



# How Augury helps pharma companies improve machine performance, reduce costs, and upskill the next generation of workers

Pharmaceutical companies bear the responsibility of extending and saving lives by manufacturing and supplying medicines to patients. But manufacturing a new drug means little if it doesn't provide value to patients and the public in a timely way. That's why, in a manufacturing setting, machine health is critical to delivering the right drugs to the right market at the right time. The cost of machine failure impacts not just the pharmaceutical company—it has life-altering consequences for patients.

When a machine fails, both productivity and patients suffer. According to a recent survey\* of pharmaceutical manufacturers:

63%

say **unplanned production disruption** occurs at least once per month

46%

say **disruptions persist** between several days to weeks

80%

acknowledge a link between **machine failure and drug quality issues**

Fortunately, with the help of Augury's purpose-built artificial intelligence (AI), pharmaceutical manufacturing teams can now tell when their machines are in distress and need maintenance or repair. They can also understand when machines don't require their attention, preventing over-maintenance and saving time and money.

Augury is delivering value immediately, both at the operational and corporate levels thanks to its predictive-maintenance technology. Many pharmaceutical and healthcare companies have realized the full potential of their investment in Augury within a few weeks.

---

\* "The true impact of machine failure in pharma", [Pharma Manufacturing, Market Insight Report, 2021](#)

# Industry Success Stories

## U.S. pharma site saves \$1.8M annually by optimizing planned maintenance and labor with AI and ML

A global pharmaceutical giant with sites in the U.S. was looking to optimize operations to minimize costly downtime occurrences. At the same time, it wanted to improve efficiency with its high-cost labor resources by providing proactive and automatic planned maintenance (PM). The main issue plaguing the pharma company's manufacturing site was the lack of visibility, which was preventing the maintenance team from properly diagnosing machine health. The company even brought in third-party contractors at nearly twice the cost to help with the maintenance and repair work, but it didn't get them the results they needed.



**20 Technicians per site**



**\$125 Average hourly wage**



**20 Hours per week  
routine maintenance**

Since deploying the solution, the maintenance team has been able to schedule condition-based maintenance to proactively address developing issues and avoid downtime. The pharma company gained back **72%** of the time that its maintenance team was spending on PM and routine tasks. It could also re-allocate resources to other sites.

By providing both machine-level and facility-level insights, Augury empowers the on-site team to focus on the equipment that needs the most immediate attention. The company now successfully mitigates a total of **14.4 PM hours** wasted per week, per technician (or nearly 15K hours annually), and eliminates unexpected failures. Overall, it could save \$36,000 per week, per site, for an annual total of **\$1.8 million**. What's more, the company has seen a reduction in unplanned downtime, lowered repair costs, and is focusing on upskilling its resources to do more challenging work.

The benefits highlighted here represent **39x ROI**, which exceeds the average Augury **ROI of 3-10x** across all industries. The extrapolated return across a manufacturing portfolio of **50+ sites** could exceed **\$90 million** in annual savings when only considering labor and PM optimization use cases. This does not include unplanned downtime, spare parts optimization, and other savings, which would only increase the overall ROI.

**14.4 hrs**

Time saved per week,  
per technician

**\$1.8M**

Annual savings  
per site



Increased employee  
satisfaction and retention

## Biosimilar pharma company saves 2.1 million doses by avoiding unplanned downtime

A leading U.S.-based generic and biosimilar pharma company was looking to gain full visibility of the health of its production equipment and have around-the-clock monitoring. Each time machines failed unexpectedly, it caused major disruption to the entire manufacturing process. Moreover, maintenance costs were skyrocketing. The company needed more control over its manufacturing facility and planned maintenance actions.

The company used Augury's Machine Health for Critical Equipment, including its Bosch Sig Flow Wrapper packaging machine. Recently, Augury's AI detected abnormal behavior in the Wrapper. Augury's vibration analyst informed the on-site maintenance team of friction or rubbing caused by loose or worn parts, seized components, or excessive thermal growth. The analyst then recommended the on-site team check for elevated machine/component temperatures and inspect the shaft for any resistance.

