STATIC O'ring locking system.

All QE chambers are sealed by fully automatic horizontally or vertical sliding doors, both for open/closing and locking/unlocking, introducing the legendary motorized and worldwide patented **ROTASIL™ SYSTEM.** The doors are made of a solid st. st. AISI 316L plate reinforced with external beams. The hermetic sealing is obtained by controlled deformation of an everlasting solid gasket by an orbital movement that is obtained through a 180º rotation of two synchronized vertical camshafts. In 15 seconds, **ROTASIL™** produces an incredible high quality **STATIC real O-Ring** seal only available in high vacuum techniques or in autoclaves for research labs.

QGV-400
Pressure Vessels.
Powered with
ROTASIL™ 2000.

ROTASIL™ 2000 success is based in a fine choice of materials, suitable matching grove geometry, and extreme tolerance and "Plane Parallel" concept.

All surfaces in contact with the seal -chamber front groove and doors- are machined with a **boring and milling machine** (Acc. 2m) and polished until obtain 0,5m roughness surface.

The result of applying the **STATIC O'ring** seals, and "plane parallel" concept is an outstanding very low chamber leak rate of less than 0,15mbar. l . s-1

This makes our chambers especially applicable for high vacuum process applications (freeze drying) where an ultimate vacuum of 5m or less can only be reached if the chamber leak rate of 0,15mBar. l . s -1 or less, is obtained.

QGV-35000
Door - Plain paralel
concept design.

Flexidoor Concept

QUETZAL has established a concept to enhance the total safety of the **Pressure Vessel** installation. The chamber may be submitted to pressures greater than the original design value, specifically when performing the hydrostatic test or during the start up program. Under normal operating conditions, there are several devices that protect the chamber from overpressure. These devices are usually removed during the hydrostatic test.

In order to provide an intrinsically safe device, **QUETZAL** has designed and constructed a door that bends (during above normal design pressures) within the elastic range of the material. This bending causes the upper and lower central portion of the gasket to loose contact with the front of the chamber and therefore allowing for a relieving the pressure inside the chamber.

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