



Eaton S.A.S.

Eaton reorganizes to control the cleanliness of its parts

Further to an audit of the manufacturing process of its seals and suitable training of its employees, Eaton S.A.S. was able to achieve the high level of cleanliness recently required by its customer in just two months.



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OUR CUSTOMER

Corporate name
Eaton S.A.S. – Eaton Aerospace Group

Business activity
Eaton S.A.S. specialises in the design, manufacturing and integration of complex aviation systems: static and dynamic seals, hydraulic reservoirs and accumulators.

Production
Based in the Yvelines département, Eaton S.A.S. manufactures 2,500 highly sophisticated seals (assembly of mechanical parts with diameters ranging from 150 to 300 mm) intended to be used on LEAP 1X engines and more than 60,000 dynamic seals every year.

The LEAP 1X engines, installed notably on the Airbus A320 NEO (LEAP 1A) and Boeing 737 MAX (LEAP 1B), are made with parts that must be impeccable with regard to cleanliness. “When our customer asked us to deliver parts with a new cleanliness criterion, we thought that we just had to adapt our manufacturing process in order to achieve this target. But we soon realised that keeping the number of particles in the workshop to a minimum was not easy at all”, remembers Christel Vernizeau, Manufacturing Methods Manager with Eaton Aerospace. “So we asked Cetim to help us with this course of action”.

A one day audit made it possible to see how the parts are

manufactured and handled, from the organisation of the in-house logistic flows to the final storage, and also during each intermediate production step. The reports of the particulate cleanliness inspections carried out by Eaton on the samples were also analysed. Cetim then gave its conclusions and the various actions to be

implemented, from the most simple to the most complex ones, and this allowed priorities to be determined. At the same time, several Eaton employees were trained in the problems relating to particulate cleanliness and in the handling rules.

Gradual implementation

The actions recommended were gradually implemented: step-by-step cleaning of the parts, spray rinsing instead of immersion rinsing, change of materials for the tools that generate microscopic chips, organisation of the air flows in the assembly clean room, selection of suitable equipment for the operators, etc. “We have learned a lot thanks to Cetim. The actions implemented rapidly yielded fruitful results: in two months, our parts complied with our customer’s cleanliness requirements. And since then, we have not found any nonconformities”, says Christel Vernizeau.

Cetim's asset



Cetim has the required expertise and resources to help industrial manufacturers to reach their objectives in control of the particulate cleanliness of parts: audit of the manufacturing processes, training of the teams and measurement of the level of particulate cleanliness by Cetim’s

Cofrac-accredited laboratory (accreditation No. 1 1006, scope available on www.cofrac.fr).