It was later revealed that the vibrations increased due to belt wear and tension. Augury's vibration analyst recommended that the motor be replaced. A scheduled shutdown was carried out and the machine was repaired, saving more than **2.1 million** doses from being spoiled due to not getting packed and stored in cold storage on time. Beyond those major benefits, scheduled maintenance also dramatically decreases safety risks and is more efficient and less costly than dealing with unplanned downtime.

**Type of Asset:** Bosch Sig Flow Wrapper (packaging)

**Failures Identified & Repaired:** Belt wear, tension, motor replaced during planned shutdown

**Downtime Avoided:**

**6.5 hours**

**Product Saved:**

**2.1 million doses**



## Oral solid dose manufacturer avoids three shifts of production loss

A U.S.-based oral solid-dose manufacturer operated with a preventive maintenance program on its production assets. The management team wanted to take the company's plant maintenance to the next level and leverage accurate insights on the health status of each piece of equipment. The goal was to increase equipment uptime and effectiveness and reduce repair costs.

To move from a preventive to proactive maintenance strategy, Augury's Machine Health for Critical Equipment was used for the pharma manufacturer's production assets, including Korsch 400XL Tablet Press, which was critical to the manufacturing process. Augury's sensors worked 24/7 to capture and transmit vibration, temperature, and magnetic flux data to the Augury platform.

With Augury's continuous AI always on watch, the system immediately picked up when abnormal vibrations were detected in the main motor of the tablet press. A vibration analyst immediately contacted the on-site maintenance team and informed them that the high vibrations could be from bearing wear due to improper or contaminated lubrication, improper assembly, or overload damage. The analyst then recommended inspecting the motor bearings for fluting as well as checking if the bearing fits were within OEM tolerances and if relubrication was required. They also recommended replacing the motor's bearings at the next convenient opportunity, on which the team acted on during a planned maintenance window.

If not for this early detection, the bearing wear in the main motor of the tablet press could have failed, resulting in three shifts of production loss and a waste of **10.3 million** multi-tip or **5.15 million** single-tip drug doses, depending on what was in production at the time.

**Type of Asset:** Korsch 400XL Tablet Press (manufacturing)

**Failures Identified & Repaired:** Bearing wear - main motor

**Downtime Avoided:**

**3 shifts**

of production loss in  
case of motor failure

**Product Saved:**

**10.3 million doses**

(multi-tip) or 5.15 million  
doses (single-tip)



## Multinational bioproduction company avoids massive schedule disruption and saves more than \$1M in batch losses

A leading global healthcare company was looking to extend the life of its equipment and ensure minimal maintenance expenditure. Known as an innovation leader within the pharmaceutical industry, the company wanted to make use of AI to predict failures before they happened and be prepared with the right spare parts and technicians to ensure minimal disruptions for its critical utility equipment (pumps, compressors, cooling towers, fans, AHUs, etc.). Its goal was complete visibility around its facility and to know where failures were happening, what was causing them, and how to avoid them.

With Augury, the company found the insights it needed and much more. The investment in Augury proved to be valuable from day one as the company received continuous data and useful insights that helped eliminate silos between maintenance and operations teams.

In its bioproduction facility, Augury's AI detected high vibrations in one of its air handling units. Augury's vibration analyst alerted the on-site maintenance team and informed them that the high vibrations were due to bearing wear in the motor. He also recommended the team install grounding brushes or ceramic bearings and replace the bearings as soon as possible to avoid problems.

The on-site team carried out a planned maintenance and replaced the bearings before they could cause any damage to the motor. Failure of the motor could have led to major disruptions in the bioproduction facility and resulted in an inability to create buffers and flush the batch. The quick response to the problem ultimately saved the company more than \$1 million.

**Type of Asset:** Air Handling Unit (utilities/facilities)

**Failures Identified & Repaired:** Bearing wear

**Downtime Avoided:**

Massive schedule disruption and not being able to create any buffers, flush the batch, or disinfect everything, etc.

**Product Saved:**

**\$1+ million**

Saved a batch worth



## Get the predictive maintenance advantage with Augury

Augury is empowering pharma manufacturers to take action based on the real-time condition of their machines and address machine problems before they lead to failures. This not only results in extended asset life and avoids unplanned downtime, but helps them cut down on repair and labor costs, provides rapid ROI, and—most importantly—speeds up drug delivery to patients.

If your company depends on these kinds of assets and experiences these kinds of challenges, Augury can help.

[CONTACT US](#)