

Serac

Really long-lasting seals

Sealing, cleanability, endurance...
The new seals selected by Serac for dynamic sealing of the top part of foodstuff tanks last eight to ten times longer. As for costs, they are divided by two. Here are the explanations!

As a designer of filling and plugging rotating machines, Serac has specialised in conditioning of liquids in bottles. To keep its leading position, the company wants to improve the performance of the rotating seals used at the top of its tanks in the foodstuff mixers.

"These dynamic seals must be suitable for contact with foodstuffs, resistant and easily cleanable at the same time, Serac Research and Development Manager Bertrand Gruson explains.

They are used at the temperatures and pressures of the processes, and they are likely to be exposed to foodstuff splashes."

Fourteen seals tested

To assess the performance of the dynamic seals used at the top of the tanks, a specific endurance test fixture was manufactured by Cetim experts in order to reproduce the stresses (speed, pressure, temperature) representative of the stresses observed in service.

After selection of the seals on the basis of a specification, two endurance qualification test

campaigns made it possible to assess the performance of fourteen different seals and classify them according to their sealing ability and their resistance over time.

Twice cheaper

Taking into account the recommendations and results stemming from these tests, Serac mechanically and dimensionally redesigned the rotating union at the top of its tanks.

Results: the service life of the seals is now ten times higher, maintenance is reduced and the overall cost is divided by two. Furthermore, *"the time between two maintenance operations is now set to five years, at least"* Bertrand Gruson concludes.



Crédit photo : Serac

A third campaign, carried out in 2010 in partnership with the Institut National de la Recherche Agronomique (INRA) (French National Institute for Agricultural Research), concerns the cleanability of the seals.

OUR CUSTOMER

Corporate name
Serac

Sales turnover
120 million euro

Workforce
Approximately
400 persons
all over the world

Context
Design and manufacture
of filling and plugging
machines
for all industry sectors

Cetim's asset

By taking part in the "Dynamic Seal Cleanability" workgroup, the Serac, VMI, Pierre-Guerin and Clextal Companies were able to immediately benefit from the study and test results obtained within the framework of this collective action carried out at the request of Cetim's "Equipment for the food industry" Professional Committee.

