

MEMOLUB[®] Automatic Lubricators Keep Coated Paper Lines Rolling

*Blower fan
shaft pillowblock
bearings lubricated by
one MEMOLUB MPS-2.*

Appvion, a manufacturer of coating papers in Appleton, WI, relies on a system of heaters and air nozzles to dry paper after it's coated with a substrate. In this high-production environment, reliable lubrication of the blower fans that supply the air is a must.

At this facility, mezzanine fans are located next to an oven, which provides heat and air to dry rolls of freshly coated paper. Within the oven, air nozzles are staggered two feet apart, above and below the paper. As it passes between them, it floats on a cushion of air.

The Appvion plant runs 24 hours a day, seven days a week. As a result, these blower fans run at least 70 percent of the time. The only downtime occurs when the plant changes from one type of paper to another - an event that happens several times a day.

When one of these air blowers fails, the coating line must be shut down immediately. Otherwise, the paper drags against the nozzles, damaging it. Also, if there's no air passing across the paper, then it's not being dried.

"When a heater goes down, we can adjust the temperature of the adjacent units to compensate for it. But when a blower goes

down, we don't have any choice. We must shut down the line," explains Appvion reliability engineer Kelly Caron.

As part of its efforts to reduce downtime and prolong the life of its fan bearings, Appvion has experimented with several lubrication methods during the last decade.

"We no longer have someone dedicated to lubricating our production equipment at this plant, so I've trained a millwright to do it. That makes automatic lubrication even more important."

Kelly Caron, Appvion Reliability Engineer

"Traditionally, we scheduled manual lubrication during normal downtime, when we changed the paper running on each coating line," he recalls. But that led to too many bearing failures. There had to be a better way to extend their life.

Appvion's first solution was a large-scale distributed lubrication system, which was powered by compressed air. But it wasn't configurable enough to meet the variety of fans and bearings Appvion used. "They didn't



MEMOLUB MPS-2s lubricate roller bearings on paper coating equipment at Appvion paper plant.

meter grease very well. They tended to get it everywhere, which created a potential safety issue,” Caron points out.

The plant also tried electrochemical lubrication units but found that they were too sensitive to changes in the ambient temperature of the plant. Caron estimates that it may vary from 65° F in the winter to over 100° F in the summer. “When it got too hot, they dispensed too much lubricant; when it got cool, not enough,” he says.

As a result, bearing failures were still fairly common.

Around 2007, Appvion’s maintenance crew started using MEMOLUB® electromechanical lubricators, supplied by Power Lube Industrial, on the plant’s roof fans. Exposed to Appleton’s yearly weather extremes and infrequent maintenance, they performed so well that Caron’s predecessor decided to try them on the blower bearings on the coating lines.

Each mezzanine fan has two bearings. One MEMOLUB® is mounted on it with a distribution block to deliver grease to both bearings. Caron found that these electromechanical units are

easy to configure to meet the unique needs of each fan and its bearings. They deliver a precise amount of lubricant at pre-set intervals. It’s also easy to see when their grease cartridges need to be replaced, which can be done while the lines are still running.

“We no longer have someone dedicated to lubricating our production equipment at this plant, so I’ve trained a millwright to do it,” Caron explains. “That makes automatic lubrication even more important.”

Since installing MEMOLUB® lubricators over a decade ago, bearing failures have become a rare event.

POWER LUBE INDUSTRIAL: A RELIABLE PARTNER

Caron appreciates the excellent level of support he gets from the Power Lube team. “We had been having problems with our previous lubricant separating and forming soap plugs. They suggested a different grease that worked much better,” he indicates.

In addition, Power Lube is now helping him to replace some of the plant’s older MEMOLUB® units, which have provided over 10 years of trouble-free service.

WHAT’S NEXT?

Caron is now experimenting with adding MEMOLUB®s to lubricate the process roll bearings within each line’s coating station, which is a very wet environment.

“They’re doing very well. The grease we’re using does a good job of displacing any water that infiltrates the bearing. It’s perfect for this application,” he concludes.

How can your facility benefit?

Contact us today to discuss your equipment lubrication needs, and to learn how automatic lubrication can increase the operating efficiency of your facility.



800 635-8170

sales@powerlubeind.com