



ASYSTOM



Use case Pharmaceutical



THE OUTCOME:

Unplanned
shutdown avoided

50K€ cost saving



Imbalance identified and allowed a planned repair with minimum impact on production



Maintenance is now scheduled during technical shutdowns so that breakdowns do not happen



The UPSA team feel motivated having control and knowing what to look out for thanks to training and continuous support from Asystem

THE SITUATION:

The laboratory produces 15 boxes of drugs every second, with effervescence as its main trademark. But producing effervescent and powders requires clean areas with dry air. The workshops must also be placed under overpressure, in order to avoid any risk of health contamination. To this end, the production sites are equipped with several air handling units, or AHUs.



Jean-Pierre Bourroux, Infrastructure Maintenance Manager at UPSA, in charge of the project, explains: *“On our site, we have nearly 250 AHUs. Over the years, the probability of a failure occurring will increase ... If the fan of an air handling unit breaks down, this not only results in an immediate shutdown of production, but also two additional days of shutdown, the time of its repair ... It is estimated that each unplanned shutdown of production due to a breakdown costs us between 40,000 and 50,000 euros”*.

To limit these additional costs, the laboratory was looking to equip itself with a predictive maintenance solution, which would allow it to be able to monitor closely its machines and to anticipate possible breakdowns. **UPSA selected the solution proposed by Asystem, which had caught their attention, because it is the easiest to install wireless solution on the market, with the longest battery life.**



AsystemSentinel beacon in situ – Not at UPSA but another pharmaceutical company

“It was this aspect that really appealed to us. Asystem multi-sensor beacons are installed inside the air handling units, attached to the fan motors. They communicate through a LoRa wireless network created by a gateway. So, with a single gateway, we can monitor multiple machines. There is no need for cables to connect one to the other, making installation easier and cheaper!”, continues Mr. Bourroux.



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AsystemPredict IN ACTION:

“Since installing the solution from Asystem, **we can monitor continuously the condition of the fans** of the equipped air handling units. If we realize that one of the fans is drifting, it is now possible for us to carry out preventive maintenance operations during a scheduled technical shutdown: **in short, we can carry out repairs, so that the breakdown does not happen**”, specifies Mr Bourroux.

At the end of May 2020, during a review of the dashboards of the machines monitored by Asystem, the teams noted that an AHU had a balancing problem. This early information made it possible to plan an intervention during the next technical shutdown, with minimum impact on production.



Imbalance: / Radial vibration speed was approx. 2x greater than Axial at the frequency of rotation

AsystemView: the visualisation platform



AsystemSentinel



AsystemInfra



AsystemView

“Personally, I see several advantages to using the solution developed by Asystem. On the one hand, **it allows us to avoid the additional costs** associated with an uncontrolled production shutdown and emergency repairs but, beyond this significant financial aspect,

I also see **a real effect on the motivation of the teams**: Asystem supports our technicians step by step and trains them to develop their skills in vibration analysis, in order to **make them as autonomous as possible**. During installation, Asystem taught them how to position the beacons, how best to configure them to adapt their operation to the machine they supervise, etc. They are then trained in the use of the solution itself (setting of alerts and trigger rules, interpretation of analytical curves, etc.). They feel truly valued by this contribution of new technology as well as by the gaining of new skills and knowledge. Finally, **there is clearly a de-stressing effect: we have better control of the installations, we can prevent breakdowns, which makes it possible to avoid emergency interventions, which are more prone to accidents**” finishes Mr. Bourroux, Infrastructure Maintenance Manager at UPSA.