

Guichon Valves

# A rewarding environmental strategy

Guichon Valves redesigned one of its special valves used in the petrochemical industry. This action involved an ecodesign process based on Cetim's Atep software and resulted in environmental improvements and economic benefits.



Cetim. And Romain Favre to continue: "By redesigning the valve from scratch, we were able to find several possibilities of improvement such as the use of recycled materials, the integration of engineered plastic materials, the choice of another manufacturing process, etc. Then a lifecycle analysis also allowed us to assess and compare the environmental balances of original and the redesigned products". The benefits are significant: impact indicators concerning climate change, marine eutrophication and ground-level ozone generation reduced by more than 40% for the redesigned valve, number of components reduced by 20%, a valve 30% lighter, dead volumes reduced by 30% and a manufacturing time divided by two.

Next step: to manufacture and validate a prototype on customers' sites before starting the industrialisation process.

In addition to being a specialist in the manufacturing of high performance and custom-made valves, Guichon Valves has also decided to become a pioneer by anticipating the demand for more environmentally-friendly products. Romain Favre, head of the design office, explains: "Further to a training session on ecodesign organised by Cetim, we decided to initiate an ecodesign project and we redesigned one of our flagship products, i.e. a stainless steel gate valve used in the petrochemical industry." As a manufacturer concerned by the challenges involved in sustainable development (the company is ISO 14001 certified), Guichon Valves wished to

reinforced its position as an environmentally responsible industrial manufacturer without however reducing the performance of the valve or increase costs.

### Significant benefits

This project was carried out within the scope of the "Ecodesign 2012-2014" collective programme implemented in the "Plan PME Rhône-Alpes" regional scheme. As a result, Guichon Valves was granted a two-day training session and received tailor-made assistance from Grégory Elaut, an environmental consultant. Guichon Valves used the Atep ecodesign freeware released by

### OUR CLIENT

**Corporate name**  
Guichon Valves, an independent French company established in 1921

**Activity**  
Design and manufacturing of high performance and special valves for the petrochemical, chemical and pharmaceutical sectors as well as for the shipbuilding (armament) and the nuclear sectors.

**Workforce**  
65 employees

## Cetim's asset

Cetim is developing a policy aimed at transferring its know-how and its software tools for successful environmental projects.

