

HEALTHY HEART

Long, productive life



◀ Thermal coating applied to the Yankee on-site with PrimeCoat Stratos.

It is said that the Yankee is the heart of a tissue machine. To keep its machine's heart healthy, Slovenian tissue producer Paloma Hygienic Paper relies on Yankee service from ANDRITZ. There are numerous advantages for Paloma to these on-site services.

Paloma Hygienic Paper is headquartered in Sladki Vrh, Slovenia, close to the Austrian border. Paloma has more than 140 years' experience in the production and sale of high-quality hygiene papers and today is a leading supplier in the Adriatic region and Central Europe. Annual production is more than 70,000 tonnes in the form of kitchen rolls, paper handkerchiefs, paper napkins, medical towels, and different kinds of toilet paper. In addition to its own brands, Paloma develops and produces private label products for leading European retail chains.



Nataša Iršič Bedenik is Head of R&D and Quality Management at Paloma. As such, she has a deep understanding of the role

that technology plays in developing her company's varied products. "Most consumers do not think of high-technology when they think of their everyday facial or bath tissues," Bedenik says. "They only

know the softness and quality of the end product in their hands. We in the business think about technology at every step – from the preparation of the raw material, to the production steps on the tissue machine."

"The heart of the machine – the Yankee – is of special importance in ensuring quality and maintaining efficient production."

Nataša Iršič Bedenik
Head of R&D and Quality Management
Paloma Hygienic Paper

Bedenik knows that key quality and softness parameters are established in the first few production steps. From her perspective, "The heart of the machine – the Yankee – is of special importance in ensuring quality and maintaining efficient production."

Indeed, the Yankee – that massive rotating pressure vessel – serves a vital transport function (supporting the tissue web through the drying process with no open draws) and is the component on which most of the water in the tissue web is evaporated while adding crepe and structure to the tissue sheet as it is doctored off the Yankee.

Heart-healthy maintenance

Just like the human heart, the many process variables and operations taking place can put the Yankee under considerable stress. Steam pressure, rotational forces, temperature differentials, and line loads are all at work on the Yankee. This combination of mechanical and thermal stresses has



◀ TM3 at Paloma, where ANDRITZ performed on-site grinding/coating services.

unfortunately led to a number of Yankee failures over the years.

In addition, producers are seeking to make greater quantities of tissue at higher quality, increasing the demands on the Yankee. The largest Yankees in tissue production are now 22 ft (6.7 m) in diameter with machine speeds in excess of 7,000 ft/min (2,100 m/min).

Because of its importance, the Yankee requires monitoring and regular maintenance. "We became aware of ANDRITZ's comprehensive Yankee service," Bedenik says. "They view the Yankee as part of the complete production process instead of as a stand-alone unit, and we share that view. Their service, which combines specific knowledge about the Yankee in the context of the entire production line, is what led us to select ANDRITZ as our strategic service partner."

"From initial calculations to grinding/coating to optimization, our services substantially extend the useful life of the Yankee."

Wolfgang Herbst
Sales Engineer for Paper Machine Service and Spare Parts, ANDRITZ AG



ANDRITZ is an expert in Yankee dryers. Its expertise starts with the design of new Yankees, through the manufacturing of the cylinders in a specialized workshop with extremely high quality assurance standards, and extends to cover on-site services at tissue mills around the world.

According to Wolfgang Herbst, Sales Engineer for Paper Machine Service and Spare Parts, ANDRITZ services include on-site checks, measurements, and performance tests. "Sometimes, Yankee problems are not due to any fault of the Yankee, but because of the failure of some system or component supporting the Yankee," he says. "That is why we take a holistic view of the Yankee being part of the entire production line. A program to monitor valves, bearings, lubrication, and interlocks is essential for long and safe operation of the Yankee."

One of the measurements that ANDRITZ specialists perform is an on-the-run (OTR) profile measurement to monitor the surface wear of the Yankee at production speeds. "Our measurements and tests indicate the proper time to grind the Yankee to minimize material removal," Herbst says. "Grinding, coating, and polishing are all activities that we perform on-site to shorten the downtime."

An added benefit of the OTR profile measurement, Herbst explains, is that it "not only improves the drying process, but also can help in resolving MD and CD issues related to wear patterns."

Starting with an audit

ANDRITZ was first brought in to audit the performance of one of the tissue machines at the Sladki Vrh mill prior to a rebuild. The on-site grinding and coating of the cast Yankee for TM3 in 2016 met with Paloma's complete satisfaction. This was the beginning of a close service partnership. A follow-on order for servicing TM5's cast Yankee was placed shortly afterwards.

ANDRITZ's Yankee service focuses on adding value with the Yankee. A well-maintained Yankee improves runnability and efficient production. The improvements in throughput, machine efficiency, and reductions in downtime can trigger a remarkable

competitive advantage for producers like Paloma.

Throughout a long, productive life

As the person responsible on-site at Paloma, Herbst knows the challenges of modern Yankee service well. "Each mill and each machine is unique," he says. "We offer much more than a conventional service, which means we focus on listening carefully and responding to unique customer needs. We must be near the customer, ready to act. We define our actions together as partners. Since needs are different, sometimes our services are highly customized. Whether for a new installation or a rebuild, our services accompany the customer throughout the long productive life of their Yankee."

ANDRITZ Yankee service is for Yankee cylinders delivered by any OEM. Services are available for all types of Yankees, Herbst notes, for tissue or paper machines, MG paper or tobacco, steel or cast iron Yankees, old or new. ANDRITZ offers solutions for operating units or anticipated upgrades or replacements, and to solve specific issues related to safety, capacity, or quality.

"We really appreciate the competence of ANDRITZ and their willingness to transfer their knowledge to our people," says Bedenik. "ANDRITZ stands apart from its

competition in that they offer consultation before, during, and after the execution of the work. Their pricing is very competitive. Their speed of response to our needs or questions is excellent. In our case, since we are close to their headquarters, collaboration is easy."

The work with ANDRITZ represents Paloma's first strategic partner for maintenance and service. "This is not something so traditional in our country," Bedenik says. "The key for us lies in ANDRITZ's expertise in specialization. Our core competence is the development and production of tissue. It is not in the maintenance and service of tissue machines. Their renovation of one of our important tissue machines showed their depth of expertise. It also showed our ability to manage a project with international team members and foreign experts. The project was a complete success."

Paloma is confident it has found a reliable service partner in ANDRITZ. "They will work with us well into the future to optimize and continuously improve our production stages, which will improve the quality of our products," Bedenik says.

CONTACT
Wolfgang Herbst
wolfgang.herbst@andritz.com



ANDRITZ Yankee Service

Mechanical on-site services

(grinding, coating, leakage repairs, nip calibration, doctor blade adjustment, etc.)

Consultation (drying system, heat recovery, energy savings, runnability, etc.)

Troubleshooting (surface inspection, steam and condensate, automation, dewatering, chemicals, etc.)

Inspections and measurements

(pressure testing, OTR, finite element analysis, acoustic measurement for crack detection, etc.)