

MICROBIOLOGICAL ISOLATOR UP-GRADE

Have you purchased a GEA Procomac aseptic line before 2004?

You can now considerably improve the handling of your Microbiological Isolator thanks to several up-grades which will render it more reliable.



A higher reliability of the Microbiological Isolator means reducing the situations in which sterility loss is experienced, in particular when this is not strictly necessary from the point of view of the safety of the product.

Basically the loss of sterility is eliminated due to the poor reliability of the equipment in the field of the Microbiological Isolator or due to the alarm software handling being not optimal.

The up-grades which can be applied with success on the Microbiological Isolators of the first generation are substantially the following:

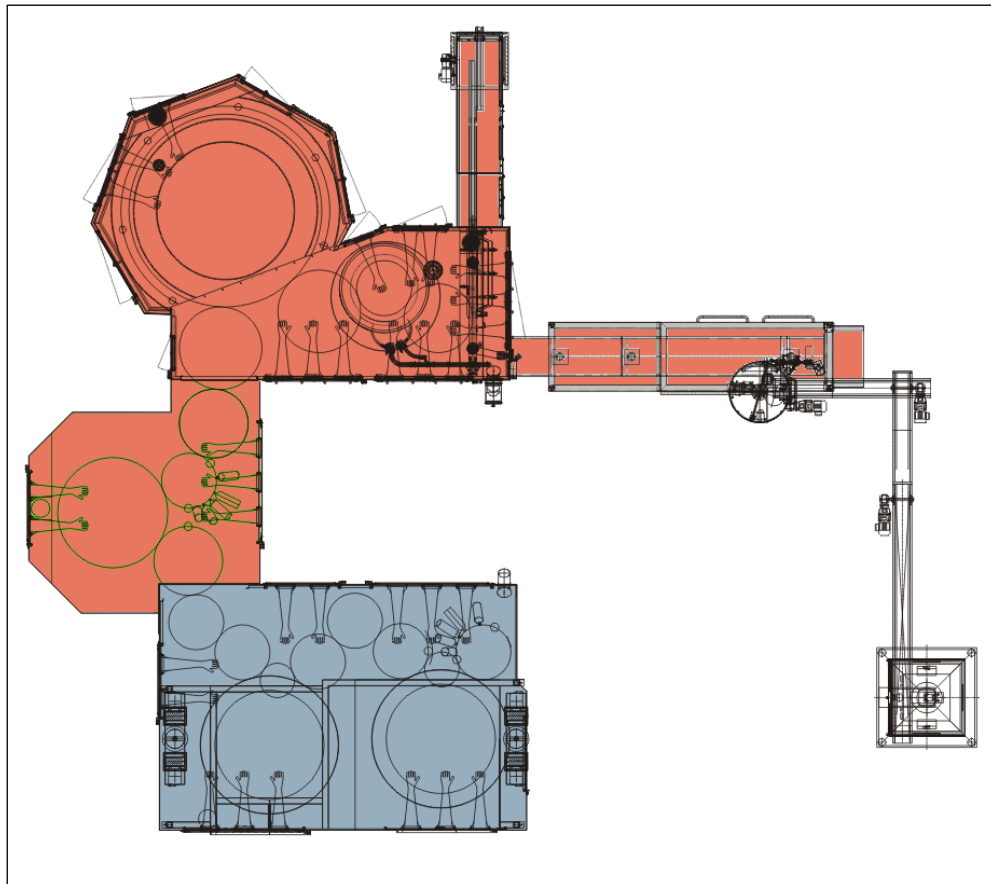
- Equalization of the pressures inside the Microbiological Isolator's sterile area
- Replacement of the transducers and pressure coupling
- Replacement of the shutter's actuators on the expulsion circuit

Equalization of the pressures inside the Microbiological Isolator

The modification consists in the conforming of the different pressure areas currently present in the Microbiological Isolator in order to obtain only two distinct areas (see sketch below):

Area 1 (in grey): Sterilizer

Area 2 (in red) : Rinser + Filler + Sterilcap + Exit Tunnel (sterile area)



This modification simplifies the handling and the keeping of the pressure inside the Microbiological Isolator eliminating the differential pressure alarms (between the different areas belonging to the sterile area) currently present, which sometimes generate the loss of the sterility of the system.

