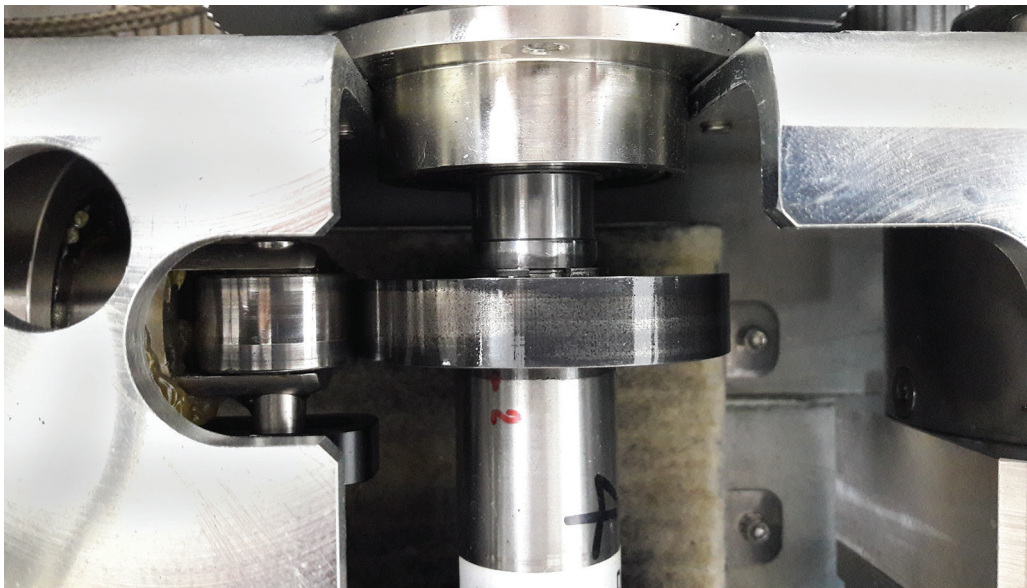


# Armen Instrument Tribology supporting quality

Armen Instrument drew on advice from experts to design a new pump for its liquid chromatographs thereby obtaining a decisive competitive edge. Other cooperation projects are currently under way.



© Armen Instrument

contact points of the pump components at the ball joint connection (bushing / piston rod), piston rod guidance and cam-roller transmission. An analysis was then carried out in the laboratory in order to qualify the various levels of adherence and fatigue wear and recommendations were provided. *"Cetim's experts responded quickly and very effectively, added Frédéric Dijoux. The recommendations related to the types of materials to be used as well as the geometry of the parts. The results were immediate and all our endurance tests have been extremely positive. Not only have we been able to improve the quality of our product, but we have also gained a distinct competitive edge."* This operation was renewed by the company on other products under development.

## OUR CUSTOMER

**Corporate name**  
Armen Instrument

**Activity**  
Armen Instrument is a company located in Vannes, Morbihan, which designs and manufactures preparative chromatography machines used to analyse a mixture and identify its various components as well as isolate them. It sales its products worldwide.

**Turnover**  
2 million euros

**Workforce**  
17 people

**A**rmen Instrument designs and manufactures scientific instruments used in a preparation liquid chromatography chain (high pressure pumps, chromatography rotors, collectors). To retain its competitive advantage, the company must maintain a lead on its competitors. Accordingly, it is a pioneer in CPC / CCC technologies (centrifugal partition chromatography or counter current chromatography). With the aim of designing a pump operating at 400 bar, it called on Cetim in order

to leverage on the skills of recognised tribology experts. *"The reputation of Cetim's experts has been well-known to me for a long time, explained Frédéric Dijoux, manager of the Armen Instrument design office. With regard to our new product, our intention was inter alia to improve the performance and service life of the pump used to circulate high pressure liquid in a chromatography column."*

## Expertise and consulting

An initial study was conducted on site to identify the

## Cetim's asset

Cetim's experts can diagnose the tribological problems of systems on site or in a laboratory. The solutions provided range from mechanical engineering to machining in addition to materials.

