Reducing production downtime by 50%

Dynaudio

The Danish manufacturer of high-end loudspeakers successfully reduces downtime by 50% with SERTICA Maintenance.

Dynaudio is one of the leading manufacturers of high-end loudspeakers. Founded in 1977, the Danish company is one of the world's most distinguished audio companies. Dynaudio is particularly recognised for its advanced driver technology, its pioneering R&D technology, and unparalleled craftsmanship. Located in Skanderborg, the two production sites produce speaker units for cars and high-end cabinets. The Maintenance department consists of six employees and Dynaudio totals 350 employees.

Introducing Planned Maintenance

In 2012, Dynaudio decided to implement the maintenance system SERTICA. Claus Weinreich, Technician, Production Technology at Dynaudio, explains, "We knew we needed to implement planned maintenance, but to be honest, we did not work much in SERTICA the first 2 years after implementation. We simply lacked the time to supply the system with data because we were too busy putting out fires, so to speak."

Entering data is the first essential step in order to benefit from a system like SERTICA.

Claus Weinreich tells, "It was an overwhelming task in an already stressful environment, but after 2 years, I decided that enough is enough – we need to start allocating resources to this." Dynaudio spent the next 6 months creating a structure in SERTICA and adding maintenance jobs. Claus Weinreich says, "We spent hours in front of the computer and added one machine at a time." Jan Lynge, PTA Manager at Dynaudio adds, "We identified what is need-to-

have and focused on this. My best advice is to create the basic jobs first and then add spare parts at a later stage. Otherwise, the task becomes unmanageable. "

Plan, manage and document

Once Dynaudio overcame the hurdle of entering data, they managed to integrate SERTICA in the every-day-work in the maintenance department. Jan Lynge says, "SERTICA makes us plan ahead and ensures that we do not forget maintenance jobs."

Today Dynaudio completes approximately 1600 jobs a year. In addition, more than 600 spare parts have been added to Sertica. "We use SERTICA daily to get an overview of jobs, which gives us a chance to react before it is too late," says Claus Weinreich. For example, Dynaudio experienced some problems with an o-ring and wanted to test a different material. "With SERTICA we were able to compare the life span of both o-rings and make the best decision," says Jan Lynge.

By analysing the history in SERTICA, Dynaudio is able to learn from previous mistakes, plan better in the future and thereby free up resources.

SERTICA reports are used in relation to both the management and documentation of the work done in the maintenance department. The reports contain information about future and completed jobs, including time and resources spent on each job as well as warehouse status and transactions.

Higher availability and production rate with Condition-based Maintenance

Dynaudio has taken the maintenance a step further and introduced condition-based maintenance. This means that maintenance activities are scheduled based on the condition of each individual machine. Several counters have been installed in the production and the machines are maintained when the counters reach a particular counter reading. This reading value is calculated manually based on input from SERTICA, which creates jobs automatically based on the counter-input. Claus Weinreich says, "Condition-based maintenance enables us to foresee when maintenance is needed, e.g. when a component should be replaced."

Condition-based maintenance has proved very useful in relation to a specific process in the production. Dynaudio has installed counters to measure the UV light (mW/cm2) used to harden the glue of the loudspeakers. This is very critical in relation to assembling the loudspeakers since the hardening process will fail if the UV light is below a certain limit. It is therefore extremely important that the machines used in this process is always running flawlessly. Claus Weinreich adds, "By adding the data from the counters into SERTICA, we prolong the life span of our machines because we can foresee which maintenance job are needed to keep the machines running full time."

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Production downtime reduced by 50 %

Dynaudio saw the first results of planned maintenance after two and a half years. Claus Weinreich, Technician, Production Technology at Dynaudio says, "Our goal was to find the key jobs to be able to spot the weaknesses of each machine. If you succeed in registering the right data in SERTICA, I believe you can avoid 90% of all break-downs."

Planned maintenance at Dynaudio reduced downtime by 50 %. In addition, Dynaudio got the perfect Christmas present from SERTICA: all machines started up without any problems for the first time ever! Claus Weinreich says, "We normally spend a great deal of work getting the machines up and running after the Christmas holidays, so this was truly a positive surprise – not only for the maintenance people, but also the production workers."

In general, Dynaudio experiences a much more continuous production and the production workers appreciate how planned maintenance improves their daily workday. "The production workers no longer need to tell us what is wrong with the machines because we fix it before it becomes a problem. This gives the production workers a much better workflow," says Claus Weinreich. He adds, "We are all less stressed because we no longer have so many unexpected problems with the machines."

What will the future bring?

Dynaudio plans to keep up the good work in SERTICA. "It is an ongoing process and you never finish, because it is always possible to improve and expand. Personally, I would estimate that we are only half way when it comes to adding jobs," says Claus Weinreich.

Dynaudio is also considering how to expand SERTICA to its external suppliers. Jan Lynge says, "It would be nice if SERTICA could communicate to external supplier systems and tell directly when it is time to perform a maintenance job or send a spare part".

The future will also include an exploration of the many functionalities SERTICA has to offer. "One potential functionality could be to automatically generate reports showing the effect of SERTICA to the management and the rest of the organization. This could be combined with supporting KPIs showing benefits on the bottom line," concludes Jan Lynge.

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