

Press Release

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Henkel Maintenance and Repair products in use under the harshest conditions

Taking Care of a Sensitive Giant

The PM7 is the ultimate tool in the production of newsprint. Its dimensions give the impression that it would have to swallow up huge mountains of waste paper to sate its hunger for raw materials, and yet, without the maintenance expertise of a partner like Henkel, even a giant like this can quickly grind to a halt.

Perlen Papier AG, a family-owned Swiss company involved in the production of newsprint and magazine paper, uses the PM7, which is not only the most modern, energy-efficient and powerful newsprint paper machine in the world, the PM7 is probably also one of the largest of its kind.

Despite its size, the PM7 is no less sensitive than a finely balanced piece of Swiss clockwork. "Our main focus is to keep the machine running and producing paper in consistently high quality, 24 hours 7 days a week," emphasizes Perlen maintenance engineer Claudio Helbling.

Any downtime costs big money

In any case, every period of downtime costs the company a lot of money. That's why the PM7 is deliberately only shut down for a major revision once a year. In addition, it is stopped on a monthly basis for only a few hours. In this window of time, Helbling and his team implement the necessary maintenance work.

As part of the paper production process, moist cellulose is sprayed onto the gigantic rollers of the PM7, on which the water within is then rolled out. This leads to temperatures of around 30°C and a corresponding level of humidity. The machine also has to cope with continual changing of paper grade. The inner life of the PM7 is composed of hundreds of rollers, cylinders, pumps, gear drives, pipes and valves, as well as thousands of control elements and signal receptors that send current information about the sensitivity of the PM7 to the computer in the monitoring room. "If just one piece goes on strike, then the entire machine stops," says Helbling.

Loctite – the maintenance expert for bonding, cleaning, sealing and lubricating

In that respect Perlen does not make compromises and relies as well on the expertise of Henkel. The Loctite product range is not limited to professional bonding. "Cleaning is also an extremely important part of perfect adhesion," explains Henkel Sales Engineer Peter Faesi. When it comes to the use of hydraulic hoses, for example. "In that case, oil is never far away," warns the expert.

For that reason, he recommends cleaning the threads thoroughly two or three times with Loctite SF 7063 cleaner, so there is no residue. "That ensures a good adhesion," Faesi says. There's no question that this will be needed. For threaded assemblies, like the connection between the thermometer and the oil pipe, it is important that the bolts do not come loose - despite constant vibration. Loctite 243, for example, ensures that the connection between the thermometer and the oil delivery pipe is secured and sealed.

Gasketing, sealing and lubricating

For sealing of flanges - the cover of a large vacuum blower, for example - Faesi recommends the high performance gasketing product Loctite SI 5980. "At the end of the day, the product must be able to securely fill all voids means close up irregularities and gaps," he adds.

Indispensable in the maintenance of the PM7 are lubricants. Especially in such an extremely hot and moist environment, it's vital to protect for example threaded assemblies that need to be disassembled for maintenance work against corrosion and fretting. "That's where Loctite LB 8150 Anti-Seize comes into use," explains the Henkel specialist. Once everything has finally been optimally adjusted and maintained, "the PM7 produces 1,900 metres of paper a minute," says Helbling.

A life span of 40 years

The expected life span of a PM7 is around 40 years as long as it's carefully looked after – in other words cleaned and maintained regularly. 'Paper is extremely sensitive, a living product,' explains Helbling's colleague Shpetim Spahiu. 'It's really an art, what we do here.' And a lot of that is about keeping the PM7 working happily 24 hours a day. 'Performance always depends on how the machine is feeling,' explains the engineer. 'It has a life of its own.'

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Henkel operates worldwide with leading brands and technologies in three business areas: Laundry & Home Care, Beauty Care and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions both in the consumer and industrial businesses with well-known brands such as Persil, Schwarzkopf and Loctite. Henkel employs about 47,000 people and reported sales of 16.4 billion euros and adjusted operating profit of 2.5 billion euros in fiscal 2013. Henkel's preferred shares are listed in the German stock index DAX.

Photo material is available at <http://www.henkel.com/press>

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The following material is available:



The Perlen PM7.



Loctite SI 5980 perfectly seals flanges of a vacuum blower.



Loctite 243 locks and seals bolt threads of a thermometer of an oil pressure pipe.



Loctite 7063 cleans hydraulic oil connectors of a compensation roll.



Loctite LB 8150 Anti-Seize protects fastening bolts of an expansion joint in an exhaust pipe.



Henkel Sales Engineer Peter Faesi.



Perlen maintenance engineer Claudio Helbling.



The Loctite maintenance and repair product range.