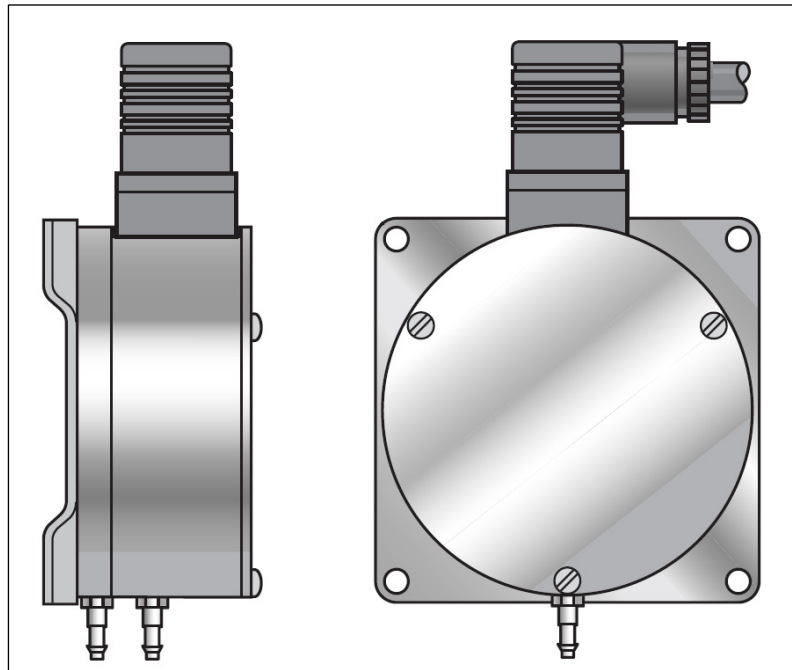
In order to realize this up-grade the air passage between the Sterilcap and Fillstar needs to be increased (widening the current conjunction point of the two machines) and eventually between the Rinser and Filler.

In addition for the Sterilcap the replacement of the two on/off valves, which currently intercept the power of the compressed air to the machine is foreseen; the replacement is by means of a modulating valve.

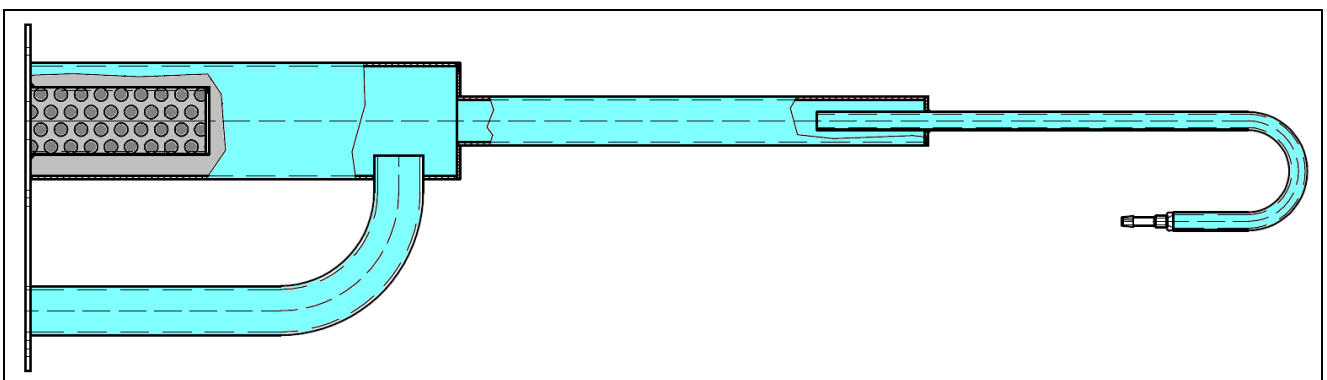
With this modulating valve, it's possible to open and close the compressed air in a gradual way, thus avoiding pressure failures to the Microbiological Isolator as it currently occurs with the on/off valves.

Replacement of the transducers and pressure coupling

The modification consists in the replacement of the Mamac pressure transducers currently installed with a new Druck type (see Sketch below). The Druck transducers are more reliable, more precise and less subject to liquid infiltrations in respect to the Mamac transducers.



In addition the pressure couplings are replaced with a new type designed and manufactured directly by GEA Procomac (see sketch below), which results less subjected to clogging further to the suction of liquid drops.



Replacement of the shutter's actuators on the expulsion circuit

The modification consists in the replacement of the shutter's actuators on the suction circuit with a new much faster type supplied by Belimo (see below sketch). With current actuators the shutters need about 150 seconds in order to pass completely from open to closed, while with the new Belimo actuators only a few seconds are needed.

This considerable speed increase of the actuators render highly more reactive the response of the shutters on the expulsion circuit, notably improving the precision and stability of the pressure inside the Microbiological Isolator.

